

PLANNING BOARD

Tuesday, October 10, 2023 at 4:30 PM
Room 24 (Basement Level of City Hall)
and Zoom



MEMBERS

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

The Planning Board will hold a hybrid meeting in Room 24, Basement Level City Hall. The public may attend the meeting in person or Zoom pursuant to the Remote Meeting Policy adopted by the Planning Board. Prior to the meeting, please check the Agenda Center (<https://portlandme.portal.civicclerk.com>) to view memos and reports which will be posted by the end of the day on the Friday before the Planning Board meeting as well as start times for each item as placement on the agenda can change.

To submit written public comment on an agenda item, email planningboard@portlandmaine.gov. Submissions must be received by 12:00 pm the day before the Planning Board meeting to guarantee their inclusion in the agenda packet. All submissions must include the commenter's name and legal address. To help ensure your comment is submitted for the correct item, please include the name of the agenda item (see below).

REMOTE PARTICIPATION

Allow your computer to install the free Zoom app to get the best meeting experience. If you are not able to attend either in person or via Zoom, a recording will be available in the [Agenda Center](#) following the meeting.

Please click the link below to join the webinar:

<https://portlandmaine-gov.zoom.us/j/84200455034>

Or One tap mobile :

+16469313860,,84200455034# US

+19292056099,,84200455034# US (New York)

Or Telephone:

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

+1 646 931 3860 US

+1 929 205 6099 US (New York)

+1 301 715 8592 US (Washington DC)

+1 305 224 1968 US

+1 309 205 3325 US

+1 312 626 6799 US (Chicago)

+1 669 900 6833 US (San Jose)

+1 689 278 1000 US

+1 719 359 4580 US

+1 253 205 0468 US

+1 253 215 8782 US (Tacoma)

+1 346 248 7799 US (Houston)

+1 360 209 5623 US

+1 386 347 5053 US

+1 507 473 4847 US

+1 564 217 2000 US

+1 669 444 9171 US

Webinar ID: 842 0045 5034

International numbers available: <https://portlandmaine-gov.zoom.us/j/kbe9djzmy>

AGENDA:

WORKSHOP - 4:30 PM

- i. Zoning Text Amendments; LD-2003 (Edits to Article 3, Article 6, Article 7, Article 18, and Article 19); City of Portland, Applicant. The Planning Board will hold a hybrid workshop to consider a series of zoning text amendments intended to implement State Bill LD 2003, an act signed into law on April 27, 2022, with the purpose of reducing regulatory and zoning barriers to new housing creation statewide. The City is proposing amendments to Article 3 (Definitions), Article 6 (Use Standards), Article 7 (Dimensional Standards), Article 18 (Housing), and Article 19 (Off-Street Parking and Loading), related to affordable housing densities and parking requirements, permitted residential uses, and accessory dwelling units.

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 SEPTEMBER 26, 2023**

Workshop

84 Auburn Street: Barker, Chann, Murphy, Silk, Smith and present. Mazer and Stanley absent.

426 Presumpscot Street: Barker, Chann, Murphy, Silk, Smith and present. Mazer and Stanley absent.

Public Hearing

70 Thames Street: Barker, Chann, Murphy, Silk, Smith and present. Mazer and Stanley absent.

4. **REPORTS OF DECISIONS AT THE MEETING HELD ON SEPTEMBER 26, 2023**

- i. Record of Decision for 58 Fore Street, Application PL-002202-2022. Silk motioned, and Smith seconded a motion to adopt the draft approval letter for Application PL-002202-2022 with the included attachments as the record of decision of the Planning Board for this application, and to authorize the Planning Board Chair to sign the approval letter as drafted. Vote 5-0, Mazer and Stanley absent.

Major Site Plan Application; 70 Thames Street; 144 Fore Street OZ, LLC, Applicant. Chann motioned, and Silk seconded a motion to waive Technical Manual Standard 5.iii which requires that new development, that is subject to stormwater review within the City, meet the Maine DEP Ch. 500 Flooding Standard, to permit direct discharge into a Major River segment, the Fore River. Vote 5-0, Mazer and Stanley absent. Chann motioned, and Murphy seconded a motion to find the project in compliance with the City's shoreland zone requirements. Vote 5-0, Mazer and Stanley absent. Chann motioned, and Smith seconded a motion to approve the major site plan application. Vote 5-0, Mazer and Stanley absent.

Major Site Plan Application; 246 Eastern Promenade; ECK Realty, LLC, Applicant. Silk motioned, and Chann seconded a motioned to table the public hearing to a date certain, November 14, 2023. Vote 5-0, Mazer and Stanley absent.

5. **NEW BUSINESS**

- i. Zoning Map Amendment; 202 Woodford Street, Community Housing of Maine, Applicant. The Planning Board will hold a hybrid public hearing to consider a zoning map amendment request by Community Housing of Maine (CHOM) to rezone the property at 202 Woodford Street (Chart 124, Block J, Lot 5), site of the Woodfords Congregational Church, from B-1 Neighborhood Business, B-2 Community Business, and R-5 Residential, all to B-2

Community Business. This zoning amendment is intended to facilitate the redevelopment of this property to include permanent supportive affordable rental housing, while retaining the existing building's use as a neighborhood hub for services, performances, and meeting space. A project and plan summary are available for viewing on the city's CSS Portal (<https://css.portlandmaine.gov/>) by referencing Plan Number ZN-002535-2023.

- ii. Major Site Plan; 2 West Commercial Street; MDOT Port Authority, Applicant. **At the request of the applicant, this item is being tabled.**
- iii. Major Site Plan; 180 Read Street; NEPW Logistics, Applicant. The Planning Board will hold a hybrid public hearing to consider a major site plan application intended to facilitate the construction of new 60,630 square foot warehouse building along with associated site circulation improvements. The subject property is a 6.15-acre parcel zoned I-M Moderate Impact Industrial. A project and plan summary are available for viewing on the city's CSS Portal (<https://css.portlandmaine.gov/>) by referencing Plan Number PL-002223-2022.

Planning Board Memorandum

Planning and Urban Development Department



To: Chair Mazer & Members of the Planning Board
From: Nell Donaldson, Director of Special Projects
Date: October 6, 2023
Re: Draft Text Amendments to the Land Use Code Under LD 2003
Meeting Date: October 10, 2023

I. INTRODUCTION

In April 2022, Governor Mills signed into law LD 2003, or *An Act to Implement the Recommendations of the Commission to Increase Housing Opportunities in Maine by Studying Zoning and Land Use Restrictions*. The law's intent is to remove local regulatory barriers to housing production in Maine by requiring that municipalities adopt language around affordable housing densities, residential uses, and accessory dwelling units within their local codes of ordinances. State rule-making was published in April 2023, and the law was amended in June 2023 to provide additional clarity around certain provisions. The implementation deadline for communities in which ordinances may be enacted by municipal officers is January 1, 2024.

In March of this year, the Planning & Urban Development Department provided the City Council with a report on the consistency of the city's existing land use code with LD 2003. The analysis found that in nearly all respects, the city's current policies already comply. In fact, the City of Portland, whose comprehensive plan foregrounds the importance of housing affordability and diverse housing types, benefits from a land use code that *far exceeds* the requirements of LD 2003 in many ways. The city's code already:

- Offers density bonuses (and dimensional relief) for affordable housing projects,
- Allows up to two ADUs for any lot in residential use, and
- Supports significantly more density than required or even contemplated by LD 2003 in many areas of the city.

However, there are instances where the city's code approaches these issues in slightly different ways than contemplated by LD 2003, and guidance published since the spring and summer of this year has provided helpful information about expectations for implementation. Amendments to reconcile inconsistencies between LD 2003 and the city's land use code, where they exist, are the subject of this workshop.

II. RELATIONSHIP TO RECODE

As these amendments are reviewed, the Planning & Urban Development Department continues to advance [ReCode](#), a multi-phase project to rewrite Portland's land use code and implement policies to promote housing creation, foster complete neighborhoods, and ensure climate resilience, among other goals. In many ways, however, these LD 2003-related amendments and ReCode substantively overlap. In order to differentiate the two efforts, it is helpful to view them with two distinct purposes. The amendments discussed here represent short-term changes meant to bring the city into compliance with LD 2003 prior to the state's implementation deadline. However, they are not meant to reflect the sum total of the city's housing policy efforts. This, instead, is the work of ReCode, which is based on a foundation in the city's comprehensive plan, has and will involve significant public engagement, and will go farther than LD 2003 to

address housing creation in a coordinated manner that responds to the city's varied residential contexts. This longer-term work will extend past the LD 2003 implementation deadline and into next year.

III. LD 2003's LAND USE FRAMEWORK & *PORTLAND'S PLAN*

LD 2003's approach to housing creation is informed by state land use policy that encourages municipal identification of "designated growth areas" within local comprehensive plans. LD 2003's requirements vary depending on location within or outside this growth area. For purposes of LD 2003, all of the city's mainland is considered "growth area," suitable for varying levels of growth.

The Future Land Use section of [Portland's Plan 2030](#) acknowledges not only the capacity of many areas of the city to support development, but also the ways that planned growth in strategic areas can be shaped proactively to meet the city's long-range economic development, environmental, transportation, and housing goals. To this end, the plan defines urban areas prioritized for significant growth, urban areas suitable for more incremental growth, and areas suitable for conservation and less intensive development. The plan includes a priority nodes and corridors map that highlights key areas for planning focus and change, "areas that would be appropriate for new development to provide needed housing, business, and services proximate to transit..." (82). The plan also notes that "development may still occur elsewhere in the city, including incremental change and infill in residential neighborhoods, redevelopment of obsolete commercial areas, thoughtful expansion or investment in institutional and industrial sites, and modernization of existing affordable housing" (82). With respect to the islands, the plan acknowledges significant physical, environmental, and transportation constraints, and promotes a more conservative approach to development that emphasizes the islands' unique built context and sensitive natural resources.

IV. LD 2003 ELEMENTS AND DRAFT AMENDMENTS TO THE LAND USE CODE

LD 2003 addresses housing production through three basic mechanisms: affordable housing bonuses, residential use permissions on vacant and single-family lots, and accessory dwelling units (ADUs). A description of each of these components of LD 2003, an analysis of compliance, and a series of draft land use code amendments, shown in redline, follows. Amendments were developed based on state guidance, in collaboration with staff from Corporation Counsel and Zoning, and were informed by a review of peer communities' approaches to the law.

The full text of LD 2003, the June 2023 amendment, and state guidance is included in *Attachments 1-4*. Draft land use code amendments are also included in *Attachments 5-9*.

A. Affordable housing density (30-A M.R.S § 4364)

The affordable housing provisions of the law require municipalities to extend density bonuses to qualifying affordable housing projects when those projects are located in areas in which multi-family dwellings are allowed and within a designated growth area. The City of Portland already has a structure for density bonuses for affordable housing in many zones, and the code includes other provisions as contemplated by the state. However, some amendments to Articles 18 and 19 of the land use code are necessary to bring the city into full compliance with these provisions of the law.

1. Definition of affordable housing

Article 3 of the city's existing land use code defines "affordable housing" and establishes income thresholds for both "low-income" households (at 80% - 100% of area median income, or AMI) and "workforce" households (at 80% of AMI) in both the rental and homeownership context.

The income limits for both types of households in both contexts meet or exceed the requirements of LD 2003 (at 80% and 120% for rental and homeownership housing, respectively). However, the city's definition of "affordable housing" does not contemplate some of the housing costs anticipated in state rule-making, including rental costs associated with utilities. For this reason, staff recommends amending the definition of "affordable housing" in Article 3.

Affordable housing. Housing for which the percentage of income a household is charged in rent and other housing expenses (including utilities such as electric, heat, water, sewer, and/or trash that the household pays separately from rent) or must pay in ownership cost (including but not limited to monthly mortgage payments, (including condominium/HOA fees, mortgage insurance, other insurance, and real estate taxes), does not exceed 30% of a household's income, or other amount established in City regulations that does not vary significantly from this amount.

2. *Density bonus & parking requirements*

LD 2003 requires that municipalities extend bonuses of 2.5 times base density to any project in which a majority of units are affordable. The law further states that municipalities may not require more than two off-street parking spaces for every three dwelling units in an affordable housing project.

Article 18 of the city's existing land use code offers affordable housing density bonuses, as well as height bonuses and setback reductions, in many zones. However, these bonuses are structured differently than LD 2003, starting at 10% and scaling upward depending on the share of affordable units included. The city's existing bonuses are not available in every zone that currently permits multi-family housing. And though Portland's code includes broad exceptions from parking requirements for affordable housing, multi-family housing, and uses proximate to fixed-route transit, the code does not explicitly set a standard of two off-street spaces for every three units for an affordable housing project or less. Thus three amendments are proposed to address this portion of the law:

- *Density bonus language.* Amendments to Table 18-C have been drafted such that a 2.5x density bonus is triggered when over 50% of units within a project qualify as affordable. Note that Table 18-C has also been edited to consolidate the bonus structure for "low-income" and "workforce" housing, as the income restrictions for the two are similar under the current ordinance, and this change significantly simplifies implementation. 18.2.4(A) has also been edited to distinguish dimensional bonuses related to height and setbacks from density bonuses, as these types of dimensional relief are not considered in LD 2003.
- *Geographic eligibility for density bonus.* Subsection 18.2.4(A) has been updated to extend density bonuses to areas "where multi-family is allowed as a permitted or conditional use, with the exception of the I-B zone." The I-B zone has been excluded since it falls outside Portland's growth area. Note that in conjunction with this change, 18.2.4(B) has been edited to extend the 2.5x bonus to PRUDs, as a housing typology that can meet the definition for multi-family under the state's law, in zones where they are permitted within the designated growth area.

TABLE 18-C: BONUSES FOR ELIGIBLE PROJECTS

% Low-income or Workforce Units	% Workforce Units	Density Permitted ¹	Additional Height Permitted ²	Setback Reductions ³
10-19%	20%	1.1 x base	N/A	N/A
20-29%	40%	1.2 x base	10 ft.	N/A
30-39%	60%	1.3 x base	10 ft.	5 ft.
40-49%	80%	1.5 x base	15 ft.	5 ft.
50-74%	100%	2.5 x base	15 ft.	5 ft.
≥ 75%	N/A	2.5 x base	25 ft.	10 ft.

¹ “Base” is the number of units allowed under the zoning without this bonus but with any other bonuses applied. In R-P zones, multifamily is permitted with a “base” no less than 1 unit per 1,500 SF of land area. ~~If an eligible project is providing both workforce and affordable housing units, the applicant shall have the option of utilizing applicable incentives, but not cumulatively.~~

² The maximum additional height permitted in the B-1/B-1b zones and the R-P zone shall be 15 feet. In addition, the maximum structure height is 50 feet within 750 feet of the Portland Observatory.

³ Setback reductions are absolute reductions in front, side, and/or rear setback requirements. The maximum setback reductions in the B-1/B-1b and R-P zones shall be 5 ft.

18.2.4 Density and dimensional bonuses and reductions

Notwithstanding any other provision of this Land Use Code to the contrary, in order to encourage low-income and workforce units in designated growth areas, eligible projects as defined under Subsection 18.2.2 may avail themselves of the following options:

- A. **Density and dimensional bonuses.** The maximum number of units that would otherwise be allowed under this Land Use Code shall be increased for an eligible project in the manner described in Table 18-C, applicable where multifamily is allowed as a permitted or conditional use, with the exception of the I-B zone. Other dimensional bonuses related to height and setbacks shall only be applicable in in the B-1/B-1b, B-2/B-2b/B-2c, B-3/B-3b/B-3c, B-5, R-7, and R-P zones.
- B. **Planned Residential Unit Developments (PRUDs).** ~~In order to promote orderly development of low- and moderate income development as PRUDs, in the R-5, R-5, and R-5a zones, any project PRUD~~ in which more than 50% of the units are low-income or workforce units for rent or for sale may utilize the following dimensional bonuses and changes:
 1. ~~Minimum lot area per dwelling unit is reduced by 50%. The maximum number of units that would otherwise be allowed under this Land Use Code shall be increased by 2.5.~~

- **Parking requirements.** Staff has also made updates to Table 19-B to require two off-street parking spaces/three units in affordable housing projects, yet maintain the broad existing exception that the Planning Board may establish a lesser parking requirement.

TABLE 19-B: CATEGORICAL EXCEPTIONS TO OFF-STREET PARKING MINIMUMS

Categorical Vehicular Exceptions

...	...
Affordable housing	<u>2 spaces are required for every 3 units, except that the Planning Board may establish a lesser parking requirement that is less than 1 space per workforce or low-income housing unit, regardless of the size of the structure.</u>
...	...

3. *Long-term affordability*

LD 2003 mandates a municipal mechanism to preserve the affordability of units created under the law. Existing density bonus language from Article 18 requires affordability for “the longest term permitted under federal, state, and local laws,” but does not technically require 30 years or refer to deed restrictions, as LD 2003 specifies. Staff recommends amending this language for greater consistency with the law.

18.2.4 Density and dimensional bonuses and reductions

...

C. Unit size and term of affordability. In order to be eligible for this subsection, the low-income and workforce housing units must meet Subsections 18.2.3(C)(3), (4), and (5).

C.D. Term of affordability. Affordable units under this section shall be deed-restricted to remain ~~and be~~ affordable for 30 years or the longest term permitted under federal, state, and local laws, whichever is longer. Such deed restrictions shall be recorded in the Cumberland County Registry of Deeds.



Figure 1: Guidance on dwelling unit allowances from Maine Department of Economic and Community Development, LD 2003 Guidance

B. Dwelling unit allowances (30-A M.R.S § 4364-A)

Where residential uses are allowed, LD 2003 requires that municipalities permit two units on undeveloped lots outside of growth areas, and four units on undeveloped lots within growth areas. The law further requires that on lots with one existing dwelling unit, two additional dwelling units be allowed. *Figure 1* illustrates the requirements of this portion of the law.

As with affordable housing bonuses, the city's existing land use code already far exceeds these requirements in many of its zones. The city's code allows significant (and in some instances, even unlimited) housing density on undeveloped or redeveloped lots in many of the mixed-use zones, and even within the residential zone structure, there are zones that permit significantly more density than required under LD 2003. In

the R-6, for instance, where multi-family is a permitted use, the median parcel size is approximately 4,400 SF, on which six units could be constructed based on current densities. It should be noted that the City of Portland also permits up to two ADUs on any lot in residential use and exempts ADUs from density restrictions, effectively permitting a two-unit bonus for residential uses city-wide. Though ADU provisions of the city's ordinance translate to use permissions of at least three units on any lot in residential use on the islands, and at least three or four units on any lot in residential use on the mainland, LD 2003 treats ADU permissions and dwelling unit allowances under these provisions of the law as separate.

To address the dwelling unit allowances of LD 2003, amendments have been drafted into a new section within Article 6. These amendments are shown here, with a discussion following.

6.4.2 Additional residential use permissions

- A. In island zones: Up to two units are permitted on any lawfully conforming lot that does not contain an existing dwelling unit. Such units may be located:
 - 1. In two separate structures, so long as the minimum lot area per dwelling unit standards of Article 7 are met, or
 - 2. Within a single structure, in which case the minimum lot area per dwelling unit standards of Article 7 shall not apply.
- B. In mainland zones where residential is a permitted or conditional use: Up to four units are permitted on any lawfully conforming lot that does not contain an existing dwelling unit. Such units may be located:
 - 1. In separate structures, so long as the minimum lot area per dwelling unit standards of Article 7 are met, or
 - 2. Within a single structure, in which case the minimum lot area per dwelling unit standards of Article 7 shall not apply.
- C. Sections 6.4.2(A) and (B) shall not apply to lots on which a dwelling unit in existence on July 1, 2023 is demolished and a vacant lot results.
- D. Lots with one existing dwelling unit in any zone where residential is a permitted or conditional use:
 - 1. Up to two additional dwelling units are permitted on any lot containing one existing dwelling unit.
 - 2. One of these units may be permitted within or attached to the existing structure, one may be permitted detached from the existing structure, or one may be permitted of each. In all cases, the minimum lot area per dwelling unit standards of Article 7 shall apply.
 - 3. Units created under this section shall not be considered accessory dwelling units under Section 6.6.2(A).
- E. If more than one dwelling unit has been constructed on a lot as a result of the allowance under this section, the lot is not eligible for any additional units Section 6.6.2(A).

1. Permitted uses in residential zones

The new language in Section 6.4.2:

- *Adds residential use permissions for existing vacant lots.* The draft text permits up to two units on lawfully conforming lots that do not contain an existing dwelling unit in the island zones, or outside of the designated growth area. The new language also permits up to four units on lawfully conforming lots that do not contain an existing dwelling unit in mainland zones where residential is a permitted or conditional use, or outside the growth area.

Following state guidance for the two-unit provision, in both cases the draft language states that such units may be located within a single structure or in multiple structures.

- *Adds residential use permissions for lots with one existing dwelling unit.* The draft Section 6.4.2 allows up to two additional units on lots with one existing unit in any zone where residential is a permitted or conditional use. Per the state's language, 6.4.2 has been drafted to allow one of these units within or attached to the existing structure, one of these units detached from the existing structure, or one of each.

2. *Other zoning requirements*

LD 2003 allows a municipality to speak to the potential for tear downs under these provisions, and also states that if more than one unit has been constructed on a lot under these allowances, it is not eligible for additional "increases in density." Based on this section of the law, 6.4.2(C) has been drafted to prohibit demolitions for the purposes of creating a vacant lot under this section, and Section 6.4.2(E) has been drafted to address the relationship between these provisions and those for ADUs in 6.6.2(A).

3. *Relationship to dimensional standards*

LD 2003 states that local ordinances may not establish greater dimensional standards, such as setbacks, for the units allowed under these provisions of the law than those for single family homes. The law is also explicit, however, that lot area per dwelling unit standards may be applied to these units, and state guidance speaks to this matter as well (*Figure 2*). Generally, the city's existing code does not distinguish between dimensional standards for single-family dwellings and multi-family dwellings, with the exception that additional lot area is required for additional units in some zones based on a minimum lot area per dwelling unit, or density, standard. Because these density standards relate directly to the number of units permitted on a lot, they have been addressed in Section 6.4.2.



Figure 2: Guidance on lot size provisions from Maine Department of Economic and Community Development, LD 2003 Guidance

In keeping with state guidance, the draft changes speak to density as follows:

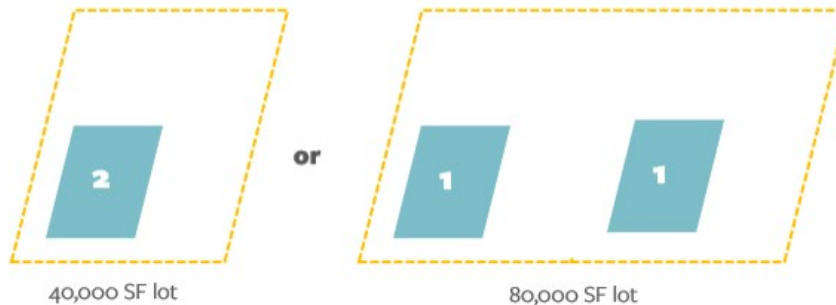
- *For dwelling units permitted on vacant lots:* Section 6.4.2 has been drafted such that the density standards of the base zone *would apply* in cases where units are constructed in separate structures, but *would not apply* in cases where units are located within a single structure (*Figures 3 and 4*). This approach is meant to reinforce the existing built context

within the city's residential zones, and is generally consistent with the city's existing use and dimensional structure, which encourages multiple units within a single building by increasing density standards as use permissions scale up. It should be noted that lot area per dwelling unit standards for the IR-1 and IR-2 zones have been drafted into Table 7-D, as none previously existed. These standards are based on the existing pattern for other low-density residential zones, where lot area per dwelling unit standards are derived from minimum lot sizes for single-family uses.

IR-1

Minimum lot size: 40,000 SF

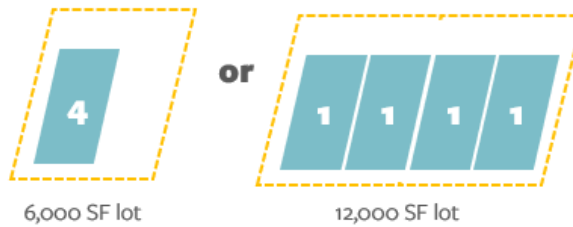
Proposed minimum lot area/dwelling unit: 40,000 SF



R-5

Minimum lot size: 6,000 SF

Minimum lot area/dwelling unit: 3,000 SF



Figures 3 & 4: Example lot size requirements for dwelling units permitted under draft Section 6.4.2 on vacant lots outside of the growth area (above), and within the growth area (below).

- *For additional dwelling units permitted on a lot with one existing unit:* To distinguish the units considered under these provisions from ADUs allowed under Section 6.6.2, the draft language in Section 6.4.2 requires that lot area per dwelling unit standards be met for the additional units allowed under this provision, whether units are located within an existing structure or in a separate one. For clarity, language has also been added to indicate that these units are not considered ADUs.

It should also be noted that, in association with multiple requirements of LD 2003, multiplex, a multi-family-like use currently permitted in the R-4 and R-5 zones, has also been struck from the code. This use, which requires greater minimum lot sizes, densities, and lot widths than otherwise required for residential uses in these zones, and in some cases is subject to unit maximums which bear little relationship to lot size or density, has not been widely constructed in the city. In order to make dimensional provisions consistent with state law and to simplify implementation, references to multiplex have been eliminated from Articles 3, 6, and 7.

C. Accessory Dwelling Units (ADUs) (30-A M.R.S § 4364-B)

The third component of LD 2003 relates to accessory dwelling units, or ADUs. Generally, the law requires that one ADU be permitted on any lot occupied by a single-family home, dictates how that ADU may be constructed, and sets parameters around dimensional and parking requirements. The city's existing ADU ordinance generally meets or exceeds the requirements of LD 2003, as the current land use code allows up to two ADUs on any lot in residential use (including single-family, two-family, or multi-family), exempts ADUs from parking requirements, and exempts ADUs from residential density standards.

The one aspect of LD 2003's ADU provisions that necessitates an amendment to the city's land use code relates to the requirement that dimensional standards for attached or integrated ADUs must be the same as the dimensional standards for single-family homes. This requirement extends to dimensional standards like minimum lot size, which in the city's case varies between single family homes and homes with ADUs in several zones. Amendments have been drafted to Section 6.6.2(A)⁷ to remove existing minimum lot size provisions for ADUs within the IR-1 and IR-2 zones. Simultaneously, existing short-term rental provisions for Peaks Island in Section 6.6.2(A)⁴ were also eliminated, based on state guidance regarding the regulation of short-term rentals through LD 2003.

6.6.2 Standards for specific accessory uses

A. Accessory Dwelling Units (ADUs)

1. Accessory Dwelling Units (ADUs) shall be permitted on all lawfully conforming and nonconforming lots with legal residential uses. ADUs shall comply with all dimensional standards of the underlying zone unless otherwise provided below.
2. Up to two ADUs shall be permitted per qualifying property.
3. At the time of an ADU's initial construction or legal creation, the owner(s) of the property on which the accessory dwelling unit is created must occupy at least one of the dwelling units, with the exception of legally nonconforming lots on Peaks Island.
- ~~4. On Peaks Island, neither the accessory unit or principal unit shall be used for short term rentals as defined under Chapter 6, Section 150.1 of the City of Portland Code of Ordinances.~~
- ~~5-4.~~ When an ADU is significantly visible from public ways, the building design shall:
 - a. Be clearly subordinate to the principal structure(s) in scale and position in relationship with the street and principal structure(s).
 - b. Not include outside stairways or fire escapes above the ground floor.
- ~~6-5.~~ Under circumstances where an existing nonconforming structure is converted to an ADU, the design of the ADU shall take into consideration to the extent practicable the privacy of adjacent properties.
- ~~7-6.~~ The developer of an ADU shall record a deed restriction requiring that the ADU and at least one other non-accessory unit on-site remain under common ownership.
- ~~7.~~ ADUs shall comply with all dimensional requirements of the underlying zone except:
 - ~~1.~~ Lot coverage and lot area per dwelling unit requirements.
 - ~~a.~~ Within the IR-1 zone, the minimum lot area shall be 70,000 square feet, except on Peaks Island where this standard shall not apply.
 - ~~b.~~ Within the IR-2 zone, the minimum lot area shall be 30,000 square feet, except on Peaks Island where this standard shall not apply.

V. NEXT STEPS

Following the Planning Board workshop, staff will make additional edits as necessary and proceed to public hearing.

ATTACHMENTS

1. HP 1489 – LD 2003: An Act to Implement the Recommendations of the Commission to Increase Housing Opportunities in Maine by Studying Zoning and Land Use Restrictions
2. HP 1095 – LD 1706: An Act to Clarify Statewide Laws Regarding Affordable Housing and Accessory Dwelling Units
3. Housing Opportunity Program: Municipal Land Use and Zoning Ordinance Rule
4. Maine Department of Economic & Community Development, LD 2003 Guidance
5. Draft Amendments to Chapter 14, Article 3: Definitions
6. Draft Amendments to Chapter 14, Article 6: Use Standards
7. Draft Amendments to Chapter 14, Article 7: Dimensional Standards
8. Draft Amendments to Chapter 14, Article 18: Housing
9. Draft Amendments to Chapter 14, Article 19: Off-Street Parking & Loading

STATE OF MAINE

IN THE YEAR OF OUR LORD
TWO THOUSAND TWENTY-TWO

H.P. 1489 - L.D. 2003

**An Act To Implement the Recommendations of the Commission To Increase
Housing Opportunities in Maine by Studying Zoning and Land Use
Restrictions**

Be it enacted by the People of the State of Maine as follows:

Sec. 1. 5 MRSA §13056, sub-§7, as amended by PL 2003, c. 159, §3, is further amended to read:

7. Contract for services. When contracting for services, to the maximum extent feasible, seek to use the State's private sector resources in conducting studies, providing services and preparing publications; ~~and~~

Sec. 2. 5 MRSA §13056, sub-§8, as enacted by PL 2003, c. 159, §4, is amended to read:

8. Lead agency for business assistance in response to certain events. Be the lead agency for the State to provide information and business assistance to employers and businesses as part of the State's response to an event that causes the Department of Labor to carry out rapid-response activities as described in 29 United States Code, Sections 2801 to 2872 (2002); ~~and~~

Sec. 3. 5 MRSA §13056, sub-§9 is enacted to read:

9. Establish statewide housing production goals. Establish, in coordination with the Maine State Housing Authority, a statewide housing production goal that increases the availability and affordability of all types of housing in all parts of the State. The department shall establish regional housing production goals based on the statewide housing production goal. In establishing these goals, the department shall:

- A. Establish measurable standards and benchmarks for success of the goals;
- B. Consider information submitted to the department from municipalities about current or prospective housing developments and permits issued for the construction of housing; and
- C. Consider any other information as necessary to meet the goals pursuant to this subsection.

Sec. 4. 30-A MRSA §4364 is enacted to read:

§4364. Affordable housing density

For an affordable housing development approved on or after July 1, 2023, a municipality with density requirements shall apply density requirements in accordance with this section.

1. Definition. For the purposes of this section, "affordable housing development" means:

A. For rental housing, a development in which a household whose income does not exceed 80% of the median income for the area as defined by the United States Department of Housing and Urban Development under the United States Housing Act of 1937, Public Law 75-412, 50 Stat. 888, Section 8, as amended, can afford a majority of the units that the developer designates as affordable without spending more than 30% of the household's monthly income on housing costs; and

B. For owned housing, a development in which a household whose income does not exceed 120% of the median income for the area as defined by the United States Department of Housing and Urban Development under the United States Housing Act of 1937, Public Law 75-412, 50 Stat. 888, Section 8, as amended, can afford a majority of the units that the developer designates as affordable without spending more than 30% of the household's monthly income on housing costs.

2. Density requirements. A municipality shall allow an affordable housing development where multifamily dwellings are allowed to have a dwelling unit density of at least 2 1/2 times the base density that is otherwise allowed in that location and may not require more than 2 off-street parking spaces for every 3 units. The development must be in a designated growth area of a municipality consistent with section 4349-A, subsection 1, paragraph A or B or the development must be served by a public, special district or other centrally managed water system and a public, special district or other comparable sewer system. The development must comply with minimum lot size requirements in accordance with Title 12, chapter 423- A, as applicable.

3. Long-term affordability. Before approving an affordable housing development, a municipality shall require that the owner of the affordable housing development have executed a restrictive covenant, recorded in the appropriate registry of deeds, for the benefit of and enforceable by a party acceptable to the municipality, to ensure that for at least 30 years after completion of construction:

A. For rental housing, occupancy of all of the units designated affordable in the development will remain limited to households at or below 80% of the local area median income at the time of initial occupancy; and

B. For owned housing, occupancy of all of the units designated affordable in the development will remain limited to households at or below 120% of the local area median income at the time of initial occupancy.

4. Shoreland zoning. An affordable housing development must comply with shoreland zoning requirements established by the Department of Environmental Protection under Title 38, chapter 3 and municipal shoreland zoning ordinances.

5. Water and wastewater. The owner of an affordable housing development shall provide written verification to the municipality that each unit of the housing development is connected to adequate water and wastewater services before the municipality may certify the development for occupancy. Written verification under this subsection must include:

A. If a housing unit is connected to a public, special district or other comparable sewer system, proof of adequate service to support any additional flow created by the unit and proof of payment for the connection to the sewer system;

B. If a housing unit is connected to a septic system, proof of adequate sewage disposal for subsurface wastewater. The septic system must be verified as adequate by a local plumbing inspector under section 4221. Plans for subsurface wastewater disposal must be prepared by a licensed site evaluator in accordance with subsurface wastewater disposal rules adopted under Title 22, section 42;

C. If a housing unit is connected to a public, special district or other centrally managed water system, proof of adequate service to support any additional flow created by the unit, proof of payment for the connection and the volume and supply of water required for the unit; and

D. If a housing unit is connected to a well, proof of access to potable water. Any tests of an existing well or proposed well must indicate that the water supply is potable and acceptable for domestic use.

6. Subdivision requirements. This section may not be construed to exempt a subdivider from the requirements for division of a tract or parcel of land in accordance with subchapter 4.

7. Restrictive covenants. This section may not be construed to interfere with, abrogate or annul the validity or enforceability of any valid and enforceable easement, covenant, deed restriction or other agreement or instrument between private parties that imposes greater restrictions than those provided in this section, as long as the agreement does not abrogate rights under the United States Constitution or the Constitution of Maine.

8. Rules. The Department of Economic and Community Development shall adopt rules to administer and enforce this section. The department shall consult with the Department of Agriculture, Conservation and Forestry in adopting rules pursuant to this subsection. The rules must include criteria for a municipality to use in calculating housing costs. Rules adopted pursuant to this subsection are routine technical rules as defined in Title 5, chapter 375, subchapter 2-A.

Sec. 5. 30-A MRSA §4364-A is enacted to read:

§4364-A. Residential areas, generally; up to 4 dwelling units allowed

1. Use allowed. Notwithstanding any provision of law to the contrary, except as provided in Title 12, chapter 423-A, for any area in which housing is allowed, a municipality shall allow structures with up to 2 dwelling units per lot if that lot does not contain an existing dwelling unit, except that a municipality shall allow up to 4 dwelling units per lot if that lot does not contain an existing dwelling unit and the lot is located in a designated growth area within a municipality consistent with section 4349-A, subsection 1, paragraph A or B or if the lot is served by a public, special district or other centrally managed water system and a public, special district or other comparable sewer system in a municipality without a comprehensive plan.

A municipality shall allow on a lot with one existing dwelling unit the addition of up to 2 dwelling units: one additional dwelling unit within or attached to an existing structure or one additional detached dwelling unit, or one of each.

A municipality may allow more units than the number required to be allowed by this subsection.

2. Zoning requirements. With respect to dwelling units allowed under this section, municipal zoning ordinances must comply with the following conditions.

A. If more than one dwelling unit has been constructed on a lot as a result of the allowance under this section or section 4364-B, the lot is not eligible for any additional increases in density except as allowed by the municipality.

B. A municipal zoning ordinance may establish a prohibition or an allowance for lots where a dwelling unit in existence after July 1, 2023 is torn down and an empty lot results.

3. General requirements. A municipal ordinance may not establish dimensional requirements or setback requirements for dwelling units allowed under this section that are greater than dimensional requirements or setback requirements for single-family housing units, except that a municipal ordinance may establish requirements for a lot area per dwelling unit as long as the required lot area for subsequent units on a lot is not greater than the required lot area for the first unit.

4. Water and wastewater. The owner of a housing structure must provide written verification to the municipality that the structure is connected to adequate water and wastewater services before the municipality may certify the structure for occupancy. Written verification under this subsection must include:

A. If a housing structure is connected to a public, special district or other comparable sewer system, proof of adequate service to support any additional flow created by the structure and proof of payment for the connection to the sewer system;

B. If a housing structure is connected to a septic system, proof of adequate sewage disposal for subsurface wastewater. The septic system must be verified as adequate by a local plumbing inspector under section 4221. Plans for subsurface wastewater disposal must be prepared by a licensed site evaluator in accordance with subsurface wastewater disposal rules adopted under Title 22, section 42;

C. If a housing structure is connected to a public, special district or other centrally managed water system, proof of adequate service to support any additional flow created by the structure, proof of payment for the connection and the volume and supply of water required for the structure; and

D. If a housing structure is connected to a well, proof of access to potable water. Any tests of an existing well or proposed well must indicate that the water supply is potable and acceptable for domestic use.

5. Municipal implementation. In adopting an ordinance, a municipality may:

A. Establish an application and permitting process for housing structures;

B. Impose fines for violations of building, zoning and utility requirements for housing structures; and

C. Establish alternative criteria that are less restrictive than the requirements of subsection 4 for the approval of a housing structure only in circumstances in which the municipality would be able to provide a variance under section 4353, subsection 4, 4-A, 4-B or 4-C.

6. Shoreland zoning. A housing structure must comply with shoreland zoning requirements established by the Department of Environmental Protection under Title 38, chapter 3 and municipal shoreland zoning ordinances.

7. Subdivision requirements. This section may not be construed to exempt a subdivider from the requirements for division of a tract or parcel of land in accordance with subchapter 4.

8. Restrictive covenants. This section may not be construed to interfere with, abrogate or annul the validity or enforceability of any valid and enforceable easement, covenant, deed restriction or other agreement or instrument between private parties that imposes greater restrictions than those provided in this section, as long as the agreement does not abrogate rights under the United States Constitution or the Constitution of Maine.

9. Rules. The Department of Economic and Community Development may adopt rules to administer and enforce this section. The department shall consult with the Department of Agriculture, Conservation and Forestry in adopting rules pursuant to this subsection. Rules adopted pursuant to this section are routine technical rules as defined in Title 5, chapter 375, subchapter 2-A.

10. Implementation. A municipality is not required to implement the requirements of this section until July 1, 2023.

Sec. 6. 30-A MRSA §4364-B is enacted to read:

§4364-B. Accessory dwelling units

1. Use permitted. Except as provided in Title 12, chapter 423-A, a municipality shall allow an accessory dwelling unit to be located on the same lot as a single-family dwelling unit in any area in which housing is permitted.

2. Restrictions. An accessory dwelling unit may be constructed only:

A. Within an existing dwelling unit on the lot;

B. Attached to or sharing a wall with a single-family dwelling unit; or

C. As a new structure on the lot for the primary purpose of creating an accessory dwelling unit.

This subsection does not restrict the construction or permitting of accessory dwelling units constructed and certified for occupancy prior to July 1, 2023.

3. Zoning requirements. With respect to accessory dwelling units, municipal zoning ordinances must comply with the following conditions:

A. At least one accessory dwelling unit must be allowed on any lot where a single-family dwelling unit is the principal structure; and

B. If more than one accessory dwelling unit has been constructed on a lot as a result of the allowance under this section or section 4364-A, the lot is not eligible for any additional increases in density except as allowed by the municipality.

4. General requirements. With respect to accessory dwelling units, municipalities shall comply with the following conditions.

A. A municipality shall exempt an accessory dwelling unit from any density requirements or calculations related to the area in which the accessory dwelling unit is constructed.

B. For an accessory dwelling unit located within the same structure as a single-family dwelling unit or attached to or sharing a wall with a single-family dwelling unit, the setback requirements and dimensional requirements must be the same as the setback requirements and dimensional requirements of the single-family dwelling unit, except for an accessory dwelling unit permitted in an existing accessory building or secondary building or garage as of July 1, 2023, in which case the requisite setback requirements for such a structure apply. A municipality may establish more permissive dimensional and set back requirements for an accessory dwelling unit.

C. An accessory dwelling unit may not be subject to any additional parking requirements beyond the parking requirements of the single-family dwelling unit on the lot where the accessory dwelling unit is located.

5. Shoreland zoning. An accessory dwelling unit must comply with shoreland zoning requirements established by the Department of Environmental Protection under Title 38, chapter 3 and municipal shoreland zoning ordinances.

6. Size requirements. An accessory dwelling unit must meet a minimum size of 190 square feet. If the Technical Building Codes and Standards Board under Title 10, section 9722 adopts a different minimum size, that standard applies. A municipality may impose a maximum size for an accessory dwelling unit.

7. Water and wastewater. The owner of an accessory dwelling unit must provide written verification to the municipality that the accessory dwelling unit is connected to adequate water and wastewater services before the municipality may certify the accessory dwelling unit for occupancy. Written verification under this subsection must include:

A. If an accessory dwelling unit is connected to a public, special district or other comparable sewer system, proof of adequate service to support any additional flow created by the accessory dwelling unit and proof of payment for the connection to the sewer system;

B. If an accessory dwelling unit is connected to a septic system, proof of adequate sewage disposal for subsurface wastewater. The septic system must be verified as adequate by a local plumbing inspector under section 4221. Plans for subsurface wastewater disposal must be prepared by a licensed site evaluator in accordance with subsurface wastewater disposal rules adopted under Title 22, section 42;

C. If an accessory dwelling unit is connected to a public, special district or other centrally managed water system, proof of adequate service to support any additional flow created by the accessory dwelling unit, proof of payment for the connection and the volume and supply of water required for the accessory dwelling unit; and

D. If an accessory dwelling unit is connected to a well, proof of access to potable water. Any tests of an existing well or proposed well must indicate that the water supply is potable and acceptable for domestic use.

8. Municipal implementation. In adopting an ordinance under this section, a municipality may:

A. Establish an application and permitting process for accessory dwelling units;

B. Impose fines for violations of building, zoning and utility requirements for accessory dwelling units; and

C. Establish alternative criteria that are less restrictive than the requirements of subsections 4, 5, 6 and 7 for the approval of an accessory dwelling unit only in circumstances in which the municipality would be able to provide a variance under section 4353, subsection 4, 4-A, 4-B or 4-C.

9. Rate of growth ordinance. A permit issued by a municipality for an accessory dwelling unit does not count as a permit issued toward a municipality's rate of growth ordinance as described in section 4360.

10. Subdivision requirements. This section may not be construed to exempt a subdivider from the requirements for division of a tract or parcel of land in accordance with subchapter 4.

11. Restrictive covenants. This section may not be construed to interfere with, abrogate or annul the validity or enforceability of any valid or enforceable easement, covenant, deed restriction or other agreement or instrument between private parties that imposes greater restrictions than those provided in this section, as long as the agreement does not abrogate rights under the United States Constitution or the Constitution of Maine.

12. Rules. The Department of Economic and Community Development may adopt rules to administer and enforce this section. The department shall consult with the Department of Agriculture, Conservation and Forestry in adopting rules pursuant to this subsection. Rules adopted pursuant to this subsection are routine technical rules as defined in Title 5, chapter 375, subchapter 2-A.

13. Implementation. A municipality is not required to implement the requirements of this section until July 1, 2023.

Sec. 7. 30-A MRSA §4364-C is enacted to read:

§4364-C. Municipal role in statewide housing production goals

This section governs the responsibilities and roles of municipalities in achieving the statewide and regional housing production goals set by the Department of Economic and Community Development in Title 5, section 13056, subsection 9.

1. Fair housing and nondiscrimination. A municipality shall ensure that ordinances and regulations are designed to affirmatively further the purposes of the federal Fair Housing Act, 42 United States Code, Chapter 45, as amended, and the Maine Human Rights Act to achieve the statewide or regional housing production goal.

2. Municipalities may regulate short-term rentals. A municipality may establish and enforce regulations regarding short-term rental units in order to achieve the statewide or regional housing production goal. For the purposes of this subsection, "short-term rental unit" means living quarters offered for rental through a transient rental platform as defined by Title 36, section 1752, subsection 20-C.

STATE OF MAINE

—
IN THE YEAR OF OUR LORD
TWO THOUSAND TWENTY-THREE

—
H.P. 1095 - L.D. 1706

**An Act to Clarify Statewide Laws Regarding Affordable Housing and
Accessory Dwelling Units**

Emergency preamble. Whereas, acts and resolves of the Legislature do not become effective until 90 days after adjournment unless enacted as emergencies; and

Whereas, current law requires, beginning July 1, 2023, all municipalities to allow a certain number of dwelling units under certain circumstances and the construction of accessory dwelling units on the same lot as a single-family dwelling unit and to comply with certain other zoning requirements; and

Whereas, it is the intent of this legislation to extend the implementation date for certain municipalities; and

Whereas, in the judgment of the Legislature, these facts create an emergency within the meaning of the Constitution of Maine and require the following legislation as immediately necessary for the preservation of the public peace, health and safety; now, therefore,

Be it enacted by the People of the State of Maine as follows:

Sec. 1. 30-A MRSA §4364, first ¶, as enacted by PL 2021, c. 672, §4, is amended to read:

For an affordable housing development approved on or after ~~July 1, 2023~~ the implementation date, a municipality with density requirements shall apply density requirements in accordance with this section.

Sec. 2. 30-A MRSA §4364, sub-§1, as enacted by PL 2021, c. 672, §4, is amended to read:

1. Definition. For the purposes of this section, "affordable housing development" means:

A. For rental housing, a development in which a household whose income does not exceed 80% of the median income for the area as defined by the United States Department of Housing and Urban Development under the United States Housing Act of 1937, Public Law 75-412, 50 Stat. 888, Section 8, as amended, can afford a majority

51% or more of the units that the developer designates as affordable in the development without spending more than 30% of the household's monthly income on housing costs; and

B. For owned housing, a development in which a household whose income does not exceed 120% of the median income for the area as defined by the United States Department of Housing and Urban Development under the United States Housing Act of 1937, Public Law 75-412, 50 Stat. 888, Section 8, as amended, can afford ~~a majority~~ 51% or more of the units that the developer designates as affordable in the development without spending more than 30% of the household's monthly income on housing costs.

Sec. 3. 30-A MRSA §4364, sub-§1-A is enacted to read:

1-A. Implementation date. For purposes of this section, "implementation date" means:

A. January 1, 2024 for municipalities for which ordinances may be enacted by the municipal officers without further action or approval by the voters of the municipality; and

B. July 1, 2024 for all other municipalities.

Sec. 4. 30-A MRSA §4364, sub-§3, as enacted by PL 2021, c. 672, §4, is amended to read:

3. Long-term affordability. Before ~~approving~~ granting final approval of an affordable housing development, including but not limited to issuing an occupancy permit, a municipality shall require that the owner of the affordable housing development have executed a restrictive covenant, recorded in the appropriate registry of deeds, for the benefit of and enforceable by a party acceptable to the municipality, to ensure that for at least 30 years after completion of construction:

A. For rental housing, occupancy of all of the units designated affordable in the development will remain limited to households at or below 80% of the local area median income at the time of initial occupancy; and

B. For owned housing, occupancy of all of the units designated affordable in the development will remain limited to households at or below 120% of the local area median income at the time of initial occupancy.

Sec. 5. 30-A MRSA §4364, sub-§6, as enacted by PL 2021, c. 672, §4, is amended to read:

6. Subdivision requirements. This section may not be construed to exempt a subdivider from the requirements ~~for division of a tract or parcel of land in accordance with~~ subchapter 4.

Sec. 6. 30-A MRSA §4364-A, sub-§1, as enacted by PL 2021, c. 672, §5, is amended to read:

1. Use allowed. Notwithstanding any provision of law to the contrary, except as provided in Title 12, chapter 423-A, for any area in which ~~housing is~~ residential uses are allowed, including as a conditional use, a municipality shall allow structures with up to 2 dwelling units per lot if that lot does not contain an existing dwelling unit, except that a municipality shall allow up to 4 dwelling units per lot if that lot does not contain an existing

dwelling unit and the lot is located in a designated growth area within a municipality consistent with section 4349-A, subsection 1, paragraph A or B or if the lot is served by a public, special district or other centrally managed water system and a public, special district or other comparable sewer system in a municipality without a comprehensive plan.

A municipality shall allow on a lot with one existing dwelling unit the addition of up to 2 dwelling units: one additional dwelling unit within or attached to an existing structure or one additional detached dwelling unit, or one of each.

A municipality may allow more units than the number required to be allowed by this subsection.

Sec. 7. 30-A MRSA §4364-A, sub-§1-A is enacted to read:

1-A. Implementation date. For purposes of this section, "implementation date" has the same meaning as in section 4364, subsection 1-A.

Sec. 8. 30-A MRSA §4364-A, sub-§2, ¶B, as enacted by PL 2021, c. 672, §5, is amended to read:

B. A municipal zoning ordinance may establish a prohibition or an allowance for lots where a dwelling unit in existence after ~~July 1, 2023~~ the implementation date is torn down and an empty lot results.

Sec. 9. 30-A MRSA §4364-A, sub-§3, as enacted by PL 2021, c. 672, §5, is amended to read:

3. General requirements. A municipal ordinance may not establish dimensional requirements ~~or, including but not limited to~~ setback requirements, for dwelling units allowed under this section that are greater than dimensional requirements ~~or, including but not limited to~~ setback requirements, for single-family housing units, except that a municipal ordinance may establish requirements for a lot area per dwelling unit as long as the required lot area for subsequent units on a lot is not greater than the required lot area for the first unit.

Sec. 10. 30-A MRSA §4364-A, sub-§7, as enacted by PL 2021, c. 672, §5, is amended to read:

7. Subdivision requirements. This section may not be construed to exempt a subdivider from the requirements ~~for division of a tract or parcel of land in accordance with~~ subchapter 4.

Sec. 11. 30-A MRSA §4364-A, sub-§10, as enacted by PL 2021, c. 672, §5, is amended to read:

10. Implementation. A municipality is not required to implement the requirements of this section until ~~July 1, 2023~~ the implementation date.

Sec. 12. 30-A MRSA §4364-B, sub-§1, as enacted by PL 2021, c. 672, §6, is amended to read:

1. Use permitted. Except as provided in Title 12, chapter 423-A, a municipality shall allow an accessory dwelling unit to be located on the same lot as a single-family dwelling unit in any area in which ~~housing is~~ residential uses are permitted, including as a conditional use.

Sec. 13. 30-A MRSA §4364-B, sub-§1-A is enacted to read:

1-A. Implementation date. For purposes of this section, "implementation date" has the same meaning as in section 4364, subsection 1-A.

Sec. 14. 30-A MRSA §4364-B, sub-§2, as enacted by PL 2021, c. 672, §6, is amended by amending the first blocked paragraph to read:

This subsection does not restrict the construction or permitting of accessory dwelling units constructed and certified for occupancy prior to ~~July 1, 2023~~ the implementation date.

Sec. 15. 30-A MRSA §4364-B, sub-§3, as enacted by PL 2021, c. 672, §6, is amended to read:

3. Zoning requirements. With respect to accessory dwelling units, municipal zoning ordinances must comply with the following conditions:

A. At least one accessory dwelling unit must be allowed on any lot where a single-family dwelling unit is the principal structure; ~~and~~

B. If more than one accessory dwelling unit has been constructed on a lot as a result of the allowance under this section ~~or section 4364-A~~, the lot is not eligible for any additional increases in density except as allowed by the municipality; ~~and~~

C. An accessory dwelling unit is allowed on a lot that does not conform to the municipal zoning ordinance if the accessory dwelling unit does not further increase the nonconformity.

Sec. 16. 30-A MRSA §4364-B, sub-§4, ¶B, as corrected by RR 2021, c. 2, Pt. A, §110, is amended to read:

B. For an accessory dwelling unit located within the same structure as a single-family dwelling unit or attached to or sharing a wall with a single-family dwelling unit, the setback requirements and dimensional requirements must be the same as the setback requirements and dimensional requirements of the single-family dwelling unit, except for an accessory dwelling unit permitted in an existing accessory building or secondary building or garage as of ~~July 1, 2023~~ the implementation date, in which case the requisite setback requirements for such a structure apply. A municipality may establish more permissive dimensional and setback requirements for an accessory dwelling unit.

Sec. 17. 30-A MRSA §4364-B, sub-§4, ¶D is enacted to read:

D. An accessory dwelling unit that was not built with municipal approval must be allowed if the accessory dwelling unit otherwise meets the requirements for accessory dwelling units of the municipality and under this section.

Sec. 18. 30-A MRSA §4364-B, sub-§5, as enacted by PL 2021, c. 672, §6, is amended to read:

5. Shoreland zoning. An accessory dwelling unit must comply with shoreland zoning requirements established by the Department of Environmental Protection under Title 38, chapter 3 and municipal shoreland zoning ordinances, except that a municipality may not categorically prohibit accessory dwelling units in the shoreland zone that would otherwise meet requirements established by the Department of Environmental Protection under Title 38, chapter 3 and municipal shoreland zoning ordinances.

Sec. 19. 30-A MRSA §4364-B, sub-§8, ¶A, as enacted by PL 2021, c. 672, §6, is amended to read:

A. Establish an application and permitting process for accessory dwelling units that does not require planning board approval;

Sec. 20. 30-A MRSA §4364-B, sub-§10, as enacted by PL 2021, c. 672, §6, is amended to read:

10. Subdivision requirements. This section may not be construed to exempt a subdivider from the requirements ~~for division of a tract or parcel of land in accordance with~~ subchapter 4.

Sec. 21. 30-A MRSA §4364-B, sub-§13, as enacted by PL 2021, c. 672, §6, is amended to read:

13. Implementation. A municipality is not required to implement the requirements of this section until ~~July 1, 2023~~ the implementation date.

Emergency clause. In view of the emergency cited in the preamble, this legislation takes effect when approved.

Chapter 5: HOUSING OPPORTUNITY PROGRAM: MUNICIPAL LAND USE AND ZONING ORDINANCE RULE

Summary: This chapter sets forth the provisions which require municipalities to create or amend local ordinances to allow for (1) additional density for affordable housing developments in certain areas; (2) multiple dwelling units on lots designated for housing; and (3) one accessory dwelling unit located on the same lot as a single-family dwelling unit in any area where housing is permitted.

Note: This chapter incorporates by reference certain material. The Appendix lists the material that is incorporated by reference, the date for each reference, and the organization where copies of the material are available.

SECTION 1. PURPOSE AND DEFINITIONS**A. PURPOSE**

1. This chapter sets forth the provisions which require municipalities to create or amend local ordinances to allow for (1) additional density for affordable housing developments in certain areas; (2) multiple dwelling units on lots designated for housing; and (3) one accessory dwelling unit located on the same lot as a single-family dwelling unit in any area where housing is permitted.
2. Municipalities need not adopt this rule language or the statutory language in P.L. 2021 Ch. 672 word for word. The Department encourages municipalities to consider local planning documents and other special local considerations, and to modify language into one that meets the needs of a particular community and the minimum requirements of this legislation. Municipalities may wish to adopt ordinances that are more permissive, provided that such ordinances are equally or more effective in achieving the goal of increasing housing opportunities. If a municipality does not adopt ordinances to comply with P.L. 2021 Ch. 672, this legislation will preempt municipal home rule authority.
3. These rules do not:
 - a) Abrogate or annul the validity or enforceability of any valid and enforceable easement, covenant, deed restriction or other agreement or instrument between private parties that imposes greater restrictions than those provided in this rule, as long as the agreement does not abrogate rights pursuant to the United States Constitution or the Constitution of Maine;
 - b) Exempt a subdivider from the requirements in Title 30-A Chapter 187 subchapter 4;

- c) Exempt an affordable housing development, a dwelling unit, or accessory dwelling unit from the shoreland zoning requirements established by the Department of Environmental Protection pursuant to Title 38 Chapter 3 and municipal shoreland zoning ordinances; or
- d) Abrogate or annul minimum lot size requirements under Title 12 Chapter 423-A.

B. DEFINITIONS

All terms used but not defined in this chapter shall have the meanings ascribed to those terms in Chapter 187 of Title 30-A of the *Maine Revised Statutes*, as amended. Municipalities need not adopt the terms and definitions outlined below word for word. The Department encourages municipalities to consider local planning documents and other special local considerations, and to modify language into one that meets the needs of a particular community. Municipalities may wish to adopt terms and definitions that are more permissive, provided that such terms and definitions are equally or more effective in achieving the goal of increasing housing opportunities.

Accessory dwelling unit. "Accessory dwelling unit" means a self-contained dwelling unit located within, attached to or detached from a single-family dwelling unit located on the same parcel of land. An accessory dwelling unit must be a minimum of 190 square feet and municipalities may impose a maximum size.

Affordable housing development. "Affordable housing development" means

1. For rental housing, a development in which a household whose income does not exceed 80% of the median income for the area as defined by the United States Department of Housing and Urban Development under the United States Housing Act of 1937, Public Law 75-412, 50 Stat. 888, Section 8, as amended, can afford a majority of the units that the developer designates as affordable without spending more than 30% of the household's monthly income on housing costs; and
2. For owned housing, a development in which a household whose income does not exceed 120% of the median income for the area as defined by the United States Department of Housing and Urban Development under the *United States Housing Act of 1937*, Public Law 75-412, 50 Stat. 888, Section 8, as amended, can afford a majority of the units that the developer designates as affordable without spending more than 30% of the household's monthly income on housing costs.
3. For purposes of this definition, "majority" means more than half of proposed and existing units on the same lot.
4. For purposes of this definition, "housing costs" include, but are not limited to:
 - a) For a rental unit, the cost of rent and any utilities (electric, heat, water, sewer, and/or trash) that the household pays separately from the rent; and

- b) For an ownership unit, the cost of mortgage principal and interest, real estate taxes (including assessments), private mortgage insurance, homeowner's insurance, condominium fees, and homeowners' association fees.

Area median income. "Area median income" means the midpoint of a region's income distribution calculated on an annual basis by the U.S. Department of Housing & Urban Development.

Attached. "Attached" means connected by a shared wall to the principal structure or having physically connected finished spaces.

Base density. "Base density" means the maximum number of units allowed on a lot not used for affordable housing based on dimensional requirements in a local land use or zoning ordinance. This does not include local density bonuses, transferable development rights, or other similar means that could increase the density of lots not used for affordable housing.

Centrally managed water system. "Centrally managed water system" means a water system that provides water for human consumption through pipes or other constructed conveyances to at least 15 service connections or serves an average of at least 25 people for at least 60 days a year as regulated by 10-144 C.M.R. Ch. 231, *Rules Relating to Drinking Water*. This water system may be privately owned.

Certificate of occupancy. "Certificate of occupancy" means the municipal approval for occupancy granted pursuant to 25 M.R.S. §2357-A or the *Maine Uniform Building and Energy Code* adopted pursuant to Title 10 Chapter 1103. Certificate of occupancy may also be referred to as issuance of certificate of occupancy or other terms with a similar intent.

Comparable sewer system. "Comparable sewer system" means any subsurface wastewater disposal system that discharges over 2,000 gallons of wastewater per day as regulated by 10-144 C.M.R. Ch. 241, *Subsurface Wastewater Disposal Rules*.

Comprehensive plan. "Comprehensive plan" means a document or interrelated documents consistent with 30-A M.R.S. §4326(1)-(4), including the strategies for an implementation program which are consistent with the goals and guidelines established pursuant to Title 30-A Chapter 187 Subchapter II.

Density requirements. "Density requirements" mean the maximum number of dwelling units allowed on a lot, subject to dimensional requirements.

Designated growth area. "Designated growth area" means an area that is designated in a municipality's or multi-municipal region's comprehensive plan as suitable for orderly residential, commercial, or industrial development, or any combination of those types of development, and into which most development projected over ten (10) years is directed. Designated growth areas may also be referred to as priority development zones or other terms with a similar intent. If a municipality does not have a comprehensive plan, "designated growth area" means an area served by a public sewer system that has the capacity for the growth-related project, an area identified in the latest Federal Decennial

Census as a census-designated place or a compact area of an urban compact municipality as defined by 23 M.R.S. §754.

Dimensional requirements. “Dimensional requirements” mean requirements which govern the size and placement of structures including, but limited not to, the following requirements: building height, lot area, minimum frontage and lot depth.

Dwelling unit. “Dwelling unit” means any part of a structure which, through sale or lease, is intended for human habitation, including single-family and multifamily housing, condominiums, time-share units, and apartments.

Existing dwelling unit. “Existing dwelling unit” means a residential unit in existence on a lot at the time of submission of a permit application to build additional units on that lot. If a municipality does not have a permitting process, the dwelling unit on a lot must be in existence at the time construction begins for additional units on a lot.

Housing. “Housing” means any part of a structure which, through sale or lease, is intended for human habitation, including single-family and multifamily housing, condominiums, time-share units, and apartments. For purposes of this rule, this does not include dormitories, boarding houses or other similar types of housing units. This also does not include transient housing or short-term rentals, unless these uses are otherwise allowed in local ordinance.

Land use ordinance. “Land use ordinance” means an ordinance or regulation of general application adopted by the municipal legislative body which controls, directs, or delineates allowable uses of land and the standards for those uses.

Lot. “Lot” means a single parcel of developed or undeveloped land.

Multifamily dwelling. “Multifamily dwelling” means a structure containing three (3) or more dwelling units.

Potable. “Potable” means safe for drinking as defined by the U.S. Environmental Protection Agency’s (EPA) Drinking Water Standards and Health Advisories Table and Maine’s interim drinking water standards for six different perfluoroalkyl and polyfluoroalkyl substances (PFAS), Resolve 2021 Chapter 82, *Resolve, To Protect Consumers of Public Drinking Water by Establishing Maximum Contaminant Level for Certain Substances and Contaminants*.

Principal structure. “Principal structure” means a structure in which the main or primary use of the structure is conducted. For purposes of this rule, principal structure does not include commercial buildings.

Restrictive covenant. “Restrictive covenant” means a provision in a deed, or other covenant conveying real property, restricting the use of the land.

Setback requirements. “Setback requirements” mean the minimum horizontal distance from a lot line, shoreline, or road to the nearest part of a structure, or other regulated object or area as defined in local ordinance.

Single-family dwelling unit. “Single-family dwelling unit” means a structure containing one (1) dwelling unit.

Structure. “Structure” means anything temporarily or permanently located, built, constructed or erected for the support, shelter or enclosure of persons as defined in 38 M.R.S. §436-A(12).

Zoning ordinance. "Zoning ordinance" means a type of land use ordinance that divides a municipality into districts and that prescribes and reasonably applies different regulations in each district.

SECTION 2. AFFORDABLE HOUSING DENSITY

A. GENERAL

This Section requires municipalities to allow an automatic density bonus for certain affordable housing developments approved on or after July 1, 2023, as outlined below. This section only applies to lots in zoning districts that have adopted density requirements.

B. ELIGIBILITY FOR DENSITY BONUS

1. For purposes of this section, a municipality shall verify that the development:
 - a) Is an affordable housing development as defined in this chapter, which includes the requirement that a majority of the total units on the lot are affordable;
 - b) Is in a designated growth area pursuant to 30-A M.R.S. §4349-A(1)(A) or (B) or served by a public, special district or other centrally managed water system and a public, special district or other comparable sewer system;
 - c) Is located in an area in which multifamily dwellings are allowed per municipal ordinance;
 - d) Complies with minimum lot size requirements in accordance with Title 12 Chapter 423-A; and
 - e) Owner provides written verification that each unit of the housing development is proposed to be connected to adequate water and wastewater services prior to certification of the development for occupancy or similar type of approval process. Written verification must include the following:
 - i. If a housing unit is connected to a public, special district or other comparable sewer system, proof of adequate service to support any additional flow created by the unit and proof of payment for the connection to the sewer system;

- ii. If a housing unit is connected to a septic system, proof of adequate sewage disposal for subsurface wastewater. The septic system must be verified as adequate by a local plumbing inspector pursuant to 30-A M.R.S. §4221. Plans for a subsurface wastewater disposal must be prepared by a licensed site evaluator in accordance with 10-144 C.M.R. Ch. 241, *Subsurface Wastewater Disposal Rules*.
- iii. If a housing unit is connected to a public, special district or other centrally managed water system, proof of adequate service to support any additional flow created by the unit, proof of payment for the connection and the volume and supply of water required for the unit; and
- iv. If a housing unit is connected to a well, proof of access to potable water, including the standards outlined in 01-672 C.M.R. Ch. 10 section 10.25(J), *Land Use Districts and Standards*. Any test of an existing well or proposed well must indicate that the water supply is potable and acceptable for domestic use.

2. Long-Term Affordability

Prior to granting a certificate of occupancy or other final approval of an affordable housing development, a municipality must require that the owner of the affordable housing development (1) execute a restrictive covenant that is enforceable by a party acceptable to the municipality; and (2) record the restrictive covenant in the appropriate registry of deeds to ensure that for at least thirty (30) years after completion of construction:

- a) For rental housing, occupancy of all the units designated affordable in the development will remain limited to households at or below 80% of the local area median income at the time of initial occupancy; and
- b) For owned housing, occupancy of all the units designated affordable in the development will remain limited to households at or below 120% of the local area median income at the time of initial occupancy.

C. DENSITY BONUS

If the requirements in Section 2(B)(1) and (2) are met, a municipality must:

- 1. Allow an affordable housing development to have a dwelling unit density of at least 2.5 times the base density that is otherwise allowed in that location; and
- 2. Require no more than two (2) off-street parking motor vehicle spaces for every three (3) dwelling units of an affordable housing development.

If fractional results occur when calculating the density bonus in this subsection, the number of units is rounded down to the nearest whole number. Local regulation that chooses to round up shall be considered consistent with and not more restrictive than this

law. The number of motor vehicle parking spaces may be rounded up or down to the nearest whole number.

SECTION 3. DWELLING UNIT ALLOWANCE

A. GENERAL

This section requires municipalities to allow multiple dwelling units on lots where housing is allowed beginning on July 1, 2023, subject to the requirements below. The requirements listed in Section 3 apply to municipalities with and without zoning. Private, state or local standards such as homeowners' association regulation, deed restrictions, lot size, set back, density, septic requirements, minimum lot size, additional parking requirements, growth ordinance permits, shoreland zoning and subdivision law, may also apply to lots.

B. REQUIREMENTS

1. Dwelling Unit Allowance

- a) If a lot does not contain an existing dwelling unit, municipalities must allow up to four (4) dwelling units per lot if the lot is located in an area in which housing is allowed, meets the requirements in 12 M.R.S. Ch. 423-A, and is:
 - i. Located within a designated growth area consistent with 30-A M.R.S. §4349 A(1)(A)-(B); or
 - ii. Served by both a public, special district or other centrally managed water system and a public, special district or other comparable sewer system in a municipality without a comprehensive plan.
- b) If a lot does not contain an existing dwelling unit and does not meet i. or ii. above, a municipality must allow up to two (2) dwelling units per lot located in an area in which housing is allowed, provided that the requirements in 12 M.R.S. Ch. 423-A are met. The two (2) dwelling units may be (1) within one structure; or (2) separate structures.
- c) If a lot contains one existing dwelling unit, a municipality must allow the addition of up to two (2) additional dwelling units:
 - i. One within the existing structure or attached to the existing structure;
 - ii. One detached from the existing structure; or
 - iii. One of each.
- d) If a lot contains two existing dwelling units, no additional dwelling units may be built on the lot unless allowed under local municipal ordinance.

- e) A municipality may allow more units than the minimum number of units required to be allowed on all lots that allow housing.

2. Zoning

With respect to dwelling units allowed under this Section, municipalities with and without zoning ordinances must comply with the following:

- a) If more than one dwelling unit has been constructed on a lot as a result of the allowance pursuant to this Section, the lot is not eligible for any additional units or increases in density except as allowed by the municipality. Municipalities have the discretion to determine if a dwelling unit or accessory dwelling unit has been constructed on a lot for purposes of this provision.
- b) Municipalities may establish a prohibition or an allowance for lots where a dwelling unit in existence after July 1, 2023, is torn down and an empty lot results.

3. Dimensional and Setback Requirements

- a) A municipal ordinance may not establish dimensional requirements or setback requirements for dwelling units allowed pursuant to this Section that are more restrictive than the dimensional requirements or setback requirements for single-family housing units.

4. A municipality may establish requirements for a lot area per dwelling unit as long as the additional dwelling units required for each additional dwelling unit is proportional to the lot area per dwelling unit of the first unit.

Water and Wastewater

- a) The municipality must require an owner of a proposed housing structure to provide written verification that each proposed structure is to be connected to adequate water and wastewater services prior to certification of the development for occupancy or similar type of approval process. Written verification must include the following:
 - i. If a housing structure is connected to a public, special district or other comparable sewer system, proof of adequate service to support any additional flow created by the unit and proof of payment for the connection to the sewer system;
 - ii. If a housing structure is connected to a septic system, proof of adequate sewage disposal for subsurface wastewater. The septic system must be verified as adequate by a local plumbing inspector pursuant to 30-A M.R.S. §4221. Plans for a subsurface wastewater disposal must be prepared by a licensed site evaluator in accordance with 10-144 C.M.R. Ch. 241, *Subsurface Wastewater Disposal Rules*.

- iii. If a housing structure is connected to a public, special district or other centrally managed water system, proof of adequate service to support any additional flow created by the unit, proof of payment for the connection and the volume and supply of water required for the unit; and
- iv. If a housing structure is connected to a well, proof of access to potable water, including the standards outlined in 01-672 C.M.R. Ch. 10 section 10.25(J), *Land Use Districts and Standards*. Any test of an existing well or proposed well must indicate that the water supply is potable and acceptable for domestic use.

C. MUNICIPAL IMPLEMENTATION

In adopting an ordinance, a municipality may:

- 1. Establish an application and permitting process for dwelling units;
- 2. Impose fines for violations of building, site plan, zoning, and utility requirements for dwelling units; and
- 3. Establish alternative criteria that are less restrictive than the requirements of Section 3(B)(4) for the approval of a dwelling units only in circumstances in which the municipality would be able to provide a variance pursuant to 30-A M.R.S. §4353(4)(A), (B), or (C).

SECTION 4. ACCESSORY DWELLING UNITS

A. GENERAL

- 1. A municipality must allow, effective July 1, 2023, one accessory dwelling unit to be located on the same lot as a single-family dwelling unit in any area in which housing is allowed, subject to the requirements outlined below. The requirements listed in Section 4 apply to municipalities with and without zoning. Private, state or local standards such as homeowners' association regulation, deed restrictions, set back, density, septic requirements, shoreland zoning and subdivision law may also apply to lots.
- 2. A municipal ordinance that allows more than one accessory dwelling unit or that allows accessory dwelling units to be established in relation to duplex, triplex and other multi-unit buildings shall be considered consistent with the goals of P.L. 2021 Ch. 672.

B. REQUIREMENTS

- 1. Accessory Dwelling Unit Allowance

An accessory dwelling unit may be constructed only:

- a) Within an existing dwelling unit on the lot;

- b) Attached to a single-family dwelling unit; or
- c) As a new structure on the lot for the primary purpose of creating an accessory dwelling unit.

A municipality may allow an accessory dwelling unit to be constructed or established within an existing accessory structure, except the setback requirements of Section 4(B)(3)(b)(i) shall apply.

2. Zoning

With respect to accessory dwelling units, municipalities with zoning ordinances and municipalities without zoning must comply with the following conditions:

- (a) At least one accessory dwelling unit must be allowed on any lot where a single-family dwelling unit is the principal structure; and
- (b) If more than one accessory dwelling unit has been constructed on a lot as a result of the allowance pursuant to this Section, the lot is not eligible for any additional units or increases in density, except as allowed by the municipality. Municipalities have the discretion to determine if a dwelling unit or accessory dwelling unit has been constructed on a lot for purposes of this provision.

3. Other

With respect to accessory dwelling units, municipalities must comply with the following conditions:

- a) A municipality must exempt an accessory dwelling unit from any density requirements or lot area requirements related to the area in which the accessory dwelling unit is constructed;
- b) For an accessory dwelling unit located within the same structure as a single-family dwelling unit or attached to a single-family dwelling unit, the dimensional requirements and setback requirements must be the same as the dimensional requirements and setback requirements of the single-family dwelling unit;
 - i. For an accessory dwelling unit permitted in an existing accessory building or secondary building or garage as of July 1, 2023, the required setback requirements in local ordinance of the existing accessory or secondary building apply.
- c) A municipality may establish more permissive dimensional requirements and setback requirements for an accessory dwelling unit.
- d) An accessory dwelling unit may not be subject to any additional motor vehicle parking requirements beyond the parking requirements of the

single-family dwelling unit on the lot where the accessory dwelling unit is located.

4. Size

- a) An accessory dwelling unit must be at least 190 square feet in size, unless the Technical Building Code and Standards Board, pursuant to 10 M.R.S. §9722, adopts a different minimum standard; if so, that standard applies.
- b) Municipalities may set a maximum size for accessory dwelling units in local ordinances, as long as accessory dwelling units are not less than 190 square feet.

5. Water and Wastewater

A municipality must require an owner of an accessory dwelling unit to provide written verification that the proposed accessory dwelling unit is to be connected to adequate water and wastewater services prior to certification of the accessory dwelling unit for occupancy or similar type of approval process. Written verification must include the following:

- a) If an accessory dwelling unit is connected to a public, special district or other comparable sewer system, proof of adequate service to support any additional flow created by the unit and proof of payment for the connection to the sewer system;
- b) If an accessory dwelling unit is connected to a septic system, proof of adequate sewage disposal for subsurface wastewater. The septic system must be verified as adequate by a local plumbing inspector pursuant to 30-A M.R.S. §4221. Plans for a subsurface wastewater disposal must be prepared by a licensed site evaluator in accordance with 10-144 C.M.R. Ch. 241, *Subsurface Wastewater Disposal Rules*;
- c) If an accessory dwelling unit is connected to a public, special district or other centrally managed water system, proof of adequate service to support any additional flow created by the unit, proof of payment for the connection and the volume and supply of water required for the unit; and
- d) If an accessory dwelling unit is connected to a well, proof of access to potable water, including the standards outlined in 01-672 C.M.R. Ch. 10 section 10.25(J), *Land Use Districts and Standards*. Any test of an existing well or proposed well must indicate that the water supply is potable and acceptable for domestic use.

C. MUNICIPAL IMPLEMENTATION

In adopting an ordinance under this Section, a municipality may:

- 1. Establish an application and permitting process for accessory dwelling units;

2. Impose fines for violations of building, zoning and utility requirements for accessory dwelling units; and
3. Establish alternative criteria that are less restrictive than the above criteria in Section 4 for the approval of an accessory dwelling unit only in circumstances in which the municipality would be able to provide a variance pursuant to 30-A M.R.S. §4353(4)(A), (B), or (C).

D. RATE OF GROWTH ORDINANCE

A permit issued by a municipality for an accessory dwelling unit does not count as a permit issued toward a municipality's rate of growth ordinance pursuant to 30-A M.R.S. §4360.

STATUTORY AUTHORITY:

PL 2021 Ch. 672 codified at 30-A M.R.S. §§ 4364, 4364-A, 4364-B.

EFFECTIVE DATE:

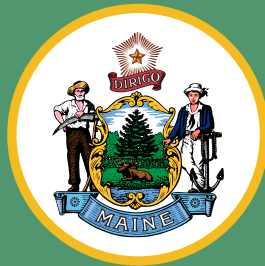
April 18, 2023 – filing 2023-056

APPENDIX

List of Reference Material

Reference Material	Location to Obtain Document
U.S. Environmental Protection Agency's (EPA) Drinking Water Standards and Health Advisories Table, March 2018.	U.S. Environmental Protection Agency Office of Water Drinking Water Hotline 1-800-426-4791
10-144 C.M.R. Ch. 231, Rules Relating to Drinking Water, May 9, 2016	Maine Department of Health & Human Services Maine Center for Disease Control & Prevention 11 State House Station Augusta, Maine 04333 207-287-8016
Resolve 2021, Ch. 82, Resolve, To Protect Consumers of Public Drinking Water by Establishing Maximum Contaminant Levels for Certain Substances and Contaminants	Maine State Legislature Legislative Information Office- Document Room 100 State House Station Augusta, ME 04333 207-287-1408 webmaster_house@legislature.maine.gov
01-672 C.M.R. Ch. 10, Land Use Districts and Standards, December 30, 2022	Maine Department of Agriculture, Conservation & Forestry Bureau of Resource Information and Land Use Planning Land Use Planning Commission 22 State House Station Augusta, Maine 04333 207-287-2631
10-144 C.M.R. Ch. 241, Subsurface Wastewater Disposal Rules, August 3, 2015	Maine Department of Health & Human Services Maine Center for Disease Control & Prevention 11 State House Station Augusta, Maine 04333 207-287-8016

LD 2003 Guidance



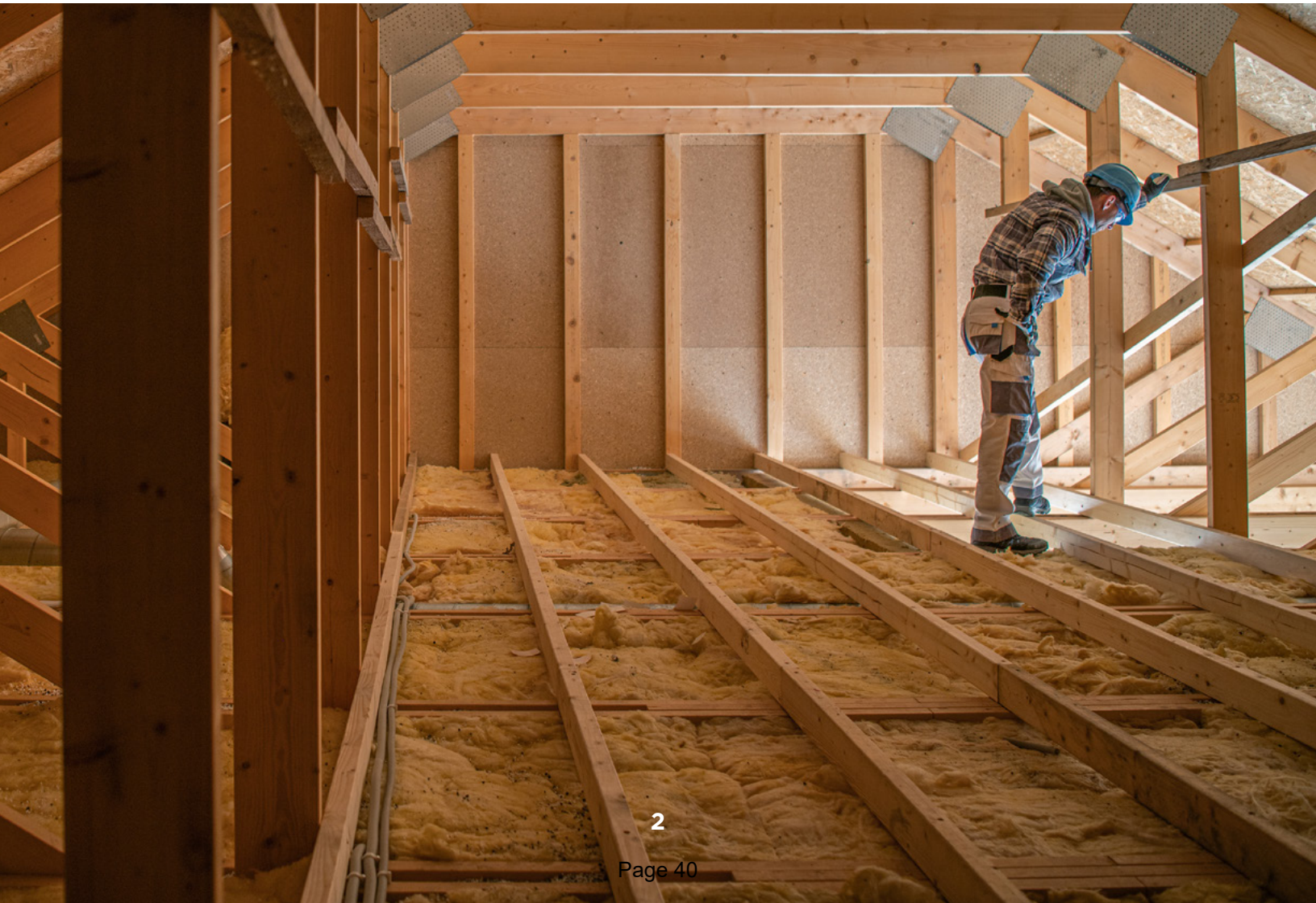
MAINE DEPARTMENT OF
ECONOMIC AND COMMUNITY
DEVELOPMENT

LD 2003 Guidance

“An Act To Implement the Recommendations of the Commission To Increase Housing Opportunities in Maine by Studying Zoning and Land Use Restrictions,” generally referred to by its legislative tracking name of LD 2003, was signed into law by Governor Mills on April 27, 2022. This law is designed to remove unnecessary

regulatory barriers to housing production in Maine, while preserving local ability to create land use plans and protect sensitive environmental resources. LD 2003 is based on the recommendations of the legislative commission named in the title, though not all those recommendations are included in the enacted legislation.

This guidance is the result of a collaborative effort by the Department of Economic and Community Development, the Governor’s Office of Policy Innovation and the Future, the Department of Agriculture, Conservation and Forestry; legislative staff, and several municipal lawyers and community planners. It is intended to provide information for local authorities to use in determining how LD 2003 affects their local zoning and land use codes, as well as what steps they can take if they wish to tailor their ordinances to avoid conflicts with state laws. This guidance is not legally binding or intended to serve as a substitute for the language of LD 2003 or the rule that will be adopted. It represents the interpretation of LD 2003 and the proposed rule, as well as its requirements by the state agencies that are responsible for its implementation. This guidance may be updated once the rule is adopted.





LD 2003 has the following sections that are relevant to municipal government. The amended sections of state law are shown in the chart below. Among other things:

1. Section 4 allows for additional density for “affordable housing developments” in certain areas.
2. Section 5 generally requires that municipalities allow between two and four housing units per lot where housing is permitted.
3. Section 6 requires that municipalities allow accessory dwelling units to be located on the same lot as a single-family home, under certain conditions.
4. Sections 3 and 7 require that the state establish statewide and regional housing production goals and set forth ways in which local governments can coordinate with that goal.

WHILE LD 2003 WENT INTO EFFECT ON AUGUST 8, 2022, SOME ELEMENTS OF THE LAW ARE NOT REQUIRED TO BE APPLIED UNTIL JULY 1, 2023

LD 2003 in Brief			
Effective Aug. 8, 2022 Statewide Housing Production Goals (5 MRSA §13056, sub-§9)	Effective Aug. 8, 2022 Municipal Role in Fair Housing/ Short Term Rentals (7 30-A MRSA §4364-C)	Effective July 1, 2023 Accessory Dwelling Units (6 30 A MRSA §4364-B)	
Effective July 1, 2023 Affordable Housing Density in Growth Areas Bonus (4 30-A MRSA §4364)		Effective July 1, 2023 Two to Four Units (5 30-A MRSA §4364-A)	

IN GENERAL, AS LONG AS THESE ACTIONS ARE CONSISTENT WITH LD 2003, MUNICIPALITIES MAY:

CONTINUE to develop Growth Management programs, including comprehensive plans and zoning consistent with those plans

ENFORCE local shoreland zoning ordinances consistent with state shoreland zoning law

REGULATE how many square feet of land are needed for each dwelling unit (other than accessory dwelling units)

CONDUCT site plan review, if authorized by local ordinances, of any residential development

REGULATE the maximum size of accessory dwelling units

REGULATE short-term rentals in their community

CREATE rate of growth ordinances so long as they do not limit the number of accessory dwelling units outlined in Section 6

CREATE local ordinances that are more permissive for residential housing development than the requirements of LD 2003

REGULATE housing development based on documented water and wastewater capacity constraints

IN GENERAL, UNDER THIS LAW, LOCAL GOVERNMENTS MAY NOT:

ENACT local ordinances that allow housing but limit it to one unit per lot

PROHIBIT one accessory dwelling unit per lot or count those units towards a rate of growth ordinance

LIMIT the affordable housing density bonuses allowed in LD 2003 in growth areas as defined in state law

Affordable Housing Density Bonus

30-A MRSA §4364

This section creates an automatic density bonus for certain affordable housing developments. To qualify for this bonus, the development must:

1. Be approved after June 30, 2023
2. Include a certain number of rent or sales price restricted affordable housing units
3. Be in a growth area under section 4349-A, subsection 1, paragraph A or B, or served by water and sewer
4. Be in an area in which multifamily dwellings are allowed
5. Meet shoreland zoning requirements, meet minimum lot sizes if using subsurface waste disposal, and verify that water and sewer capacity is adequate for the development

BONUSES FOR AN AFFORDABLE HOUSING DEVELOPMENT

To take advantage of this density bonus, a development must qualify as “affordable” (as defined below). If eligible, the affordable housing development qualifies for the following exceptions to the zoning requirements in the community:

1. The number of units allowed will be 2.5 times the number allowed for a development not designated affordable.
2. The off-street parking requirements may not exceed two spaces for every three units

So, for example, if a developer can build up to six units on a site under local rules, and designates the development as affordable, the developer would be eligible to build 15 units (6×2.5). The local off-street parking requirement for this development could not exceed ten spaces ($15 \times 2/3$). In cases of fractional results, the number of units would generally be rounded down, but the municipality has discretion to round the number of parking spaces either up or down to the nearest whole number.



WHAT REQUIREMENTS DO AFFORDABLE HOUSING DEVELOPMENTS HAVE TO MEET TO RECEIVE THE DENSITY BONUS?

For rentals, a household with an income at no more than 80% of the area median income for the community, as defined by the U.S. Department of Housing & Urban Development, must be able to afford more than half of the units in the development. That means that rent and certain other housing expenses will not require more than 30% of the household's income.

For homeownership projects, a household with an income at no more than 120% of the area median income for the community, as defined by the U.S. Department of Housing & Urban Development, must be able to afford more than half of the units in the development. That means that mortgage payments (including mortgage insurance) and certain other housing expenses will not require more than 30% of the household's income.

The units that will be affordable at these levels must be restricted through a restrictive covenant that is enforceable by a party acceptable to the municipality (which could be the municipality) for at least 30 years, and that states that the units must be restricted in rent or sales prices accordingly. Often these developments will be getting funding through MaineHousing, which typically requires a comparable covenant.

Information on Area Median Incomes is updated annually by the U.S. Department of Housing & Urban Development. For reference, MaineHousing maintains updated 80% of area median income and 120% of area median income data on their website.

[View AMI data on MaineHousing.org](https://mainehousing.org)

QUESTIONS AND ANSWERS ON AFFORDABLE HOUSING DENSITY BONUS

This guidance represents the interpretation of LD 2003 and the proposed rule language. This guidance may be updated once the rule is adopted.

What is meant by “multifamily dwellings?”

“Multifamily dwellings” is defined in rule.

What is a “base density that is otherwise allowed?”

Under a local zoning code, the “base density that is otherwise allowed” is the maximum number of units allowed based on dimensional requirements, such as lot area per dwelling unit. This is defined in rule.

If lot area per dwelling unit can be used as a measure of number of units permitted, do the limits on lot area per dwelling unit requirements in Section 5 apply?

No, Section 5’s provision about “lot area per dwelling unit,” 30-A M.R.S. § 4364-A(3), does not apply to Section 4. Therefore, municipalities have the discretion to designate lot area per dwelling unit when approving “affordable housing developments.” Municipalities, however, must comply with the minimum lot size requirements stated in Title 12, chapter 423- A, as applicable.

Does LD 2003 apply to municipalities that do not use the term “designated growth area,” but instead use a different term for growth districts in comprehensive plans.

Yes. LD 2003 applies to a municipality that has adopted a different term to mean a “designated growth area” in its comprehensive plan.

What if a household exceeds the maximum income after living in the unit?

LD 2003 specifies that the income eligibility is based on household income “at the time of initial occupancy,” meaning that a household could be allowed to remain in an “affordable” unit if their income goes up after they occupy the unit. MaineHousing has experience with this issue, as do communities that manage their own affordable housing programs, so there may be best practices that can be adopted locally. The restrictive covenants should outline how this would work.

What happens when a restricted affordable home ownership unit is sold?

The restrictive covenants should outline how this would work. MaineHousing has experience with this issue, as do communities that manage their own affordable housing programs, so there may be best practices that can be adopted locally.

How does this density bonus interact with any local density bonus that might exist?

A municipality may apply its local density bonus to “affordable housing developments” instead of the density bonus stated in 30-A M.R.S. § 4364, as long as the municipality’s local density bonus is equally or more permissive. More permissive, for purposes of this comparison, means that a local density bonus must be more generous and permissive in regard to each of the requirements described in the LD 2003 density bonus. The density bonus also applies to “affordable housing developments” in municipalities that have not adopted density requirements, as long as the development meets the requirements of 30-A M.R.S. § 4364.



Residential Areas, Generally; Up to 4 Dwelling Units

30-A MRSA §4364-A

This section requires municipalities to allow multiple dwelling units on parcels where housing is allowed, provided evidence of sufficient water and wastewater capacity exists, beginning on July 1, 2023. Municipalities may not apply different dimensional requirements to lots with more than one housing unit on them than they would to a lot with one housing unit, with the exception that they may require a minimum lot area per dwelling unit. However, if the municipality chooses to require a minimum lot area per dwelling unit, the lot area required may not be less for the first unit than for subsequent units.

The number of units allowed under this section depends on a few factors:

- A lot without a dwelling unit already on it can have two units if it is not within a designated growth area under section 4349-A, subsection 1, paragraph A or B, served by water system and sewer in a municipality without a comprehensive plan.
- A lot with an existing dwelling unit may have up to two additional dwelling units, either one additional attached dwelling unit, one additional detached dwelling unit, or one of each.
- A lot without a dwelling unit already on it can have four units if it is either:
 - Within a designated growth area under section 4349-A, subsection 1, paragraph A or B, or
 - Served by water system and sewer in a municipality without a comprehensive plan.

Municipalities may allow more than the minimum number required to be allowed on all lots that allow housing, if they wish. In addition, private parties are permitted to restrict the number of housing units on a lot in a private easement, covenant, deed restriction or other agreement provided the agreement does not violate State or Federal rights such as equal protection.

Finally, a municipality may determine in local ordinance that if a property owner tears down an existing dwelling unit, the lot may be treated under this section as if the dwelling unit were still in existence.



Lot Area per Dwelling Unit

Additional units may not require more land area per unit than the first unit

NOT PERMITTED



One Unit Requires
10,000 sq ft



Two Units Require
30,000 sq ft



Three Units Require
50,000 sq ft

PERMITTED



One Unit
Requires
10,000 sq ft



Two Units
May Require Up
To 20,000 sq ft



Three Units
May Require Up
To 30,000 sq ft

QUESTIONS AND ANSWERS ON RESIDENTIAL AREAS, GENERALLY UP TO 4 DWELLING UNITS

This guidance represents the interpretation of LD 2003 and the proposed rule language. This guidance may be updated once the rule is adopted.

Subsection 2 (“Zoning Requirements”) says that municipal zoning ordinances “must” comply with certain conditions, but subsection B. says that they “may” regulate how this section applies to a lot where a dwelling unit is torn down. Is this a “must” or a “may”?

Municipalities have the option of taking the actions in subsection B but do not have to do so, in which case a lot where a dwelling unit was torn down would be viewed as a vacant lot.

Subsection 4 says that verification must be provided to “the municipality” of water and wastewater services. Who should that verification be provided to?

These capacity issues should be reviewed by the municipal staff or board that would normally review these issues as part of any housing development.

What if a municipality does not use Certificates of Occupancy?

Subsection 4 says that the municipality will “certify [a] structure for occupancy.” This requirement should be met for new housing developments under this section the same way they would be for any other housing.

Does LD 2003 establish minimum dimensional requirements for dwelling units under this section?

Yes, a municipality cannot establish dimensional requirements for additional dwelling units on a lot that are more restrictive than dimensional requirements for a single-family unit, except that a municipal ordinance may establish requirements for a lot area per dwelling unit as long as the required lot area for subsequent units on a lot is not greater than the required lot area for the first unit.

Section 5 requires a municipality to allow up to two dwelling units per lot if that lot contains an “existing dwelling unit.” What does “existing dwelling unit” mean?

“Existing dwelling unit” means a dwelling unit in existence on a lot at the time of submission of a permit application to build additional units on that lot. If a municipality does not have a permitting process, the dwelling unit on a lot must be in existence at the time construction begins for additional units on a lot.

What is meant by “potable” water?

This is addressed in rule.

What if housing is allowed in an area but only as a conditional use?

Housing would be considered allowed in that area for the purposes of subsection 1. A conditional use shall be viewed as a permitted use.

What does “attached to an existing structure” mean?

The rule defines the word “attached.” Municipalities are not required to adopt this definition in local ordinance, but must adopt a definition that is consistent with, and no more restrictive, than the definition in rule.

Does the language in subsection 1 mean that if a lot is served by water and sewer in a municipality without a comprehensive plan that it does not need to be vacant to allow up to 4 units?

No, that language still requires the lot not “contain an existing dwelling unit.”

What does “any area which housing is allowed” mean?

This phrase requires municipalities to allow multiple dwelling units on a lot located in any area allowing residential uses, regardless of zoning district designation. This does not include congregate living settings, lodging homes, residence halls, or other similar types of buildings.

Does LD 2003 apply to municipalities with comprehensive plans that have expired findings?

Yes. An expired finding does not invalidate a locally adopted comprehensive plan or invalidate ordinances, but it could provide an opening for a party to challenge the ordinance in court. Consultation with legal counsel is recommended.

Do the provisions of LD 2003 that mention “designated growth areas” apply to a municipality that does not use the term “designated growth area,” but instead uses a related term for growth districts in its comprehensive plan?

Yes. LD 2003’s provisions apply to a municipality that does not use the term “designated growth area” but instead uses a related term to mean growth districts in its comprehensive plan.

Residential Areas

Empty Lot Where Housing Is Already Allowed

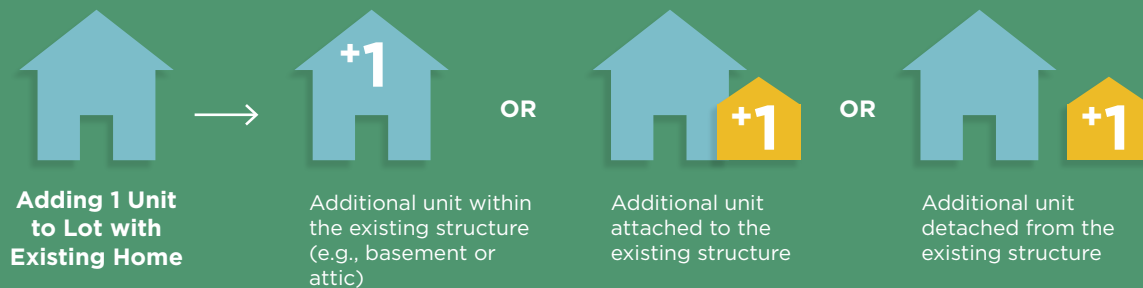


NOTE: The three and four units can be within one structure or multiple structures.

THREE AND FOUR UNITS ALLOWED IF:

- Located in "growth area" consistent with section 4349-A, subsection 1, paragraph A or B.
- Located in area with existing water/sewer capabilities in towns without comprehensive plans.

Existing Home



What Can Be Built On This Lot?

ON LAND WITH **ZERO** EXISTING UNITS

- ▶ In a growth area consistent with section 4349-A, subsection 1, paragraph A or B, with public water and sewer in municipality without a comprehensive plan
 - ↓
 - ▶ Up to 4 dwelling units, detached or attached
- ▶ Outside growth area
 - ↓
 - ▶ Up to 2 dwelling units, if attached

PRIVATE, STATE OR LOCAL STANDARDS SUCH AS THESE MAY APPLY:

- Home Owners Association regulations
- Deed restrictions
- Lot size, set back, density (not greater than single family)
- Septic requirements
- Minimum Lot Size
- Additional Parking requirement
- Growth ordinance permits
- Shoreland Zoning
- Subdivision Law

ON LAND WITH **ONE** EXISTING UNIT

- ▶ Up to 2 additional dwelling units
 - ↓
 - ▶ Choose:
 - a. One unit within or attached
 - b. One unit detached
 - c. One of each
- ▶ 1 accessory dwelling unit
 - ↓
 - ▶ Exempt from:
 - a. Rate of growth ordinances
 - b. Additional density area/standards
 - c. Additional parking requirements

PRIVATE, STATE OR LOCAL STANDARDS SUCH AS THESE MAY APPLY:

- Home Owners Association regulations
- Deed restrictions
- Lot size or set back requirements (not greater than single family/existing accessory structure)
- Septic requirements
- Shoreland Zoning
- Other locally determined ADU standards (e.g. maximum size, rules regarding short term rental, etc.)

ON LAND WITH **TWO** EXISTING UNITS

- ▶ No new structure may be built unless allowed under local ordinance

Accessory Dwelling Units

30-A MRSA §4364-B

This section essentially allows any lot with a single-family dwelling in an area where housing is permitted to have one accessory dwelling unit (ADU) as well, effective July 1, 2023. That ADU can be within the existing home, attached to it, or in a new structure. Municipalities may also allow existing accessory structures to be converted into an ADU.

An ADU allowed under this law is exempt from zoning density requirements. In reviewing an ADU, the setback and dimensional requirements for a single-family home continue to apply unless the municipality makes them more permissive for an ADU. For ADUs in an accessory structure, the setback and dimensional requirements for such a structure apply.

ACCESSORY DWELLING UNIT PARKING

Additional parking requirements for the ADU beyond those required for the single-family dwelling are not permitted.

ACCESSORY DWELLING UNIT SIZE

ADUs must be at least 190 square feet in size. Municipalities may set a maximum size for ADUs in local ordinance.

OTHER MUNICIPAL POWERS

Municipalities may establish an application and permitting process for ADUs provided it is consistent with this section. Municipalities may also define ADUs, as long as the definition is consistent with state law in Title 30-A, §4301.1-C. In addition, municipalities may establish requirements for ADUs that are less restrictive than those in this section, such as allowing more than one ADU on a lot or allowing an ADU for two-family or multifamily dwellings.

SIMILARITIES AND DIFFERENCES FROM OTHER SECTIONS

LIKE SECTIONS 4 AND 5, shoreland zoning still applies, as do requirements to verify adequate water and wastewater capacity.

LIKE SECTION 5, private parties are permitted to restrict the number of housing units on a lot, including ADUs, in a private easement, covenant, deed restriction or other agreement provided the agreement does not violate State or Federal rights such as equal protection.

UNLIKE SECTION 5, one ADU for each single-family dwelling does not count towards any rate of growth ordinance as described in §4360.

UNLIKE SECTIONS 4 & 5, additional parking cannot be required for an ADU.

UNLIKE SECTION 5, a municipality may not establish requirements for minimum lot area for the addition of an ADU on a lot with an existing single-family home.

QUESTIONS AND ANSWERS ON ACCESSORY DWELLING UNITS

This guidance represents the interpretation of LD 2003 and the proposed rule language. This guidance may be updated once the rule is adopted.

How is an ADU defined?

LD 2003 does not define ADU. There is a definition in 30-A MRS §4301 and many communities define them in local ordinances. This is addressed in rule.

Can an ADU be larger than a primary structure?

Yes, unless the municipality limits the maximum size of an ADU.

Can a previously illegal ADU be legalized under this section?

Yes, as long as an ADU owner follows the permitting procedures and life safety requirements outlined by their municipality (if applicable).

If a pre-existing single-family dwelling is on a non-conforming lot (with respect to size, frontage, or similar characteristics) can an ADU be built on that lot?

An accessory dwelling unit may be allowed on a lot regardless of whether the lot conforms to existing dimensional requirements of the municipality. Any new structure constructed on the lot as an accessory dwelling unit must meet the existing dimensional requirements as required by the municipality for an accessory structure.

Subsection 7 says that verification must be provided to “the municipality” of water and wastewater services. Who should that verification be provided to?

These capacity issues should be reviewed by the municipal staff or board that would normally review these issues as part of any housing development.

What does “in any area in which housing is permitted” mean?

This phrase requires municipalities to allow one accessory dwelling unit on any lot with a single-family dwelling unit located in an area allowing residential uses, regardless of zoning district designation. This does not include congregate living settings, lodging homes, residence halls, or other similar types of buildings.

If a parcel has an existing two-unit structure, does subsection 1 allow an ADU to be built?

No, though a municipality would have the ability to allow that.

What if a community does not use Certificates of Occupancy?

Subsection 4 says that the municipality will “certify [a] structure for occupancy.” This requirement should be met for new housing developments under this section the same way they would be for any other housing, whether through a formal Certificate of Occupancy or otherwise.

What is meant by “potable” water?

This is addressed in rule.

What if housing is allowed in an area but only as a conditional use?

Housing would be considered allowed in that area for the purposes of subsection 1. A conditional use shall be viewed as a permitted use.

What does “attached to an existing structure” mean?

The rule defines the word “attached.” Municipalities are not required to adopt this definition in local ordinance, but must adopt a definition that is consistent with, and no more restrictive, than the definition in rule.

LD 2003 allows an ADU to be built that is “a new structure on the lot for the primary purpose of creating an accessory dwelling unit.” What does this mean?

This provision allows a new structure to be built on a lot with an existing single-family dwelling unit, as long as the main reason for building the structure is to support human habitation. Local ordinance can define primary purpose further.

Can a municipality require lot area requirements for the addition of an ADU on a lot with an existing single-family home?

No. A municipality must exempt an ADU from density and lot area requirements. The setback and other dimensional requirements, however, continue to apply unless the municipality makes this more permissive for an ADU.

Section 6 allows for the construction of an ADU within an “existing dwelling unit.” What does “existing dwelling unit” mean?

“Existing dwelling unit” means a dwelling unit in existence on a lot at the time of submission of a permit application to build an additional unit on that lot. If a municipality does not have a permitting process, the dwelling unit on a lot must be in existence at the time construction begins for an additional unit on a lot.

Parking for ADUs

Example Parking Requirement

NOT PERMITTED



Single Family Home
2 spaces minimum



Single Family Home + ADU
3 spaces minimum



PERMITTED



Single Family Home
2 spaces minimum



Single Family Home + ADU
2 spaces minimum



This example applies to towns with minimum parking requirements.
For towns without parking restrictions, no additional restrictions would be imposed.

Housing Goals & Fair Housing

MRSA §13056, sub-§9 AND 30-A MRSA §4364-C

Section 3 directs the Department of Economic & Community Development, in coordination with Maine-Housing, to develop a statewide housing production goal and regional production goals based on that statewide goal. In doing so, the section instructs the Department to set benchmarks for meeting those goals, as well as to consider information provided by municipalities on current and potential housing development and permits.

Section 7 outlines ways municipalities can play a role in achieving those state and regional goals. It states that municipalities must ensure that local ordinances and regulations are designed to affirmatively further the purposes of the Federal Fair Housing Act, as well as the Maine Human Rights Act, as part of meeting the housing goals. It also explicitly authorizes municipalities to establish and enforce regulations related to short-term rentals to help meet those goals.

QUESTIONS AND ANSWERS ON SECTIONS 3 & 7

This guidance represents the interpretation of LD 2003 and the proposed rule language. This guidance may be updated once the rule is adopted.

What obligations do the affirmatively furthering fair housing provisions put on municipalities that didn't already exist before LD 2003 passed?

Until recently, the link between land use regulation and fair housing was often not recognized. Section 7 clarifies that municipalities must ensure that zoning and land use ordinances and regulations are designed to affirmatively further the purposes of these state and federal laws.

What happens if local, regional or statewide housing goals are not met?

These sections do not set forth any specific penalties for not meeting these goals.

How does this relate to local Growth Management programs and comprehensive plans?

Local comprehensive plans, while not regulatory documents, should not conflict with these sections. The regulations for comprehensive plans under Chapter 208 state that communities should “[s]eek to achieve a level of at least 10% of new residential development built or placed during the next decade be affordable.”

Do municipalities have to regulate short term rentals?

No.



GENERAL QUESTIONS

This guidance represents the interpretation of LD 2003 and the proposed rule language. This guidance may be updated once the rule is adopted.

What happens if a municipality does not act to update local ordinances, or tries to act and the updates are not approved by the local legislative body?

LD 2003 is an express preemption on municipal home rule authority. Therefore, any ordinance or regulation that is not consistent with the law may be challenged as invalid. Municipalities are encouraged to contact legal counsel to discuss how the law will affect the enforcement of existing ordinances and regulations.

If a town does not have growth areas as defined by section 4349-A, subsection 1, paragraph A or B, and does not have any areas served by water or sewer, does it need to comply with LD 2003?

These communities would not be subject to the affordable housing density provisions in Section 4, and would not have areas that are required to allow up to four units on a residential lot as per Section 5. Other sections of LD 2003 would apply.

How will LD 2003's requirements be related to municipal comprehensive plans?

Comprehensive plans seeking a finding of consistency under the regulations in Chapter 208 should meet those requirements. Since a comprehensive plan is not a regulatory document, LD 2003 would not create any additional requirements. However, zoning ordinances adopted in a municipality would have to be consistent with both a local comprehensive plan and LD 2003.

Is LD 2003 a model ordinance for use in local zoning?

LD 2003 is not a model ordinance. Communities will be able to seek funding from the Housing Opportunity Program to develop new ordinances.

Can developers “double count” bonuses from various sections?

This issue is outlined in §4364-A Section 2.A. and §4364-B Section 3.B. Developers may only “double count” bonuses from various sections on a lot if this is permitted by the municipality in which the lot is located.

Sections 4, 5, and 6 require written verification of “adequate water and wastewater services.” What about a municipal concern that while a specific housing development may not immediately threaten water quality, the cumulative impact of new development may do so in a way that it did not prior to LD 2003?

As was true prior to the passage of LD 2003, communities are free to take regulatory actions as appropriate for protection of natural resources or existing water systems. These can include changes to zoning districts to limit where housing is permitted; changes to lot size requirements; or the creation of an impact fee system consistent with state law to fund environmental or water quality protection.

What does section 4349-A, subsection 1, paragraph A or B say?

It directs the State to make growth-related capital investments only in:

- A. A locally designated growth area, as identified in a comprehensive plan adopted pursuant to and consistent with the procedures, goals and guidelines of this subchapter or as identified in a growth management program certified under section 4347A;*
- B. In the absence of a consistent comprehensive plan, an area served by a public sewer system that has the capacity for the growth-related project, an area identified in the latest Federal Decennial Census as a census-designated place or a compact area of an urban compact municipality as defined by Title 23, section 754; or [PL 1999, c. 776, §10 (NEW).]*

Growth areas are defined in section 4301, subsection 6-C as:

An area that is designated in a municipality’s or multi-municipal region’s comprehensive plan as suitable for orderly residential, commercial or industrial development, or any combinations of those types of development, and into which most development projected over 10 years is directed.



RULEMAKING PROCESSES

Sections 4, 5 and 6 authorize rulemaking to be led by the Department of Economic & Community Development, in consultation with the Department of Agriculture, Conservation & Forestry. These rules are considered “routine technical” – meaning they “establish standards of practice or procedure for the conduct of business with or before an agency” and can be approved administratively.

FUNDING FOR TECHNICAL ASSISTANCE

While not part of LD 2003, the supplemental budget for Fiscal Years 2022 and 2023 included Section U-1. 5 MRSA §13056-J, providing funding for a new “Housing Opportunity Program.” That program will “encourage and support the development of additional housing units in Maine, including housing units that are affordable for low and moderate income people and housing units targeted to community workforce housing needs” by supporting “regional approaches, municipal model ordinance development, and ... policy that supports increased housing density where feasible to protect working and natural lands.”

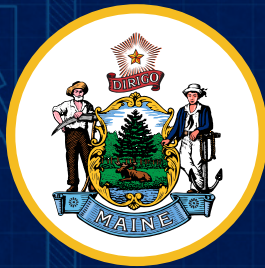
The Housing Opportunity Program will consist of grants to service providers to encourage and support the development of additional housing units in Maine, including housing units that are affordable for low-income and moderate-income individuals and housing targeted to community workforce housing needs. These “Service Provider grants” will be awarded to experienced service providers to support municipal ordinance development, the creation of housing development plans, and public process and community engagement support, and may encourage regional coordination. Additional information regarding the Housing Opportunity Grant Program will be available in Spring of 2023.

Finally, the Housing Opportunity Program will be launching a municipal reimbursement program in the Spring of 2023 to assist municipalities with financial costs incurred from implementing ordinance amendments related to LD 2003. Limited funding is available for qualified expenses. For more information on this program reach out to the Housing Opportunity Program staff.

**Still have questions?
Need more information?**



VISIT: MAINE.GOV/DECD/HOUSINGOPPORTUNITYPROGRAM



**MAINE DEPARTMENT OF
ECONOMIC AND COMMUNITY
DEVELOPMENT**

3 DEFINITIONS

Accessory dwelling unit. A dwelling unit subordinate in size to the principal residential structure(s) on a lot and located either within the principal residential structure(s) or in an accessory structure.

Adult business establishment. Any business, including but not limited to any bookstore, newsstand, novelty store, nightclub, bar, cabaret, amusement arcade, or theater, which:

- A. Keeps for public patronage or permits or allows the operation of any adult amusement device as defined in Chapter 4 of the City of Portland Code of Ordinances; or
- B. Customarily, meaning more often than an average of one calendar week during any calendar month of operation, exhibits motion pictures or displays any other visual representation described or advertised as being “X rated” or “for adults only,” or which customarily excludes persons from any portion of the premises by reason of immaturity of age by the use of such, or similar, phrases; or
- C. Is adjudged to be in violation of 17 M.R.S. §§ 2911, 2912.

Affordable housing. Housing for which the percentage of income a household is charged in rent and other housing expenses (including utilities such as electric, heat, water, sewer, and/or trash that the household pays separately from rent) or must pay in ownership cost (including but not limited to monthly mortgage payments, (including condominium/HOA fees, mortgage insurance, other insurance, and real estate taxes), does not exceed 30% of a household’s income, or other amount

established in City regulations that does not vary significantly from this amount.

After-hours entertainment license. Any of the music, dancing, and special entertainment licenses required or authorized by Chapter 4, Article III of the City of Portland Code of Ordinances.

Agriculture. The practice of farming, including the cultivation of the soil for the growing of crops and rearing of animals to provide food and other products. Agriculture may include nurseries, greenhouses, and truck gardens, provided that there is no sale of products not produced on the premises.

Airport restricted access areas. Runways, taxiways, and other areas of the Jetport accessible to aircraft, whether access is restricted by the Federal Aviation Administration or not.

Alley. Any way designed primarily for vehicular and pedestrian or utility access to the back or side of premises otherwise abutting on a street, except driveways unless officially designated otherwise.

Animal-related services. Establishments principally for the training or boarding of animals. Such uses shall not include veterinary services.

Approval. An affirmative decision on an application, including an approval with conditions.

Appurtenance. A device or structure not designed for human occupancy and attached to the exterior of a building.

Auto service station. A business selling gasoline, diesel, or propane fuel, providing services specific to electric vehicles, or providing motor vehicle repairs including, but not limited to, tune-ups, engine repair, brake work, muffler replacement, tire repair, or similar activities. Such businesses may also include car-washes and/or vacuums.

Back office use. An office-related use with minimal public visitation and minimal direct service to the general public, primarily to provide support services to larger organizations such as educational institutions, social service agencies, or business headquarters.

Bar. Any establishment required to be licensed to sell alcoholic beverages for on-premises consumption, which is not regularly used for the purpose of providing full-course meals, as defined in Title 28-A of the Maine Revised Statutes, on the premises.

Bed and breakfast. A building that contains between two and nine guest rooms; is used to provide or offer overnight accommodations for transient guests; has an owner, manager, or operator living in the building as a permanent resident; does not provide cooking facilities in any of the guest rooms; and does not provide meals other than breakfast, which shall be offered only to overnight guests.

Blasting operations. The use of explosives for purposes of breaking up and removing soil, rock, and ledge, related to construction and development of real estate within the city.

Building. A roofed and walled structure built for permanent use.

Building, accessory. A detached roofed and walled structure that is incidental and subordinate in area and extent, and/or use to the principal building(s) on the property. A lot may have more than one accessory building.

Building addition. Any increase to footprint, floor area, or volume of an existing building.

Building alteration. A change or rearrangement in the structural supports, exterior appearance, or removing from or otherwise affecting the exterior appearance of a building.

Buildings, attached. Two or more independent buildings that share at least one common party wall but have full building separation and independent principal entries; not free-standing. Attached buildings may or may not have common ownership.

Building, principal. The main roofed and walled structure on a lot having the predominant area, extent, and/or use. A lot may have more than one principal building. When a garage is attached to the principal building in a substantial manner as by an enclosed area with roof or common wall, it shall be considered as a part of the principal building.

Clinics. Any establishment where patients are examined and treated by one or more health care providers, such as, but not limited to, physicians, dentists, psychologists, or social workers. Clinics may include laboratory services and facilities for ambulatory or outpatient surgical procedures.



Coastal wetland. All tidal and subtidal lands; all lands with vegetation present that is tolerant of salt water and that occurs primarily in a salt water or estuarine habitat; and/or any swamp, marsh, bog, beach, flat, or other contiguous low land that is subject to tidal action during the highest tide level for the year in which an activity is proposed as identified in tide tables published by the National Ocean Service. Coastal wetlands may include portions of coastal sand dunes.

Commercial vessel. Any watercraft used principally in a business or trade, including common carriers of passenger or freight, whether for governmental, nonprofit, or emergency purposes, but not including pleasure craft used principally for recreational purposes.

Common areas. Portions of a lodging house which are available for use by all residents of the lodging house. Common areas shall include, but are not limited to, one or more of the following: kitchens, living rooms, recreation rooms, improved basements, and finished porches. Bathrooms, stairways, hallways, and storage areas shall not be counted as common areas.

Communication studio. A commercial or public communication facility, including radio and television broadcasting and receiving stations and studios.

Community hall. A building or portion of a building used for social, recreational, artistic, civic, or educational community functions. Such a facility would be open to the public for such functions, which, for example, could include but not be limited to performances, dance, exhibitions, cultural

exchange, training programs and workshops, neighborhood meetings, or gatherings. As part of these functions and activities, it shall be permissible to serve food, subject to other applicable codes and ordinances.

Condominium. Any interest in real estate created pursuant to the Unit Ownership Act, 33 M.R.S. § 560 et seq., or its equivalent, as it may from time to time be amended.

Congregate care facility. A residential development intended to facilitate aging in place that includes individual dwelling units with support services which provide assistance to residents. The population of a congregate care facility shall consist of persons 55 years of age or older and their spouses. A congregate care facility may also accommodate the needs of persons with disabilities and their spouses that are younger than 55 years of age, provided the majority of the residents are 55 years of age or older. Services to be provided shall include the following:

- A. Transportation for essential support activities.
- B. Provision of at least one meal per day.
- C. Programmed social activities which are facilitated by staff.
- D. Provision of personal care services including, but not limited to, housekeeping, laundry, and minimal health monitoring.
- E. Installation of emergency call buttons or systems in each unit.

Correctional pre-release facility. A facility housing up to 12 persons, plus staff, serving a primary clientele of persons in correctional pre-release programs.

Drive-through. A facility which provides a service directly to a motor vehicle occupant and where the customer drives a motor vehicle onto the premises and to a window or mechanical device through or by which the customer is served with or without exiting the vehicle. Drive-throughs do not include major or minor auto service stations.

Drive-through features. Features associated with drive-throughs including but not limited to designated travel or stacking lanes, intercom systems, menu boards, service windows, kiosks, mechanical devices, etc.

Dwelling unit. One or more rooms forming a single unit for habitation by one family, including food preparation, living, sanitary, and sleeping facilities.

Dwelling, multi-family. A building or portion thereof containing three or more dwelling units.

Dwelling, single-family. A single building containing one dwelling unit.

Dwelling, two-family. A single building containing two dwelling units.

Earth-moving activity. Any removal or placement, excavation, filling, stockpiling, or grading of soil, earth, loam, sand, gravel, rock, and other mineral deposits.

Easement. A right, privilege, or liberty which one has in land owned by another for some special and definite purpose.

Emergency operations. Operations conducted for the public health, safety, or general welfare, such as

protection of resources from immediate destruction or loss, law enforcement, and operations to rescue human beings and livestock from the threat of destruction or injury.

Emergency shelter. A facility providing temporary overnight shelter to homeless individuals in a dormitory-style or per-bed arrangement.

Entrance, principal. The main point of access for pedestrians into a building. A building may have more than one principal entrance.

Esplanade. That portion of a street which is located between the curblin and the edge of the sidewalk closest to the street.

Essential services. The construction, alteration, or maintenance of gas, electrical, or communication facilities; steam, fuel, electric power, or water transmission or distribution lines, towers and related equipment; telephone cables or lines, poles, and related equipment; gas, oil, water, slurry, or other similar pipelines; municipal sewage lines, collection, or supply systems; and associated storage tanks. Such systems may include towers, poles, wires, mains, drains, pipes, conduits, cables, fire alarms and police call boxes, traffic signals, hydrants, and similar accessories, but shall not include service drops or buildings which are necessary for the furnishing of such services.

Explosives. Any material or container containing a chemical compound or mixture that is commonly used or intended for the purpose of producing an explosion and that contains any oxidizing and combustible materials or other ingredients in such proportions, quantities, or packaging that an ignition by fire, by friction, by compound or mixture



may cause such a sudden generation of highly heated gasses that the resultant gaseous pressures are capable of producing destructive effects on contiguous objects, but shall not mean the components for handloading rifle, pistol and shotgun ammunition, or fireworks.

Family. One or more individuals related by blood, marriage, civil union, adoption, or guardianship and/or up to eight unrelated individuals living together in a dwelling unit as a single nonprofit housekeeping unit.

Fill. Soil, earth, loam, sand, gravel, rock and other mineral deposits.

Filling. The placement of soil, earth, loam, sand, gravel, rock and other mineral deposits. Filling shall include stockpiling.

Fixture, fully shielded. A light fixture or luminous tube constructed and mounted such that all light emitted by the fixture or tube, either directly from the lamp, tube, or a diffusing element, or indirectly by reflection or refraction from any part of the light fixture, is projected below the horizontal. If the lamp or tube, any reflective surface, or lens cover (clear or prismatic) is visible when viewed from above or directly from the side, from any angle around the fixture or tube, the fixture or tube is not fully shielded.

Flag. A fabric sheet of square, rectangular, or triangular shape having no enclosing or supporting framework that is typically mounted on a pole.

Foundation. The supporting substructure of a building or other structure, excluding wooden sills

and post supports, but including basements, slabs, frost walls, or other base consisting of concrete, block, brick, or similar material.

Freshwater wetland. Freshwater swamps, marshes, bogs, and/or similar areas which are both:

- A. Of ten or more contiguous acres or of less than ten contiguous acres and adjacent to a surface water body except for any river, stream or brook such that, in a natural state, the combined surface area is in excess of ten acres or of less than ten acres that is depicted on the Shoreland Zoning map.
- B. Inundated or saturated by surface or ground water at a frequency and for a duration sufficient to support, and which under normal circumstances do support, a prevalence of wetland vegetation typically adapted for life in saturated soils.

Freshwater wetlands may contain small stream channels or inclusions of land that do not conform to the criteria of this definition.

General office. An office for the conducting or managing of a business or the practice of a profession, including that of a licensed health care provider, so long as such office does not include laboratory services and facilities for ambulatory surgical procedures.

General services. Establishment primarily engaged in rendering services to persons or business on a fee basis, including but not limited to banks, health clubs, laundries, employment services, management services, personnel services, or maintenance services.

Handicapped family unit. A dwelling unit which provides living facilities for handicapped persons. A handicapped family unit may also provide counseling and support services. Staff members may also be included in the population.

Helistop. An area used for the landing of helicopters at any location other than an airport. Such area shall include a landing area or pad, and may include parking required for access to the landing area or pad, a loading and unloading area for emergency vehicles, and other related facilities other than maintenance and repair facilities.

Hospital. An institution providing health services, primarily on an inpatient basis, and medical or surgical care of the sick or injured, including as an integral part of the institution such related facilities as laboratories, outpatient departments, training facilities, central service facilities, and staff offices.

Hostel. An overnight lodging facility for transient guests that provides sleeping rooms and common spaces for cooking. A hostel shall not be used as an emergency shelter.

Hotel. A building used for more or less temporary occupancy of individuals who are lodged with or without meals.

Impervious surface. Area covered with low-permeability material that is highly resistant to infiltration by water, such as asphalt, concrete, or rooftop, and areas such as gravel roads and unpaved parking areas that will be compacted through design or use to reduce their permeability.

Industrial, high-impact. Industrial activity involving the manufacturing, packaging, assembly, or

distribution of finished products from either raw materials or previously prepared material which are generally incompatible with residential, commercial, and lower-impact industrial uses and sensitive natural areas due to their high generation of traffic, noise levels, emissions, lighting, and odors.

Industrial, low-impact. Industrial activity involving the manufacturing, packaging, assembly, or distribution of finished products from previously prepared material, including but not limited to the following: artist studios, bakeries; breweries; distilleries; bottling; coffee roasters; commercial kitchens; pharmaceuticals; machine shops; watchmakers; makers of precision instruments, musical instruments, toys and sporting goods, pottery and ceramics using only previously pulverized clay, wood products, jewelry; assembly of electrical components; canteen services; tool and die shops; plant and tree nurseries; and the packaging of foods. Low-impact industrial uses do not include the processing of raw materials or salvaging operations. Low-impact industrial uses are generally compatible, due to their size and nature of impact, with residential, commercial and other low impact industrial uses.

Intermediate care facility. A facility which provides, on a regular basis, health-related care and services for more than 13 individuals who do not require the degree of care and treatment which a hospital or extended care facility is designed to provide but who, because of their mental or physical condition, require such care and services above the level of room and board. Said facility must be licensed as a board care, residential care facility or equivalent pursuant to the regulations



promulgated by the State of Maine Department of Health and Human Services.

Kitchen facilities. Facilities used for the preparation of meals, including refrigerators and devices used for the cooking and preparation of food.

Lodging house. A house, building or portion thereof containing two or more rooming units, as well as common areas, and providing such units to individuals on not less than a monthly basis for compensation.

Long-term or extended care facility. An institution or a distinct part of an institution that is licensed or approved to provide full-time convalescent or chronic care, or health care under medical supervision for 24 or more consecutive hours, to nine or more individuals who, by reason of advanced age, illness, or infirmity are unable to care for themselves, and who are not related to the governing authority by marriage, blood, or adoption.

Lot. A parcel or area of land that is designated as an individual unit for use, development, or ownership that is either: a) a parcel or area of land that is separately described in a deed or on a plan recorded in the Cumberland County Registry of Deeds; b) a contiguous combination of such lots under common ownership and designated as one unit for development; or c) a newly established parcel meeting all the dimensional requirements of the zone in which it is located.

Lot of record. A nonconforming parcel or area of land that: a) is separately described in a deed or on a plan recorded in the Cumberland County Registry of Deeds as of the date designated in the relevant

provision of this chapter and b) conformed to the requirements of this chapter as of the date designated in the relevant provision of this chapter.

Low-income household. A household having an income not exceeding 80% of median income for area of residence as set forth in regulations promulgated from time to time by the United States Department of Housing and Urban Development pursuant to 42 U.S.C. sections 1437 et seq.

Low-income housing unit for rent. A dwelling unit for which:

- A. The rent is affordable to a household earning 80% or less of Area Median Income (AMI) as defined by the United States Department of Housing and Urban Development (HUD).
- B. The unit is rented to a household earning 80% or less of AMI.
- C. The requirements of (A) and (B) above are limited by deed restriction or other legally binding agreement for the applicable length of time in this ordinance.

Low-income housing unit for sale. A dwelling unit for which:

- A. The sale price is affordable to a household earning 100% or less of Area Median Income (AMI).
- B. The unit is sold to a household earning 100% or less of AMI.
- C. The requirements of (A) and (B) above are limited by deed restriction or other legally binding agreement for future sales for the applicable length of time in this ordinance.

Manufactured housing. A structural unit or units designed for residential occupancy and constructed in a manufacturing facility and then transported by

the use of its own chassis or placement on an independent chassis to a building site. The term includes any type of building which is constructed at a manufacturing facility and then transported to a building site where it is utilized for housing and may be purchased or sold by a dealer in the interim. For purposes of this article, two types of manufactured housing are included. They are:

- A. Those units constructed after June 15, 1976, which the manufacturer certifies are constructed in compliance with the standards required by the United States Government Department of Housing and Urban Development, as such standards are from time to time revised or amended, meaning structures, transportable in one or more sections, which in the traveling mode are 14 body feet or more in width and are 750 or more square feet, and which are built on a permanent chassis and designed to be used as dwellings, with or without permanent foundations, when connected to the required utilities, including the plumbing, heating, air conditioning, and electrical systems contained therein. This term also includes any structure which meets all the requirements of this subparagraph except the size requirements and with respect to which the manufacturer voluntarily files a certification required by the Secretary of the United States Department of Housing and Urban Development and complies with the standards established under the National Manufactured Housing Construction and Safety Standards Act of 1974, United States Code, Title 42, Section 5401 et seq.; and
- B. Those units constructed after June 15, 1976, which the manufacturer certifies are constructed in compliance with the state's

Manufactured Housing Act and regulations, meaning structures, transportable in one or more sections, which are not constructed on a permanent chassis and are designed to be used as dwellings on foundations when connected to required utilities, including the plumbing, heating, air conditioning, or electrical systems contained therein.

Any unit which does not fall within the definitions of this section and which is legally sited within the city on December 18, 1989, may be relocated to any location in the city in which manufactured housing is allowed.

Manufactured housing park. A parcel of land under unified ownership approved by the Planning Board under 30-A M.R.S. § 4358 for the placement of single-component manufactured housing.

Marijuana cultivation facility. A cultivation facility required to be licensed pursuant to 28-B M.R.S. § 201 or any other facility engaged primarily in the business of planting, propagation, growing, harvesting, drying, curing, grading, trimming, or other processing of marijuana, including mature marijuana plants, immature marijuana plants, seedlings, and marijuana seeds, for use or sale.

Marijuana manufacturing facility. A manufacturing facility required to be licensed pursuant to 22 M.R.S. § 2423-F or 28-B M.R.S. § 201.

Marijuana product. As defined by 22 M.R.S. § 2422 or 28-B M.R.S. § 102.

Marijuana retail store. A retail establishment licensed to sell marijuana, marijuana products, immature marijuana plants, and seedlings to adult

use or medical marijuana customers. A marijuana retail store is only authorized as a principal use, and is not permitted as an accessory use. A marijuana retail store may not exceed a maximum gross floor area of 2,000 square feet. A marijuana retail store shall not include a registered dispensary.

Marijuana testing facility. A facility licensed to develop, research and test marijuana, marijuana products and other substances as defined by 22 M.R.S. § 2422 or 28-B M.R.S. § 102.

Marina. A commercial operation providing floats, slips, and piers intended primarily for berthing of noncommercial vessels and the provision of related services such as supplies, fuel, equipment and repairs, which may be provided both to tenants and non-tenants.

Military personnel berthing. A building, or portion thereof, which is primarily used as, and intended for, temporary living quarters for military personnel.

Moderate-income household. A household having an income not exceeding 120% of median income for area of residence as set forth in regulations promulgated from time to time by the United States Department of Housing and Urban Development pursuant to 42 U.S.C. sections 1437 et seq.

Multi-family development. The construction or creation of three or more dwelling units on any parcel of land or the addition of two or more dwelling units cumulatively within a three-year period.

~~**Multiplex.** A residential development consisting of three or more horizontally or vertically attached~~

~~dwelling units, or a series of such attached dwelling units, and the construction of at least one building.~~

Neighborhood center. A building or portion of a building used for recreational, artistic, social, educational, health, culture, or similar activities and services, usually owned and operated by a public or nonprofit group or agency. As part of these functions and activities, it shall be permissible to serve food, subject to other applicable codes and ordinances.

Non-commercial vessel berthing. The use of berthing space for berthing of watercraft other than commercial vessels. Berthing space used in the following manner shall not be included in the calculation of the number of linear feet under this use category:

- A. Space used principally for sale or repair of vessels.
- B. Commercial vessel tenant space used by a noncommercial vessel for a period not exceeding ten consecutive days while the primary commercial vessel tenant is conducting its business or trade.

Normal high-water line (non-tidal waters). That line which is apparent from visible markings, changes in the character of soils due to prolonged action of the water or changes in vegetation, and which distinguishes between predominantly aquatic and predominantly terrestrial land. Areas contiguous with rivers that support non-forested wetland vegetation and hydric soils and that are at the same or lower elevation as the water level of the river during the period of normal high-water are considered part of the river.

Office park. Separate office buildings planned, constructed, or managed on an integrated coordinated basis.

Off-peninsula. All land located north of I-295.

On-peninsula. All land located south of I-295.

Open space. Any park and any other area outside of a building open to the public.

Owner. Any person that has any interest, legal or beneficial, in any parcel or lot.

Piers, docks, wharves, bridges and other structures and uses extending over or beyond the normal high-water line or within a wetland, temporary. Structures which remain in or over the water for less than seven months in any period of 12 consecutive months.

Piers, docks, wharves, bridges and other structures and uses extending over or beyond the normal high-water line or within a wetland, permanent. Structures which remain in or over the water for seven months or more in any period of 12 consecutive months.

Place of assembly. A building or portion of a building used as a community hall, neighborhood center, private club, or fraternal organization, or place of religious assembly. This definition shall not include buildings or portions of buildings used as a community hall, neighborhood center, private and fraternal organization, or place of religious assembly where 15 or fewer people, not including the permanent residents of a single-family dwelling, assemble.

Place of religious assembly. A building or portion of a building used for religious worship or instruction including, but not limited to, churches, synagogues, masjids, mosques, and other places of worship.

Planned residential unit development (PRUD). A residential subdivision consisting of attached or detached dwellings intended for separate ownership and land to be owned and used in common, with open spaces, recreational areas, access ways, and buildings which are designed, built, and managed in accordance with a unified development plan.

Planned unit development (PUD). A development consisting of either detached or attached single-family dwelling units and commercial or other uses, on substantially-sized properties of greater than 20 acres and designed to be compatible with the surrounding built and natural environment.

Plant canopy. As defined by 28-B M.R.S. § 102.

Preschool facility. Facility which provides a regular program of care and protection for children generally younger than those attending elementary school, which may also encompass daycare facilities.

Private club or non-profit social and recreational facility. A private club or nonprofit social and recreational facility is open exclusively to members and to their bona fide guests accompanying them, in order to promote fellowship, social living, proper recreation, civic responsibility, neighborhood responsibility, community welfare, or other endeavors. It shall be permissible to serve food and meals on such premises provided adequate dining



room space and kitchen facility are available and are provided within all regulations of this Land Use Code and other applicable codes and ordinances.

Recent flood plain soils. Recent flood plain soils include the following soil series as described and identified by the National Cooperative Soil Survey: Alluvial, Charles, Cornish, Fryeburg, Hadley, Limerick, Lovewell, Medomak, Ondawa, Podunk, Rumney, Saco, Suncook, and Winooski.

Recreation and amusement centers. Facilities equipped for the conduct of sports or indoor leisure time recreation activities, including games of skill or games of chance licensed either by the City of Portland or by the State of Maine. Such facilities may limit admission either to members or to persons paying an entrance fee.

Registered dispensary. A registered medical marijuana dispensary as defined by 22 M.R.S. § 2422.

Registered patient. As defined by 22 M.R.S. § 2422.

Repair services. Establishments primarily engaged in rendering services related to the maintenance or repair of goods. In industrial zones only, repair services shall include motor vehicle repair services.

Restaurant. Any food service establishment with indoor seating capacity for ten or more patrons.

Retail. Any shop or store offering goods or merchandise to the general public for direct consumption and not for resale, or food service establishment with indoor seating capacity for nine or fewer patrons. Retail shall not include gasoline, diesel, or propane fuel sales.

Roadway. That portion of a street between the regularly established curblines, or that part of a street or alley devoted to vehicular traffic.

Rooming unit. One or more rooms forming a single unit used, or intended to be used, for living and sleeping purposes by an individual or a family, but not designed for food preparation. In a suite of rooms, each room that provides sleeping accommodations shall be counted as one rooming unit for the purpose of this chapter.

Self-storage facility. A fully enclosed building with individual, secured units (accessed with or without supervision) used for the exclusive purpose of storage of non-hazardous business or personal materials.

Sexually explicit. The display or depiction of sex organs during actual or simulated sexual intercourse or sexual acts as defined in 17 A M.R.S. § 251.

Sheltered care group home. A facility which, in addition to providing food and shelter to a defined population of up to 12 individuals, provides guidance or counseling services as a primary function of the facility.

Shore frontage. The length of a lot bordering on a water body or wetland measured in a straight line between the intersections of the lot lines with the shoreline.

Sidewalk. That portion of a street not included in the roadway, and devoted in whole or part to pedestrian traffic.

Site. All contiguous land under the same ownership or control, whether proposed for development or

not, except where development is limited to a lot or lots within a subdivision.

Small-scale marijuana caregiver. A registered caregiver who sells or dispenses marijuana to no more than five individual registered patients in any one calendar month; does not process or manufacture marijuana using chemicals or solvents; and cultivates no more than: 1) 250 square feet of plant canopy where located in a single-family dwelling or commercial space; or 2) 125 square feet of plant canopy where located in a dwelling unit within a two-family or multi-family building.

Solar access. Space open to the sun and clear of overhangs or shade, including orientation of buildings and lots to the sun, so as to permit the use of active and/or passive solar energy systems on individual properties.

Solar energy system. A complete assembly consisting of one or more solar collectors and associated mounting hardware or equipment, intended to provide for the collection, storage, and distribution of solar energy for heating or cooling, electricity generation, or solar/thermal hot water systems. Solar energy systems shall include the following:

- A. Accessory solar energy system. A system as defined above where power generation is incidental to a principal use, which may take the form of either a building integrated or roof-mounted solar array of any size, or a ground-mounted array occupying less than 1,000 square feet of air-space over ground area.
- B. Minor solar energy system. A system as defined above where power generation is considered a principal use, which may take the form of either

a building- or roof-mounted solar array of any size, or a ground-mounted system occupying between 1,000 and 9,999 square feet of ground area.

- C. Major solar energy system. A system as defined above where power generation is considered a principal use, which may take the form of either a building or roof-mounted solar array of any size, or a ground-mounted system occupying greater than 10,000 square feet of ground area.

Solar energy system, building-integrated. A solar energy system that is an integral part of a principal or accessory building and include, but are not limited to, photovoltaic or hot water systems that are contained within roofing materials, windows, walls, skylights and awnings.

Solar energy system, ground-mounted. Also known as free-standing solar energy systems, a solar energy system that is structurally mounted to the ground. The panels may be stationary or revolving and of any size.

Solar energy system, roof-mounted. A solar energy system in which solar panels are mounted on top of the structure of a roof either as a flush-mounted system or as modules fixed to frames which can be tilted toward the south at an optimal angle.

Sounds, impulse. Sound events characterized by brief excursions of sound pressure, each with a duration of less than 1 second.

Sounds, tonal. Sound waves usually perceived as a hum or whine because their instantaneous sound



pressure varies essentially as a simple sinusoidal function of time.

Special needs independent dwelling unit. A dwelling unit developed and managed by a nonprofit organization for habitation by persons with special social, physical or mental needs beyond strictly economic needs. Such persons shall be provided required levels of supervision, care and/or counseling services appropriate to their special needs, and the services shall be provided by either the sponsoring nonprofit agency or through another entity with which the agency has entered into a contractual arrangement.

Sports complex. One or more facilities located on the same parcel of land where athletic events are held and with a combined seating capacity of at least 6,000 seats.

Stockpiling. Any placement or creation of piles or loads of soil, loam, sand, gravel, rock, or other mineral deposits upon a site for the purpose of storage, warehousing, or reserving for future use.

Stormwater retention area. A pond or basin used for the permanent storage of stormwater runoff.

Stormwater detention area. A storage area for the temporary storage of stormwater runoff which does not contain water during non-storm conditions.

Stream. A free-flowing body of water from the outlet of the confluence of two perennial streams as depicted on the most recent edition of a United States Geological Survey 7.5-minute series topographic map, or if not available, a 15-minute series topographic map, to the point where the

body of water becomes a river or flows to another water body or wetland within a shoreland area, or any stream designated within a Stream Protection Zone.

Street. A public way established by or maintained under public authority, or a way dedicated to the use of the public and appearing on the official map of the city.

Street line. The line of demarcation between private property and a street.

Street, cul-de-sac or dead end. A street with only one outlet.

Structure. Anything constructed or erected of more than one member having a permanent or semi-permanent location on another structure or in or on the ground, including without limitation buildings, fences, gazebos, signs, antennas, satellite sending or receiving dishes, and swimming pools. Stockpiles shall be considered structures for the purposes of dimensional requirements.

Studios for artists and craftspeople. A facility for the production of arts and crafts products such as paintings, sculpture, or other arts, or the practice of arts such as music or dance, or the production of custom, hand-crafted, or limited production of products such as furniture, wood, clay, and metal products, publications, and similar low-impact arts and crafts activities.

Subdivider. Any individual, firm, association, syndicate, partnership, corporation, trust, or any other legal entity commencing proceedings under

these regulations to effect a subdivision of land hereunder for himself, herself, or for another.

Subdivision. As defined in 30 A.M.R.S. § 4401 and 4402.

Tasting room. A facility for the sampling of beer, wine, spirits, other alcoholic or non-alcoholic beverages, or food.

Telecommunication tower. Radio masts or tower structures built primarily to hold telecommunication antennas.

Tenant. Any occupant in lawful possession of a rental unit, whether by lease, sublease, or otherwise.

Theater or performance hall. Any establishment devoted to showing motion pictures, or for dramatic, musical, or live performances.

Transient guest. A person who occupies a facility offering accommodations on an overnight basis for compensation and whose actual occupancy is limited to no more than 15 days out of any 60-day period.

Tributary stream. A channel between defined banks created by the action of surface water, which is characterized by the lack of terrestrial vegetation or by the presence of a bed, devoid of topsoil, containing waterborne deposits or exposed soil, parent material or bedrock; and which is connected hydrologically with other water bodies. Tributary stream does not include rills or gullies forming because of accelerated erosion in disturbed soils where the natural vegetation cover has been removed by human activity.

Upland edge of a wetland. The boundary between upland and wetland. For purposes of a coastal wetland, this boundary is the line formed by the landward limits of the salt tolerant vegetation and/or the highest annual tide level, including all areas affected by tidal action. For purposes of a freshwater wetland, the upland edge is formed where the soils are not saturated for a duration sufficient to support wetland vegetation, or where the soils support the growth of wetland vegetation but such vegetation is dominated by woody stems that are six meters or taller.

Use. The purpose for which land or structures thereon is designed, arranged, or intended to be occupied, or for which it is occupied, maintained, rented, or leased.

Utility substation. Any sewage or water pumping station, electric power substation, transformer station, telephone equipment enclosures, or other similar structures owned or operated by a utility.

Vegetation. All live trees, shrubs, ground cover, and other plants including, without limitation, trees both over and under four inches in diameter, measured at four and one-half feet above ground level.

Very low-income household. A household having an income not exceeding 50% of median income for area of residence as set forth in regulations promulgated from time to time by the United States Department of Housing and Urban Development pursuant to 42 U.S.C. section 1437 et seq.

Warehousing, storage, and distribution. The storage of goods, wares, and merchandise in a warehouse from which distribution occurs. May

include wholesale use, but not retail or direct sales to consumers.

Watercourse. Any natural or artificial stream, river, creek, ditch, channel, swale, canal, conduit, culvert, drain, waterway, gully, ravine, or wash in which water flows in a definite direction or course, either continuously or intermittently, or which has a definite channel, bed, and banks, and includes any area adjacent thereto subject to inundation by reason of overflow or floodwater.

Water-dependent uses. Those uses that require, for their primary purpose, location on submerged lands or that require direct access to, or location in, coastal or inland waters and which cannot be located away from these waters.

Wetlands (outside of shoreland zones). Those areas which have two or more of the following:

- A. A water table at or near the surface during the growing season;
- B. Very poorly drained soils, including Sebago mucky peat; or
- C. Obligate wetland vegetation.

Very poorly drained soils and obligate wetland vegetation shall be as defined and illustrated in the United States Department of Interior, Fish and Wildlife Service publication of Wetland Plants of the State of Maine (1986).

Wind energy system. A wind energy generator and all associated facilities.

Wind energy system, useful life. The period for which the system has been designed by the manufacturer to operate in a safe manner, including

the period during which new parts and refurbishment allow it to continue operating safely.

Wholesale. Sale for resale, not for direct consumption.

Workforce housing unit for rent. A dwelling unit for which:

- A. The rent is affordable to a household earning 80% or less than of AMI.
- B. The unit is rented to a household earning 80% or less of AMI.
- C. The requirements of (A) and (B) above are limited by deed restriction or other legally binding agreement for the applicable length of time in this ordinance.

Workforce housing unit for sale. A dwelling unit for which:

- A. The purchase price is affordable to a household earning 80% or less of AMI.
- B. The unit is sold to a household earning 80% or less of AMI.
- C. The requirements of (A) and (B) above are limited by deed restriction or other legally binding agreement for the applicable length of time in this ordinance.

6 USE STANDARDS

6.1 APPLICABILITY

The use of buildings, structures, and land are governed by this article, except when superseded by other applicable laws or ordinances. It is the intent that, when in doubt, this article should be interpreted to accommodate the goals of the City's Comprehensive Plan and other plans.

6.2 DETERMINATION OF USE

6.2.1 Use tables

Tables 6-A to 6-F shall determine if a use is permitted (●), conditional (◐), or not permitted (◑), as a principal use within a zone. Unless otherwise noted, where a use is listed in terms of square footage, square footage figures shall correspond to the total floor area of the use.

6.2.2 Unlisted uses

- A. Uses not expressly listed as permitted or conditional in Tables 6-A to 6-F are prohibited as principal uses except that a use may be permitted subject to meeting the following performance-based standards:
 - 1. The proposed use is consistent with the purposes of the zone.
 - 2. The proposed use is closely related to a permitted or conditional use in terms of character, scale, and external impacts.
 - 3. The buildings and structures associated with the proposed use are designed and operated so that it will prevent undue adverse environmental impacts, substantial diminution of the value or utility of

neighboring structures, or significant hazards to the health or safety of neighboring residents by controlling noise levels, emissions, traffic, lighting, odor, and any other potential negative impacts.

- B. The review authority shall determine whether the uses not listed as permitted or conditional uses meet the above standards. If it is determined that the use does not meet the above criteria, it shall not be permitted.
- C. The review authority may impose reasonable conditions of approval on the proposed use to ensure that it is similar in character and impact to a permitted or conditional use.

6.2.3 Multiple uses

A site may contain more than one principal use, so long as each principal use is allowed within the zone.

6.3 CHANGE OF USE

A change of use from one use in these tables to another is governed by the requirements of the new use. The use of any part of any building, structure, or property shall not be changed to any other use, whether principal or accessory and whether alterations in the building, structure, or property are involved or not, until a permit and certificate of occupancy authorizing such change of use has first been secured from the Building Authority in accordance with Chapter 6 of the City of Portland Code of Ordinances.

TABLE 6-A: PERMITTED AND CONDITIONAL USES IN RESIDENTIAL ZONES

		R-1	R-2	R-3	R-4	R-5/R-5a	R-6/R-6a	Use Standards
Residential	Single-family dwellings	●	●	●	●	●	●	
	Two-family dwellings				●	●	●	6.4.2
	Multi-family dwellings			○		○ ¹ /● ²	●	6.4.2, 6.5.6(G)
	Multiplex				○	● ⁺		6.4.12
	Congregate care facilities					● ²		
	Handicapped family units	●	●	●	●	●	●	
	Planned Residential Unit Developments			● ⁴		● ⁴		
	Special needs independent dwelling units				●	● ¹	●	
	Lodging houses					○ ^{1,3}	●	6.4.10 9
	Sheltered care group homes	○	○	○	○	○	○	6.5.6(K)
Institutional	Elementary, middle, and secondary schools	○	○	○	○	○ ¹	○	6.5.6(F)
	Governmental uses	●	●	●	●	●	●	
	Hospitals			○		○ ¹	○	
	Intermediate care facilities	○	○	○		○ ¹ /● ²	○	
	Long-term and extended care facilities	○	○	○		○ ¹ /● ²	○	6.5.6(F)
	Places of assembly (<10,000 SF)	○	○	○	○	○	○	
	Places of assembly (>10,000 SF)	○	○	○	○	○	○	
	Preschool facilities	○	○	○	○	○	○	6.5.6(I)
	Post-secondary schools		○			○ ¹	○	6.5.6(F)
	Bed and breakfasts						●/○ ⁵	6.4.5 4
Comm.	General offices (<5,000 SF)						○	6.5.6(C)
	Hostels						●/○ ⁶	6.4.9 8
	Agriculture	●	●					
Other	Cemeteries	○	○		●		●	
	Off-street parking			○	○	○ ¹	○	6.5.6(H)
	Parks and open spaces	●	●	●	●	●	●	
	Raising of domesticated animals	○						6.5.6(J)
	Solar energy system (minor)	●	●	●	●	●	●	6.4.16
	Utility substations	○	○	○	○	○	○	6.5.6(L)

¹ In the R-5 zone only.² In the R-5a zone only.³ Conversions of existing two-family or multiplex structures into lodging houses are permitted as a conditional use, provided that the lodging house shall not be located within 500 ft. of another as measured along street lines.⁴ Must consist of horizontally or vertically attached dwelling units, or a series of such dwelling units, with all land owned and used in common. PRUDs shall be subject to review and approval by the Planning Board under Article 15.⁵ Permitted if a conversion of a structure existing as of 3/3/97 to up to four guest rooms and conditional if a conversion of the same to five to nine rooms.⁶ Permitted if for no more than 10 overnight transient guests and conditional if for between 11 and 20 overnight transient guests. An owner, manager, or operator shall be a permanent resident of the building.

TABLE 6-B: PERMITTED AND CONDITIONAL USES IN ISLAND ZONES

	IR-1	IR-2	IR-3 ¹	I-B	Use Standards
Residential	Single-family dwellings	●	● ²	●	
	Two-family dwellings			○	6.4.2,
	Multi-family dwellings			○	6.5.6(G)
	Handicapped family unit	●	●	●	
	Planned Residential Unit Developments	●	●		
	Lodging houses		○ ³	● ³	
Institutional	Elementary, middle, and secondary schools	○	○	○	
	Educational facilities (including seasonal camps)	○	○		
	Governmental uses	○	○	○	6.5.6(F) ⁶
	Places of assembly (<10,000 SF)	○	○	○	
	Places of assembly (>10,000 SF)	○	○	○	
	Preschool facilities	○	○	○	6.5.6(I)
Commercial/Service	Auto service stations			○	6.5.6(A)
	Bed and breakfasts			● ⁴	
	General services (<5,000 SF)			●	
	Hotels		● ⁵	○ ⁵	
	Restaurants		●	●	
	Retail (<10,000 SF)		●	●	
Other	Studios for artists and craftspeople			●	
	Agriculture	●			
	Boathouses and storehouses for fishing equipment	●	●	●	
	Campgrounds	○	●		6.4.6 5
	Cemeteries	○	○		
	Marinas and yacht clubs		●	●	
	Off-street parking			●	
	Parks and open spaces	●	●	●	
	Raising of domesticated animals	○			6.5.6(J)
	Solar energy system (minor)	●	●	●	6.4.16
	Utility substations	○	○	●	6.5.6(L)
	Wharves, piers, docks, and landing ramps	○	○	●	

¹ All uses within the IR-3 permitted only within a PUD with a minimum total area of 20 acres of contiguous land subject to the standards of Subsection 6.4.14.

² Single-family attached permitted provided that new construction shall be limited to no more than six attached dwellings per building.

³ With greater than two but no more than nine rooming units.

⁴ Permitted on Peaks Island only.

⁵ Maximum 50 rooms.

⁶ The standards of Subsection 6.5.6(F) shall not apply to institutional uses within the I-B zone. In the IR-1 and IR-2 ones, institutional uses are subject to the standards of Subsection 6.5.6(F) only if the total land area of the use is two acres or more.

TABLE 6-C: PERMITTED AND CONDITIONAL USES IN MIXED-USE ZONES

	B-1/B-1b	B-2/B-2b/ B-2c	B-3/B-3b/ B-3c ¹¹	B-4	B-5/ B-5b	B-6	B-7	Use Standards
Residential	Single-family dwellings	●	●		●	●	●	
	Two-family dwellings	●	●		●	●	●	
	Multi-family dwellings	● ¹	●		●	●	●	
	Congregate care facilities		●					
	Handicapped family units		●		●	●	●	
Institutional	Combined living/working spaces	●	●		●	●	●	
	Lodging houses	● ²	●	●	●		●	6.4.109
	Clinics	● ²	●		●		●	
	Cultural facilities			●	●	●	●	
	Elementary, middle, and secondary schools	● ²	●	●	●	●	●	
	Emergency shelters			○	○			6.5.6(B)
	Governmental uses	● ²	●	●	●		●	
	Intermediate care facilities		●	●				
	Long-term and extended care facilities		●					
	Places of assembly (< 10,000 SF)	● ²	●	●	●	●	●	
	Places of assembly (> 10,000 SF)		●	●	●	●	●	
	Preschool facilities	● ²	●	●	●	●	●	
	Post-secondary schools		●	●	●	●	●	
	Adult business establishments		● ³					6.4.32
	Auto, boat, and related dealerships		○	●				6.5.6(A)
Commercial /Service	Auto service stations		○ ⁴	●	●			6.5.6(A)
	Bars		● ⁵	●	●	●	●	6.4.43
	Bed and breakfasts	●	●	●			●	6.4.54
	Exhibition, meeting, and convention halls		●		●	○	●	
	Funeral homes		●	●				
	General offices (<5,000 SF)	● ²	●	●	●	●	●	6.4.76
	General offices (>5,000 SF)		●	●	●	●	●	
	General services (<5,000 SF)	● ²	●	●	●	●	●	6.4.76
	General services (>5,000 SF)		●	●	●	●	●	
	Hostels	●	●		●		●	6.4.76, 6.4.89
	Hotels		●	●	●	● ¹³	●	
	Marijuana retail store	●/○ ⁶	●	●			●	6.4.110
	Recreation and amusement centers			●	●		●	
	Registered marijuana dispensary		●/○ ⁶	●			●	6.4.110
	Restaurants	● ²	●	●	●	●	●	6.4.43, 6.4.76
	Retail (< 5,000 SF)	● ²	●	●	●	●	●	6.4.76, 6.4.15
	Retail (5,000 – 25,000 SF)		●	●	●	●	●	6.4.15

TABLE 6-C (CONT.): PERMITTED AND CONDITIONAL USES IN MIXED USE ZONES

	B-1/B-1b	B-2/B-2b/ B-2c	B-3/B-3b/ B-3c ¹¹	B-4	B-5/ B-5b	B-6	B-7	Use Standards
		●	●	●	●	●	●	6.4.15
		●	●	●			●	6.4.11 ⊖
		●	●	●	●	●	●	
		●		●			●	
		●	●	●	●	●	●	
		● ⁷		●				
							⓪	6.5.6(D)
					●	●	●	
		⓪		●		⓪	●	6.5.6(E)
		● ⁸	⓪	●	●	●	● ⁸	6.5.6(E)
		● ⁸		●	⓪			
				●				
				●				6.4.11 ⊖
				●				
		⓪ ⁹	●	●	●	●	⓪	
		●	●	●	●	●	●	
	● ²	●	●	●	●	●	●	
				●				6.4.17
		⓪ ¹⁰	⓪ ¹⁰	●	● ¹⁰	⓪ ^{10, 14}	⓪ ^{10, 14}	6.5.6(E)
					●	●		6.4.12 ⁺
				●				6.4.8 7
			●/⓪ ¹²		●	⓪	⓪	6.5.6(H)
	●	●	●	●	●	●	●	
	●	●	●	●	●	●	●	6.4.16
				⓪				
	●	●	⓪	●	●	●	⓪	6.5.6(L)
		⓪	⓪	⓪	⓪	⓪	⓪	6.4.18

¹ Permitted if permitted in the adjacent or nearest residential zone. In other cases, permitted if located above first floor commercial, or on first floor where a minimum depth of 25 ft. along the principal frontage is maintained for commercial use.

² Permitted on the ground floor only in the B-1b zone.

³ Permitted in the B-2 and B-3 zones only.

⁴ Permitted as a conditional use in the B-2 only. Expansion of auto service stations in existence as of 11/15/99 permitted as a conditional use in the B-2b and B-2c zones.

⁵ Not permitted in the B-2c and B-3c zones.

⁶ Permitted in the B-2 zone. Conditional in the B-2b and B-2c.

⁷ Permitted only if an expansion of an existing dairy.

⁸ Permitted with a retail component only. Low-impact industrial uses greater than 10,000 SF are permitted in the B-2 only.

⁹ Printing and publishing of 10,000 SF or less, or expansion of printing and publishing establishments greater than 10,000 SF in existence as of 4/4/88, shall be treated as a conditional use.

¹⁰ Permitted in the B-2/B-2b/B-2c as a conditional use if 10,000 SF or less. Self-storage permitted in the B-4 zone. Self-storage permitted as a conditional use in the B-5 zone (on-peninsula locations only) in buildings existing as of 12/16/15. Self-storage permitted as a conditional use in the B-3 zone in buildings existing as of 1/1/1995; the area of the building dedicated to self-storage shall not exceed 30% of the total building area and may not be located directly adjacent to or facing a public right-of-way. Self-storage not permitted in the B-2/B-2b/B-2c, B-6, and B-7 zones.

¹¹ See PAD Overlay for additional use regulations.

¹² Structured parking shall be permitted. Surface parking shall be treated as a conditional use.

¹³ Hotels shall be limited to no more than 150 rooms.

¹⁴ Wholesale is allowed as conditional use, providing the wholesale operation is associated with an onsite retail establishment and occupies less than 15,000 SF.

TABLE 6-D: PERMITTED AND CONDITIONAL USES IN OFFICE PARK & RESIDENCE PROFESSIONAL ZONES

	OP ¹	R-P ²	Use Standards
Any residential use permitted in the nearest residential zone		●	
Preschool facilities	●	①	6.5.6(I)
Funeral homes		●	
General offices	●	●	
High tech manufacturing	①		6.5.6(D)
Laboratory and research facilities	●		
Printing and publishing	●		
Studios for artists and craftspeople		●	
Parks and open space	●	●	
Solar energy system (minor)	●	●	6.4.16
Utility substations		●	
Wind energy system (minor)	①		6.4.18

¹ All permitted and conditional uses in the O-P zone, with the exception of parks and open spaces, solar energy systems, and wind energy systems, shall be allowed only within an office park of at least three acres of contiguous land subject to the standards of Subsection 6.4.13.

² Any conditional use that is permitted as a conditional use in the nearest residential zone shall be permitted as a conditional use in the R-P zone. All conditional use standards of the residential zone shall apply.

TABLE 6-E: PERMITTED AND CONDITIONAL USES IN INDUSTRIAL & AIRPORT ZONES

		I-L/I-Lb	I-M/I-Mb	I-H/I-Hb	A-B ⁷	Use Standards
Institutional	Airports				● ⁸	
	Preschool facilities	●	●			
	Emergency shelters	●	●	●		6.5.6(B)
	Intermediate care facilities		● ⁴			
	Places of assembly (<10,000 SF)	●				
Commercial/Services	Bars				●	
	General offices (<5,000 SF)	● ¹	●			
	General offices (>5,000 SF)	● ¹	●			
	General services (<5,000 SF)				●	
	General services (>5,000 SF)				●	
	Hotels				●	
	Recreation and amusement centers	●	●			
	Repair services	●	●	●		
	Restaurants				●	
	Animal-related services	● ²				
	Construction & engineering services	●	●	●		
	Dairies	●	●	●		
	Fish waste processing			●		
	Food & seafood processing, packing, and distribution		●	●		
	High-impact industrial uses			●		
	Intermodal transportation facilities	●	●	●		
	Laboratory and research facilities	●	●	●		
	Low-impact industrial	●	●	●		
	Lumber yards	●	●	●		
	Marijuana cultivation facility (<2,000 SF plant canopy)	●	●	●		
	Marijuana cultivation facility (2,000-7,000 SF plant canopy)		●	●		
Industrial	Marijuana cultivation facility (>7,000 SF plant canopy)			●		6.4.10 ¹¹
	Marijuana manufacturing facility	●	●	●		
	Marijuana testing facility	●	●	●		
	Printing and publishing	●	●	●		
	Recycling and solid waste disposal facilities		● ⁵	● ⁵		
	Studios for artists and craftspeople	●	●			
	Telecommunication towers (ground-mounted)		●	●		
	Tow lots		●	●		6.4.17
	Warehousing, storage, and distribution facilities	● ³	●	●		

TABLE 6-E (CONT.): PERMITTED AND CONDITIONAL USES IN INDUSTRIAL & AIRPORT ZONES

		I-L/I-Lb	I-M/I-Mb	I-H/I-Hb	A-B ⁷	Use Standards
	Correctional pre-release facilities		● ⁶	● ⁶		6.4.7 8
	Marinas	●				
	Off-street parking				●	
Other	Solar energy system (minor)	●	●	●	●	6.4.16
	Solar energy system (major)		●	●	ⓘ	
	Utility substations	●	●	●		
	Wind energy system (minor)	ⓘ	●	●	●	6.4.18
	Wind energy system (major)		●	●	ⓘ	

¹ Only back office uses permitted.

² Not including kennel or boarding facilities.

³ Must be less than 10,000 SF in floor area. No outdoor storage permitted. Self-storage not permitted in the I-L/I-Lb zone.

⁴ Permitted in existing structures not designed for industrial, amusement, warehouse or manufacturing uses as of 9/15/14 or later. Such structures may be reused or expanded to establish a facility of no more than 30 persons plus staff.

⁵ Permitted within an enclosed structure only.

⁶ Not permitted in the I-Ma, I-Mb, or I-Hb zones.

⁷ Permitted uses on lots within airport restricted access areas shall be limited to those which do not require or encourage access or visits by the public and which provide technical administrative or other support to airport operations.

⁸ Including airport administration, terminals, carrier operations, concessions, reservations and ticket sales, freight, repair and storage, fueling services, flying schools, car rental operations, and other associated uses.

TABLE 6-F: PERMITTED AND CONDITIONAL USES IN RECREATION OPEN SPACE ZONE

	R-OS ¹	Use Standards
Cemeteries	●	
Marinas	●	
Parks and open space	● ²	
Solar energy system (minor)	ⓘ	6.4.16, 6.5.7(A)
Solar energy system (major)	ⓘ	
Utility substations	●/ⓘ ³	6.5.6.L, 6.5.7(A)
Wharves, piers, docks, and landing ramps	●	
Wind energy system (minor)	ⓘ	6.4.18, 6.5.7(A)
Wind energy system (major)	ⓘ	

¹ Accessory uses within structures of 2,500 SF or more shall be treated as a conditional use under Subsection 6.5.7(A).

² Including active recreational uses, such as playgrounds, golf courses, fields, pools, courts, community gardens, marinas, and sports complexes and passive uses, such as arboretums and picnic areas.

³ Sewage pumping and treatment facilities shall be permitted. Water pumping stations shall be treated as a conditional use under Subsection 6.5.7.

6.4 SUPPLEMENTAL USE STANDARDS

The following standards shall apply to the following uses as indicated in Tables 6-A to 6-F, whether permitted or conditional.

6.4.1 In general

A. No building intended for use as a habitation shall be erected on a lot which has its only street frontage on a street less than 35 feet wide. No building shall be erected on a lot, except on the islands in Casco Bay, which does not abut a street meeting the minimum requirements for street improvements set forth in this subsection. For purposes of this subsection, street shall be as defined in Article 3, except that a dedicated street which may no longer be accepted due to lapse of time and an accepted street which may have been discontinued by abandonment shall also be deemed to be streets, provided that an applicant for a building permit respecting any

lot abutting such street shall, without compensation or claim for damages, and at his or her own cost and expense, first submit to the Building Authority:

1. A deed from the owner of such lot conveying to the City all his or her right, title, and interest in and to such street or any portion thereof.
2. An agreement by such owner forever releasing the City from any and all claims for damages for the laying out and taking of such street and indemnifying the City against any and all other such claims, both such instruments to be executed and in recordable form acceptable to the Corporation Counsel and to encumber and run with the land.

B. For a lot abutting any portion of a street which is unimproved or improved but not permanently paved, that portion which abuts the lot, and any like portion between such

portion and the nearest permanently paved street or portion which is the principal access to such lot, shall be improved, including sewers, storm drains, pavement, curbs and, if located on a designated school walking route, sidewalks, in accordance with the City of Portland *Technical Manual*. Where the nearest permanently paved street does not have granite curbing, the Public Works Authority may waive the requirement of curbing under this subsection, if it determines that an acceptable alternative drainage plan will be provided. Prior to the issuance of a building permit for erection of a building on a lot abutting any portion of a street which is unimproved or improved but not permanently paved, the following shall occur:

1. A plan of the street improvements required by this subsection shall be submitted to the Public Works Authority.
2. Upon determination by the Public Works Authority that the plan meets the street improvement requirements established by this subsection, a performance guarantee and inspection fee for said improvements shall be submitted to the City as set forth under Articles 14 and 15. Also as set forth in Articles 14 and 15, a one-year defect bond shall be tendered to the City prior to release of the performance guarantee required hereby. The provisions of this paragraph (2) shall not apply to the erection of any single-family dwelling on any lot where the owner of the lot establishes that he or she was the owner of that same lot on November 19, 1984, and at all times thereafter, and states his or her

intention under oath to make the structure his or her personal residence.

- C. The requirements of this subsection shall not apply to the following city streets upon their construction by the Public Works Authority to such standards as are determined by the authority to be the most feasible:
 1. Dingley Court.
 2. Morgan Court.

6.4.2 Additional residential use permissions

A. In island zones: Up to two units are permitted on any lawfully conforming lot that does not contain an existing dwelling unit. Such units may be located:

1. In two separate structures, so long as the minimum lot area per dwelling unit standards of Article 7 are met, or
2. Within a single structure, in which case the minimum lot area per dwelling unit standards of Article 7 shall not apply.

B. In mainland zones where residential is a permitted or conditional use: Up to four units are permitted on any lawfully conforming lot that does not contain an existing dwelling unit. Such units may be located:

1. In separate structures, so long as the minimum lot area per dwelling unit standards of Article 7 are met, or
2. Within a single structure, in which case the minimum lot area per dwelling unit standards of Article 7 shall not apply.

C. Sections 6.4.2(A) and (B) shall not apply to lots on which a dwelling unit in existence on July 1, 2023 is torn down and a vacant lot results.

D. Lots with one existing dwelling unit in any zone where residential is a permitted or conditional use:

1. Up to two additional dwelling units are permitted on any lot containing one existing dwelling unit.
2. One of these units may be permitted within or attached to the existing structure, one may be permitted detached from the existing structure, or one may be permitted of each. In all cases, the minimum lot area per dwelling unit standards of Article 7 shall apply.
3. Units created under this section shall not be considered accessory dwelling units under Section 6.6.2(A).

E. If more than one dwelling unit has been constructed on a lot as a result of the allowance under this section, the lot is not eligible for any additional units Section 6.6.2(A).

6.4.26.4.3 Adult business establishments

- A. Adult business establishments shall be located at least 1,000 feet from any other adult business establishment, and at least 500 feet from any residential zone, as measured in a straight line, without regard to intervening structures or objects.
- B. No sexually explicit materials, entertainment, or activity shall be visible from the exterior of the premises.

6.4.36.4.4 Bars and restaurants in the B-6 zone

- A. No bars located east of Waterville Street shall be permitted within 50 feet of Fore Street.
- B. Restaurants located east of Waterville Street within 50 feet of Fore Street shall be limited in hours of operation to between 5 a.m. and 11 p.m. each day and food service and

consumption shall be the primary function of the restaurant.

6.4.46.4.5 Bed and breakfasts

- A. In the R-6 and R-6a zones, the minimum gross floor area for bed and breakfasts shall be 2,000 square feet for the first three guest rooms and 500 square feet for each additional guest room.
- B. In all mixed-use zones except the B-1/B-1b zones, bed and breakfasts may include a meeting facility limited to use for private parties, business meetings, weddings, receptions, seminars, or business and educational conferences, provided that:
 1. *In the B-2/B-2b/B-2c zones.* The meeting facility must be less than 4,000 square feet.
 2. *In the B-3/B-3b/B-3c zones.* The building in which the bed and breakfast and meeting facility will be located must have existed on March 3, 1997 and have been greater than 4,000 square feet in floor area on that date.

6.4.56.4.6 Campgrounds

- A. Campgrounds shall not include recreational vehicles.
- B. Campgrounds shall be licensed by the State of Maine Department of Human Services.
- C. No tent shall be located within 75 feet of the perimeter of site.
- D. The land area of the campground shall not be less than the equivalent of 5,000 square feet of land area per tent site exclusive of the roadway network.

6.4.66.4.7 Commercial uses in the B-1/B-1b zones

- A. Commercial uses shall be permitted provided that such uses generate less than 100 peak hour vehicle trips per 2,000 square feet of floor area and less than 100 peak hour vehicle trips in total.
- B. Retail and restaurant uses shall not operate between the hours of 11 p.m. and 6 a.m., and shall not accept deliveries or services between the hours of 10 p.m. and 7 a.m. For restaurants, food service and consumption shall be the primary function.
- C. No beverage container redemption centers shall be permitted. Beverage dealers shall be permitted as a retail use provided that the maximum total floor area for redemptions as an accessory use, including the storage of spent containers, shall be no greater than 500 square feet or 10% of the total floor area of the facility, whichever is less.

~~6.4.76.4.8~~ **6.4.96.4.8** Correctional pre-release facilities

- A. No correctional prerelease facility shall be located within 1,000 feet of another, as measured in a radius from the center of the lot.
- B. If a facility requires state or federal licensing, staffing of the facility shall be as required by such license. If a facility does not require state or federal licenses, there shall be a minimum of one staff person for every 10 residents or fraction thereof. The facility shall provide 24-hour supervision of program participants.

~~6.4.86.4.9~~ **6.4.96.4.9** Hostels

An operations plan must be submitted demonstrating that:

- A. No unaccompanied minors under the age of 18 shall be permitted in the facility.

- B. The length of stay for transient guests shall not exceed 15 days within any 60-day period.
- C. In the R-6 zone, for hostels greater than 10 guests, a minimum of 250 square feet of land area shall be required per hostel guest.
- D. In the B-1/B-1b zones, no more than 20 overnight transient guests shall be permitted.

~~6.4.96.4.10~~ **6.4.96.4.10** Lodging houses

- A. Lodging houses, except for lodging houses located in the IR-2, IR-3, and I-B zones, shall contain common areas for use by all residents, including a kitchen. A kitchen need not be available as a part of the common areas where all meals are provided on a daily basis.
- B. Lodging houses shall provide a minimum of 200 square feet of combined rooming unit and common area per rooming unit.
- C. Each individual rooming unit shall be a minimum of 70 square feet.

~~6.4.106.4.11~~ **6.4.106.4.11** Marijuana-related uses

- A. The following standards apply to the following marijuana-related uses:
 1. Marijuana cultivation facilities.
 2. Marijuana manufacturing facilities.
 3. Marijuana products.
 4. Marijuana retail stores.
 5. Marijuana testing facilities.
 6. Small-scale marijuana caregivers.
 7. Registered dispensaries.
- B. Location criteria
 1. No marijuana cultivation facility, marijuana manufacturing facility, marijuana testing facility, small-scale marijuana caregiver, marijuana store, or registered dispensary may be located within 500 feet of a pre-existing public school, private school, or a

- public preschool program, as defined by 20-A M.R.S. § 1. Distance shall be measured from nearest property line of the respective marijuana-related use and the property line of the lot containing the public school, private school, or public preschool program.
2. No marijuana cultivation facility, marijuana manufacturing facility, or marijuana testing facility may be located within 300 feet of the following residential zones: R-1, R-2, R-3, R-4, R-5/R-5A, R-6/R-6A, or R-7. Distance shall be measured from the nearest outer wall of the building housing the marijuana cultivation, manufacturing, or testing facility to the nearest applicable residential zone boundary. If the marijuana-related facility leases a room or suite of rooms within a building, including, without limitation, individual units within a shopping plaza or shopping mall, the nearest outer wall of the room or suite of rooms within which the facility is located shall constitute the nearest outer wall of the building housing that facility.
- C. Supplemental standards**
1. Marijuana-related uses may only be permitted within a fully enclosed building.
 2. No outside storage of marijuana, marijuana products, or related supplies is permitted.
 3. No drive-through service is permitted for marijuana-related uses.
 4. No marijuana or marijuana product shall be smoked, eaten, or otherwise consumed or ingested on the premises where sold.
 5. An operating plan for marijuana cultivation facilities and marijuana manufacturing facilities shall be provided that, at a minimum, addresses wastewater, disposal of waste, and security at the premises.
6. A ventilation plan shall be included for marijuana cultivation facilities, marijuana manufacturing facilities, and small-scale marijuana caregivers that provides for adequate ventilation so as to prevent pesticides, insecticides, or other chemicals used in the cultivation or processing of marijuana or marijuana-related products from being dispersed or released outside the premises. The plan shall further provide for resulting smoke, vapor, fumes, gases, and particulate matter from marijuana or its processing or cultivation to be effectively confined to the premises.
 7. Marijuana-related uses shall provide odor control measures so that odor generated on site is mitigated at the property line of the lot containing the marijuana-related use. Applications must demonstrate appropriate measures, such as carbon filtration, ventilation and exhaust systems, facility plans, or other additional practices adequate to mitigate odors for the scale of operations for the uses proposed.
- D. For purposes of this ordinance, any approval issued for a marijuana cultivation facility, marijuana manufacturing facility, or marijuana testing facility operated pursuant to 22 M.R.S. § 2421 et seq. shall be deemed to constitute approval for the same corresponding marijuana cultivating, manufacturing, or testing facility use operating under 28 M.R.S. § 101 et seq. Notwithstanding the above, no marijuana cultivation facility, marijuana manufacturing facility, or marijuana testing facility may operate without the applicable state and City license.**

~~6.4.11~~ 6.4.12 Marine uses

- A. In the B-5/B-5b and B-6 zones, marine uses shall include marine products wholesaling and retailing and harbor and marine supplies and services.
- B. In the B-5/B-5b zones, marine uses shall include marine repair services and machine shops; shipbuilding and facilities for the construction, maintenance, and repair of vessels; marine museums and aquariums; boat repair yards; boat storage; and seafood processing, packing, and distribution for human consumption.
- C. In the B-6 zone, marine uses shall include underground marine fuel storage provided that such storage shall be used solely for the purpose of fueling vessels.

~~6.4.12~~ Multiplexes

- ~~A. No habitable space in a dwelling unit shall be below grade, except basements that are a part of and below aboveground units.U~~
- ~~B. In the R-5 zone, the maximum number of units in a multiplex building shall be six.~~
- ~~C.D. No dwelling unit shall have less than 600 square feet of floor area, exclusive of common hallways and storage in basement and attic.~~

6.4.13 Office parks in the O-P zone

An office park shall be approved only if the development meets the following development standards:

- A. Office parks shall have a minimum gross area of three acres of contiguous land, consisting of either an Office Park Planned Unit Development (OPPUD) on one lot with one or more buildings and with driveways and open areas to be owned and maintained in common,

or an office park subdivision (OPS) on one parcel with two or more lots intended for separate ownership.

- B. Development proposals shall include a master plan of the office park. The master plan shall include the following:
 1. *For an OPPUD proposal.* The location of the building(s) on the site; infrastructure of the site; identification of common areas; traffic circulation, architectural character and treatment of the building(s); proposed building envelopes; phasing and timing of the development; private development restrictions; and such other information necessary and sufficient to ensure compliance with the standards in this subsection.
 2. *For an OPS proposal.* Delineation of the subdivision of land; infrastructure of the site; identification of common areas, if any; traffic circulation; desired architectural character, including private development restrictions to ensure compatibility of architectural character of future buildings with each other; phasing and timing of the development; private development restrictions; and such other information as necessary and sufficient to ensure compliance with the standards in this subsection.
- C. Development proposals shall demonstrate a reasonably unified design of the site, including the architecture, the layout of the buildings, pedestrian and vehicular circulation plan, open space, drainage, and the topography, soil conditions, vegetation and other natural features of the site. Integration of open spaces and natural features shall be achieved by

incorporation of outdoor amenities for the benefit of users of the site, such as jogging and walking trails, gardens, and benches.

- D. Development proposals shall include a landscape program. All land areas not covered by structures, parking areas, or circulation facilities shall be landscaped and maintained. In order to soften the visual impact of large expanses of pavement in parking lots, vegetation shall be planted or retained in islands or planting strips where required by the site plan or subdivision ordinance.
- E. Parking may not be located in the required front setback. If parking is provided in the area between the building and minimum setback line, the parking area must be adequately screened with landscaping materials and permanently maintained.
- F. Development proposals shall include internal sidewalks, illustrating the manner in which the developer will provide this amenity to take advantage of the topography and natural features of the site.
- G. Development proposals shall include buffering yard areas abutting a residential zone or residential use and to screen parking lots and driveways from public view, identifying the location, composition, and maintenance of the buffer. The buffer and screening shall be of a dense and continuous nature and shall incorporate trees, shrubs, fencing, berms, and related elements deemed necessary.
- H. Development proposals shall identify the extent to which the developer shall preserve natural features including, but not limited to, existing vegetation, flood plains, rock outcroppings, surface water bodies, drainage swales and courses, and wetlands; provided any such

program shall consider and be sensitive to the need to preserve such natural features.

- I. Development proposals shall identify all proposed traffic controls, parking areas, interior traffic circulation, and demonstrate that additional traffic generated by the project itself can be reasonably accommodated on existing public streets.
- J. All buildings shall be designed or approved by a registered architect in the State of Maine and shall be in conformance with the proposed master plan. The scale, texture, color and massing of the buildings shall be coordinated. The full range of high quality, permanent, and traditional or contemporary building materials and technology may be incorporated in a manner so that the development as a whole embodies distinguishing attributes that achieve the developer's desired degree of excellence and are in conformance with the architectural guidelines provided in the private development restrictions. Particular emphasis shall be placed on the appearance of building facades from public streets, from driveway and parking areas, and from other nearby buildings. Building elevation drawings shall be submitted which indicate architectural style, exterior finishes and color, building height and scale, and location and scale of window and door openings. Samples of exterior building materials shall also be submitted.
- K. Development proposals shall identify the location and style of lighting to be used in the development. All light fixtures shall be hooded or shielded so that the light shines downward.
- L. Development proposals shall identify all proposed signage. Signs shall be designed in proportion and character with the building

facades. All signs shall be constructed of permanent materials and shall be coordinated with the building and landscaping design through the use of appropriate materials and finishes.

6.4.14 Planned unit development in the IR-3 zone

In addition to other applicable reviews, no development shall occur nor shall any new use be established in the IR-3 zone unless the Planning Board finds that the final development plan for the site is in compliance with the following standards:

- A. The development shall demonstrate a reasonably unified response to the design possibilities of the site, by virtue of such elements as the design and layout of buildings and lots, circulation plan, open space, drainage, and orientation to achieve energy conservation or solar access, to form a functionally integrated whole.
- B. The design and layout of the development and buildings shall be reasonably compatible with the surrounding neighborhood by virtue of such features as architectural style, exterior finish, scale, circulation, open space, landscaping, and preservation of natural site amenities.
- C. All open spaces on the site shall be functionally integrated into the development plan by virtue of such features as accessibility to residents, recreation, conservation of existing public rights of access to shoreland areas and scenic natural areas, orientation to achieve energy conservation or solar access, preservation of natural site amenities, and use as a buffer between the development and the surrounding neighborhood.
- D. The development shall be designed primarily with a pedestrian orientation to minimize the use of and dependency on private motor vehicles. Appropriate areas on the site shall be designated, as necessary, for parking of common service vehicles, golf carts or bicycles to serve the transportation needs of residents and visitors. The internal circulation plan shall also be coordinated with the existing island street network to ensure adequate access for emergency and service vehicles.
- E. A project construction plan shall be developed indicating the anticipated number and types of vehicles such as construction equipment, supply delivery and service vehicles needed for undertaking the construction of the project. Documentation shall be provided as to the proposed transportation route such as roads, piers, beaches, sand bars and the impact of construction related activities on the routes.
- F. The development shall not have a substantial adverse impact on the capacity of existing island docking facilities. The developer shall demonstrate that an adequate water transportation system, including docking facilities, exists or will be provided.
- G. Adequate provision for off island solid waste disposal shall be demonstrated such that the impact on municipal solid waste disposal is minimized. A development shall incorporate methods such as the following to reduce the amount of solid waste generated by the project: compaction and reduction in waste volume, recycling, incineration or baler system, and private collection and transfer to an off-island location. It shall be demonstrated that there will be no significant environmental impacts from the solid waste disposal system.

- H. All sanitary waste from the development shall be disposed of by a public sewer, private community sewer system providing at least secondary treatment, or subsurface sewerage system, in compliance with federal, state and local regulations. The developer shall demonstrate that the project will comply with all applicable federal, state and local water quality and groundwater standards.
- I. The proposed development shall have sufficient water for the reasonably foreseeable needs of the development and shall not cause an unreasonable burden on existing water supply nor adversely affect groundwater resources. Unless the development is to be served entirely by public water and secondary treatment sewer systems, the determination of compliance with this provision shall be based upon one or more comprehensive groundwater analyses and reports prepared by qualified professionals and including assessment of current groundwater aquifer conditions, the impact of the proposed development on the groundwater aquifer, and recommendations for mitigation of potential impacts caused by the development.
- J. The development shall preserve the natural features of the shoreland area by minimizing the disturbance of existing vegetation and slopes, avoiding development in areas subject to erosion and sedimentation, and conserving scenic views and vistas to and from the site.
- K. The development plan shall preserve significant resources of the site by integrating open space into the development plan and by conserving such features as scenic vistas, historic man made or natural features, existing vegetation, wetland areas, shoreland areas, ground water, natural wildlife habitat, and recommended or registered State of Maine Critical Land Areas, as well as other environmentally sensitive areas.
- L. All open spaces on the site shall be functionally integrated into the development plan by virtue of such features as passive and active recreational opportunities, accessibility to residents, preservation of natural site amenities and resources, orientation to achieve energy conservation or solar access, use as a buffer between housing clusters and to screen the development from surrounding areas.
- M. The applicant shall demonstrate sufficient financial and technical capability for undertaking the proposed project. Financial capability shall include a cost estimate of the proposed improvements, proposed construction and permanent financing, and terms of sale or lease of dwellings and commercial space. Technical capacity shall include the experience and expertise of the developer in implementing projects of similar scope.
- N. The applicant shall develop an environmental impact analysis including an inventory of existing environmental conditions at the project site and in the surrounding area with an assessment of the development's probable impact upon the environment. The inventory shall include such resources as air, water quality, water supply, surface water and shoreline, geology, soils, topography, wildlife, botanical and aquatic, including rare and endangered species, historic, archeological and aesthetic. The analysis shall include the direct and cumulative adverse impacts of the project on these resources. The analysis shall also include what steps the applicant proposes to

take to identify and minimize adverse environmental impacts during construction, management and use of the property and whether there are alternatives for the project which would decrease the impact of the development.

- O. If the project is to be completed in phases, the applicant shall indicate the schedule for completing and implementing infrastructure improvements as well as other improvements, agreements or services required for compliance with the development standards of this subsection, planned unit development standards, and site plan and subdivision review requirements.
- P. The development shall not place an unreasonable burden on the ability of the City to provide police, fire, and other emergency services.

6.4.15 Retail in the B-3/B-3b/B-3c and B-5/B-5b zones

Retail shall not include wholesale and bulk purchase lumber and construction supply sales.

6.4.16 Solar energy systems

- A. All solar energy systems shall meet the technical, safety, and maintenance standards in the City of Portland *Technical Manual*.
- B. Solar panel placement should minimize or negate any solar glare impacting nearby properties or roadways, without unduly impacting the functionality or efficiency of the solar energy system.
- C. All applicants are encouraged to ensure the maximum solar energy generation from their system by obtaining solar access easements.

Solar access easements may be filed consistent with Maine state law.

- D. Solar energy systems shall be located away from and screened from public ways and nearby residential/institutional uses to the extent possible and shall be designed so as to minimize impacts on significant scenic views.
- E. Layout and fencing shall be integrated with existing landscape and minimize removal of vegetation to the extent possible.
- F. Where any part of the proposed solar energy system (including associated facilities) is within a historic district, such development shall be reviewed and approved by the Planning Authority in accordance with Article 17. Where any part of the proposed solar energy system (including support structures and associated facilities) is within 100 feet of any designated landmark, historic district, or historic landscape district, such development shall meet the standards of Article 14 regarding compatibility with the landmark or historic district.
- G. Solar energy systems shall minimize impacts resulting from construction and maintenance of the solar energy system, including lighting, security measures, traffic, and grid connections.
- H. Where permitted in residential zones, and in the B-1/B-1b, B-2/B-2b/B-2c, B-3/B-3b/B-3c, B-7 and waterfront zones, all solar energy systems shall be co-located with other land uses.
- I. Major solar energy systems shall be located on areas already paved or built upon, or where other development is documented to be unlikely due to local conditions.

6.4.17 Tow lots

Tow lots must be at least 300 feet from any residential zone or conforming residential use.

6.4.18 Wind energy systems

- A. All wind energy generation equipment shall be approved under a certification program approved by the U.S. Department of Energy such as the Underwriters Laboratories, Germanishcer Lloyd Wind Energies, or other similar certifying organizations. Experimental, homebuilt, and prototype models shall not be permitted.
- B. Wind energy systems and associated facilities, including foundations and support structures, electrical connections and control equipment, associated site improvements, and construction techniques, shall be designed, engineered, and installed to comply with all applicable local, state, and federal construction and electrical regulations and Federal Aviation Administration regulations. Applicable state and local approvals shall be obtained prior to installation of any wind energy system.
- C. The support structure (e.g. tower, pole) for freestanding wind generating systems shall not be climbable for a minimum height of 12 feet above the surrounding ground level or accessible surface. All ground-mounted electrical and control equipment shall be labeled and secured to prevent unauthorized access.
- D. All moving components of a wind energy system shall be a minimum of 12 feet from ground level or accessible surface.
- E. All on-site electrical wiring associated with the proposed wind energy system shall be located within the tower/pole/supporting structure and underground. Above ground on-site connections near substations or to the electric grid shall be allowed.
- F. The use of guy wires is discouraged. If required, they shall be located away from pedestrian routes/access points and marked with visible, reflective, colored objects, such as flags, reflectors, or tape, which shall be placed on the anchor points of guy wires and along the guy wires up to a height of ten feet from the ground.
- G. No wind energy system shall be located within 250 feet of any significant wildlife habitat, as defined by Maine Department of Environmental Protection/Maine Department of Inland Fisheries and Wildlife under provisions of the Natural Resources Protection Act (38 M.R.S. § 480 et seq.) including wildlife habitat for species appearing on the official state and federal list of endangered or threatened animal species.
- H. For all wind energy systems over 45 feet in height above the ground or over 100kW, evidence shall be provided that the Environmental Coordinator of the Maine Department of Inland Fisheries and Wildlife and the Maine Natural Area Program have been notified of the location, height, and design of the proposed wind energy system at least three weeks prior to any final determination under this subsection. Any comments received therefrom shall be addressed to the satisfaction of these state authorities prior to any final determination under this provision.
- I. Wind energy systems shall be designed to avoid electromagnetic interference with the transmission or reception of radio, telephone, television, microwave, navigational, or similar signals to neighboring areas.
- J. Wind energy systems and associated facilities shall use non-reflective materials and neutral

colors and textures that blend in with the surrounding environment. Ground-mounted systems and associated facilities shall be landscaped to integrate the proposed wind energy system into the existing landscape/streetscape.

- K. No part of the system may be illuminated, except as required by the Federal Aviation Administration (FAA) or other authorities for safety and security purposes. Where lighting is required, it shall be at the lowest intensity allowable with fixtures shielded and directed to minimize glare and visibility from the ground.
- L. There shall be no signs, advertisements, flags, or decorative items on a wind energy system or any associated facilities, except for the manufacturer's/installer's/owner's identification (not exceeding one square foot in size), appropriate warning signs, or lights if required by the FAA.
- M. Wind energy systems shall be prohibited within any historic landscape district, any historic cemetery, any historic district, except the Congress Street Historic District where it coincides with the B-3 zone, or within 1,000 feet of any designated historic landmark, which shall include Portland Observatory, Cathedral of Immaculate Conception, St. Dominic's Cathedral, St. Luke's Cathedral, State Street Church, and City Hall.
- N. Wind energy systems within R-OS zones are allowed only where they are co-located within public industrial or utility facilities.
- O. Systems shall be screened with a vegetated buffer from public areas and residential buildings.

6.5 CONDITIONAL USES

6.5.1 Conditional use review procedure

- A. **Review authority.** The Zoning Board of Appeals shall review all conditional use applications, with the exception that the Planning Board shall review:
 1. All conditional use applications in the B-3/B-3b/B-3c, B-5/B-5b, B-6, and B-7 zones.
 2. All conditional use applications associated with projects that are otherwise before the Planning Board.
 3. Conditional use applications for specific uses for which the Planning Board is identified as the review authority under Subsection 6.5.6.
- B. **Application.** Applications for conditional use review shall be submitted to the Building Authority for all Zoning Board of Appeals reviews and the Planning Authority for all Planning Board reviews. A nonrefundable application fee, as established from time to time by the City Council to cover administrative costs and costs of a hearing, shall accompany each application. The application shall be in such form and shall contain such information and documentation as shall be prescribed from time to time by the review authority.
- C. **Public hearing.** A public hearing shall be set, advertised, and conducted by the review authority in accordance with Article 2 of this Land Use Code.
- D. **Action.** Within 30 days following the close of the public hearing, the review authority shall render its decision, in a manner and form specified by Article 2 of this chapter, approving the conditional use, approving the conditional use subject to conditions as specified in Subsection 6.5.3, or denying it. The failure of the review authority to act within 30 days shall

be deemed an approval of the conditional use, unless such time period is mutually extended in writing by the applicant and the review authority. Within five days of such decision or the expiration of such period, the Building Authority or Planning Authority shall mail notice of such decision or failure to act to the applicant and, if a conditional use is authorized, list therein any and all conditions imposed by the review authority.

6.5.2 General conditional use standards

The review authority shall, after review of the application, approve a conditional use upon a finding that the proposed conditional use, at the size and intensity contemplated at the proposed location, will not have substantially greater negative impacts than would normally occur from surrounding uses or other allowable uses in the same zone. The review authority shall find that this standard is satisfied if it finds that:

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

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

6.5.3 Conditions on conditional use approvals

The review authority may impose such reasonable conditions upon the premises benefited by a conditional use as may be necessary to prevent or minimize adverse effects therefrom upon other property in the neighborhood. Such conditions shall be expressly set forth in the resolution authorizing the conditional use. Violation of such conditions shall be a violation of this article.

6.5.4 Effect of issuance of a conditional use approval

The approval of a conditional use shall not authorize the establishment or extension of any use nor the development, construction, reconstruction, alteration, or moving of any building or structure, but shall merely authorize the preparation, filing, and processing of applications for any permits or approvals which may be required by the City of Portland Code of Ordinances, including but not limited to a building permit, a certificate of occupancy, subdivision approval, and site plan approval.

6.5.5 Limitations on conditional use approvals

No conditional use approval shall be valid for a period longer than six months from the date of approval, or such other time, not to exceed two years, as may be fixed at the time granted, unless the conditional use has been commenced or a building permit is issued and construction has begun within that period and is thereafter diligently

pursued to completion, provided, however, that one or more extensions of said time may be granted if the facts constituting the basis of the decision have not materially changed and the two year period is not exceeded thereby. A conditional use approval shall be deemed to authorize only the particular use for which it was issued and such approval shall automatically expire and cease to be of any force or effect if such use shall for any reason be discontinued for a period of 12 consecutive months or more.

6.5.6 Supplemental use-specific conditional use standards

In addition to the general conditional use standards, the following standards shall apply to specific conditional uses:

A. Automobile, boat, and related dealerships and auto service stations

1. The Planning Board shall be the review authority.
2. Signs shall not adversely affect visibility at intersections or access drives. Such signs shall be constructed, installed, and maintained so as to ensure the safety of the public. Such signs shall advertise only services or goods available on the premises.
3. No ingress and egress driveways shall be located within 30 feet from an intersection. No entrance or exit for vehicles shall be in such proximity to a playground, school, church, other places of public assembly, or any residential zone that the nearness poses a threat or potential danger to the safety of the public.
4. A landscaped buffer, no less than five feet wide, shall be located along street

frontages (excluding driveways). The, buffer shall consist of a variety of plantings in accordance with the City of Portland *Technical Manual*.

5. Car washes shall be designed to avoid the tracking of residual waters into the street.

B. Emergency shelters

1. The facility shall provide adequate space for conducting security searches and other assessments.
2. The facility shall be designed with a centralized shelter operations office on each level providing sight lines to sleeping areas.
3. A management plan adequately outlining the following areas shall be provided: management responsibilities; process for resolving neighborhood concerns; staffing; access restrictions; on-site surveillance; safety measures; controls for resident behavior and noise levels; and monitoring reports.
4. Adequate access to and from METRO service shall be provided. The facility shall be within a $\frac{1}{4}$ mile of a METRO line, or shall be within $\frac{1}{2}$ mile of a METRO line and provide adequate indoor space to permit all shelter guests day shelter, as well as implement strategies to help residents utilize transit.
5. The facility shall provide on-site services to support residents, such as case management, life skills training, counseling,

- employment and educational services, housing assistance, or other programs.
- 6. Suitable laundry, kitchen, pantry, bicycle storage, and secure storage facilities for shelter stayers shall be provided on-site.
- 7. An outdoor area for guest use shall be provided on-site with adequate screening to protect privacy of guests.

C. General office in the R-6 & R-6a zones

- 1. Offices shall serve a member of a recognized profession and be maintained for the conduct of that profession. Professional office uses do not include veterinary offices.
- 2. For the use of any building designed or constructed for residential use, which was in use as a residence on April 18, 1984, or thereafter:
 - a. A professional office shall not be located within 500 feet of another as measured along the street line to the respective property lines.
 - b. A building with one or more professional offices shall have at least 50% of the total floor area of the building devoted to residential uses.
 - c. The total number of individuals working in a building of professional offices shall not exceed the equivalent of four full time employees.
 - d. Any additions or exterior alterations shall be compatible with the architecture of the building and maintain the residential appearance of the building. Construction of a new

- building shall be compatible with the architectural character of the surrounding area.
- 3. The scale and surface area of parking, driveways, and paved areas shall be arranged and landscaped to be compatible in size and scale with neighboring properties in the area and to properly screen vehicles from adjacent properties and streets.

D. High-tech manufacturing

- 1. A minimum of 1/3 of the total square footage devoted to manufacturing shall be conducted in a laboratory environment, in a controlled environment with specialized air handling systems that exceed levels for pressurization and filtration found in office environments and traditional manufacturing facilities.
- 2. Rooftop equipment shall be integrated into the overall building design and shall be screened as necessary.
- 3. In the B-7 zone, accessory warehousing is permitted. Where warehousing cannot be located on the same lot because the land area is too small to accommodate the warehousing on the same lot, one remote warehouse may be located within 600 feet of the principal use referenced above.
- 4. In the O-P zone, truck traffic serving a single manufacturing business or institution shall not exceed, on a regular basis, more than two tractor-trailer truck deliveries per week. No deliveries shall be accepted between 7:00 p.m. and 7:00 a.m.

E. Industrial uses

- 1. *In the B-2/B-2b/B-2c zones*

- a. The Planning Board shall be the review authority.
 - b. The site shall have an adequate traffic circulation pattern designed to avoid hazards to vehicular circulation on adjoining streets. All stacking of motor vehicles shall be on site, and loading facilities shall be located to the rear of the building and shall not be visible from the street.
 - c. The exterior design of the structures, including architectural style, facade materials, roof pitch, building form, established setbacks, and height shall be of a commercial rather than industrial character. The site shall contain screening and landscaping which shall meet the requirements of Article 14 for screening between land uses and the City of Portland *Technical Manual*.
2. *In the B-3/B-3b/B-3c zones*
- a. The floor area devoted to industrial use shall not exceed 10,000 square feet. For a building in existence on March 11, 1991, the floor area shall not exceed 10,000 square feet or 50 percent of the total floor area, whichever is greater.
 - b. The associated vehicular loading, unloading, parking, circulation, and traffic volumes on the site and on adjacent public streets shall not have a more intensive impact than any use on the site within the last five years.
 - c. Any buildings located in a PAD Overlay Zone shall be subject to the requirements of Section 8.7 in addition to the requirements of this subsection.
 - d. For buildings that either were not in existence on March 11, 1991, or were in existence on that date but were either in use for any permitted use in the B-3 zone or were designed or constructed for any such use:
 - i. No tractor trailer trucks or longer vehicles shall be associated with the proposal.
 - ii. The proposal shall exclude warehousing and storage as a principal use.
 - iii. The use shall not generate more than six delivery or service trips per day between 7:00 a.m. and 7:00 p.m.
3. *In the B-5/B-5b zones*
- a. Truck loading and access and vehicle parking shall be located in the rear or side yard of the site where possible.
 - b. Street frontage shall be designed for pedestrian scale or interest.
 - c. Shared infrastructure to the extent practicable, including, but not limited to, service alleys, parking areas, stormwater treatment, public transportation facilities, and driveways, shall be utilized.
4. *In the B-6 zone.* No brew pubs or microbreweries east of Waterville Street shall be permitted within 50 feet of Fore Street.
- F. Institutional uses (excluding preschools)**
1. The Planning Board shall be the review authority.

2. In the case of expansion of existing institutional uses onto land other than the lot on which the principal use is located, it shall be demonstrated that the proposed use cannot reasonably be accommodated on the existing site through more efficient utilization of land or buildings, and will not cause significant physical encroachment into established residential areas.
3. The proposed use shall not cause significant displacement or conversion of residential uses existing as of June 1, 1983, or July 15, 1985 in the IR-1 and IR-2 zones, or thereafter.
4. In the case of a use or use expansion which constitutes a combination of the conditional institutional uses with capacity for concurrent operations, the applicable minimum lot sizes shall be cumulative.
5. In the case of community halls:
 - a. The structure shall have been in existence as of January 4, 2010.
 - b. The structure shall have been built for institutional or other non-residential uses.
 - c. The structure shall be operated by, or operated subject to the control of, a not-for-profit entity in accordance with its not-for-profit purposes.
 - d. A parking management plan shall be submitted for review and approval by the Planning Board.
6. In the case of private club or fraternal organizations, any such establishment serving alcoholic beverages or in possession of a license for serving alcoholic beverages shall meet the minimum lot size requirement for places of assembly greater than 10,000 square feet.
7. Post-secondary schools in the R-2 zone shall only be permitted on a collector or arterial road.
8. In the case of a post-secondary school within the R-5 zone and not including the USM Overlay Zone, such school may build principal structures to a height of 55 feet if the following standards can be met:
 - a. Minimum lot size: 10 acres which may include adjacent land owned by the institution on both sides of a public street.
 - b. Minimum setback between buildings on-site: 20 feet.
 - c. Minimum setback from external property boundary: 30 feet, except that parking garages over 35 feet in height must be located 50 feet from external property boundaries when adjacent to an adjoining residential use.
 - d. The area between the structure and adjoining residential uses must be adequately screened with appropriate landscaping or other features to buffer the building and effects thereof (i.e. noise, light, etc.) from abutting properties.

G. Multi-family

1. *In the R-3 and R-5 zones.* Alteration of a structure existing and not in residential use as of January 1, 1984 to three or more dwelling units shall be permitted as a conditional use provided that:
 - a. No open outside stairways or fire escapes above the ground floor shall

- be constructed or have been constructed in the immediately preceding five years.
 - b. 3,000 square feet of land area per dwelling unit shall be required.
 - c. A lower level dwelling unit shall have a minimum of one-half of its floor-to-ceiling height above the average adjoining ground level.
 - d. Any addition or exterior alteration, such as change in façade materials, building form, or roof pitch, shall be designed to be compatible with the architectural style of the structure.
 - e. In the R-3 zone, any addition or exterior alteration shall be limited to a gross floor area equal to or less than 25% of the total existing floor area as of June 13, 2018.
 - f. Paved areas shall be designed to be compatible in size and scale with neighboring properties in the area and properly screened from adjacent streets.
2. *In the I-B zone*
- a. Multi-family buildings shall have a maximum of four units.
 - b. No open outside stairways or fire escapes above ground floor shall be constructed or have been constructed in the immediately preceding five years.
 - c. A below grade dwelling unit shall be permitted only if access is provided directly to the outside of the building.
 - d. Density shall be determined by the most restrictive abutting residential zone, except for those lots which are served by public water and sewer, where density shall be determined by the least restrictive abutting residential zone. If no residential zone is abutting, density shall be determined by the nearest residential zone. Residential uses shall meet the requirements of such abutting or nearest residential zone.
- e. Any additions or exterior alterations shall be compatible with the original architecture of the building. The exterior design of new construction, including the architectural style, facade materials, roof pitch, building form, and height shall be compatible with neighboring properties.
 - f. No existing dwelling unit shall be decreased to less than 1,000 square feet of floor area.
 - g. No additional dwelling unit shall have less than 600 square feet of floor area, exclusive of common hallways and storage in basement and attic.
 - h. All sanitary waste shall be disposed of by a public sewer, subsurface sewerage system, or other method in compliance with all applicable federal, state and local regulations.
 - i. There shall be sufficient water for the needs of the dwellings such that the use does not cause an unreasonable burden on an existing water supply nor adversely affect groundwater resources.
- H. Off-street parking**
- 1. *In the R-3, R-4, and R-5 zones*

- a. Off-street parking must be designed to satisfy the parking requirement of a use located in and conforming with the provisions of a nearby mixed-use or industrial zone.
 - b. The lot on which the parking is proposed must be located wholly within 300 feet, measured along lines of public access, from the use which requires the off-street parking.
 - c. The lot where the off-street parking is proposed shall be under the control of the owner of the use which requires the off-street parking. Evidence of such control by deed or lease shall be required before the certificate of occupancy is issued. If such control should be abrogated, the parking use thus allowed shall automatically revert to a nonconforming use in violation of this article and shall be terminated forthwith.
 - d. Conditions may be imposed to insure development compatible with that of the immediate neighborhood notwithstanding the provisions of any other section of this Land Use Code. Such conditions may include limits on the period of such use.
2. *In the R-6 zone.* Off-street parking shall be for passenger cars for uses permitted in the R-6 zone.
3. *Structured parking in the B-6 and B-7 zones*
 - a. Parking garages shall incorporate first floor retail space or other non-parking and active use along all street frontages.
 - b. The Planning Board may waive the requirement for first floor mixed-use upon demonstration that the project meets one or more of the following criteria:
 - i. The applicant demonstrates that steepness of grade or the character of the adjacent street will not support retail or first-floor mixed use in the foreseeable future.
 - ii. The first floor of the garage is set back a minimum of 35 feet from the street right-of-way and its design does not provide an impediment for development of such space for mixed-use in the future. Such space (between the garage and the street) shall, in the interim, not be used for surface parking.
 - iii. The applicant can demonstrate to the satisfaction of the Planning Board that a market for first floor mixed uses currently does not exist, provided that the structure of the garage is designed to accommodate retail and or mixed-uses in the future. In these cases, the Planning Board will need to find that, on the street-level deck of a proposed parking garage, a minimum of 20 feet horizontal distance of depth from the street and nine feet finished floor-to-finished ceiling clearance

could house future retail and or mixed use. The applicant will further need to demonstrate that the garage design anticipates the future development of utilities and circulation necessary for non-parking uses. Where a parking garage fronts on more than one public street and where there is an existing change in grade elevation of over 5% across the footprint of the garage, the nine-foot floor-to-ceiling requirement only applies to the street with higher traffic volumes.

- c. Where the Board allows a waiver of first floor mixed use, garages shall display architecture that enhances the pedestrian experience and disguises the parking use to the extent possible. Use of traditional storefront design concepts and traditional building materials is encouraged.
- 4. *Surface parking in the B-3, B-6, and B-7 zones*
 - a. Surface lots shall be laid out in a manner conducive to development of future buildings, and/or structured parking.
 - b. Surface parking, including parking aisles, shall be located at least 35 feet from a street. The 35-foot setback shall not apply to driveways perpendicular to the street providing access to the site.
 - c. In the B-7 zone, surface parking that does not meet the 35-foot parking

setback may be permitted as a conditional use, provided that:

- i. All or a portion of the 35-foot setback area had a gravel surface on September 29, 2015.
- ii. The total gravel surface area on the lot and any contiguous lots did not exceed 15,000 square feet on September 29, 2015.
- iii. The parking spaces provide parking to a principal building on a contiguous lot.
- iv. One of the buildings described in (iii) above meets the minimum height requirements of the Bayside Height Overlay Map and/or a building on the site has a floor area of 25,000 square feet or greater.
- v. The total number of spaces within 35-foot setback in combination with other spaces on the lot does not exceed the minimum parking spaces required.
- vi. The proposed parking spaces meet the landscape and buffer requirements of Subsection 6.8.8.
- vii. Parking spaces within the 35-foot setback shall provide stormwater quality treatment if required by the City of Portland Stormwater Management Standards and the Maine DEP Chapter 500 Stormwater Management Standards. If not required, an alternative low impact development treatment system



approved by the Planning Board shall be provided.

I. Preschool facilities

1. *In all zones*
 - a. Outdoor play areas shall be screened and buffered from surrounding residences with landscaping and/or fencing to minimize visual and noise impacts.
 - b. Solid waste shall be stored in covered containers. Such containers shall be screened on all sides.
2. *In the R-P zone.* Facilities for more than 12 children shall meet the following additional standards:
 - a. The facility shall provide a minimum of 75 square feet of outdoor play area per child.
 - b. The play area shall be located in the side and rear yards only and shall not be located in front yards.
 - c. Outside play areas shall be separated from abutting properties by a fence at least 48 inches in height.
 - d. A 10-foot-wide landscaped buffer shall be required outside of the fenced play area, and shall be established in accordance with the landscaping standards of the City's *Technical Manual*.
3. *In residential and island zones*
 - a. The facility shall be located in a structure in which there is one or more occupied residential units or in an existing accessory structure, unless the facility is located in a principal structure that has not been used as a residence in whole or in part within the five years immediately preceding the application for a preschool use, or in a nonresidential structure accessory to the principal nonresidential use.
 - b. There shall be no maximum limit on the number of children in a facility located in a principal structure that has not been used as a residence in whole or in part within the five years immediately preceding the application for a preschool use, or in a nonresidential structure accessory thereto.
 - c. The maximum capacity shall be 12 children for facilities located in residential or existing structures accessory thereto, unless the additional standards in paragraph (d) below are met.
 - d. Preschool facilities located either in structures that have been in residential use within the past five years or in existing accessory structures and that serve between 13 and 24 children shall meet the following additional standards:
 - i. The facility shall provide a minimum of 75 square feet of outdoor play area per child.
 - ii. The play area shall be located in the side and rear yards only and shall not be located in front yards.
 - iii. Outside play areas shall be separated from abutting properties by a fence at least 48 inches in height.
 - iv. A 10-foot-wide landscaped buffer shall be required outside of the

fenced play area, and shall be established in accordance with the landscaping standards of the City's *Technical Manual*.

- v. The minimum lot size for a preschool located in a residential or existing accessory structure and serving more than 12 children shall be 20,000 square feet.
- vi. The maximum number of children in a preschool facility located in a residential or existing accessory structure shall be 24.
- vii. Any additions or exterior alterations such as facade materials, building form, roof pitch, and exterior doors shall be designed to be compatible with the architectural style of the building and preserve the residential appearance of the building.

J. Raising of domesticated animals for non-commercial purposes

- 1. No animals shall be kept on any lot less than three acres or closer than 100 feet to any street or lot line, except domesticated chickens as regulated in Chapter 5 of the City of Portland Code of Ordinances.
- 2. This use shall not create any odor, noise, health, or safety hazards, or other nuisance to neighboring properties.
- 3. Raising of pigs or reptiles is not permitted.

K. Sheltered care group homes

- 1. A sheltered care group home shall not be located within 500 feet of another, as measured along street lines to the respective property lines.

- 2. The facility shall make provision for adequate on-site staffing and supervision in accordance with applicable state licensing requirements. If a facility is not licensed by the state, there shall be a minimum of one staff person for every 10 residents or fraction thereof.
- 3. The Board of Appeals or Planning Board may impose conditions upon a conditional use permit concerning the creation or operation of a sheltered care group home including but not limited to the following: site and building maintenance; lighting, fencing, and other appropriate security measures; screening and buffering of parking areas; compatibility of any additions or alterations with the existing residential structure; compatibility of new structures with the architectural character of the surrounding area; and limitation on the duration of a sheltered care group home permit.

L. Utility substations

- 1. Utility substations shall be as small in size as practicable.
- 2. Substations shall be suitably screened and landscaped so as to ensure compatibility with the surrounding neighborhood. The remainder of the lot not consumed by the utility substation and its related access shall be designed and designated for future development.
- 3. If greater than 100 square feet in the B-7 zone, the structure shall be set back at least 35 feet from the street right-of-way except in the case of a lot having frontage on Marginal Way and I-295, provided the

minimum 35-foot setback is met along Marginal Way.

4. In the B-7 zone, the substation equipment shall be fully enclosed within a structure.

6.5.7 Supplemental zone-specific conditional use standards

In addition to the general conditional use standards and supplemental use-specific conditional use standards, the following standards shall apply to conditional uses within certain zones:

A. R-OS Zone

1. The use shall be in conformity with or satisfy a deficiency identified in a federal, state, regional, or city recreation and open space plan, including but not limited to the state *Comprehensive Outdoor Recreation Plan*, as such plans may from time to time be created or revised.
2. Buildings and structures shall not obstruct significant scenic views presently enjoyed by nearby residents, passersby, or users of the site.
3. Indoor recreation or nonrecreational uses shall serve a significant public purpose that cannot reasonably be accommodated outside of the recreation and open space zone.

6.6 ACCESSORY USES

6.6.1 In general

- A. Accessory uses shall be permitted in conjunction with permitted or conditional principal uses. Accessory uses must be:
 1. Customarily found in association with the principal uses.

2. Generally consistent with the impacts of the primary use.
3. Secondary in nature, clearly incidental and subordinate to the principal uses in terms of area and function.
4. Located on the same lot as the principal use unless otherwise permitted.
5. Consistent with the intent of the zone.

- B. No accessory use or uses within a building shall occupy more than a combined total of 25% of the floor area of the principal building, with the exception of required off-street parking, unless otherwise provided in Subsection 6.6.2 below.
- C. No accessory use or uses not within a building shall occupy more than a combined total of 25% of the unbuilt lot area, or of the required rear yard area, with the exception of off-street parking or as otherwise provided in Subsection 6.6.2.

6.6.2 Standards for specific accessory uses

A. Accessory Dwelling Units (ADUs)

1. Accessory Dwelling Units (ADUs) shall be permitted on all lawfully conforming and nonconforming lots with legal residential uses. ADUs shall comply with all dimensional standards of the underlying zone unless otherwise provided below.
2. Up to two ADUs shall be permitted per qualifying property.
3. At the time of an ADU's initial construction or legal creation, the owner(s) of the property on which the accessory dwelling unit is created must occupy at least one of the dwelling units, with the exception of legally nonconforming lots on Peaks Island.

~~4. On Peaks Island, neither the accessory unit or principal unit shall be used for short-~~

~~term rentals as defined under Chapter 6, Section 150.1 of the City of Portland Code of Ordinances.~~

- ~~5-4.~~ When an ADU is significantly visible from public ways, the building design shall:
- Be clearly subordinate to the principal structure(s) in scale and position in relationship with the street and principal structure(s).
 - Not include outside stairways or fire escapes above the ground floor.
- ~~6-5.~~ Under circumstances where an existing nonconforming structure is converted to an ADU, the design of the ADU shall take into consideration to the extent practicable the privacy of adjacent properties.
- ~~7-6.~~ The developer of an ADU shall record a deed restriction requiring that the ADU and at least one other non-accessory unit on-site remain under common ownership.
- ~~8-7.~~ ADUs shall comply with all dimensional requirements of the underlying zone except:
- ~~9-8.~~ Lot coverage and lot area per dwelling unit requirements.
- ~~Within the IR-1 zone, the minimum lot area shall be 70,000 square feet, except on Peaks Island where this standard shall not apply.~~
 - ~~Within the IR-2 zone, the minimum lot area shall be 30,000 square feet, except on Peaks Island where this standard shall not apply.~~
- ~~10-9.~~ An ADU shall be limited to a gross floor area of 2/3 of the gross floor area of the principal unit(s). In no circumstance shall the height of detached ADUs on a lot

exceed the height of the primary structure. Additionally, the aggregate square footage of detached ADUs on a lot shall not exceed the gross floor area of the primary structure.

- B. Amusement devices.** Except where the principal use consists of the sale of alcoholic beverages for consumption on premises or where the principal structure is an airline terminal, pinball machines or amusement devices shall not be considered to be accessory uses whenever there are more than a total of two such machines or devices on the premises.
- C. Antennas, discs, transmitting and receiving equipment.** Building-mounted antennas, discs, and other transmitting and receiving equipment shall be:
- No taller than 15 feet above the highest structural steel of the building roof.
 - Setback no less than 15 feet from the building perimeter.
 - Integrated into the architecture of the building in placement, form, color, and material so as to screen or camouflage such equipment from public view.
- D. Drive-throughs.** Drive-throughs shall be permitted as an accessory use in the B-4 zone. Drive-throughs shall be reviewed as conditional accessory uses in the B-2/B-2b/B-2c zones, B-3/B-3b/B-3c zones, B-6 zone, and B-7 zone. In all other zones, drive-throughs shall be prohibited. Where a conditional use, drive-throughs shall be subject to the provisions of Section 6.5 and the following additional review standards:
- In general*
 - The Planning Board shall be the review authority.

- b. Features such as windows, vacuum cleaners, menu/order boards, and stacking lanes must be placed, where practicable, to the side and rear of the principal building except where such placement will be detrimental to an adjacent residential zone or use, and shall be located no nearer than 40 feet from any adjoining property located in a residential zone. This distance shall be measured from the outermost edge of the outside drive-through feature to such property line. In addition, drive-through features shall not extend nearer than 25 feet from the right-of-way.
 - c. The site must have adequate stacking capacity for vehicles waiting to use these service features without impeding vehicular circulation or creating hazards to vehicular circulation on adjoining streets.
 - d. Any speakers, intercom systems, or other audible means of communication shall not play pre-recorded messages. Any speakers, intercom systems, audible signals, computer prompts, or other noises generated by the drive-through services or fixtures shall not exceed 55 dB or shall be undetectable above the ambient noise level as measured by a noise meter at the property line, whichever is greater.
 - e. Site and vehicular light sources shall not unreasonably spill over or be directed onto adjacent residential properties and shall otherwise conform to the lighting standards set forth in the City of Portland *Technical Manual*.
 - f. Where automobiles may queue, waiting for drive-through services, their impacts must be substantially mitigated to protect adjacent residential properties from headlight glare, exhaust fumes, and noise. As deemed necessary by the review authority, mitigation measures shall consist of installation of solid fencing with landscaping along any residential property line which is exposed to the drive-through or the enclosure of the drive-through fixtures and lanes so as to buffer abutting residential properties and to further contain all associated impacts.
 - g. Drive-through lanes shall be designed and placed to minimize crossing principal pedestrian access-ways or otherwise impeding pedestrian access.
 - h. The board, as part of its review, may take into consideration the impact hours of operation may have on adjoining uses.
2. *In the B-2/B-2b/B-2c zones.* Drive-throughs shall only be permitted when accessory to a pharmacy or banking facility use. Drive-throughs shall not be permitted for restaurant, bakery, or other food or beverage service uses. Drive-throughs are only permitted in buildings of three or more stories where a majority of the upper stories is devoted to three or more dwelling units. The drive-through shall be screened as much as practical from the

front of the building and shall be no closer than 40 feet from abutting residential zones and 25 feet from the street line.

3. *In the B-3/B-3b/B-3c zones.* Drive-throughs shall only be permitted when accessory to a bank. Drive-throughs shall be subject to the Downtown Urban Design Guidelines.
4. *In the B-6 zone.* Drive-throughs shall only be permitted when accessory to a bank and located in the interior of parking structures. Drive-through vehicle circulation shall not create an impediment for retail or mixed-use development for the first floor of the subject garages along any adjacent public streets.
5. *In the B-7 zone*
 - a. The drive-through must be accessory to a bank occupying a minimum floor area of 4,000 square feet.
 - b. The drive-through must be attached to or included within a building with a minimum floor area of 20,000 square feet, except that for lots of less than 20,000 square feet and in existence as of March 9, 2005, a drive-through may be included in a building of less than 20,000 square feet.
 - c. The drive-through facility must be attached or included within a building and/or addition meeting the minimum height of four stores in the Bayside Height District A and three stories in the Bayside Height Districts B and C. For the purposes of this conditional use, the minimum height exceptions for the B-7 zone shall not apply.
 - d. The first floor of the building must include banking or other retail

storefront uses with storefront windows, entries, and interior public space oriented to and visible from the street, with front entry access facing the street and directly accessible from the public sidewalk.

- e. Drive-through vehicle circulation shall not be located between the building and any adjacent public streets.
- f. The drive-through shall be limited to two vehicle drive-through lanes.
- g. The location of any drive-through shall be limited to the geographic area between Somerset/Kennebec Streets/I-295/Franklin Street/Forest Avenue.

E. Heliports. Heliports shall meet the following minimum specifications:

1. *Roof heliport*
 - a. Take-off area (min.): 200 feet x 250 feet
 - b. Parking area (min.): 30 feet x 90 feet
2. *Ground heliport*
 - a. Take-off area (min.): 300 feet x 700 feet
 - b. Parking area and station building shall be located out of flight area.
3. *Elevation of operational area above street (max.):* 100 feet
4. *Clearance from lateral obstruction (min.):* 100 feet
5. *Width of approach and departure path (min.):* 500 feet at landing area, tapering outward 15 degrees on each side to a width of 1,000 feet
6. *Slope with emergency landing areas:* 1:8
7. *Slope without emergency landing areas:* 1:20

8. *Curved approach*: Minimum radius to turn, 650 feet
9. *Approach zone transition area slope*: 1:2

F. Home occupations

1. The purpose of home occupations is to allow the secondary and incidental use of a residence for the conduct of appropriate occupations whose external activity levels and impacts are so limited as to be compatible with the residential character of the neighborhood.
2. Home occupations must be conducted entirely within the dwelling unit by one or more persons residing within the dwelling unit.
3. In connection with the operation of a home occupation, the following requirements shall be met:
 - a. A home occupation shall not occupy more than 500 square feet of floor area or more than 25% of the total floor area of such a dwelling unit, whichever is less, or in the case of licensed family day care homes or home babysitting services, to accommodate not more than six children plus two children after school and having no nonresidential employees.
 - b. There shall be no outside storage of goods and materials nor shall there be exterior displays, or display of goods visible from the outside.
 - c. Storage of materials related to the home occupation shall count as a part of the occupancy limitations above, but shall not constitute a dominant part of such occupancy, provided, however, storage of such materials or products in garages or other accessory structures is prohibited.
- d. Exterior signs shall be limited to one non-illuminated sign not exceeding a total area of two square feet, affixed to the building and not projecting more than one foot beyond the building.
- e. Any exterior alterations to the residence shall be compatible with the architecture of the building and maintain the residential appearance by virtue of exterior materials, lighting, and signs.
- f. The home occupation shall not produce offensive noise, vibration, smoke, dust, or other particulate matter, odorous matter, heat, humidity, glare, or other objectionable effects.
- g. There shall be no more than one nonresident employed in the home occupation, provided, however, family day care or home babysitting services shall have no nonresident employees.
- h. No traffic shall be generated by the home occupation in greater volumes than would normally be expected in a residential neighborhood.
- i. No motor vehicle exceeding a gross vehicle weight of 6,000 pounds shall be stored on the property in connection with the home occupation.

4. No residence shall be occupied, altered or used for any home occupation except the following:

- a. Accountants and auditors.
 - b. Answering services (telephone).
 - c. Architects.
 - d. Artists and sculptors.
 - e. Authors and composers.
 - f. Computer programming.
 - g. Custodial services.
 - h. Custom furniture repair and upholstery.
 - i. Dentists, doctors, therapists, and health care practitioners.
 - j. Direct mail services.
 - k. Dressmakers, seamstresses and tailors.
 - l. Engineers.
 - m. Family planning services.
 - n. Hairstylists (limited to no more than two hair dryers).
 - o. Home crafts, such as model making, rug weaving, lapidary work, cabinet making, weaving, ceramics.
 - p. Interior designers.
 - q. Lawyers, justices of the peace, and notary publics.
 - r. Licensed family day care home or babysitting services.
 - s. Musicians or music teachers, including group instruction not to exceed six students at any time but not including performances or band rehearsals, which shall meet the following additional requirements:
 - i. Electronic amplification is prohibited.
 - ii. The applicant shall demonstrate that noise attenuation is provided which minimizes perception of sound at property lines at all times during the use. Noise attenuation measures may include, but are not limited to, insulation, double-pane windows, air conditioners, or any combination of these or similar noise attenuation measures.
 - iii. Hours of operation shall be limited to 8:30 a.m. to 9:30 p.m.
 - t. Office facility of a minister, rabbi, or priest.
 - u. Photographic studios.
 - v. Professional counseling and consulting services.
 - w. Professional research services.
 - x. Sales persons provided that no retail or wholesale transactions are made on the premises.
 - y. Small appliance repair.
 - z. Snow plowing provided that only one snow plow vehicle is stored on or generated from the site.
 - aa. Special tutoring or instruction (not to exceed three pupils at any given time).
 - bb. Clerical services.
 - cc. Small-scale marijuana caregiver, except that no more than one small-scale caregiver may operate out of any one dwelling unit.
5. A home occupation that is not listed in (4) above but is similar to and no more objectionable than those home occupations listed, shall be permitted as a conditional use subject to the requirements of Section 6.5 of this article. This provision shall not include veterinarians, kennels, animal raising, funeral homes, retail uses including antique

shops, restaurants, dancing studios, towing services, repair and painting of automobiles as home occupations.

G. Letting of rooms. The letting of rooms within an existing dwelling unit in any residential zone shall be permitted as an accessory use provided that:

1. There shall be no more than two persons occupying such room or rooms.
2. There shall be not more than two rooms per dwelling unit occupied for such use.
3. There shall be no increase in the bathroom and/or kitchen facilities in the dwelling, and no such facility shall have been constructed in the immediately preceding two years.

H. Makers' markets in the IL-b zone. Makers' markets, including periodic or seasonal sale of handcrafted and limited production products for final consumption, which may include prepared or raw foods, shall be permitted as an accessory use in the IL-b zone, provided that:

1. Such sales are located within a lawfully conforming principal permitted use.
2. Such sales occupy an area no larger than 45% of the floor area devoted to the principal use.
3. Such sales by any single vendor or group of vendors shall occur for no more than a total of 28 hours a week collectively.
4. Such products are produced or permitted to be produced in the IL/IL-b zone.
5. Such products are sold by the producer of the product or their designee.

I. Tasting rooms in industrial zones. Tasting rooms shall be permitted as accessory uses on the premises of facilities where beer, wine, spirits, other alcoholic or non-alcoholic

beverages, or food are produced, provided that:

1. Service of food in the facility is limited to that which does not constitute a full course meal.
2. No more than 10% of the beverage menu in tasting rooms accessory to beverage production or 10% of the food menu in tasting rooms accessory to food production is produced or manufactured off-site.

Tasting rooms shall not be subject to the limitations on the use of unbuilt lot or yard area in Subsection 6.6.1(C).

J. Solar energy generation. Roof-mounted, building-integrated, or small-scale ground-mounted solar energy systems shall be permitted as accessory uses within all zones except the Stream Protection Zone and within cemeteries. Accessory solar energy systems are only permitted within the Recreation and Open Space Zone where co-located with public industrial or utility infrastructure and are subject to historic preservation review when such systems are either located within or less than 100 feet from an identified historic district or historic landscape district. All accessory solar energy systems are subject to the following conditions:

1. Accessory solar energy systems shall comply with all general use standards for solar energy systems as stated under Subsection 6.4.16 of this article and with the dimensional requirements as stated under Article 7.
2. Small-scale ground-mounted solar arrays shall occupy less than 1,000 square feet of ground area.

- K. Wind energy generation.** Freestanding and roof-mounted wind energy systems shall be permitted as accessory uses within all zones except the Stream Protection Zone, within historic districts except where the Congress Street Historic District coincides with the B-3 zone, within historic cemeteries or historic landscape districts, or within 1,000 feet of any designated historic landmark (Portland Observatory, Cathedral of Immaculate Conception, St. Dominic's Cathedral, St. Luke's Cathedral, State Street Church, and City Hall), subject to the following conditions:
1. Accessory wind energy systems shall comply with all general use standards for wind energy systems as stated under Subsection 6.4.18 of this article.
 2. Properties shall be limited to one free-standing wind energy system and/or three roof or building mounted wind energy systems.
 3. Accessory wind energy systems shall either be located on the rear half of a building or structure, or within the rear yard and shall be sited to maximize existing vegetative or other screening from nearby residential buildings and public ways. The location shall minimize changes to existing topography and natural vegetation which would result from construction or maintenance of the system.

6.7 TEMPORARY USES

6.7.1 In general

Temporary uses may be permitted from time to time as determined by the Planning Authority. In addition to regulations pertaining to temporary uses contained elsewhere in the City of Portland Code of

Ordinances, the following standards shall apply for specific temporary uses.

6.7.2 Standards for specific temporary uses

- A. Temporary parking.** Parking of vehicles may be permitted by a temporary certificate of occupancy for a limited period of time not to exceed one year in anticipation of future development.
- B. Temporary private tenting.** Temporary private tenting with one tent accessory to a principal residential use is permitted in the IR-1 and IR-2 zones provided that adequate water supplies and sanitation facilities are available in connection with the principal residential use.
- C. Temporary sales.** No "garage sale," "lawn sale," "attic sale," "rummage sale," or other similar casual sale of tangible personal property which is advertised by any means whatsoever whereby the public at large is or can be made aware of such sale, shall be deemed to be accessory or temporary if such sale occurs after sales have been conducted on the same premises for six or more days previously during the calendar year.
- D. Temporary stands**
1. No premises shall be used for business purposes consisting of temporary stands, booths, platforms, or vehicles intended for the sale of merchandise or other mercantile purposes if any part of such stand, booth, platform, or vehicle is proposed to be located nearer than 125 feet to any residential zone, except that a single stand with no more than 200 square feet of floor area for the sale of agricultural products produced on the

- premises shall be permitted as accessory to a permitted agricultural use.
2. A single produce stand shall be permitted on the premises of a community garden for the sale of flowers, vegetables, herbs, or fruit produced on the premises, provided that the stand is no more than 100 square feet in floor area or open table area and is located a minimum of five feet from any property line; that sales are limited to two days per week between the hours of 9:00 a.m. and 6:30 p.m. during the growing season from May 25 through October 31; and that the stand has received all necessary permits. The use of produce stands shall be seasonal and temporary. Any properly permitted structure may remain on the premises year-round. If the community garden is owned or operated by a non-profit organization, sales of flowers, vegetables, herbs, or fruit produced in other gardens or farms in Maine owned or operated by said organization shall be permitted within the same limitations listed above. For purposes of this subsection, community garden means a parcel of open land used for the cultivation of flowers, vegetables, herbs, or fruit by a group of city residents either jointly as a single plot or through individual garden plots or beds.
 3. A single produce stand shall be permitted on the premises of a non-profit organization incorporated pursuant to the laws of the State of Maine with the permission of the owner and on the premise of public schools with the permission of the school department; provided that the stand is for the sale of local fruit, vegetables, flowers, seedlings, and plants produced by the seller; that the stand is no more than 100 square feet in floor area or open table area and is located a minimum of five feet from any property line; that sales on the premises are limited to two days per week between the hours of 9:00 a.m. and 6:30 p.m. during the growing season from May 25 through October 31; and that the stand has received all necessary permits. The use of produce stands shall be seasonal and temporary. Any properly permitted structure may remain on the premises year-round.
 4. In the IR-1 and IR-2 zones, a single stand with no more than 200 square feet of floor area for the sale of agricultural products produced on the premises or the sale of fish or shellfish caught by the occupant of the premises shall be permitted as a temporary use.
- E. Truck load sales.** Truck load sales shall not extend beyond three consecutive days nor occur more frequently than three times a calendar year.

6.8 PERFORMANCE STANDARDS

6.8.1 Design

- A. In the B-3 zone, all development, all building and site alterations, and all provision of landscaping or other pedestrian amenities shall be consistent with the Downtown Urban Design Guidelines.
- B. In the B-7 zone, all buildings shall have a minimum of one operable public pedestrian entrance facing the street frontage of the lot.

Such building entrances shall comply with the B-7 design standards.

6.8.2 Development in the R-OS zone

All development in the Recreation and Open Space Zone shall comply with the following development standards:

- A.** All ground areas not used for parking, loading, vehicular, or pedestrian areas and not left in their natural state shall be suitably landscaped and designed with quality materials that are consistent with adopted City policy or master plans, and which provide a comfortable, durable, accessible, readily maintainable, and aesthetically pleasing environment.
- B.** Natural features, such as mature trees and natural surface drainageways, shall be preserved to the greatest possible extent consistent with the uses of the property.
- C.** Loading areas shall be screened and parking areas shall be screened and landscaped so as to avoid a large continuous expanse of paved area.
- D.** Buildings and structures shall be sited to avoid obstructing significant scenic views presently enjoyed by nearby residents, passersby, and users of the site.
- E.** Storage of commodities and equipment shall be completely enclosed within buildings or provided with screening by a fence, wall, or landscaping.
- F.** The outer perimeter of playfields, play lots, and other active recreational areas shall be screened, or shall be located a reasonable distance from any residential use.

6.8.3 Discharges

No discharge shall be permitted at any point into any private sewage disposal system, or stream, or

into the ground, of any materials in such a way or of such nature or temperature as to contaminate any water supply, or otherwise cause the emission of dangerous or objectionable elements, except in accordance with standards approved by the Public Health Authority or by the Public Works Authority. No discharge into harbor water areas shall be permitted, unless permitted by the Maine Department of Environmental Protection under a waste discharge license and as approved by the Department of Public Works in accordance with Chapter 24 of the City of Portland Code of Ordinances. All private sewage disposal or private wastewater treatment facilities shall comply with the provisions of Chapter 24.

6.8.4 Electromagnetic interference

In any industrial zone, there shall be no electromagnetic interference that adversely affects the operation of any equipment other than that belonging to the creator of such interference.

6.8.5 Exterior lighting

All exterior lighting shall be designed and installed with full cut-off fixtures to direct illumination onto the site and to prevent illumination from such fixtures on neighboring properties.

6.8.6 Heat, glare, radiation

Heat, glare, or radiation shall be imperceptible without instruments at lot boundaries and shall not present a safety hazard.

6.8.7 Historic resources

The exterior design of proposed or renovated structures located within historic districts shall be subject to the historic preservation provisions of Article 17. The exterior design of proposed or

renovated structures located adjacent to historic districts or historic resources shall be subject to historic preservation requirements of Article 14.

6.8.8 Landscaping and screening

- A. In all mixed-use zones, the O-P zone, the R-P zone, and the A-B zone outside of restricted access areas, sites shall be landscaped to screen parking and accessory site elements, including storage and solid waste receptacles, from the right-of-way, public open space, or abutting residential zones.
- B. In the I-H and I-Hb zones, where a front yard abuts an arterial or a major collector street, it shall be landscaped. Rear yards, side yards, and the perimeter of any parking area for greater than 15 vehicles shall be landscaped if visible from a right-of-way, public open space, or residential zone.

6.8.9 Noise

- A. The maximum permissible sound level of any continuous, regular, or frequent source of sound produced by an activity shall be as shown in Table 6-G.
- B. For any noise generated by a use in the B-5/B-5b, B-6, B-7, I-L/I-Lb, I-M/I-Mb, and I-H zones, sound shall be measured at or within the boundaries of any residential zone. For any noise generated by a use in the B-1/B-1b, B-2/B-2b/B-2c, I-B, R-P, O-P, A-B, and IS-FBC zones, sound shall be measured at lot boundaries. For any noise generated by a use in the B-3/B-3b/B-3c, sound shall be measured at lot boundaries or within publicly accessible pedestrian open space. For any noise generated by a use in the B-4 zone, sound shall be measured off premises at the source of complaint.

- C. In addition to the sound level standards established in Table 6-G, all uses shall employ best practicable sound abatement techniques to prevent tonal sounds, or sound waves usually perceived as a hum or whine because their instantaneous sound pressure varies essentially as a simple sinusoidal function of time, and impulse sounds, or sound events characterized by brief excursions of sound pressure, each with a duration of less than one second. If such tonal and impulse sounds cannot be prevented, uses shall employ best practicable sound abatement techniques to minimize the impact of such sounds in residential zones.
- D. Sound levels shall be measured with a sound level meter with a frequency weighting network manufactured according to standards

TABLE 6-G: NOISE STANDARDS

	Daytime/Evening (7 a.m.-9 p.m.)	Night (9 p.m.-7 a.m.)
I-B	60 dBA	55 dBA
R-P	55 dBA	55 dBA
O-P	60 dBA	60 dBA
B-1/B-1b	55 dBA	55 dBA
B-2/B-2b/B-2c	60 dBA	55 dBA
B-3/B-3b/B-3c	60 dBA	55 dBA
B-4	65 dBA	60 dBA
B-5/B-5b, B-6, B-7¹	60 dBA	50 dBA
I-L/I-Lb¹	60 dBA	50 dBA
I-M/I-Mb¹	70 dBA	55 dBA
I-H/I-Hb¹	75 dBA	55 dBA
A-B	60 dBA	60 dBA
IS-FBC	60 dBA	55 dBA

¹ Daytime/evening noise regulations shall extend until 10 pm, after which time nighttime noise regulations shall apply.

prescribed by the American National Standards Institute (ANSI) or its successor body.

Measurements shall be made at all major lot lines of the site, at a height of at least four feet above the ground surface. In measuring sound levels under this subsection, sounds with a continuous duration of less than 60 seconds shall be measured by the maximum reading on a sound level meter set to the A weighted scale and the fast meter response (L maxfast). Sounds with a continuous duration of 60 seconds or more shall be measured on the basis of the energy average sound level over a period of 60 seconds (LEQ₁).

E. Wind energy systems

1. Where the underlying zone is residential and does not specify sound requirements, or where the system will be within 100 feet of a residential building, the audible sound levels generated by the wind energy system shall not exceed 45 decibels on the A scale between the hours of 9:00 p.m. and 7:00 a.m., and 50 decibels on the A scale between 7:00 a.m. and 9:00 p.m., as measured at the nearest property line in accordance with this provision and technical standards set out in the City of Portland *Technical Manual*.
2. For any system over 45 feet in total height not in the Recreation and Open Space, Resource Protection, or Island Transfer Station Overlay Zones, the maximum sound levels allowed by this ordinance shall not be exceeded at the nearest property boundary and at the nearest point vertically above the property line that coincides with the maximum building height allowed in the abutting zone.

3. Any system located within the Recreation and Open Space, Resource Protection, or Island Transfer Station Overlay Zones and more than 100 feet from a residential building shall not exceed 55 decibels on the A scale as measured 50 feet from the base of the tower.
4. Audible sound levels of wind energy systems shall include sounds generated in all conditions including low and high winds (furling, yawing, and flutter) and power outages (freewheeling). If after installation, the system is determined to be operating at levels above these limits (as measured at the property lines in accordance with this provision and applicable technical standards, the owner shall take (at the owner's cost) remedial action to ensure compliance with these limits. Required action may include relocation or removal of the system.

F. Exemptions

1. Noises created by construction and maintenance activities between 7:00 a.m. and 10:00 p.m. are exempt from the maximum permissible sound levels set forth above. Construction activities on a site abutting any residential use between the hours of 10:00 p.m. and 7:00 a.m. shall not exceed 50 dBA.
2. The following uses and activities shall also be exempt from the requirements of Table 6-G:
 - a. The noises of safety signals, warning devices, emergency pressure relief valves, and any other emergency devices.

- b. Traffic noise on public roads or noise created by aircraft and railroads.
- c. Noise created by refuse and solid waste collection, provided that the activity is conducted between 6:00 a.m. and 7:00 p.m.
- d. Emergency construction or repair work by public utilities, at any hour.
- e. Noise created by any recreational activities which are permitted by law and for which a license or permit has been granted by the City, including but not limited to concerts, parades, sporting events, and fireworks displays.

6.8.10 Odor

- A. It shall be a violation of this article to create an odor nuisance.
 - 1. An odor nuisance shall be considered to exist when 10 confirmed complaints occur in an area within two separate 24-hour periods. The 10 confirmed complaints must originate from 10 different households in an area zoned residential or from 10 different individuals in a commercial or industrial facility. The Building Authority shall only respond to a complainant who confirms that the odor is detectable at the time of the actual complaint. In order to confirm a complaint, the Building Authority or its designee shall first determine that an odor is detectable in the area of the complaint. The Building Authority or its designee shall interview the complainant to verify that the detectable odor is in fact the odor that resulted in the complaint. If the

complainant verifies the odor as the source of the complaint, then the Building Authority shall notify the owner or operator of the alleged odor source either in person or by telephone within one working day, with a written confirmation within seven working days of the complaint. In the event that the Building Authority is unable to contact the owner or operator of the alleged odor source in person or by telephone within one working day, then the Building Authority shall send written notice to the operator within seven working days of the complaint.

- 2. In the event that 10 complaints are confirmed as set forth in paragraph (1) above in two separate 24-hour periods within a 90-day period, the Building Authority shall cause a certified odor inspector to investigate any odor complaints received in the next 30 days following the receipt of the tenth confirmed complaint from the second 24 hour period. If the odors remain under the ambient intensity standard as established in this subsection for the next 30 days, then a new odor nuisance must be established after that time in accordance with the requirements of this subsection. The certified odor inspector shall do the following in response to a complaint under this subsection:
 - a. Verify that an odor is detectable in the area of the complaint and confirm that it is the odor that resulted in the complaint.
 - b. Quantify the intensity of the odor on the eight point in butanol intensity

scale as defined in regulations promulgated by the Planning & Urban Development Director to establish training and technical standards to support this subsection.

- c. Track the odor to its source.
- B. When the certified odor inspector determines that a violation has occurred because an odor has exceeded the maximum ambient odor levels set forth in this subsection, the Building Authority shall notify the owner or operator either by telephone or in person of the violation within one working day of the violation. The Building Authority shall confirm this notification in writing within seven working days of this initial notice. In the event that the Building Authority is unable to contact the owner or operator by telephone or in person within the required time period, then it will send written notification within seven working days of the violation.
- C. Upon receipt of the written notice of violation, the owner or operator of the odor source shall do the following:
 - 1. Implement odor reduction procedures immediately upon notification by the Building Authority that the facility has violated this subsection wherever odor reduction can be achieved by operational or procedural changes at the facility.
 - 2. Submit to the Building Authority, within 30 days of the written notice of violation, an odor reduction plan which is designed to reduce ambient odors attributable to emissions from that source to the maximum allowable intensity for that zone. The plan shall include a detailed summary of the measures that the owner or

operator will take to mitigate the community annoyance and estimated dates for completion of those measures. In the event that it will take longer than 30 days to develop the odor reduction plan, the owner or operator of the facility shall submit within the 30-day time period a schedule for the development of the odor reduction plan. The Building Authority shall review this plan to determine whether it will be adequate to resolve the odor nuisance in a reasonable time period.

- 3. Implement the plan in accordance with the schedule approved by the Building Authority.
- D. The maximum ambient intensity standard for odors generated by uses located in the industrial zones shall not exceed the following levels when the odor is measured in the zone indicated:
 - 1. 4.0 in any industrial or mixed-use zone for odors resulting from uses in industrial or mixed-use zones.
 - 2. 3.0 in any residential zone for odors resulting from uses in industrial or mixed-use zones.

6.8.11 Outdoor effects

- A. In all mixed-use, office, and industrial zones and the IS-FBC zone, uses shall be operated within a completely enclosed structure, except for those customarily operated in open air.
- B. In the mixed-use and IS-FBC zones, open air activities shall be those licensed by the city.
- C. There shall be no outdoor kennels.
- D. No open exterior stairways or fire escapes shall be constructed above the ground floor, except that the Building Authority may permit the



installation of an exterior egress stair or an upgrade of an existing exterior fire escape for a conforming or lawfully nonconforming dwelling unit existing as of January 5, 1998, if such egress is required to meet current fire or other life safety codes, provided that the owner demonstrates to the Building Authority that:

1. There is no practical and economically reasonable way to provide such egress within the interior of the building, as demonstrated by the submission of detailed floor plans showing the projected cost of and the impact on the existing dwelling from an interior stair.
2. The stairway and associated landings and other building fixtures are designed and will be constructed to have a minimal visual impact upon the building, especially as viewed from any public way or public open space, as demonstrated by photographs of the front and any other

affected facades of the building and plans or drawings of the proposed egress stairs.

6.8.12 Outdoor storage

Outdoor storage shall comply with the requirements of Table 6-H.

6.8.13 Relocation of displaced residents

In the B-3, B-3b, and B-3c zones, any development which results in the displacement of residents of dwelling units currently located on the development site shall meet the requirements of Section 18.5.

6.8.14 Smoke

Smoke shall not be emitted at a density in excess of the opacity level designated in Table 6-I, as classified in Method 9 (Visible Emissions) of the Opacity Evaluation System of the U.S. Environmental Protection Agency.

TABLE 6-H: OUTDOOR STORAGE STANDARDS

B-1/B-1b, B-2/B-2b/B-2c, B-3/B-3b/B-3c, O-P, R-P, A-B', and IS-FBC	There shall be no exterior storage with the exception of fully enclosed receptacles for solid waste disposal.
B-4, B-5/B-5b, B-6, B-7, and Industrial	Outdoor storage of materials shall be done in such a manner as to prevent the breeding and harboring of insects or vermin, to prevent the transfer of such materials from the site by natural causes or forces and to contain fumes, dust, or other materials which constitute a fire hazard. This storage shall be accomplished within enclosed containers or by raising materials above ground, separating materials, preventing stagnant water, or by some other means. In the B-4, B-5/B-5b, B-6, and B-7 zones, no outdoor storage shall be permitted in the front setback, except for storage for plant and tree nurseries or lumber yards if listed as a permitted use. In the B-4, B-5/B-5b, B-6, and B-7 zones, any storage of new materials, finished products, or related equipment must be suitably screened from the public way and abutting properties by a landscaped buffer or solid fence at least five feet in height.

TABLE 6-H: OUTDOOR STORAGE STANDARDS

B-1/B-1b and B-2/B-2b/B-2c	Vehicles or truck trailers with or without wheels shall not be used for on-site storage. In the B-2/B-2b/B-2c zone, there shall be an exception where such storage is located in a designated loading zone identified on an approved site plan or such storage is not visible from the street or adjacent residences during winter.
B-5	Outdoor storage of rental and moving equipment shall be located on the site and not within a public right-of-way or sidewalk. A curb, guard rail or other barrier shall be provided to contain such equipment and storage on the site as well as out of landscape buffer areas. A landscape buffer shall be provided. Outdoor storage of rental and moving equipment must be accessory to a building in existence as of the date of this ordinance. Exterior lighting shall not exceed that which is necessary for security purposes.

¹ Does not apply to airports.

TABLE 6-I: SMOKE STANDARDS

Zone	Opacity Level
R-P	20%
O-P	
B-1/B-1b	
B-2/B-2b/B-2c	30%
B-3/B-3b/B-3c	
B-4	
B-5/B-5b	40%
B-6	
B-7	
Industrial and A-B zones	20%
IS-FBC	

old or new building when completed would be closer than five feet to any part of any church, public or private hospital, or school or if any part of either old or new building when completed would be less than 15 feet from the boundary line of any lot upon which any part of any church, public or private hospital, or school is located. No existing garage used for the storage of more than three motor vehicles or for the business of repairing motor vehicles shall be deemed to become a nonconforming use through the subsequent erection of such church, hospital, or school closer than the aforesaid distance to such a garage.

6.8.15 Storage and repair of vehicles

- A. In all residential zones, all island zones, the R-P zone, and the B-3 zone, only one unregistered motor vehicle may be stored outside for a period not exceeding 30 days.
- B. In other mixed-use zones, storage of unregistered motor vehicles for more than 10 days and outdoor storage of used automobile tires shall be prohibited.
- C. No building in any zone shall be erected, altered or used as a garage for the storage of more than three motor vehicles or for the business of repairing motor vehicles if any part of either

6.8.16 Traffic

Development in the I-M, I-Ma and I-Mb zones shall utilize streets classified as arterials by the Maine Department of Transportation to the greatest extent possible.

6.8.17 Waste disposal

- A. All solid waste disposal, including materials which might cause fumes or dust, or constitute a fire hazard if stored out-of-doors, shall be only in fully enclosed, covered containers or receptacles. In all nonresidential zones with the

exception of the industrial zones, such containers or receptacles shall be within designated, screened areas. In industrial zones and the B-4 zone, outdoor storage of refuse, debris, or previously used materials awaiting reuse shall either be in an appropriate container or located within a designated, screened area.

- B. Containers or receptacles shall not leak or otherwise permit liquids or solids to escape from the container or be transferred beyond lot boundaries by natural causes or forces. Areas attracting large numbers of insects or vermin are prohibited.
- C. Where food processing is permitted, all food processing waste shall be stored within a completely enclosed structure and if not refrigerated shall be removed from the site in an enclosed container within 48 hours of its generation. All enclosed and exterior food processing waste storage areas shall be cleaned and sanitized on a regular basis.

vibrograph or similar instrument at the property boundaries.

6.8.18 Vibration

- A. In any mixed-use zone, the O-P, and the R-P zones, vibration inherently and recurrently generated shall be imperceptible without instruments at lot boundaries. This shall not apply to vibration resulting from activities aboard a vessel or from railroad vehicle activities, or from activities on a pile-supported pier.
- B. In all industrial zones, any use creating earthshaking vibrations, with the exception of airports, shall be controlled in such a manner as to prevent transmission beyond lot lines of vibrations causing a displacement of .003 or greater on one inch, as measured by a

7 DIMENSIONAL STANDARDS

7.1 APPLICABILITY

Construction, alterations, and additions to structures and buildings are governed by this article, except when superseded by other applicable laws or ordinances. It is the intent that, when in doubt, this article should be interpreted to accommodate the goals of the City's Comprehensive Plan and other plans.

7.2 RULES OF MEASUREMENT

Building footprint. The lot area contained within the outermost perimeter of the building envelope including cantilevered portions of the building, projections, and porches, decks, and similar attached structures integral to the building and contributing to its mass, but excluding roof overhangs.

Floor area. The total floor space enclosed by exterior or standard fire walls of a building, exclusive of vent shafts and courts.

Grade, pre-development. Average grade, existing on October 1, 2000, at the corners of the foundation of the proposed structure.

Height. The vertical measurement from grade, or the pre-development grade on the islands, to the highest point of a structure. For buildings, height shall be measured to the roof beams in flat roofs, to the highest point of the roof beams or the highest point on the deck of mansard roofs, to a level midway between the level of the eaves and highest point of pitched roofs or hip roofs, or to a level two-thirds of the distance from the level of the eaves to the highest point of gambrel roofs. For this

purpose, the level of the eaves shall be taken to mean the highest level where the plane of the roof intersects the plane of the outside wall on a side containing the eaves.

Impervious surface ratio. The proportion of a site covered by impervious surfaces, calculated by dividing the total impervious surface area by the lot area. For the purposes of this measurement, impervious surface shall be as defined by the Maine Department of Environmental Protection.

Landscaped open space ratio. The proportion of lot area covered by landscaped open space, calculated by dividing the total landscaped open space area by the lot area. For the purposes of this measurement, landscaped open space shall not include rooftop gardens or structured or engineered surfaces.

Lot area. The area of a lot enclosed within the boundary lines of a lot.

Lot coverage. The proportion of lot area covered by building footprint and the footprint of accessory detached structures.

Lot width. The distance measured between side lot lines through that part of the principal building where the lot is narrowest.

Net land area. The land area arrived at by subtracting from lot area the square footage of the following: a) areas of special flood hazard; b) existing watercourses measured by the area between the top of the banks at the normal high-water mark; c) wetlands; and d) slopes of 25% or greater. Where a slope of 25% or greater was altered to less than 25%

within the two years immediately preceding a development proposal, such slope shall also be subtracted from the lot area.

Setback. A space on a lot which is required by this article to be maintained open, unoccupied, and unobstructed between lot lines and any structure, except as otherwise permitted in this code of ordinances. A setback shall be measured from a line parallel to the lot line drawn through the point of a structure nearest to such lot line. This measurement shall be taken at right angles from such parallel line. When measuring setbacks, setbacks shall be interpreted to include setbacks of structures from property lines and setbacks of principal structures from one another. No principal structure shall occupy the minimum setback of another principal structure. Setbacks shall not apply to fences, flagpoles, raised garden beds, and other similar structures. When setbacks are established in relationship to height, the height in stories or feet of that part of the principal structure adjoining a yard shall be used in determining the required setback.

Setback, front. A setback along the front lot line, extending between side lot lines, the depth of which shall be the shortest horizontal distance between the front lot line and any structure. In the case of lots with frontages on two or more streets, the orientation of the principal entry to the principal building shall prevail. In the case of lots without frontage on a street, the property line that parallels the nearest developed street shall be considered the front.

Setback, rear. A setback along the rear lot line, extending between side lot lines, the depth of which shall be the shortest horizontal distance between

the rear lot line and any structure.

Setback, side. A setback along a side lot line extending from the front lot line to the rear lot line, the width of which shall be the shortest horizontal distance between the side lot line and any structure.

Stepback. A space on a lot which is required by this article to be maintained open, unoccupied, and unobstructed between lot lines and any structure that occurs at a prescribed height above the ground. Stepbacks shall apply to all attached accessory structures, including the minimum necessary housing of elevators, stairways, tanks fans, or other building operating equipment not intended for human occupancy.

Story. That portion of a building included between the surface of any floor and the surface of the floor, or the roof, next above. A half story is a story situated under a sloping roof, the area which at a height four feet above the floor does not exceed two-thirds of the floor area of the story immediately below it. A story which exceeds 18 feet in height shall be counted as two stories. A basement shall be counted as a story for the purpose of height measurement where more than one-half of its height is above the average level of the adjoining ground.

Street frontage. The distance for which a lot line adjoins a public street, from one lot line intersecting said street to the furthest distant lot line intersecting the same street.

7.3 DIMENSIONAL STANDARDS

Tables 7-A to 7-H shall establish the dimensional standards for each zone.

TABLE 7-A: RESIDENTIAL ZONE DIMENSIONAL STANDARDS

		R-1	R-2	R-3 ²	R-4	R-5 ^{2,3}	R-5a ⁴	R-6 ^{6,7}	R-6a ¹³
Lot area (min.)	Governmental	15,000 SF	10,000 SF	6,500 SF	6,000 SF	6,000 SF			
	Hospital			10 ac.		5 ac.		2 ac.	
	Intermediate or long-term, extended care facility	3 ac.	3 ac.	2 ac.		2 ac.	1.5 ac.	1 ac. ⁸	
	Lodging house					9,000 SF		2,000 SF	
	Multiplex				9,000 SF	9,000 SF			
	Place of assembly	<10,000 SF	1 ac.	1 ac.	1 ac.	15,000 SF	.5 ac.	.5 ac.	10,000 SF
		>10,000 SF	2 ac.	2 ac.	2 ac.	30,000 SF	1 ac.	1 ac.	15,000 SF
	Post-secondary school		2 ac.			2 ac.		2,000 SF	
	Elementary, middle, and secondary school	2 ac.	2 ac.	2 ac.	30,000 SF	30,000 SF		30,000 SF	
	Raising of animals	3 ac.							
	Residential	15,000 SF	10,000 SF	6,500 SF	6,000 SF	6,000 SF ³	6,000 SF / 2 ac. max ⁵	2,000 SF	4 ac.
	All other uses	15,000 SF	10,000 SF	6,500 SF	6,000 SF	6,000 SF		2,000 SF	
	Lot area per dwelling unit (min.)	15,000 SF	10,000 SF	6,500 SF	3,000 SF	3,000 SF	1,600 SF	725 SF	
	Lot area per rooming unit (min.)					1,000 SF		250 SF ⁹	
	Lot area per multiplex unit (min.)				3,000 SF for first 3; 6,000 SF thereafter	4,500 SF			
	Lot area per SNIDU¹ (min.)				2,400 SF	3,600 SF			
	Street frontage (min.)	75 ft.	50 ft.	50 ft.	50 ft.	50 ft.	50 ft.	20 ft.	
	Lot width (min.)	100 ft.	80 ft.	65 ft.	60 ft.	60 ft. 90 ft. for multiplex	60 ft.	20 ft.	
	Front setback (min.)	25 ft.	25 ft.	25 ft.	25 ft.	20 ft.	25 ft.	5 ft.	
		Or average depth of adjacent front yards							
Rear setback (min.)		25 ft.	25 ft.	25 ft.	25 ft.	20 ft.	25 ft.	10 ft.	
	Detached accessory (< 250 SF footprint)	5 ft.	5 ft.	5 ft.	5 ft.	5 ft.	5 ft.	5 ft.	
Side setback (min.)	<1.5 stories to 1.5 stories	12 ft.	12 ft.	8 ft.	10 ft.	8 ft.	10 ft.		<45 ft. in height: 10 ft.
	2 stories	14 ft.	14 ft.	14 ft.	14 ft.	12 ft.	14 ft.		
	2.5 stories	16 ft.	16 ft.	16 ft.	16 ft.	14 ft.	16 ft.	5 ft. ¹⁰	
	Detached accessory (< 250 SF footprint)	5 ft.	5 ft.	5 ft.	5 ft.	5 ft.	5 ft.		>45 ft. in height: 15 ft.
	On side street (min.)	20 ft.	20 ft.	20 ft.	20 ft.	15 ft.	20 ft.	None	
		Or depth of front yard directly abutting the lot.							

TABLE 7-A (CONT.): RESIDENTIAL ZONE DIMENSIONAL STANDARDS

	R-1	R-2	R-3 ²	R-4	R-5 ^{2,3}	R-5a ⁴	R-6 ^{5,7}	R-6a ¹³
Stepbacks (above 35 ft. when property line abuts a residential zone)(min.)							10 ft. from side property line and 15 ft. from rear property line ¹¹	
Structure height (max.)	35 ft.	35 ft.	35 ft.	35 ft.	35 ft.	35 ft.	45 ft. ¹²	65 ft.
Detached accessory	18 ft.	18 ft.	18 ft.	18 ft.	18 ft.	18 ft.	18 ft.	
Lot coverage (max.)	20%	20%	35%	30%	40%	30%	60%	
Landscaped open space ratio (min.)							20%	
Width of garage opening on front façade (max.)							9 ft. or 40% of the front facade, whichever is greater, and in no case more than 20 ft.	

¹ Special needs independent dwelling unit.

² See Table 7-B for PRUD standards.

³ Single-family homes may be built on small lots in the R-5 under small residential lot dimensional requirements under certain conditions. See Table 7-C for R-5 Small Residential Lot dimensional requirements.

⁴ For R-5a, PRUD standards shall apply to PRUDs, multi-family development of 4 or more units, congregate care, and intermediate, extended, or long-term care facilities, unless noted otherwise in the table above. See Table 7-B for additional standards that apply to these uses.

⁵ Applies to 1-, 2-, and 3-family dwellings only.

⁶ Alterations to single-family, two-family, and multi-family dwellings in existence as of 6/15/15 shall not result in the creation of any additional dwelling unit of less than 600 square feet of floor area, exclusive of common hallways and storage in basement and attic; and shall not result in any existing dwelling unit being reduced in size to less than 1,000 square feet of floor area, exclusive of common areas and storage in basement and attic.

⁷ Subdivisions consisting of horizontally attached dwellings on individual lots are not required to have side yards between such dwellings where a party wall condition will exist. Horizontally attached dwellings located within a single lot shall be required to meet the applicable side setback requirements at the external lot boundaries of the subdivision and internal lot boundaries between such dwellings that are not attached to each other. No minimum lot size or width shall be required for individual lots underlying townhouse (horizontally attached) dwelling types. The applicable minimum lot area per dwelling shall apply to each lot.

⁸ Except for long-term and extended care facilities: 10,000 SF for the first 9 residents plus 750 SF for each additional resident, up to a total of 2 ac.

⁹ A minimum lot area per intermediate care resident of 250 SF also applies.

¹⁰ Except that a side setback in the R-6 zone may be reduced to zero, provided that the cumulative side yards are not less than 10 ft. A permanent maintenance easement a minimum of 5 ft. in width shall be provided on the parcel adjacent to the lot line with the reduced side setback.

¹¹ Does not apply on side streets.

¹² Except as provided under the Fort Sumner Park Height Overlay and the Bayside Height Overlay.

¹³ All R-6 dimensional standards apply in the R-6a unless otherwise indicated.

TABLE 7-B: PRUD DIMENSIONAL STANDARDS

	R-3	R-5	R-5a³
Lot area¹ (min.)	3 ac.	2 ac.	2 ac. ⁴
Net land area per dwelling unit (min.)	6,500 SF	3,000 SF	1,600 SF ^{4,5}
Units per building (max.)	PRUD < 5 ac.: 2 PRUD > 5 ac.: 6	12	
Average number of units per building (max.)	PRUD > 5 ac.: 5		
Structure height (max.)	35 ft.	35 ft.	55 ft.
Building length (max.)	Without garages: 100 ft. With integral garages: 140 ft.	140 ft.	
Length of accessory garage structure (max.)		60 ft.	
Building setback from external subdivision property lines (min.)	3 or fewer D.U. in building: 25 ft. 4 or more D.U. in building: 35 ft.	Bldg. Length 100 ft. or less: 25 ft. Bldg. Length >100 ft.: 35 ft.	Bldg. Length 100 ft. or less: 25 ft. Bldg. Length >100 ft.: 35 ft.
Distance between detached PRUD dwelling units (min.)	16 ft.		
Common recreation open space area² (min.)	300 SF/D.U.	300 SF/D.U.	200 SF/D.U. ⁴
Habitable space elevation	No habitable space in a PRUD shall be below grade, except basements that are a part of and below above-ground units.		

¹ Areas of special flood hazard as defined in Article 12 shall be excluded from lot area calculations.

² Common open space shall be designated on the site. The primary purposes of such open space areas shall be for passive or active recreation. Such spaces may include natural, landscaped or hardscaped elements. At a minimum, a contiguous area of 6,000 SF shall be provided.

³ In the R-5a zone, PRUD standards shall apply to PRUDs, multi-family development of 4 or more units, congregate care, and intermediate, extended, or long-term care facilities unless otherwise noted.

⁴ Does not apply to intermediate, extended, or long-term care facilities but does apply to PRUDs, congregate care, and multi-family development of 4 or more units.

⁵ Minimum land area per intermediate care facility resident: 8,000 SF lot area for first 35 residents, plus 350 SF for each additional resident.

⁶ For PRUD standards in island zones, see Table 7-D.

TABLE 7-C: R-5 SMALL RESIDENTIAL LOT DEVELOPMENT DIMENSIONAL STANDARDS¹

	Lot area (min.)	5,000 SF
		7 ft. ²
Side setback (min.)	Detached accessory (< 250 SF footprint)	5 ft.
	Side yard on side street	10 ft.
	Lot width (min.)	40 ft.
	Street frontage (min.)	40 ft.
	Lot coverage (max.)	50%

¹ Single-family homes may be built on small lots in the R-5 under small residential lot development dimensional requirements if the lot is: vacant; or used exclusively for parking; or contains structure(s) not used for residential purposes; or is created from a single lot division of a developed lot and results in a lot meeting the small residential lot dimensional requirements with the remaining developed portion meeting the standard dimensional requirements of the R-5 zone.

² The width of one side setback may be reduced 1 ft. for every foot that the other side yard is correspondingly increased, but no side yard shall be less than 4 ft. in width.

TABLE 7-D: ISLAND ZONE DIMENSIONAL STANDARDS

						I-B ¹⁰	
						<i>Served by Public Water & Sewer</i>	<i>Not Served by Public Water & Sewer</i>
Lot area (min.) ¹¹			IR-1	IR-2	IR-3		
	Bed and breakfast					5,000 SF for 3 guest rooms plus 5,000 SF/ additional room	10,000 SF/ guest room
	Campground		10 ac.		5,000 SF/ campsite, but not less than 10 ac.		
	Hotel				10,000 SF/ guest room	5,000 SF for 3 guest rooms plus 5,000 SF/ additional room	10,000 SF/ guest room
	Lodging house			10,000 SF/ rooming unit	10,000 SF/ rooming unit	5,000 SF for 3 rooming units, plus 5,000 SF/ additional rooming unit	10,000 SF/ rooming unit
	Place of assembly	>10,000 SF	30,000 SF	30,000 SF	35,000 SF	20,000 SF	
		<10,000 SF	15,000 SF	15,000 SF			
	PRUD/PUD		5 ac. ¹	5 ac. ¹	20 ac.		
	Raising of animals		3 ac.				
	Residential		40,000 SF ^{2,3}	20,000 SF ³	42,500 SF ⁶	20,000 SF	
	Restaurant				35,000 SF	10,000 SF	20,000 SF
	Retail				35,000	None	20,000 SF
	Seasonal camp		10 ac.		35,000 SF		
	School/educational facility		40,000 SF	20,000 SF	35,000	20,000 SF	
	All other uses				35,000 SF	20,000 SF	
Lot area per dwelling unit (min.)		None ⁴ 40,000 SF ⁴	None ^{20,000} 20,000 SF ⁴	42,500 SF ⁷			
Street frontage (min.)		100 ft. ⁵	70 ft. ⁵	70 ft. ⁸	40 ft.		
Lot width (min.)		100 ft. ⁵	80 ft. ⁵	80 ft.	40 ft.		
Front setback (min.)		30 ft. ⁵	25 ft. or the average of adjacent front yards ⁵	25 ft. ⁹	20 ft. or avg. depth of adjacent front yards		
Rear setback (min.)		30 ft. ⁵	25 ft. ⁵	25 ft. ⁹	10 ft.		
	Detached accessory (< 250 SF footprint)	10 ft. ⁵	10 ft. ⁵	10 ft. ⁹			

TABLE 7-D (CONT.): ISLAND ZONE DIMENSIONAL STANDARDS

					I-B ¹⁰	
					<i>Served by Public Water & Sewer</i>	<i>Not Served by Public Water & Sewer</i>
		IR-1	IR-2	IR-3		
Side setback (min.)		20 ft. ⁵	20 ft. ⁵	20 ft. ⁹	10 ft.	
	Detached accessory (< 250 SF footprint)	15 ft. ⁵	15 ft. ⁵	15 ft. ⁹	10 ft.	
	On side street	20 ft. ⁵	20 ft. ⁵	20 ft. ⁹	10 ft.	
Structure height (max.)		35 ft.	35 ft. For Little Diamond Island: 27 ft.	35 ft.	35 ft.	
	Accessory detached	18 ft.	18 ft.	18 ft.	18 ft.	
	Lot coverage (max.)	20%	20%	20%	50%	

¹ PRUDs shall consist of detached dwellings.

² 60,000 SF if not served by public water.

³ For PRUDs, minimum lot area shall be reduced up to 50% provided there is an equivalent corresponding increase in common or public open space that is usable for passive or active recreational opportunities or that serves as a buffer between buildings or between the development and the surrounding neighborhood.

⁴ ~~In the case of PRUDs, lot area per dwelling unit shall be calculated based on net land area. Except 1 dwelling unit per 40,000 SF of net land area for PRUDs in IR-1 and 20,000 SF of net land area in for PRUDs IR-2.~~

⁵ For PRUDs, standard shall be reduced up to 50%. For accessory structures in the IR-1, IR-2, and I-B zones, side setbacks from principal structures shall be 5 feet.

⁶ Except that the minimum lot size per dwelling unit shall be reduced by the amounts specified below, to a minimum lot size of 35,000 SF per dwelling unit, provided that the Planning Board finds that the development meets the following criteria: a. The minimum lot size per dwelling unit shall be reduced by 5,000 SF if a public off-island water source provides 75% of the water needs of the development. b. The minimum lot size per dwelling unit shall be reduced by 2,500 SF if the development provides appropriate permanent restrictions or other agreements precluding the use, maintenance and parking of all private motor vehicles exclusive of construction and common service vehicles.

⁷ The maximum density for a PUD shall be based on the applicable minimum lot size for each use as measured in terms of net area. For purposes of calculating density, if separately described lots exceed the applicable minimum lot size, the excess area shall not be credited toward the minimum lot size for any other use.

⁸ Except where the Planning Board finds that the development has an adequate street network to permit access for pedestrians and emergency service vehicles.

⁹ When adjoining any external property boundary.

¹⁰ All I-B standards apply for lots served by public water and sewer and lots not served by public water and sewer unless otherwise indicated.

¹¹ In the IR-3, the minimum lot area for buildings containing both residential and nonresidential uses shall be cumulative. Where there are two or more residential uses contained in a building, the minimum lot area shall be the larger of the applicable minimum lot sizes.

DIMENSIONAL STANDARDS

TABLE 7-E: MIXED-USE ZONE DIMENSIONAL STANDARDS

		B-1/B-1b	B-2/B-2b/B-2c	B-3/B-3b/B-3c	B-4	B-5/B-5b	B-6	B-7
Lot area (min.)	School	20,000 SF			10,000 SF			
	Place of assembly	10,000 SF						
Lot area per dwelling unit (min.)	On-peninsula	435 SF	435 SF					
	Off-peninsula	1,000 SF	1,000 SF, except 435 SF if active street frontage ³					
Lot area per rooming unit (min.)	On-peninsula	150 SF	150 SF					
	Off-peninsula	350 SF	350 SF					
Street frontage (min.)		20 ft.	20 ft.	15 ft.	60 ft.			
Front setback (from all street frontages) (max.)		10 ft., or the average front yard depth of nearest developed lots if < 10 ft.	10 ft.	5 ft.	20 ft.	None, except 10 ft. in B-5b	10 ft. ⁷	10 ft.
Rear setback (min.)	Principal	None, except 10 ft. if abutting a residential zone	10 ft.		20 ft.			
	Accessory	None, except 5 ft. if abutting a residential zone	5 ft.		7 ft.			
Side setback (min.)	Principal	None, except 5 ft. if abutting residential zone	None		10 ft.			
	Accessory		5 ft.		5 ft.			
Stepbacks (above 35 ft. when property line abuts a residential zone) (min.)		Side: 10 ft. Rear: 15 ft.	Side: 5 ft. Rear: 15 ft.					
Length of building wall at maximum setback (min.)							70% of street frontage or 25% of building perimeter ⁸	75% of street frontage or 25% of building perimeter ⁹
Length of undifferentiated blank wall along publicly accessible way (max.)				30 ft., except 15 ft. within PAD Overlay				
Floor area (max.)		Non-residential uses on first floor: 10,000 SF total ¹ Restaurants (public area): 2,000 SF Clinics: 3,000 SF	Laboratory and research facilities, warehousing: 10,000 SF	None, except 15,000 SF for each floor above 125 ft.			Laboratory and research facilities and warehousing: 15,000 SF Exhibition and meeting halls: 20,000 SF	

TABLE 7-E (CONT.): MIXED-USE ZONE DIMENSIONAL STANDARDS

	B-1/B-1b	B-2/B-2b/B-2c	B-3/B-3b/B-3c	B-4	B-5/B-5b	B-6	B-7
Structure height (max.)	On-Peninsula: 45 ft., except 50 ft. along Congress Street if commercial first floor and residential above ² Off-Peninsula: 35 ft.	45 ft., except 50 ft. if first floor is in commercial use, 65 ft. in B-2 and B-2c on lots >5 ac. if required side and rear setbacks are increased by 1 foot for each foot of height over 45 ft., or as otherwise governed by the Bayside Height Overlay Map	See Downtown and Bayside Height Overlay Maps	65 ft.	65 ft., except in B-5b along W. Commercial St. south of Danforth St. ⁵ and 120 ft. on Thompson's Point ⁶	65 ft. or as otherwise governed by the B-6 Building Height Overlay Map	See Bayside Height Overlay Map
Lot coverage (max.)			25% of lot area for portions of structures exceeding 125 ft. in height ⁴				
Impervious surface ratio (max.)	90%	Residential: None Other uses in B-2 and B-2c: 80% Other uses in B-2b: 90%		80%			

¹ Uses in structures which existed prior to the date of enactment of the B-1/B-1b zones are exempt.

² The commercial first floor uses shall utilize at least 75 % of the first-floor frontage along Congress Street and shall have an average depth of at least 20 ft.

³ A building will be determined to have an active street frontage upon meeting the following guidelines to the greatest extent practicable: the primary building façade shall be within 10 ft. feet of the front lot line; there shall be no parking on the lot within 35 ft. of the front lot line; no more than 25% of the first floor primary façade shall consist of access to garages, unutilized space, service entrances, storage or mechanicals and the remaining minimum 75% shall have an average depth of a minimum of 20 ft. for residential or commercial uses; and all primary ground floor entries to multi-family buildings must orient to street, not to interior blocks or parking lots.

⁴ Except that no floor area shall be required to be less than 10,500 SF, gross.

⁵ For parcels of land in the B-5b zone located along W. Commercial St. south of Danforth St.: West of the projection of the centerline of the Fletcher St. right-of-way, the maximum building height shall be 45 ft.; and, east of the projection of the centerline of the Fletcher St. right-of-way and west of the projection of the centerline of the Emery St. right-of-way, the maximum building height shall be 55 ft. A projection of the centerline of a street is defined by extending the centerline of the referenced street right-of-way along its most southerly block to the centerline of W. Commercial St. Furthermore, notwithstanding Subsection 7.5.1, no rooftop structure located between the projections of the centerlines of Emery St. and Fletcher St., as described above, shall exceed a height of 62 ft as measured from average grade of the building at its foundation.

⁶ Applies only to parcels subject to an approved master development plan. Thompson's Point is defined as the contiguous parcels of upland occupying the peninsula bounded on the east by Route 295, on the north by the Mountain Division Rail right-of-way, and on the south and west by the Fore River and its associated wetlands. Nearby lands accessed from Hobart and Osgood Streets are not included.

⁷ Does not apply to parking garages and public transportation facilities. Notwithstanding required setbacks, new structures located in the blocks located south of Fore Street and north of Commercial Street and its extension shall build to the key building envelopes shown on the B6 Building Height Overlay & Building Envelopes map. Buildings located in the area east of the Fore Street Connector shall not have a maximum front setback and shall not be required to build to the key building envelope perimeter. Parking structures and the buildings for public transportation facilities may, however, be set back beyond the key building envelopes (toward the interior of blocks), but may not occupy the land between the key building envelope and the street right-of-way.

⁸ For buildings fronting on two or more streets, the minimum building wall on one street may be decreased so long as the frontage is proportionally increased on other streets in so far that the building wall on the secondary street is not reduced to less than 25 ft. Buildings in the area east of the Fore Street Connector shall not be subject to this requirement.

⁹ Does not apply to additions to or relocations of designated historic structures or structures determined to be eligible by the Historic Preservation Board.

TABLE 7-F: OFFICE PARK & RESIDENCE PROFESSIONAL ZONE DIMENSIONAL STANDARDS

	O-P	R-P ¹
Lot area (min.)	1.5 ac.	6,000 SF
Street frontage (min.)	100 ft.	60 ft.
Lot width (min.)	150 ft.	60 ft.
Front setback (min.)	50 ft.	20 ft., or avg. depth of adjacent front yards ²
Rear setback (min.)	Principal	20 ft.
	Accessory	7 ft.
Side setback (min.)	Principal	1 story: 10 ft.
	25 ft., except 40 ft. where side yard abuts residential zone or use	2 stories: 12 ft.
		3+ stories: 14 ft.
	Accessory	7 ft.
On side street		1-2 stories: 15 ft.
		3+ stories: 18 ft.
Structure height (max.)	55 ft., except 75 ft., including rooftop appurtenances, on lots within office park subdivisions which are > 50 ac. if each minimum setback is increased by 1 ft. for each 1 ft. of height above 55 ft.	45 ft.
Floor area (max)	High-tech manufacturing: 20,000 SF	
Impervious surface ratio (max.)	60%	70%
Pavement setback (min.)	15 ft.	

¹ Residential uses shall meet the dimensional requirements of the nearest residential zone.

² The front yard of a lot existing as of April 4, 1988, which lot is less than 100 ft. deep, need not be deeper than 10% of the depth of the lot.

TABLE 7-G: INDUSTRIAL & AIRPORT ZONE DIMENSIONAL STANDARDS

	I-L/I-Lb		I-M/I-Ma/I-Mb		I-H/I-Hb		A-B
Lot area (min.)							20,000 SF
Street frontage (min.)	60 ft.		60 ft.		60 ft.		50 ft. ²
Lot width (min.)							50 ft.
Front setback (min.)	I-L	25 ft.	I-M/I-Ma	1 ft. for each ft. of building height	I-H	25 ft.	None, except 20 ft. if property has frontage on Westbrook St.
	I-Lb	None	I-Mb	None	I-Hb	None	
Rear setback (min.)	I-L	25 ft., except 40 ft. when abutting residential zone	I-M/I-Ma	1 ft. for each ft. of building height up to 25 ft., except 35 ft. when abutting residential zone	I-H	35 ft.	None., except 50 ft. if abutting residential zone or use ³
	I-Lb	None, except 25 ft. when abutting residential zone	I-Mb	None, except 25 ft. when abutting residential zone	I-Hb		
Side setback (min.)	I-L	25 ft., except 40 ft. when abutting residential zone	I-M/I-Ma	1 ft. for each ft. of building height up to 25 ft., except 35 ft. when abutting residential zone	I-H	35 ft.	None, except 25 ft. if abutting residential zone or use ³
	I-Lb	None, except 25 ft. when abutting residential zone	I-Mb	None, except 25 ft. when abutting residential zone	I-Hb		
Structure height (max.)	45 ft.		I-M/I-Mb	75 ft.	75 ft.		75 ft., except 45 ft. within 100 ft. of a residential zone
			I-Ma	45 ft.			
Impervious surface ratio (max.)	I-L	65%	I-M/I-Ma	75%	I-H	85%	70% ²
	I-Lb	100%	I-Mb	100%	I-Hb	100%	
Pavement setback (min.) ¹	15 ft.		10 ft.		10 ft.		

¹ Shall not apply to entrance drives.

² Except for lots in airport restricted access areas, which shall not be subject to this provision.

³ No structure may extend beyond the building line established for any runway or taxiway. If provided, rear and side yards must not be less than 5 ft. in width.

TABLE 7-H: RECREATION OPEN SPACE ZONE DIMENSIONAL STANDARDS

R-OS ¹		
Front setback (min.)		25 ft.
Rear setback (min.)		25 ft.
Side setback (min.)	Principal	
	Accessory	12 ft.
	On side street	
Structure height (max.)	Principal	35 ft., except 45 ft. if more than 1,000 ft. from a shoreland zone.
	Accessory	
Floor area ratio (max.)		.5
Impervious surface ratio (max.)		25% ²

¹ Public open spaces less than 2 ac. and on the peninsula are not required to meet the R-OS dimensional standards.

² Except 75% for sports complexes and 100% for sewage treatment facilities.

7.4 SUPPLEMENTAL DIMENSIONAL STANDARDS

7.4.1 Corner clearance

No shrub, wall, fence, sign, or pile of material higher than 3 1/2 feet above the lowest elevation at the curblin shall be permitted on a corner lot within the area of a triangle formed by a line connecting the curblines of the intersecting streets at points 25 feet from the corner, unless said obstruction is reviewed by the Public Works Authority and found not to be a traffic or public safety hazard.

7.4.2 Fences

In residential zones, no wall or fence within 15 feet of the street shall be more than four feet in height, unless said fence is located in the side or rear yard.

7.4.3 Solar energy systems

A. Setbacks

- Solar energy systems shall be located in side or rear yards wherever possible.
- Minor solar energy systems shall be setback 50 feet from residential, R-P, B-1/B-1b, and B-2/B-2b/B-2c zones.

- Major solar energy systems shall be setback 75 feet from residential, RP, B-1/B-1b, and B-2/B-2b/B-2c zones.

B. Height

- Ground-mounted solar energy systems.*
Where the total height of the support structure plus the solar energy system is equal to or below the zone-based height maximum, the absolute height of the solar energy system shall be 20 feet above the ground as measured from the base of the support.
- Roof-mounted solar energy systems.*
Where the total height of the support structure/building plus the solar energy system is equal to or below the zone-based height maximum, the absolute height of the solar energy system shall be:
 - In all residential and R-P zones: 5 feet above the roof and set back from the edge of the roof by one foot for every one foot of solar energy system height.

- b. In B-4 and industrial zones: No limit
- c. In all other zones: 8 feet above the roof and set back from the edge of the roof by one foot for every one foot of solar energy system height.

7.4.4 Swimming pools

Outdoor swimming pools as accessory uses shall be subject to the following dimensional standards:

- A.** No swimming pool shall be sited in the front yard.
- B.** No part of any swimming pool shall be located closer than 10 feet from the principal structure, nor closer than 10 feet from side or rear lot lines.

7.4.5 Wind energy systems

A. Setbacks

1. Wind energy systems and associated facilities shall meet all setbacks for principal structures for the zone in which the system is located. Where setbacks vary, the largest setback shall apply. All parts of the wind energy system, including associated facilities and guy wires, shall be at least 10 feet from the property line (except where connecting to the grid), any utility line (in any direction), or other easement/right-of-way. The setback from utility lines, easements, and right-of-way lines may be reduced where the owner/benefitted party provides written permission.
2. Roof-mounted wind energy systems shall be set back from property boundaries and street right-of-way lines by a distance equal to or greater than four times the height of the system as measured from the roof surface at the point of attachment. For systems in and adjacent to waterfront zones, mixed-use zones (except B-1/B-1b and I-B), OP zone, industrial zones, the Island Transfer Station Overlay zone, and the R-OS zone, the setback from property boundaries and street right-of-way lines may be reduced to a minimum distance of 1.0 times the height of the system, where the system is incorporated into the architecture of the building and a certified engineer confirms that it would not present a public safety risk. The setback shall be measured to the center of the wind generator base.
3. Freestanding wind energy systems with a total height of less than 85 feet shall be set back from property boundaries and street right-of-way lines by a distance equal to or greater than 1.1 times the total height of the system, and from residential buildings and hospitals on other properties by a distance equal to or greater than twice the total height of the system. The setback distance shall be measured to the center of wind generator base.
4. Freestanding wind energy systems with a total height of greater than 85 feet shall be set back away from property boundaries and street right-of-way lines by a distance equal to or greater than twice the total height of the system, and from residential buildings and hospitals on other properties by a distance equal to or greater than four

times the total height of the system.

5. For freestanding wind energy systems in and adjacent to waterfront zones, mixed-use zones (except B-1/B-1b and I-B), the O-P zone, industrial zones, the Island Transfer Station Overlay Zone, and the R-OS zone, the setback from property boundaries and street right-of-way lines may be reduced to a minimum distance of 1.0 times the total height of the system where determined that the minimum required setback would be contrary to the public interest.
6. In residential zones, the B-1/B-1b zones, the I-B zone, and the R-P zone, where the lot is less than 0.5 acres, any vertical element of the wind energy system (tower/pole) shall be located in the rear yard or on the rear half of the existing building. Wind energy systems and associated facilities shall be sited to maximize existing vegetative or other screening from nearby residential buildings and public ways. The location shall minimize changes to existing topography and existing natural vegetation which would result from construction or maintenance of the system.

B. Height

1. Heights of wind energy systems, permitted as either freestanding or roof-mounted structures, shall be as shown in Table 7-1.
2. Roof-mounted wind energy systems shall measure no higher than 10 feet above the highest part of the roof.

TABLE 7-1: WIND ENERGY SYSTEM HEIGHT

Zone	Height (max.)
RPZ	10 ft.
Residential Zones¹, R-P, B-1/B-1b, and I-B	25 ft.
Historic Districts² and within 1,000 ft. of designated landmarks	45 ft.
EWPZ, WPDZ, WCZ, B-2/B-2b/B-2c, B-5, and B-6	65 ft.
B-3, B-4, B-7, and O-P	85 ft.
ROS, I-M, I-Mb, I-H, and A-B	160 ft.

¹ Permitted up to 65 ft within USM Overlay Zone or on other sites with institutional uses measuring over 5 acres.

² Permitted up to 85 ft in B-3 part of Downtown Historic District.

7.5 SPACE AND BULK EXCEPTIONS

7.5.1 Height

- A. In the B-3/B-3b/B-3c zones.** Minimum height provisions as depicted on the Downtown Height Overlay Map shall not apply to:
1. Accessory building components and structures such as truck loading docks covered parking, mechanical equipment enclosures and refrigeration units.
 2. Information kiosks and ticketing booths.
 3. Public transportation facilities of less than 10,000 square feet, or additions of less than 5000 square feet to existing public transportation facilities provided that the cumulative additions as of June 4, 2007 do not exceed 10,000 SF.
 4. Additions to buildings existing as of June 4, 2007 provided that the cumulative additions since June 4, 2007 do not exceed 10% of the building footprint on June 4, 2007, except building additions on those portions of the lot located closer to the street line than the building footprint

- existing as of June 4, 2007 shall not be included in this 10% limitation.
5. Utility substations, including sewage collection and pumping stations, water pumping stations, transformer stations, telephone electronic equipment enclosures, and other similar structures.
 6. Additions to and/or relocation of designated historic structures or structures determined by the Historic Preservation Board to be eligible for such designation.
 7. Parking attendant booths or bank remote teller facilities.
 8. Structures accessory to parks and plazas.
 9. Buildings or building additions of less than 2,500 square feet footprint, on lots or available building sites of less than 3,000 square feet.
- B. In the B-6 zone.** Minimum height provisions as depicted on the B-6 Building Height Overlay and Building Envelopes map shall not apply to:
1. Buildings located in the area east of the Fore Street Connector.
 2. Parking attendant booths.
 3. Information kiosks and ticketing booths.
 4. Parking garages.
 5. Public transportation facilities.
 6. Additions to buildings existing as of December 8, 2004 provided that the cumulative additions since December 8, 2004 do not exceed 25% of the building footprint on December 8, 2004, except that such restriction shall not apply to those portions of the building addition that are constructed closer to the street line than the building footprint existing as of December 8, 2004.
 7. Buildings or building additions of less than 2,000 square feet footprint on lots or available building sites of less than 2,000 square feet.
 8. Utility substations, including sewage collection and pumping stations, water pumping stations, transformer stations, telephone electronic equipment enclosures and other similar structures.
 9. Additions to and/or relocations of designated historic structures.
- C. In the B-7 zone.** Minimum floor provisions as depicted on the Bayside Height Overlay Map shall not apply to:
1. Accessory building components such as truck loading docks, mechanical equipment enclosures and refrigeration units.
 2. Information kiosks and ticketing booths.
 3. Parking garages.
 4. Public transportation facilities.
 5. Additions to buildings existing as of March 9, 2005 provided that the cumulative additions since March 9, 2005 do not exceed 50% of the ground floor building footprint on March 9, 2005, except that such restriction shall not apply to those portions of the building addition(s) that are constructed closer to the street line than the building footprint existing as of March 9, 2005.
 6. Utility substations, including sewage collection and pumping stations, water pumping stations, transformer stations,

telephone electronic equipment enclosures, and other similar structures.

7. Additions to and/or relocation of designated historic structures or structures determined by the Historic Preservation Board to be eligible for such designation.
8. Portions of buildings more than 50 feet from the street line.

D. In the Bayside Gateway Urban Height District

A. Buildings in the Bayside Gateway Urban Height District A as depicted on the Bayside Height Overlay Map may be greater than 125 feet but no more than 165 feet in height provided that:

1. Such buildings shall be reviewed by the Planning Board as conditional uses under Section 6.5 of this Land Use Code.
2. Such buildings shall be sited to minimize encroachment into designated view corridors and visual landmarks to and from the downtown or that do not substantially further obstruct such corridors blocked by existing development as referenced in the Bayside Height Study Map and the B-7 design standards.
3. Portions of such buildings higher than 125 feet shall be stepped back at upper levels to provide light and air to adjacent streets, trails, and open spaces, with a ratio of no less than the ratio of building height to width of adjacent streets, trails and open spaces equivalent to 1.5 to 1. The Planning Board may modify this requirement for master development plans or major site

plans provided that the following conditions are met:

- a. Each building exceeding 125 feet shall contain at least 20 dwelling units per building.
- b. Building wall stepback requirement along public street frontage for buildings with frontage on one street: Minimum 10-foot stepback between third and fifth stories and a minimum 10-foot stepback between the 125 and 145 foot level.
- c. Building wall stepback requirement along public street frontage for buildings with frontage on multiple streets: Above paragraph (b) requirement along longest building façade street wall, and of the remaining street walls the same requirement as paragraph (b) or a 15 foot wide streetscape improvement area containing a public sidewalk, landscaping, and other streetscape improvements within the abutting street right-of-way and/or private property along the remaining street frontage. A building with frontage on four streets shall meet the above requirement except that two of the streets shall have the stepback requirement.
- d. The Planning Board shall have the authority to waive one or more of the required stepbacks provided that one of the following conditions is met:

- i. The depth of the building lot precludes a building having an average minimum lot depth dimension of 170 feet.
- ii. The proposed building has an architecturally significant design that is articulated to avoid a monolithic appearance and emphasizes slender, vertically-oriented proportions while employing a variety of scales, materials, fenestration, and massing to assure a rich, visually interesting experience as viewed within the context of the downtown skyline and provide visual interest and human scale at the pedestrian level.
- e. In the event such a waiver is granted, the Planning Board may require the applicant to mitigate the impacts of the waiver by requiring the following:
 - i. Along all public street frontages and public open spaces, all buildings (regardless of height) shall maintain a pedestrian scale through the use of building elements at the street level as listed in this standard along no less than 60% of the building's horizontal length.
 - ii. Along all public street frontages and public open space for the building(s) over 125 feet, a canopy, awning, or similar permanent architectural feature to provide pedestrian protection and wind mitigation shall be provided within the first 35 feet of height.
 - iii. In order to preserve view corridors and to maintain a varied skyline, all buildings above 125 feet within a single development site should be separated to avoid the appearance of a tall, solid block massing. In accordance with this policy, on development sites of 500 feet or greater as measured parallel to Marginal Way, the aggregate building façade widths above 85 feet shall not exceed 50% of the total development site distance parallel to Marginal Way. Buildings over 125 feet in height that are being reviewed as separate phases of a master development plan shall be entitled to meet the 50% building requirement in aggregate for all such buildings over 125 feet in height in the master development plan, provided that view corridors are retained as each phase is built.
 - iv. The applicant shall demonstrate building design elements and location will reasonably mitigate downdraft effects of the proposed building or buildings.
- 4. Such buildings provide publicly accessible and usable open space, meeting the B-7 design standards, of at least 10% of the building lot area.

5. If located on lots including or adjacent to planned or proposed street or pedestrian way connections, land dedication to such street or connection shall be credited toward the 10% open space requirement. Buildings over 125 feet in height that are being reviewed as separate phases of a master development plan shall be entitled to meet the 10% percent open space requirement in aggregate for all such buildings over 125 feet in height, provided that the open space shall not fall below 10% percent at any built phase or combination of built phases.
6. Such development shall comply with all other requirements and design standards as required by this article.

E. Roof-mounted solar energy systems.

Photovoltaic panels and thermal water heating panels, whether parallel or angled to a pitched or gable roof, may be erected above the height limitation for principal or accessory buildings as follows:

1. *In all residential zones.* Up to three feet above the maximum height allowed in the underlying zone. In the case of flat roofs, the solar energy system may be up to five feet above the maximum height allowed in the underlying zone. All roof-mounted solar energy systems shall be set back from the edge of the roof by one foot for every one foot of solar energy system height.
2. *In B-4 and industrial zones.* Up to four feet above the maximum height allowed in the underlying zone. In the case of flat roofs, there are no height limits.

3. *In all other zones.* Up to three feet above the maximum height allowed in the underlying zone. In the case of flat roofs, the solar energy system may be up to eight

feet above the maximum height allowed in the underlying zone. All roof-mounted solar energy systems shall be set back from the edge of the roof by one foot for every one foot of solar energy system height.

- F. **Public art.** Except in residential zones, public art that has been individually accepted by the City Council for inclusion within the public art collection pursuant to Article 21 shall not be subject to the height limitations within the underlying zone.
- G. **Rooftop appurtenances.** Unless otherwise noted, rooftop appurtenances for the housing of elevators, stairways, tanks, fans, or other building operating equipment not intended for human occupancy, deck railings, skylights, steeples, flag poles, chimneys, smokestacks, radio or television masts, water tanks, or silos may be erected above the height limitations herein prescribed.
- H. **Telecommunication towers.** Where permitted, ground-mounted telecommunication towers may be erected above the height limitations within the underlying zone.

7.5.2 Length of building wall at maximum setback

- A. **In the B-6 zone.** Buildings located area east of the Fore Street Connector shall not be subject to the building wall requirement.

- B. In the B-7 zone.** Additions to and relocations of designated historic structures or structures determined to be eligible under Article 17 shall be exempt from the building wall requirement.

7.5.3 Lot area

- A. Institutional uses in residential zones.** No minimum lot area shall be required for institutional uses in residential zones in the following cases:
1. Uses existing as of June 1, 1983.
 2. Expansion on to land abutting the lot on which the principal use is located.
 3. Expansion onto land other than the lot on which the principal use is located to the extent that such expansion consists of the reuse of surface parking area or nonresidential structures existing and in nonresidential use as of June 1, 1983, provided that such reuse is contained within the lot of such structure or parking area as of June 1, 1983.
 4. Expansion onto land other than the lot on which the principal use is located of no more than 15% of the total contiguous land area of the existing use, or one acre, whichever is less, within any five-year period.
- B. Residential lots not served by public sewers.** A lot in an unsewered residential district shall meet the provisions of the state Minimum Lot Size Law, 12 M.R.S. § 4807 et seq., or the applicable minimum lot area, whichever is larger, except that the minimum lot size may be reduced on the islands in Casco Bay as provided in (C) below.

- C. In island zones.** In issuing any permit for new development in island zones:
1. The Building or Planning Authority shall require that any lot located in the IR-1 zone shall be at least 40,000 square feet in area and in the IR-2, IR-3, and I-B zones be at least 20,000 square feet in area when the lot is to be serviced by a subsurface wastewater disposal system, except those lots which are located in a subdivision approved by the Planning Board after June 8, 1968 and excluding Peaks Island.
 2. Excluding Peaks Island from this paragraph (2), any property owner whose lot does not meet the minimum lot size requirements outlined in (1) above may, for purposes of this subsection only, merge two or more separate lots on the same island in order to meet these requirements. Where the lots so merged are not contiguous, the property owner shall grant to the city as holder a conservation easement upon the lot or lots which will not contain the principal structure. The conservation easement shall contain both an existing legal description and a city assessor's chart, block, and lot description. The Planning Authority shall be authorized to accept such conservation easements on behalf of the city. Said easement shall be recorded by the applicant in the registry of deeds. A copy of the recorded easement and copies of the deeds for both lots shall be submitted to the Planning Authority prior to issuance of a building permit. The property over which the conservation easement has been

granted shall be used for passive recreational and conservation purposes only, and shall be subject to the following restrictions:

- a. No structure shall be permitted on this property.
 - b. No parking or storage of vehicles or machinery shall be permitted on this property at any time.
 - c. No area of this property shall be paved.
 - d. No exterior storage for commercial use shall be permitted on this property.
 - e. The easement deed shall reference the lot which is benefited by this conservation easement. No conservation easement shall be used to benefit more than one lot.
3. Conservation easements shall only be granted over lots which conform either to the provisions of Subsection 4.3.1 or to the minimum lot sizes set forth in Table 7-D. Conservation easements shall not be granted over any lot which is encumbered by any other easement which prohibits all construction on that lot. A conservation easement may also name as a holder or grant a third-party right of enforcement to a nonprofit corporation or charitable trust, the purposes or powers of which include retaining or protecting the natural, scenic, or open space values of real property; assuring the availability of real property for agricultural, forest, recreational, or open space use; protecting natural resources; or

maintaining or enhancing air or water quality of real property. Nothing in this subsection shall be construed to allow an owner of a currently existing and developed lot to convey or permit a portion of that lot to be used to fulfill the requirements of this subsection if such conveyance would render the existing lot nonconforming under the terms of this Land Use Code. The lot upon which a building is to be constructed shall meet the minimum lot size requirements of Subsection 4.3.1.

4. Where an existing subsurface wastewater disposal system serving an existing structure requires replacement, the replacement system shall meet the applicable state requirements. The land area requirements in paragraph (1) above shall not apply to such a replacement system.
5. For purposes of this subsection, the mean high tide mark shall be considered to be the shoreline lot line.

7.5.4 Lot coverage

- A. **Lot surrounded by streets or alleys.** Where a lot containing ten thousand 10,000 square feet or less is completely surrounded by streets or alleys, the lot coverage may be increased 20%.

7.5.5 Setbacks

- A. **Setbacks in residential and R-P zones.** In any residential zone and the R-P zone, the width of one side setback may be reduced one foot for every foot that the other side setback is

correspondingly increased, but no side setback shall be less than the minimum required for a one-story building.

- B. Setbacks in the O-P zone.** The Planning Board may reduce by up to 50% the minimum setback if another yard within the lot is correspondingly increased so that the combined minimum yards on all four sides equal 150 feet. If two or more buildings are located on one lot, only the requirements of the front, rear or side setbacks that adjoin any external property boundary must be met, provided a sufficient fire line is provided.
- C. Projections in required setback areas.** Any setback may be occupied by a one-story entrance porch not enclosed, with or without a roof, if the area of the porch does not exceed 50 square feet nor the projection from the building exceed six feet. A basement bulkhead of similar size, but not more than 24 inches in height, is also permitted. A cornice eave, sill, canopy, chimney, bay window, balcony, or other similar architectural feature may project into any required setback a distance of not more than two feet.
- D. Pavement setbacks.** Pavement setbacks shall not apply to entrance drives.
- E. Corner lot setbacks.** In case a principal residential structure has its front yard upon the long side of a corner lot, the rear setback may be reduced to a depth not less than the required side setback on the lot, provided that the aggregate of the widths of both sides and depths of front and rear yards is not less than the similar aggregate of required dimensions of all setbacks if the front yard were faced on the short side of the lot.

F. Maximum front setbacks

- 1. Maximum front setbacks shall not apply to utility substations and secondary building components.
- 2. *In the B-1/B-1b zone.* Building additions are encouraged but not required to meet front setbacks.
- 3. *In the B-2/B-2b/B-2c zones*
 - a. Building additions do not have to meet maximum front setback requirements.
 - b. The Planning Board or Planning Authority may approve a different front setback for irregularly shaped lots or lots with frontage greater than 40 feet in width provided the front setback is met to the maximum extent practicable.
 - c. If a lot has less than 40 feet of frontage and is more than 100 feet deep, then no maximum setback is required.
 - d. If existing structures are within 20 feet of the street or meet the front setback maximum and the remainder of the lot has less than 40 feet of frontage, then no maximum setback is required.
 - e. The Planning Board or Planning Authority may waive the maximum front setback for utility substations and alternative energy installations.
 - f. Where setbacks exceed 10 feet, a continuous, attractive, and pedestrian-scaled edge treatment shall be constructed along the street,

- consisting of street trees spaced at no more than 15 feet on center, approved by the City arborist, and a combination of landscaping no less than four feet deep, ornamental brick or stone walls, or ornamental fencing.
4. *In the B-3/B-3b/B-3c zones.* The Planning Board may require or approve an additional setback to comply with the design standards of Article 14 and the City of Portland *Design Manual*.
 5. *In the B-6 zone.* For lots fronting on more than one street in the B-6 zone, the front setback can be increased more than 10 feet if all of the following conditions are met:
 - a. The increased setback occurs at the intersection of the streets.
 - b. The increased setback area is the primary pedestrian entrance to the building.
 - c. 75% of the total building wall length facing the abutting streets shall be setback no greater than 10 feet. All building wall segments which make up the increased setback shall be included in the calculation of the total building wall length.
 - d. For new construction on a lot abutting three or more streets, the maximum setback shall apply only to the two streets with the highest traffic volume.
 6. *In the B-7 zone*
 - a. Parking structures, public transportation facilities, utility substations, secondary building components such as truck loading docks, mechanical equipment enclosures, and refrigeration units are not subject to the maximum front setbacks.
 - b. The maximum front setback may be increased to more than 10 feet if all of the following conditions are met:
 - i. 75% of the total building wall length of an individual building facing the abutting streets is setback no greater than 10 feet.
 - ii. The increased setback area shall include a functional and accessible public pedestrian entrance into the building that faces the street, unless a public pedestrian entrance already exists along the same street.
 - iii. The increased setback shall not be used for surface parking.
 - c. For a corner lot having frontage on two streets, the maximum setback shall apply to both streets. In the case of a lot having frontage on two or more street corners, newly constructed buildings shall be sited at street corners and meet the maximum setback requirement prior to other freestanding buildings being constructed on the lot which shall also meet the maximum street setback. In the case of a corner lot having frontage on a third street (but not a corner) the maximum setback need not apply to the third street.

- d. In the case of a lot having frontage on two streets but not on a corner, the maximum setback shall apply to all streets but in the case of a lot having frontage on three streets but not on a corner, the maximum setback shall apply to only two streets. For purposes of this subsection only, the first building on a lot shall meet the maximum setback on at least one street with future buildings required to meet the maximum setback on the remaining street(s).
- e. In the case of a lot in which a minimum 75% of the total lot frontage has a building within ten feet of the street, other buildings may be located on the lot more than 10 feet from the street. In the case of a lot having frontage on Marginal Way and I-295, the property edge along I-295 shall not be considered street frontage.
- f. The maximum building setback shall not apply to vertical building expansions in the following cases:
 - i. The upper floors of a building in which the lower floors meet the maximum setback and the minimum height requirement.
 - ii. The building existed as of March 9, 2005 and meets the minimum height requirement.
 - iii. A building not meeting the maximum street setback and the minimum height requirement may vertically expand a total of one floor from March 9, 2005.
- iv. In the case of a building in which at least 50% of the building wall(s) abutting street(s) is within 20 feet of the street.
- v. Additions to parking garages existing as of March 9, 2005.
- g. Additions to buildings existing as of March 9, 2005 that are nonconforming as to the maximum setback need not conform to the maximum street setback provided the cumulative building footprint since March 9, 2005 does not exceed 50% of the existing building footprint. Such restriction shall not apply to those portions of the building addition that are constructed closer to the street line than the building footprint existing as of March 9, 2005 and to vertical expansions as provided for in (f) above.
- h. Lots having frontage on streets in which the curve of the street frontage precludes a rectangular-shaped building along the street line, for purposes of calculating the setback, the average setback of the building from the street line may be used, but in no event shall the average setback along the length of the building edge exceed an average setback of 15 feet nor shall the maximum setback exceed 20 feet. The increased setback shall not be used for surface parking, vehicular loading or vehicular circulation.

- i. Additions to and relocations of designated historic structures or structures determined to be eligible by the Historic Preservation Board shall be exempt from the maximum setback requirement.

G. Minimum setback exceptions for lots of record

1. In the case of a lot of record existing as of June 5, 1957 in the R-1, R-2, R-3, R-4, R-5, R-5a, and R-6 zones and less than 100 feet deep, the front setback need not be deeper than 20% of the depth of the lot.
2. In the case of a lot of record existing as of June 5, 1957 in a residential zone, the required side setback for principal structures may be reduced in order to provide a buildable width of up to 24 feet, but in no case shall the resulting side yards be less than the following:
 - a. R-1, R-2: 12 ft.
 - b. R-3, R-5: 8 ft.
 - c. R-4, R-5a: 10 ft.

easement or right-of-way which existed as of July 15, 1985. Such easement or right-of-way shall have a minimum width of 16 feet and a minimum travel width of eight feet except that an easement or right-of-way providing access for three or more lots or providing the only means of access to a parcel or parcels of three acres or more, shall meet the construction requirements of Chapter 25, Article III of the City of Portland Code of Ordinances. In the IR-1 zone, such easement or right-of-way shall conform to the requirements contained within the City of Portland *Technical Manual*. In the IR-2 zone, such easement or right-of-way shall be a minimum of 32 feet wide. Such easement or right-of-way shall be sufficient to permit municipal service delivery.

7.5.6 Stepbacks

A cornice eave, sill, canopy, chimney, bay window, balcony, or other similar architectural feature may project into any required stepback a distance of not more than two feet.

7.5.7 Street frontage

In the IR-1 and IR-2 zones, a lot of record that is buildable pursuant to Subsection 4.3.1 and lots created after July 15, 1985, which are not part of a subdivision need not provide street frontage if access is available by means of a permanent

18 HOUSING

18.1 HOUSING PRESERVATION AND REPLACEMENT

18.1.1 Purpose

The purpose of the housing preservation and replacement ordinance is:

- A. To promote and facilitate an adequate supply of housing, particularly affordable housing for all economic groups.
- B. To limit the net loss of housing units in the city.
- C. To preserve housing in zones where housing is permitted in the city for all residents in order to promote the health, safety, and welfare of its citizens.

18.1.2 Applicability

- A. Except as otherwise provided in this section, the housing preservation and replacement ordinance shall apply to the loss of three or more dwelling units in a five-year period, provided that such dwelling units were a legally registered residential use as of July 1, 2002. For the purposes of this section, dwelling units shall be as defined in Article 3, but also include rooming units that people rent in or sleep in within lodging houses, dormitories, shelters, and sheltered care group homes.
- B. Except as otherwise provided in this section, the housing preservation and replacement ordinance shall also apply to proposals that result in the loss of fewer than three dwelling units which were legally registered residential use as of July 1, 2002 for the purposes of creating surface parking.
- C. For the purposes of this section, loss of dwelling units shall mean the elimination or conversion to nonresidential use of a dwelling unit and dwelling units that remain vacant for

three years or more or are lost due to demolition unless the vacancy or demolition results from accidents outside of the owner's control, fire, natural disasters, or acts of war.

- D. Determination of number of the dwelling units within a structure or structures and the number of units lost will be based on the records of the Building Authority indicating the legal, registered use of the property since July 1, 2002 through the time of application. The actual use of the property for purposes of applicability of this section may be rebutted by the owner by proof of documentary evidence including but not limited to photographs, letters, and sworn affidavits. The Planning Authority may conduct its own investigation of the actual use and shall determine the applicability of this section based on the totality of the evidence.

18.1.3 Exemptions

This section does not apply to:

- A. Consolidation, elimination, or reconfiguration of one or more dwelling units within an existing structure, as long as all the resulting units remain as dwelling units after such consolidation, elimination, or reconfiguration, except as provided by (E) below. Conversion of a dwelling unit to a hotel or motel room shall not qualify for the exemption provided by the paragraph.
- B. Proposals that result in a number of units equal to or greater than the number of units lost as determined by the Planning Authority.
- C. Legally nonconforming dwelling units existing in zones which no longer permit residential uses.
- D. Property which has been ordered demolished by the City, pursuant to 17 M.R.S. § 2851, et seq.,

as amended, except where it is determined by the Building Authority that the deterioration was caused by neglect or lack of maintenance.

- E. Paragraph (A) above notwithstanding, the conversion to a nonresidential use of any dwelling units located on the ground floor of a building within a mixed-use zone.

18.1.4 Planning Authority approval required

Notwithstanding any other provision of this section, a proposal to demolish or to convert three or more dwelling units to a nonresidential use in a zone where such use is otherwise permitted must first obtain approval from the Planning Authority. In addition to any other requirements of the Land Use Code, the applicant must submit a statement certifying the number of dwelling units to be demolished or converted to nonresidential use, as well as a description of the characteristics of each of those units.

18.1.5 Tenant notification requirements

Prior to elimination as a result of demolition or conversion to nonresidential use, the owner shall:

- A. Provide the Planning Authority a list containing the name of each tenant currently residing in the dwelling units to be demolished or converted to nonresidential use, as well as verification of compliance with tenant notice requirements of this subsection.
- B. Deliver to each tenant who occupies such a dwelling unit a written notice to vacate the unit. The notice shall either be sent by certified mail, return receipt requested, or served in-hand. The notice will grant the tenant not less than 90 days from the date of receipt of the notice to vacate the unit.

- C. File proof of service of the notice with the Planning Authority.

18.1.6 Housing replacement requirements

- A. The Planning Authority shall require, as a condition of approval, that an owner shall replace any dwelling units that are demolished or converted to nonresidential use.
- B. This requirement may be satisfied in any one of the following ways, which may be used in combination:
 1. *Construction of units.* The construction of housing units within a new structure or a new addition either on site or off-site.
 2. *Residential conversion.* The conversion of a nonresidential building to residential use.

18.1.7 Replacement unit requirement

In addition to the foregoing, all replacement units built pursuant to Subsection 18.1.6.B above shall:

- A. Be located within the same United States census block group as the parcel from which the dwelling units are being removed or within 1,500 feet of the dwelling units being removed.
- B. Not previously have been on the market as of the date of application.
- C. Be situated within a development which has not been a candidate for site plan approval as of the date of the application.
- D. Be comparable in size to the units replaced. For the purpose of this section, “comparable in size” means that the aggregate size of the replacement units will be no less than 80% of the size of the aggregate of the original units to be replaced.



18.1.8 Contribution to the Housing Trust Fund

- A.** The applicant may meet the requirements of this housing replacement ordinance by depositing \$50,000 for each dwelling unit into the City's Housing Trust Fund.
- B.** Beginning on January 1, 2004 and annually thereafter, the amount of the contribution shall be adjusted by multiplying this amount originally deposited for each unit by a fraction, the denominator of which shall be the "Consumer Price Index for Urban Wage Earners and Clerical Workers ("CPI-W")," U.S. City Average, "All Items Index," as published by the United States Bureau of Labor Statistics ("the index") for January 1, 2003 year, and the numerator of which shall be the index for the same month in each subsequent year. In the event that the index is not then in existence, the parties shall use such equivalent price index as is published by any successor governmental agency then in existence, or, if none, then by such nongovernmental agency as may then be publishing an equivalent price index, in lieu of and adjusted to the index. If the index shall cease to use 1982-84 equals 100 as the basis of calculation, or if a substantial change is made in the terms or number of items contained in the index, the base index shall be adjusted to conform to such change, using such computation thereof, if available, as shall be employed by the United States Department of Labor in computing same. Notwithstanding anything herein to the contrary, contributions made after January 1, 2004 shall not be less than the amount originally required to be deposited for each rooming or dwelling unit.

18.1.9 Performance guarantee

Owners or affiliates must post a performance guarantee in the form of a letter of credit, or other security acceptable to the City attorney, in the amount equivalent to the amount the applicant would have been required to contribute to the City's Housing Trust Fund if the applicant had chosen that option pursuant to Subsection 18.1.8. Such a performance guarantee shall be valid for no more than three years, after which the full amount due shall be provided to the City's Housing Trust Fund if replacement units satisfying the conditions of this housing replacement ordinance do not have certificates of occupancy.

18.1.10 Partial waiver of replacement requirements

- A.** Any owner who has applied for site plan review for elimination or conversion to nonresidential use of dwelling units may apply to the Zoning Board of Appeals for a partial waiver from the housing replacement requirements of this section. Such waiver may be a downward adjustment of up to 50% of the owner's housing replacement obligation if the owner establishes to the board's satisfaction that:
 - 1. The proposed development is consistent with the Comprehensive Plan.
 - 2. The proposed development provides significant value and benefit to the immediate and surrounding neighborhood, including, but not limited to, community enhancement, social benefits or job creation.
 - 3. The applicant demonstrates with objective evidence that the imposition of the requirements of this section would impose such an economic burden upon the

project relative to its scope that it renders the project impossible to develop.

4. The requested relief does not constitute a grant of a special privilege inconsistent with the limitations upon similar properties.
- B.** The Zoning Board of Appeals must make positive findings on each of the four criteria above in order for any such adjustment to be valid. An applicant aggrieved of a decision of the Zoning Board of Appeals may appeal a decision under this subsection pursuant to the provisions of Article 2.

18.1.11 Effect of other City ordinances

- A.** Nothing in this section shall permit the demolition or conversion to nonresidential use of dwelling units in residential property protected by Article 17, except as permitted by that ordinance.
- B.** A conditional zone may not be used to circumvent the application of this section. The terms of this section shall apply to any conditional zone which involves dwelling units affected by this section. Notwithstanding the foregoing, nothing herein shall be deemed to prevent the City and the applicant from agreeing to terms which exceed those imposed by this section by means of a conditional zone.

18.1.12 Appeals

Any applicant aggrieved by a decision of the Planning Authority under this section may appeal to the Zoning Board of Appeals within 30 days of that decision.

18.2 AFFORDABLE HOUSING

18.2.1 Purpose

It is in the public interest to promote an adequate supply of housing that is affordable to a range of households at different income levels. The purpose of this section therefore is to offer incentives to developers to include units of affordable and workforce housing within development projects, thereby mitigating the impact of market rate housing construction, or the demonstrated increase in affordable housing needs resulting from the creation of new lower-income jobs, on the limited supply of available land for suitable housing, and helping to meet the housing needs of all economic groups within the city. The City believes that this section will assist in meeting the City's comprehensive goals for affordable housing, in the prevention of overcrowding and deterioration of the limited supply of affordable housing, and by doing so promote the health, safety, and welfare of its citizens.

TABLE 18-A: AFFORDABLE HOUSING FEE REDUCTIONS

% of New Units That are Low- Income or Workforce	Development Fee Discount	Cost of Work (Building Permit) Fees
5% up to but not including 10%	5% reduction	\$10.50 per \$1,000
10% up to but not including 15%	10% reduction	\$9.90 per \$1,000
15% up to but not including 20%	15% reduction	\$9.35 per \$1,000
20% up to but not including 25%	20% reduction	\$8.80 per \$1,000
25% or more	25% reduction	\$8.25 per \$1,000



18.2.2 Reduction of fees

- A.** Notwithstanding any other provision of this Land Use Code or Chapter 6 to the contrary, development fees shall be reduced by the City for an eligible project in the manner described in Table 18-A.
- B.** Development fees shall include:
1. Site plan review and inspection fees.
 2. Subdivision review and inspection fees.
 3. Impact fees.
 4. Administrative fees.
 5. Construction and permit fees as described in Chapter 6 of the City of Portland Code of Ordinances.
- Development fees do not include any fees charged for review conducted by any party other than the City.
- C.** Eligible project shall mean a development project:
1. That is permissible under the provisions of this Land Use Code in the zone in which it is proposed.
 2. That will be a single-family or multi-family dwelling, or subdivision consisting of a group of dwellings, and will not be located in an R-1 or R-2 zone.
 3. That creates new dwelling units, among which is at least one low-income or workforce housing unit for rent or sale, through new construction, substantial rehabilitation of existing structures, adaptive reuse or conversion of a nonresidential use to residential use, or any combination of these elements. Affordable housing units for sale or rent may not differ in exterior design from other units within an eligible project.

4. Projects shall not be considered “eligible projects” solely because they are subject to Subsection 18.2.3.
- D.** The Planning Authority shall perform its review of an eligible project in as expedited a manner as is practical, without impairing the scope or thoroughness of the review. The Planning Authority may adopt administrative procedures to prioritize review of eligible projects and facilitate this expedited review.
- E.** The Planning Board shall make its best efforts to give priority in scheduling workshops and public hearings related to any plans or applications required for an eligible project that are within the Planning Board’s jurisdiction, without impairing the scope or thoroughness of its review. At the conclusion of these public meetings, the Planning Board shall promptly issue a decision on all such plans and applications before it for consideration.

18.2.3 Ensuring workforce housing

- A. Purpose.** Based on the City’s Comprehensive Plan and the City’s 2015 housing study, it is in the public interest to promote an adequate supply of housing that is affordable to a range of households at different income levels. The purpose of this subsection is to ensure that housing developments over a certain size provide a portion of workforce housing units and, by doing so, promote the health, safety, and welfare of Portland citizens.
- B. Applicability.** This subsection shall apply to development projects that create ten or more net new dwelling units for rent or for sale through new construction, substantial rehabilitation of existing structures, adaptive reuse or conversion of a nonresidential use to

residential use, or any combination of these elements, with the exception that projects using public financing requiring affordability restrictions, as defined by tax increment financing, U.S. Department of Housing and Urban Development funds such as HOME or CDBG, other federal, state, or local housing program, or the Low-income Housing Tax Credit program, shall be considered exempt.

C. Standards. Development projects subject to this subsection shall be subject to the following requirements:

1. Notwithstanding any language to the contrary in this Land Use Code, all developments of ten units or more are conditional uses subject to Planning Board review on the condition that they comply with the requirements of this subsection, unless they are within the India Street Form-Based Code Zone, in which case the review will be conducted administratively or by the Planning Board in accordance with the thresholds of site plan review for the district.
2. At least 25% of the units in the project shall meet the definition of workforce housing unit for sale or for rent as defined in Article 3. The project shall have the option of paying a partial fee-in-lieu as per (6) below or providing an additional unit on-site for any fractional value.
3. Projects shall not be segmented or phased to avoid compliance with these provisions. In cases where projects are completed in phases, affordable units shall be provided in proportion to the development of market rate units unless otherwise permitted through regulations.
4. Workforce units must be integrated with the rest of the development, must use a common entrance, and must provide no indications from common areas that these units are workforce housing units.
5. Workforce units need not be the same size as other units in the development but the number of bedrooms in such units, either on- or off-site, shall be no less than 10 percent of the total number of bedrooms in the development. For the purposes of calculating the number of bedrooms in a development, every 400 square feet in each market rate unit will count as a bedroom if the Planning Authority determines this method is appropriate in lieu of counting actual bedrooms.
6. As an alternative to providing workforce housing units, projects may pay a fee-in-lieu of some or all of the units. In-lieu fees shall be paid into the Housing Trust Fund. The fee for affordable units not provided shall be \$150,000 per unit, adjusted annually in the same way as the fee under Subsection 18.1.8.
7. Workforce housing units for sale, if converted to workforce housing units for rent, shall become subject to the income limits and other requirements of such units.
8. If at least 33% of the units in a development are workforce units, the development is eligible for subsidy through an Affordable Housing TIF, subject to City Council approval.
9. The term of affordability for the required 25% workforce units provided shall be defined as shown in Table 18-B.

**TABLE 18-B: MINIMUM TERM OF AFFORDABILITY FOR REQUIRED WORKFORCE UNITS**

% of Workforce Units Provided	Minimum Term of Affordability
25%	30 years
50%	20 years
100%	10 years

TABLE 18-C: BONUSES FOR ELIGIBLE PROJECTS

% Low-income or Workforce Units	% Workforce Units	Density Permitted ¹	Additional Height Permitted ²	Setback Reductions ³
10-19%	20%	1.1 x base	N/A	N/A
20-29%	40%	1.2 x base	10 ft.	N/A
30-39%	60%	1.3 x base	10 ft.	5 ft.
50-74%	100%	2.5 x base	15 ft.	5 ft.
≥ 75%	N/A	2.5 x base	25 ft.	10 ft.

¹ “Base” is the number of units allowed under the zoning without this bonus but with any other bonuses applied. In R-P zones, multifamily is permitted with a “base” no less than 1 unit per 1,500 SF of land area. ~~If an eligible project is providing both workforce and affordable housing units, the applicant shall have the option of utilizing applicable incentives, but not cumulatively.~~

² The maximum additional height permitted in the B-1/B-1b zones and the R-P zone shall be 15 feet. In addition, the maximum structure height is 50 feet within 750 feet of the Portland Observatory.

³ Setback reductions are absolute reductions in front, side, and/or rear setback requirements. The maximum setback reductions in the B-1/B-1b and R-P zones shall be 5 ft.

- D. Implementing regulations.** Regulations to further specify the details of this subsection shall be developed, including, but not limited to:
1. Specific methodology for income verification.

2. Situations where less than permanent affordability might be considered.
3. Guidelines for meeting the requirement that off-site units be “in the same neighborhood.”

- E. Reporting to City Council.** In conjunction with the annual report on the Housing Trust Fund, the Planning Authority shall annually report on developments subject to this subsection, the number of units produced, the amount of fee-in-lieu collected, and the overall effectiveness of this subsection in achieving its stated purpose.

18.2.4 Density and dimensional bonuses and reductions

Notwithstanding any other provision of this Land Use Code to the contrary, in order to encourage low-income and workforce units in designated growth areas, eligible projects as defined under Subsection 18.2.2 may avail themselves of the following options:

- A. Density and dimensional bonuses.** The maximum number of units that would otherwise be allowed under this Land Use Code shall be increased for an eligible project in the manner described in Table 18-C, applicable where multi-family is allowed as a permitted or conditional use, with the exception of the I-B zone. Other dimensional bonuses related to height and setbacks shall only be applicable in the B-1/B-1b, B-2/B-2b/B-2c, B-3/B-3b/B-3c, B-5, R-7, and R-P zones.

- B. Planned Residential Unit Developments (PRUDs).** ~~In order to promote orderly development of low- and moderate-income development as PRUDs, in the R-3, R-5, and R-5a zones, any project-PRUD in which more than~~

50% of the units are low-income or workforce units for rent or for sale may utilize the following dimensional bonuses and changes:

1. ~~Minimum lot area per dwelling unit is reduced by 50%. The maximum number of units that would otherwise be allowed under this land use code shall be increased by 2.5.~~
2. Maximum number of units and maximum length of buildings do not apply but may be set through site plan review.
3. Minimum building setbacks may be reduced to 10 feet.
4. The PRUD may cross public rights of way provided that the right of way does not count towards minimum lot size nor towards any open space requirements.
5. Minimum recreation open space area is reduced to 200 square feet per dwelling unit of common area designated for recreational purposes by the residents. Minimum contiguous size and setbacks do not apply and shall be set through site plan review.
6. The Planning Board's *Design Manual*, design standards, and guidelines with respect to PRUDs shall apply in full to PRUDs utilizing this subsection.

C. Unit size and term of affordability. In order to be eligible for this subsection, the low-income and workforce housing units must meet Subsections 18.2.3(C)(3), (4), and (5).

~~C.D. Term of affordability.~~ ~~Affordable units under this section shall be deed-restricted to remain and be affordable for 30 years or the longest term permitted under federal, state, and local laws, whichever is longer. Such deed~~

~~restrictions shall be recorded in the Cumberland County Registry of Deeds.~~

D.E. Required public process. The developer of the project must also commit to a good faith effort to communicate openly with affected properties as their process moves forward. At a minimum, no less than 30 days prior to application for site plan review, any project that wishes to take advantage of this subsection must hold a public meeting noticed to all properties within 500 feet of their site and post a sign on the property in question describing the proposed project, intent to submit an application to the City in 30 days (cite anticipated submission date), and contact information for the developer and the Planning Authority. The Planning Board may adopt regulations regarding the content and processes for noticing as part of the *Technical Manual*.

E.F. Projects under 18.2.3. Projects that are subject to Subsection 18.2.3 that choose to provide the required workforce housing units on site are eligible for a 25% increase in total permitted units. If an eligible project as defined under Subsection 18.2.2 is also subject to Subsection 18.2.3, the applicant shall have the option of utilizing either this bonus or any bonuses they are eligible for under Subsections 18.2.4(A) and (B) but not both.

18.2.5 Inclusionary zoning for hotel projects

A. Purpose. This subsection is based on City analysis, most specifically the analysis documented in the Greater Portland Council of Government study *Proposed Hotel Linkage Fee: Supportable Range* dated August 29, 2018, that finds that new hospitality developments create



a need for new affordable housing. This need is the result of the fact that hospitality developments necessarily create a number of jobs that do not pay employees at a rate sufficient to allow those employees to afford market-rate housing in the City of Portland.

- B. Hotel projects.** For the purposes of this subsection, hotel projects shall include any hotel as defined in Article 3 consisting of 10 or more guest rooms for rent. Any expansion of an existing hotel by 10 or more rooms within any five-year period will also be considered a hotel project.
- C. Hotel projects conditional uses.** Notwithstanding anything to the contrary in this Land Use Code, all hotel projects are conditional uses subject to Planning Board review on the condition that they comply with the requirements of this Subsection 18.2.5.
- D. Low-income housing minimum.** All hotel projects shall provide one unit of low-income housing for rent in the City of Portland for every 28 rooms in the hotel project, which shall meet the standards outlined in Subsections 18.2.3(C)(3), (4), and (5) and in the implementing regulations governing low-income units. This amount shall be rounded up to the nearest increment of 28 rooms. These units shall be deed restricted for the longest period permitted by law, shall not be used for short-term rentals of less than 30 days, and must be provided with distinct entrances from the street to delineate them from the hotel itself.
- E. Fee-in-lieu alternative.** As an alternative to providing low-income housing units under Subsection 18.2.5(D) above, a hotel project may pay a fee-in-lieu of \$3,806 per hotel guest

room. This amount shall be paid into the City's Housing Trust Fund and used for the purposes set forth in the ordinance and regulations applicable to that trust.

- F. Annual adjustments.** The amounts in Subsection 18.2.5(E) above shall be adjusted annually in the same way as the fee under Section 18.1.8.
- G. Regulations.** The Planning Board may promulgate implementing regulations based on this subsection.

18.3 JILL C. DUSON HOUSING TRUST FUND

18.3.1 Purpose

The purpose of enacting this section is:

- A.** To establish a City of Portland Housing Trust Fund for the promotion, retention, and creation of an adequate supply of housing, particularly affordable housing, for all economic groups and to limit the net loss of housing units in the city.
- B.** To serve as a vehicle for addressing very low, low, and median income housing needs through a combination of funds as set out in this article.

18.3.2 Establishment of the Jill C. Duson Housing Trust Fund

The City Council shall establish a special revenue account under the name "City of Portland Jill C. Duson Housing Trust Fund" (Housing Trust Fund). Deposits into the fund shall include:

- A.** Contributions from the City's housing replacement ordinance under Subsection 18.1.8.
- B.** In-lieu fees under Subsections 18.2.3 and 18.2.5.
- C.** Funds appropriated to be deposited into the fund by vote of the City Council.

- D. Voluntary contributions of money or other liquid assets to the fund.
- E. Any federal, state, or private grant or loan funds provided to the fund.
- F. Interest from fund deposits and investments.
- G. Repayments of loans made from the fund.

18.3.3 Management of the trust fund

The City Manager, or his or her designee, shall serve as the manager of the Housing Trust Fund. The responsibilities of the manager, subject to the orders of the City Council, shall include:

- A. Maintaining the financial and other records of the Housing Trust Fund.
- B. Disbursing and collecting Housing Trust Fund monies in accordance with the Housing Trust Fund annual plan.
- C. Monitoring the use of monies distributed to successful applicants for Housing Trust Fund support to assure on-going compliance with the purposes of the fund and the conditions under which these monies were granted or loaned.

18.3.4 Housing Trust Fund annual plan

- A. Each fiscal year, the City Council shall adopt a Housing Trust Fund annual plan. The City Manager shall submit to the City Council a recommended Housing Trust Fund annual plan, utilizing the revenues of the Housing Trust Fund as well as any other funds the manager may propose as appropriate. The housing committee of the City Council or such other committee as the council shall designate shall conduct public hearings on the recommended plan and refer the matter to the council for action.

- B. The Housing Trust Fund annual plan shall include:
 1. A description of all programs to be funded in part or in full by the Housing Trust Fund.
 2. A description of how funds from the Housing Trust Fund will be distributed among very low-income, low-income and moderate-income households.
 3. The amount of funds budgeted for programs funded in part or in full from the Housing Trust Fund.
- C. Priority for the expenditure of funds collected pursuant to Section 18.1 shall be given to the creation of new housing stock, through either new construction or conversion of nonresidential buildings to residential use.

18.3.5 Distribution and use of the Housing Trust Fund's assets

- A. All distribution of principal, interest, or other assets of the Housing Trust Fund shall be made in furtherance of the public purposes set out in Section 18.1.
- B. During each year, the Housing Trust Fund shall disburse as grants or loans so much of the Housing Trust Fund's assets as the City Council in its discretion has approved in the Housing Trust Fund annual plan.
- C. Funds shall not be used for City administrative expenses.
- D. Funds shall not be used for property operating expenses or supporting services.
- E. No grants or loans shall be awarded by the Housing Trust Fund to corporations, partnerships, or individuals who are delinquent at the time of application in the payment of property taxes or other fees to the City of Portland, who have been convicted of arson,



who have been convicted of discrimination in the sale or lease of housing under the fair housing laws of the State of Maine, or who have pending violations of current City electrical, plumbing, building, or housing codes or zoning ordinances.

18.3.6 Term of affordability

- A.** Whenever funds from the Housing Trust Fund are used for the acquisition, construction, or substantial rehabilitation of an affordable rental or cooperative unit, the City of Portland shall impose enforceable requirements on the owner of the housing unit that the unit remain affordable for the remaining life of the housing unit, assuming good faith efforts by the owner to maintain the housing unit and rehabilitate it as necessary. The remaining life of the housing unit shall be presumed to be a minimum of 30 years.
- B.** Whenever funds from the Housing Trust Fund are used for the acquisition, construction, or substantial rehabilitation of ownership housing, the City of Portland shall impose enforceable resale restrictions on the owner to keep the housing unit affordable for the longest feasible time, while maintaining and equitable balance between the interests of the owner and the interests of the City of Portland.
- C.** The affordability restriction requirements described in this subsection shall run with the land and the City of Portland shall develop appropriate procedures and documentation to enforce these requirements and shall record such documentation in the Cumberland County Registry of Deeds.

18.4 CONDOMINIUM CONVERSION

18.4.1 Purpose

The purpose of this section is to regulate the conversion of rental housing to condominiums, to minimize the potential adverse impacts of such conversion on tenants, to ensure that such converted housing is safe and decent, and to maintain a reasonable balance of housing alternatives within the city for persons of all incomes.

18.4.2 Applicability

This section shall apply to the conversion of any rental unit to a condominium unit. For the purposes of this section, developer shall mean any person or other legal entity, but not including an established lending institution unless it is an active participant in a common promotional scheme, who, whether acting as principal or agent, records a declaration of condominium that includes real estate, any portion of which was previously a rental unit.

18.4.3 Protection of tenants

- A. Notice of intent to convert.** A developer shall give to each tenant, meaning any occupant in lawful possession of a rental unit, whether by lease, sublease, or otherwise, written notice of intent to convert at least one 120 days before the tenant is required by the developer to vacate. If a tenant has been in possession of any unit within the same building for more than four consecutive years, the notice period shall be increased by 30 additional days for each additional year, or fraction thereof, to a maximum of 240 additional days. The notice shall set forth specifically the rights of tenants under (A), (B), and (C) of this subsection and Subsection 18.4.4, and shall contain the following statement:

If you do not buy your apartment, the developer of this project is required by law to assist you in finding another place to live and in determining your eligibility for relocation payments. If you have questions about your rights under the law, or complaints about the way you have been treated by the developer, you may contact the Department of Permitting & Inspections, City of Portland, 389 Congress Street, Portland, Maine 04101.

- B.** If the notice specifies a date by which the tenant is required to vacate, the notice may also serve as a notice of termination under the applicable law of forcible entry and detainer, if it meets the requirements thereof. The notice shall be hand delivered to the tenant or mailed, by certified mail, return receipt requested, postage prepaid, to the tenant at the address of the unit or such other address as the tenant may provide. The notice shall be effective when actually received. No tenant may be required by a developer to vacate without having been given notice as required herein, except for the reasons specified in the applicable law of forcible entry and detainer, and in accordance with the procedures thereof. The terms of a tenancy, including rent, may not be altered during the notice period, except as expressly provided in a preexisting written lease. If, within 120 days after a tenant is required by a developer to vacate, the developer records a declaration of condominium without having given notice as required herein, the developer shall be presumed to have converted in violation of this article.

- C. Option to purchase.** For a 60-day period following the giving of notice as required in Subsection 18.4.3(A), the developer shall grant to the tenant an exclusive and irrevocable option to purchase the unit of which the tenant is then possessed, which option may not be assigned. If the tenant does not purchase or contract to purchase the unit during the 60-day period, the developer may not convey or offer to convey the unit to any other person during the following 180 days at a price or on terms more favorable than the price or terms previously offered to the tenant, unless the more favorable price or terms are first offered exclusively and irrevocably to the tenant for an additional 60-day period. This subsection shall not apply to any rental unit that, when converted, will be restricted exclusively to nonresidential use. If, within two years after a developer records a declaration of condominium, the use of any such unit is changed such that but for the preceding sentence, this subsection would have applied, the developer shall be presumed to have converted in violation of this article.

18.4.4 Relocation payments

If the tenant does not purchase the unit, the developer shall, before the tenant is required by the developer to vacate, make a cash payment to the tenant in an amount equal to the amount of rent paid by the tenant for the immediately preceding two months, provided that this requirement shall not apply to any tenant whose gross income exceeds 80% of the median income of the Portland SMSA, adjusted for family size, as determined by the U.S. Department of Housing and Urban Development at the time notice is given as required



in Subsection 18.4.3. Additionally, the developer shall, upon demand, provide assistance to the tenant in the form of referrals to other reasonable accommodations and in determining the tenant's eligibility for relocation payments as provided herein.

18.4.5 Conversion permit

Before conveying or offering to convey a converted unit, the developer shall obtain a conversion permit from the Building Authority. The permit shall issue only upon receipt of a completed application therefore in a form to be devised for that purpose, payment of a fee of \$25,000 per converted unit, to be adjusted annually in the same way as the fee under Chapter 14, Section 18.1.8 of this code, at least \$1,000 of which shall be appropriated to the Housing Safety Office for the administration and enforcement of the Rent Stabilization Ordinance, Chapter 6, Articles XII and XIII of this code, and the remainder of which shall be paid into the Jill C. Duson Housing Trust Fund, and a finding, upon inspection, that each unit, together with any common areas and facilities appurtenant thereto, is in full compliance with all applicable provisions of Chapter 6, Articles II, III, and V and Chapter 10, Article II of the City of Portland Code of Ordinances, and the Life Safety Code as adopted by the state. The developer shall post a copy of the permit in a conspicuous place in each unit and shall make copies available to prospective purchasers upon request.

18.4.6 Variation by agreement

No provision of or right conferred by this Section 18.4 may be waived by a tenant, by agreement or otherwise, and any such waiver shall be void. Any attempt to require, encourage, or induce a tenant

to waive any provision hereof, or right conferred hereby, shall be a violation of this article. Nothing herein shall be construed to void any term of a lease which offers greater rights than those conferred hereby.

18.5 RELOCATION OF DISPLACED TENANTS

18.5.1 Purpose

The purpose of this section is to encourage the retention of a diverse housing supply throughout the downtown and in areas readily accessible to the downtown, to ensure that persons displaced as the result of redevelopment of residential units to nonresidential uses within the B-3 Downtown Business zone are treated fairly and consistently, and to ensure that persons so displaced will be relocated at the reasonable expense of the developer to comparable housing at a location providing comparable access to services and amenities.

18.5.2 Notice and eligibility for relocation assistance

When a proposed development will result in the displacement of residents of an existing structure, the developer of the property shall give all tenants written notice as set forth below and shall provide relocation assistance as set forth below for any tenant whose gross income is 80% or less of the median income of the Portland SMSA, adjusted for family size, as determined by the U.S. Department of Housing and Urban Development at the time the developer gives the tenant written notice of intent to cause removal of the residential unit. Such written notice shall be given to the tenant at least 120 days before the tenant shall be required to vacate the premises and shall contain the following statement:

The developer of this project is required by law to assist you in finding another place to live and in determining your eligibility for relocation payments. If you have questions about your rights under the law, or complaints about the way you have been treated by the developer, you may contact the Department of Planning and Urban Development, City of Portland, 389 Congress Street, Portland, Maine 04101.

18.5.3 Relocation assistance for all tenants

The developer shall provide, upon demand, assistance to all tenants who will be displaced by the development in the form of referrals to other reasonable accommodations and in determining the tenants' eligibility for relocation payments as provided herein. The developer shall make relocation payments to eligible tenants in accordance with the schedule adopted by the City Council in Subsection 18.5.4.

18.5.4 Schedule of relocation payments for eligible tenants

The developer shall, before the tenant is required by the developer to vacate, make a cash payment to the tenant in an amount equal to the amount of rent paid by the tenant for the immediately preceding two months.

19 OFF-STREET PARKING & LOADING

19.1 OFF-STREET PARKING

19.1.1 General

Off-street parking, either by means of structured or surface spaces, in addition to being a permitted principal use in certain zones, shall be considered as an accessory use when required or provided to serve principal uses. The provisions of this article shall apply to parking as an accessory use.

19.1.2 Uses requiring off-street parking

Except as provided in Table 19-B and as provided elsewhere in this article, minimum off-street parking requirements shall be as provided in Table 19-A. For any use not listed in Table 19-A, the parking provisions for the most similar use, as determined by the Building Authority or the Planning Authority, shall apply.

19.1.3 Rules of calculation

- A. Floor area.** Unless otherwise stated, all square footage-based off-street parking standards shall be computed on the basis of gross floor area used or intended to be used for service to customers, patrons, clients, or patients. It need not include floors or parts of floors used principally for non-public purposes, such as bulk storage, cellar, or food preparation areas. These provisions notwithstanding, the "floor area" used as the basis for computing off-street parking requirements shall never be less than 80% of the total gross floor area.
- B. Fractions.** Any fraction greater than or equal to 0.5 will be rounded up to the nearest whole number. Any fraction less than 0.5 will be rounded down to the nearest whole number.

- C. Multiple uses.** When two or more principal uses or separate establishments are located within the same lot, off-street parking shall be provided for each principal use or separate establishment according to Table 19-A, unless joint use is approved under Subsection 19.1.5.
- D. Accessory uses.** Off-street parking shall not be calculated separately for accessory uses.
- E. New construction.** In the case of new construction, the minimum off-street parking requirements in Table 19-A shall be met.
- F. Changes of use.** In the case of changes of use, the only additional off-street parking required shall equal the difference between the parking required for the new use and the parking required for the existing use.
- G. Building additions or alterations.** In the case of additions or alterations which increase the number of units or square footage of a given use, the only additional off-street parking required shall equal the difference between the parking required for the use in the post-development condition and the parking required for the use in the pre-development condition.

19.1.4 Shared use vehicles

The required parking for multi-family residential buildings may be partially met through provision of shared-use vehicles, which are vehicles available for use on a fee basis to the residents of the building. One shared use vehicle shall be deemed to satisfy eight required car spaces, but in no case shall more than 50% of the parking requirement be satisfied by a shared vehicle use.

TABLE 19-A: OFF-STREET PARKING MINIMUMS

	Vehicular	Bicycle
Single-, two-, or multi-family units	1 space/ dwelling unit	
Lodging house	1 space/5 rooming units ¹	
Special needs independent dwelling unit	1 space/4 dwelling units, plus 1 space/staff member normally present at any one time	2 spaces/5 units
Sheltered care group home	1 space/2 employees	
Congregate care facilities	1 space/3 dwelling units	
Emergency shelters	1 space/2 employees	
Long-term, extended care, and intermediate care facilities	1 space/5 beds, plus 1 space/employee normally present during weekday morning shift	
Governmental uses	1 space/400 SF of floor area	
Hospitals and clinics	1 space/500 SF of floor area	
Places of assembly	1 space/150 SF of floor area used for assembly purposes ²	
Preschool facilities	1 space/staff member normally present at any one time	
Schools	For students up to 15 years	1 space/room used for instruction purposes
	For students 16 years and older	1 space/10 seats used for instruction purposes or, if no fixed seats, 1 space/100 SF used for instruction purposes
Bed and breakfasts	1 space/2 guest rooms for first 4 guest rooms, plus 1 space/additional room thereafter ³	2 spaces/10 vehicle parking spaces for the first 100 vehicle spaces required, plus 1 space/20 vehicle parking spaces thereafter ⁴
General offices	1 space/400 SF of floor area	
Hostels	1 space/8 beds or, if within ¼ mi. of a transit stop, 1 space/12 beds	
Hotels	1 space/4 guest rooms	
Retail	1 space/200 SF of first floor area in excess of 2,000 SF, plus 1 space/700 SF for each floor above	
Restaurants and bars	1 space/150 SF of floor area	
Theaters, performance halls, funeral homes	1 space/5 seats or, if no fixed seats, 1 space/100 SF of assembly space	
Industrial uses	1 space/1,000 SF of floor area in excess of 3,000 SF not including area catering to retail	

¹ Except in the R-5 zone, where the requirement shall be 1 space/2 rooming units.

² Except for neighborhood centers which primarily serve clientele from the surrounding neighborhood, where the parking requirement shall be 1/1,000 SF of floor area

³ Except in the I-B zone, where no off-street parking shall be required for beds and breakfasts.

⁴ Development with under 10 required vehicular parking spaces shall provide at least two bicycle parking spaces.

TABLE 19-B: CATEGORICAL EXCEPTIONS TO OFF-STREET PARKING MINIMUMS

Categorical Vehicular Exceptions		
Major site plans	The Planning Board shall establish the off-street parking requirement based on a parking study.	
Affordable housing	Two spaces are required for every 3 units, except that the Planning Board may establish a lesser parking requirement that is less than 1 space per workforce or low-income housing unit, regardless of the size of the structure.	
Multi-family housing	The Planning Board may establish a parking requirement that is less than the normally required number of spaces upon a finding of unique conditions that result in a lesser parking demand, such as housing for persons who cannot drive, housing that participates in a Transportation Demand Management program, or housing which includes permanent restrictions on automobile usage, and which is permanently restricted from utilizing resident on-street parking stickers.	
Historic structures	No off-street parking in excess of that existing on or servicing the lot as of March 15, 1999 shall be required. ¹	
Accessory Dwelling Units	No off-street parking shall be required.	
Transit proximate development and uses	No off-street parking shall be required within ¼ mile of fixed route transit service. New uses or changes of use of more than 10,000 SF taking advantage of this exception shall be required to provide a Transportation Demand Management Plan if they use this provision in lieu of parking requirements.	
Zone-Based Vehicular Exceptions		
	Residential	Nonresidential
R-6	No off-street parking required for first three dwelling units. ²	
IR-1/I-B		Off-street parking requirements for nonresidential uses shall be reduced by 75%.
IR-3	No off-street parking required.	
R-OS	Off-street parking shall be adequate to serve projected employee and visitor needs.	
B-2/B-2b/B-2c		For changes of use of 10,000 SF or less, no off-street parking shall be required for nonresidential uses. ³
IS-FBC	No off-street parking required for first three dwelling units.	For changes of use of 10,000 SF or less, no off-street parking shall be required for nonresidential uses. ³
B-3	No off-street parking required for changes of use.	
B-5	No off-street parking required.	
B-6	Off-street parking requirement shall be determined based on a parking study.	
B-7	Off-street parking requirement shall be determined based on a parking study.	
Waterfront Zones	Off-street parking requirements shall be reduced by 50%. No off-street parking required in the WCZ.	

¹ Exception applies for uses within any contributing structure in a local or national register historic district or locally-designated or national register landmark building under Article 17. However, parking may not be decreased from that existing on or servicing the lot on March 15, 1999 except to the extent necessary to meet the requirements of the Americans with Disabilities Act.

² For alterations of buildings containing three or more dwelling units in the R-6 zone, no parking shall be required for the creation of one additional dwelling unit above existing conditions as of June 3, 2015. This exemption may be used one time.

³ If the number of existing parking spaces serving the site is less than the requirements of this article, that number of parking spaces may not be reduced lower than the required amount prior to the change of use except to the extent necessary to meet the requirements of the Americans with Disability Act, to the extent it is a requirement or a condition of site plan review, or to the extent the change of use requires less parking than the previous use and the total number of parking spaces serving the site exceeds the parking requirements of this article for all uses on the site including the change of use. A newly constructed building, a building addition, or a change of the use of a building exceeding 10,000 SF of floor area, shall provide parking as required by this article.

19.1.5 Joint use

The joint use of a parking facility by two or more principal uses may be permitted where it is clearly demonstrated that the parking facility will substantially meet the intent of the off-street parking requirements by reason of variation in the probable time of maximum use by patrons or employees among such establishments.

19.1.6 Off-site parking

Required off-street parking shall be located on the same lot with the principal use, except as follows:

- A. For uses in residential zones.** Off-street parking may be located off-site upon an applicant demonstrating the following:
1. Off-street parking cannot reasonably be provided on the same lot with the principal use.
 2. Off-site parking is proposed to be located no more than 300 feet from the principal use, measured along lines of public access.
 3. The premises to be used for off-site parking are held, either under the same ownership or by lease, by the applicant. Evidence of such control, either by deed or lease, shall be provided.
 4. The premises to be used for off-site parking have adequate parking supply to meet any parking required for existing uses on those premises.
 5. The premises to be used for off-street parking are located in the same or less restrictive zone as that of the building or use served.
- B. For uses in nonresidential zones.** Off-street parking may be located off-site at a distance of no more than 100 feet from the principal use, measured along lines of public access.

Off-street parking may be located further than 100 feet from the principal use provided the applicant demonstrates the following:

1. Off-site parking is proposed to be located no more than 1,500 feet from the principal use, measured along lines of public access.
2. The premises to be used for off-site parking are held, either under the same ownership or by lease, by the applicant. Evidence of such control shall be provided by showing, at a minimum, a signed letter of intent, purchase and sale agreement, or option for sale or lease at the time of approval, and an executed deed or lease prior to issuance of any certificate of occupancy for review and approval by Corporation Counsel. Off-site parking leases shall be for a term of not less than five years with an option to renew.
3. The premises to be used for off-site parking have adequate parking supply to meet any parking required for existing uses on those premises.

19.1.7 Fee-in-lieu of parking

- A. Applicability.** Any development subject to site plan review shall either provide the required parking on- or off-site or pay a fee-in-lieu of parking of not less than \$5,000 per space not provided. Fees shall be deposited into the Sustainable Transportation Fund, as established in Section 19.3 of this article. The fee shall be paid on or before the date upon which a certificate of occupancy is issued. Payment shall be secured by a bond at the time the amount of the fee is set.
- B. Annual adjustment.** The value of the fee shall be adjusted annually according to the

Engineering News Record construction index as published on January 1st of the current calendar year. The fee adjustment shall be calculated by dividing the index amount published on January 1st of the current year by the index amount published on January 1, 2010 (\$8,660), multiplied by the minimum fee amount of \$5,000. The base fee, the adjustment index, or the calculation method may be otherwise amended by action of the City Council from time to time.

19.1.8 Location of vehicular parking

A. In general

1. Tandem vehicular parking shall be permitted for residential uses, and for developments where managed parking is part of an approved site plan.
2. Parking shall be prohibited in the front yard, which shall mean the open space between the street line and building, except for parking within driveways on lots containing single- or two-family dwellings. "Driveway," as used in this paragraph, shall not include any turnaround area.
3. Where an existing front yard exceeds a maximum front setback, a maximum of 10% of the total parking area provided on the site may be located between the principal structure and the street.

B. In residential zones

1. Where off-street parking for six or fewer vehicles is required or provided, parking located within five feet of any lot line shall be located 50 feet or greater from any street line, except for in the R-6 zone, and parking in all residential zones shall maintain the minimum front setback from

any street line, except on a corner lot where parking shall maintain the side setback on a side street.

2. Where off-street parking for more than six vehicles is required or provided:
 - a. Parking for nonresidential uses shall be located 25 feet or greater from any residential structure on an adjoining lot.
 - b. Where vehicles are to be or may be parked within a required setback:
 - i. A continuous, permanently-anchored curb guard, at least five feet from the lot line, shall be provided between such off-street parking and that lot line involved, the top of which shall be at least 20 inches in height so that bumpers of vehicles cannot project beyond its face.
 - ii. Where such off-street parking abuts a lot in residential use or an unoccupied lot located in a residential zone, a fence, not less than 48 inches in height, shall be provided and maintained between such off-street parking and that part of the lot line involved.

C. In mixed-use zones

1. Where off-street parking for more than six vehicles is required or provided:
 - a. Where vehicles are to be or may be parked within 10 feet of any street line, a continuous, permanently-anchored curb guard shall be provided and maintained between such off-street parking and that part of the street line involved so that vehicle

- bumpers cannot project beyond its face toward the street line involved.
- b. Where such off-street parking abuts a lot in a residential zone or in residential use, a fence, not less than 48 inches in height, shall be provided and maintained between such off-street parking and that part of the lot line involved.
- 2. In the B-7 zone, off-street surface parking shall be located 35 feet or greater from any street, except in the case of:
 - a. A lot where 80% of the frontage has a building within 10 feet of that frontage.
 - b. A lot where all or a portion of the 35-foot setback area had a gravel surface not exceeding 15,000 square feet as of 9/29/15 and the principal use served is in a building meeting the minimum height requirements of the Bayside Height Overlay or of 25,000 square feet or greater. In these cases, the total number of spaces within the 35-foot setback and elsewhere on site shall not exceed parking requirements. Parking within the 35-foot setback shall provide stormwater quality treatment.
 - c. The 35-foot setback requirement shall not apply to a driveway located perpendicular to the site.

19.1.9 Off-street parking restricted

Off-street parking shall not include:

- A. More than one commercial motor vehicle in any residential zone, the R-P zone, or the B-1/B-1b zones.

- B. More than six commercial motor vehicles in the B-2/B-2b/B-2c zone.
- C. Loading, sales, dead storage, repair, or servicing of any kind, except when customarily incidental or accessory to a conforming principal use when located in an industrial zone.
- D. Notwithstanding Section 19.1.9(A), any truck body, commercial trailer, or similar commercial vehicles in any residential zone or the R-P zone.

19.2 OFF-STREET LOADING

19.2.1 Uses requiring off-street loading

Off-street loading is not required in the B-6, B-7 or WCZ zones. In all other zones, the minimum off-street loading bays or loading berths shall be as provided in Table 19-C. These minimum requirements shall be met and maintained in the case of new construction, alterations, and change of use.

19.2.2 Design of off-street loading

Each loading bay shall have minimum dimensions of 50 feet by 14 feet and may be located either within a building or outside and adjoining an opening in the building, except that in the case of hospitals and intermediate, long-term, and extended care facilities, the off-street loading area provided for ambulance and other emergency vehicles shall be exempt from the minimum dimensional requirement but shall be of sufficient width and depth to permit expeditious access and egress from the loading area. Every part of such loading bay shall be located completely off the street. In case trucks, trailers, or other motor vehicles larger than the dimensions of the minimum loading bay habitually serve the building in question, additional space shall be provided so that such vehicle shall park or stand completely off the street.

TABLE 19-C: OFF-STREET LOADING REQUIREMENTS

Use and Size (Gross Floor Area)		Minimum Number of Bays or Berths
General offices and hotels (> 100,000 SF)		1
Retail and industrial	5,000 - 40,000 SF	1
	40,000 - 100,000 SF	2
	100,000 - 160,000 SF	3
	160,000 - 240,000 SF	4
	240,000 - 320,000 SF	5
	320,000 - 400,000 SF	6
Each 90,000 over 460,000 SF		1 additional
Hospitals and intermediate, long-term, and extended care facilities		2 off-street loading areas shall be provided whereby one service area for ambulance and other emergency vehicles shall be separate from one service area accommodating supply vehicles, and whereby both off-street loading areas shall be separate from parking and entrance locations.

19.2.3 Requirements for additional bays, alterations, or modifications

Any additional loading bays which are provided in excess of the requirements of this article or any loading bays otherwise established shall meet the requirements of Subsection 19.2.2, and no alterations or modifications shall be made in an existing building or structure whereby loading openings or platforms are constructed or established unless the provisions of Subsection 19.2.2 are met.

19.2.4 Nonconformity as to off-street loading

A building which is nonconforming as to the requirements for off-street loading shall not be enlarged or added to, unless off street loading is provided sufficient to satisfy the requirements of Article 19 for both the addition or enlargement and the original building or structure.

19.3 SUSTAINABLE TRANSPORTATION FUND

19.3.1 Establishment

By act of the Portland City Council, the Sustainable Transportation Fund is hereby established.

19.3.2 Purpose

The purpose of the Sustainable Transportation Fund is to implement those provisions of the *Peninsula Transit Study Report and Action Plan*, as adopted by the Portland City Council on August 3, 2009, which recommended creation of a Sustainable Transportation Fund. The *Peninsula Transit Study Report and Action Plan* established a goal to reduce the number and impact of single-occupancy vehicle trips to and from the Portland Peninsula. Achieving this goal requires transportation choice for residents, businesses, and visitors. This ordinance establishes a funding source for broadening transportation choice and facilitating development with lower traffic impacts and reduced parking requirements. The mechanism and protocol for collecting fees and spending funds

are consistent with state requirements for utilizing transportation-related impact fees.

19.3.3 Deposits and expenditures

A. Deposits. The City shall establish a Sustainable Transportation Fund to be set up as a separate account within the City. Deposits into the fund shall include:

1. 100% of the revenue generated by the fee in-lieu of parking program, as established in Subsection 19.1.7 of this article.
2. Funds appropriated for deposit into the fund by vote of the City Council.
3. Voluntary contributions of money or other liquid assets to the fund.
4. Any federal, state or private grant or loan funds provided to the fund.

B. Accounting of deposits. Funds from the fee in-lieu of parking program, as established in Subsection 19.1.7, shall be individually collected and accounted for by project and the geographic fee in-lieu of parking subdistrict in which it is located.

C. Funds to be used within 10 years of deposit. Funds collected under the fee in-lieu of parking ordinance shall be spent on eligible infrastructure and/or capital improvements or expenses within 10 years of the date of collection. Any funds which are not so utilized and which exceed the City's actual costs of implementing the infrastructure improvement or improvements for which such fees were collected shall be refunded. Refunds shall be paid to the owner of records of the property for which the funds were collected, determined as of the date the refund is made.

D. Use of funds by subdistrict. Funds collected under the fee in-lieu of parking ordinance shall

be spent on permitted expenditures of the fund within the same geographic fee in-lieu of parking sub-district as the contributing project. However, for projects located within 250 feet of an abutting subdistrict, contributed fees can be used for eligible infrastructure projects in either abutting subdistrict.

E. Permitted expenditures of the fund. The Sustainable Transportation Fund may only be expended on the activities as described below:

1. Funds collected as fees in-lieu of parking shall be expended toward capital transportation improvements. Such capital improvements shall include but are not limited to the following:
 - a. Parking infrastructure:
 - i. Shared use, publicly accessible parking facilities.
 - ii. Publicly accessible bicycle racks and bicycle parking shelters.
 - b. Transit capital improvements and expenses:
 - i. Bus shelters, bus turnouts, transit signage and other transit amenities.
 - ii. Buses and transit vehicles.
 - iii. Transit and transportation information systems.
 - iv. Fixed guide way and/or rail transit systems.
 - c. Pedestrian and bicycle infrastructure:
 - v. Multi-use trails and non-vehicular transportation corridors.
 - vi. Pedestrian infrastructure and amenities located on publicly accessible rights-of-way including but not limited to crosswalks, signalization, landscaping, street

furniture, wayfinding signage, traffic calming, and lighting.

- vii. New public sidewalks and new bicycle lanes along publicly accessible rights of way or corridors where such facilities are not previously provided.

- d. Other such improvements intended to enhance transportation choice and promote transit and non-automotive transport.

- 2. Funds collected or appropriated by means other than from a fee in-lieu of parking may be used for any of the capital transportation improvements listed above, and for any of the following uses:

- a. Transportation Demand Management program administration.
- b. On- or off-peninsula transit and/or non-automotive transportation capital or operating expenses.
- c. Transit and/or non-automotive transportation promotion and education material.
- d. Other such programs or improvements intended to enhance transportation choice and promote transit and non-automotive transport for the City of Portland.

- F. **Annual Sustainable Transportation Plan and appropriations schedule.** Annually, the City Manager shall submit to the City Council a recommended sustainable transportation plan and appropriations schedule, utilizing the revenues of the Sustainable Transportation Fund. The Transportation Committee of the City Council or such other committee as the council shall designate shall recommend and

refer the plan and appropriations schedule to the City Council for action.

CITY OF PORTLAND, MAINE

PLANNING BOARD

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

October 10, 2023

Jonathan Cohen
144 Fore St. OZ, LLC
865 Spring Street
Westbrook, Maine 04092

Stephen Bushey
Gorill Palmer Consulting Engineers
300 Southborough Drive, #300
South Portland, Maine 04106

Project Name: 70 Thames Street
Address: 70 Thames Street
Applicant: 144 Fore St. OZ, LLC

Project ID: PI-002202-2022
CBLs: 019 A008001
Planner: Charles Tetelman

To Jonathan Cohen and Stephen Bushey:

On September 26, 2023, the Planning Board approved a Major Site Plan application for a 72,857 sq. ft. mixed-use development in the B-6 Eastern Waterfront and Shoreland zones. The decision is based upon the application, documents, and plans as submitted. The Planning Board reviewed the proposal for conformance with the standards of the Site Plan Standards Section 14.6, the design standards of the *City of Portland Design Manual* Section (g) *EWPZ Eastern Waterfront Port Zone and B-6 Eastern Waterfront Mixed Use Zone*, and Shoreland Zoning General Site Plan standards Section 11.5.1. Based on the information provided to the Board in the application, plans, reports, through testimony and other information submitted by the applicant, the Planning Board adopted the findings, conclusions and recommendations contained in the Planning Board Report for the public hearing on September 26, 2023, which is attached hereto and incorporated herein by reference, and based on those findings, conclusions and recommendations, the Planning Board found the application met all relevant standards and voted unanimously 5-0 (Mazer, Stanley, absent) to approve the application with the following waiver and conditions as presented below.

Waivers

The Planning Board voted 5-0 (Mazer, Stanley, absent) to waive the following *City of Portland Technical Manual* standards:

1. The Planning Board finds, based upon City Staff and the Third-Party Stormwater Engineer's review, that extraordinary conditions exist or undue hardship may result from strict compliance with the City of Portland's *Technical Manual* Section 5.III which does not allow the

discharging of water directly into a Major River segment. The Planning Board waives the Technical Manual Standard to allow discharging directly into a Major River segment.

Shoreland Zoning

Based on the information contained in in the application, plans, reports, through testimony and other information submitted by the applicant, the Planning Board adopted the findings, conclusions and recommendations contained in the Shoreland Zoning Section IX of City Staff's Planning Board Report for the public hearing on September 12, 2023, which is attached hereto and incorporated herein by reference, the Planning Board voted 5-o (Mazer, Stanley, absent) to find that the plan is in conformance with the Shoreland Zoning standards.

Site Plan Review

Based on the information provided to the Board in the application, plans, reports, through testimony and other information submitted by the applicant, the Planning Board adopted the findings, conclusions and recommendations contained Section X of the Planning Board Report for the public hearing on September 26, 2023, which is attached hereto and incorporated herein by reference, the Planning Board voted 5-o (Mazer, Stanley, absent) to find that the plan is in conformance with the site plan standards of the Land Use Code, subject to the following conditions:

PRIOR TO ISSUANCE OF A BUILDING PERMIT:

1. The applicant shall submit finalized landscaping and site plans that include updated walkway design and layout for the Pedestrian Assessment Easements located on site. All drawings shall be finalized and approved to the satisfaction of the Planning Authority and the Department of Public Works.
2. The applicant shall submit final Parking Demand estimates to confirm that the proposed parking plan is adequate for the proposed development. All documents shall be finalized and approved to the satisfaction of the Planning Authority, Department of Public Works, and the Third-Party Traffic Engineer.
3. The applicant shall submit a final Transportation Demand Management plan finalized and approved to the satisfaction of the Planning Authority and Department of Public Works.
4. The applicant shall submit finalized Plantings Plan that incorporate comments from the City Arborist and Parks Plan reviewers. All documents and drawings shall be finalized and approved to the satisfaction of the Planning Authority and the City Arborist.
5. The applicant shall submit a final Stormwater Management Plan finalized and approved to the satisfaction of the Planning Authority, Department of Public Works, and the Third-Party Stormwater Engineer.
6. The applicant shall submit all remaining utility ability to serve letters from utility providers. All documents shall be finalized and approved to the satisfaction of the Planning Authority.

The Board's finding is based on the submitted plans and findings related to Shoreland Zoning and Site Plan review contained in the Planning Board report for the hearing on September 26, 2023 for application PL-002437-2023 which is attached hereto and incorporated herein by reference.

Standard Procedures

Note: The following standard procedures and requirements apply to all approved site plans:

1. Site Plan Expiration: The site plan approval will be deemed to have expired unless work has commenced within one (1) year of the approval or within a time period up to three (3) years from the approval date as agreed upon in writing by the City and the applicant. Requests to extend approvals must be received before the one (1) year expiration date.
2. Separate Building Permits Are Required: This approval does not constitute approval of building plans, which must be reviewed and approved by the City of Portland's Permitting and Inspections Department.
3. Performance Guarantee and Inspection Fees: A performance guarantee covering the site improvements and an inspection fee payment of 2.0% of the guarantee amount and three (3) final sets of plans must be submitted to and approved by the Planning and Urban Development Department and Public Works Department prior to the release of a building permit, street opening permit or certificate of occupancy for site plans.
4. Construction Management Plans: The applicant, contractor and subcontractors are required to conform to the approved Construction Management Plan, and all conditions contained within the project's approval, for the entire duration of the project. Any amendments to the approved Construction Management Plan shall be reviewed and approved by the Department of Public Works prior to the execution. The Planning Authority and the Department of Public Works have the right to seek revisions to an approved Construction Management Plan. The applicant shall coordinate the project's construction schedule with the timing of nearby construction activities to avoid cumulative impacts on a neighborhood and prevent unsafe vehicle and pedestrian movements. Accordingly, nearby construction activities could involve a delay in the commencement of construction.
5. Preconstruction Meeting: Prior to the release of a building permit and scheduling of a preconstruction meeting, a hard copy set of approved plans shall be submitted to the Development Review Coordinator. A pre-construction meeting shall be held at the project site with the contractor, Development Review Coordinator, Public Works representative, and owner to review the construction schedule and critical aspects of the site work. At that time, the Development Review Coordinator will confirm that the contractor is working from the approved site plan and the approved Construction Management Plan. The site/building contractor shall provide one (1) copy of a detailed construction schedule to the attending City representative. It shall be the contractor's responsibility to arrange a mutually agreeable time for the pre-construction meeting.

6. Department of Public Works Permits: If work or obstructions will occur within the public right-of-way, such as utilities, curb, sidewalk, driveway construction, site deliveries and equipment siting, a Street Opening and/or Occupancy Permits are required for your site. Please contact the Department of Public Works Permit Clerk at (207) 874-8300, ext. 8828 (only excavators licensed by the City of Portland are eligible).
7. Develop Site According to Plan: The site shall be developed and maintained as depicted on the site plan and in the written submission of the applicant. Any modifications of an approved site plan or alteration of a parcel, or of any approved exterior elevations, which were the subject of site plan approval after May 20, 1974, shall require the prior approval of an amended site plan by the Planning Board or Planning Authority pursuant to the terms of Chapter 14, Land Use, of the Portland City Code.
8. Stormwater Management: The owner/operator of an 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. Final copies shall be submitted to both the Department of Planning and Urban Development and the Department of Public Works.
9. Third Party Inspections: For all sites with one acre or greater of disturbance, the applicant shall retain the services of a third-party inspector for the duration of construction until final site stabilization is in place. The inspection is required in order to ensure that all construction and stabilization activities comply with the approved drawings and specifications; that field decisions regarding erosion control implementation, stormwater system installation, and natural resource protection are based on sound engineering and environmental considerations; and that any changes to the development's erosion control plan, stormwater management plan, or final stabilization plan is communicated to the City of Portland for additional review and approval.
10. Defect Guarantee: A defect guarantee, consisting of 10% of the performance guarantee, must be posted before the performance guarantee will be released.
11. As-Built Final Plans: Final sets of as-built plans shall be submitted digitally to the Planning and Urban Development Department, on a CD or DVD, in AutoCAD format (.dwg), release AutoCAD 2005 or greater.
12. Mylar Copies: Mylar copies of the as-built drawings for the public streets and other public infrastructure in the subdivision must be submitted to Public Works prior to the issuance of a certificate of occupancy

13. Impact Fees: New development or changes of use that result in net new residential dwelling units, non- residential building square footage, or water meters, are subject to the City of Portland's impact fee ordinance (Chapter 14, Article XVII). Impact fees are calculated at the time of building permit and must be paid prior to the certificate of occupancy. For more information, visit <https://www.portlandmaine.gov/2409/Impact-Fees>.

The Development Review Coordinator must be notified five (5) working days prior to the date required for final site inspection. The Development Review Coordinator can be reached at the Planning and Urban Development Department at (207) 874-8901 or via email at drc@portlandmaine.gov. All site plan requirements must be completed and approved by the Development Review Coordinator prior to issuance of a Certificate of Occupancy. Please schedule any property closing with these requirements in mind.

If there are any questions, please contact Charles Tetelman at (207) 874-8724 or via ctetelman@portlandmaine.gov.

Sincerely,

Brandon Mazer, Planning Board Chair

Attachments:

1. 70 Thames Street Planning Board Report (9.26.23) w/ incorporated attachments
2. Portland City Code: Chapter 32
3. Sample Stormwater Maintenance Agreement
4. Performance Guarantee Packet

March 31, 2023

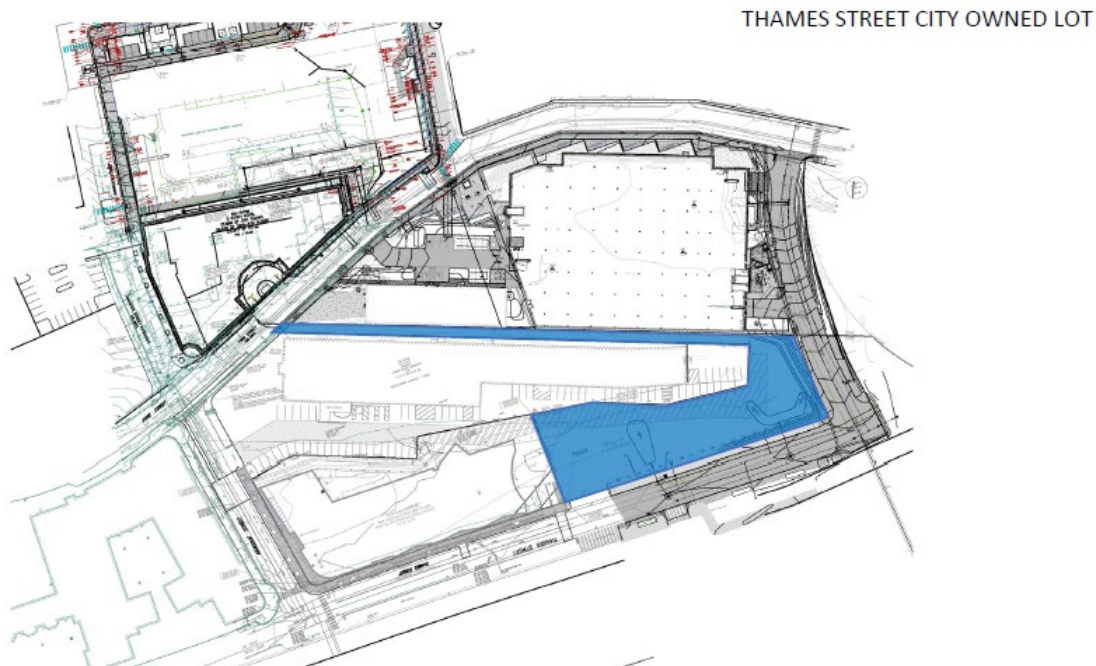
Ms. Christine Grimando

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

Subject: Major Site Plan Application – City owned property on Thames Street
Applicant: 144 Fore St. OZ, LLC
Tax Map/Block/Lot # 019-A-002 and Lot #019-A-08

Dear Christine:

On behalf of **144 Fore St. OZ, LLC**, Gorrill Palmer is submitting application materials for a Major Site Plan Application, for a new multi-tenant office building on the City owned land on the corner of Thames Street and Freedom Way. The development will also encompass a portion of the property at 144 Fore Street which is under common ownership by 144 Fore Street, LLC. The applicant responded to the City's RFP #22021 and had been selected for purchase of the 0.984 acre City site¹.



City Owned Property on Thames Street

¹ Per Boundary & Topographic Survey at 144-152 Fore Street, Portland, Maine made for 144 Fore Street OZ LLC, by Owen Haskell Inc. January 6, 2022



The proposed project includes a 25,575 SF footprint, 3-story mixed-use building with a portion of the floors designated as corporate office space for WEX, a third-floor restaurant, and 2,000 SF of the first floor as mercantile space. The total space over three floors will be approximately 72,857 SF. The third level will include both indoor and outdoor opportunities for the tenants. The project is guided by the Eastern Waterfront Master Plan and is designed to allow permeability and accessibility across the site. The building will be surrounded by designed streetscape plaza and park spaces which may become home to opportunities for incubator business locations, in a manner like those at 93 Washington Avenue. The applicant is currently in discussions with various vendors for possible teaming opportunities.



Washington Ave incubator space



Example incubator space

WEX has agreed on a long-term commitment to lease a minimum of 42,000 square feet in the building.

The Community benefits provided by the project include the following:

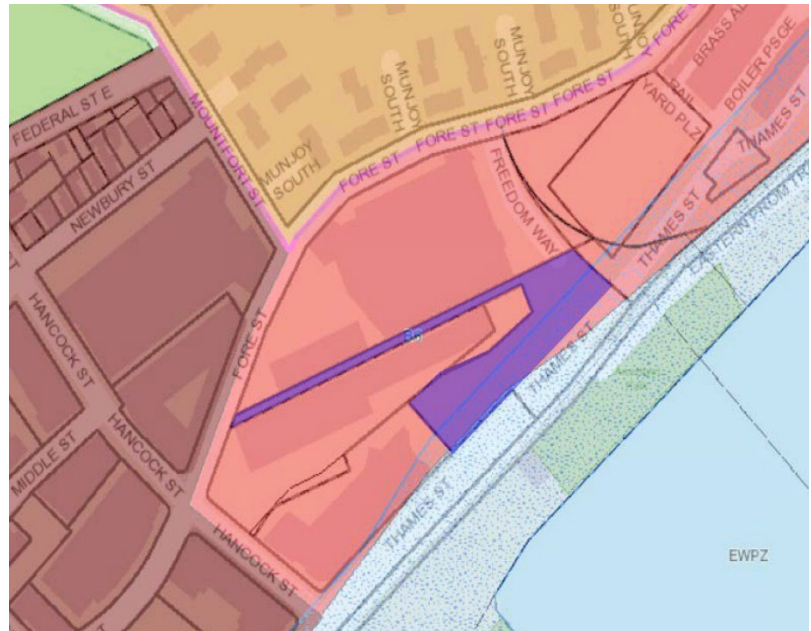
- The Project contributes to the redevelopment and revitalization of the area;
- The Project provides a quality office use destination to complement other mixed-use activities in the nearby vicinity; and
- The Project incorporates exterior site enhancements for outside Plaza space, landscaping, and related site amenities.

The applicant is seeking Planning Board Approval to allow commencement of sitework and building construction immediately upon receipt of approvals. As the building is greater than 10,000 SF, this use meets the criteria for a Major Site Plan Review per Table 14-A in the Recode.



Existing Conditions

The existing 0.984 acre City owned site is located at the end of Thames Street and has been in use for public parking by the City for many years. The City site conditions include mostly gravel surface and in recent years the frontage along Thames Street and Freedom Way has been modestly improved with sidewalks and street lighting. The site's historic use was highlighted by the Grand Trunk Rail yard that occupied the block for over a century. The 144 Fore Street site is 1.687 acres and includes an existing single level building and related parking lots. A portion of the building will be demolished to make way for the proposed development.



B6 Zoning Excerpt

The site is located in the B6 zone as identified on the City's zoning map.

According to City records, utilities serving the site include power, communications, water, gas, and sewer. The building at 144 Fore Street contains various existing utility services and the City property also benefits from nearby utility capacity availability. The site is accessed from Thames Street from an existing gravel driveway located east of the 1 Hancock WEX headquarters and within the so called future Mountfort Street Extension corridor that extends from Fore Street southerly to Thames Street.



Adjacencies

Nearby land uses include:

- WEX Headquarters at 1 Hancock Street
- WEX and Roux Institute at 100 Fore Street including the 539 space parking garage
- Portland Foreside mixed use development currently under construction and partially completed.



- Portland Gateway Terminal along the waterfront
- Portland's Amethyst lot and Moon Tide Park, public spaces along the waterfront
- The Narrow Gauge Railroad and Museum

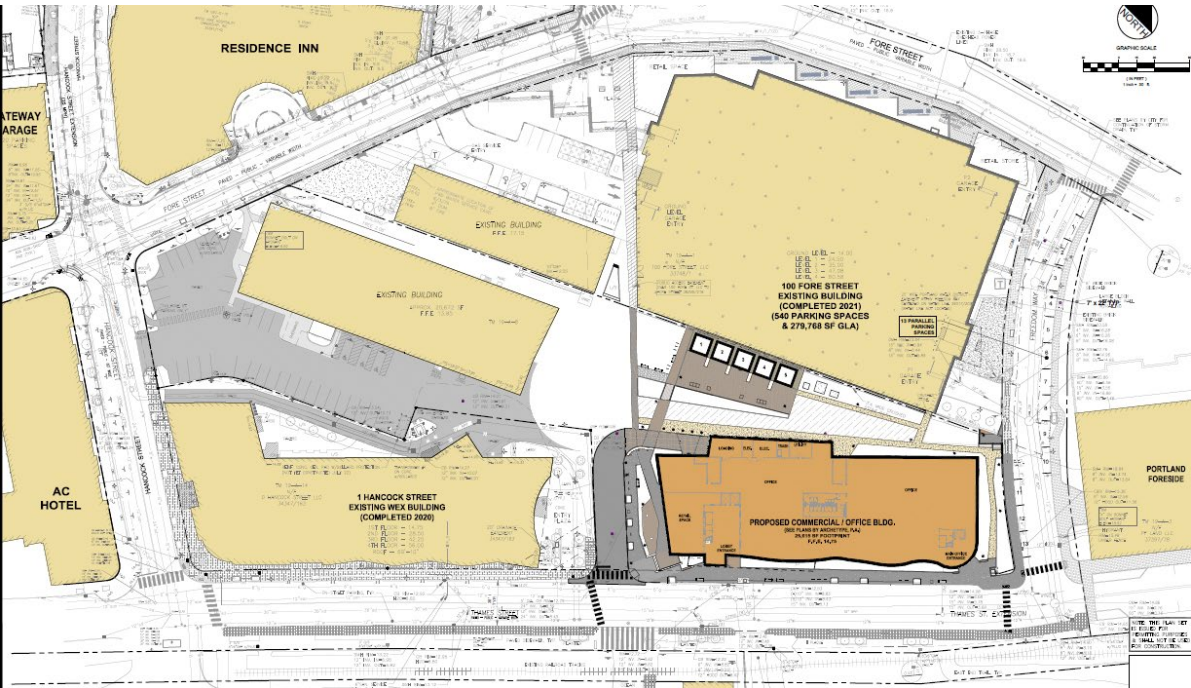


Aerial Image – circa 2020

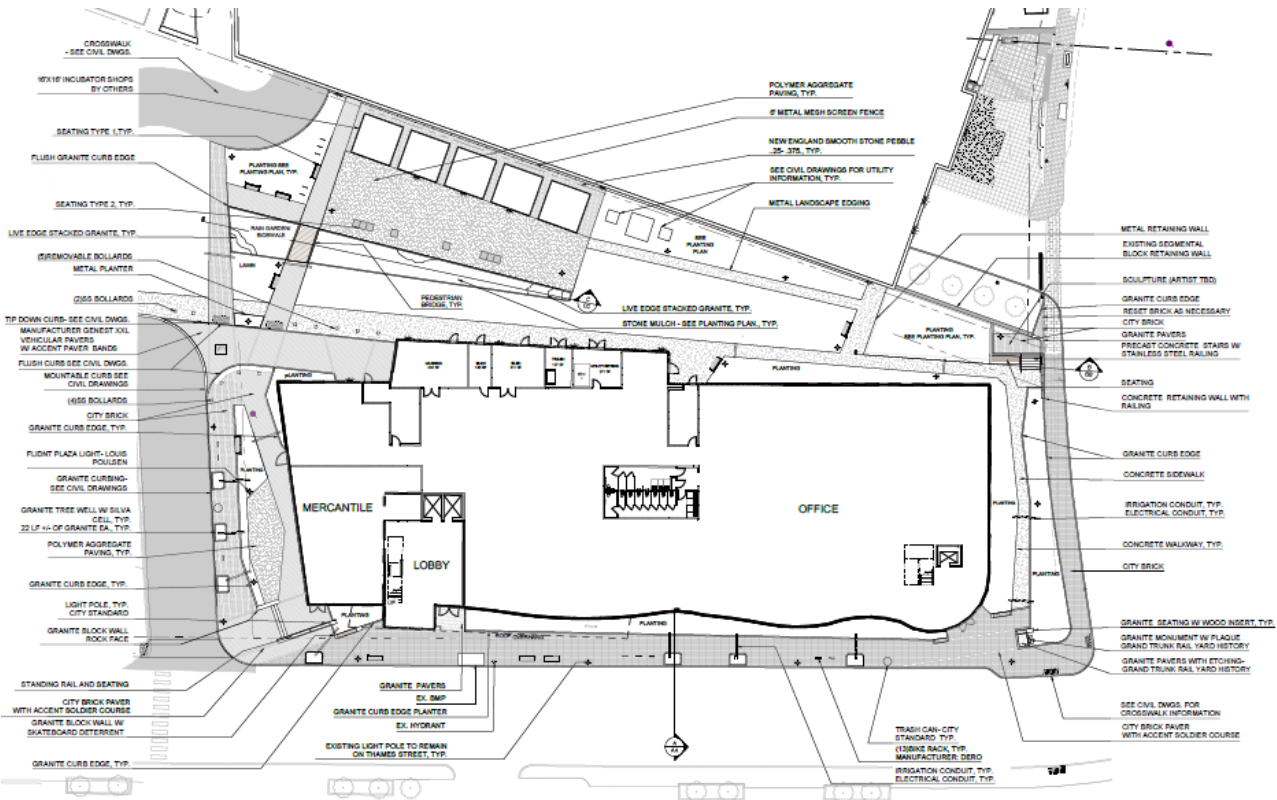
Proposed Development

The Thames Street Lot will become part of a campus that has already been established by the applicant both in its uses, site layout and design. The footprint of the proposed building and the parkscape included in the proposal are strengthened and the campus appropriately connected, due to the applicant's ownership of the surrounding properties at 144 Fore Street, 100 Fore Street and 1 Hancock Street. The 144 Fore Street site and the easements attached to it sliced through the interior of the City site and greatly reduced the ability to build on the City's Thames Street Lot. The applicant's success in controlling the 144 Fore Site allow the development to now connect the pedestrian circulation and view corridors that are both defined by the Eastern Waterfront Master Plan (EWMP) and sought after by the applicant and the partnering businesses currently utilizing the surrounding sites.

The proposed site plan positions the new building along the Thames Street frontage with primary entrances along Thames and at the corner of Freedom Way and Thames. The westerly entrance accesses a grand vaulted entry lobby with access to stairs and primary elevators. The easterly entrance at the corner of Freedom Way and Thames will be a primary office space entrance for WEX staff. A new 26' wide access driveway will occupy the current City parking lot entrance off Thames and this will continue along the so-called Mountfort corridor to an interior plaza/courtyard space. This route will also provide a new vehicular connection to the ground level parking garage at 100 Fore Street. Interior pedestrian and vehicular connectivity to Hancock Street will also be provided between the WEX headquarters and remaining 144 Fore Street building. The conditions of the land transfer also include various easement rights retained by the City and/or granted by the developer to the benefit of the City. These easements involve pedestrian access thru the property.



Proposed Site Plan – Overview



Proposed Site plan – Thames Street



The proposed building design is a balance of relating to its neighboring campus buildings while creating individual design appeal. The form and footprint were informed by the items of importance addressed by both the RFP for the sale



of the lot and by the Eastern Waterfront Master Plan. The site elements of the proposal are key to tying the block together and enhancing the visual and physical permeability of the site as it relates to its surroundings from many perspectives including an office or retail user, a local resident or a tourist passing through. The site elements plan for the future nearby waterfront public open space while drawing from its rich history to inform the design: honoring the past while enhancing the future.

The design approach is to enhance the campus that has been started through the construction of the WEX headquarters and 100 Fore Street and tie the design to its surroundings. Certain elements clearly reference the existing buildings and therefore respect the views and access of its neighbors.



The material choices tie directly into the existing buildings of the campus while the building is responding formally to the specifics of the zoning, the relationship to the neighboring buildings and the uses inside.



This area within Portland has developed quickly in the past few years and contemporary architecture dominated by glass and steel has become a key part of the fabric. In keeping with A consistent material language such as the brick that ties the historic old port together, glass and steel are the language of the New Waterfront. The transparent and reflective qualities of glass create an interaction with the surroundings that tie into the goal of permeability and sensitivity to surroundings.



The design also creates a building that has distinct features allowing it to stand on its own visually and further the contemporary architectural style that has become part of the new waterfront within Portland.



Not only does the design respect the view corridors of the EWMP but by creating much of the 3rd level exterior as outdoor habitable space, and orienting the indoor portion of this level toward the south, the water views from the occupiable levels of buildings to the west are maintained.



Building Elements

- LED light fixtures – minimal fixture use needed due to amount of glazing
- Automated light systems to prevent light usage when not required, and dimming based on natural light levels
- Automatic shades systems will balance the lighting with heating and cooling loads
- Curtainwall systems contain recycled content
- White EPDM roof on third story enclosed structure decreasing cooling loads
- Light colored roof deck pavers decrease cooling loads
- Keeping the project team local means commuting needs are greatly lowered during the design and construction process
- A Construction waste management plan will be in place
- Open concept structural and floor systems allow for space and usage flexibility with minimal waste and energy
- Building commissioning will be implemented



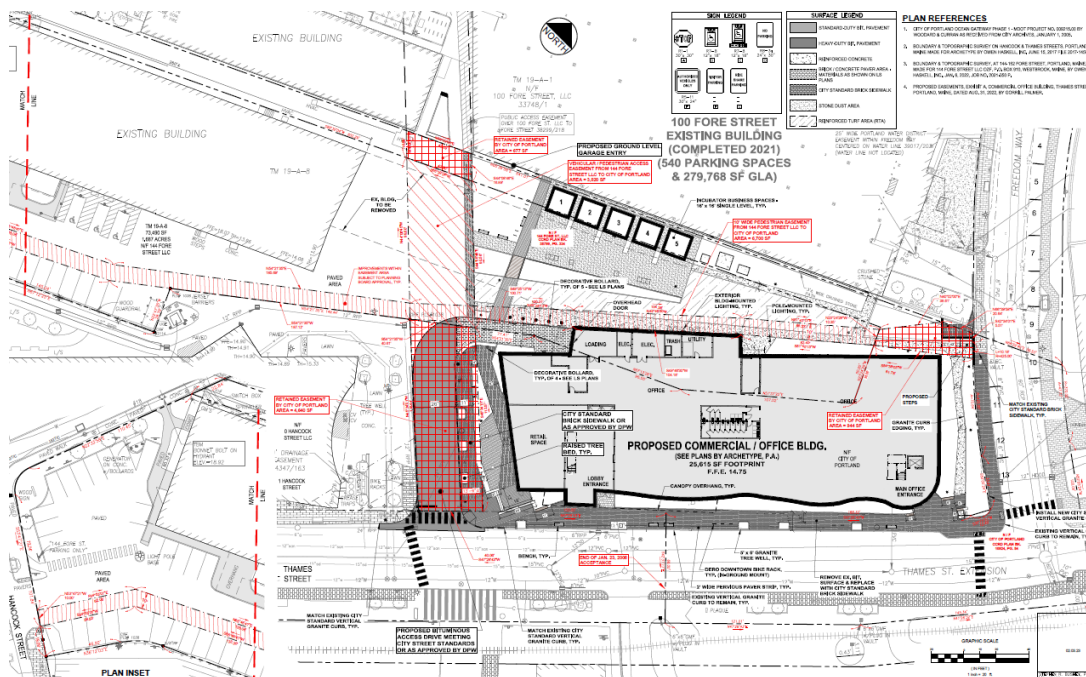
- Low flow plumbing fixtures to be installed
- Building level water metering to be incorporated
- Building level energy metering to be incorporated

Site Elements

- Bike Parking and storage to encourage alternative commuting
- Parking provided in stacked garages owned by applicant reduce the users parking footprint
- Charging stations are available at 100 Fore garage for office users
- High ratio of pervious/planted surface
- Uses are a higher density and better use than the existing single level gravel parking lot
- Site location encourages foot and bike commuting with connectivity to nearby waterfront and Gateway Terminal
- Interiors designed to minimize energy consumption and reduce energy consumption
- In-office single stream recycling system will be implemented

Public Benefit

- Future Possible Mountfort Street Extension ROW – A paved section may be turned back to city
- Freedom Way turned over to the City for Vehicular connectivity from Thames to Fore Street
- Brick Sidewalk constructed on Freedom Way in front of Portland Foreside development
- Pedestrian connectivity and engagement within the four quadrants of the Fore St/Thames/Hancock/Freedom Way block
- Applicant contributes \$50,000 towards new public bathrooms constructed on the Amethyst Site.





Traffic

The site was previously made part of the Eastern Waterfront Traffic Movement Permit² (EWTMP). The Eastern Waterfront TMP contemplated that the development of the City owned parcel would include 72,000 SF of office space with parking off-site in one of several parking garages existing in the vicinity of the property. The City land was estimated to generate 126 AM and 139 PM weekday peak hour trips. The proposed project now includes the following land uses and projected trip generation³:

Table 1 – Trip Generation			
Land Use (LUC)	Area (SF)	AM Peak Trips	PM Peak Trips
Office (710)	43,730	51	50
Mercantile (814)	2,000	6	14
Restaurant (931)	8,315 (300 seats)	6	65
	Total	63	129

Based on the originally approved trip generation the proposed project will not exceed the threshold values requiring any further traffic examination in our opinion.

Parking

Off-street parking shall be provided in the Gateway Garage and the 100 Fore Street Garage, both of which are under common ownership. The Gateway Garage has 520 spaces and the 100 Fore Street garage has 543 spaces. The uses in the 100 Fore Street building require 215 spaces, yielding a balance of 344 spaces available in the 100 Fore Street Garage. Use of the 100 Fore Street parking garage for development on the City owned property was contemplated in the EWTMP. Per Table 19-A of the ReCode the following parking ratios apply:

Table 2 – Parking Demand			
Land use	Area (SF)	Vehicular ratio	Required parking
General Office	43,730	1 space/400 SF	110
Retail	2,000	1 space/200 SF on 1 st floor in excess of 2000 SF	0
Restaurant and Bars	8,315	1 Space/150 SF of floor area	56
		Total	166 spaces

Multiple bicycle parking spaces have been provided at eight City Standard Dero Downtown bike racks at the front and side of the proposed building.

² See Reg. 01-000270-A-N issued 03/20/2020 by the Maine Department of Transportation.

³ Based on ITE 10th Edition Trip Generation



Utilities

The proposed project will include new utilities from the street into the building as follows:

- A 6” fire line and 4” domestic water line service will be extended into the site from the existing 12” main in Thames Street.
- A domestic sanitary line and a kitchen waste line will extend from the building to the 8” sanitary sewer in Thames Street. A City standard grease trap will be installed on the Kitchen waste line.
- Underground power and communications will extend from the 1 Hancock Street site to the proposed site.
- A natural gas service line will extend off the existing main in Thames Street.
- Existing water and Sanitary lines remaining from the demolition of the easterly end of the building at 144 Fore Street may be reused for the incubator spaces.

Consistency with Master Plan

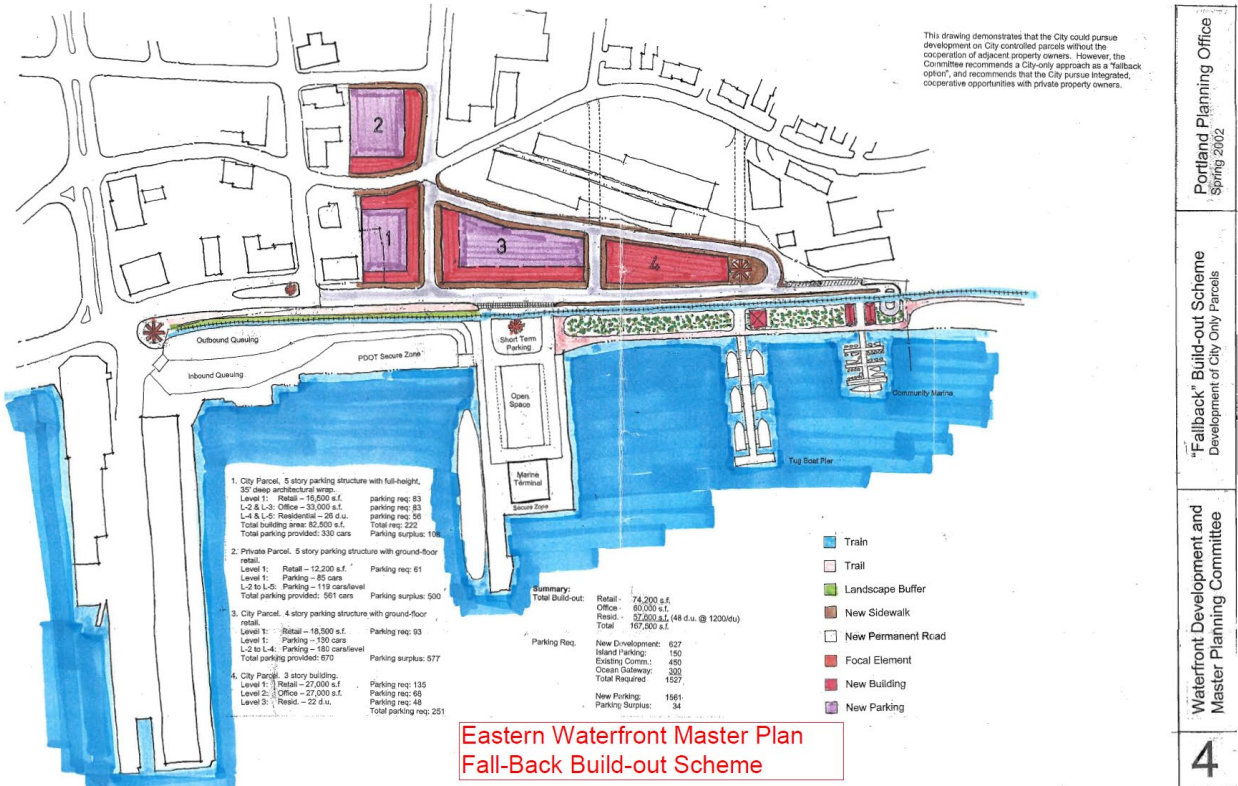
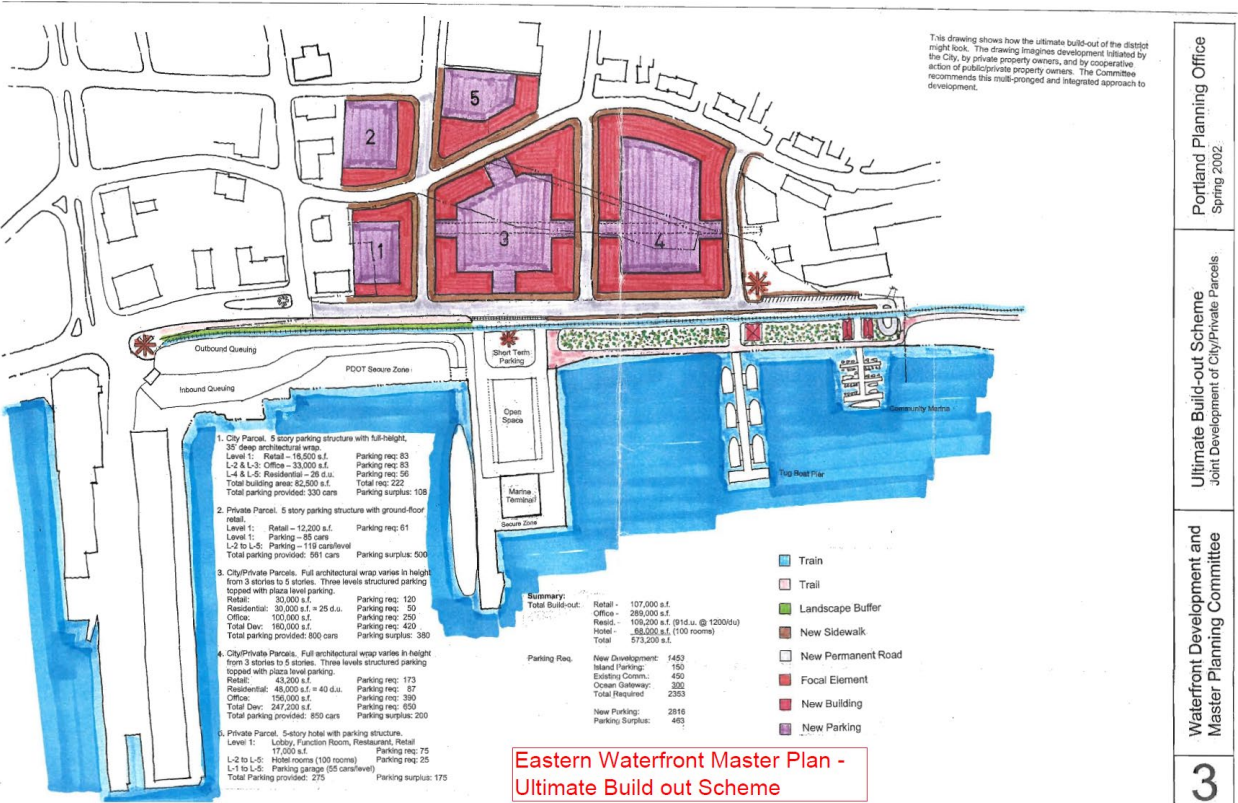
The project proposal is consistent with the Eastern Waterfront Master Plan as it will involve road and utility extensions and development consistent with the Plan. As seen below the EWMP set an objective of connectivity between Thames Street and Fore Street. The applicant has made the transfer of Freedom Way part of the overall offering for the city site. Further, the site layout, much like the 100 Fore Street development, allows for the Mountfort Street Extension from Fore Street down to Thames Street, as a view and pedestrian movement corridor.

Project Area 1

Eastern Waterfront Master Plan and Portland Company Integration



1. EW Infrastructure Expansion	Road and utility extensions consistent with the Eastern Waterfront Master Plan (EWMP.)
1.a. Property Negotiations	Negotiations with private property owners





In accordance with the Major Site plan General Document Checklist, we offer the following information:

General Documents

- 1. Project Description** – New building greater than 10,000 SF located in the B6 zoning District requires Major site plan approval from the Planning Board. See description above.
- 2. Completed Checklist** – See upload to Eplan.
- 3. Evidence of Right, Title and Interest.** The city owned land is recorded in the CCRD Book, 21951, page 341, a copy of which is attached to this submission document. The City has completed negotiations with the applicant for the transfer of the property as outlined in City RFP# 22021. The applicant owns the site at 144 Fore Street per the deed recorded at the CCRD Book 38799, Page 344. A copy of this deed accompanies this submission. More information on the resulting lot lines, easements etc. is contained in the purchase and sale agreement made part of this application.
- 4. Zoning Assessment** – B6 Zone, please see attached.
- 5. Site plan Standards Assessment** – See attached and information below.
- 6. Summary of Existing and/or proposed easements or covenants** – See attached.
- 7. Waiver Request** – None requested.
- 8. Evidence of financial and Technical Capacity** – The applicant has retained Archetype PA, Mitchell & Associates and Gorrill Palmer Consulting Engineers to assist with the design and construction of the proposed project. The project costs are expected to be approximately \$25 million and will be financed by a combination of institutional lending and self-financing by the applicant. As part of the RFP response from the applicant, a capacity letter from NBT Bank was included in that submission and is made part of this Major Site plan application package.

Transportation

- 9. Impact on Surrounding Street system** – The development of the City owned property was part of the Eastern Waterfront Traffic Movement Permit. Per the TMP approval the city owned parcel is to have one general delivery driveway and all parking is expected to be found within the existing structured parking in the site vicinity. The TMP allowed that final site access will be determined as part of the Site plan approval. Based on these previously approved conditions, the proposal for a single access off Thames Street, within the Mountfort Street Extension corridor is entirely consistent with previous planning efforts. As access to the 100 Fore Parking ground level parking will be modified to use the new Thames Street access, fewer vehicles may use the existing Fore Street entrance to that garage. Vehicular movements on Thames Street have direct connectivity to Commercial Street and Franklin Arterial as was contemplated and studied in the



EWTMP. For these reasons, the development impact on the surrounding Street system is expected to be minimized.

10. Access and Circulation – The site and building are accessible from Thames Street and Mountfort Street Extension. An ADA route to the building will be provided from the 100 Fore Parking garage ground level to the sidewalk system surrounding the proposed building. There will be no drive-up facilities for the building. An at-grade loading/service space will be provided at the rear of the building with access from the Mountfort Street Extension. The existing bituminous asphalt sidewalk along Thames Street will be replaced with City standard brick sidewalk, as will the sidewalk on Freedom Way. New Brick sidewalk will also be constructed on the east side of Freedom Way, thus completing that pedestrian connection.

11. Public transit –The METRO Peninsula Loop Route 8 runs along Commercial and India Street, just west of the project site, with stops at Casco Bay Lines and along India Street. The site is approximately 1,500 LF (0.28 mile) from CBL.



12. Off-Street Parking – Parking for the development will be provided at the 100 Fore Street parking garage located to the north of the site. Within the garage there are 543 parking spaces. The Gateway Garage contains 520 parking spaces. There are also 25 bicycle racks in the 100 Fore Street garage. The proposed site plan includes eight (for 16 bikes) new City standard bike racks within the sidewalks surrounding the proposed building.

Snow removal around the site will involve discrete placement, largely in the proposed pedestrian plaza at the rear of the site. Snow removal may be required on occasion and that will be performed by a contracted snow removal provider.



13. Transportation Demand Management –WEX currently maintains a TDM in cooperation with Cushman Consulting. If needed, an updated TDM plan can be undertaken. The original TDM has yet to be fully engaged due to the Covid pandemic and the temporary interruption of building occupancy. As WEX staff continue to fall back to more traditional office practices the implementation of TDM is expected to increase. The previously approved WEX TDM accompanies this application.

Environmental

14. Preservation of Significant Natural Features – Not applicable. The site is located on previously developed land and it contains only a gravel parking lot.

15. Landscape Preservation – The site plan aims to replenish an urban lot consisting of a parking lot, building, and grassed shoulders into a vibrant public space that integrates best management practices and low impact design through a robust native planting scheme, a rain garden, and rainwater harvesting. The proposed plan includes significant new street tree planting and various vegetative covers within the proposed pedestrian spaces at the rear of the site.

16. Site landscaping and Buffers – The site landscaping and buffers address the vibrant city streetscape that the building is designed to embrace. Unique to the site's urban context is a 200' +/- planting bed along the Thames Street sidewalk that reinforces the connectivity of the site planting scheme and unifies this city block with native species and pollinator habitat. Buffering Planting is being used to screen the interior public/private space from the parking garage at 100 Fore Street to the west of the site. The native street tree species have been chosen to respond to the City of Portland preferred list and are contextually appropriate with the existing street trees on Thames Street, Hancock, and India Street.

17. Water Quality, Stormwater Management and Erosion control – The site plan documents include various details and narrative describing the erosion control measures to be implemented during construction. The site is not within an urban impaired stream watershed. The site's runoff patterns will be unchanged in that runoff will be collected and conveyed into the nearby municipal systems on Thames Street and the recently installed 60" storm drain line in Freedom Way that discharges directly to the Fore River. As the site is nearly all impervious surface, there will no significant impacts to runoff peak discharge and volume. The pedestrian plaza space at the rear of the site will provide a low impact approach to runoff collection and vegetative treatment. The applicant is requesting a waiver of the Flooding standards given the overall level of existing imperviousness and the proximity of direct discharge to the Fore River. This approach has been previously granted similar waivers by the Planning Board for the 1 Hancock Street and 100 Fore Street developments.



Public Infrastructure and Safety

18. Consistency with City Master Plans – See Above.

19. Public Safety and Fire Prevention – The Site circulation plan includes the turning movements for a fire apparatus circumnavigating the site. The building will contain a complete fire suppression system. The site design allows for security by providing ample area lighting and views from the surrounding streets to address security and unauthorized site access and use.

20. Availability and Adequacy of Public Utilities – Please see above.

Site Design

21. Massing, Ventilations and Wind Impact – The building dimensions fall within the B6 zoning requirements and are expected to have no significant wind or ventilation impacts on adjoining structures or public spaces.

22. Shadows – The site is located in the B6 zoning District therefore per Section 11.2 of the Technical Manual a shadow study is not applicable.

23. Snow and Ice Loading – The building will have a flat roof that will minimize the potential for snow and ice from falling onto the Public ROW.

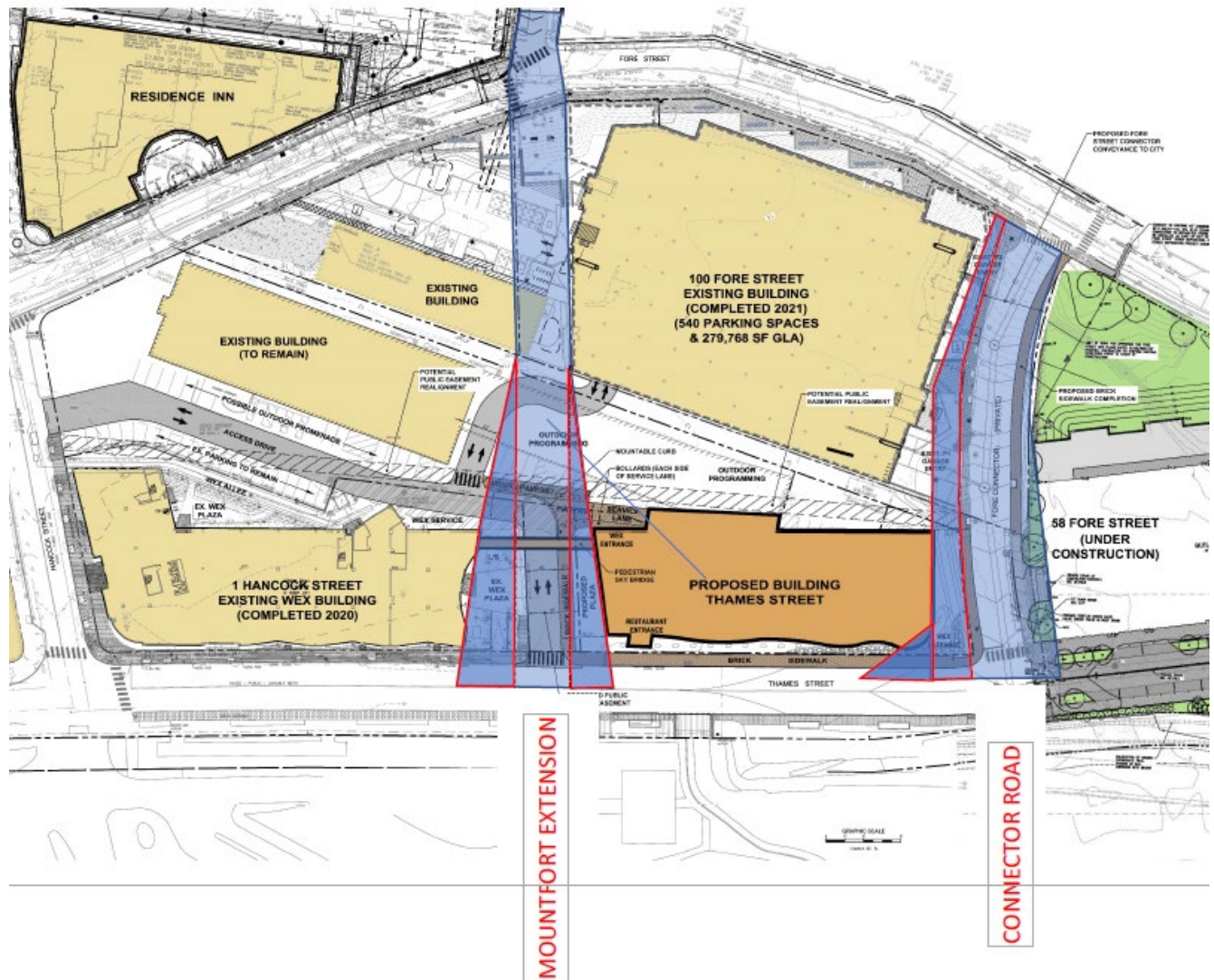
24. View Corridors – the plan adheres to the Eastern Waterfront Master Plan as graphically outlined below:



EWMP MASTER PLAN VIEW CORRIDORS



Within the Mountfort Extension Rights-of-Way, the view corridor splays are exaggerated as one gets closer to the water. The same treatment to the view corridor is maintained at the Connector Road (Freedom Way) with both the footprint of 100 Fore Street and the design for the Thames Street development holding back a significant amount from the buildable area to respect these views. The built edge of the Thames Street proposal is drawn directly from the entry tower of 100 Fore Street so as to respect the site line already in place.



25. Historic Resources – The site is not designated as a historic landmark, and it is not within a historic district.

26. Exterior Lighting – The site lighting plan accompanying this submission contains the following calculation summary:



Calculation Summary							
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
SITE	Illuminance	Fc	0.51	4.2	0.0	N.A.	N.A.
EAST PATHWAY	Illuminance	Fc	1.94	3.8	0.4	4.85	9.50
LEFT ENTRANCE	Illuminance	Fc	1.23	3.3	0.4	3.08	8.25
MAIN PATHWAY	Illuminance	Fc	1.39	4.2	0.2	6.95	21.00
MIDDLE ENTRANCES	Illuminance	Fc	1.51	3.2	0.5	3.02	6.40
RIGHT ENTRANCE	Illuminance	Fc	1.60	3.6	0.4	4.00	9.00

27. Noise and Vibration – Project noise levels will be designed to meet the permitted standards within the zone. HVAC units will be located on the ground adjacent to the building or on the roof top. Equipment cut sheets can be provided upon request.

28. Signage and Wayfinding – All future tenant signage to be permitted separately by the tenants. None is currently proposed.

29. Zone Related Design Standards – The Site is located in the B6 and the proposed development is consistent with the goals of a dense, mixed use project with street level pedestrian connectivity and vibrancy. We believe the development proposal satisfies the Design Standards as outlined in Section 14.6.4.I.1.

We trust the supporting application materials are acceptable and we look forward to the Planning Board review and processing of this Major Site Plan application.

Sincerely,

GORRILL-PALMER

A handwritten signature in black ink, appearing to read 'Stephen Bushey', with a stylized flourish at the end.

Stephen Bushey, PE

Senior Associate

Phone: 207-772-2515 x286

sbushey@gorrillpalmer.com

Attachments

c: Jonathan Cohen, 144 Fore Street OZ, LLC
Bill Hopkins, Archetype

U:\3924_Thames Street-WEX_Portland, ME\IP Applications\Local\app_thames Street_Major site plan app_03.31.2023

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 Standards – Section 5. Portland Stormwater Management Standards and MaineDEP Chapter 500 Stormwater Management	Flooding Standards: : Subcatchment plans with flow paths, full hydrology computations/model output of pre- and post-development conditions, summary of pre- and post-development flowrates, and a written request for waiver with rationale for	The applicant is requesting a waiver for the flooding standard requirements.	The project will discharge stormwater runoff to a new 60” storm drain pipe that will discharge directly to the Fore River which is a tidal waterbody.

PURCHASE AND SALE AGREEMENT

THIS PURCHASE AND SALE AGREEMENT IS made this 23rd day of March, 2023 (the “Effective Date”) by and between the **CITY OF PORTLAND**, a body politic and corporate located in Cumberland County, Maine (hereinafter referred to as “City”), and **144 FORE ST. OZ LLC**, a Maine limited liability company having a mailing address of One Portland Square, Suite 6A, Portland, ME 04101 (hereinafter referred to as “Buyer”).

RECITALS

WHEREAS, the CITY is the owner of approximately 42,569 square feet of land located at 0 Thames Street, Portland, Maine (the “Premises”) and did advertise RFP #22021 dated September 24, 2021, entitled Request for Proposals, Sale of Remaining Portion of City Owned Thames Street Property, a copy of which is attached hereto as Exhibit A and made a part hereof (the “Request for Proposals”) (the Premises is identified in the City’s tax records as a portion of CBL 019 A002001 and is generally depicted on the diagram attached hereto as Exhibit B (the “Site Plan”) and further described in Exhibit C, both Exhibits B and C being incorporated herein); and

WHEREAS, Buyer submitted a proposal dated October 21, 2021 in response to the Request for Proposals, a copy of which is attached hereto as Exhibit D (the “Proposal”)¹; and

WHEREAS, the Proposal includes, among other things, the conveyance to the City of a private road and sidewalk known as Freedom Way as generally depicted on Exhibit B (“Freedom Way”), which is a portion of property that abuts the Premises and is currently owned by Buyer’s affiliate, 100 Fore Street, LLC, and which the Buyer intends to purchase and then convey to the City for acceptance as a town way; and

WHEREAS, Buyer desires to purchase the Premises from the City, the City desires to convey the Premises to Buyer, Buyer desires to convey Freedom Way to the City for acceptance as a town way, and the City desires to obtain Freedom Way from Buyer and accept it as a town way, subject to the terms and conditions set forth herein.

NOW THEREFORE, in consideration of the foregoing and for other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the parties, intending to be legally bound, hereby agree as follows:

1. SALE; CONSIDERATION.

- a. City agrees to sell the Premises to Buyer, and Buyer agrees to purchase the Premises in accordance with the terms and conditions set forth in this Agreement.

¹ Although the Proposal is attached to this Agreement as an exhibit, it is not incorporated into and made a part of this agreement. The City has not approved or agreed to the contents of the Proposal except to the extent specified in this Agreement.

- b. The purchase price for the Premises shall be One Million, One Hundred and Fifty Thousand Dollars (\$1,150,000.00) (the “Purchase Price”).
- c. In addition to the Purchase Price:
 - i. Buyer shall convey to the City the real property comprising Freedom Way as generally depicted on Exhibit B and more particularly described in Exhibit E, including, without limitation, the road, sidewalk, and related fixtures, improvements, and infrastructure, which conveyance, however, shall contain (x) a reservation of rights until Freedom Way is accepted as a public way for Buyer and 100 Fore Street, LLC, and their successors and assigns, to access and use Freedom Way at no cost or expense, and (y) a reservation of rights for Buyer and 100 Fore Street, LLC to access, use, maintain, and repair, at their own cost or expense, and subject to the City’s Technical Manual and applicable laws, regulations, ordinances, and rules, the fixtures, improvements, infrastructure and other utilities located within Freedom Way at the time of closing.
 - ii. Buyer shall operate the Premises as a parking lot from the date of closing until the date that Buyer commences construction of the Project (as that term is defined below), which operation shall include the right for Buyer to charge any third parties for the right to park on the Premises at market rates determined by Buyer, in its sole discretion.
 - iii. Buyer shall convey or cause to be conveyed to the City a public easement in form and substance satisfactory to the City for public access and utilities running generally west to east from Hancock Street to Freedom Way or City-owned property known as the Connector Road on, over, under, through and across the Premises and land owned by Buyer and/or its affiliate, 144 Fore St. LLC (hereinafter referred to as “144 Affiliate”), their successors and assigns, as generally depicted on Exhibit B and more particularly described in Exhibit F (the “Hancock Street Easement”). To the extent that all or a portion of the Hancock Street Easement area is located on the Premises, the City may, in its discretion, reserve such rights and easements in the deed conveying the Premises to the Buyer. Prior to obtaining a certificate of occupancy for the Project (as that term is defined below), Buyer shall make, or shall cause to be made by or with the permission of the owner of the burdened property, improvements to the Hancock Street Easement area as depicted and described in Exhibit B. To the extent that any conditions in the Planning Board’s approval of a site plan for the development of the Premises or the property that is located westerly of the Premises known as 144 Fore Street and identified as Tax Map 19 Lot A-8 as shown on Exhibit B (the “144 Fore St. Property”), are contrary to Exhibit B, the Planning Board’s approval will govern. Notwithstanding the foregoing, all improvements in

Hancock Street Easement area shall be consistent with the City's Technical Manual and all applicable laws, regulations, ordinances, and rules. Buyer's obligation to make, or cause to be made, such improvements to the Hancock Street Easement area shall survive the closing of this Agreement.

- iv. Buyer shall convey or cause to be conveyed to the City a public easement in form and substance satisfactory to the City for public access (including access by motor vehicles) and utilities running generally north to south connecting Thames Street to the Public Access Easement granted by 100 Fore Street, LLC to the City dated April 10, 2019, recorded in the Cumberland County Registry of Deeds, Book 38299, Page 218 (the "100 Fore Street Easement"), on, over, under, through, and across the Premises and land owned by Buyer and/or 144 Affiliate, their successors and assigns, as described and depicted on Exhibit B and more particularly described in Exhibit G (the "Thames Street Easement"). To the extent that all or a portion of the Thames Street Easement area is located on the Premises, the City may, in its discretion, reserve such rights and easements in the deed conveying the Premises to the Buyer. Prior to obtaining a certificate of occupancy for the Project, Buyer shall make, or shall cause to be made by or with the permission of the owner of the burdened property, improvements to the Thames Street Easement area as depicted and described in Exhibit B. To the extent that any conditions in the Planning Board's approval of a site plan for the development of the Premises or the 144 Fore St. Property are contrary to Exhibit B, the Planning Board's approval will govern. Notwithstanding the foregoing, all improvements in Hancock Street Easement area shall be consistent with the City's Technical Manual and all applicable laws, regulations, ordinances, and rules. Buyer's obligation to make, or cause to be made, such improvements to the Thames Street Easement area shall survive the closing of this Agreement.
- v. Buyer shall cause 100 Fore Street, LLC and 167 Fore Street LLC, or their successors or assigns, to execute an amendment (in substantially the form attached hereto as Exhibit H) to that certain May 26, 2021 Parking Agreement (the "Parking Agreement") between the City, 100 Fore Street, LLC, and 167 Fore Street LLC, which amendment will increase the number of parking spaces provided to the City under the Parking Agreement to 25 and extend the term of the Parking Agreement to four years after the Closing Date, as that term is defined below. A copy of the Parking Agreement is attached hereto as Exhibit I.
- vi. In conjunction with Buyer's development of the Project, upon Buyer's receipt of all requisite permits and approvals for the Project, Buyer shall construct a brick sidewalk, at Buyer's sole expense, in accordance with the City's brick sidewalk construction requirements,

along the portions of Thames Street, the Connector Road, and Freedom Way that abut the Premises (the “New Sidewalk”), as generally depicted on Exhibit B. Construction of the sidewalk shall be complete prior to Buyer’s receipt of a certificate of occupancy for the Project. Buyer’s obligations under this paragraph shall survive the closing of this Agreement. Prior to commencing construction of the New Sidewalk, the parties shall execute a standard City license agreement in substantially the form attached hereto as Exhibit J allowing Buyer and its contractors to enter onto City property with equipment and personnel to construct the New Sidewalk. Upon completion and acceptance of the New Sidewalk, title to the New Sidewalk shall automatically vest in the City of Portland without the need for a bill of sale or any other conveyance documents. Buyer’s obligation to construct the New Sidewalk shall survive the closing of this Agreement.

- vii. The City shall be entitled to recover all costs it incurs in enforcing the terms of Subsections (iii), (iv), and (vi) hereof regarding Buyer’s obligations to improve the Hancock Street and Thames Street Easement areas and construct the New Sidewalk, including, without limitation, court costs and reasonable attorneys’ fees. Buyer’s obligations under this subsection shall survive the closing of this Agreement.
- d. Buyer shall deposit with the City the sum of One Hundred Thousand Dollars (\$100,000.00) (the “Deposit”) within 3 business days after the full execution of this Agreement, which the parties agree will be held by the City in escrow as of the date of this Agreement, in a non-interest-bearing account. The Deposit shall be applied to the Purchase Price at closing but shall be fully refundable until closing, as further described herein; and
- e. The Buyer shall pay the remainder of the Purchase Price to the City by wire transfer (or as otherwise reasonably requested by the City) at closing.

2. TITLE AND DUE DILIGENCE.

- a. Due Diligence Period. Buyer and City will have from the date of this Agreement until 4:00 PM Eastern Daylight Savings Time on that day that is twelve (12) months after the Effective Date of this Agreement (the “Due Diligence Period”) to complete any survey, environmental review, inspections, and title examinations. During the Due Diligence Period, the Buyer shall be responsible for applying for and obtaining any subdivision approval, plan approval and any other necessary approvals and permits for the Project (as defined in Section 10 herein) and as are required in connection with the conveyances contemplated by this Agreement.

- b. Property Description. The legal descriptions to be contained in the deeds for the Premises (Exhibit C), the Thames Street Easement (Exhibit G), the Hancock Street Easement (Exhibit F), and Freedom Way (Exhibit E) are survey descriptions based upon the Site Plan (Exhibit B) that more specifically describes the Premises, the Thames Street Easement, the Hancock Street Easement, and Freedom Way.
- c. Title Objections. Each party will have until closing to deliver to the other any written objections to title matters that affect the parties' intended use of the Premises, the Thames Street Easement, the Hancock Street Easement, or Freedom Way. Objections not made prior to closing will be deemed waived.
- d. Option to Cure. In the event of a title objection, the non-objecting party will have the option, but not the obligation, to cure the objection and will notify the objecting party of its election within ten (10) business days after receipt of the objection. In the event that the non-objecting party elects to cure the objection, it will have thirty (30) days from the date of the notice of election, or such other reasonable time as the parties may agree, to cure the objection. In the event that the non-objecting party does not elect to cure the objection, or, having elected to cure the objection fails to timely do so to the other's reasonable satisfaction, the objecting party will have the option to (i) terminate this Agreement, in which case the Buyer will obtain a refund of the Deposit (after which neither party will have any further obligation or liability to the other under this Agreement), (ii) waive the objection and close, or (iii) undertake the cure of such objection at its own expense (in which case it shall have thirty (30) days to do so). If any objection and the time to cure the same shall exceed the Closing Date, then closing shall occur no later than ten (10) days after the objection is cured or the objecting party has elected to waive the objection.
- e. City shall convey the Premises to Buyer at the closing in fee simple by a municipal quitclaim deed without covenant. Title shall be good, marketable and insurable title, free and clear of all encumbrances except (i) easements of record and easements described in this Agreement, (ii) zoning ordinances, and (iii) real estate taxes not yet due and payable. City specifically acknowledges and agrees that: (i) the Premises shall be conveyed to Buyer free and clear of any tenants, occupants, leases or other occupancy agreements. Further, Buyer acknowledges that the deed shall contain a restriction stating that in the event that the Premises or any portion thereof shall be exempt from real and personal property taxes, by transfer, conversion, or otherwise, then the then-owner of the exempt portion shall make annual payments to the City in lieu of taxes in the amount equal to the amount of property taxes that would have been assessed on the exempt portion of the real and personal property situated on the Premises had such property remained taxable. Such restriction shall also confirm that Buyer and its successors and assigns shall possess and be vested with all rights and privileges as to abatement and appeal of valuations, rates, and the like as are accorded owners of real and personal property in Maine.

- f. Buyer shall convey Freedom Way to City at the closing in fee simple by a quitclaim deed with covenant. Title shall be good, marketable and insurable title, free and clear of all encumbrances except (i) easements of record and easements described in this Agreement, (ii) zoning ordinances, and (iii) real estate taxes not yet due and payable. Buyer specifically acknowledges and agrees that: (i) Freedom Way shall be conveyed to the City free and clear of any tenants, occupants, leases or other occupancy agreements.
- g. To the extent not reserved in the City's deed for the Premises, Buyer shall convey the Thames Street Easement and the Hancock Street Easement to the City in form and substance satisfactory to the City. Title to the easement areas shall be good, marketable and insurable title, free and clear of all encumbrances except (i) easements of record and easements described in this Agreement, (ii) zoning ordinances, and (iii) real estate taxes not yet due and payable. Buyer will cause any mortgagees or other parties holding liens on the easement areas to execute agreements consenting to the easements and subordinating their interests in their liens to the rights and easements granted to the City.
- h. The parties shall exchange drafts of the deeds prior to the Closing Date and shall in good faith endeavor to agree on the form and substance of the deeds prior to the Closing Date.

3. INSPECTIONS.

- a. Prior to closing, Buyer and its employees, consultants, contractors and agents shall have the right, at Buyer's expense, to enter on the Premises at reasonable times in order to (i) inspect the same, (ii) conduct engineering studies, percolation tests, geotechnical exams, environmental assessments, and other such studies, tests, exams, and assessments, and (iii) do such other things as Buyer determines, in its sole discretion, to be required to determine the suitability of the Premises for Buyer's intended use (collectively, the "Inspections"). The City acknowledges that such Inspections may include the digging of test pits, which the City hereby approves.
- b. Buyer agrees to defend, indemnify and hold harmless the City against any mechanics liens that may arise from the activities of Buyer and its employees, consultants, contractors and agents on the Premises.
- c. Buyer shall exercise the access and inspection rights granted hereunder at its sole risk and expense, and Buyer hereby releases the City from, and agrees to indemnify, defend, and hold the City harmless against, any and all losses, costs, claims, expenses and liabilities (including without limitation reasonable attorney fees and costs) (collectively, "Damages") suffered by the City on account of any injury to person or damage to property arising out of the exercise by Buyer of its rights hereunder, except to the extent that such Damages result from the act or omission of the City.

- d. Buyer shall cause any contractors, consultants or any other party conducting the Inspections to procure automobile insurance, if applicable, and general public liability insurance coverage in amounts of not less than Four Hundred Thousand Dollars (\$400,000.00) per occurrence for bodily injury, death and property damage, listing the City as an additional insured thereon, and also Workers' Compensation Insurance coverage to the extent required by law; the forms of all such insurance to be subject to City's Corporation Counsel's reasonable satisfaction.
 - e. In the event that Buyer does not purchase the Premises, Buyer agrees to either return the Premises as nearly as possible to its original condition after conducting the Inspections, or, at the City's option, reimburse the City for any physical damage caused to the Premises in connection with the Inspections; provided, however, the City hereby acknowledges and agrees that the term "physical damage" does not include any disturbance of any pre-existing environmental contamination on the Premises caused by such inspections, studies, tests, exams, and assessments, and that Buyer shall have no obligation to clean-up, remove or take any other action with respect to any pre-existing environmental contamination disturbed thereby.
 - f. The parties hereto acknowledge and agree that it is a condition to Buyer's obligations under this Agreement that the results of the Inspections be acceptable to Buyer in its sole discretion. If the results of such due diligence are not acceptable to Buyer in its sole discretion, and if Buyer exercises its right to terminate this Agreement, then the City shall refund to Buyer the Deposit, if previously paid, without interest, within five (5) days after receipt of Buyer's termination notice, and neither party shall have any further obligations or liabilities under this Agreement except as expressly set forth in this Agreement.
4. **REAL ESTATE TAXES, PRORATIONS AND TRANSFER TAX.** Buyer shall be liable for all real estate taxes beginning as of the start of fiscal year following the closing and continuing thereafter. Because the Premises is currently owned by the City of Portland, which is exempt from real estate taxes, no taxes were assessed or will be due for any portion of the current fiscal year, and no taxes will be prorated at the closing. Buyer shall be responsible for paying all taxes assessed on Freedom Way through the last day of the tax year during which Closing occurs. Any utilities for the Premises shall be prorated as of the closing. Buyer's fifty percent (50%) share of the Maine real estate transfer tax shall be paid for by Buyer in accordance with 36 M.R.S.A. § 4641-A. City is exempt from paying the transfer tax pursuant to 36 M.R.S.A. § 4641-C. The recording fee for the deed for the Premises and any expenses relating to Buyer's financing or closing shall be paid for by Buyer. The recording fee for the deed for Freedom Way shall be paid for by the City.
5. **DEFAULT AND REMEDIES.** In the event that Buyer defaults hereunder for a reason other than the default of the City, the City may terminate this Agreement and

retain the Deposit, and neither party shall have any further obligation to the other. In the event that Buyer defaults on any matters addressed in this Agreement that survive Closing, City may pursue all available legal and equitable remedies, except as otherwise expressly stated in Section 10 herein. In the event City defaults under this Agreement, and if Buyer is not then in default hereunder, Buyer shall have the right to pursue specific performance, but at all times may elect in substitution therefor, as its sole remedy, the right to a return of its Deposit.

6. **RISK OF LOSS.** The risk of loss or damage to the Premises by fire, eminent domain, condemnation, or otherwise, until transfer of title hereunder, is assumed by the City. The Premises is to be delivered in substantially the same condition as of the date of this Agreement unless otherwise stated. In the event City is not able to deliver the Premises as stated, Buyer may terminate this Agreement and receive a refund of the Deposit without interest, and neither party shall have any further obligations or liabilities under this Agreement except as expressly set forth in this Agreement. The risk of loss or damage to Freedom Way by fire, eminent domain, condemnation, or otherwise, until transfer of title hereunder, is assumed by the Buyer. Freedom Way is to be delivered in substantially the same condition as of the date of this Agreement unless otherwise stated. In the event Buyer is not able to deliver Freedom Way as stated, City may terminate this Agreement, and neither party shall have any further obligations or liabilities under this Agreement except as expressly set forth in this Agreement.

7. **PROPERTY SOLD "AS IS, WHERE IS."** Buyer acknowledges that Buyer has had an opportunity to inspect the Premises, and to hire professionals to do so, and that Premises will be sold "as is, where is" and "with all faults." City, and its agents, make no representations or warranties with respect to the accuracy of any statement as to boundaries or acreage, or as to any other matters contained in any description of the Premises, or as to the fitness of the Premises for a particular purpose, or as to development rights, merchantability, habitability, or as to any other matter, including without limitation, land use, zoning and subdivision issues or the environmental, mechanical, or structural condition of the Premises. Acceptance by Buyer of the deed at closing and payment of the purchase price shall be deemed to be full performance and discharge by the City of every agreement and obligation contained herein. City acknowledges that City has had an opportunity to inspect Freedom Way, and to hire professionals to do so, and that Freedom Way will be conveyed "as is, where is" and "with all faults." Buyer and its agents, make no representations or warranties with respect to the accuracy of any statement as to boundaries or acreage, or as to any other matters contained in any description of Freedom Way, or as to the fitness of Freedom Way for a particular purpose, or as to development rights, merchantability, habitability, or as to any other matter, including without limitation, land use, zoning and subdivision issues or the environmental, mechanical, or structural condition of Freedom Way. Acceptance by City of the deed at closing and payment of the purchase price shall be deemed to be full performance and discharge by Buyer of every agreement and obligation contained herein, except for matters that survive closing.

- 8. ENVIRONMENTAL INDEMNIFICATION.** Buyer covenants and agrees to indemnify, defend, and hold the City harmless from and against any and all claims, damages, losses, liabilities, obligations, settlement payments, penalties, assessments, citations, directives, claims, litigation, demands, defenses, judgments, costs, or expenses of any kind, including, without limitation, reasonable attorneys', consultants', and experts' fees incurred in investigating, defending, settling, or prosecuting any claim, litigation or proceeding, that may at any time be imposed upon, incurred by or asserted or awarded against Buyer or the City and relating directly or indirectly to the violation of or compliance with any federal, state, or local environmental laws, rules, or regulations governing the release, handling or storage of hazardous wastes or hazardous materials and affecting all or any portion of the Premises, except to the extent that such a claim results directly from the City's release, handling or storage of hazardous wastes or hazardous materials on the Premises. This duty to indemnify, defend, and hold harmless shall be included in a covenant in the deed to the Premises and shall run with the land conveyed and be binding upon Buyer's successors, assigns, and transferees.
- 9. CLOSING.** Time is of the essence in the performance of this agreement. The closing shall be held at the offices of Buyer's counsel at a time agreeable to the parties on or before the day that is 30 days after the expiration of the Due Diligence Period hereof (the "Closing Date"). At the Closing:
- a. the City shall execute, acknowledge and deliver to Buyer a municipal quitclaim deed conveying to Buyer good and marketable title to the Premises, free and clear of all encumbrances except as otherwise set forth herein, along with an assignment from the City to Buyer of any existing state, federal, and local permits and approvals for the Premises, including, but not limited to, any site location of development permits for the Premises, to the extent such permits exist and are assignable by law and by their terms.
 - b. Buyer shall deliver the balance of the Purchase Price to the City by wire transfer (or as otherwise reasonably requested by the City); and
 - c. Buyer shall execute, acknowledge, and deliver to the City a quitclaim deed with covenant for Freedom Way conveying to City good and marketable and insurable title to Freedom Way, free and clear of all encumbrances except as otherwise set forth herein.
 - d. Buyer shall execute, acknowledge, and deliver to the City the Hancock Street Easement and the Thames Street Easement, except to the extent that the City reserves such easements in the deed to the Premises.
 - e. The parties shall execute an amendment to the Parking Agreement in substantially the form attached hereto.

- f. Each party shall deliver to the other such other documents, certificates, subordination agreements, and the like as may be required herein or as may be necessary to carry out the obligations under this Agreement.
- g. Buyer shall deliver evidence, reasonably satisfactory to City's Corporation Counsel, that the entity receiving title to the Premises is in good standing under Maine law, and that the individuals acting to closing and executing documents on behalf of Buyer are authorized to do so.

10. BUYER'S POST CLOSING OBLIGATIONS; RIGHTS OF CITY TO REPURCHASE PROPERTY.

Buyer agrees, within twelve (12) months after Closing, to commence construction (the "Construction Start Period") of a multitenant use commercial office building project with at least seventy thousand (70,000) square feet on the Premises, of which approximately 46,000 square feet shall be leased to WEX as generally described in the Proposal (the "Project"). For purposes of this Agreement, "commence construction" means physically undertaking significant construction activity pursuant to a fully executed construction contract between Buyer and a contractor for the complete construction of the Project. Buyer agrees to diligently pursue all permits and approvals for the Project. If Buyer fails to commence construction of the Project in the Construction Start Period, the City shall have the right as its sole remedy, but not the obligation, to repurchase the Premises at the Purchase Price free and clear of all encumbrances, and the City must exercise such repurchase right by providing notice to Buyer (the "Repurchase Notice") within six (6) months after the end of the Construction Start Period and must close on the repurchase of the Premises no later than thirty (30) days after providing the Repurchase Notice, and upon such repurchase, Buyer shall transfer fee in the Premises to the City free and clear of all encumbrances; it being the intent hereof, however, that so long as Buyer diligently commences construction within the Construction Start Period, then the Buyer shall be deemed to have satisfied its obligations under this Section 10 and the City shall have no right to repurchase the Premises. Should the City exercise its right to repurchase the Premises pursuant to this paragraph, then, to the extent that the Premises are encumbered by any mortgages, leases, licenses, or other encumbrances not expressly permitted under this Agreement, Buyer shall cause the same to be discharged at its own expense prior to conveying the same to the City. Notwithstanding the foregoing, if Buyer commences construction after the Construction Start Period has lapsed but before the City provides the Repurchase Notice to Buyer, then the Buyer shall still be deemed to have satisfied its obligations under this Section 10 and the City shall have no right to repurchase the Premises or to pursue any legal or equitable remedies for Buyer's delay in commencing construction after the Construction Start Period. Upon Buyer having satisfied its obligations under this Section 10, if requested by Buyer, the City shall execute a release or other reasonable documentation requested or required by Buyer or by Buyer's lender or title company, in form reasonably satisfactory to the City, confirming in writing such satisfaction of Buyer's obligations under this Section and releasing any claims that the City has to repurchase the Premises pursuant to this Section 10. The provisions of this section will survive closing and will be included in greater detail in the City's deed to Buyer or in a declaration of covenants, conditions

and restrictions executed before or at the time of closing, which shall be recorded in the Cumberland County Registry of Deeds.

11. **ENTIRE AGREEMENT.** This Agreement represents the entire and complete Agreement and understanding between the parties and supersedes any prior agreement or understanding, written or oral, between the parties with respect to the acquisition or exchange of the Premises hereunder. This Agreement cannot be amended except by written instrument executed by City and Buyer.
12. **NON-WAIVER.** No waiver of any breach of any one or more of the conditions of this Agreement by either party shall be deemed to imply or constitute a waiver of any succeeding or other breach hereunder.
13. **HEADINGS AND CAPTIONS.** The headings and captions appearing herein are for the convenience of reference only and shall not in any way affect the substantive provisions hereof.
14. **BINDING EFFECT.** This Agreement shall be binding upon and inure to the benefit of the parties hereto and their respective heirs, administrators, successors and assigns.
15. **TIME.** The City and Buyer each confirm and agree that each of the time periods set forth herein are essential provisions of the terms of this Agreement.
16. **GOVERNING LAW.** This Agreement shall be construed in all respects in accordance with, and governed by, the laws of the State of Maine. All parties hereto hereby consent to the exclusive jurisdiction of the Superior Court for the County of Cumberland in the State of Maine, for all actions, proceedings and litigation arising from or relating directly or indirectly to this Agreement or any of the obligations hereunder, and any dispute not otherwise resolved as provided herein shall be litigated solely in said Court. If any provision of this Agreement is determined to be invalid or unenforceable, it shall not affect the validity or enforcement of the remaining provisions hereof.
17. **NOTICE.** All notices, demands and other communications hereunder shall be in writing and shall be deemed to have been duly given on the date of service if served personally on the party to whom notice is to be given, or on the first business day after mailing if mailed to the party to whom notice is to be given by first class mail, postage prepaid, certified, return receipt requested, addressed to the recipient at the addresses set forth below. Either party may change addresses for purposes of this paragraph by giving the other party notice of the new address in the manner described herein.

FOR THE City:

City of Portland
ATTN: City Manager
389 Congress Street
Portland, ME 04101

With a copy to: The Office of the Corporation Counsel at the same address.

FOR Buyer: 144 Fore St. OZ LLC

With a copy to: Bernstein Shur
Attention Hawley R. Strait, Esq.
100 Middle Street
P.O. Box 9729
Portland, Maine 04104-5029

18. SIGNATURES; MULTIPLE COUNTERPARTS. This Agreement may be executed in any number of counterparts and by different parties in separate counterparts. Each counterpart when so executed shall be deemed to be an original and all of which together shall constitute one and the same agreement.

19. BROKERS. Buyer shall pay its broker at closing a brokerage commission, and also at closing cause to the fully paid any broker which performed services for WEX and which could place a proper and true lien on the Premises. The City represents that it has not dealt with a real estate broker of its own in connection with this transaction. Buyer agrees to indemnify and hold harmless City from any claims made by any broker should the assumptions and representations in this paragraph be false. Subject to the limitations of liability set forth in the Maine Tort Claims Act, City agrees to indemnify and hold harmless Buyer from any claims made by any broker should City's representation in this paragraph be false. The foregoing indemnities shall include all legal fees and costs incurred in defense against any such claim, and shall survive closing.

20. ASSIGNMENT. Buyer shall have the right, prior to closing, without the need to obtain the consent of the City, to assign this Agreement to an affiliated entity to take title to the Premises, provided that the assignee assumes all of Buyer's obligations under this Agreement.

Signature page follows.

IN WITNESS WHEREOF, the parties have hereunto set their hands and seals on the day and year first written above.

WITNESS

CITY OF PORTLAND

DocuSigned by:
Danielle West
Name: Danielle West
Its Interim City Manager

WITNESS

144 FORE ST. OZ, LLC

DocuSigned by:
Jonathan Cohen
Name: Jonathan Cohen
Its Manager

The undersigned 144 Fore St. LLC has seen, consents to, and joins in this Purchase & Sale Agreement on this 23rd day of March, 2023:

WITNESS

144 FORE ST. LLC

DocuSigned by:
Jonathan Cohen
Name: Jonathan Cohen
Its Manager

Approved as to Form:

DocuSigned by:
Michael Goldman
Name: Michael Goldman
Corporation Counsel's Office

Approved as to Funds

DocuSigned by:
Brendan O'Connell
Name: Brendan O'Connell
City Finance Director

EXHIBIT A
Copy of Request for Proposals

City of Portland, Maine

Request for Proposals

“Sale of Remaining Portion of City Owned Thames Street Property”

RFP #22021

NOTICE AND SPECIFICATIONS

The City of Portland, Maine seeks proposals related to the “Sale of City-Owned Thames Street Property,” as specified herein. Proposals addressed to the Purchasing Office, Room 103, City Hall, 389 Congress Street, Portland, Maine 04101, shall be submitted electronically to bidssubmit@portlandmaine.gov with the name of the Proposer, Contract Name and RFP number in the subject line will be received until **3:00 p.m., Thursday, October 21, 2021** at which time they will be opened and read. Proposals can also be submitted via USPS, UPS or FedEx to the address listed above. In-person submission is not currently allowed due to City Hall being closed to the public. All proposals shall be held open to acceptance for ninety days from opening.

Copies of the above documents will be available by contacting the City of Portland Purchasing Office either via e-mail at jrl@portlandmaine.gov, or phone (207) 874-8654. Each prospective bidder will be required to obtain from the City each copy of the proposal forms.

Proposals that are late, unsigned or submitted via fax shall not be accepted. Proposals from individuals not registered with the Purchasing Office may be rejected; receipt of this document directly from the City of Portland indicates registration. Should a person receive this Request from a source other than the City, please contact 207-874-8654 to ensure that you are listed as a recipient for this proposal.

All questions **must** be submitted in writing to the Purchasing Office. Questions may be mailed, faxed to (207) 874-8652 or e-mailed to slchapin@portlandmaine.gov and must be received no later than five (5) business days prior to the opening date. Questions received after this time will not be addressed. Any interpretation, correction or change of this document will be made only by written addenda. Changes in any other manner will not be binding on the City and cannot be relied upon by proposers. Proposers cannot have contact with any City staff with regard to this Request for Proposals except to obtain general public information as specified in the document.

The disposal of this real estate shall be on the basis of a negotiated agreement, with the City of Portland reserving the right to refuse any and all proposals. *All proposers are advised that the property will be sold “as-is” and “where is,” in its existing condition, with no warranties to be expressed or implied.* The City makes no representations or warranties about any of the information about the property set forth herein, which is provided to proposers for their convenience only. The City, and its agents, make no representations or warranties with respect to the title of the property, the accuracy of any statements as to boundaries or acreage, or as to any other matters contained in any description of the property, or as to the fitness of the property for a particular purpose, or as to development rights, merchantability, habitability, or as to any other matter, including without

limitations, land use, zoning and subdivision issues or the environmental, mechanical, or structural condition of the property. The City disclaims any and all responsibility for injury to proposers, their agents or others while examining the property or at any other time. The City will not be responsible for any broker's commission. The property will be conveyed by quitclaim deed without covenant.

Any and all improvements made to said property must be done in accordance with existing City Codes and Ordinances.

CONFIDENTIALITY

The City of Portland is subject to Maine's Freedom of Access Act (FOAA). Under this law, the City is required to make public information that we receive in the solicitation of proposals. FOAA does, however, have exceptions applicable to certain confidential information. In the event that you believe that the proposal you submit contains any confidential information, you must submit such information in a separate sealed envelope to the City along with your sealed proposal. The outside of this envelope must clearly be marked "Proprietary information/confidential." Such confidential information will only be reviewed by Portland City officials, and only on a "need to know" basis. The City will not disclose such information to a third party, unless it determines that such disclosure is required by law. Prior to disclosing such information, the City will provide you with a reasonable opportunity to seek an injunction or other court order, at your own expense, to prevent such disclosure. The City will not be liable to any proposer or any third party for any disclosure of confidential information.

RESERVATION OF RIGHTS

The City reserves the right, at its sole discretion, to reject any and all proposals for the property, based on the quality and merits of the proposals received, or when it is determined to be in the public interest to do so. Furthermore, the city may extend deadlines and timeframes, as needed. The City Council may accept any proposer's proposal, and negotiate a purchase and sale agreement with that proposer even if the proposer does not receive the highest score from the Evaluation Committee.

The City reserves the right to substantiate any Proposer's qualifications, capability to perform, availability, past performance records and to verify that the proposer is current in its financial obligations to the City.

The City reserves the right to waive any informalities in proposals, to accept any proposal or portion thereof, and to reject any and all proposals, should it be in the best in the best interest of the City to do so.

September 24, 2021

Samantha L. Chapin
Purchasing & Controls Manager

PROPOSAL FORM
“Sale of Remaining Portion of City Owned Thames Street Property”
RFP #22021

**** THIS SHEET MUST BE INCLUDED IN YOUR PROPOSAL ****

The undersigned hereby declares that he/she or they are the only person(s), firm or corporation interested in this proposal as principal, that it is made without any connection with any other person(s), firm or corporation submitting a proposal for the same, and that no person acting for or employed by the City of Portland is directly or indirectly interested in this proposal or in any anticipated profits which may be derived there from.

The undersigned hereby declares that they have read and understand all conditions as outlined in this Request for Proposals, and that the proposal is made in accordance with the same.

The bidder acknowledges the receipt of Addenda numbered: _____

COMPANY NAME: _____

AUTHORIZED SIGNATURE: _____

DATE: _____

PRINT NAME & TITLE: _____

ADDRESS: _____

E-MAIL ADDRESS: _____

PHONE NUMBER: _____ FAX NUMBER: _____

TYPE OF ORGANIZATION - PARTNERSHIP, CORPORATION, LIMITED LIABILITY COMPANY, INDIVIDUAL, OTHER:

STATE OF INCORPORATION OR ORGANIZATION, IF APPLICABLE:

FEDERAL TAX IDENTIFICATION NUMBER (Required): _____

NOTE: Proposals must bear the handwritten signature of a duly authorized member or employee of the organization submitting a proposal.

Purchase Price: _____ (Points Award Basis)

INTRODUCTION

The Eastern Waterfront Master Plan (EWMP) envisioned the build-out of the area establishing a new neighborhood based on a new street grid, with over a half-million square feet of additional office, retail and residential construction to be supported by additional structured parking. The full EWMP, including design guidelines, can be found here:

<https://www.portlandmaine.gov/DocumentCenter/View/3391/Eastern-Waterfront--Master-Plan>

The sale of a portion of the City-owned Thames Street property, through this Request for Proposals, will further the EWMP.

Use of additional land, either contiguous or non-contiguous to the City property being made available through this RFP, is encouraged in order to best fulfill the development goals described in the EWMP.

Thames Street Property Overview

The property the City is considering selling includes an approximately 24,500 square foot buildable parcel located along Thames Street between the Proposed Mountfort Street Extension and the New Connector Road, which is generally depicted on the attached map (the “Property”).

Existing Zoning Summary

This property is located in the B-6 zoning district, which permits a variety of uses, including residential, office, retail and hospitality. The zoning allows heights of 45 feet as regulated by the B6 Building Height Overlay and Building Envelope Map (B6 Height Overlay.) As shown on the B6 Height Overlay, there are portions of the subject parcel - at the corners of Proposed Mountfort Street Extension and the New Connector Road intersections with Thames Street - that lie outside of the “Key Building Envelope” established within the Overlay. These areas are intended to preserve and create view corridors from public streets to the water. While not available for buildings, these areas may be used for landscaping, plaza space, outside dining, or other similar use.

The B6 Zone is additionally subject to Design Guidelines for the Eastern Waterfront.

Note: All respondents are responsible for understanding zoning and other requirements for proposed projects prior to submission of proposal. Information included in this RFP is for convenience only, and, to the extent that the information included herein conflicts with applicable laws, rules, ordinances, and regulations, those laws, rules, ordinances, and regulations control. Full zoning requirements are contained in the City’s Land Use Code:

[https://www.portlandmaine.gov/DocumentCenter/View/1080/Chapter-14-Land-Use-ReCode---](https://www.portlandmaine.gov/DocumentCenter/View/1080/Chapter-14-Land-Use-ReCode---Revised-3152021)

Revised-3152021 and the latest B-6 height overlay is available here:

<https://www.portlandmaine.gov/DocumentCenter/View/4866/B6-Zone-Building-Height-Overlay>

Site Utilities

The selected developer(s) will be responsible for installing all required utilities (including but not limited to water, sanitary sewer, natural gas, electric, phone, and cable) to support development on the Property.

SELECTION PROCESS

Proposals will be reviewed by a city staff Evaluation Committee that will score the proposals based upon the best opportunity for negotiating the highest quality and most appropriate use of the property. The highest scoring respondents to the RFP may be selected for an interview at the discretion of the Evaluation Committee. These firms may be re-scored after the Evaluation Committee has completed its interview process and reviews any additional information. The staff Committee's scoring will be forwarded to the Portland City Council Housing and Economic Development Committee for its deliberation and subsequent recommendation to the City Council. Any agreement for the sale or other disposition of the Property will be subject to the approval of the Portland City Council.

Key Proposal Goals (3)

1. ***Private Sector Investment.*** The city desires to further the build-out of private sector investment to meet City goals as outlined in the Eastern Waterfront Master Plan, economic development efforts, and community development goals.
2. ***Parking.*** The majority of the Property should be utilized for development. The majority of any new structured parking, located within the Property, if needed, shall be surrounded by active uses and screened from view. All parking facilities, located in the Eastern Waterfront area (not on the Property) should be located within a reasonable walking distance from the Property. ***All proposals shall address City replacement parking needs and accommodate parking requirements for new proposed private investment.***
3. ***Future Streets (New Connector Road and Mountfort Street Extension).*** The area of the Mountfort Street Extension does not allow for new buildings, and is reserved for protection of public views and to retain the possibility of the future extension of the public street network. At this time, the City is not prepared to provide commitments to design and construct Mountfort Street Extension. However, all proposals should address the need for Mountfort Street Extension as a future public right-of-way to support proposed private investment on the Property, to provide for public space amenities and connectivity, and to help fulfill the goals of the EWMP on the portion of City property located between Mountfort Street Extension and the New Connector Road. A public easement has already been provided for a portion of the Mountfort Street Extension off of Fore Street, and the section that is associated with the subject parcel of this RFP shall be designed for compatibility with the public easement. Alternatively, ***creative approaches to meeting the goals of permeability, future easements and accessibility across this block will be considered.***

GENERAL INFORMATION

1. **City Property Location:** Corner of Thames Street and New Connector Road (See attached

map.)

2. **General Dimensions:** Portion site under consideration for sale includes 24,500 +/- square feet.
3. **Current use:** Unimproved municipal parking lot.
4. **Condition of the Property at the time of sale:** The Property is within a B-6 Eastern Waterfront Mixed Zone and is being used as a municipal parking lot.
5. **Environmental Conditions:** The City of Portland does not have any specifics with regard to environmental conditions and makes no representations or warranties with respect to the environmental condition of the Property.
6. **License Agreement with adjacent property owner Jack Rabbit, LLC (copy attached):** The City acknowledges the existing License Agreement with Jack Rabbit, LLC which needs to be addressed with the sale of the Property.
7. **Road Extensions (Thames Street, New Connector Road and Possible Mountfort Street Extension):** See attached plan showing the area referred to as the Mountfort Street Extension. Proposals for improvements to the segment of Mountfort Street Extension included in the subject parcel, need to be designed, funded, and constructed by the future property owner.

PROPOSAL REQUIREMENTS

1. All proposers shall signify, by signing the attached proposal form, that the proposer has read and understands all conditions concerning the development of the land being offered, as outlined in this request for proposals, and that the proposal is made in accordance with this request.
2. Each proposal submitted must specifically outline the proposed development or re-use of the Property and indicate the intended end use(s). At a minimum, the proposal shall include:
 - **Site Concept Plan.** Concept for the proposed use of the Property including end use(s);
 - **Project Timeline.** Timetable from beginning to completion of the development of the Property;
 - **Future Mountfort Street Rights-of-Way.** Any future streets right-of-way needed and offer of property or easements, if applicable;
 - **New Connector Road (from Fore Street to City Thames Street connection).** Proposals should address the commitment to provide the City the necessary right-of-way for the privately owned portion of the New Connector Road for this to be accepted as a

public street.

- ***Parking (located on the Property).*** Sale of Property will displace upwards of twenty-five (25) parking spaces utilized by City staff and others. Construction of suitable City “replacement parking” must be located within a reasonable walking distance in the Eastern Waterfront Area from the Property along with plans for all new parking to accommodate new private sector investment. A parking management plan shall be provided showing the proposed locations for all new parking options, including costs, to accommodate City replacement parking needs at no cost for twenty-five (25) City parking spaces. The parking management plan should address public access to parking, weekend/evening hour use of parking, and snow ban parking.
3. Each proposer must present the City with evidence of its financial ability to undertake and complete the project as outlined in its proposal.
 4. Responses should include a clear demonstration of the proposer’s ability to complete all elements of the project as described in the proposal including a description of the development team and past experience with similar projects, project readiness and timeframe for completion as evidenced by lease commitments or the like, and financial feasibility analyses detailing a development budget, operating pro-formas, and any other provided information.
 5. If submitting by US Mail, FedEx, or UPS; submissions must include one paper copy, and one electronic copy.
 6. Additional data, exhibits, statements, drawings, renderings of buildings, etc., are invited to insure a total understanding and proper evaluation of each proposal by the City.

SELECTION CRITERIA (5)

1. Community Integration as Guided by the Eastern Waterfront Master Plan

As described above, development proposals should be guided by the Eastern Waterfront Master Plan, which envisioned the build-out of over a half-million square feet of additional office, retail and residential construction. The B6 height overlay map includes requirements for connectivity as well as view creation and preservation at the Proposed Mountfort Street and New Connector Road Thames Street intersections. The B-6 Height Overlay also contains view splays that are meant to aid alignment of existing in new construction for maximum view protection and to aid in creating vibrant public spaces. Proposals should address these requirements. Additionally, the building site/building should incorporate climate change resilient design so the site can accommodate increasing inundation in the coming years. Any successful response to this Request for Proposals will fulfill those goals.

Document link: <http://www.portlandmaine.gov/DocumentCenter/Home/View/3391-totheEasternWaterfrontMasterPlan>

2. Public Benefit to the City

The City would like to obtain the most favorable public benefit associated with the sale of this property, and will rate proposals based upon that return. This will mean that a proposal will score higher as it ascribes the greatest value to the city-owned land and offers the greatest public benefit to the City. In addition, other factors could include, but are not limited to:

- **Net new jobs to the city.** The city desires to attract new full-time, quality (wage compensation, and access to benefits) jobs to the city. Proposals should include estimates of the numbers and types of full-time jobs associated with project private sector investment.
- **Future Possible Mountfort Street Extension Rights-of-Way.** Proposals should address the need for Mountfort Street Extension as a future public right-of-way to support proposed private investment on the City property, to provide for public space amenities and connectivity, along with all required utility easements and to fulfill the goals of the EWMP on the portion of City property located between Mountfort Street Extension and the New Connector Road. Alternative approaches to meeting the goals of permeability and accessibility across this block will be considered.
- ***New Connector Road (from Fore Street to City Thames Street connection).*** Proposals should address the commitment to provide the City the necessary right-of-way for the privately owned portion of the New Connector Road for this to be accepted as a public street.
- **One Public Restroom shall be included in the building concept design.** The selected Developer shall enter into an agreement with the City relating to the provision of a public restroom at the Project site on terms to be negotiated.

3. Purchase Price

The City expects to receive Fair Market Value (“FMV”) for the property. A purchase price which is less than fair market value or any request for city support may result in a lower score.

4. Additional Financial Benefit to the City

In addition to purchase price, the City will consider other factors providing financial benefit to the City, including but not limited to:

- **Net new property tax revenue.** Estimates for the value of new private construction should be provided with each proposal. The City will review this information to determine an estimated total municipal assessed value for the proposed project and associated property taxes.
- **Parking.** The City replacement parking shall be located in the Eastern Waterfront Area (preferably not on the Thames Street property) to support City replacement parking and to provide opportunities for continued growth of the land side of the Eastern Portland Waterfront. A parking management plan shall be provided showing the proposed locations for all new parking and options including accommodating City replacement parking needs for upwards of twenty-five (25) City parking spaces at no-cost to the City. The parking management plan should address public access to parking, weekend/evening hour use of

parking, and snow ban parking.

5. Proposers Proven Capacity and Relevant Experience

Responses should clearly demonstrate the proposer's ability to complete all elements of the project as described in the proposal including a description of the development team and past experience with similar projects, project readiness and timeframe for completion as evidenced by lease commitments or the like and financial feasibility analyses detailing a development budget, operating pro-forma, and any other provided information. The City will consider its experiences with any proposer's performance on prior projects in its evaluation of the proposals.

EVALUATION CRITERIA

Subject to the Reservation of Rights as described herein below, the City Council Housing and Economic Development Committee will recommend to the City Council the proposal which in its judgment offers the best opportunity for negotiating the highest quality and most appropriate use of the property, even though such proposal may not contain the highest purchase price offered.

The criteria used for the rating of the Proposals by the Evaluation Committee will include:

1. Community Integration as Guided by the Eastern Waterfront Master Plan (25 Points)
2. Public Benefit to the City (25 Points)
3. Purchase Price (20 Points)
4. Additional Financial Benefits to the City (15 Points)
5. Proposers Proven Capacity and Relevant Experience (15 Points)

RFP Evaluation and Timeframe

The following process will be used:

1. Upon closing of the Request for Proposal application period, all proposals will be reviewed for completeness.
2. All complete proposals will be reviewed under the scoring factors and preference guidelines as described herein. The proposal evaluation committee **may** confer with the applicants and/or third parties to clarify or verify information and request additional information for the purpose of allowing the evaluation committee to ask questions of the finalists and to further clarify any Proposer's written responses.
3. All complete proposals and scoring information will be forwarded to the City Council's Housing and Economic Development Committee for review and negotiation of a purchase and sale agreement assuming developer selection. The Committee **may** hold interviews with

any, all or none of the proposers. Upon successful negotiation of a purchase and sale agreement, the final recommendation will be forwarded to the full City Council for its review and approval.

Proposers will be notified of the scoring results and all pertinent meeting review dates.

LEGAL REQUIREMENTS

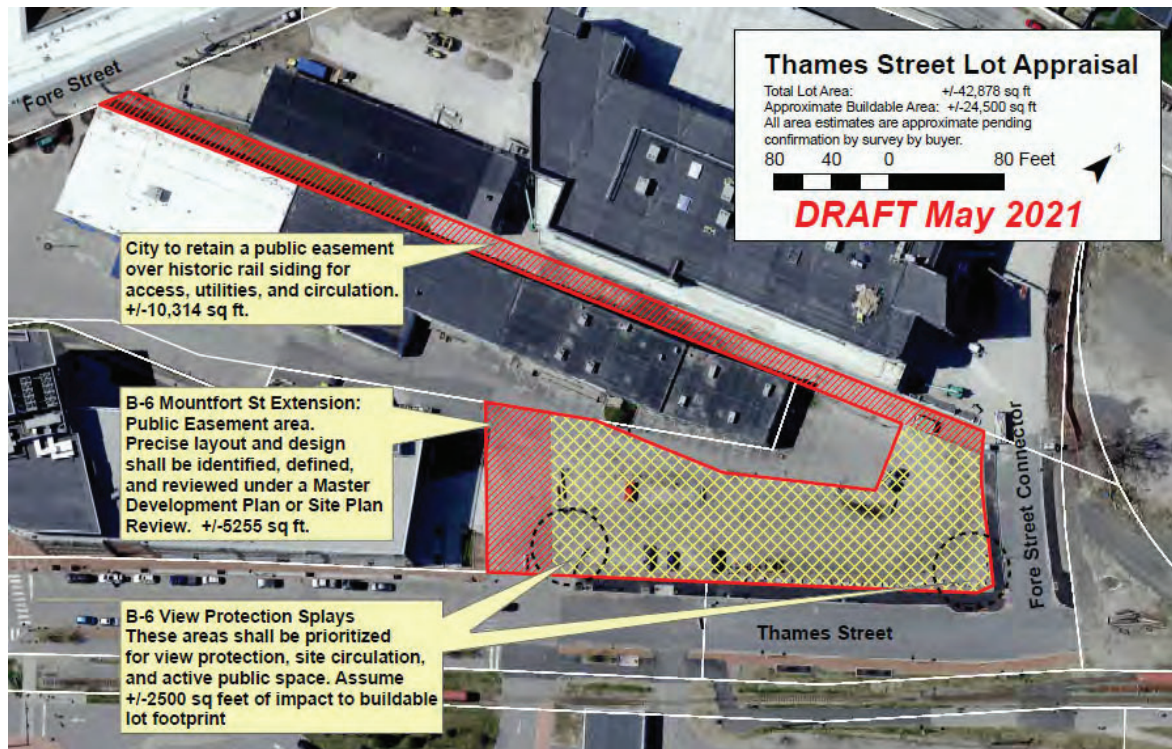
The Purchase and Sale Agreement for the sale of the Property will be executed only after satisfactory review and final approval by the City Council. At closing, the City shall convey the property by quitclaim deed. There will also be covenants that restrict the re-sale of the property, requires City Council approval of any new owners within a negotiated period of time, or allows the City to repurchase the property in the case of non-performance.

Attachments

- A. Remaining City Thames Street Property Map
- B. City and Jack Rabbit, LLC License Agreement



Subject property site with new WEX office building and parking garage complex in the background



Subject site identified as 24,500 sf.

IDENTIFICATION OF THE REAL ESTATE

The subject property is located at the northwest corner of Thames Street and the Fore Street Connector in the Eastern Waterfront neighborhood. The subject consists of a hypothetical 24,500 sf. buildable parcel that represents a portion of a larger city-owned tax parcel referenced by the assessor's office as Map 19, Block A, Lot 2. The subject site currently consists of a gravel parking lot. The immediate subject neighborhood represents the epicenter of new development activity within downtown Portland.

LICENSE AGREEMENT

This **LICENSE AGREEMENT** is made between the **City of Portland**, a body corporate and politic located at 389 Congress Street, Portland, Maine (hereinafter the "City"), and **JACKRABBIT, LLC**, a Maine limited liability company with a mailing address of 44 Oak Street, Portland, Maine, 04101 (hereinafter "Jackrabbit").

WHEREAS, the City and Jackrabbit each own property adjacent to Jackrabbit's building located at 144 Fore Street in the City of Portland, Maine; and

WHEREAS, the City wishes to have access to a portion the Jackrabbit's above-described property (hereinafter the "Jackrabbit Property"), and Jackrabbit wishes to have access to a portion of the City's above-described property (hereinafter the "City Property") for the purposes of vehicular traffic, travel and parking as described in the Agreement;

NOW THEREFORE, the City does hereby grant to Jackrabbit, its successors and assigns in ownership of the Jackrabbit Property, a revocable license to enter upon and to use the City Property for the purpose of vehicular traffic and travel, and Jackrabbit does hereby grant to the City, its successors and assigns in ownership of the City Property a revocable license to enter upon and use the Jackrabbit Property for the purpose of vehicular traffic, travel and parking, subject to the following terms and conditions:

1. **Location.** The City Property and Jackrabbit Property are described and delineated in Exhibit A, attached hereto and incorporated herein by reference.

2. **Use of City Property by Jackrabbit.** The City Property shall be used by Jackrabbit as shown on Exhibit A attached hereto for vehicular traffic, travel and minimal parking related to Jackrabbit's ownership and Jackrabbit's and his tenants' and invitees' use of Jackrabbit's building located at 144 Fore Street, only. All of Jackrabbit's parking shall be immediately adjacent to the building located at 144 Fore Street and at either end of the building, as shown on Exhibit A attached hereto. Vehicles shall not block the flow of traffic in the shared travel lane. Any vehicles that park on City Property not in accordance with this paragraph and do not display a City hang tag or permit will be subject to ticketing, booting and towing at the City's discretion. All use of the City's Property by Jackrabbit must be in compliance with state and federal law, and local ordinance, including but not limited to local land use ordinances.

3. **Use of Jackrabbit Property by the City.** The Jackrabbit Property shall be used by the City as shown on Exhibit A attached hereto for vehicular traffic, travel and parking related to the City's activities, including but not limited to providing parking for users of the Eastern Promenade Trail after 5:00 p.m. Monday through Friday and all day on weekends and holidays. All use of the Jackrabbit Property by the City must be in compliance with state and federal law, and local ordinance, including but not limited to local land use ordinances.

4. **Signage.** Jackrabbit agrees to post signs on or around its building located at 144 Fore Street, at its own expense, indicating that parking adjacent to the building is reserved for tenants and customers of the building.

5. **Maintenance.** Jackrabbit shall be responsible for maintenance and repair,

including snow plowing and removal, of the Jackrabbit property and the shared travel lane indicated on Exhibit A. City shall be responsible for maintenance and repair, including snow plowing and removal, of the City property.

6. **No Fees.** Jackrabbit shall be liable for no fees for its use of the City Property in accordance with this License Agreement, and the City shall be liable for no fees for its use of the Jackrabbit Property in accordance with this License Agreement.

7. **Event Revenue.** Jackrabbit shall retain any revenue from parking for special events only for parking spaces located on Jackrabbit property. The City shall retain any revenue from parking for special events for parking spaces located on City property.

8. **Insurance: City.** City is self insured and any claims which are the responsibility of the City under this agreement shall be covered by said self insurance fund.

9. **Insurance: Jackrabbit.** Jackrabbit shall procure and maintain throughout the term of this License Agreement, or provide through its contractor(s), comprehensive general liability insurance in the minimum amount of Four Hundred Thousand Dollars (\$400,000) covering Jackrabbit's activities hereunder and naming the City as an additional insured thereon. In addition, Jackrabbit shall provide evidence of automobile liability insurance in said minimum amount, and workers compensation insurance in the statutory amount, if applicable. All contractors to Jackrabbit performing work under this License shall provide the City with evidence of the above insurance coverages with the City as an additional insured, and workers compensation and employers liability insurance in the statutory amounts which shall have an endorsement waiving subrogation against the City. Such contractor insurance may be in place of that required of Jackrabbit so long as it remains in effect and names the City as an additional insured.

Certificates evidencing such insurance policies shall be delivered to City and shall provide the City with no less than thirty (30) days prior notice of cancellation or non-renewal.

All insurance policies hereunder shall be primary to any insurance, or self-insurance, maintained by City.

10. **Effective Date.** This License is effective as of the date of execution.

11. **Term.** This license shall have a term of ten (10) years and shall automatically continue for successive ten year periods unless the parties agree upon and establish functionally equivalent access to the Jackrabbit Property or the affected portion of it on terms similar to this Agreement as mutually agreed upon by Jackrabbit and the City. If the parties fail to agree, then on written notice from either party any dispute shall first be submitted to nonbinding mediation by a single mediator. If no mediation occurs or if no agreement is reached within 30 days thereafter, then on written notice from either party the dispute shall be submitted to arbitration, to a single arbitrator to be agreed upon within 20 days of the date on which the notice is served. If the parties cannot agree on a single arbitrator then on written notice from either part the dispute shall be submitted to a panel of three arbitrators and the notice shall specify the name and address of the person designated to act as an arbitrator on its behalf. Within 20 days after the service of such notice, the other party shall specify the name and

address of the person designated to act an arbitrator on its behalf. If the other party fails to notify the initiating party of the appointment of its arbitrator within the time above specified, then the appointment of the second arbitrator shall be made by the first arbitrator. The two arbitrators so chosen shall meet within 15 days after the second arbitrator is appointed and if, by 30 days after the date of the appointment of the second arbitrator, the two arbitrators shall not agree upon a resolution of the dispute, they shall together appoint a third arbitrator. The three arbitrators shall meet and render a decision within 30 days after the date of the appointment of the third arbitrator. The decision of a majority of the arbitrators shall be final. All arbitrators appointed must be employed or active in the real estate industry, including without limitation, as managers, real estate brokers, bankers, attorneys, developers, investors or otherwise.

The party's shall share the costs of providing a functionally equivalent access equally, but if the City's proportionate share based on the original square footage of the portion of the access relocated on its land to all of the original square footage of the access from the City to Jackrabbit access is less, then it shall pay the lesser share.

12. Termination. In the event either party does not comply with the terms of this Agreement, the aggrieved party must first request the other party to cure the problem. In the event the problem is not cured within thirty (30) days, the party can terminate the Agreement upon thirty (30) days written notice.

Any notice of an Event of Default delivered pursuant section 12 of this license agreement must be sent by certified mail, return receipt requested to Jackrabbit at the address for Jackrabbit set forth above, or at such other address as Jackrabbit may provide to the City in writing from time to time. In addition following a notice sent to the City by certified mail, return receipt requested, by a party identifying itself as the holder of a mortgage on Jackrabbit's Property, the City shall concurrently send such mortgagee a copy of any notice of an Event of Default which the City sends to Jackrabbit.

Notwithstanding any other provision herein, in the event that a notice of an Event of Default is delivered to Jackrabbit pursuant to section 12 hereof, any mortgagee of Jackrabbit's Property who has identified itself to the City shall be entitled to cure such default within the time frames set forth above, and the City agrees to accept such performance by any such mortgagee of Jackrabbit's obligations hereunder.

In the event the adjacent Thames Street Lot, owned by the City, is redeveloped and the use of City Property by Jackrabbit pursuant to this Agreement presents an encumbrance to redevelopment of said lot, the City shall provide Jackrabbit and any mortgagee of Jackrabbit's Property who has identified itself to the City one (1) years notice of termination of this Agreement, provided that the City must provide functionally equivalent access to the Jackrabbit Property on terms similar to this Agreement in order for such notice of termination to be effective.

In the event the City takes by eminent domain proceedings a portion of the Jackrabbit Property necessary for a future extension of Mountfort Street, then this License shall terminate with respect to that portion of the License area necessary for such extension of Mountfort Street, and the City shall not be required to pay damages for such partial

termination or for any increased value of the portion of the Jackrabbit Property so taken attributable to this License Agreement.

12.No Interest in Land. The City shall have no authority to modify or make any changes to the Jackrabbit Property subject to this License without the prior consent of Jackrabbit, and Jackrabbit shall have no authority to modify or make any changes to the City Property subject to this License without the prior consent of the City, provided that the parties hereby consent to the changes identified in the City's minor site plan approval issued on August 16, 2010.

13. This Agreement amends and restates in its entirety a prior License Agreement between the parties dated October 14, 2010.

Dated as of January 21st, 2011

JACKRABBIT, LLC

By: [Signature]
name: Mike Marino
its Gen.

CITY OF PORTLAND

By: [Signature]
name: Joseph C. Gray, Jr.
its City Manager

STATE OF MAINE
CUMBERLAND, ss.

January 21, 2011

PERSONALLY APPEARED before me the above named Mike Marino in his said capacity, and acknowledged the foregoing instrument to be his free act and deed in his said capacity and the free act and deed of said limited liability company.

[Signature]
Notary Public/Attorney at Law
Print name: Barbara J Brewer

STATE OF MAINE
CUMBERLAND, ss.

January 21, 2011

PERSONALLY APPEARED before me the above named Joseph C. Gray, Jr. in his/her said capacity, and acknowledged the foregoing instrument to be his/her free act and deed and the free act and deed of the City of Portland.

[Signature]
Notary Public/Attorney at Law
Print name:

License City of Portland Jackrabbit REV LRC 1-11-2011
1/20/2011 12:10 PM

SONIA T. BEAN
Notary Public, Maine
My Commission Expires January 10, 2017

Exhibit A

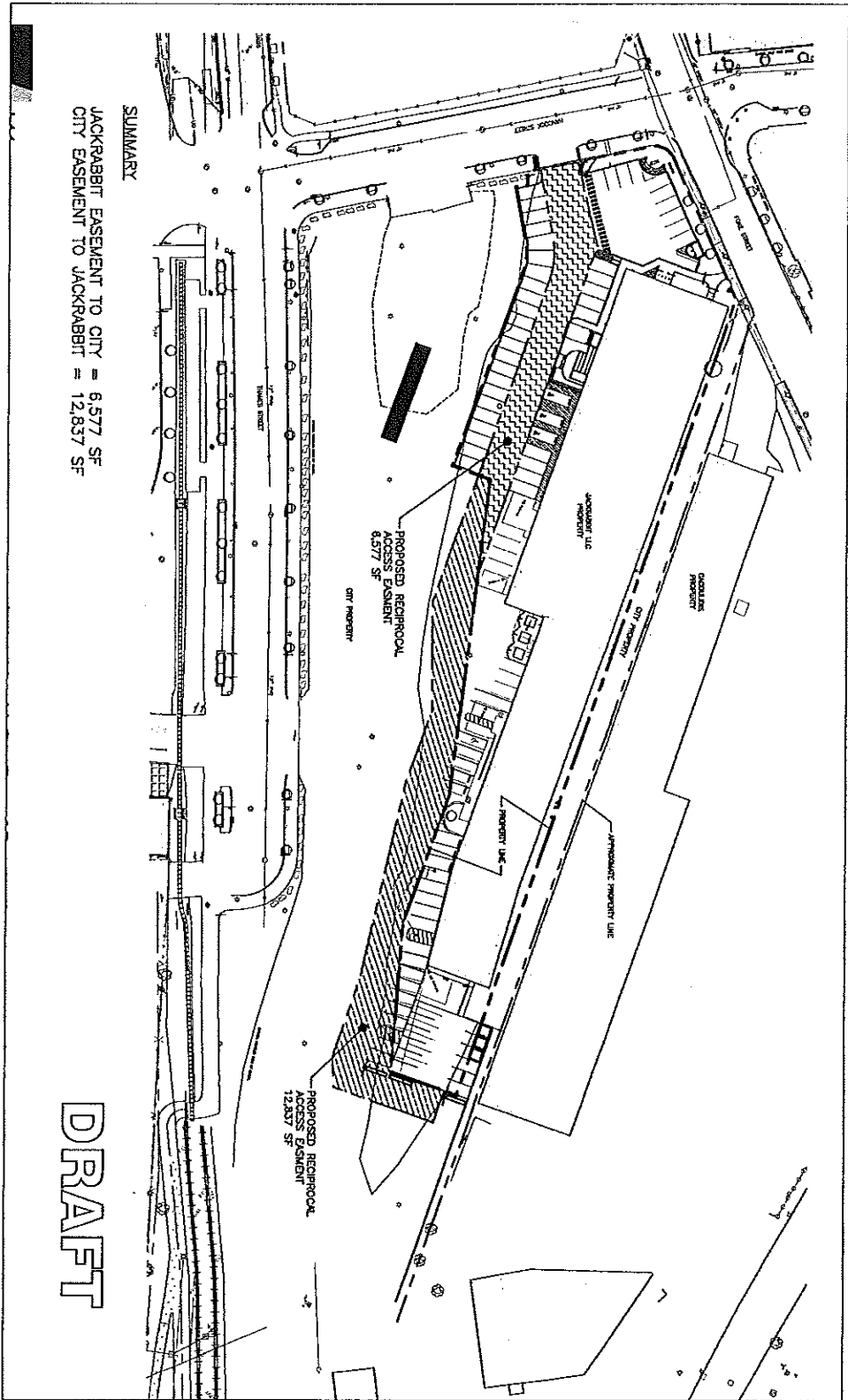
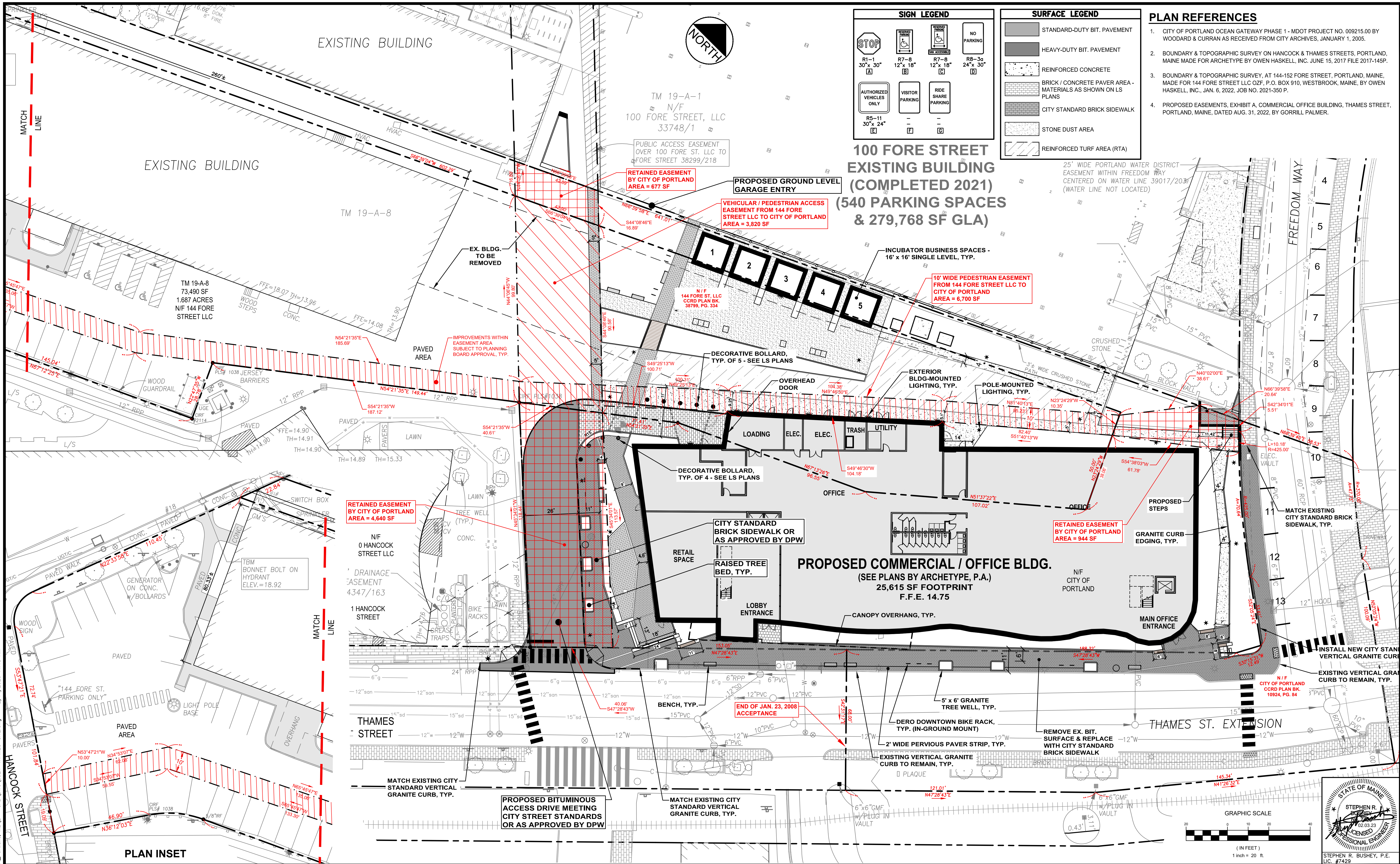


EXHIBIT B
Site Plan



U:\3924_Thames Street-WEX-Portland, ME\2 - CAD\DWG\3924-THAMES-SITE.dwg 2/14/2023 11:18 AM

Rev.	Date	Revision
1	2022.07.21	INITIAL MAJOR SITE PLAN SUBMISSION / RELEASED FOR PHICING
2	2023.02.03	REVISED ACCESS DRIVE ALIGNMENT

Rev.	Date	Revision
1	2022.07.21	INITIAL MAJOR SITE PLAN SUBMISSION / RELEASED FOR PHICING
2	2023.02.03	REVISED ACCESS DRIVE ALIGNMENT

Design: SRR	Draft: CDD	Date: JAN. 2022
Checked: SRR	Scale: AS NOTED	Job No.: 3924
File Name: 3924-THAMES-SITE.dwg		
This plan shall not be modified without written permission from Gorrill Palmer. Any alterations, authorized or otherwise, shall be at the user's sole risk and without liability to Gorrill Palmer.		



GORRILL PALMER

Relationships. Responsiveness. Results.

www.gorrillpalmer.com

207.772.2515

707 Sables Oaks Drive - Suite 30

South Portland, ME 04106

Drawing Name:	EASEMENT OVERLAY PLAN
Project:	Commercial Office Building Thames Street, Portland, Maine
Client:	144 Fore Street, OZ, LLC PO Box 910, Westbrook, Maine 04098-0910

Drawing No.	C-3.3
-------------	-------

EXHIBIT C
Premises – Legal Description



SEPTEMBER 21, 2022

CITY PARCEL TO BE CONVEYED 42,858 SF

A CERTAIN LOT OR PARCEL OF LAND SITUATED ON THE NORTHERLY SIDE OF THAMES STREET IN THE CITY OF PORTLAND, COUNTY OF CUMBERLAND AND STATE OF MAINE, AS SHOWN ON PLAN TITLED "BOUNDARY & TOPOGRAPHIC SURVEY AT 144 FORE STREET, PORTLAND, MAINE MADE FOR 144 FORE STREET LLC OZF" DATED JAN. 24, 2022 REVISED THROUGH 7/14/22, BOUNDED AND DESCRIBED AS FOLLOWS:

BEGINNING ON THE NORTHERLY SIDELINE OF THAMES STREET AS ACCEPTED ON JANUARY 23, 2008 AT THE SOUTHEASTERLY CORNER OF LAND NOW OR FORMERLY OF 0 HANCOCK STREET LLC AS DESCRIBED IN DEED BOOK 34347, PAGE 163 ;

THENCE, N 45° 34' 01" W ALONG LAND OF SAID 0 HANCOCK STREET LLC A DISTANCE OF 118.44 FEET TO LAND NOW OR FORMERLY OF 144 FORE STREET LLC AS DESCRIBED IN DEED BOOK 38799, PAGE 334;

THENCE, THE FOLLOWING COURSES AND DISTANCES ALONG LAND OF SAID 144 FORE STREET LLC:

N 54°21'35" E A DISTANCE OF 77.41 FEET;
N 67°13'26" E A DISTANCE OF 96.55 FEET;
N 51°37'22" E A DISTANCE OF 107.02 FEET;
N 23°24'29" W A DISTANCE OF 50.00 FEET;
S 66°39'04" W A DISTANCE OF 602.28 FEET TO A POINT ON THE SOUTHERLY SIDELINE OF FORE STREET, SAID POINT IS LOCATED N 22°33'58" E A DISTANCE OF 110.48' FEET ALONG THE SOUTHERLY SIDELINE OF SAID FORE STREET FROM THE POINT OF CURVATURE NEAR THE NORTHERLY SIDELINE OF HANCOCK STREET;

THENCE, N 22°33'58" E ALONG THE SOUTHERLY SIDELINE OF SAID FORE STREET A DISTANCE OF 22.84 FEET TO A POINT ON THE SOUTHERLY LINE OF LAND NOW OR FORMERLY OF 100 FORE STREET, LLC AS DESCRIBED IN DEED BOOK 33748, PAGE 1;

THENCE, N 66°39'58" E ALONG SAID 100 FORE STREET, LLC A DISTANCE OF 641.01 FEET TO THE REMAINING LANDS OF THE CITY OF PORTLAND AS DESCRIBED IN A DEED DATED AUGUST 30, 1993 AND RECORDED IN DEED BOOK 10924, PAGE 84 AND TO THE SOUTHERLY SIDELINE OF THE PROPOSED THAMES STREET EXTENSION AS SHOWN ON PLAN TITLED "PROPOSED EASEMENTS COMMERCIAL OFFICE BUILDING THAMES STREET, PORTLAND, MAINE 144 FORE STREET, OZ, LLC" BY GORRILL PALMER DATED JULY, 2022;

THENCE, THE FOLLOWING COURSES AND DISTANCES ALONG SAID PROPOSED THAMES STREET EXTENSION:

S 42°34'01" E A DISTANCE OF 5.51 FEET;
ALONG A TANGENT CURVE TURNING TO THE LEFT HAVING A RADIUS OF 425.00 FEET, AN ARC LENGTH OF 70.64 FEET, A CHORD BEARING OF S 47°19'42" E AND A CHORD LENGTH OF 70.56 FEET;
S 52°05'24" E A DISTANCE OF 33.61 FEET;
S 30°15'31" W A DISTANCE OF 12.49 FEET;

S 47°28'43" W A DISTANCE OF 188.32 FEET TO THE NORTHERLY END OF THAMES STREET AS
ACCEPTED ON JANUARY 23, 2008;

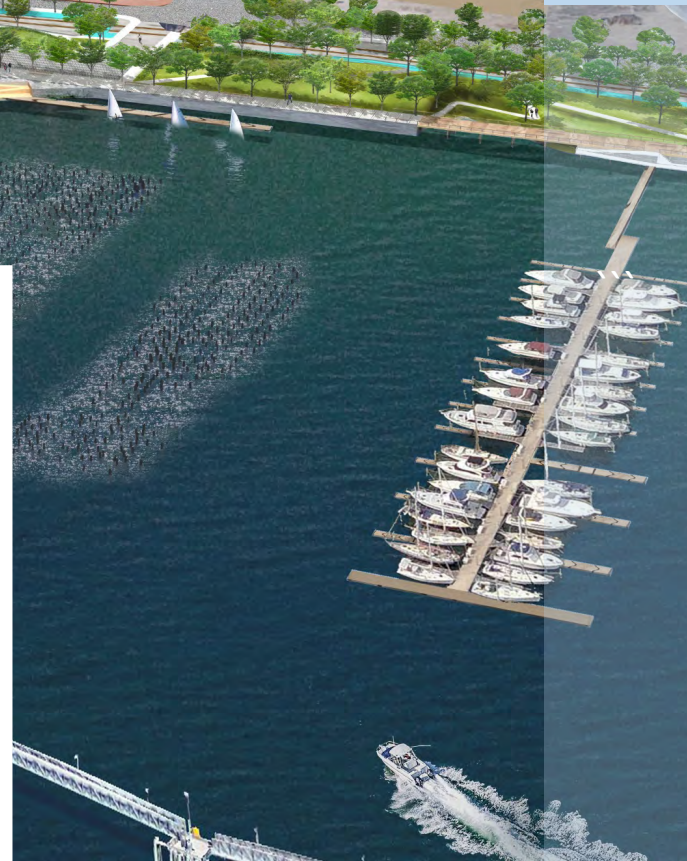
THENCE, S 47°28'43" W ALONG THE NORTHERLY LINE OF SAID ACCEPTED PORTION OF THAMES STREET A
DISTANCE OF 153.05 FEET TO THE POINT OF BEGINNING, CONTAINING 42,858 S.F. OR 0.984 ACRES, MORE
OR LESS.

BEARINGS ARE BASED ON MAINE STATE PLANE COORDINATE SYSTEM WEST ZONE NAD 83.

MEANING AND INTENDING TO DESCRIBE A PORTION OF THE PREMISES CONVEYED TO THE CITY OF
PORTLAND BY VIRTUE OF A QUITCLAIM DEED GRANTED BY THE CANADIAN NATIONAL RAILWAY COMPANY
DATED AUGUST 30, 1993 AND RECORDED IN THE CUMBERLAND COUNTY REGISTRY OF DEED IN BOOK 10924,
PAGE 84.

EXHIBIT D
Copy of the Proposal

City of Portland, Maine Thames Street Property Proposed Development RFP #22021



Submitted to:
Matthew F. Fitzgerald
Purchasing Manager
City of Portland

Submitted by:
Jonathan Cohen
Dan Smith
144 Fore St. OZ, LLC

Letter of Interest

1. Proposal Requirements

- A. Proposal Form
- B. Outline of Proposed Development
 - Site Plan Concept
 - Project Timeline
 - Future Mountfort Street Rights-of-Way
 - New Connector Road
 - Parking
- C. Evidence of Financial Ability
- D. Team's Ability to Complete Project Elements

2. Selection Criteria

- A. Integration of Eastern Waterfront Master Plan (EWMP)
- B. Public Benefit to the City
 - Net New Jobs to the City
 - Future Possible Mountfort Street Extension Rights-of-Way
 - New Connector Road
 - Public Restroom Requirements
- C. Preliminary Design Proposal as informed by the EWMP

3. Purchase Price

4. Additional Financial Benefit to the City

- Net new property tax revenue
- Parking

5. Proposer's Proven Capacity and Relevant Experience

October 21, 2021

Matthew F. Fitzgerald
Purchasing Manager
City of Portland
389 Congress Street
Portland, Maine 04101

RE: RFP #22021 - Sale of Portion of City Owned Thames Street Property

Dear Mr. Fitzgerald:

I am pleased to provide you with 144 Fore St. OZ LLC. attached response to the City of Portland's Request for Proposal for the sale of a portion of the City owned Thames Street property (the "Property").

We have entered in an agreement with WEX Inc. ("WEX"), one of Maine's leading technology companies, to propose a mixed-use development of the Property that will serve as WEX's offices.. This project will bring hundreds of new jobs to Portland's Eastern Waterfront and will serve as a catalyst for future development and job creation. We also expect that this project will enhance Portland's growing reputation as an innovative, business-friendly city.

As you will see in our detailed response, our proposal will successfully address all of the goals of the City's RFP.

We thank you for the opportunity to respond to this proposal. We are available to answer any questions and would welcome the opportunity to contribute to further growth of this great city.

Thank you,

Jonathan Cohen, Manager
Dan Smith, Manager
144 Fore St. OZ LLC

LETTER FROM WEX VP Real Estate



Portland City Council and Economic Development Council:

Please note that we have been working very closely on the design and RFP submittal for the city lot on Thames Street. As the primary occupants of the adjacent properties, we are interested in a future expansion of our Portland campus in order to consolidate our Maine offices and provide for future expansion capacity. The adjacent lot would provide for a natural extension and connector to the buildings we currently occupy.

Sincerely,
Safet Cobaj
VP, Global Real Estate

PROPOSAL FORM
"Sale of Remaining Portion of City Owned Thames Street Property"
RFP #22021

**** THIS SHEET MUST BE INCLUDED IN YOUR PROPOSAL ****

The undersigned hereby declares that he/she or they are the only person(s), firm or corporation interested in this proposal as principal, that it is made without any connection with any other person(s), firm or corporation submitting a proposal for the same, and that no person acting for or employed by the City of Portland is directly or indirectly interested in this proposal or in any anticipated profits which may be derived there from.

The undersigned hereby declares that they have read and understand all conditions as outlined in this Request for Proposals, and that the proposal is made in accordance with the same.

The bidder acknowledges the receipt of Addenda numbered: _____

COMPANY NAME: 144 Fore St. OZ, LLC

AUTHORIZED SIGNATURE: _____

DATE: 10/21/2021

PRINT NAME & TITLE: Jonathan Cohen, Manager

ADDRESS: P.O. Box 910 Westbrook, Me 04098-0910

E-MAIL ADDRESS: jcohen1@maine.rr.com

PHONE NUMBER: 207-776-0304 FAX NUMBER: 207-775-4367

TYPE OF ORGANIZATION - PARTNERSHIP, CORPORATION, LIMITED LIABILITY COMPANY, INDIVIDUAL, OTHER:

Limited Liability Company

STATE OF INCORPORATION OR ORGANIZATION, IF APPLICABLE:

Maine

FEDERAL TAX IDENTIFICATION NUMBER (Required): 85-3620686

NOTE: Proposals must bear the handwritten signature of a duly authorized member or employee of the organization submitting a proposal.

Purchase Price: 24,000 sq ft at \$35.00 sq ft=\$840,000.00 Plus Connector Road (Freedom Way) If it is possible to build a larger building under current restrictions we will pay based on the buildable square footage (Points Award Basis)

SALE OF CITY-OWNED THAMES STREET PROPERTY

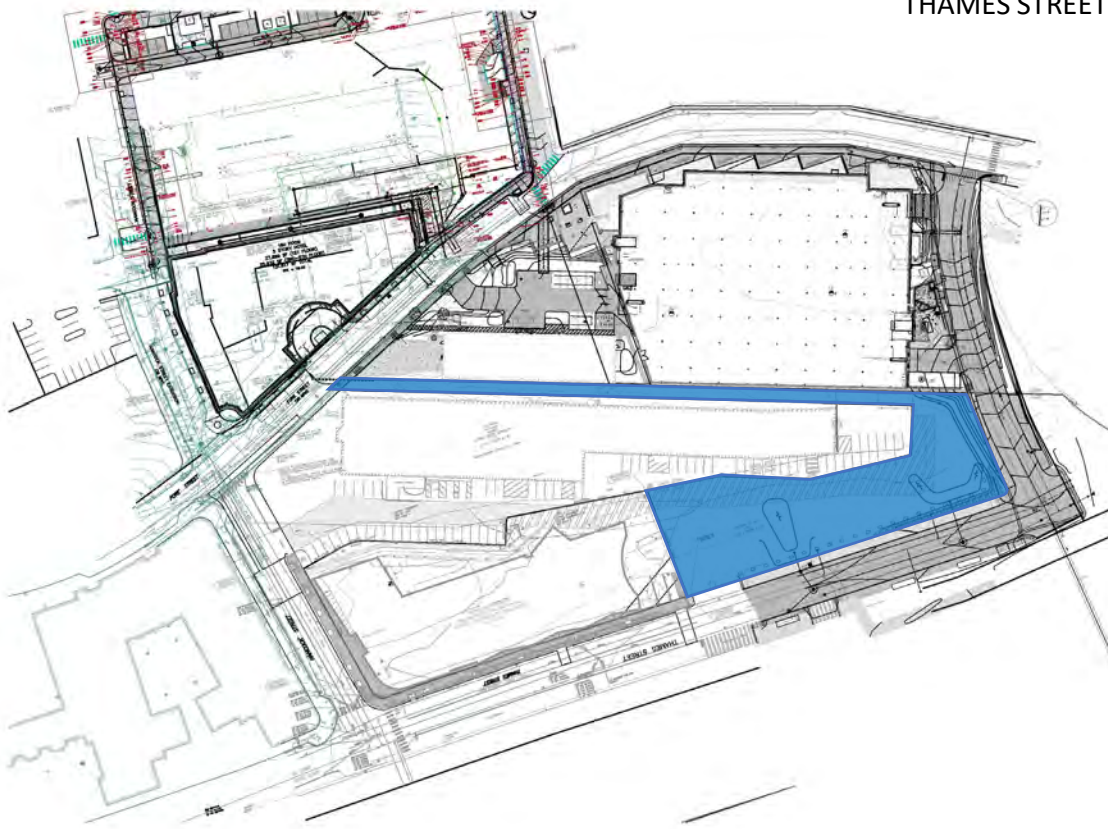
[illegible]

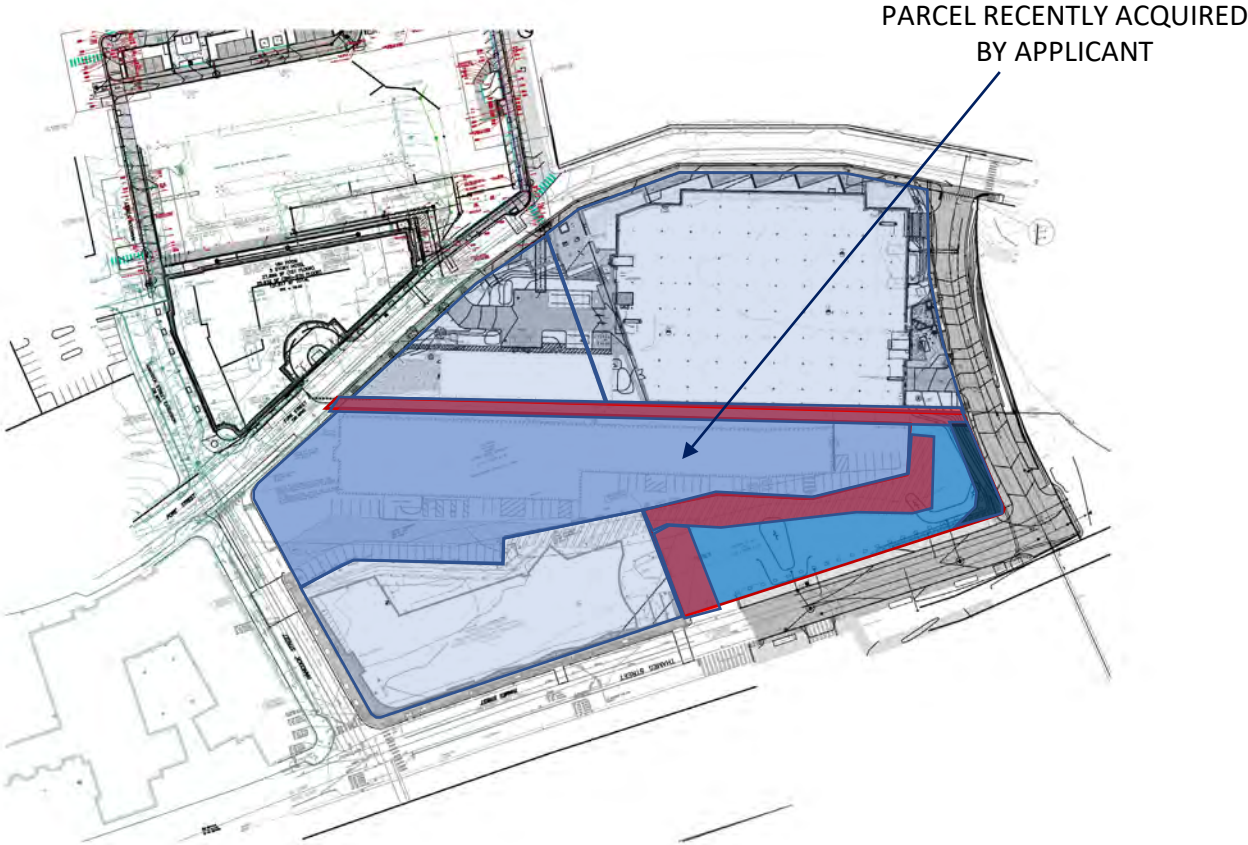
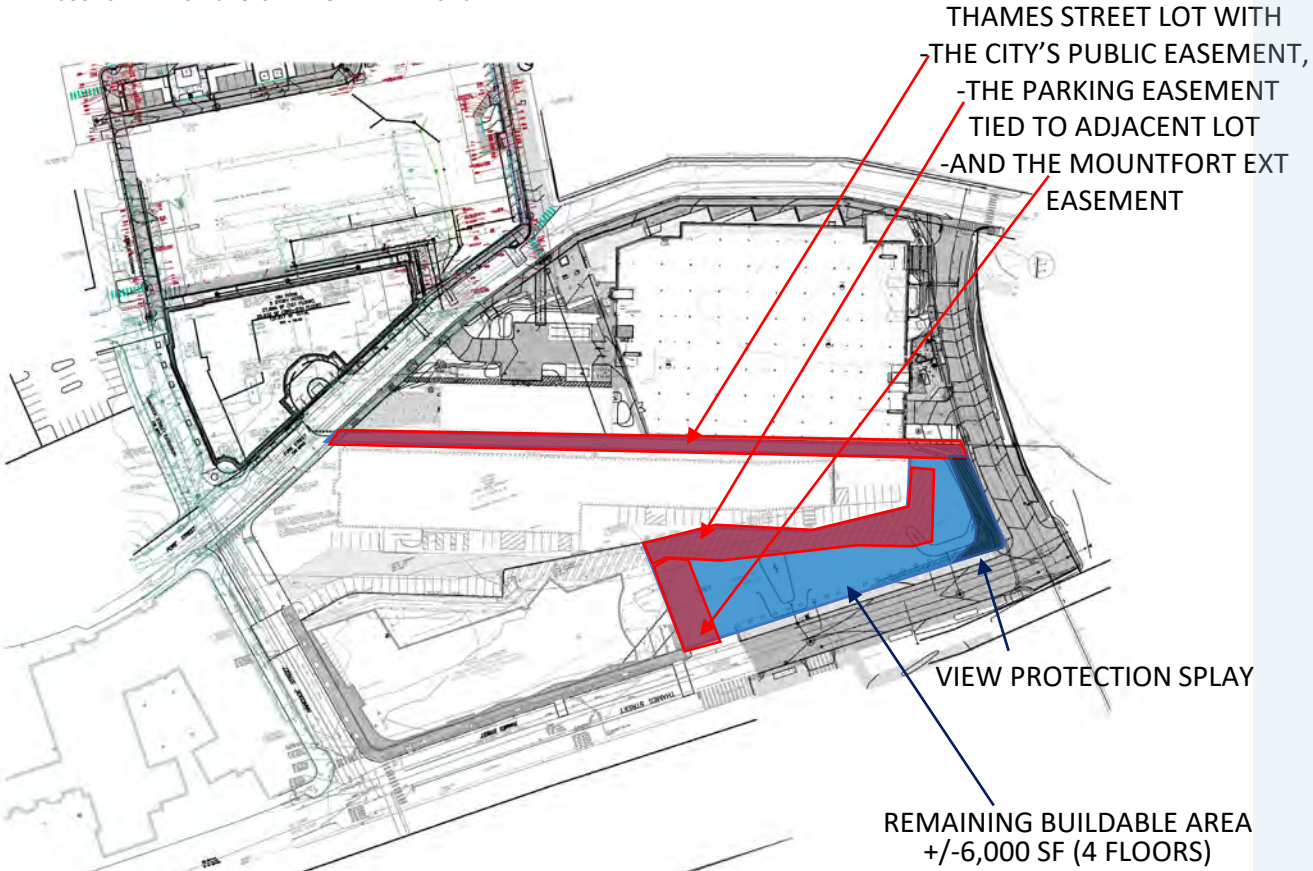
—

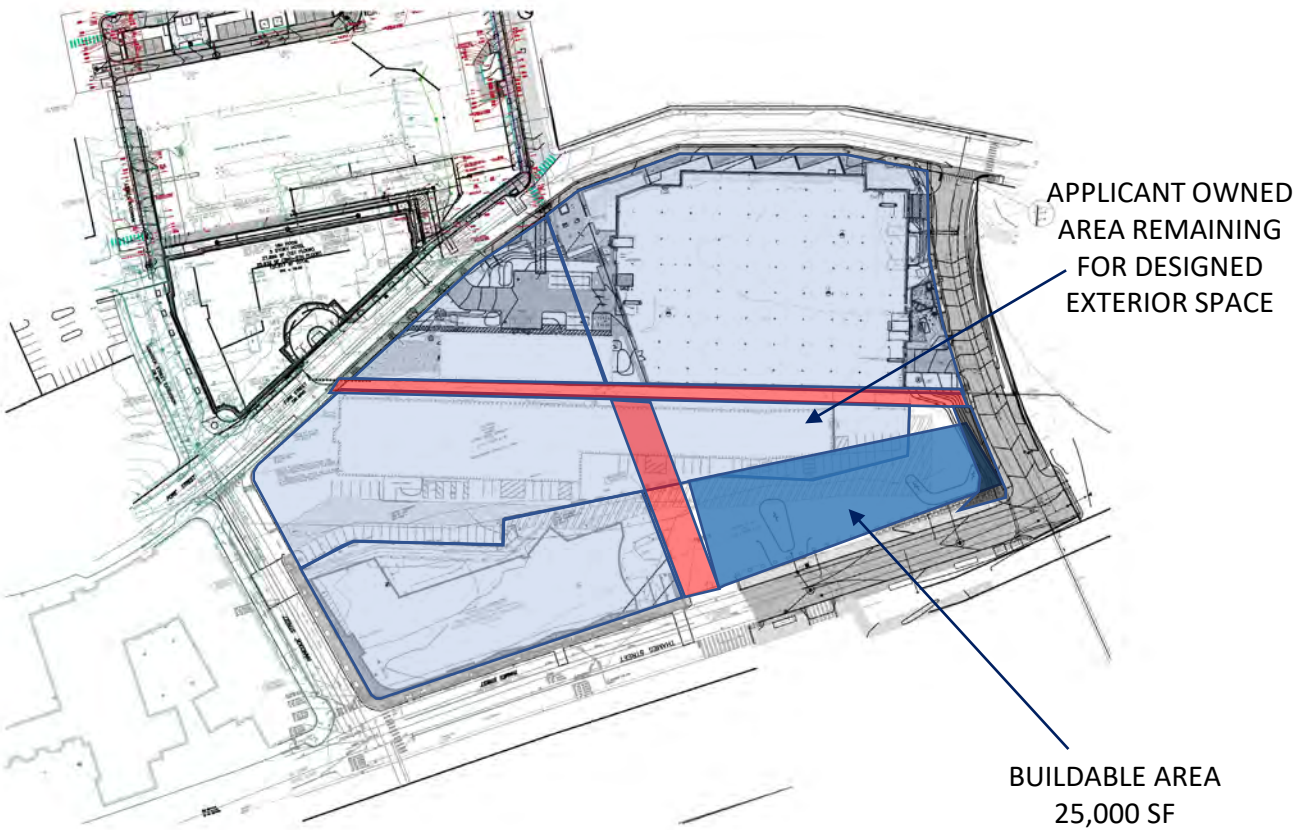
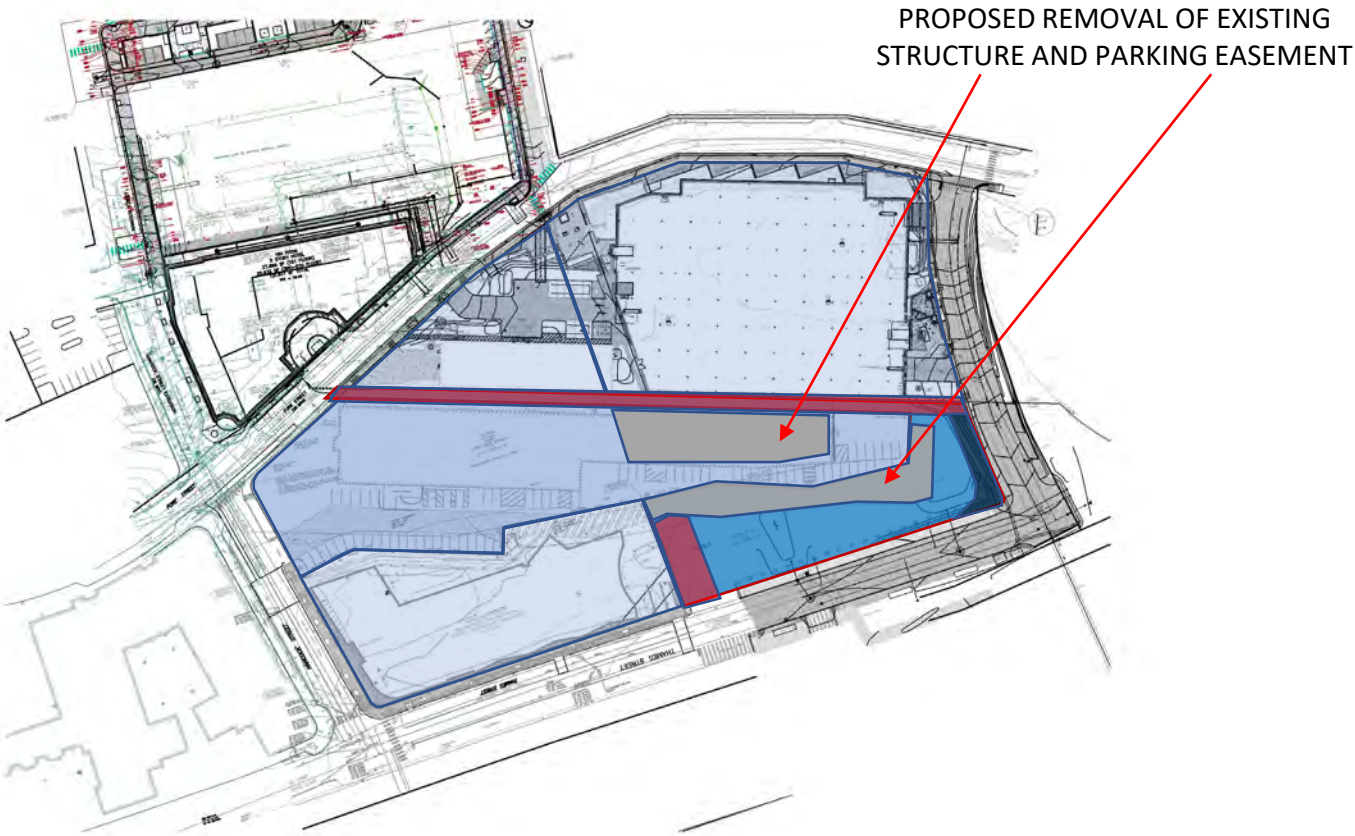
PROPOSED AREA OF WORK

The following diagrams break down the ownership within the city block on which the Thames City Lot is located and break down how the ownership of the lot previously owned by Jackrabbit LLC makes the proposal more successful in its ability to have an adequately sized build out and exterior spaces linking the design to the block and surrounding neighborhood.

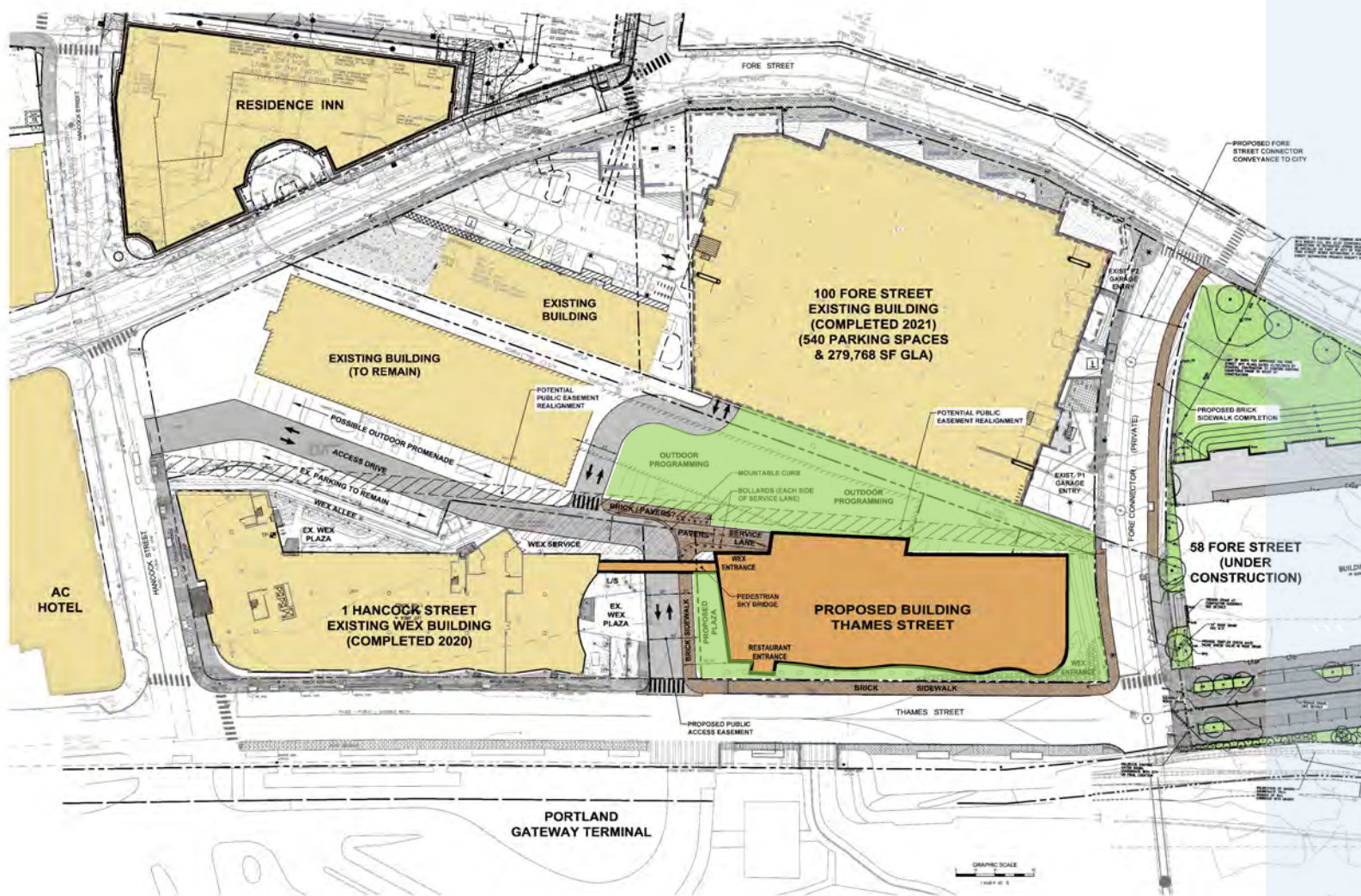
THAMES STREET CITY OWNED LOT





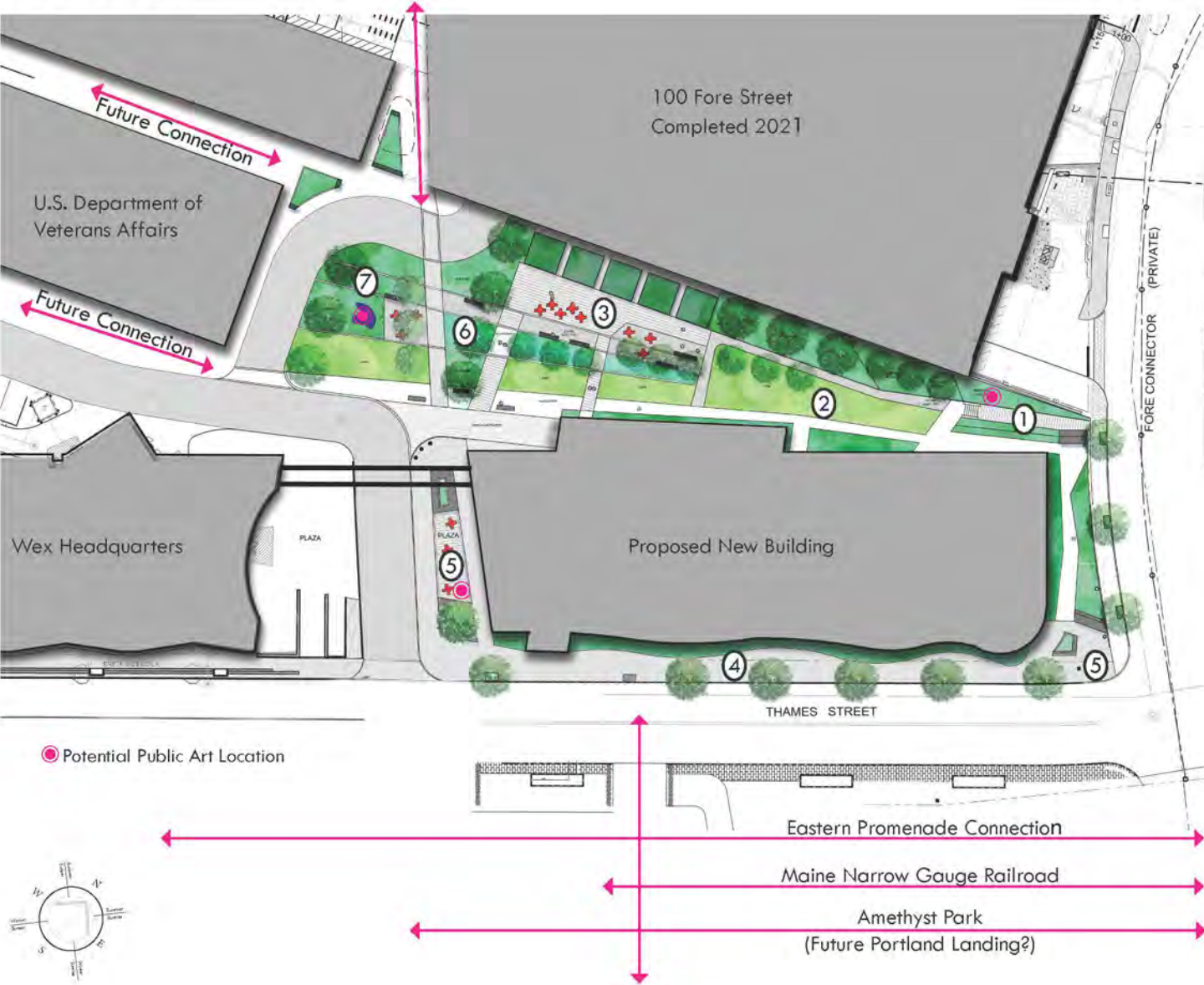


SITE PLAN CONCEPT



By adjusting the easements on the property that cut through the middle of the block, the proposed development can relate to the WEX Headquarters neighboring it on Thames Street. The proposed sky bridge between the two creates a physical connection between the existing and proposed buildings. The design of this building is a balance of relating to its neighboring campus buildings while creating individual design appeal. The footprint draws datum directly from the Headquarters and 100 Fore Street while expansion of the site lines pulls the footprint back further as it reaches Thames Street.

Site Plan



Legend

- ① Elevated Plaza & Terraced Seating
- ② Lawn, Typ.
- ③ Incubator Shops with Green Roofs & Plaza
- ④ "Complete Street" Sidewalk
- ⑤ Gateway & View Splay Plazas
- ⑥ Bio-swale & Stormwater Management
- ⑦ Stone Dust Plaza & Pollinator Gardens



The Grand Trunk Railroad & Design Context

When approaching a site rich in history - we look to its past to better understand its future. The Grand Trunk's Railroad history tells the story of Portland's industrial past - we believe it should not be forgotten.

Inspired by the sites history, the proposed programming and design elements play off the Grand Trunk Railroad India Street Terminal layout (pictured above). The linear quality of the design feels at home on the site helping to organize the proposed and existing buildings while providing a unique open space unlike anything along the waterfront.



PROJECT TIMELINE

- Design and Planning Board Approval
 - Pending Purchase, PB approval by June 22nd, 2022
- Permitting
 - Submit for permit immediately following PB Approval
 - Anticipate 4-6 week permitting process
 - Permit by late July 2022/early August 2022
- Construction
 - Following issuance of permit construction to commence immediately
 - Anticipated construction from August 2022 through October 2023
- Occupancy
 - January 1, 2024

Oct 2021
RFP Submission

June 2022
PB Approval

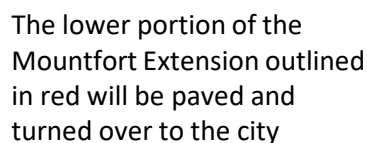
July 2022
Permit Issuance

August 2022
Construction Commences

October 2023
Construction Complete

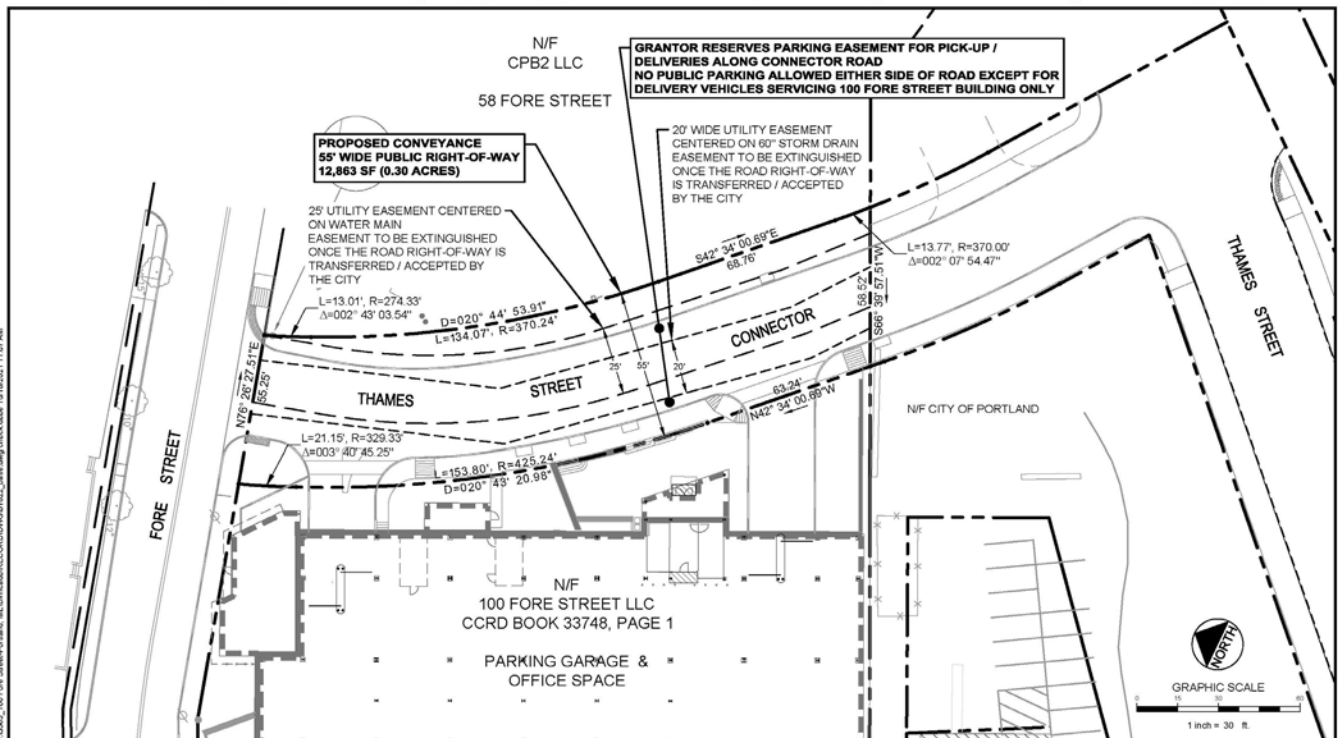
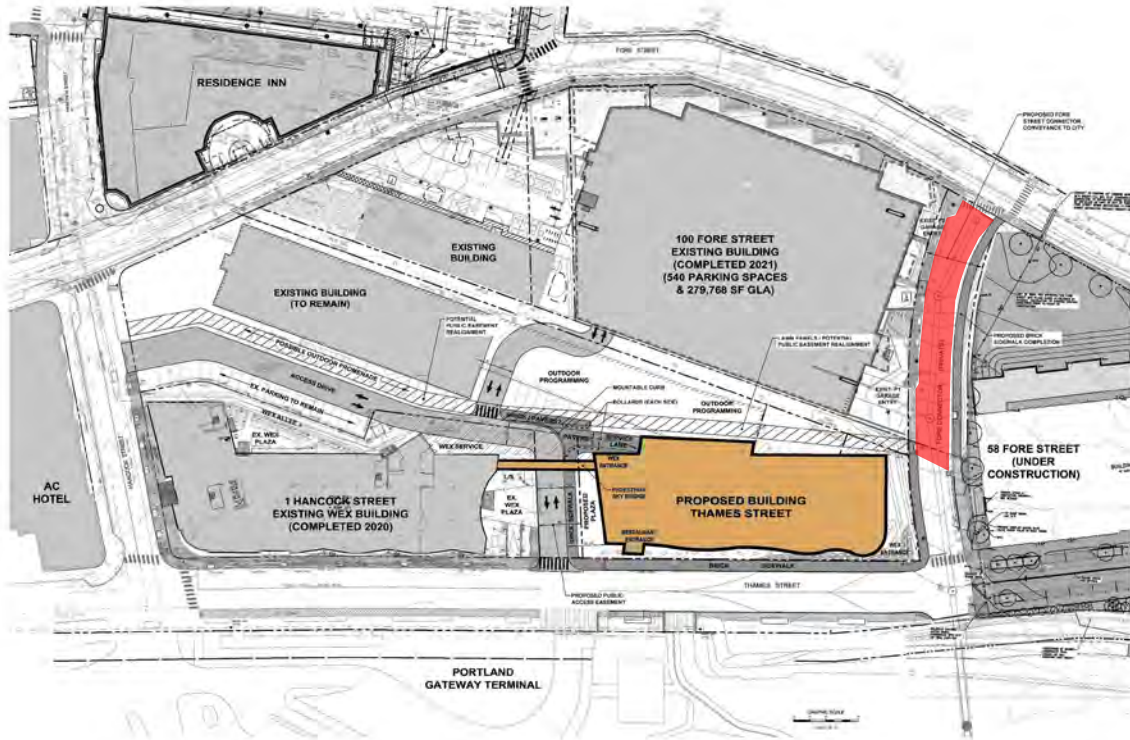
January 2024
Occupancy

Just as the 50' wide Mountfort Extension was fully respected and designed outdoor space extended beyond the required boundaries in the design of 100 Fore Street and the WEX Headquarters, the boundary is part of a movement system for pedestrians and vehicles in this proposal. Not only is the designated boundary in-tact for the rights-of-way and view splays, but the diagrams below depicts how, just as the Headquarters were held back at an angle, the Thames Street proposal mirrors that angle to open up the Mountfort Extension as it approaches the water and the Portland Landing.



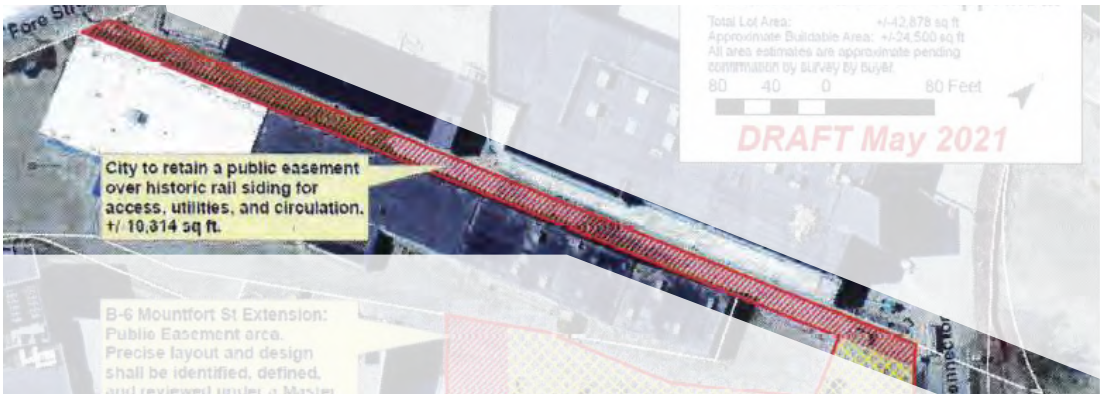
NEW CONNECTOR ROAD/FREEDOM WAY

The upper portion of the Connector Road constructed by 100 Fore Street LLC is owned by the applicant. Upon purchase of the Thames Street Lot, 100 Fore Street LLC will deed the road to the city as part of the purchase price. \$30,000 will be escrowed for the completion, in the spring, of the sidewalk on the east side of the Connector Road on the portion owned by the applicant. Below is the deed drawing for the portion of the Connector Road in discussion.



RFP

PROPOSED PUBLIC EASEMENT FOR ACCESS, UTILITIES AND CIRCULATION



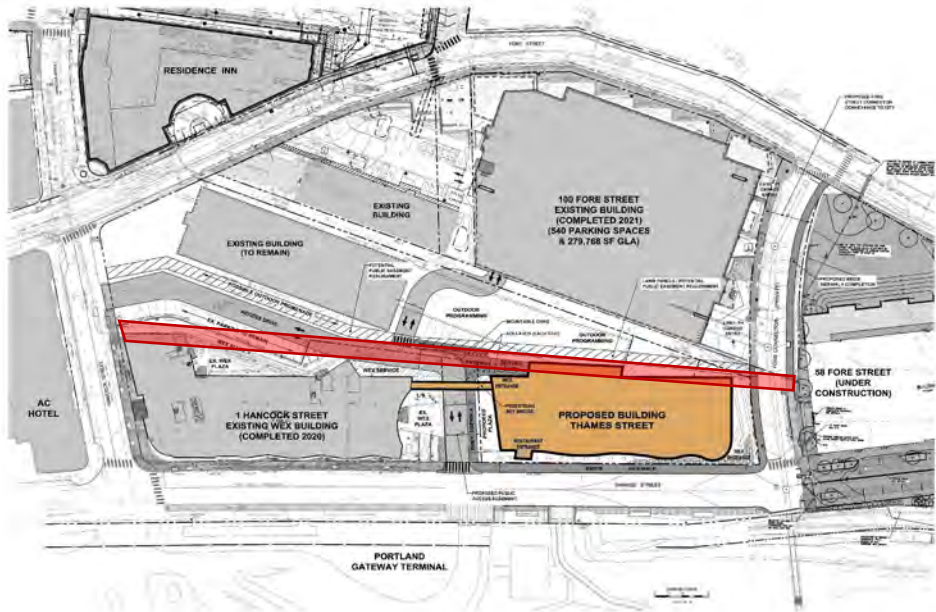
EWMP

PEDESTRIAN ALLEY DIAGRAM



PROPOSED

EASEMENT LOCATION AS INFORMED BY THE EWMP



Proposed location allows the most flexibility for future development of the southwest corner of the block

PARKING REQUIREMENTS & MANAGEMENT PLAN

City Parking – Clarification – the city parking noted in the RFP was actually displaced during the construction of the WEX Headquarters and has already been relocated in the parking garages owned by the applicant.

For the existing parking lease agreement between the applicant and the city, a portion of which is included on page 43 of this document, the applicant plans to amend the agreement to 25 spaces and allow that increase of 5 spaces to be 24 hours a day at the 167 Fore Street Ocean Gateway Garage.



USE	PARKING REQUIRED BY ZONING	PARKING SUPPLIED	COMMENTS
OFFICE	0	125	100 FORE GARAGE
RESTAURANT	0	25	100 FORE GARAGE
INCUBATOR SPACE	0	10	100 FORE GARAGE

For the proposed uses in the project, the applicant will provide parking as indicated above.



September 22, 2021

City of Portland
389 Congress Street
Portland, Maine 04101

Re: City Lot – Thames Street and 110 Fore Street, Portland

To Whom it May Concern:

NBT Bank, N.A. has a strong relationship with Jonathan Cohen and his business entities who are customers in good standing of the Bank. We enjoy a great relationship with this group, having completed numerous successful projects together over the past several years. Mr. Cohen and his business entities have both the financial capacity as well as the industry experience necessary to complete the proposed project on the currently City-owned Lot on Thames Street and 110 Fore Street in Portland, Maine. Should there be any questions on this matter, please do not hesitate to contact me at (207) 229-7100 or via e-mail at jdeering@nbtbank.com.

Sincerely,


Jeremiah C. Deering
Senior Vice President
Regional Commercial Banking
Manager
NBT Bank

NBT Bank, N.A.
Maine Regional Headquarters
5 Widgery Wharf, 3rd Floor
Portland, Maine
04101

TEAM'S DEMONSTRATION OF ABILITY



Applicant Throughout Jonathan's 25+ years as a developer he has been involved with more than 6,300 projects from design and budget from construction through completion as well as with occupancy and sale or retention. Mr. Cohen currently owns and manages more than 1,250,000 SF of real estate in Maine. A few of Mr. Cohen's current projects underway include: the development of 52,000 SF at Falmouth Center in Falmouth, ME, completion of an 84,000 SF office building and approximately 5,000 SF of retail sitting on a 543 car garage at 100 Fore Street in Portland, ME.

Mr. Cohen was also integral to the design, budget and construction of 167 Fore Street in Portland, ME – the Ocean Gateway Garage Offices, 1 Hancock Street in Portland, ME – the WEX World Headquarters, 10 Exchange Street in Portland, ME – 27 condominiums, 416-420 Fore Street in Portland, ME – the rehab and renovation of 12,000 SF of mixed-use space.

Mr. Cohen has numerous financial institutions which have committed to working with him on this and any other project he wishes to undertake. Archetype will serve as the architect on the project and the development team will include a Maine-based GC or CM and almost all Maine-based trades.

Archetype has been designing buildings of all types for clients throughout New England for over 40 years, including large scale office spaces, affordable and market rate housing, commercial retail spaces and mixed-use developments. The firm has worked with Jonathan Cohen on multiple projects, including the WEX Headquarters, 100 Fore Street and the addition to the Ocean Gateway Garage within close proximity to the Thames Street Property as well as others in downtown Portland and in Falmouth, ME. Aside from work with the applicant, Archetype has designed, permitted and run CA on Luminato and Verdante on Marginal Way, the Shipyard Complex just west of this proposal and the condo and retail buildings at 387 Congress Street all within the past few years.

Gorrill Palmer is an integrated land development, transportation and municipal engineering consulting firm providing quality professional services to clients throughout New England since 1998. Since its founding, GP has been consistently recognized for its expertise, experience and responsiveness providing outstanding value for its clients. The office has designed and permitted over 500 projects within the City of Portland which have included a mix of commercial, retail and office spaces; industrial warehousing, institutional and municipal projects, and residential developments. The firm has worked for Jonathan Cohen and collaborated with Archetype on more recent projects including 100 Fore Street, WEX Headquarters and the redevelopment work at Falmouth Center in Falmouth, ME.

In addition to the projects listed above, Gorrill Palmer has designed and permitted for Shipyard Brewing Redevelopment (Covetrus), Canal Landing, VA Community Based Outpatient Clinic, the Mercy Hospital Expansion, Forefront at Thompson's Point, 191 Marginal Way Commercial Building and 185 Fore & 16 Middle Street Commercial Developments. These are some examples of GP's experience and expertise in providing the highest quality of private sector land development services within the City of Portland.

Mitchell & Associates is a landscape architecture and planning firm founded in Portland in 1975. M&A offers decades of experience helping Maine communities develop difficult urban site solutions, master plans, open space and trail plans, historic redevelopment plans, and other public space enhancements. We have developed dynamic, rewarding collaborative strategies for partnering with municipal staff, stakeholder committees to craft beloved public landscapes.

Principals John Mitchell and Bob Metcalf have both worked on numerous urban sites, park master plans and subsequent project implementation, including Fort Williams Park in Cape Elizabeth & South Portland's Wainright Recreation Complex. Senior landscape architects Julia Frederick and Braden Drypolcher contribute their experience developing award-winning, cultural destination master plans and urban site development, including the Emerald Necklace Tree Master Plan in Boston and the Florence Griswold Museum and Historic Landscape Master Plan in Connecticut.



MEETING THE PRIORITIES OF THE EWMP AND CREATING PUBLIC BENEFITS TO THE CITY

Economic Responsibility

Private Sector Providing Quality Jobs

Mixed-Use Project

Year-Round Uses

Attention to Easements & View Corridors & Pedestrian System



- Increase in real estate tax

 - Approximately \$170,000 per year in new taxes.

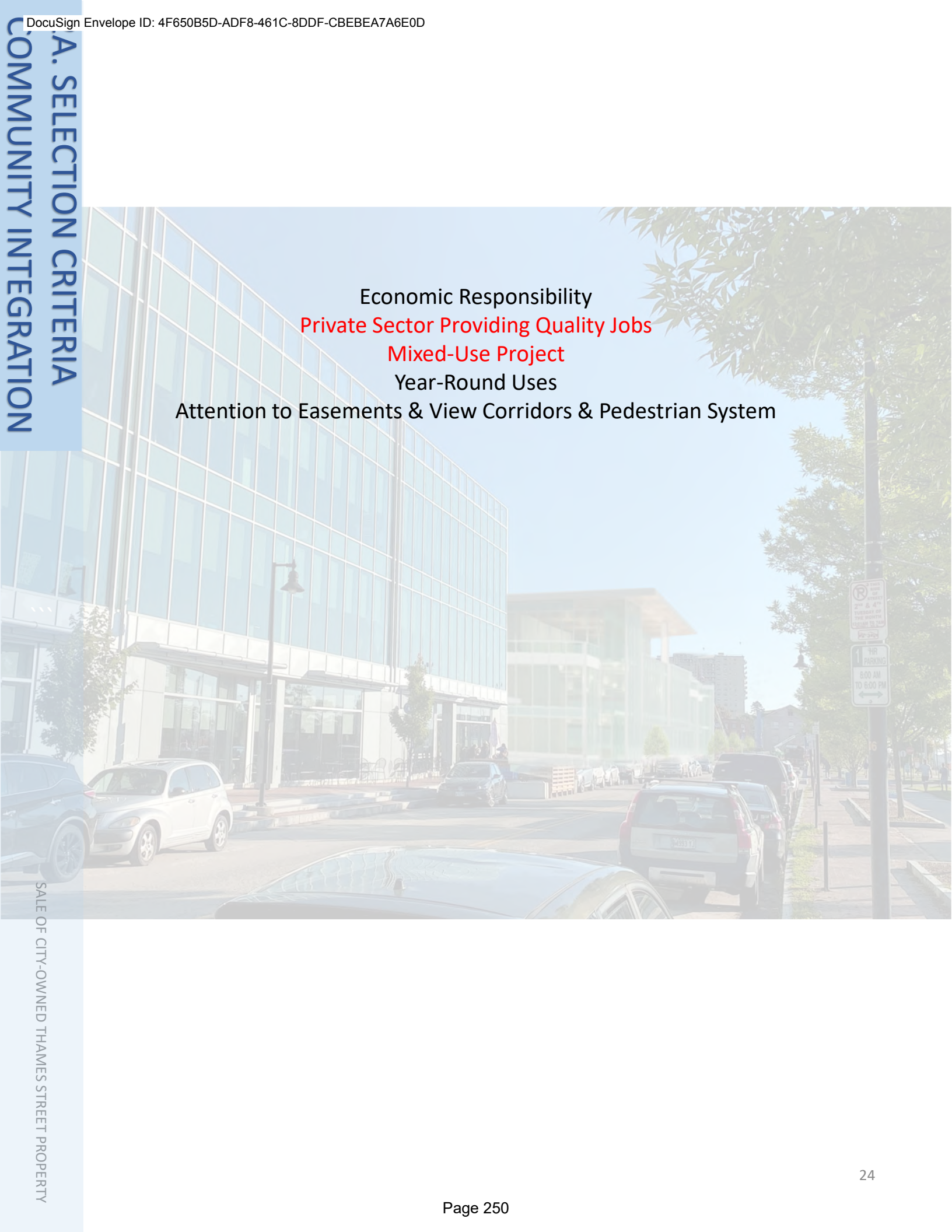
- Improving the aesthetics of the site which is beneficial to the tourist industry approaching the area by water, street or pedestrian and bike path

- Creating a public draw with the third floor use that will help to invigorate the retail efforts in the area that are currently just beyond the heavier consumer foot traffic

- Incubator spaces allow for smaller and newer businesses to get a foothold in the currently high rent retail scene. Businesses that succeed in the incubator spaces also feed into other downtown retail spaces as they grow and help to fill the storefronts

- Office employees create a year-round consumer base for the Old Port

- The proposal includes both year-round and day and evening uses



Economic Responsibility
Private Sector Providing Quality Jobs
Mixed-Use Project

Year-Round Uses
Attention to Easements & View Corridors & Pedestrian System



This proposal offers 50,000 SF of prime office space in one of the best sites in the city with its proximity to residential hot spots and the Old Port commercial district. This quantity of square footage would accommodate approximately 130 new jobs.



In addition to the office space, the proposal includes 8,000 interior SF for commercial use and +/- 10,000 SF of roof deck for commercial use. This use would provide approximately 75-100 jobs.



Proposed incubator spaces will provide opportunities to multiple small local businesses to test their ability to grow in the thriving urban fabric of Portland. Such spaces have proven successful on Washington Ave and in the short time that the spaces have been available, there have been multiple instances of turnover due to success of a business and its need to move to a larger space. The applicant has the ability to provide space for expansion due to having multiple retail spaces of varying sizes at properties in the area.

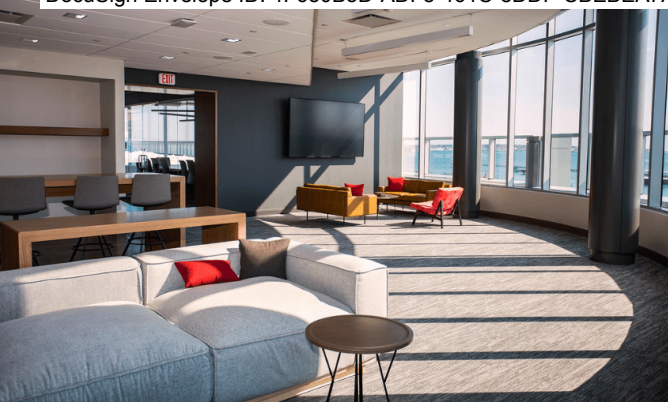


30,000 SF of plaza and park space and 5,000 SF of streetscape are being planned to benefit both the users of the proposed building as well as adjacent developments and the public.

Economic Responsibility
Private Sector Providing Quality Jobs
Mixed-Use Project
Year-Round Uses

Attention to Easements & View Corridors & Pedestrian System





The office space will add approximately 130 jobs that will add to the vibrancy of the site year-round.



Portland's restaurant scene thrives year-round and the views from this location would place it at the top of the dining destination list all months of the year.



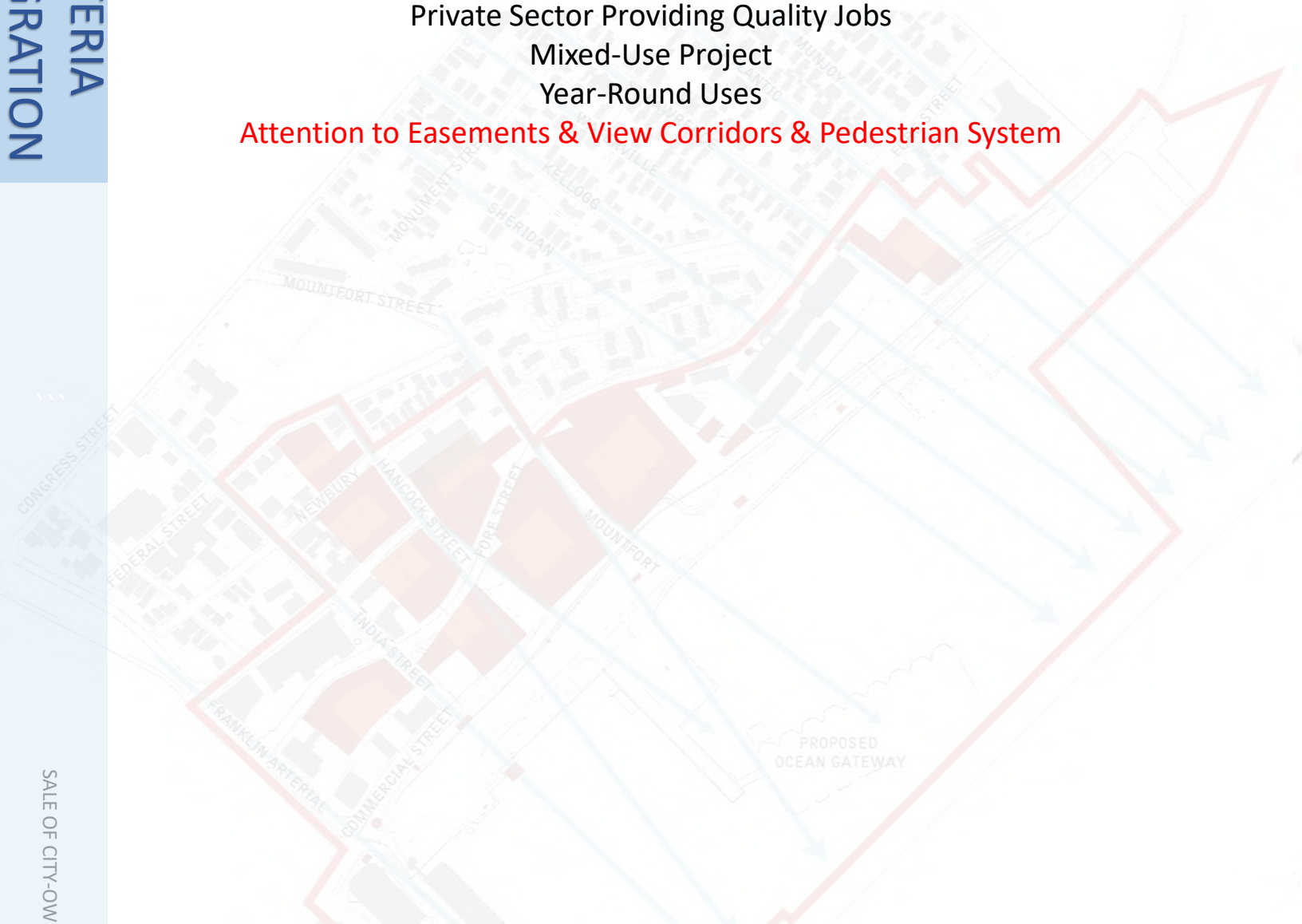
Portland's commercial scene benefits from the charm of the city in all months and draws tourists and local patrons and foot traffic even as the snow flies.



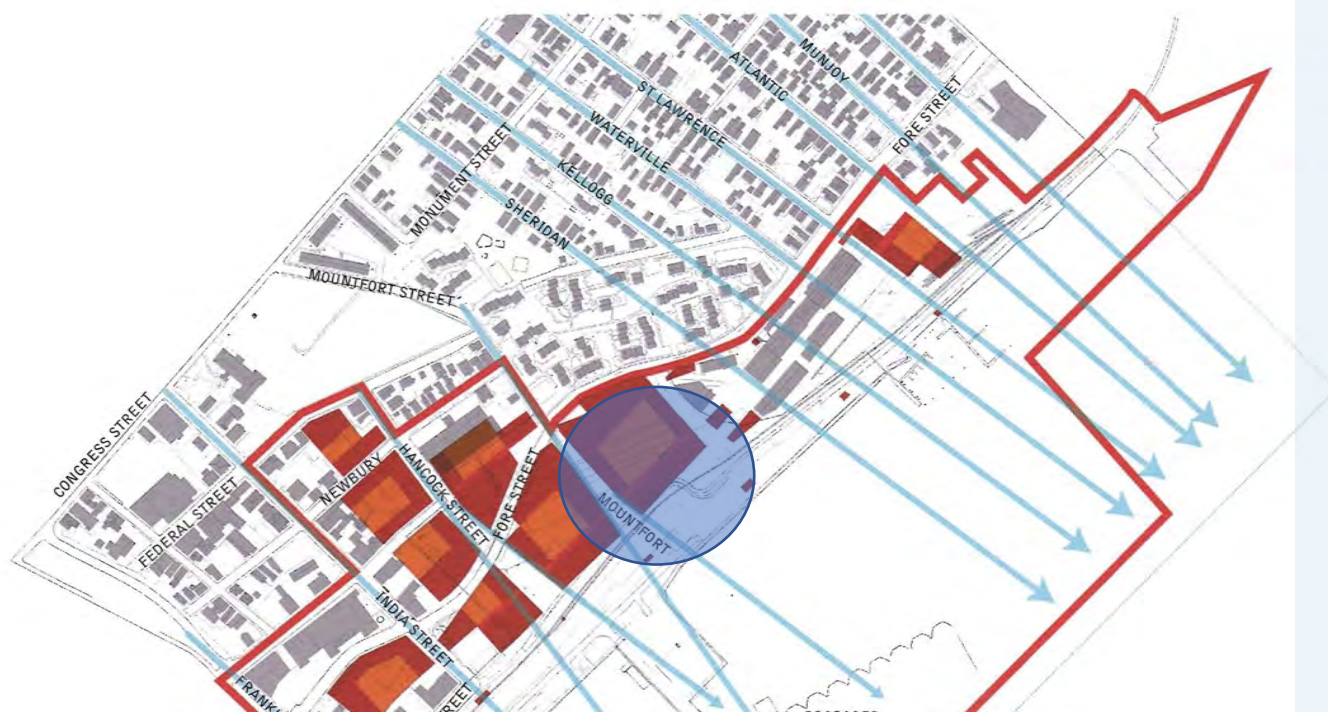
Heated foot paths through the site will encourage the foot traffic through the site year-round for those accessing the incubator spaces, locals passing from their homes on the east end to work or commuters walking from the adjacent garage.

Economic Responsibility
Private Sector Providing Quality Jobs
Mixed-Use Project
Year-Round Uses

Attention to Easements & View Corridors & Pedestrian System

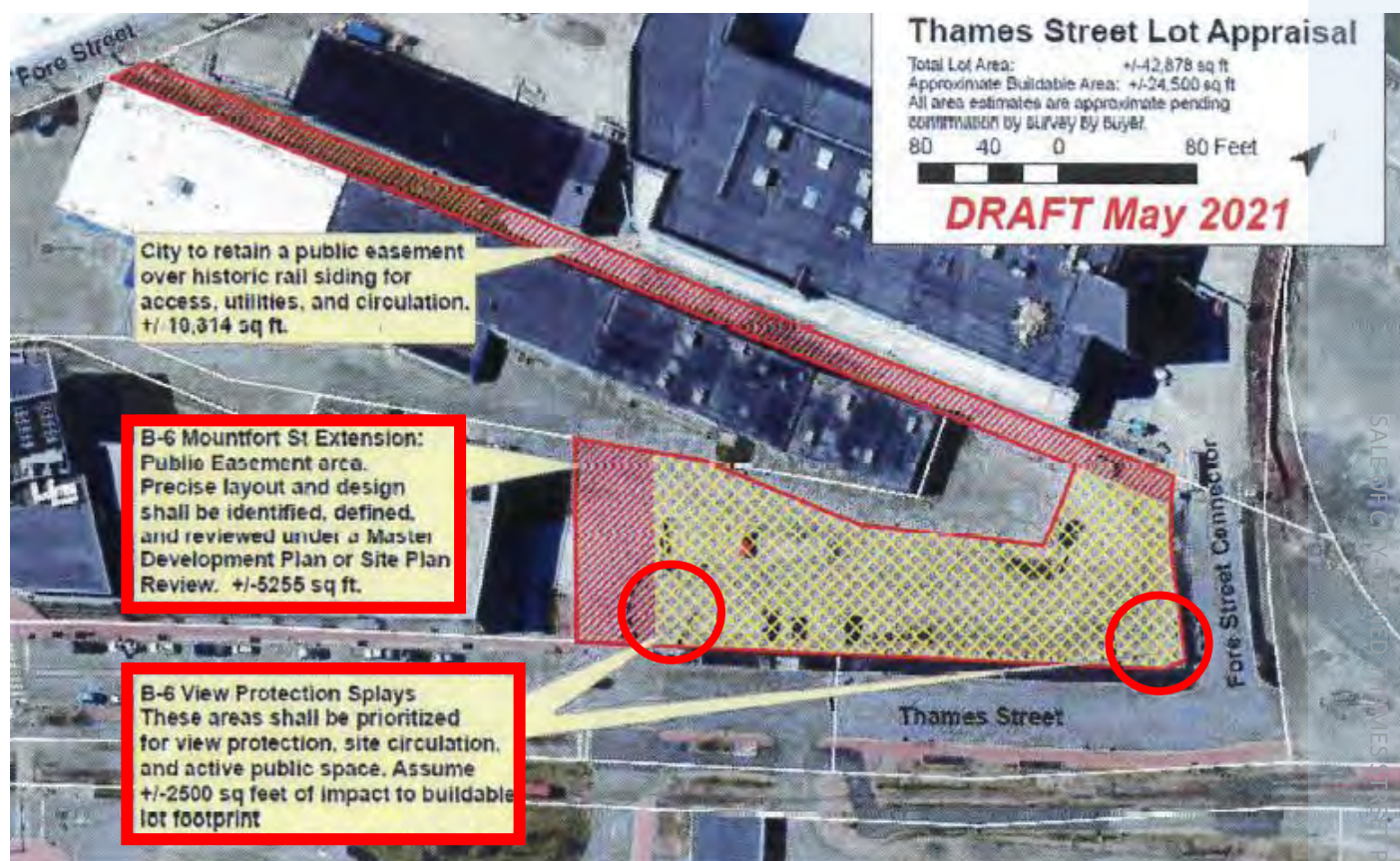


MASTER PLAN VIEW CORRIDORS

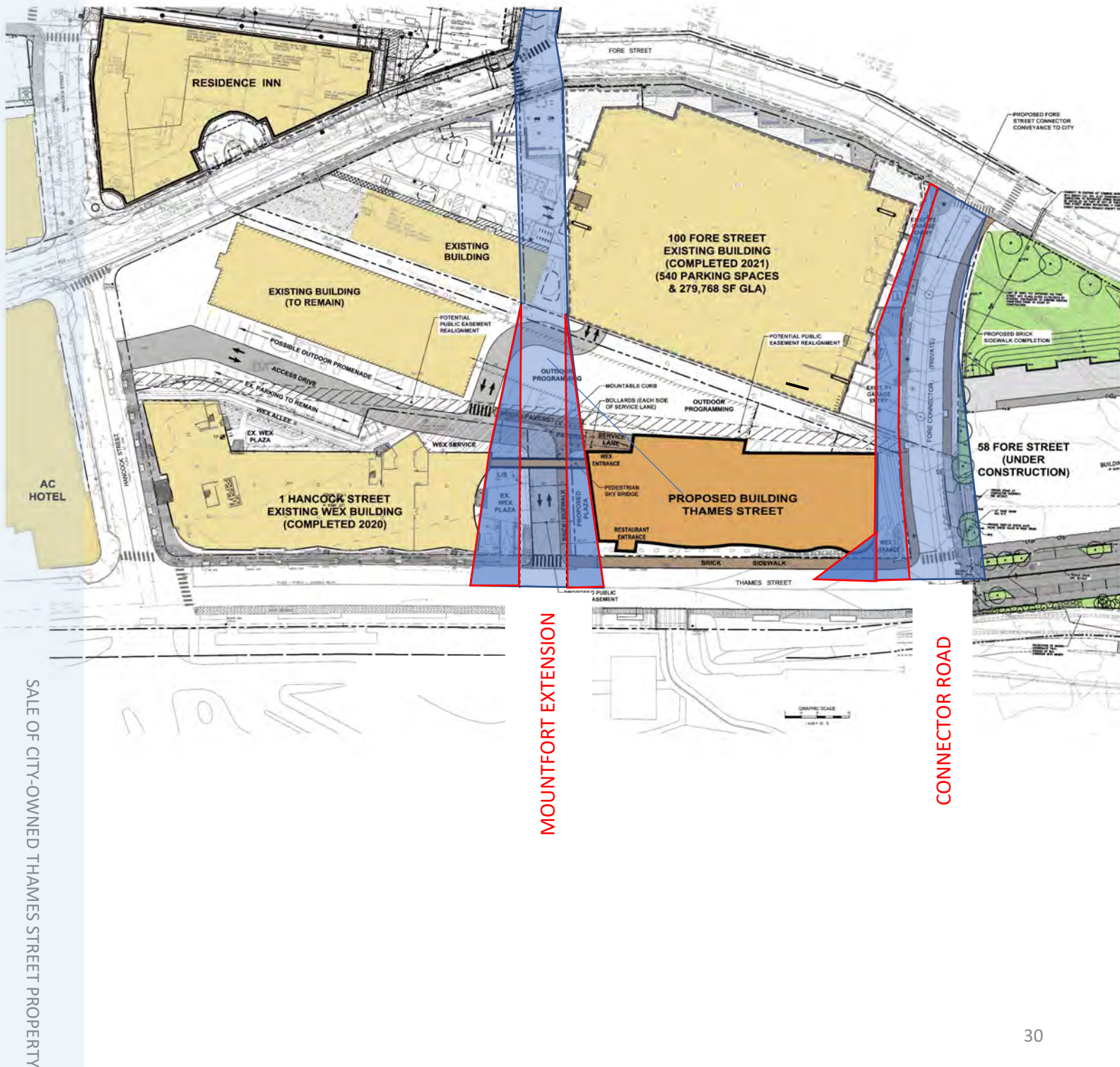


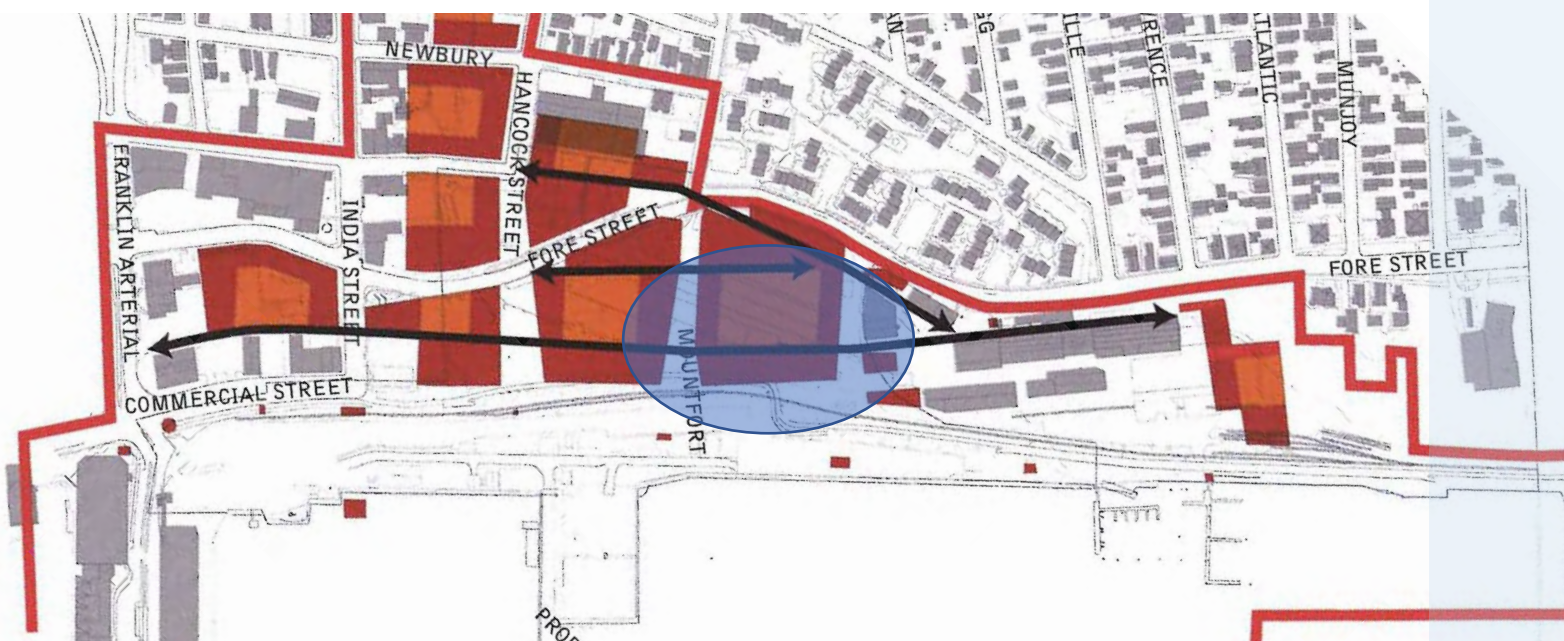
RFP

EASEMENTS AND VIEW PROTECTION SPLAYS

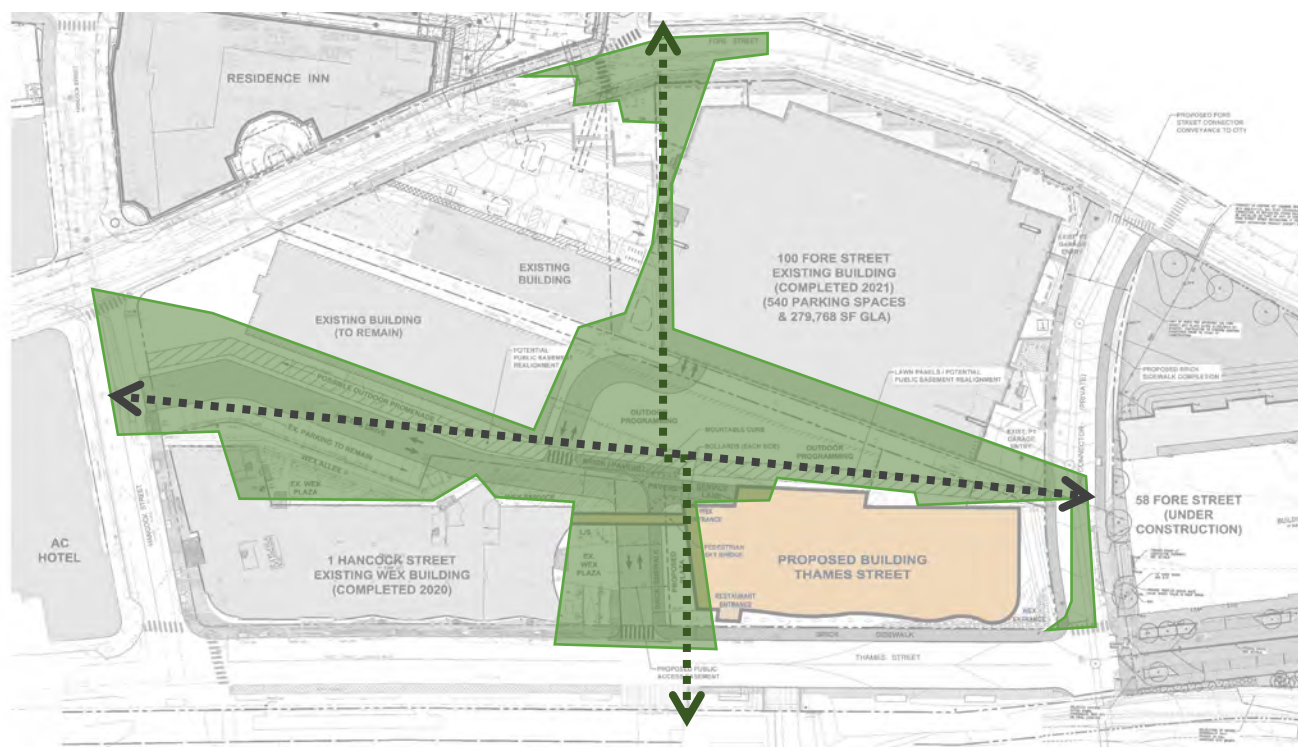


As mentioned when discussing the Mountfort Extension Rights-of-Way, the view corridor plays are exaggerated as one gets closer to the water. The same treatment to the view corridor is maintained at the Connector Road with both the footprint of 100 Fore Street and the design for the Thames Street development holding back a significant amount from the buildable area to respect the views. The built edge of the Thames Street proposal is drawn directly from the entry tower of 100 Fore Street so as to respect the site line already in place.





PROPOSAL PEDESTRIAN ACCESS



As seen in the EWMP pedestrian street system diagram, north-south axis (right to left) on the site has always been a priority. The proposal does create an axis of movement in this direction but in addition, it connects directly to the east-west axis that was established along the Mountfort Extension with the development of 100 Fore Street and the plaza and stair that are already in place at the intersection of Mountfort and Fore streets.

SUMMARY

A. NET NEW JOBS TO THE CITY

Based on the jobs provided by the combination of the office used, the third-floor restaurant and the incubator spaces the project would provide between 200 and 250 full-time positions in multiple job fields.

B. FUTURE POSSIBLE MOUNTFORT STREET EXTENSIONS RIGHTS-OF-WAY

The Mountfort Extension, within the area of discussion, will be both paved for vehicular access into the site as well as landscaped along the proposed building development for pedestrian access into the site. The vehicular route will allow for access to the lowest level of the 100 Fore Street Parking Garage as well as to the service access behind both the WEX Headquarters and the building that is to go on the city lot. The pedestrian route allows for access into the landscaped portions of the site that feeds the garage, the office buildings and the incubator spaces and allows for public passage through the site on either the east-west or north-south axis. The pedestrian skyway across the extension will provide safe movement for the users connecting between the two buildings.

C. NEW CONNECTOR ROAD (FROM FORE STREET TO CITY THAMES STREET CONNECTION)

As stated previously, the portion of the Connector Road currently owned by the applicant will be turned over to the city as part of the purchase price for the Thames Street City Lot and a brick sidewalk will be added to the Connector Road/Freedom Way in the spring.

PUBLIC RESTROOM REQUIREMENTS

Per the items for public benefit of the city in the Selection Criteria portion of the RFP, it is requested that the applicant provide one public restroom in the concept design and it is noted that the terms of this requirement are to be negotiated. The applicant is proposing to contribute \$50,000 toward new bathrooms to be constructed on the Amethyst Park/Portland Landing site of which portions have begun. Page 18 of the city document on the Portland Landing states that improvements including restroom access are part of the early plans for the park.



Photo Credit: Larry Tomlinson

EXISTING AMETHYST LOT

Design Vision

Portland Landing will provide the City of Portland with a signature waterfront amenity that functionally, visually, and symbolically connects people with the city's maritime heritage and provides a vital public connection to Casco Bay. The redeveloped lot will provide Portland citizens and visitors of all ages and interests a new and permanent place to interact year-round with the water for a myriad of passive and active uses. Advocates and City officials envision the Amethyst lot as the threshold to the Casco Bay. Proposed uses will benefit neighboring residents and businesses and complement the Eastern Promenade Trail, Moon Tide Park, public infrastructure, multi-modal transportation, and mixed-use development.

Our design vision is characterized by the following goals:

Reflect the City. The City of Portland and the Eastern Waterfront have a rich history. Relics and artifacts integrated into the design will commemorate the site's history and provide elements of surprise and education throughout the landscape.

Give access to the shoreline. The more ways to experience the water, the better; sailing, tour boats and water taxis, tidal pools, fishing and wildlife observation are waterfront attractions that provide something for everyone for a cost that need not be significant. Many of these activities also provide opportunity for private-public partnerships and revenue generation

through voluntary participation. Access to the water allows for a dynamic and diverse recreation program and will effectively expand the physical upland limits of the Amethyst lot.

Create a new open space destination. The new waterfront should serve not only its own neighborhood, but the entire community, drawing visitors from the region. It should provide enough range and frequency of activities that it is well worth a day trip.

Allow for programmatic diversity. Vendors, concessionaires, commercial boating, and others each provide a valued service to the visiting public, contributing to the vibrancy of the space and enrichment of the recreational opportunities. Shoreline and water access, people-watching, wading, fishing, strolling, boat launching, open air events, eating and nature observation are key attractions. Every visitor should find multiple opportunities to enjoy the space from season to season.

Prioritize program elements. Understand the full range of programming goals and provide support facilities for a four-season interconnected waterfront and public space destination.

Provide multi-use capacity. Create a plan that allows many activities to happen at the same time, without compromising the experience of any activity. The desired program includes many complementary passive recreational amenities.

Complement adjacent land uses, rail corridor and activities that already activate the space. The lot should be enhanced to support current uses on site and adjacent -- as well as activities associated with planned development and rail service adaptations.

Recognize the magnificence of the Amethyst lot location. Planning should recognize aspects of the site that make it special: a generous waterfront with broad views of the Bay, the presence of historic piles on the water, ease of access to the water, proximity to downtown and new development, and transient boating and water access.

Support water-dependent uses. Programming should focus on accommodating a range of water-dependent uses alongside upland recreational activities.

Create a sustainable park. The park should be designed with an emphasis on sustainability, resiliency, operations, maintenance and utilization. Key opportunities to enhance site sustainability include:

- Renewable energy use and energy conservation;
- Sourcing of local and/or recycled materials;
- Native plant material selection;
- Habitat enhancement;
- Permeable and low-reflectivity pavement systems;
- Water conservation;
- Stormwater management;
- Erosion control;
- Evaluation of remaining service life of critical waterfront infrastructure;
- Adaptive reuse of existing infrastructure; and
- Construction staging provisions.

Cultivate Open Space stewardship. Stewardship begins with leadership and partnerships and a community-supported revenue stream with reinvestment of this revenue into perpetual park maintenance and continued capital improvements. The Study Workgroup and the Stakeholders have developed a strong framework for ongoing stewardship and success for the study area.

Respond to Sea Level Rise. Design alternatives must respond to the impacts of sea level rise and ever-more frequent and intense storm events through resilient and responsible design. Design should also implement green infrastructure enhancements to improve water quality and reduce stormwater run-off.

Take early action. Integrate basic improvements (restroom access, parking and handicapped accessibility) and anticipate future, permanent installations so that cost efficiencies and space allocations are considered early.

Take early action. Integrate basic improvements (restroom access, parking and handicapped accessibility) and anticipate future, permanent installations so that cost efficiencies and space allocations are considered early.

PRELIMINARY DESIGN AS INFORMED BY THE EWMP

Stitching the City Together
Design Sensitive to Surroundings
Climate Change Resilient Design





The landscaped space being proposed and currently developed within the site and block are helping to link green spaces that exist within the city along major routes of foot traffic both from larger green spaces within the city to the commercial Old Port as well as from developing commercial routes to the green spaces currently being developed at Amethyst Park.

The site and proposal are at the heart of the new waterfront that is developing quickly, outlined in red below and designs in this area must be sensitive to their ability to tie the residential (orange) and commercial (blue) districts together along the city's most important asset – the water and the views across it. The sensitivity must be embodied through the uses proposed as well as the design of both the built structures and landscaped areas.

The campus this proposal is part of brings year-round and day and evening uses giving multiple reasons for people to be drawn to and through the site. Both residents and tourists have reason to use the site and it links the permanent residents to the waterfront and the Old Port as well as being located at a major point of entry for visitors accessing the city from the water.

The materials and form are sensitive to the development of, views from and transparency needed for this special area within Portland.



EXISTING VIEW



PROPOSED VIEW



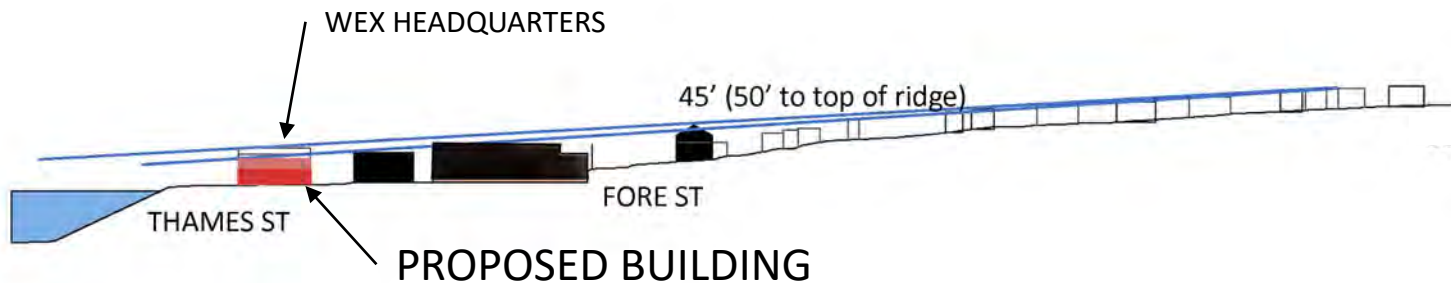
One element of the proposal worth addressing is the pedestrian footbridge spanning from the second level of the existing WEX Headquarters to the second level of the proposed building over the mouth of the Mountfort Extension. The Extension, at grade, is available for parking access to the lowest level of 100 Fore Street, deliveries, drop-offs and any other vehicular traffic into the site. It would also be used for bike access and additional foot traffic going into the site or passing through on the east-west axis. If office users add perpendicular traffic against what has already been described, it crowds the outdoor spaces and creates more dangerous movement patterns. In addition to this concern, it would be more appropriate to have interior access between the buildings in colder months and inclement weather. As shown below, the RFP includes a note about alternative approaches to permeability across the Mountfort Extension, which is exactly what is being proposed with the footbridge. In order to be as sensitive as possible to the view corridor, the bridge would be minimized in sectional depth and the glass would be clear so that it disappears as much as possible. Attention to multiple modes of traffic moving in different directions is an important part of both urban and campus design.

- **Future Possible Mountfort Street Extension Rights-of-Way.** Proposals should address the need for Mountfort Street Extension as a future public right-of-way to support proposed private investment on the City property, to provide for public space amenities and connectivity, along with all required utility easements and to fulfill the goals of the EWMP on the portion of City property located between Mountfort Street Extension and the New Connector Road. Alternative approaches to meeting the goals of permeability and accessibility across this block will be considered.

Stitching the City Together
Design Sensitive to Surroundings
Climate Change Resilient Design & Practices



EAST END SIGHT LINE DIAGRAM – DEMONSTRATES THAT PROPOSED STRUCTURE IS IN KEEPING WITH OR BELOW SIGHT LINES ALREADY CREATED BY EXISTING STRUCTURES FOR VIEWS FROM THE EAST END TO THE WATER



The design approach is to enhance the campus that has been started through the construction of the WEX headquarters and 100 Fore Street and tie the design to its surroundings. Certain elements clearly reference the existing buildings and therefore respect the views and access of its neighbors.

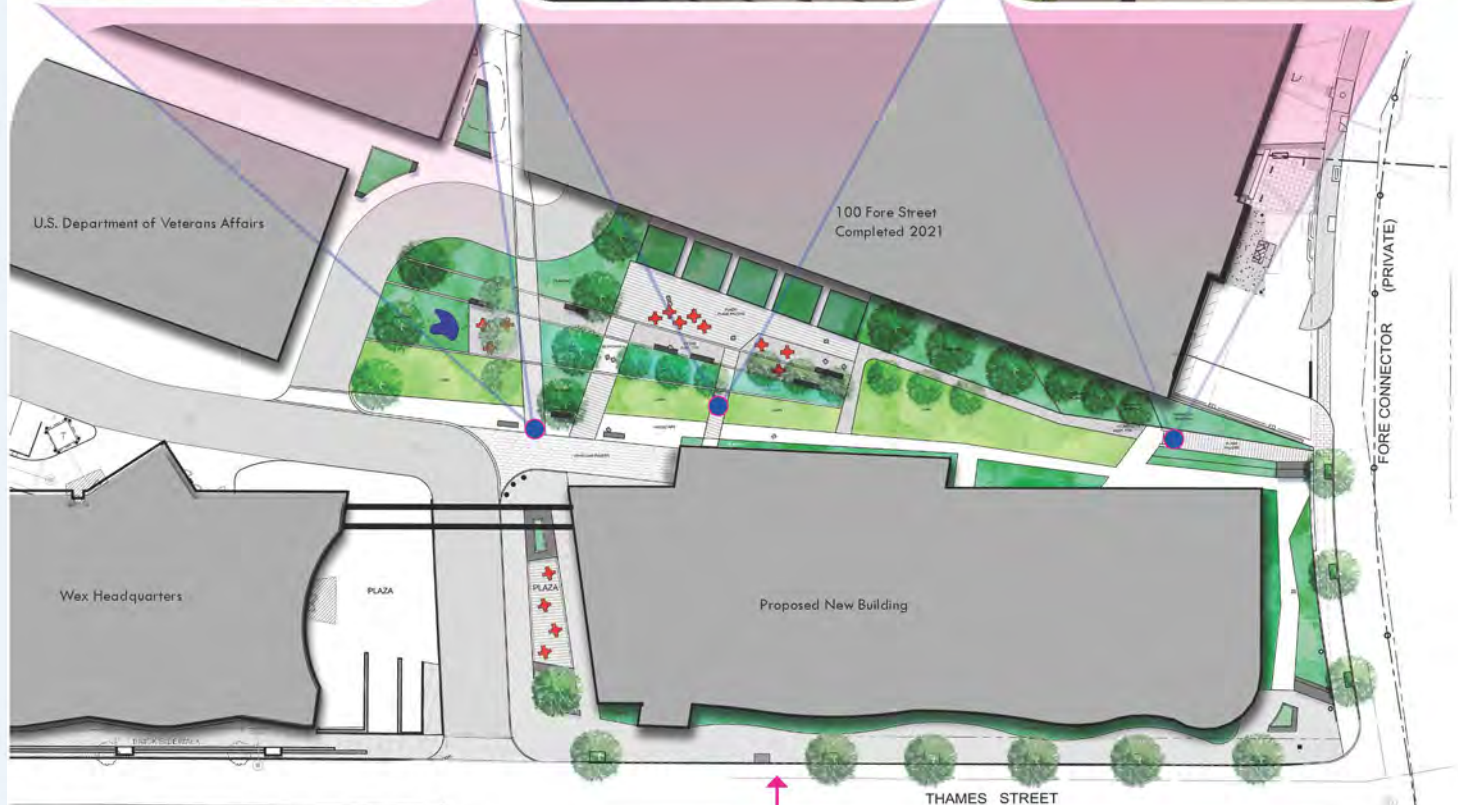
The material choices tie directly into the existing buildings of the campus while the building is responding formally to the specifics of the zoning, the relationship to the neighboring buildings and the uses inside.

This area within Portland has developed quickly in the past few years and contemporary architecture dominated by glass and steel has become a key part of the fabric. In keeping with A consistent material language such as the brick that ties the historic old port together, glass and steel are the language of the New Waterfront. The transparent and reflective qualities of glass create an interaction with the surroundings that tie into the goal of permeability and sensitivity to surroundings.

The design also creates a building that has distinct features allowing it to stand on its own visually and further the contemporary architectural style that has become part of the new waterfront within Portland.

Not only does the design respect the view corridors of the EWMP but by creating much of the 3rd level exterior as outdoor habitable space, and orienting the indoor portion of this level toward the south, the water views from the occupiable levels of buildings to the west are maintained.





Site Programming

35,000 SF of Open Space

25 + Street Trees & Under-story Trees

2 Preserved & Enhanced View Corridors

Public Plazas

Activated Sidewalks

Enhanced Connections to the Surrounding Amenities

Bioswales & Best Management Practices

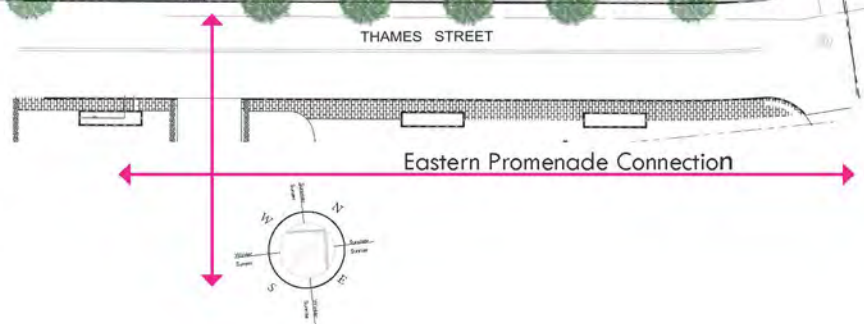
Open Space Connectivity & Pollinator Gardens

Incubator Shops

3 Potential Locations for Public Art

5 Preserved & Enhanced Gateway Connections & Future Connections

1 Site Design Integrating the key covenants of the EWMP



Stitching the City Together Design Sensitive to Surroundings Climate Change Resilient Design & Practices

Building Elements –

- LED light fixtures – minimal fixture use needed due to amount of glazing
- Automated light systems to prevent light usage when not required, and dimming based on natural light levels
- Automatic shades systems will balance the lighting with heating and cooling loads
- Curtainwall systems contain recycled content
- White EPDM roof on third story enclosed structure decreasing cooling loads
- Light colored roof deck pavers decrease cooling loads
- Keeping the project team local means commuting needs are greatly lowered during the design and construction process
- A Construction waste management plan will be in place
- Open concept structural and floor systems allow for space and usage flexibility with minimal waste and energy
- Building commissioning will be implemented
- Low flow plumbing fixtures to be installed
- Building level water metering to be incorporated
- Building level energy metering to be incorporated

Site Elements –

- Bike Parking and storage to encourage alternative commuting
- Parking provided in stacked garages owned by applicant reduce the users parking footprint
- Charging stations are available at 100 Fore garage for office users
- High ratio of pervious/planted surface
- Uses are a higher density and better use than the existing single level gravel parking lot
- Site location encourages foot and bike commuting

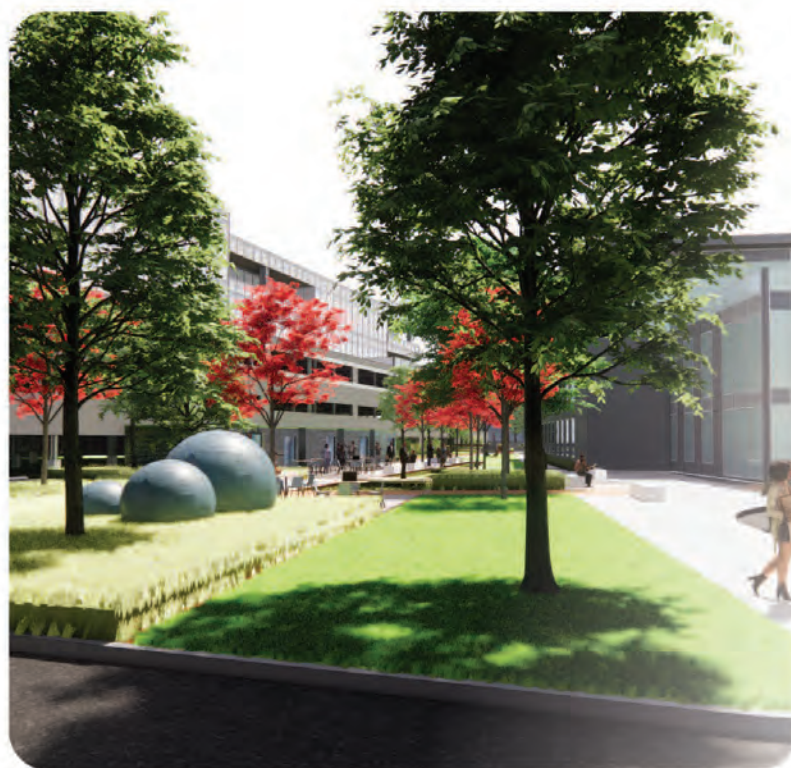
Office User Practices –

- Interiors designed to minimize energy consumption and reduce energy consumption
- In-office single stream recycling system will be implemented



Resilient Design Principles & Proposed Design Approach

1. Resilient systems provide for basic human needs
Design Approach:
 Provide safe accessible, clean and inclusive public space.
2. Locally available, renewable, or reclaimed resources are more resilient.
Design Approach:
 Source local durable materials and introduce reclaimed material where suitable.
3. Find and promote resilience in nature.
Design Approach:
 Integrate best management practices and low impact design methodologies.
4. Durability strengthens resilience
Design Approach:
 Model critical systems to withstand inundation and extreme weather.



5. Simple, passive, and flexible Systems are more resilient
Design Approach:
 Design with nature - mimic systems for stormwater that double as gathering nodes and place-making.

The applicant is offering \$35.00 per square foot for 24,000 SF equaling \$840,000.00 and in addition is proposing to hand over the ownership of the portion of the connector road currently under the applicant's ownership. Along with ownership of the road, the applicant will put in escrow, \$30,000 for the completion of the east sidewalk along the applicant-owned portion of the connector road in the spring as well as \$50,000 toward the city's installation of public restrooms on the Amethyst Park site.

A. NET PROPERTY TAX REVENUE

It is estimated that the new construction would provide \$170,000 in annual taxes for the City of Portland

B. PARKING

City Parking – Clarification – the city parking noted in the RFP was actually displaced during the construction of the WEX Headquarters and has already been relocated in the parking garages owned by the applicant.

For the existing parking lease agreement between the applicant and the city, a portion of which is shown on the next page, the applicant plans to amend the agreement to 25 spaces and allow that increase of 5 spaces to be 24 hours a day at the 167 Fore Street Ocean Gateway Garage.

**PARKING AGREEMENT BY AND BETWEEN
CITY OF PORTLAND
AND
100 Fore Street, LLC and 167 Fore Street LLC**

THIS AGREEMENT is made as of the ^{26th} ____ day of May, 2021, by and between the **CITY OF PORTLAND**, a municipal corporation with a mailing address of 389 Congress Street, Portland, Maine 04101 (hereinafter the "**CITY**") and **100 FORE STREET, LLC**, a Maine limited liability company doing business at 100 Fore Street in Portland, Maine (hereinafter "**100 FORE**") and **167 FORE STREET LLC**, a Maine limited liability company doing business at 167 Fore Street in Portland, Maine (hereinafter "**167 FORE**")

W I T N E S S E T H:

WHEREAS, 100 FORE is constructing and developing property located at 100 Fore Street in Portland, Maine pursuant to a site plan approved by the Portland Planning Board on January 8, 2019 and identified as a Project ID (the "100 FORE project"); and

WHEREAS, the 100 FORE project includes a 543-space parking garage with 16 traditional parking spaces located outside of the garage; and

WHEREAS, the Planning Board's approval of the 100 FORE project includes the following condition: "Parking garages (100 Fore Street and Ocean Gateway Garage) shall provide up to a combined total 20 municipal parking space, with 12 of those dedicated primarily for the use of the City of Portland Police Department, personal officer vehicles, at no cost to the City for five years. These spaces are to offset the loss of municipal parking in the area due to recent development projects;" and

WHEREAS, 167 FORE is an affiliated entity of 100 FORE and the owner of said Ocean Gateway Garage referenced above, which Garage contains 705 parking spaces; and



45

5. Proposers Proven Capacity and Relevant Experience

Development Team and Past Experience: Lead project developer and principal, Jonathan S. Cohen, was born and raised in Portland. He graduated from Deering High School and received his B.B.A. from The George Washington University. This project and similar projects are very important to Mr. Cohen as he believes strongly in creating as much opportunity as possible to keep Maine's talented youth in the state, and to create opportunities to attract talented employers and employees from other states.

Mr. Cohen is the President and CEO of AD&W, still Maine based, family owned, and the largest and oldest commercial installer and fabricator of storefront, curtain wall and commercial entrances north of Boston. Throughout Jonathan's 25+ years he has been involved with more than 6,300 construction projects, from design, budget, and construction through to completion, occupancy and sale or retention.

Mr. Cohen currently owns and manages more than 1,250,000 square feet of real estate in Maine. A few of Mr. Cohen's current projects underway include: the development of 52,000 square feet at Falmouth Center Falmouth, Maine; completion of a 84,000 square foot office building, approx. 5,000 sq ft of retail and 543 car garage at 100 Fore street Portland, Maine.

Mr. Cohen was also integral to the design, budget and construction of 167 Fore Street Portland, Maine Ocean Gateway Garage Offices, 1 Hancock Street Portland, Maine, Wex World Headquarters, 10 Exchange Street Portland, renovate and reopen 27 condominiums, 416-420 Fore street Portland, Maine, rehab and renovate 12,000 sq ft mixed use building.

Mr. Cohen has numerous financial institutions which have committed to working with him on this and any other project he wishes to undertake. Archetype will serve as the architect for this project, and the development team will include a Maine based GC or CM and almost all Maine Based trades..

Dan Smith/(SHP) Subsidized Housing Partners

1838 Sir Tyler Drive, Suite 210 • Wilmington NC 28405 • (910) 509-1781

Dan Smith is a principal of Subsidized Housing Partners (SHP) and SHP Management Corp. with offices in Cumberland Foreside, Maine and Wilmington, North Carolina. Dan is a graduate of Cheverus High School and attended The University of Southern Maine. Having grown up in Maine, Dan feels very strongly about creating opportunities for the next generation, and that is one of the reasons why he has turned his attention to Greater Portland. Dan has been active in various real estate deals for more than 30 years and is invested in over 7,500 units of affordable housing in Connecticut, Rhode Island, Maine, Massachusetts, Maryland, New York, and New Jersey and has strong bank relationships with many banks. No stranger to development, Dan has over 3,000 residential lots in development and an additional 1,000 apartment units under construction in North Carolina. Dan has various holdings including 270,000 square feet of Class A offices in Wilmington, NC.



EXHIBIT E
Freedom Way – Legal Description



September 21, 2022

FREEDOM WAY – THAMES STREET CONNECTOR DESCRIPTION
FOR 100 FORE STREET LLC

A CERTAIN LOT OR PARCEL OF LAND SITUATED ON THE SOUTHERLY SIDE OF FORE STREET IN THE CITY OF PORTLAND, COUNTY OF CUMBERLAND AND STATE OF MAINE, AS SHOWN ON PLAN TITLED "THAMES STREET CONNECTOR PROPOSED PUBLIC RIGHT-OF-WAY MADE FOR 100 FORE STREET LLC" BY GORRILL PALMER DATED JUNE 15, 2022, BOUNDED AND DESCRIBED AS FOLLOWS:

BEGINNING ON THE SOUTHEASTERLY SIDELINE OF FORE STREET AT THE NORTHWESTERLY CORNER OF LAND NOW OR FORMERLY OF PF LAND LLC AS DESCRIBED IN DEED BOOK 37397, PAGE 78, SAID POINT IS LOCATED N 76°26'28" E A DISTANCE OF 143.30 FEET FROM THE FOURTH ANGLE POINT IN FORE STREET LOCATED NORTHEASTERLY OF HANCOCK STREET;

THENCE, ALONG THE LAND ON SAID PF LAND LLC THE FOLLOWING COURSES AND DISTANCES:

ALONG A CURVE TO THE LEFT HAVING A RADIUS OF 274.33 FEET, AN ARC LENGTH OF 13.01 FEET, A CHORD BEARING OF S 20°51'48" E AND A CHORD DISTANCE OF 13.01 FEET;

ALONG A CURVE TO THE LEFT HAVING A RADIUS OF 370.24 FEET, AN ARC LENGTH OF 134.07, A CHORD BEARING OF S 32°11'34" E AND A CHORD LENGTH OF 133.34 FEET;

S 42°34'01" E A DISTANCE OF 68.76 FEET;

ALONG A CURVE TO THE LEFT HAVING A RADIUS OF 370.00 FEET, AN ARC LENGTH OF 13.77 FEET, A CHORD BEARING OF S 43°37'58" E AND A CHORD DISTANCE OF 13.77 FEET TO THE SOUTHERLY LINE OF THE GRANTORS AS DESCRIBED IN A DEED DATED JANUARY 6, 2017 AND RECORDED IN DEED BOOK 33748, PAGE 1 OF THE CUMBERLAND COUNTY REGISTRY OF DEEDS;

THENCE, S 66°39'58" W ALONG THE SOUTHERLY LINE OF THE SAID GRANTORS A DISTANCE OF 58.52 FEET;

THENCE, THE FOLLOWING COURSES AND DISTANCE THROUGH THE LAND OF THE SAID GRANTORS;

N 42°34'01" W A DISTANCE OF 63.24 FEET;

ALONG A CURVE TO THE RIGHT HAVING A RADIUS OF 425.24 FEET, AN ARC LENGTH OF 153.80, A CHORD BEARING OF N 32°12'20" W AND A CHORD DISTANCE OF 152.96 FEET;

ALONG A CURVE TO THE RIGHT HAVING A RADIUS OF 329.33 FEET, AN ARC LENGTH OF 21.14 FEET, A CHORD BEARING OF N 20°20'55" W AND A CHORD DISTANCE OF 21.14 FEET TO THE SOUTHERLY SIDELINE OF SAID FORE STREET;

THENCE, N 76°26'28" E ALONG THE SOUTHERLY SIDELINE OF FORE STREET A DISTANCE OF 55.25 FEET TO THE POINT OF BEGINNING, CONTAINING 12,863 S.F. OR 0.30 ACRES, MORE OR LESS.

BEARINGS ARE BASED ON MAINE STATE PLANE COORDINATE SYSTEM WEST ZONE NAD 83.

MEANING AND INTENDING TO CONVEY A PORTION OF LAND NOW OR FORMERLY OF 100 FORE STREET, LLC AS DESCRIBED IN A DEED DATED JANUARY 6, 2017 AND RECORDED IN DEED BOOK 33748, PAGE 1 OF THE CUMBERLAND COUNTY REGISTRY OF DEEDS.

EXHIBIT F
Hancock Street Easement

EASEMENT DEED

KNOW ALL PERSONS BY THESE PRESENTS, that **144 FORE ST. OZ LLC**, a Maine limited liability company having a mailing address of One Portland Square, Suite 6A, Portland, ME 04101 (“Grantor”) in consideration of One Dollar (\$1.00) and other valuable consideration paid by the **CITY OF PORTLAND**, a body politic and corporate with a mailing address of 389 Congress Street, Portland, Maine 04101 (“Grantee”), does hereby grant, with quitclaim covenants, to the said City of Portland the certain nonexclusive easements and rights of way described below, and on, over, under, through, and across the real property described in Exhibit A attached hereto and shown on the diagram attached hereto as Exhibit B (the “Easement Area”), both of which are incorporated herein by reference and made a part hereof, which Easement Area is a portion of Grantor’s real property described in a deed recorded in the Cumberland County Registry of Deeds in Book ___, Page ___ (the “Property”).

- 1) A public access easement, which shall be ADA compliant, to enter the Easement Area by pedestrians, bicycles, and other non-motorized pedestrian uses. Grantor, its successors and assigns shall be responsible for reasonable maintenance and repair, and all costs thereof, of the Easement Area, except to the extent that the need for such maintenance and repair is due to damage caused by Grantee. Grantor shall also be responsible for removal of snow and ice from the Easement Area and to otherwise comply with all laws, rules, regulations, and ordinances governing the removal of snow and ice. Notwithstanding the foregoing, Grantee shall have the right, but not the obligation, to maintain or repair the Easement Area, or to remove snow therefrom, when Grantee, in its sole discretion, deems such maintenance, repair or snow removal necessary to ensure public safety and Grantor has failed to perform the same within a reasonable time after notice from Grantee. Grantor shall reimburse Grantee for all reasonable costs incurred by Grantee in performing such maintenance or repair work within 30 days after Grantor’s receipt of demand from Grantee. Notwithstanding anything to the contrary in this paragraph, emergency vehicles as well as motorized snow removal vehicles and equipment shall be permitted in the Easement Area in accordance with applicable federal and/or state laws regulating accessibility for such devices, vehicles, or equipment.

- 2) An easement and right of way for the purpose of, and conveying the right, but not the obligation, to enter the Easement Area with workers, equipment, and vehicles, and to construct, install, and perpetually maintain on, under, through, and across the Easement Area, conduits and/or pipelines, together with all necessary fixtures and appurtenances, for retaining, channeling, or conveying storm water, sewer water, electricity, gas, communications, and other utilities; together with the right, but not the obligation, to lay, relay, replace, repair, maintain, clean, and remove said conduit and/or pipelines and related fixtures and appurtenances; together with the right, but not the obligation, at all times to make connections with said utility systems on land adjoining the Easement Area by means of pipes or other services; and together with the right, but not the obligation, to trim, cut down and remove trees, bushes, and other vegetation of all kinds, to remove debris and deposits of any kind to such extent as Grantee determines is reasonably necessary or appropriate for any of the above purposes; and to enter upon said Easement Area at any and all times for any of the foregoing purposes; provided, however, that Grantee, their successors and assigns, shall (i) give reasonable notice to Grantor, their heirs, successors and assigns, prior to each such entry onto the Easement Area, (ii) exercise their rights granted hereunder in a commercially reasonable manner, and (iii) restore the surface of the Easement Area as soon as practicable following each such entry to substantially the condition that existed thereon just prior to such entry.

The easements given herein are qualified by the following terms and conditions limiting or affecting the easement rights granted and created hereunder:

- a. The rights and easements granted herein shall be subject to the right of the Grantor to prohibit any noisome or offensive use that disturbs the peaceful enjoyment of the use of the Easement Area and the Property.
- b. Grantor may temporarily close public access to portions of the Easement Area in the event of unsafe conditions or for purposes of maintenance and repair, but only to the extent necessary to remedy such unsafe conditions or perform such maintenance or repairs.
- c. The consumption of alcoholic beverages by members of the general public shall not be permitted within the Easement Area, provided, however, that the foregoing prohibition on the consumption of alcoholic beverages shall not in any way apply to nor otherwise restrict the use of the Property, including the Easement Area, by any of Grantor's tenants and licensees and such tenants' and licensees' customers and guests, provided that such use does not unreasonably interfere with the Grantee's and public's rights described herein.
- d. The rights and easements granted herein shall be subject to Grantor's reservation of rights for Grantor to access, use and enjoy the Easement Area in any manner that shall not unreasonably interfere with the Grantee's and public's rights described herein, to improve the Easement Area in accordance with Grantor's development of its Property and the Planning Board approvals regarding the

same, and to install, use, maintain, and repair Grantor's fixtures, improvements, infrastructure and other utilities located or to be located within the Easement Area.

Grantor agrees not to use or permit any use, condition or state of disrepair in the Easement Area that would be contrary to or otherwise unreasonably interfere with the use of the Easement Area by the City and the public in the manner contemplated herein.

The public access easement granted herein is given for recreational use and the Grantor and Grantee claim the rights and protections against liability in accordance with Title 14 M.R.S. §159-A to the maximum extent permitted by law.

[End of Page / Signature Page Follows]

IN WITNESS WHEREOF, the said _____ has hereunto caused this instrument to be signed by _____, its _____, duly authorized, this _____ day of _____, 2023.

WITNESS:

GRANTOR

Print Name: _____
Its _____

STATE OF MAINE
CUMBERLAND, ss.

_____, 2023

Personally appeared the above-named _____ in their capacity as _____ of _____ and acknowledged the foregoing instrument to be their free act and deed and the free act and deed of _____.

Before me,

Notary Public/Attorney-at-Law

Print Name

Exhibit A



SEPTEMBER 21, 2022

10' WIDE PEDESTRIAN EASEMENT FROM
144 FORE STREET LLC TO CITY OF PORTLAND

A CERTAIN LOT OR PARCEL OF LAND SITUATED ON THE EASTERLY SIDE OF HANCOCK STREET IN THE CITY OF PORTLAND, COUNTY OF CUMBERLAND AND STATE OF MAINE, AS SHOWN ON PLAN TITLED "PROPOSED EASEMENTS COMMERCIAL OFFICE BUILDING THAMES STREET, PORTLAND, MAINE 144 FORE STREET, OZ, LLC" BY GORRILL PALMER DATED JULY, 2022, BOUNDED AND DESCRIBED AS FOLLOWS:

COMMENCING ON THE EASTERLY SIDELINE OF HANCOCK STREET AT THE FIRST POINT OF CURVATURE LOCATED SOUTHEASTERLY OF FORE STREET, SAID POINT OF CURVATURE IS WITNESSED BY A MONUMENT LOCATED ON A 3 FOOT OFFSET;

THENCE, S 53°47'21" E ALONG THE EASTERLY SIDELINE OF SAID HANCOCK STREET A DISTANCE OF 72.74 FEET TO THE POINT OF BEGINNING, SAID POINT OF BEGINNING IS LOCATED N 53°47'21" W A DISTANCE OF 19.09 FEET FROM THE MOST WESTERLY CORNER OF LAND NOW OR FORMERLY OF 0 HANCOCK STREET, LLC AS DESCRIBED IN A DEED DATED SEPTEMBER 28, 2017 AND RECORDED IN DEED BOOK 34347, PAGE 163, CUMBERLAND COUNTY REGISTRY OF DEEDS;

THENCE, FROM SAID POINT OF BEGINNING N 53°47'21" W CONTINUING ALONG THE EASTERLY SIDELINE OF SAID HANCOCK STREET A DISTANCE OF 10.00 FEET;

THENCE, THE FOLLOWING COURSES AND DISTANCES THROUGH THE LAND OF THE GRANTOR AS DESCRIBED IN A DEED DATED OCTOBER 20, 2021 AND RECORDED IN DEED BOOK 38799, PAGE 334, CUMBERLAND COUNTY REGISTRY OF DEEDS:

N 34°53'07" E A DISTANCE OF 62.08 FEET;
N 65°45'47" E A DISTANCE OF 135.06 FEET;
N 54°21'35" E A DISTANCE OF 185.69 FEET;
N 49°25'13" E A DISTANCE OF 100.31 FEET;
N 49°46'30" E A DISTANCE OF 104.38 FEET;

THENCE, N 51°40'13" E A DISTANCE OF 85.23 FEET TO LAND NOW OR FORMERLY THE CITY OF PORTLAND AS DESCRIBED IN DEED DATED AUGUST 30, 1993 AND RECORDED IN DEED BOOK 10924, PAGE 84;

THENCE, S 23°24'29" E ALONG THE LAND OF SAID CITY OF PORTLAND A DISTANCE OF 10.35 FEET TO A POINT THAT IS LOCATED N 23°24'29" W A DISTANCE OF 38.06 FROM THE EASTERLY CORNER OF LAND NOW OR FORMERLY OF THE SAID CITY OF PORTLAND;

THENCE, THE FOLLOWING COURSES AND DISTANCES THROUGH THE LAND OF THE SAID GRANTOR:

S 51°40'13" W A DISTANCE OF 82.40 FEET;
S 49°46'30" W A DISTANCE OF 104.18 FEET;
S 49°25'13" W A DISTANCE OF 100.71 FEET TO LAND NOW OR FORMERLY OF SAID O HANCOCK STREET, LLC;

THENCE, S 54°21'35" W ALONG LAND OF O HANCOCK STREET AND THROUGH THE LAND OF THE SAID GRANTOR A DISTANCE OF 187.12 FEET;

THENCE, S 65°45'47" W CONTINUING THROUGH THE LAND OF THE GRANTOR A DISTANCE OF 133.30 FEET;

THENCE, S 34°53'07" W CONTINUING THROUGH THE LAND OF THE GRANTOR A DISTANCE OF 59.55 FEET TO THE POINT OF BEGINNING, CONTAINING 6,700 S.F. OR 0.15 ACRES, MORE OR LESS.

BEARINGS ARE BASED ON MAINE STATE PLANE COORDINATE SYSTEM WEST ZONE NAD 83.



OWEN HASKELL, INC.

PROFESSIONAL LAND SURVEYORS

390 U.S. ROUTE ONE, UNIT 10 FALMOUTH, MAINE 04105

JULY 13, 2022

RETAINED EASEMENT BY CITY OF PORTLAND 944 SF

A CERTAIN LOT OR PARCEL OF LAND SITUATED ON THE WESTERLY SIDE OF THAMES STREET EXTENSION IN THE CITY OF PORTLAND, COUNTY OF CUMBERLAND AND STATE OF MAINE, AS SHOWN ON PLAN TITLED "PROPOSED EASEMENTS COMMERCIAL OFFICE BUILDING THAMES STREET, PORTLAND, MAINE 144 FORE STREET, OZ, LLC" BY GORRILL PALMER DATED JULY, 2022, BOUNDED AND DESCRIBED AS FOLLOWS:

BEGINNING AT THE SOUTHEASTERLY CORNER OF LAND NOW OR FORMERLY OF 100 FORE STREET LLC AS DESCRIBED IN DEED BOOK 33748, PAGE 1, AND ON THE LINE OF REMAINING LANDS OF THE CITY OF PORTLAND AS DESCRIBED IN A DEED DATED AUGUST 30, 1993 AND RECORDED IN DEED BOOK 10924, PAGE 84 AND ON THE SOUTHWESTERLY SIDELINE OF THE PROPOSED THAMES STREET EXTENSION AS SHOWN ON SAID "PROPOSED EASEMENTS" PLAN;

THENCE, S 42° 34' 01" E ALONG THE SOUTHWESTERLY SIDELINE OF SAID PROPOSED THAMES STREET EXTENSION A DISTANCE OF 5.51 FEET;

THENCE, CONTINUING ALONG THE SOUTHWESTERLY SIDELINE OF SAID PROPOSED THAMES STREET EXTENSION AND ALONG A TANGENT CURVE TO THE LEFT HAVING A RADIUS OF 425.00 FEET, AN ARC LENGTH OF 10.18 FEET;

THENCE, S 54° 38' 03" W THROUGH LAND OF THE CITY OF PORTLAND AS DESCRIBED IN A DEED DATED AUGUST 30, 1993 AND RECORDED IN DEED BOOK 10924, PAGE 84 A DISTANCE OF 61.78 FEET TO LAND NOW OR FORMERLY OF 144 FORE STREET LLC AS DESCRIBED IN DEED BOOK 38799, PAGE 334;

THENCE, N 23° 24' 29" W ALONG THE LAND OF SAID 144 FORE STREET LLC A DISTANCE OF 10.35 FEET;

THENCE, N 40° 02' 00" E THROUGH LAND OF SAID CITY OF PORTLAND 38.61 FEET TO LAND OF SAID 100 FORE STREET LLC;

THENCE, N 66° 39' 58" E ALONG 100 FORE STREET LLC A DISTANCE OF 20.64 FEET TO THE POINT OF BEGINNING CONTAINING 944 S.F. OR 0.02 ACRES, MORE OR LESS.

BEARINGS ARE BASED ON MAINE STATE PLANE COORDINATE SYSTEM WEST ZONE NAD 83.

EXHIBIT G
Thames Street Easement

EASEMENT DEED

KNOW ALL PERSONS BY THESE PRESENTS, that **144 FORE ST. OZ LLC**, a Maine limited liability company having a mailing address of One Portland Square, Suite 6A, Portland, ME 04101 (“Grantor”) in consideration of One Dollar (\$1.00) and other valuable consideration paid by the **CITY OF PORTLAND**, a body politic and corporate with a mailing address of 389 Congress Street, Portland, Maine 04101 (“Grantee”), does hereby grant, with quitclaim covenants, to the said City of Portland the certain nonexclusive easements and rights of way described below, and on, over, under, through, and across the real property described in Exhibit A attached hereto and shown on the diagram attached hereto as Exhibit B (the “Easement Area”), both of which are incorporated herein by reference and made a part hereof, which Easement Area is a portion of Grantor’s real property described in a deed recorded in the Cumberland County Registry of Deeds in Book ___, Page ___ (the “Property”).

- 1) A public access easement to enter the Easement Area, which shall be ADA compliant, by motor vehicles, pedestrians, bicycles, and other non-motorized pedestrian uses. Grantor, its successors and assigns shall be responsible for reasonable maintenance and repair, and all costs thereof, of the Easement Area, except to the extent that the need for such maintenance and repair is due to damage caused by Grantee. Grantor shall also be responsible for removal of snow and ice from the Easement Area and to otherwise comply with all laws, rules, regulations, and ordinances governing the removal of snow and ice. Notwithstanding the foregoing, Grantee shall have the right, but not the obligation, to maintain or repair the Easement Area, or to remove snow therefrom, when Grantee, in its sole discretion, deems such maintenance, repair or snow removal necessary to ensure public safety and Grantor has failed to perform the same within a reasonable time after notice from Grantee. Grantor shall reimburse Grantee for all reasonable costs incurred by Grantee in performing such maintenance or repair work within 30 days after Grantor’s receipt of demand from Grantee.
- 2) An easement and right of way for the purpose of, and conveying the right, but not the obligation, to enter the Easement Area with workers, equipment, and vehicles, and to construct, install, and perpetually maintain on, under, through,

and across the Easement Area, conduits and/or pipelines, together with all necessary fixtures and appurtenances, for retaining, channeling, or conveying storm water, sewer water, electricity, gas, communications, and other utilities; together with the right, but not the obligation, to lay, relay, replace, repair, maintain, clean, and remove said conduit and/or pipelines and related fixtures and appurtenances; together with the right, but not the obligation, at all times to make connections with said utility systems on land adjoining the Easement Area by means of pipes or other services; and together with the right, but not the obligation, to trim, cut down and remove trees, bushes, and other vegetation of all kinds, to remove debris and deposits of any kind to such extent as Grantee determines is reasonably necessary or appropriate for any of the above purposes; and to enter upon said Easement Area at any and all times for any of the foregoing purposes; provided, however, that Grantee, their successors and assigns, shall (i) give reasonable notice to Grantor, their heirs, successors and assigns, prior to each such entry onto the Easement Area, (ii) exercise their rights granted hereunder in a commercially reasonable manner, and (iii) restore the surface of the Easement Area as soon as practicable following each such entry to substantially the condition that existed thereon just prior to such entry.

The easements given herein are qualified by the following terms and conditions limiting or affecting the easement rights granted and created hereunder:

- a. The rights and easements granted herein shall be subject to the right of the Grantor to prohibit any noisome or offensive use that disturbs the peaceful enjoyment of the use of the Easement Area and the Property.
- b. Grantor may temporarily close public access to portions of the Easement Area in the event of unsafe conditions or for purposes of maintenance and repair, but only to the extent necessary to remedy such unsafe conditions or perform such maintenance or repairs.
- c. The consumption of alcoholic beverages by members of the general public shall not be permitted within the Easement Area, provided, however, that the foregoing prohibition on the consumption of alcoholic beverages shall not in any way apply to nor otherwise restrict the use of the Property, including the Easement Area, by any of Grantor's tenants and licensees and such tenants' and licensees' customers and guests, provided that such use does not unreasonably interfere with the Grantee's and public's rights described herein.
- d. The rights and easements granted herein shall be subject to Grantor's reservation of rights for Grantor to access, use and enjoy the Easement Area in any manner that shall not unreasonably interfere with the Grantee's and public's rights described herein, to improve the Easement Area in accordance with Grantor's development of its Property and the Planning Board approvals regarding the same, and to install, use, maintain, and repair Grantor's fixtures, improvements, infrastructure and other utilities located or to be located within the Easement Area.

Grantor agrees not to use or permit any use, condition or state of disrepair in the Easement Area that would be contrary to or otherwise unreasonably interfere with the use of the Easement Area by the City and the public in the manner contemplated herein.

The public access easement granted herein is given for recreational use and the Grantor and Grantee claim the rights and protections against liability in accordance with Title 14 M.R.S. §159-A to the maximum extent permitted by law.

[End of Page / Signature Page Follows]

IN WITNESS WHEREOF, the said _____ has hereunto caused this instrument to be signed by _____, its _____, duly authorized, this _____ day of _____, 2023.

WITNESS:

GRANTOR

Print Name: _____
Its _____

STATE OF MAINE
CUMBERLAND, ss.

_____, 2023

Personally appeared the above-named _____ in their capacity as _____ of _____ and acknowledged the foregoing instrument to be their free act and deed and the free act and deed of _____.

Before me,

Notary Public/Attorney-at-Law

Print Name

Exhibit A



JULY 13, 2022

VEHICULAR-PEDESTRIAN ACCESS EASEMENT FROM 144 FORE STREET LLC TO CITY OF
PORTLAND 3,820 SF

A CERTAIN LOT OR PARCEL OF LAND SITUATED ON THE NORTHERLY SIDE OF, BUT NOT ADJACENT TO THAMES STREET IN THE CITY OF PORTLAND, COUNTY OF CUMBERLAND AND STATE OF MAINE, AS SHOWN ON PLAN TITLED "PROPOSED EASEMENTS COMMERCIAL OFFICE BUILDING THAMES STREET, PORTLAND, MAINE 144 FORE STREET, OZ, LLC" BY GORRILL PALMER DATED JULY, 2022, BOUNDED AND DESCRIBED AS FOLLOWS:

COMMENCING ON THE NORTHERLY SIDELINE OF THAMES STREET AS ACCEPTED ON JANUARY 23, 2008 AT THE SOUTHEASTERLY CORNER OF LAND NOW OR FORMERLY OF 0 HANCOCK STREET LLC AS DESCRIBED IN DEED BOOK 34347, PAGE 163;

THENCE, N 45° 34' 01" W ALONG LAND OF SAID 0 HANCOCK STREET LLC A DISTANCE OF 118.44 FEET TO THE POINT OF BEGINNING AT LAND NOW OR FORMERLY OF 144 FORE STREET LLC AS DESCRIBED IN DEED BOOK 38799, PAGE 344;

THENCE, FROM SAID POINT OF BEGINNING N 44° 06' 45" W THROUGH LAND OF SAID 144 FORE STREET LLC A DISTANCE OF 99.80 FEET TO LAND NOW OR FORMERLY CITY OF PORTLAND AS DESCRIBED IN A DEED DATED AUGUST 30, 1993 AND RECORDED IN DEED BOOK 10924, PAGE 84 CUMBERLAND COUNTY REGISTRY OF DEEDS;

THENCE, N 66° 39' 04" E ALONG SAID CITY OF PORTLAND A DISTANCE OF 42.90 FEET;

THENCE, S 44° 08' 46" E THROUGH THE LAND OF SAID 144 FORE STREET LLC A DISTANCE OF 90.58 FEET TO LAND NOW OR FORMERLY OF SAID CITY OF PORTLAND;

THENCE, S 54° 21' 35" W ALONG LAND OF SAID CITY OF PORTLAND 40.61 FEET TO THE POINT OF BEGINNING. CONTAINING 3,820 S.F. OR 0.09 ACRES, MORE OR LESS.

BEARINGS ARE BASED ON MAINE STATE PLANE COORDINATE SYSTEM WEST ZONE NAD 83.

MEANING AND INTENDING TO CONVEY AN EASEMENT OVER, UNDER AND THROUGH A PORTION OF LAND NOW OR FORMERLY OF 144 FORE STREET, LLC AS DESCRIBED IN A DEED DATED OCTOBER 20, 2021 AND RECORDED IN DEED BOOK 38799, PAGE 334. SAID EASEMENT IS TO BE USED IN CONCERT WITH SEVERAL OTHER SURROUNDING AND ABUTTING EASEMENTS, BOTH EXISTING AND PROPOSED, THAT PROVIDE ACCESS TO NEARBY PUBLIC STREETS.



JULY 13, 2022

RETAINED EASEMENT BY CITY OF PORTLAND 677 SF

A CERTAIN LOT OR PARCEL OF LAND SITUATED ON THE NORTHERLY SIDE OF, BUT NOT ADJACENT TO THAMES STREET IN THE CITY OF PORTLAND, COUNTY OF CUMBERLAND AND STATE OF MAINE, AS SHOWN ON PLAN TITLED "PROPOSED EASEMENTS COMMERCIAL OFFICE BUILDING THAMES STREET, PORTLAND, MAINE 144 FORE STREET, OZ, LLC" BY GORRILL PALMER DATED JULY, 2022, BOUNDED AND DESCRIBED AS FOLLOWS:

COMMENCING ON THE NORTHERLY SIDELINE OF THAMES STREET AS ACCEPTED ON JANUARY 23, 2008 AT THE SOUTHEASTERLY CORNER OF LAND NOW OR FORMERLY OF O HANCOCK STREET LLC AS DESCRIBED IN DEED BOOK 34347, PAGE 163;

THENCE, N 45° 34' 01" W ALONG LAND OF SAID O HANCOCK STREET LLC A DISTANCE OF 118.44 FEET TO LAND NOW OR FORMERLY OF 144 FORE STREET LLC AS DESCRIBED IN DEED BOOK 38799, PAGE 334;

THENCE, N 44° 06' 45" W THROUGH LAND OF SAID 144 FORE STREET LLC A DISTANCE OF 99.80 FEET TO THE POINT OF BEGINNING AT LAND NOW OR FORMERLY CITY OF PORTLAND AS DESCRIBED IN DEED DATED AUGUST 30, 1993 AND RECORDED IN DEED BOOK 10924, PAGE 84, CUMBERLAND COUNTY REGISTRY OF DEEDS;

THENCE, FROM SAID POINT OF BEGINNING N 44° 06' 45" W THROUGH SAID LAND OF CITY OF PORTLAND A DISTANCE OF 16.89 FEET TO LAND NOW OR FORMERLY OF 100 FORE STREET LLC AS DESCRIBED IN DEED BOOK 33748, PAGE 1;

THENCE, N 66° 39' 58" E ALONG THE LAND OF SAID 100 FORE STREET LLC A DISTANCE OF 42.89 FEET;

THENCE, S 44° 08' 46" E THROUGH LAND OF SAID CITY OF PORTLAND 16.89 FEET TO LAND OF SAID 144 FORE STREET LLC ;

THENCE, S 66° 39' 04" W ALONG LAND OF 144 FORE STREET LLC A DISTANCE OF 42.90 FEET TO THE POINT OF BEGINNING CONTAINING 677 S.F. OR 0.02 ACRES, MORE OR LESS.

BEARINGS ARE BASED ON MAINE STATE PLANE COORDINATE SYSTEM WEST ZONE NAD 83.



JULY 13, 2022

RETAINED EASEMENT BY CITY OF PORTLAND 4,640 SF

A CERTAIN LOT OR PARCEL OF LAND SITUATED ON THE NORTHERLY SIDE OF THAMES STREET IN THE CITY OF PORTLAND, COUNTY OF CUMBERLAND AND STATE OF MAINE, AS SHOWN ON PLAN TITLED "PROPOSED EASEMENTS COMMERCIAL OFFICE BUILDING THAMES STREET, PORTLAND, MAINE 144 FORE STREET, OZ, LLC" BY GORRILL PALMER DATED JULY, 2022, BOUNDED AND DESCRIBED AS FOLLOWS:

BEGINNING ON THE NORTHERLY SIDELINE OF THAMES STREET AS ACCEPTED ON JANUARY 23, 2008 AT THE SOUTHEASTERLY CORNER OF LAND NOW OR FORMERLY OF 0 HANCOCK STREET LLC AS DESCRIBED IN DEED BOOK 34347, PAGE 163;

THENCE, N 45° 34' 01" W ALONG LAND OF SAID 0 HANCOCK STREET LLC A DISTANCE OF 118.44 FEET TO LAND NOW OR FORMERLY OF 144 FORE STREET LLC AS DESCRIBED IN DEED BOOK 38799, PAGE 334;

THENCE, N 54° 21' 35" E ALONG LAND OF SAID 144 FORE STREET LLC A DISTANCE OF 40.61 FEET;

THENCE, S 45° 34' 01" E THROUGH LAND OF SAID CITY OF PORTLAND A DISTANCE OF 113.57 FEET TO THE NORTHERLY SIDELINE OF SAID THAMES STREET;

THENCE, S 47° 28' 43" W ALONG THE NORTHERLY SIDELINE OF SAID THAMES STREET A DISTANCE OF 40.06 FEET TO THE POINT OF BEGINNING, CONTAINING 4,640 S.F. OR 0.11 ACRES, MORE OR LESS.

BEARINGS ARE BASED ON MAINE STATE PLANE COORDINATE SYSTEM WEST ZONE NAD 83.

EXHIBIT H
Form of Amendment to the Parking Agreement

**FIRST AMENDMENT
TO
PARKING AGREEMENT**

THIS FIRST AMENDMENT TO PARKING AGREEMENT is made as of the ____ day of _____, 2023, by and between the CITY OF PORTLAND, a Maine municipal corporation with a place of business in Portland, Maine and mailing address of 389 Congress Street, Portland, Maine 04101 ("City") and 100 FORE STREET, LLC, a Maine limited liability company doing business at 100 Fore Street in Portland, Maine (hereinafter "100 FORE") and 167 FORE STREET LLC, a Maine limited liability company doing business at 167 Fore Street in Portland, Maine (hereinafter "167 FORE")

WITNESSETH:

WHEREAS, City, 100 FORE and 167 FORE entered into a certain Parking Agreement dated May 26, 2021 (the "Agreement") with respect to the City's use of parking spaces at the 100 FORE GARAGE and the 167 FORE GARAGE; and

WHEREAS, City and Licensee wish to amend the Agreement in order to extend its term and increase the number of parking spaces provided to the City as provided herein:

NOW, THEREFORE, in consideration of the foregoing and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the parties hereby agree as follows:

1. Unless otherwise defined in this Amendment, capitalized terms used in this Amendment have the same meaning as those terms have in the Agreement.
2. In section 1 of the Agreement, "twenty (20)" is hereby deleted and replaced with "twenty-five (25)," meaning and intending to increase the number of Parking Spaces provided to the City under the Agreement from 20 to 25.
3. Section 2 of the Agreement is hereby deleted in its entirety and replaced with the following:

"This Agreement shall be effective as of the date the 100 FORE GARAGE opens for business and shall continue until _____, 20__, unless earlier terminated as outlined herein." *[insert date that is 4 years after the closing of the Purchase and Sale Agreement between the City and 144 Fore St. OZ LLC]*.

4. Any and all terms of the Agreement not herein amended shall remain in full force and effect for the duration of the Agreement as amended hereby and are hereby ratified. In the event of any conflict between the terms of this Amendment and the terms of the

Agreement and any exhibits thereto, the terms of this Amendment shall govern and control so long as this Amendment is in effect.

IN WITNESS WHEREOF, the parties have caused this Amendment to be executed by their duly authorized representatives as of the date first set forth above.

WITNESS:

CITY OF PORTLAND

By: _____
Danielle P. West
Its Interim City Manager

WITNESS:

100 FORE STREET LLC

By: _____
Jonathan Cohen
Its: Manager

WITNESS:

167 FORE STREET LLC

By: _____
Jonathan Cohen
Its: Manager

EXHIBIT I
Copy of Parking Agreement

**PARKING AGREEMENT BY AND BETWEEN
CITY OF PORTLAND
AND
100 Fore Street, LLC and 167 Fore Street LLC**

THIS AGREEMENT is made as of the ^{26th} ____ day of May, 2021, by and between the **CITY OF PORTLAND**, a municipal corporation with a mailing address of 389 Congress Street, Portland, Maine 04101 (hereinafter the "**CITY**") and **100 FORE STREET, LLC**, a Maine limited liability company doing business at 100 Fore Street in Portland, Maine (hereinafter "**100 FORE**") and **167 FORE STREET LLC**, a Maine limited liability company doing business at 167 Fore Street in Portland, Maine (hereinafter "**167 FORE**")

W I T N E S S E T H:

WHEREAS, 100 FORE is constructing and developing property located at 100 Fore Street in Portland, Maine pursuant to a site plan approved by the Portland Planning Board on January 8, 2019 and identified as a Project ID (the "100 FORE project"); and

WHEREAS, the 100 FORE project includes a 543-space parking garage with 16 traditional parking spaces located outside of the garage; and

WHEREAS, the Planning Board's approval of the 100 FORE project includes the following condition: "Parking garages (100 Fore Street and Ocean Gateway Garage) shall provide up to a combined total 20 municipal parking space, with 12 of those dedicated primarily for the use of the City of Portland Police Department, personal officer vehicles, at no cost to the City for five years. These spaces are to offset the loss of municipal parking in the area due to recent development projects;" and

WHEREAS, 167 FORE is an affiliated entity of 100 FORE and the owner of said Ocean Gateway Garage referenced above, which Garage contains 705 parking spaces; and

A handwritten signature in black ink, consisting of a large, stylized 'G' followed by a series of loops and a final horizontal stroke.

NOW THEREFORE, for valuable consideration, the receipt and sufficiency of which is hereby acknowledged, **100 FORE** and **167 FORE** agree to provide parking to **CITY** on the following terms:

1. Spaces

100 FORE AND 167 FORE shall provide the **CITY** with twenty (20) parking spaces for the exclusive use by **CITY** employees (the "City Parking Spaces") pursuant to the terms and conditions of this Agreement. The City Parking Spaces will be located in the garage located at 100 Fore Street ("100 FORE GARAGE") and constructed as part of the 100 FORE project and/or at the garage located at 167 Fore Street known as said Ocean Gateway Garage referenced above ("167 FORE GARAGE") (collectively "**GARAGES**"). The City Parking Spaces will not be assigned or reserved for the exclusive use by **CITY**. The **CITY** and/or its employees will be permitted to access and utilize the City Parking Spaces using an EZPass or Proximity Card (up to a limit of twenty (20)) purchased by **CITY** at its expense for use with the FlashTM Parking Systems in the **GARAGES**. Consistent with its management practices and leasing arrangements with other long term parking tenants at the **GARAGES**, **100 FORE** reserves the right to shift the **CITY** spaces between **GARAGES**, during the Agreement term. **CITY** shall distribute and assign parking passes for access to the City Parking Spaces to **CITY** employees as it sees fit and in its sole discretion but will ensure that parking passes for fourteen (14) of the City Parking Spaces are distributed for the exclusive use of the Portland Police Department.

2. Term

This Agreement shall be effective as of the date the 100 FORE GARAGE opens for business and shall continue for a period of five (5) years, unless earlier terminated as outlined herein.

3. Rent

During the term of this Agreement, **100 FORE** and **167 FORE** agree to provide the City Parking Spaces to **CITY** at no charge, except that **CITY** and/or its employees shall be responsible for the cost and replacement of any parking pass or card issued by **100 FORE** and **167 FORE**, its agents or assigns for access to and use of the City Parking Spaces and **GARAGES**. The price



charged to and paid by **CITY** for parking passes or cards providing access to the City Parking Spaces and the **GARAGES** pursuant to this Agreement shall be the same price charged to all other holders of parking passes to the **GARAGES**.

4. Purposes

CITY shall use the City Parking Spaces solely for the parking of vehicles for its employees for the duration of this Agreement and for no other purpose. **CITY** employees will abide by the rules and regulations of the **GARAGES** as outlined in the registration form attached hereto as **Attachment A**. A failure of any **CITY** employee to abide by such rules and regulations shall be a default hereunder and in the event such employee fails to remedy such default within twenty-four (24) hours of receipt of notice of the same from **100 FORE**, **167 FORE** and/or the manager of the **GARAGES**, then, in the case of the foregoing, **100 FORE**, **167 FORE**, as the case may be, shall have the right to terminate such employee's parking rights pursuant to this Agreement. Overnight parking in the City Parking Spaces by no more than six (6) **CITY** card holders, which may include **CITY** police officers, will be allowed in the 167 FORE GARAGE but not in the 100 FORE GARAGE.

5. Assignment

This Agreement may not be assigned without all parties' prior written consent.

6. Termination

CITY party may terminate this Agreement with or without cause at any time upon prior written notice to **100 FORE** and **167 FORE**.

7. Default

In the event that **100 FORE** and **167 FORE** shall be in default of any term or condition herein agreed to, such violations may be deemed a violation of the Site Plan Approval granted to **100 FORE** by the Portland Planning Board dated January 8, 2019 and subject to enforcement action and the imposition of penalties pursuant to 30-A M.R.S. 4452.



8. Notices

Any notices which are required hereunder, or which either **100 FORE** and **167 FORE** or **CITY** may desire to serve upon the other shall be in writing and shall be deemed served when delivered personally, or when deposited in the United States mail, postage pre-paid, return receipt requested, addressed to **100 FORE** and **167 FORE** at P.O. Box 910 Westbrook, Me 04098-0910 or addressed to **CITY** at City Manager, 389 Congress Street, Portland, ME 04101 with a copy to John Peverada, Parking Manager.

9. Waiver

Waiver by either party of any default in performance by the other of any of the terms, covenants, or conditions contained herein, shall not be deemed a continuing waiver of the same or any subsequent default herein.

10. Compliance with Laws

This Agreement shall be construed in all respects in accordance with, and governed by, the laws of the State of Maine. All parties hereto hereby consent to the exclusive jurisdiction of the Superior Court for the County of Cumberland in the State of Maine, for all actions, proceedings and litigation arising from or relating directly or indirectly to this Agreement or any of the obligations hereunder, and any dispute not otherwise resolved as provided herein shall be litigated solely in said Court.

11. Counterparts

This Agreement may be executed in any number of counterparts and by different parties in separate counterparts. Each counterpart when so executed shall be deemed to be an original and all of which together shall constitute one and the same agreement. A signature in a pdf or electronic document shall be considered the equivalent of an original signature.

IN WITNESS WHEREOF, the said **CITY OF PORTLAND** has caused this Parking Agreement to be signed in its corporate name and sealed with its corporate seal by Jon P. Jennings,



its City Manager, thereunto duly authorized, **100 FORE STREET, LLC** has caused this Parking Agreement to be signed by Jonathan Cohen, Manager, thereunto duly authorized, and **167 FORE STREET LLC** has caused this Parking Agreement to be signed by Jonathan Cohen, Manager, as of the day and date first set forth above.

[SIGNATURES ON FOLLOWING PAGE]

A handwritten signature in black ink, appearing to be "Jre" or similar, located in the bottom right corner of the page.

WITNESS:

CITY OF PORTLAND

DocuSigned by:

By: _____

Jon P. Jennings

4F521A7E920344B

Jon P. Jennings

City Manager

WITNESS:

100 FORE STREET, LLC

By: _____

Jonathan Cohen

Name: Jonathan Cohen

Its: Manager

WITNESS:

167 FORE STREET LLC

By: _____

Jonathan Cohen

Name: Jonathan Cohen

Its: Manager

Attachment A

[See Attached Card Holder Agreement and Rules and Regulations for the GARAGES]



167 Fore Street, LLC Unified Parking Partners Ocean Gateway Parking Garage Card # _____

AGREEMENT for MONTHLY PARKING – Terms and Conditions

Unified Parking Partners (UPP), managing agent of the Ocean Gateway Parking Garage (OGG), and the undersigned cardholder (Account Holder), hereby agree that the Account Holder may use the OGG on an unreserved basis subject to the following terms and conditions:

1. UPP manages the garage. Any questions concerning billing, new cards, etc., should be directed to the garage management at (207) 747-4230 or emailed to ogg@unifiedparkingpartners.com
2. Monthly Parking fees are **DUE IN ADVANCE**, without notice, on the **FIRST DAY OF EACH MONTH**. A **5% LATE FEE** will be charged if the parking fee is not paid by the fifth day of the month. Checks returned for insufficient funds will incur a fee of \$35.00. A month is defined as the 1st day of a calendar month through and including the last day of a calendar month.
3. WE ACCEPT CHECKS OR CREDIT CARDS. Checks must include your garage in the memo line, include the account holder's name, and be made payable to Unified Parking Partners and mailed to Unified Parking Partners 496 Congress St. Suite 3, Portland, ME 04101.
4. OWNERS PARK AT THEIR OWN RISK. UPP will not be liable for any destruction, loss or damage to the Owner's vehicle or any other property or for any injury to the owner or any other person resulting from use of the garage.
5. The card issued to the undersigned is solely for that persons' use. Any card used by persons other than agreed may be revoked. This agreement may be terminated 30 days before the first of the month by the Account Holder by returning the card and a filling out cancellation form to the UPP management office located on the third floor of the corporate office or by UPP at any time. Parking may be terminated immediately by UPP if Account Holder is found in violation of the terms of this Agreement. This Agreement is immediately terminated if the Account Holder leaves the firm listed below and the card is not transferred, with permission of UPP, to someone else in the firm.
6. The Parking garage is not to be used as storage. Any vehicle which has remained parked for more than 5 parking days without permission of UPP will be considered stored and may be towed at Owner's expense.
7. Parking cards are very fragile. Please handle them with care and avoid heat or cold as they may warp and crack. Lost cards must be reported immediately. Lost cards will be replaced at a cost of \$35.00. The \$35.00 fee must be paid when the replacement card is picked up. If the card is broken, all pieces of the broken card must be returned.
8. By accepting a card, the Account Holder agrees to be responsible for adhering to these policies. This contract remains in effect if the original card has been replaced due to loss or breakage, or upon transfer of the card within the firm.
9. \$25.00 Card Activation Fee and First Month's rent of \$182.00 must be paid when this contract is completed and submitted.
10. UPP holds the right to terminate this agreement as well as increase the monthly fee by giving a 30 day notice.

Unified Parking Partners does not divulge personal information. We collect the following as contact information in case of emergency.

Name: _____

Email (contact and/or billing): _____

Phone: _____

Organization (if applicable): _____

Year/Make/Model: _____

Plate#/State/Color _____

ACCOUNT HOLDER OR ITS REPRESENTATIVE HEREBY ACKNOWLEDGES AND AGREES TO THE ABOVE TERMS AND CONDITIONS AND RETAINS ONE COPY OF THIS AGREEMENT:

Signature: Date:

Your safety is our top priority and we appreciate your cooperation. If you have any questions or comments regarding any of the above-mentioned rules, please don't hesitate to contact our corporate office at **207-747-4230**

Unified Parking Partners management will never divulge personal information. We collect the following as contact information in case of emergency.

Cardholder Information

Parker Name(please print): _____
 Daytime Phone: _____
 Daytime Email: _____
 Work Phone: _____
 Employer: _____
 Last 7 digits of EZPASS: _____

Account Information

Billing Name: _____
 Billing Address: _____
 City/State/Zip: _____
 Billing Phone: _____
 Billing email: _____
 Contact Name: _____
 Parking Start Date: _____

Vehicle Information: Please enter information for every vehicle (if more than one) that you drive.

Vehicle Information:

Make _____
 Model _____
 Color _____
 State _____
 Plate no _____

Vehicle Information

Make _____
 Model _____
 Color _____
 State _____
 Plate no. _____

ACCOUNT HOLDER OR ITS REPRESENTATIVE HEREBY ACKNOWLEDGES AND AGREES TO THE ABOVE TERMS AND CONDITIONS AND RETAINS ONE COPY OF THIS AGREEMENT:

Signature: _____

Date: _____

**167 FORE ST
COVETRUS**

Ocean Gateway Garage

Card # _____

OCEAN GATEWAY GARAGE PARKING AGREEMENT

Unified Parking Partners (UPP), managing agent of the Ocean Gateway Garage, and the undersigned cardholder (Owner), hereby agree that the undersigned may use the Ocean Gateway Garage on an unreserved basis, subject to the following terms and conditions:

1. Unified Parking Partners manages the garage. Any questions concerning billing, new cards, etc., should be directed to the garage management at (207) 747-4230 or emailed to karla@unifiedparkingpartners.com
2. Monthly Parking fees are **DUE IN ADVANCE**, without notice on the **FIRST DAY OF EACH MONTH**. A **5% LATE FEE** will be charged if the parking fee is not paid by the first day of the month. Checks returned for insufficient funds will incur a fee of \$25.00. A month is defined as the 1st day of a calendar month through and including the last day of a calendar month. Cards will be shut off on or before the 5th of the month if payment is not received. If payment is not received by the 5th of each month the parking card will be deactivated. The easiest way to avoid late fees or deactivation is to fill out our credit card authorization form.
3. Reserved spaces are for authorized parkers only. Any unauthorized person who parks in a reserved space is subject to towing at the vehicle owner's expense.
4. All reserved spaces are billed at double the posted rate. The posted rate can be found in the first-floor lobby office. This rate is subject to change 30 days' notice.
5. **WE ACCEPT CHECK OR CREDIT CARD for initial payment. Checks must be made payable to: Unified Parking Partners LLC.** All future payments must be made by submitting credit card information to be held on file and billed recurring each month.
6. **OWNERS PARK AT THEIR OWN RISK.** Neither Unified Parking Partners, nor 167 Fore Street LLC will be liable for any destruction, loss or damage to Owner's vehicle or any other property or for any injury to owner or any other person resulting from the use of the garage.
7. The card issued to the undersigned is solely for that person's use. Any card used by persons other than agreed may be revoked. This agreement may be terminated by ACCOUNT HOLDER returning card to the UPP management office located on the ground floor of the garage, on the last business day of any month or by UPP giving 30-day notice in writing to Account Holder. Garage management and ownership reserve the right to terminate or limit access to the parking garage at any time.
8. The speed limit in the parking garage is 5 mph.
9. If you are storing a vehicle in the garage for longer than 48hrs, then we ask you contact garage management via email and identify the owner, vehicle information and the reason why it is being stored.
10. There are trash barrels on each level of the garage. Please be courteous to your neighbors and do not litter. The garage staff appreciates your assistance in this matter.
11. Remember to lock your vehicles. Unified Parking Partners and garage ownership are not liable for stolen, damaged or lost items.
12. Vandalism of any type will not be tolerated in the garage. Anyone found in violation of this will be subject to immediate eviction.
13. All vehicles driving in the garage must use their headlights. This is for both your safety and others.
14. Parking cards are very fragile. Please handle them with care and avoid heat or cold, as they warp and crack. Lost cards must be reported immediately. Lost cards will be replaced at a cost of \$35.00. **The \$35.00 fee must be paid when the replacement card is picked up.** All pieces of broken card must be returned.
15. By accepting a card, user agrees to be responsible for adhering to these policies. This contract remains in effect if the original card has been replaced due to loss or breakage, or upon transfer of the card within the firm.
16. There is a \$25.00 card activation fee due with first month's rent must be paid when this contract is completed and submitted.
17. When exiting the garage please be mindful of pedestrians crossing on the sidewalk, use caution and drive slowly.
18. Please contact the garage Manager On Duty at 207-712-1235 if you are unable to find a parking space or notice any issues of concern within the parking garage.
19. Everyone is required to park in one space. Please be mindful of others and park between the lines.
20. Please back into parking spaces when possible. This ensures the safety of all parties while exiting the garage.
21. While driving in the garage, please stay to the right. DO NOT drive in the center of the drive lane.
22. A copy of each monthly parker/lease holder vehicle registration **MUST** be submitted to garage management.

Excluded and Prohibited from the garage

- Parking in **Any** designated restricted areas
- Vehicle without current state registration/plates or inspection stickers
- Vehicle repairs (exceptions: AAA flat tires/batteries)
- Motorcycles/mopeds/bicycles/scooters & related
- Skateboards/rollerblades/roller-skates /Segway's
- Drug and/or alcohol consumption
- Propane tanks
- Loitering/soliciting/ pan-handling, etc.



CONSUMER / BUSINESS AUTHORIZATION FOR DIRECT PAYMENT VIA Credit Card / Debit Card Parking

Location: _____

Direct Payment via credit/debit card is the transfer of funds from a consumer account for the purpose of making a payment. I (we) authorize Unified Parking Partners to electronically debit my (our) account (And, if necessary, electronically credit my (our) account to correct erroneous debits¹) as follows:

Credit/Debit Card Information:

Name on Card: _____

Credit Card No. _____

Billing Address: _____

Expiration Date: _____

CVV: _____

I authorize electronic debit / credits to the depository financial institution named below ("DEPOSITORY"). I (we) agree that credit transactions I (we) authorize comply with all applicable law.

Date(s) and/or frequency of debit(s):

Recurring monthly One Time Payment

Number of Months _____ Dollar Amount Authorized _____ (please enter the monthly invoiced amount) I

(we) understand that this authorization will remain in full force and effect until I (we) notify Unified Parking Partners

In writing, by mail at 496 Congress Street Suite 2B Portland, Maine 04101, that I (we) wish to revoke this authorization. I (we) understand that Unified Parking Partners requires at least 30 days prior notice in order to cancel this authorization.

Name(s)

_____ (Please

Print)

Date _____ Signature(s) _____

EXHIBIT J
Form of City License Agreement

**CITY OF PORTLAND
LICENSE AGREEMENT
144 FORE ST. OZ LLC**

This License Agreement is made as of this ____ day of _____, 2023, by and between the **CITY OF PORTLAND**, a body politic and corporate, located in Cumberland County, State of Maine (hereinafter the "**CITY**"), **144 FORE ST. OZ LLC**, a Maine limited liability company having a mailing address of One Portland Square, Suite 6A, Portland, ME 04101 ("**LICENSEE**").

RECITALS

WHEREAS, CITY and LICENSEE are parties to a certain Purchase and Sale Agreement dated March ____, 2023 (the "P&S") pursuant to which LICENSEE must construct a brick sidewalk (the "New Sidewalk"), along certain portions of Thames Street, and certain property known as the Connector Road and Freedom Way as more fully described in the P&S; and

WHEREAS, upon the closing of the P&S, the CITY will own all of the land upon which LICENSEE must construct the New Sidewalk (said land is referred to herein as the "Licensed Area") as depicted on the Easement Overlay Plan that is attached hereto as Exhibit A and made a part hereof; and

WHEREAS, LICENSEE has requested that the CITY allow it to enter onto the Licensed Area with workers, equipment, and materials to use the Licensed Area as a laydown area and to construct the New Sidewalk;

WHEREAS, after due consideration, the CITY has agreed to provide the LICENSEE with this License Agreement.

NOW, THEREFORE, in consideration of the foregoing and subject to the covenants and conditions herein contained, the CITY hereby grants to LICENSEE the following rights in and to the Licensed Area:

1. License. A license to enter in, on and over the Licensed Area with workers, materials, and equipment, on the terms and conditions set forth herein, to use the Licensed Area to construct the New Sidewalk in accordance with the provisions of the P&S and use the Licensed Area as a laydown area for the construction of the New Sidewalk. LICENSEE shall not place or store any hazardous materials on the Licensed Area. Upon completion and acceptance of the New

Sidewalk by the CITY, title to the New Sidewalk shall automatically vest in the City of Portland without the need for a bill of sale or any other conveyance documents. LICENSEE shall not use the Licensed Area for any use other than those specified in this License without the CITY's prior written approval. LICENSEE represents and warrants that it is the owner of the Licensee Property.

2. Rent. There shall be no rent for LICENSEE's use of the Licensed Area.

3. Term; Revocable License. The term of this License shall commence on the date first set forth above (the "Effective Date") and terminate on _____. This License is revocable by the CITY with or without cause upon ten (10) days' notice to LICENSEE. However, if said revocation is due to LICENSEE's failure to comply with any provisions of this License, CITY may revoke this License immediately.

4. Trash Removal. LICENSEE shall be responsible for the disposal of all trash generated by it on the Licensed Area.

5. Compliance with laws: LICENSEE agrees to comply with all applicable laws and regulations in its operations hereunder, including but not limited to all applicable federal, state and local environmental law and regulations, including without limitation all laws and regulations governing hazardous substances, with respect to all its activities on the Licensed Area, and to conduct all its activities on the Licensed Area in a safe, responsible, reasonable and business-like manner.

6. Indemnification: To the fullest extent permitted by law, LICENSEE shall defend, indemnify and hold the CITY, its officers, agents and employees, harmless at all times from any claims, liability, losses, costs, expenses (including, without limitation, reasonable attorney's fees) fines, damages or judgments, just or unjust, that arise out of or are caused by the any act or omission of LICENSEE, its partners or members, agents, invitees, contractors, subcontractors, or employees, which claims arise out of or result from the activities hereunder, said claims to include, without being limited to, claims for personal injury, death, or property damage, including injury or damage to City employees or property; and claims based upon violation of any environmental law or regulation governing hazardous substances. LICENSEE's obligations under this paragraph shall survive the termination of this License.

7. Insurance. Prior to the execution of this Agreement, the LICENSEE will procure and maintain:

- Occurrence based Commercial General Liability Insurance coverage in amounts of not less than One Million Dollars (\$1,000,000.00) per occurrence for bodily injury, death and property damage;
- Occurrence-based Automobile Liability Insurance coverage in amounts of not less than One Million Dollars (\$1,000,000.00) per occurrence for bodily injury, death and property damage;

- Workers' Compensation Insurance coverage to the extent required by law, which shall include an endorsement waiving all rights of subrogation against the City of Portland, its officers or employees;

With respect to the Automobile and Commercial General Liability Insurance, the LICENSEE shall name the CITY as an additional insured for coverage only in those areas where government immunity has been expressly waived, including, without limitation, as set forth in 14 M.R.S. A. § 8104-A, as limited by § 8104-B, and § 8111. This provision shall not be deemed a waiver of any defenses, immunities or limitations of liability or damages available to the CITY under the Maine Tort Claims Act, other Maine statutory law, judicial precedent, common law, or any other defenses, immunities or limitations of liability available to the CITY. Prior to execution of this Agreement, the LICENSEE shall furnish the CITY and thereafter maintain certificates evidencing all such coverages, which certificates shall guarantee thirty (30) days' notice to the CITY of termination of insurance from the insurance provider or agent. LICENSEE shall also provide a copy of any endorsement naming the CITY as additional insured. The Workers' Compensation insurance shall include an endorsement waiving all rights of subrogation against the City of Portland, its officers or employees. Upon CITY'S request, LICENSEE shall provide CITY with a complete copy of any of the above-referenced policies. LICENSEE shall be responsible for any and all deductibles and/or self-insured retentions (not to exceed \$10,000.00 without prior written approval of Corporation Counsel). CITY's acceptance or lack of acceptance of LICENSEE's Certificate of Insurance or other evidence of insurance shall not be construed as a waiver of the LICENSEE's obligation to obtain and maintain such insurance as required by this agreement. If the LICENSEE maintains broader coverage and/or higher limits than the minimum shown above, the CITY requires and shall be entitled to the broader coverage and/or higher limits maintained by the LICENSEE.

8. Release. LICENSEE hereby releases the CITY and its officers, agents and personnel (collectively, the "Releasees") from any and all claims, liabilities, damages, losses, costs, fees and expenses arising out of or resulting, directly or indirectly, from LICENSEE's use of any City Property, including, without limitation, injuries, losses and damages for bodily injury (including disability or death) and property damage, regardless of cause, including any and all claims, damages and liabilities that arise out of or result from any actions or omissions, including negligence, on the part of any of the Releasees. LICENSEE promises not to sue any of the Releasees with respect to any such claims or liabilities. This waiver and release is intended to be as broad as the law allows and shall survive termination of this agreement.

9. Restoration. LICENSEE agrees that it shall restore, repair, and replace all aspects of the Licensed Area or other City-owned Property that are disturbed or damaged as a result of LICENSEE's presence or work on the Licensed Area or any City-owned Property or the presence or work of its employees, contractors, subcontractors, invitees or volunteers. Any and all such repair, replacement, and restoration work shall be performed to the City's satisfaction and at the sole expense of LICENSEE. LICENSEE acknowledges and agrees that its obligation to repair, replace, and restore all aspects of the Licensed Area or other City-owned Property under this paragraph shall survive the termination of this License.

10. No property rights. This instrument is a license only and no provision hereof shall be construed as conveying an easement or other estate in land.

11. No Assignment. This License Agreement is non-transferable and shall not be assigned, pledged, sublet or otherwise transferred to another party except upon the prior written approval of the CITY.

12. Amendment: This License may be amended only in writing executed by the parties.

13. This License may be executed in any number of counterparts and by different parties in separate counterparts. Each counterpart when so executed shall be deemed to be an original and all of which together shall constitute one and the same agreement. A signature in a pdf or electronic document shall be considered the equivalent of an original signature.

14. LICENSEE warrants and represents that it has the full right and authority to enter into this Agreement, that there is no impediment that would inhibit its ability to perform their respective obligations under this Agreement, and that the person signing this Agreement on behalf of LICENSEE has the authority to do so.

15. Nothing in this License Agreement is intended to or shall be deemed to alter in any way the parties' right and obligations under the P&S.

IN WITNESS WHEREOF, the **CITY** and **LICENSEE**, have executed this License as of the date written first above.

CITY OF PORTLAND

Witness

By: _____
Danielle P. West
Its Interim City Manager

144 FORE ST. OZ, LLC

Witness

By: _____
Jonathan Cohen
Its Manager

Approved as to form:

City Corporation Counsel's Office

DLN No.: 1002140168100
QUITCLAIM DEED WITH COVENANT
 (Maine Statutory Short Form)

KNOW ALL BY THESE PRESENTS, that **JACKRABBIT LIMITED LIABILITY COMPANY AKA JACKRABBIT LLC**, a Maine limited liability company and having a place of business in Portland, County of Cumberland, and State of Maine (the "Grantor"), for consideration paid, GRANTS to **144 FORE ST. LLC**, a Maine limited liability company, the mailing address of which is One Portland Square, Suite 6A, Portland, Maine 04101 (the "Grantee"), with QUITCLAIM COVENANT, a Forty-Nine Percent (49%) common and undivided interest in fee simple in certain real estate located in Portland, County of Cumberland and State of Maine, which is more particularly described in Exhibit A attached hereto and made a part hereof.

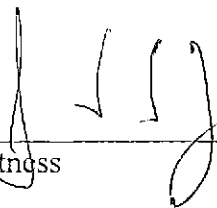
The Grantor and Grantee agree that any covenants contained in this instrument only apply to the Historical Description.

For Grantor's source of title see deed from Michael D. Marino to Jackrabbit Limited Liability Company dated January 1, 1996 and recorded at Cumberland County Registry of Deeds in Book 12434, Page 163; deed from City of Portland to Jackrabbit Limited Liability Company dated July 16, 1996 and recorded at Cumberland County Registry of Deeds in Book 12919, Page 161; deed from City of Portland to Jackrabbit Limited Liability Company dated October 25, 2004 and recorded at Cumberland County Registry of Deeds in Book 21951, Page 341; and deed from City of Portland to Jackrabbit, LLC dated January 27, 2011 and recorded at Cumberland County Registry of Deeds in Book 28485, Page 242.

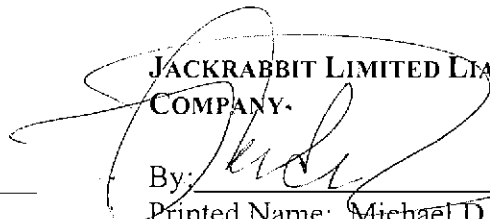
This conveyance is made SUBJECT, HOWEVER, to real estate taxes which are not yet due and payable, which, by acceptance hereof, Grantee assumes and agrees to pay.

IN WITNESS WHEREOF, **JACKRABBIT LIMITED LIABILITY COMPANY** has caused this instrument to be executed on its behalf by its duly authorized undersigned representative* this 1st day of October, 2021. *as of

Witness



JACKRABBIT LIMITED LIABILITY COMPANY.



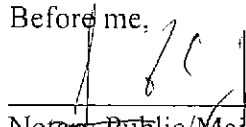
By: _____
 Printed Name: Michael D. Marino
 Its: Member

STATE OF MAINE
County of Cumberland, SS.

October 20, 2021

Then personally appeared the above-named Michael D. Marino, duly authorized member of **JACKRABBIT LIMITED LIABILITY COMPANY** and acknowledged the foregoing instrument to be his free act and deed in his said capacity, and the free act and deed of said **JACKRABBIT LIMITED LIABILITY COMPANY**.

Before me,



Notary Public/Maine Attorney-at-Law

Printed Name: G. Gordon Canham, Jr.

My Commission Expires: _____

Exhibit A
Legal Description

The following lots or parcels of land, with the building thereon, located in the City of Portland, County of Cumberland and State of Maine, being bounded and described as follows (hereinafter referred to as "Historical Description"):

PARCEL ONE:

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

Beginning at a point on the southeasterly side of said Fore Street marking the southwesterly corner of a parcel of land conveyed by the Canadian National Railway Co. to Frank J. Gaziano by deed dated May 29, 1970, and recorded in the Cumberland County Registry of Deeds in Book 3129, Page 564, said point of beginning being located at the intersection of the southerly limit of Fore Street with the northeasterly limit of India Street;

THENCE, easterly following the southerly limit of Fore Street a distance of 135.59 feet to a point;

THENCE, northeasterly making an angle of $163^{\circ} 44' 00''$ with the preceding course, a distance measured along the southeasterly limit of Fore Street 66.72 feet to a point;

THENCE, northeasterly following the southeasterly limit of Fore Street along a curve to the left having a radius of 338.35 feet tangent to the preceding course, a distance measured along the arc of 75.69 feet to a point;

THENCE, northeasterly following the southeasterly limit of Fore Street and tangent to the preceding curve, a distance of 43.64 feet to the point of beginning;

THENCE, by the southeasterly side of Fore Street $N 41^{\circ} 57' E$, 51.84 feet to an angle in said street;

THENCE, continuing by Fore Street $N 35^{\circ} 40' E$, 150.25 feet to land of the Canadian National Railway Co.;

THENCE, by said land of Canadian National Railway Co. on the following courses:

$N 79^{\circ} 46' E$ 525.00 feet to an angle point;
 $S 87^{\circ} 58' E$ 183.87 feet to an angle point;
 $S 76^{\circ} 17' W$ 180.00 feet to an angle point;
 $S 67^{\circ} 27' 40'' W$ 405.17 feet to an angle point;
 $S 79^{\circ} 46' W$ 278.00 feet to the point of beginning.

The above described courses are magnetic 1955.

Together with all easements and rights appurtenant thereto that appear of record as set forth in a deed recorded in the Cumberland County Registry of Deeds in Book 2726, Page 410; Book 3129, Page 564; and Book 4194, Page 311. Reference is made to Plans recorded in said Registry in Plan Book 83, Page 10 and Plan Book 117, Page 20.

PARCEL TWO:

A parcel of land with any improvements, thereon, situated on the northeasterly side of Hancock Street, City of Portland, Cumberland County, State of Maine, said parcel is a portion of the lands described as Lot 2 in a deed to the City of Portland recorded in Book 10924, Page 84 and is more particularly described as follows:

Beginning at a set rebar on the northeasterly right of way line of Hancock Street at the southerly corner of lands described in a deed from City of Portland to Jackrabbit Limited Liability Company recorded in Book 21951, Page 341;

Thence, S 38°03'16" E along the northeasterly right of way line of Hancock Street a distance of 10.61 feet to a set rebar;

Thence, N 51°56'44" E a distance of 46.90 feet to a set rebar;

Thence, along a curve to the right having a radius of 49.00 feet, a delta of 31°00'22", an arc length of 26.52 feet, a chord bearing of N 67°26'55" E and a chord distance of 26.19 feet to a set rebar;

Thence, N 82°57'06" E a distance of 145.04 feet to a set rebar;

Thence, N 07°02'54" W a distance of 28.78 feet to a set rebar on the southerly line of lands described in a deed to Jackrabbit Limited Liability Company recorded in Book 12434, Page 163, this and the previous three courses being through lands of the City of Portland;

Thence, S 70°05'27" W along lands of Jackrabbit Limited Liability Company described in the deed recorded in Book 12434, Page 163 a distance of 52.76 feet to a found 1 ¼ inch iron pipe;

Thence, S 82°23'50" W along lands of Jackrabbit Limited Liability Company described in the deed recorded in Book 12434, Page 163 a distance of 64.99 feet to a set rebar at the easterly corner of the lands described in the deed to jackrabbit Limited Liability Company recorded in Book 21951, Page 341;

Thence, S 61°48'57" W along the lands described in the deed to Jackrabbit Limited Liability Company recorded in Book 21951, Page 341 a distance of 106.70 feet to the point of beginning.

Containing 2953 square feet or 0.07 acre, more or less.

The basis of bearing is magnetic north 1967.

Set rebar are 5/8 inch with surveyor's cap stamped "Lewis & Wasina, Inc. PLS 2114".

This description is based on a plan entitled "Boundary Survey and Proposed Conveyance" prepared for Jackrabbit Limited Liability Company by Lewis & Wasina, Inc., project number 9665, dated May 18, 2010 with revisions through October 4, 2010.

PARCEL THREE:

A certain lot or parcel of land situated southeasterly of, but not adjacent to, the southeasterly sideline of fore street in the City of Portland, Cumberland County, State of Maine, and bounded and described as follows:

Commencing at the intersection of the northeasterly sideline of India Street with the southeasterly sideline of said Fore Street;

Thence, N 57°57'41" E one hundred thirty-five and forty-eight hundredths feet (135.48') along the southeasterly sideline of said Fore Street to an angle point;

Thence, N 41°40'33" E sixty-six and sixty hundredths feet (66.60') continuing along the southeasterly sideline of Fore Street to a point;

Thence northeasterly continuing along the southeasterly sideline of said Fore Street along a non-tangent curve to the left with a radius of four hundred thirty-four and fifty-three hundredths feet (434.53'), an interior angle of 10°01'16", and an arc distance of seventy-six and zero hundredths feet (76.00') to a point, said curve has a chord bearing of N 35°16'03" E seventy-five and ninety hundredths feet (75.90');

Thence, N 28°51'33" E forty-three and eighty-eight hundredths feet (43.88') continuing along the southeasterly sideline of said Fore Street to the westerly corner of land now or formerly of Jackrabbit Limited Liability Company as described in a deed dated March 29, 1996 and recorded April 4, 1996 in the Cumberland County Registry of Deeds Book 12434, Page 163;

Thence, N 66°40'00" E ninety-one and twenty-five hundredths feet (91.25') along the southerly line of land of said Jackrabbit Limited Liability Company to a point in the northeasterly sideline of a Proposed Street and the Point of Beginning;

Thence, N 66°40'00" E one hundred twenty-one and ninety-four hundredths feet (121.94') continuing along lands of said Jackrabbit Limited Liability Company to a point;

Thence S 46°05'07" W one hundred six and sixty-nine hundredths feet (106.69') through lands now or formerly of the City of Portland as described in deed dated August 30, 1993

and recorded August 30, 1993 in the Cumberland County Registry of Deeds in Book 10924, Page 84 to a point in the northeasterly sideline of said Proposed Street; Thence N 53°47'21" W forty-three and fifty-one hundredths feet (43.51') through lands now or formerly of the City of Portland and along the northeasterly sideline of said Proposed Street to the Point of Beginning.

The above described lot or parcel of land contains two thousand two hundred eighty-nine square feet (2,287 s.f.) more or less.

Bearings referenced herein are Grid North NAD83 Maine State Place West Zone.

PARCEL FOUR:

Two separate lots or parcels of land situated easterly of, but not contiguous with, Fore Street in the City of Portland, County of Cumberland, State of Maine and further bounded and described as follows:

Commencing at a point on the southerly side of said Fore Street at the southwest corner of a lot conveyed to Norman S. Reef, et al. by deed recorded in the Cumberland County Registry of Deeds in Book 7434, Page 267 and said point being the northwest corner of Lot 2 of land conveyed by the Canadian National Railway Company to the City of Portland by deed recorded in said Registry of Deeds in Book 10924, Page 84.

The magnetic bearing base of the two referenced deeds are not the same. The lines are common.

Said point of commencement is shown on a plan titled "Land title Survey and Subdivision Plan" made of the City of Portland and others by Owen Haskell, Inc. dated February 18, 1993, Sheets 1 and 2 of 7, recorded in said Registry of Deeds in Plan Book 193, Page 187 & 188,

Thence, from said point of commencement and by said Reef, et al/ and the City of Portland lines, as shown on said Owen Haskell, Inc. plan, on the following described courses and distances;

Thence, N 82°23'50" E, 278.00 feet to a buried 1" iron pipe;

Thence, N 70°05'25" E, 279.62 feet to the point of beginning of this first lot or parcel of land herein conveyed;

Said point of beginning being 20.00 feet, more or less, distance from the face of a concrete block building as shown on said Owen Haskell, Inc. Plan;

Thence, from said point of beginning and continuing by said Reef, et al. and said City of Portland lines as shown of said Owen Haskell, Inc.;

Thence, N 70°05'25" E, 125.55 feet to a 5/8" steel reinforcing rod capped "Owen Haskell, Inc.";

Thence, N 78°54'45" E, 77.28 feet to a point;

Thence, through said City of Portland Lot 2, on the following described courses and distances:

Thence, S 07°39'48" E, 4.69 feet to a point;

Thence, S 67°22'03" W, 74.50 feet to a point which is 20.00 feet distant from said 5/8" steel reinforcing rod capped "Owen Haskell, Inc.";

Thence, continuing on the same course, S 67°23'03" W, 32.52 feet to a point;

Thence, S 82°59'03" W, 94.45 feet to the point of beginning.

The above described courses are magnetic in the year 1967 as per said Owen Haskell, Inc. Plan.

The above described lot or parcel of land contains 2602 square feet.

Another certain lot or parcel of land which is not contiguous with the above-described lot or parcel of land, and is more particularly described as follows:

Commencing at a point on the southerly side of said Fore Street at the southwest corner of a Lot conveyed to Norman S. Reef, et al. by deed recorded in the Cumberland County Registry of Deeds in Book 7434, Page 267 and said point being the northwest corner of Lot 2 of land conveyed by Canadian National Railway Company to the City of Portland by deed recorded in said Registry of Deeds in Book 10924, Page 84.

The magnetic bearing base of the two referenced deeds are not the same. The lines are common.

Said point of commencement is shown on a plan titled "Land title Survey and Subdivision Plan" made of the City of Portland and others by Owen Haskell, Inc. dated February 18, 1993, Sheets 1 and 2 of 7, recorded in said Registry of Deeds in Plan Book 193, Page 187 & 188,

Thence, from said point of commencement and by said Reef, et al. and the City of Portland lines, as shown on said Owen Haskell, Inc. plan, on the following described courses and distances;

Thence, N82°23'50" E, 278.00 feet to a buried 1" iron pipe;

Thence, N 70°05'25" E, 279.62 feet to a point;

Thence, N 70°05'25" E, 125.55 feet to a 5/8" steel reinforcing rod capped "Owen Haskell, Inc.";

Thence, N 78°54'45" E, 77.28 feet to a point;

Thence, through said conveyed to Norman S. Reef, et al. as recorded at said Registry of Deeds in Book 7434, Page 237, N 70°39'48" W, 28.54 feet to the point of beginning;

Thence from the point of beginning, along the northerly line of said lot conveyed to Norman S. Reed, et al, N 85°20'15" W, 78.91 feet to a point which forms an angle in the northerly line of said lot conveyed to said Norman Reef, et al;

Thence, through said City of Portland Lot 2, on the following described courses and distances:

Thence, N 82°23'45" E, 77.09 feet to a point;

Thence, S 07°39'48" E, 16.77 feet to the point of beginning.

The above described courses are magnetic in the year 1967 as per said Owen Haskell, Inc. Plan.

The above described lot or parcel of land contains 646 square feet.

EXCEPTING from the above property, the land described in deeds from Jackrabbit Limited Liability Company to the City of Portland dated January 8, 1997 and recorded in the Cumberland County Registry of Deeds in Book 12907, Page 105 and dated October 28, 2004 and recorded in the Cumberland County Registry of Deeds in Book 21951, Page 338.

ALSO RELEASING GRANTOR'S right, title and interest in and to the premises described as follows (hereinafter referred to as "Surveyor's Description"):

A forty-nine percent (49%) interest in common and undivided in fee simple in and to a certain lot or parcel of land with any improvements, thereon, situated on the southeasterly side of Fore Street and the northeasterly side of Hancock Street, City of Portland, Cumberland County, State of Maine, and being more particularly described as follows:

Beginning at a set rebar on the northeasterly right of way line of Hancock Street at the southerly corner of lands described in a deed from the City of Portland to Jackrabbit Limited Liability Company recorded in Book 21951, Page 341;

Thence, N38°03'16"W along the northeasterly right of way line of Hancock Street a distance of 91.23 feet to a point of curvature 3.00 feet northeasterly from a granite street monument as measured perpendicular from the northeasterly right of way line of Hancock Street;

Thence, following a curve to the right having a radius of 15.00 feet, a delta of 76°21'22", a length of 19.99 feet, a chord bearing of N00°07'25"E and a chord length of 18.54 feet to the southeasterly right of way line of Fore Street;

Thence, N38°18'06"E along the southeasterly right of way line of Fore Street a distance of 110.45 feet to the westerly corner of Lot 2 described in a deed to the City of Portland recorded in Book 10924, Page 84;

Thence, N82°23'45"E along lands of the City of Portland a distance of 602.33 feet to a found 5/8 inch rebar;

Thence, S07°39'48"E continuing along lands of the City of Portland described as Lot 2 of the deed recorded in Book 10924, Page 84, lands described in a deed to the City of Portland recorded in Book 12907, Page 105 and again along said Lot 2 a distance of 50.00 feet to a pk nail set in pavement;

Thence, S67°22'03"W along said Lot 2 a distance of 107.02 feet to a pk nail set in pavement;

Thence, S82°58'07"W along said Lot 2 a distance of 96.55 feet to a found 5/8 inch rebar with aluminum cap stamped "Lewis & Wasina, Inc. PLS 2114" flush with pavement; Thence, S70°05'27"W along said Lot 2 a distance of 226.85 feet to a set rebar; Thence, S07°02'54"E a distance of 28.78 feet to a set rebar; Thence, S82°57'06"W a distance of 145.04 feet to a set rebar;

Thence, following a curve to the left having a radius of 49.00 feet, a delta of 31°00'22", an arc length of 26.52 feet, a chord bearing of S67°26'55"W and a chord distance of 26.19 feet to a set rebar;

Thence, S51°56'44"W a distance of 46.90 feet to a set rebar on the northeasterly right of way line of Hancock Street, this and the previous three courses being along remaining lands of the City of Portland described as Lot 2 in the deed recorded in Book 10924, Page 84;

Thence, N38°03'16"W along the northeasterly right of way line of Hancock Street a distance of 10.61 feet to the point of beginning.

The basis of bearing is magnetic north 1967.

Set rebar are 5/8 inch with plastic cap stamped "Lewis & Wasina, Inc. PLS 2114."

This description is based on a "ALTA/ACSM Land Title Survey" prepared for Jackrabbit Limited Liability Company by Lewis & Wasina, Inc., project number 9665, dated January 23, 2011 with revisions through January 26, 2011, recorded in Plan Book 211, Page 15.

QUITCLAIM DEED

KNOW ALL PERSONS BY THESE PRESENTS, the CANADIAN NATIONAL RAILWAY COMPANY, a Canadian Crown corporation, in consideration of one dollar and other valuable considerations, paid by the CITY OF PORTLAND, Maine, a municipal corporation organized and existing under the Laws of the State of Maine, with city offices at 389 Congress Street, Portland, Maine, 04101, the receipt whereof is hereby acknowledged, does hereby REMISE, RELEASE, BARGAIN, SELL and CONVEY and forever QUITCLAIM unto the CITY OF PORTLAND, its successors and assigns forever, certain real estate located in Portland, Cumberland County, Maine, and more particularly described in Exhibit A attached hereto and made a part hereof.

All of the property and all fixtures, improvements and appurtenances herein conveyed by this deed are being conveyed "as is" with no representations or warranties whatsoever.

TO HAVE AND TO HOLD the same, together with all the privileges and appurtenances thereunto belonging to the said CITY OF PORTLAND, its successors and assigns forever, to its use and behoof forever.

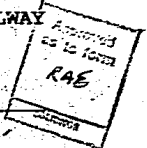
IN WITNESS WHEREOF, Canadian National Railway Company has caused this instrument to be signed and sealed in its corporate name by Michel Legault, its Director - Asset Management thereunto duly authorized, this 30th day of August, 1993.

WITNESS:

[Signature]

CANADIAN NATIONAL RAILWAY COMPANY

By: *[Signature]*
Its Asset Management
Michel Legault, Director - Eastern Canada
Marie Andrée Proulx
DEPUTY SECRETARY
August 30, 1993



STATE OF MAINE
CUMBERLAND, SS.

Personally appeared the above-named Michel Legault, Director - Asset Management - Eastern Canada of Canadian National Railway Company, as aforesaid, who acknowledged the foregoing instrument to be his free act and deed in his said capacity and the free act and deed of said Canadian National Railway Company.

Before me,

[Signature]
Notary Public Renald Gobe
Attorney

Three certain parcels of land together with any buildings and improvements thereon, more particularly shown as "Parcel A", "Parcel B" and "Lot 2" on a certain plan entitled "Land Title Survey & Subdivision Plan in Portland, Maine, USA" made for the Trust For Public Land, the City of Portland, the Maine Department of Transportation, the Canadian National Railway Company, by Owen Haskell, Inc., dated February 19, 1993, as last revised June 28, 1993, (the "Plan") Sheets 1 and 2 of 7 and recorded in the Cumberland County Registry of Deeds in Plan Book 193, Pages 187 and 188, respectively. The above-described parcels of land are more particularly described by metes and bounds as follows:

Parcel A:

A certain lot or parcel of land, together with the improvements thereon, situated at the Southeast corner of Commercial Street and India Street in the City of Portland, County of Cumberland, State of Maine and further bounded and described as follows:

Beginning at a 5/8" reinforcing rod set at said Southeast corner of Commercial Street and India Street, which point of beginning is located S-30°-35'-00"-E a distance of 186.26 feet along the easterly side of India Street from the southwesterly corner of the property described in the deed from Canadian National Railway Company to the Portland Water District recorded in the Cumberland County Registry of Deeds in Book 3870, Page 101. Thence, from said point of beginning and by said Commercial Street S-59°-50'-W, 66.00 feet to a one inch iron found;

Thence, through land leased by the City of Portland to the Bath Iron Works (B.I.W.) as evidenced by Memorandum of Pier Lease recorded in Cumberland County Registry of Deeds in Book 4916, Page 26 on the following described courses and distances:

S-30°-35'-E, 28.80 feet to a 5/8" reinforcing rod;

Thence, N-70°-48'-30"-E, 30.00 feet to a 5/8" reinforcing rod;

Thence, N-48°-33'-30"-E, 110.11 feet to a P.K. spike set in a bituminous curb;

Thence, N-56°-16'-E, 18.55 feet to a point on said B.I.W. line at the Southerly side of a twenty six (26) foot wide corridor to be conveyed to the Maine Department of Transportation;

Thence, by said twenty six (26) foot wide corridor S-67°-18'-24"-W, 90.93 feet to the point of beginning.

The above described courses are magnetic 1967.



Parcel B:

% 55154 % 10924 p. 86

A certain lot or parcel of land, together with the building and improvements thereon, situated Easterly of India Street and Southerly of Fore Street, but not contiguous with either of said streets, in the City of Portland, County of Cumberland, State of Maine and further bounded and described as follows:

Beginning at the Northeasterly corner of a lot of land leased by the City of Portland to the Bath Iron Works as evidenced by a Memorandum of Pier Lease recorded in Cumberland County Registry of Deeds in Book 4916, Page 26, Exhibit A, Parcel One.

Thence, from said point of beginning and by the projection Northwesterly of the Easterly sideline of said B.I.W. leased lot and by a portion of land on the East to be conveyed to Phineas Sprague, Sr., and a portion of a fifty (50) foot wide corridor to be conveyed to the Maine Department of Transportation N-27°-10'-W, 35.55 feet to the Southeast corner of a twenty six (26) foot wide corridor to be conveyed to said Maine Department of Transportation;

Thence, by said twenty six foot wide corridor on the following described courses and distances:

S-68°-31'-30"-W, 516.17 feet to a point;

Thence, S-74°-21'-W, 173.07 feet to a point in a corner of said B.I.W. leased lot;

Thence, by said B.I.W. leased lot on the following described courses and distances:

S-26°-42'-30"-E, 82.08 feet to a point;

Thence, N-62°-19'-30"-E, 199.57 feet to a point;

Thence, N-66°-56'-30"-E, 200.04 feet to a point;

Thence, N-68°-47'-30"-E, 149.54 feet to a point;

Thence, N-67°-31'-E, 136.50 feet to the point of beginning.

The above described courses are magnetic 1967.

LOT 2:

A certain lot or parcel of land, together with the buildings and improvements thereon, situated Easterly of India Street and on the Southerly side of Fore Street in the City of Portland, County of Cumberland, State of Maine and further bounded and described as follows:



Beginning at a one (1) inch iron at the Northeasterly corner on said said Fore Street of a lot conveyed by the Canadian National Railroad Company to the Portland Water District by deed recorded in the Cumberland County Registry of Deeds in Book 3870, Page 101.

Thence, from said point of beginning and by said Portland Water District lot S-30°-35'-E, 96.98 feet to a 5/8" reinforcing rod the southeasterly corner to said Portland Water District lot;

Thence N-59°-25'-E, 55.00 feet to a 5/8" reinforcing rod and the northerly corner of Lot as shown on said Plan recorded in Plan Book 193, Page 187 (said Lot 1 being herein called the "One India Street Premises");

Thence, S-34°-13'-30"-E, 73.01 feet to a 5/8" reinforcing rod;

Thence, S-27°-13'-30"-E, 68.94 feet to a 5/8" reinforcing rod;

Thence, S-62°-22'-30"-W, 166.45 feet to a 5/8" reinforcing rod;

Thence, S-64°-30'-30"-W, 9.40 feet to a 5/8" reinforcing rod on the Easterly sideline of said India Street;

Thence, by said India Street S-30°-35'-E, 27.75 feet to a point at the Northwesterly corner of an area labelled on said Plan as a "26' corridor to be conveyed to the Maine Department of Transportation (MDOT) in fee";

Thence, by the Northerly line of said twenty six (26) foot wide corridor on the following described courses and distances;

N-67°-18'-24"-E, 92.02 feet to a point;

Thence, N-56°-16'-E, 619.24 feet to a point;

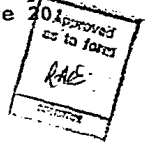
Thence, N-62°-51'-E, 204.12 feet to a point;

Thence, N-74°-21'-E, 174.37 feet to a point;

Thence, N-68°-31'-30"-E, 297.14 feet to a 5/8" reinforcing rod at land conveyed by Fish Point Associates to Phineas Sprague by deed recorded in said Registry of Deeds in Book 4876, Page 268;

Thence, by said Sprague land N-88°-12'-30"W, 137.25 feet to a 5/8" reinforcing rod;

Thence, continuing by said Sprague land by a curve to the right having a radius of 274.33 feet, a distance of 86.71 feet measured on the arc thereof and a chord bearing and distance of N-64°-45'-58"-W, 86.35 feet to a point at land conveyed by American Hoist and Derrick Company to Farley Investment Company by deed recorded in said Registry of Deeds in Book 5931, Page 20



Thence, by said Farley Investment Company line S-82°-23'-45"-W, 742.23 feet to said Fore Street;

Thence, by said Fore Street S-38°-17'-45"-W, 22.99 feet to a point at land conveyed by Gordon L. Hurtubise to Norman S. Reef, et al., by deed recorded in said Registry of Deeds in Book 7434, Page 267;

Thence, by said Reef land on the following described courses and distances:

N-82°-23'-45"-E, 525.00 feet to a one (1) inch iron;

Thence, S-85°-20'-15"-E, 183.87 feet to a point;

Thence, S-78°-54'-45"-W, 180.00 feet to a point;

Thence, S-70°-05'-25"-W, 405.17 feet to a one (1) inch iron;

Thence, S-82°-23'-50"-W, 278.00 feet to a point on said Fore Street;

Thence, by said Fore Street by the following courses, distances and curves;

S-44°-34'-30"-W, 43.88 feet to a point of curve;

Thence, by a curve to the right having a radius of 337.48 feet, a distance of 75.68 feet measured on the arc thereof and a chord bearing and distance of S-51°-00'-W, 75.52 feet to a point of tangent;

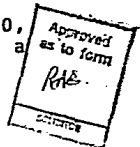
Thence, S-57°-25'-30"-W, 11.88 feet to a point of curve;

Thence, by a curve to the right having a radius of 391.40 feet, a distance of 67.49 feet measured on the arc thereof and a chord bearing and distance of S-62°-22'-W, 67.40 feet to the point of beginning.

The above described courses are magnetic 1967.

Lot 2 is conveyed together with a perpetual right and easement for vehicular, pedestrian and utility access, in common with the owner of the One India Street Premises, in, on, over or under a twelve (12) foot wide strip of land bounded and described as follows:

Commencing at a point located S-30°-35'-00"-E a distance of 132.26 feet along the easterly side of India Street from the southwesterly corner of the property conveyed by Canadian National Railway Company to Portland Water District by deed recorded in the Cumberland County Registry of Deeds, Book 3870, Page 101; thence from said point of beginning N-64°-30'-30"-E a distance of 9.40 feet; thence N-62°-22'-30"-E a distance of



166.45 feet; thence N-27°-13'-30"-W a distance of 12.00 feet; thence S-62°-22'-30"-W a distance of 175 feet more or less (in part along the southerly side of the existing 3-story brick office building on the One India Street Premises) to the easterly side of India Street; thence S-30°-35'-00"-E a distance of 12 feet more or less along the easterly side of India Street to the point of beginning.

The intent herein is to convey a right to cross land, I as access to Lot 2. No control over any portion of said building is conveyed. No addition or improvement or new utilities shall be made or installed by Grantee, its successors or assigns, in, on, over or under said 12' wide strip that is not in existence on April 1, 1993, without the prior written consent of the owner of the One India Street Premises.

Excepting and reserving and not hereby conveying a certain lot or parcel of land situated in Portland, Maine, bounded and described as follows:

A certain lot or parcel of land shown on the Plan as Lot 1 together with all buildings and improvements thereon situated in the City of Portland, County of Cumberland, State of Maine more particularly bounded and described as follows:

Beginning at a 5/8" reinforcing rod set in the easterly sideline of India Street at the southwesterly corner of land conveyed by Canadian National Railway Company to Portland Water District by deed dated June 7, 1976, and recorded in the Cumberland County Registry of Deeds, Book 3870, Page 101, said point of beginning also being distant S-30°-35'-E, 125.00 feet measured by the easterly sideline of said India Street from the southeasterly corner of said India Street and Fore Street; thence from said point of beginning S-30°-35'-00"-E along the easterly side of India Street a distance of 132.26 feet to a rod; thence N-64°-30'-30"-E a distance of 9.40 feet to a rod; thence N-62°-22'-30"-E a distance of 166.45 feet by a line which is 12 feet from and parallel with the face of the outside granite corners on the principal existing building on the lot herein described, to a rod; thence N-27°-13'-30"-W a distance of 68.94 feet by a line which is 5.60 feet from and parallel with the rear face of the existing wood frame building on the lot herein described to a rod; thence N-34°-13'-30"-W a distance of 73.01 feet to a rod; thence S-59°-25'-00"-W a distance of 55.00 feet to a rod at the southeasterly corner of the above-referenced Portland Water District Lot; thence S-59°-25'-00"-W a distance of 120.00 feet along said Portland Water District Lot to the point of beginning. The above-described courses are magnetic 1967.

Also excepting and reserving for the benefit of the One India Street Premises perpetual rights and easements for the purposes hereinafter described in, on, over and under the following described portion of Lot 2 as shown on the Plan and herein conveyed:



A certain lot or parcel of land situated in Portland, Maine bounded and described as follows: Commencing at a point on the easterly side of India Street located S-30°-35'-00"-E a distance of 132.26 feet along India Street from the southwesterly corner of the property conveyed by Canadian National Railway Company to the Portland Water District by deed recorded in the Cumberland County Registry of Deeds, Book 3870, Page 101, thence from said point of beginning N-64°-30'-30"-E a distance of 9.40 feet; thence N-62°-22'-30"-E a distance of 166.45 feet; thence S-27°-13'-30"-E a distance of 2.28 feet; thence S-56°-16'-00"-W a distance of 88.27 feet; thence S-65°-00'-30"-W, a distance of 87.74 feet to the easterly side of India Street; thence N-30°-35'-00"-W along the easterly side of India Street a distance of 8.00 feet to the point of beginning. The easements excepted and reserved over said portion of the premises herein conveyed for the benefit of the One India Street Premises shall be for the following purposes:

1. Access Right of Way: The perpetual right and easement to pass and repass on foot and with vehicles at any and all times together with the right to enter from time to time within said areas to inspect, install, construct, maintain, repair, rebuild and replace pavement and other facilities and appurtenances intended to facilitate or improve access over such premises, provided that Grantee, its successors or assigns, consents in writing to any addition or improvement that is not in existence on April 1, 1993.

2. Utilities. Together with the perpetual right and easement to install, construct, erect, lay, relay, repair, inspect, operate, maintain, rebuild, replace and remove utility conduits, pipes and mains, and poles and wires with all necessary fixtures and appurtenances upon, through, under or over such premises for any and all utilities including but not limited to electric power, transmission and distribution lines, other energy, transmission and distribution lines, gas mains, cable-television, telephone and other communications or intelligence lines, together with suitable and sufficient lines, pipes, cables, mains, poles and towers with foundations together with wires strung upon and extending between the same, above or below ground, together with all necessary facilities, fixtures anchors, guys, crossarms, and other equipment and appurtenances and also for conveying and transmitting water, sewerage, wastewater and other non-hazardous liquids and substances together with the right at all times to make connection with all of said facilities to land adjoining the premises as deemed appropriate by Grantor, its successors and assigns. Together with existing telephone and electric pole and wire easements in existing locations serving the One India Street Premises. Any future telephone lines shall be underground, if reasonably possible. In no event shall any new utilities of any kind or new telephone poles be allowed without the consent of Grantor, its successors or assigns.

RECORDED
Cumberland County
Registry of Deeds
08/30/93 04:29:43PM
John B. O'Brien
Register



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>	Stephen Bushey, P.E. Gorrill-Palmer Consulting Engineers 300 Southborough Drive Suite 200 South Portland, Maine 04106 (207) 772-2515 sbushey@gorrillpalmer.com
<i>Architect</i>	Katherine Lermond Archetype Architects Union Wharf Portland, ME 04101 katherine@archetypepa.com
<i>Surveyor</i>	Owen Haskell Inc. Randy Loubier 390 US Route One Falmouth, ME 04105 rloubier@owenhaskell.com
<i>Landscape Architect</i>	Mitchell & Associates Braden Drypolcher 70 Center Street Portland Maine 04101 BDrypolcher@mitchellAssociates.biz
<i>Geotechnical</i>	Summit Geoengineering Bill Peterlein PE 210 Maine Avenue Farmingdale, Maine 04344 bpeterlein@summitgeoeng.com
<i>Construction Management</i>	Penobscot Construction Clay Maker cmaker@penobscotgc.com

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

The Applicant also has significant experience in the design, permitting, development and management of large institutional projects as evidenced by their projects at 1 Hancock Street and 100 Fore Street among others.



ZONING ANALYSIS Relevant Zone(s) B-6

All Projects:

	Required	Proposed
Lot Size	-	50,000 SF+
Area Per Dwelling Unit	-	
Minimum Street Frontage	-	341 ft+
Front Yard Minimum		
Front Yard Maximum	10 ft	10 ft.
Rear Yard		
Yard Right		
Yard Left		
Side Street Setback		
Step Back		
Maximum Lot Coverage	100%	100%
Minimum Lot Coverage		
Maximum Height	65 ft	44 ft
Open Space		
Maximum Impervious Area	-	100%
Pavement Setback		
Floor Area Ratio		
Off Street Parking Spaces	0	0
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):			

CITY OF PORTLAND
Planning & Urban Development Department

MAJOR SITE PLAN
GENERAL DOCUMENT AND DRAWINGS CHECKLIST

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

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

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

GENERAL APPLICATION DOCUMENTS

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

MAJOR SITE PLAN STANDARDS AND SUBMISSION CHECKLIST

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

TRANSPORTATION

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

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

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

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

MAJOR SITE PLAN DRAWINGS CHECKLIST

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

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

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

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

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

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

Existing Conditions Plan with the following:

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

Proposed Site Plan with the following:

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

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

PUBLIC INFRASTRUCTURE AND COMMUNITY SAFETY

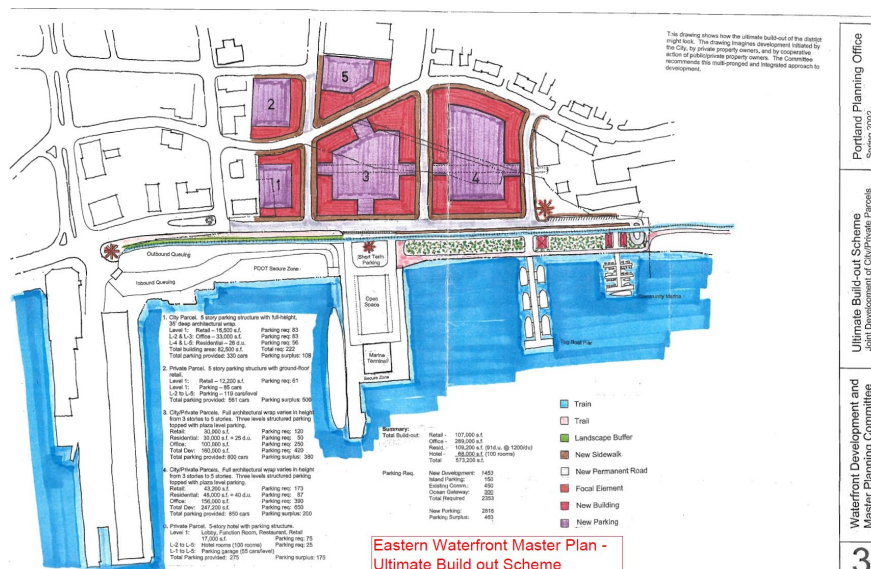
14.6.3.A Consistency with City Master Plans – The project proposal is consistent with the Eastern Waterfront Master Plan as it will involve road and utility extensions and development consistent with the Plan. As seen below the EWMP set an objective of connectivity between Thames Street and Fore Street. The applicant has made the transfer of Freedom Way part of the overall offering for the city site. Further, the site layout, much like the 100 Fore Street development, allows for the Mountfort Street Extension from Fore Street down to Thames Street, as a view and pedestrian movement corridor.

Project Area 1

Eastern Waterfront Master Plan and Portland Company Integration



1. EW Infrastructure Expansion		Road and utility extensions consistent with the Eastern Waterfront Master Plan (EWMP.)
1.a. Property Negotiations		Negotiations with private property owners





Thames Street | Concept Development
Portland, ME

- Vibrant Public Spaces
- Climate Change Resilient Design
- Walkable & Enjoyable
- Accessible
- Integrated Public Art
- Active use Perimeters
- Buffering
- High quality material
- Maintain view corridors

14.6.3 (B) Public Safety and Fire Prevention – The new building will have a full sprinkler system and Fire Department Connection along the Thames Street Façade. The nearest fire hydrant is located on Thames Street in front of the building. The site design allows for security by providing ample area lighting and views from surrounding streets to address security and unauthorized site access or use.

14.6.3 (C) Availability and Adequacy of Public Utilities – The proposed project will involve new utility connections that are described as follows:

The proposed project will include new utilities from the street into the building as follows:

- A 6” fire line and 4” domestic water line service will be extended into the site from the existing 12” water main in Thames Street.
- A domestic sanitary line and a kitchen waste line will extend from the building to the 8” sanitary sewer in Thames Street. A City standard grease trap will be installed on the Kitchen waste line.
- Underground power and communications will extend from the 1 Hancock Street site to the proposed site.
- A natural gas service line will extend off the existing main in Thames Street if needed for the HVAC system.

- Existing water and Sanitary lines remaining from the demolition of the easterly end of the building at 144 Fore Street may be reused for the incubator spaces.

SITE DESIGN

14.6.4 (A) Massing, Ventilations and Wind Impact – The building dimensions fall within the B6 zoning requirements and are expected to have no significant wind or ventilation impacts on adjoining structures or public spaces.

14.6.4 (B) Shadows – The site is located in the B6 zoning District therefore per Section 11.2 of the Technical Manual a shadow study is not applicable.

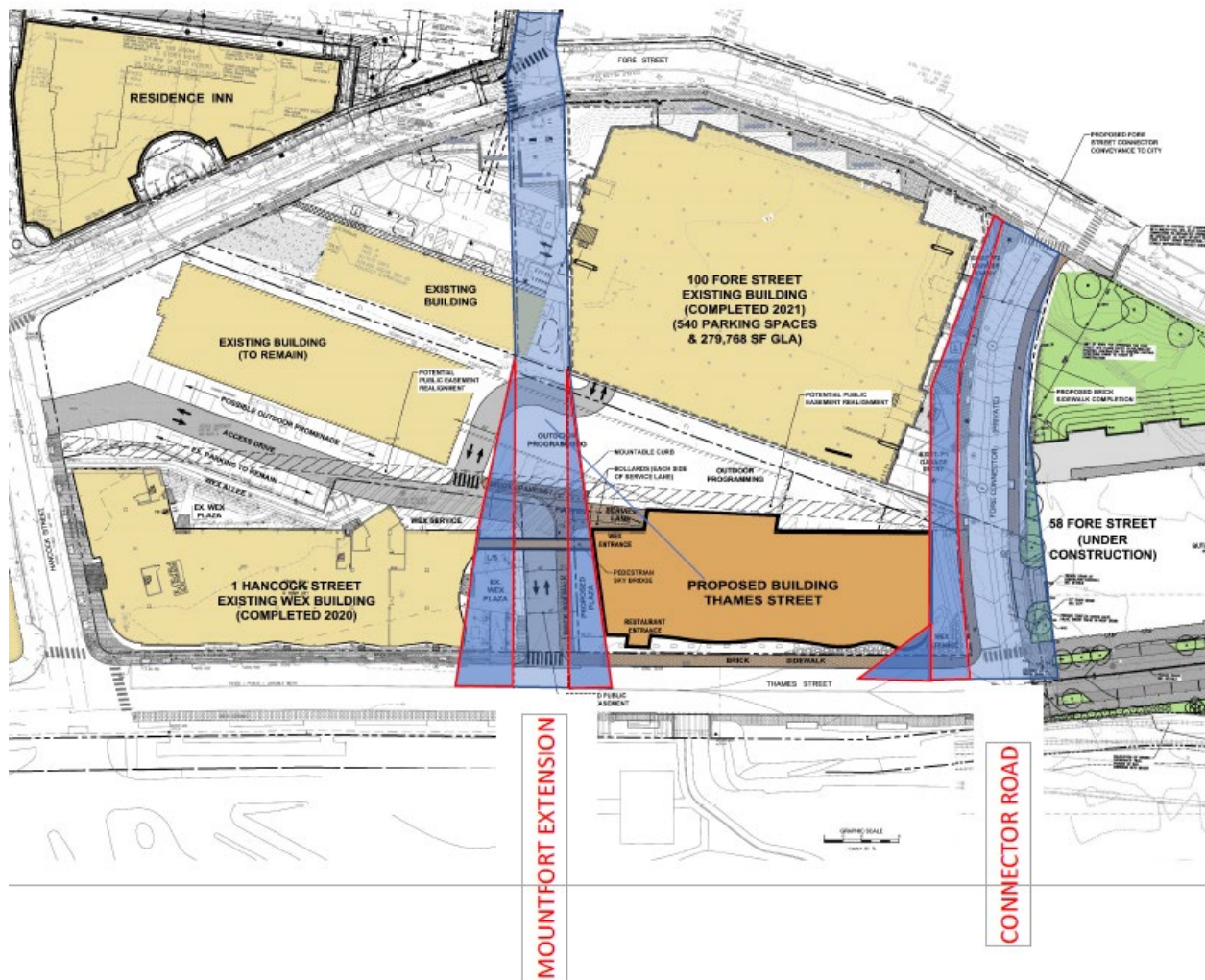
14.6.4 (C) Snow and Ice Loading – the building is primarily a flat roof. Snow and Ice will not fall onto adjacent properties.

14.6.4 (D) View Corridors – the plan adheres to the Eastern Waterfront Master Plan as graphically outlined below:



ILLUSTRATION 16: REVISED MASTER PLAN W/ NORTH / SOUTH VIEWS & ALIGNMENTS
Eastern Waterfront Building Height Study
Portland, Maine

MRLD, LLC



14.6.4 (E) Historic Resources – The site is not designated as a historic landmark, and it is not within a historic district.

14.6.4 (F) Exterior Lighting – The site lighting plan accompanying this submission contains the following calculation summary:

Calculation Summary							
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
SITE	Illuminance	Fc	0.51	4.2	0.0	N.A.	N.A.
EAST PATHWAY	Illuminance	Fc	1.94	3.8	0.4	4.85	9.50
LEFT ENTRANCE	Illuminance	Fc	1.23	3.3	0.4	3.08	8.25
MAIN PATHWAY	Illuminance	Fc	1.39	4.2	0.2	6.95	21.00
MIDDLE ENTRANCES	Illuminance	Fc	1.51	3.2	0.5	3.02	6.40
RIGHT ENTRANCE	Illuminance	Fc	1.60	3.6	0.4	4.00	9.00

14.6.4 (G) Noise and Vibration – Project noise levels will be designed to meet the permitted standards within the zone. HVAC units will be located on the ground adjacent the building or on the roof top. Equipment cut sheets can be provided upon request.

14.6.4 (H) Signage and Wayfinding – All future tenant signage to be permitted separately by the tenants. None is currently proposed.

14.6.4 (I) Zone Related Design Standards – The development satisfies ReCode 14.6.4.I.1.a for the B-6 where the design shall support the development of a dense, Mixed-use neighborhood with an attractive, safe, and convenient street-level pedestrian environment. New development shall avoid large monolithic massing along the street frontages and should promote permeability through and within the development at a scale compatible with the existing street networks. This is achieved with the proposed layout.



Example of Permeability – Thames Street

TRANSPORTATION

14.6.1(A) Impact on Surrounding Street system – no impact. The development of the City owned property was part of the Eastern Waterfront Traffic Movement Permit. Per the TMP approval the city owned parcel is to have one general delivery driveway and all parking is expected to be met within the existing structured parking in the site vicinity. The TMP allowed that final site access will be determined as part of the Site plan approval. Based on these previously approved conditions, the proposal for a single access off Thames Street, within the Mountfort Street Extension corridor is entirely consistent with previous planning efforts. As access to the 100 Fore Parking ground level parking will be modified to use the new Thames Street access, fewer vehicles may use the existing Fore Street entrance to that garage. Vehicular movements on Thames Street have direct connectivity to Commercial Street and Franklin Arterial as was contemplated and studied in the EWTMP. For these reasons, the development impact on the surrounding Street system is expected to be minimized.

14.6.1(B) Access and Circulation – The site and building are accessible from Thames Street and Mountfort Street Extension. An ADA route to the building will be provided from the 100 Fore Parking garage ground level to the sidewalk system surrounding the proposed building. There will be no drive-up facilities for the building. An at grade loading/service space will be provided at the rear of the building with access from the Mountfort Street Extension. The existing bituminous asphalt sidewalk along Thames Street will be replaced with City standard brick sidewalk, as will the sidewalk on Freedom Way. New Brick sidewalk will also be constructed on the east side of Freedom Way, thus completing that pedestrian connection. The site and building are accessible from at least three sides with ample access for emergency vehicles and site tenants. The elevators will be sized to allow for a stretcher and emergency personnel. The building entrances off the Thames Street sidewalk will be flush to existing grade and this will require shallow interior ramps and steps up to the proposed finish floor elevation of 12.0' (NGVD29), per the City's building code requirements.

14.6.1(C) Public transit – The METRO Peninsula Loop Route 8 runs along Commercial and India Street, just west of the project site, with stops at Casco Bay Lines and along India Street. The site is approximately 1,500 LF (0.28 mile) from CBL.



14.6.1(D) **Off-Street Parking** – Parking for the development will be provided at the 100 Fore Street parking garage located to the north of the site. Within the garage there are 543 parking spaces including 24 ADA spaces. There are also 25 bicycle racks in the garage. The proposed site plan includes eight (for 16 bikes) new City standard bike racks within the sidewalks surrounding the proposed building.

14.6.1 (E) **Traffic Demand Management** - WEX currently maintains a TDM. The TDM was developed as part of both the 1 Hancock Headquarters development as well as for the space at 100 Fore Street. If needed, an updated TDM plan can be undertaken. The original TDM has yet to be fully engaged due to the Covid pandemic and the temporary interruption of building occupancy. As WEX staff continue to fall back to more traditional office practices and occupancy the implementation of TDM is expected to increase. The previously approved WEX TDM documents accompany this application.



WEX, Inc. Transportation Demand Management (TDM) Plan

September 29, 2017

A. Summary

0 Hancock Street LLC, having entered into a long-term agreement with WEX Inc., provides this Transportation Demand Management (TDM) Plan for WEX's global headquarters - to be housed in the proposed 102,000 square foot, 4-story mixed-use building at the corner of Hancock and Thames Street on Portland's Eastern Waterfront.

A portion of the building's first floor and all upper floors - 92,027 square feet - are designated as WEX office space and will house 450 employees. The remaining 10,000 square feet of the first floor will be used for three retail spaces: a restaurant, loan service office and gift shop.

The WEX TDM Plan aims to help accommodate this new growth and benefit the local transportation system through support of transportation alternatives and reductions in the rate of single-occupancy vehicle travel to and from the site. The plan sets a 5% evening peak-hour vehicle trip-reduction target off of the baseline trips included in the project's Traffic Movement Permit – as well as a 5% reduction in parking demand, both over the first year. These targets will both be reassessed at the end of the first year after the site opens.

B. Company Overview & Commitment to TDM

WEX is a publicly traded company that facilitates corporate payments across borders and industries – including for fleets, travel and healthcare. The company was founded in Maine in 1983 and has grown in recent years to encompass 2,000 employees and services in the Americas, Europe, Australia, and Asia.

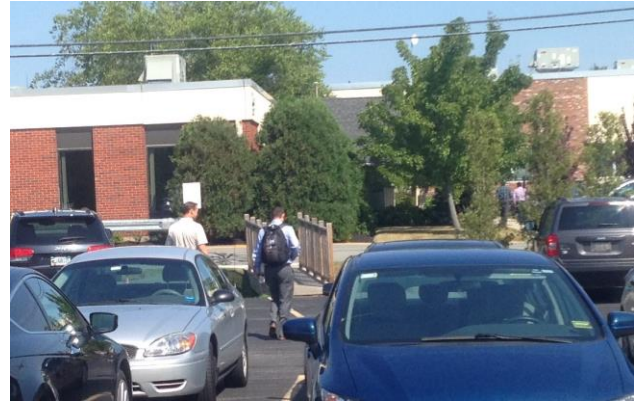
WEX Site

- 4-story mixed-use building on Eastern Waterfront
- Company site use: 450 employees, 92,027 ft²
- Trip reduction target: 5% over first year; 9 AM peak trips and 8 PM peak trips
- Parking reduction target: 5% over first year; 14 spaces
- Reassess trip and parking reduction targets at end of year 1



WEX provides fleet gas cards for UhaulCarShare in Portland and other areas around the country.

WEX is committed to Greater Portland and to serving as a good corporate citizen. The corporation also takes pride in being a good employer and offering valuable benefits to its employees. In addition, WEX has a history of reducing vehicle trips and supporting employee wellness by creating its own informal bikeshare on the South Portland campus, to encourage bicycling the half a mile between the Gorham Road and Darling Avenue buildings. And as part of the company's community work, WEX donated \$25,000 this year to the Eastern Trail Alliance's effort to complete a 1.6-mile segment in Scarborough.



WEX has also created walking connectivity between South Portland campus parcels.

The corporation views this TDM plan as a long-term initiative, understanding that moving from a suburban industrial park context to the downtown will not by itself bring a change in commuting habits overnight. However, WEX sees the benefits that TDM implementation will bring its employees in the form of increased transportation choice and the positive utility of multi-modal travel itself. For example, taking the bus enables workers to relax or catch up on email via mobile devices. Walking or carpooling also improve well-being by getting outside or problem-solving complex work situations with colleagues. In addition, reducing the number of company-sponsored parking spaces over time will result in many thousands of dollars of annual savings for WEX's bottom line.



Eight hundred employees work at the current corporate campus in South Portland. WEX will transfer approximately 350 of these positions to the new downtown Portland headquarters – although it has not been determined which staff specifically will make this move. The company will utilize the site as a recruitment tool for new talent for the remaining 100 positions.

It's likely that many of these new employees will be members of the Millennial generation, individuals with an increased use and familiarity with communications, social media and digital technologies. Millennials have been shown to prefer urban environments and it's likely that WEX salaries will enable them to afford living closer to work.

...there is much evidence suggesting the Millennial generation is not as bound to the automobile as previous generations. Millennials are less likely to get their driver's licenses, take fewer car trips, and are more likely to get around by alternate means: by foot, by bike, or by transit.

- 2017 Portland Comprehensive Plan

They also tend to be more comfortable using modes other than the single-occupancy automobile for transportation. These multi-modal habits were heavily influenced by the Great Recession and driving by Millennials has increased slowly as the economy has improved. However, from a behavior change perspective, this familiarity with different ways of getting around will greatly facilitate these employees' participation in the proposed WEX TDM program that follows.

C. Site Transportation Overview & Context

Historically, the Eastern Waterfront has been a vital part of the economic life of the City of Portland, connecting local and distant markets by sea and rail. WEX brings a new generation of commercial vibrancy to a parcel that was once part of a thriving railyard and that has lain relatively dormant for a number of years as an unsurfaced parking lot.

This unique segment of the waterfront, nestled between the Old Port commercial district and East End residential neighborhoods, is located in the B-6 zone and has always been home to a diverse mix of uses. The area is seeing an overall rebirth with in-fill development of residential housing, increased public access to the water, passenger boat service, businesses, hotels and restaurants. The WEX project supports the mixed-use, urban form, and multi-modal objectives of Portland's *Master Plan for the*



The Master Plan envisions new development in the area to be an amenity and an asset to neighborhood residents, the greater City, and the visiting public.

- *Master Plan for the Redevelopment of the Eastern Waterfront*



LOCAL GOALS

WE WILL:

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

Support livability by improving the quality of life in neighborhoods and improving the public health of residents.

Support sustainability by reducing energy consumption, greenhouse gas emissions, and stormwater impacts.

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

2017 Portland Comprehensive Plan

Redevelopment of the Eastern Waterfront (2002, amended 2006) and the 2017 Comprehensive Plan, *Portland's Plan 2030*.

The site is pedestrian and bicycle-friendly, located within the strong sidewalk network and lower-speed street grid of the Eastern Waterfront and Portland peninsula.



It's also near the terminus of the Eastern Promenade multi-use path, a pivotal link in Portland's alternate transportation system. Existing and newly recruited WEX employees who live on the Portland peninsula will be within comfortable walking distance of the company's headquarters. Those employees within a five-mile commute distance can also easily bike to work, especially as bicycle networks in Portland, South Portland and Falmouth continue to improve.

From a public transportation perspective the project is within walking distance of several METRO routes that stop at Congress and India Streets: the Route 1 that traverses the peninsula and connects with the Portland Transportation Center, the Route 7 to and from Falmouth, the crosstown Routes 9A and 9B to off-peninsula neighborhoods and the Breez with service to Yarmouth, Freeport and Brunswick. The site is also within walking distance of all South Portland Bus routes at Fore and Union Streets.

Portland and local transit providers have long eyed improved transit connections to the Eastern Waterfront from other transportation nodes across the city, including the Portland Transportation Center and the heart of downtown – where a number of METRO routes, the Lakes Region Explorer and Shuttlebus-ZOOM services terminate. These routes are also within walking distance of the new site. However, closer access to transit would likely enable increased ridership by WEX employees.

Two recent examples offering transit improvement recommendations for the waterfront are the 2015 *Portland "Hub Link" Feasibility Study* and the draft 2017 *City of Portland Parking Study for the Eastern Waterfront & Downtown*. City management has also expressed interest in serving as

We recommend continued pursuance of the following goals:

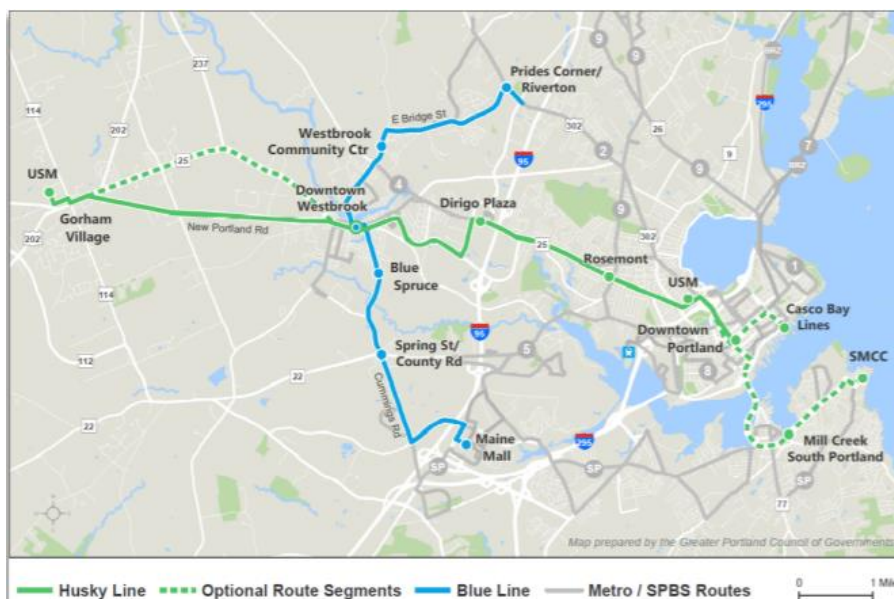
- *Increase the peak period frequency of key Peninsula routes to 10-20 min headways*
- *Provide a direct link between the Portland Transportation Center and Downtown/ Waterfront. As development on the Eastern Waterfront progresses, service should extend there as well.*
- *Use signal prioritization and other techniques (exclusive lanes perhaps) to help move buses through congested areas.*

...Additionally, we recommend the consideration of a downtown circulator route specifically meant to transport riders between the Waterfront and Cumberland Ave in a loop.

- Draft 2017 City of Portland Parking Study for the Eastern Waterfront & Downtown

a test site for an automated Olli bus between the Portland Transportation Center, downtown and the waterfront. With the advent of the 58 Fore Street complex, additional discussions have arisen about possible public-private collaboration to bring transit into the Eastern Waterfront, beyond the METRO peninsula Route 8 on India Street and the Route 1 up to Munjoy Hill. WEX plans to join these discussions with METRO as well, to benefit improved public transportation options for its employees and the general public.

Census commute data for employees originating in nearby communities with access to transit is behind the curve, not yet showing the results of the recent addition of the Lakes Region Explorer service from Bridgton, Naples, Raymond and Windham and the METRO Breez with service now from Brunswick, Freeport and Yarmouth. And commuters from Gorham and Westbrook are eyeing the 2018 launch of the METRO Husky Line and improved frequency of service on Brighton Avenue as a good option.



In addition, affordable housing issues are prompting the move of many workers into outlying areas. From discussions with Shuttlebus-ZOOM, it appears that office workers from Portland who have moved to Saco and Biddeford are informing developers of their interest in using transit to get to work and their frustration with a lack of a timely downtown Saco-Biddeford connector to the ZOOM stop at the Maine Turnpike exit – in order to access express service into Portland. The transit provider is now looking at commuter shuttle connections to the ZOOM.

Meanwhile, amenities near the WEX site provide an attractive dual-purpose trip for employees who do end up driving to work. Examples include: walking to run errands at nearby businesses, having lunch meetings with colleagues at local restaurants, meeting up with family and friends for after-hours events downtown, and exercising on the Eastern Prom Trail. These are ways WEX employees' travel behavior is likely to change with their move from a suburban campus to this new urban setting. These "internally captured" trips represent no net new trip generation or parking demand beyond the original trip to work.



D. TDM Coordinator

Highly successful TDM programs share three vital characteristics: (1) they are dynamic: piloting strategies, assessing impacts, and modifying tactics as needed; (2) they are rigorously monitored and supported by local governing bodies, in this case, the City of Portland; and (3) they are managed by committed and enthusiastic staff who are responsible for overseeing, promoting and sustaining the program.

WEX has designated Safet Cobaj, Vice President of Real Estate, as its TDM Coordinator, charged with coordinating the TDM plan implementation, monitoring and any needed changes. The company will provide the TDM Coordinator with a stipend to support this work to lead WEX's ongoing TDM efforts. Acknowledging that roles and responsibilities change over time in any position, the organization has enumerated the TDM Coordinator's responsibilities in detail for any other staff to uphold the responsibility of the position. The Coordinator's contact information is: Safet Cobaj, 123 Darling Avenue, South Portland, ME 04106, (207) 523-6186, Safet.Cobaj@wexinco.com

Day-to-day operations and monitoring of the TDM plan will be conducted in-house by the appointed WEX TDM

The WEX TDM coordinator is responsible for the following:

- Strategic parking management to reduce company payments for accessory parking (see Section F)
- Encouraging greater use of preferred modes through social media, website, on-site kiosk and company-wide promotion (Section G)
- Coordinating company policies, subsidies and incentives (Section F)
- Overseeing comprehensive surveying of staff (Section H)
- Monitoring of employee parking usage and the effectiveness of TDM strategies (Section H)
- Filing annual reports and updating the plan with the City (Section H)
- Exploration of additional TDM strategies, if needed

Coordinator; however, WEX will retain the services of a TDM consultant to review initiatives, problem-solve, and develop new strategies if and when necessary.

E. Trip Generation and Parking Demand Projections and Targets

WEX is committed to reducing drive-alone employee automobile trips, improving multi-modal safety, and easing traffic congestion and area parking demand.

Projected Trip & Parking Generation

On behalf of WEX, Traffic Solutions and Cushman Transportation Consulting, LLC have developed ITE and census-based trip generation and parking demand projections to establish the impact of the new WEX headquarters. These numbers are preliminary and subsequent employee origination data will likely enhance these calculations.

Accordingly, the company is expected to generate a total of 180 vehicle trips during the morning peak hour and 160 trips during the evening peak hour. The parking demand projection is for 284 spaces for WEX employees and another 29 spaces shared between the three retail establishments on the first floor of the building.

Trip Reduction Target

WEX will use the first full year of operations to confirm a more consistent number of drive-alone trips to the site and use of other transportation modes, recognizing that time is required for the cultural shift from a suburban campus to an urban core setting. Combining these updated numbers with the multi-modal accessibility of the new site and also robust company parking management and financial incentives for preferred modes of travel, an achievable trip reduction target for employees is 5% for the first year after WEX opens its new headquarters – so 9 morning peak trips and 8 evening peak trips. This trip reduction target will be re-visited after the first year of implementation.

Parking Reduction Target

Similar to the trip reduction target, the primary goal of the initial year will be to ascertain the actual parking demand number for the new site. Based on the above parking demand projections - and understanding that assertive parking management is key to transportation behavior change and helps fund increased employee transportation choice - an achievable

Projections & Targets

- Site trip generation: 180 AM peak, 160 PM peak
- WEX parking demand: 284 spaces
- Trip reduction target: 5% over first year
- Parking reduction target: 5% over first year
- Reassess trip and parking reduction targets at end of year 1

parking demand reduction is 5% over the first year of the site occupancy; this is 14 spaces. The parking demand target will also be re-visited after the first year of implementation.

WEX plans to work with a local TDM consultant to continue creating and achieving goals for shifting modes and to closely monitor existing trends to attain a reasonable mode-shift goal over time.

F. Trip/Parking Reduction Strategies & Incentives

WEX proposes a number of best-practice and sensible parking and trip reduction strategies for its plan. These include:

- Strategic parking management
- Subsidizing and facilitating transit use, van and carpooling, bicycling and walking
- Subsidizing carshare and bikeshare
- Supporting alternate work arrangements
- Infrastructure support, such as: secure bicycle parking, showers and lockers
- Marketing preferred modes of travel through company communications and incentive campaigns
- Funding the company’s alternate, preferred transportation modes programming and services through reduction in parking costs
- Exploring partnerships with the City of Portland and METRO for transit and infrastructure improvements - for expanded transit service and walking and bicycling routes to the Eastern Waterfront
- Supporting and participating in potential Transportation Management Association

Parking Management

WEX understands that strategic parking management produces the strongest results for reducing single-occupancy vehicle employee trips. The city Land Use Code continues to have minimum off-street parking requirements and requires 230 spaces for the 92,027 square feet of WEX office space. Initially, WEX has forecasted leasing up to 320 parking spaces for

Parking

- Unbundled parking
- New hires pay for parking on daily basis (only when used)
- Relocated employees offered stipend for use for parking or multi-modal pass/voucher
- Provide occasional parking for primarily multi-modal staff
- Preferential parking for carpools
- Reassess parking needs every 6 months

its employees at the Ocean Gateway Garage. It plans to reduce the need for that number before it occupies the site.

The company proposes the following parking management strategies to help ensure that there are enough parking spaces to support functioning of the headquarters, while not providing more parking than necessary:

- Maintain this unbundled parking (leased separately) from its office space for the length of WEX's lease at O Hancock Street.
- Provide stipend for relocated employees at least initially, as part of the relocation package; stipend can be used for parking, monthly transit pass, carpool/vanpool voucher, bikeshare membership, etc.
- Charge newly hired employees for parking on a daily basis; employees only pay for parking when they use spaces. Per this national best-practice, WEX will charge \$15 per day for the first 10 days of the \$150 monthly rate for parking at the Gateway Garage.
- Provide preferential parking spaces for carpools and vanpools at the Gateway Garage, conveniently located near the WEX site. This program is available through GO MAINE, the statewide commuter assistance program. GO MAINE administers the program and provides registered participants with the Preferential Parking Agreements and Passes.
- Provide occasional parking for primarily multi-modal staff; e.g., for a carpooler or bicycle commuter who occasionally needs to drive to work
- Reassess the number of spaces needed for company employees twice annually



Public Transit

WEX will provide a free monthly transit pass or multi-ride ticket to each employee for any area transit provider (METRO, South Portland, Lakes Region Explorer, Shuttlebus-ZOOM, Amtrak and Casco Bay Ferry). This benefit will be offered to employees upon hire and at least once annually. WEX will also explore whether new fare media that METRO has planned for 2018 could enable the company to be billed for individual trips taken by employees who are part-time transit users.

Transit

- Free monthly transit pass or multi-ride ticket
- Exploration of METRO expansion to Eastern Waterfront
- Possible interim Lyft/Uber connection to peninsula transit

WEX will also work with the Greater Portland Transit District (METRO) on expansion of transit to the Eastern Waterfront. The company knows about local interest in expanding bus service to its location and other area developments, such as 58 Fore Street. WEX is also cognizant of the mitigation of traffic impacts through site support of transit improvements, such as the annual transit subsidy the non-profit St. Lawrence Arts Center will provide for increased Route 1 service to the East End. Any potential partnership with METRO would not only serve WEX staff, but also all city residents and visitors.

In addition, peninsula transit improvements are a potential use of the City of Portland's Downtown Transit-Oriented Development Tax Increment Financing (TIF) revenue, approved in 2015 and activated in 2016. A possible WEX and 58 Fore Street partnership with METRO could be joined with TIF revenue to support even broader and more consequential transit improvements. By growing ridership and diversifying the transit system's revenue base, a partnership can also improve METRO's competitiveness for obtaining new federal grant funds for further expansion.

In the meantime, WEX may explore a customized Transportation Network Company (TNC - e.g., Lyft & Uber) solution for employees to access transit routes elsewhere on the peninsula.

Rideshare

Some WEX staff do carpool currently and WEX has a number of employees who are registered users of GO MAINE, the statewide commuter assistance program.

On par with its transit incentive, WEX will offer up to \$90 per month for carpool and vanpool vouchers for employees who use these modes of travel. The company will also offer one-time gift card incentives for employees who start new carpools or vanpools and who recruit additional employees to share rides. WEX will facilitate carpool matching through GO MAINE and sign up all staff who walk, bicycle, use carpools or vanpools and/or public transit for GO MAINE services, which include:

- the Emergency Ride Home benefit
- GO MAINE trip rewards
- Preferential Parking program

Rideshare

- Offer financial incentives for formation of carpools and vRide/Enterprise vanpools
- Offer monthly voucher for carpool/vanpool on par with transit pass
- Register multi-modal staff with GO MAINE
- Do cluster analysis with vRide/Enterprise



WEX will also engage vRide (now owned by Enterprise) to do a zip code cluster analysis of relocated and new employees at the site. This will facilitate the formation of carpools and vanpools of 7 or more people, when a number of staff originate from a particular municipality.

Alternate Work Arrangements

WEX will enact a policy offering those employees with flexible office hours the option to telecommute a portion of the work week, condense their work hours into larger shifts (such as four 10-hour days), and/or arrive and leave on a flexible schedule. Staff will be encouraged to arrive at the site outside of the morning peak hour (by 7am or after 9:30am) and leave outside the evening peak period (before 4pm or after 6pm).

Alternate Work Arrangements

- Written policy for flextime, telecommuting, and condensed shifts
- Encourage all possible staff to avoid AM and PM peak travel

Walking, Bicycling and Bikeshare

WEX will provide secured bicycle parking (bike lockers) for employees at the Ocean Gateway Garage and have showers and lockers available on-site for walk and bike commuters. This is in addition to sidewalk and crosswalk improvements and city-required bicycle parking the site developer will provide. WEX is committed to meeting a higher demand for bike parking if needed and intends to continue to work with City of Portland to further enhance safe and convenient pedestrian and bicycle access to the Eastern Waterfront.

Walk/Bike Commute & Bikeshare

- Showers & lockers
- Federal bicycle commuting benefit
- Reimburse bike safety classes
- Bicycle Benefits memberships for bike commuters
- Work with Portland Bikeshare for nearby dock
- Monthly bikeshare passes
- Company account with Portland Bikeshare for daytime trips
- Consider informal company bikeshare in meantime

To encourage bicycle commuting and improve traffic safety, WEX will also reimburse employees for completing Cycling Savvy and/or League of American Bicyclists' Traffic Skills 101 courses; both are offered locally. In addition, the company will purchase Bicycle Benefits memberships for bicycle commuting staff (one-time \$5 helmet sticker - www.bicyclebenefits.org). This national program is active in Portland and local businesses offer rewards for patrons who arrive at their establishments by bicycle.

For shorter staff trips during the work day and to promote additional bicycle commuting, WEX will work with Portland Bikeshare to secure a bicycle dock near the company's site (Portland Bikeshare launches in 2018). On par with its transit and rideshare subsidy, WEX will offer monthly bikeshare passes to interested employees. The company will also offer the federal bicycle commuter benefit to staff who ride their own bicycles to work.



In the meantime, similar to WEX's program at its South Portland campus, WEX could maintain one or more shared bicycles and associated gear such as helmets and locks - available for daytime use.

Family and Islander TDM Amenities

Employees with children and island residents are more able to walk, bicycle and carpool to work if they have on-site, secure storage for larger commuting gear that generally doesn't fit in shower lockers or standard bicycle lockers, such as those located at Ocean Gateway Garage. Examples of this equipment are: car seats, strollers, handcarts, bicycle trailers and cargo bicycles or other large bicycle set-ups like tag-alongs. WEX will investigate whether it's possible to provide such a storage location with ground-floor access to its employees. If there is high enough demand, WEX will consider replacing some standard shower lockers with ones for car seat, stroller, or hand-cart storage with a useable interior space that is at least 35 inches high, 25 inches wide and 30 inches deep.

Family & Islander Amenities

- Secure on-site storage for equipment that enables preferred commutes: e.g., car seats, hand carts, bicycle trailers, cargo bikes

Near-site Carshare

WEX will set up an account with UhaulCarShare so that employees can access a vehicle for trips required during the work day. The company will pay for business-related car use.

Carshare

- Company account with UhaulCarShare for daytime trips
- Negotiate with Uhaul for additional vehicle(s) if needed

UhaulCarShare is available in Portland and South Portland, currently providing access to a total of nine vehicles on an hourly or daily basis. One of these is located at 30 Commercial Street, just two blocks from the WEX site near the Casco Bay Ferry Terminal. At one time there were two carshare vehicles at this location and, if the demand is strong enough, WEX can negotiate with Uhaul for additional available vehicles.



Short-term Incentive Campaigns

To help build employee awareness of WEX's TDM efforts and encourage a cultural change in transportation habits, the company plans to implement a monthly incentive campaign for the first year after opening, entering staff who use transit, carpool/vanpool, walk or bike or use alternate work arrangements into an ongoing raffle for gift cards, vacation time, or other benefits.

Thereafter, WEX plans to run one or two short-term incentive campaigns each year, preferably tied in with local and national multi-modal campaigns, such as: the Way 2 GO MAINE Business to Business Commuter Challenge, the National Bike Challenge and National Bike to Work Day, Park(ing) Day and World Car-Free Day. Similar to the monthly raffle of the first year, employees who use preferred modes of transportation will be entered to win various rewards. WEX sees this experiment with encouragement campaigns as part of the dynamic nature of the plan and exploring what works.

Incentive Campaigns

- 1st year: monthly raffle for multi-modal staff with benefits such as vacation time, gift cards, etc.
- Thereafter, campaigns 1-2 times per year, tied to regional and national events and offering similar rewards

Transportation Management Association

Portland Area Comprehensive Transportation System (PACTS) has recently convened a process to reexamine the need for an area Transportation Management Association (TMA) to benefit private sector employers. TMAs are non-profit entities that assist employers like WEX with TDM implementation and monitoring, advocating for improved transit and other transportation solutions for local business, and acting as brokers for services such as: vanpools, customized Transportation Network Company trips, etc. WEX is interested in this development and plans to support the development of a TMA, if found to be feasible, and participate as a member.

Support for TMA

- Support the development of area TMA, if found feasible
- Participate as member

G. Marketing

Another critical component for the success of WEX's TDM Plan is a carefully thought-out marketing plan that regularly engages employees regarding preferred modes of transportation, provides easily accessible information and builds company culture and leadership in the community. WEX has begun designing a marketing strategy that complements other area Portland TDM work to promote walking, bicycling, rideshare, the use of public transit and alternate work arrangements.

WEX's initial marketing plan:

- Ensure all relocated WEX employees and new hires receive:
 - a transportation orientation and welcome packet, with tailored marketing information about sustainable transportation options to access the site and alternate work arrangements, including specific choices for major commute origins
 - the opportunity for a one-on-one consultation about their commute options;
 - a written commitment card for those willing to try alternate modes – signing has shown to have a strong impact on behavior change
- Design and actively maintain an "Optimize Your Commute" employee web page that is clearly posted. The page will include:
 - A clear and compelling company culture statement citing the positive impacts of multi-modal transportation for employees, WEX and the community - emphasis on ease and positive utility of preferred transportation methods.
 - How to access the subsidies, benefits and incentives available to use preferred modes of transportation; emphasizing these options over travelling alone by automobile
 - Instructions for using local public transit options, GO MAINE carpool matching, vRide/Enterprise vanpools, bikeshare and carshare; to include links to various programs and web tools, including the Google Maps (Transit) trip planner and Southern Maine Transit Tracker
 - A multi-modal map identifying:
 - transit stops and routes
 - the walk zone, common walk routes and bike lanes and trails, bicycle parking, links to Google Maps walking and bicycling trip planners and

Marketing

- Transportation orientation for relocated & new employees
- Commute coaching
- *Optimize Your Commute* employee web page & multi-modal map
- Transit screen & TDM kiosk
- Employee recognition
- TDM committee or subcommittee
- Pursue Best Workplaces for Commuters status

Portland Trails; estimated walk and bike times will be provided to emphasize ease and swiftness to encourage these preferred transportation options

- Information on alternate work arrangements and other company TDM policies
- Story sharing, such as employee commuter profiles and the results of staff transportation surveys
- Physically posted information:
 - Broadcast real-time METRO and South Portland bus arrival information – as well as information about other mode options - on a transit screen in the WEX lobby
 - Provide a highly visible and well-maintained travel information kiosk in the lobby with the same content as the employee web page
- Partner with Go Maine and the Bicycle Coalition of Maine to offer all employees “commute coaching” at least once annually
- Regularly recognize employees who use preferred modes through company social media, email, newsletter, bulletin board or other announcements
- Form a company committee or sub-group of an existing company committee – such as a Wellness or Green Team - to advise the site’s TDM work and help with peer-led campaigns that encourage active transportation to work
- Consider pursuing Best Workplaces for Commuters status – a national qualification that no Maine business has yet attained



H. Surveying & Monitoring

Recognizing that the implementation of a TDM Plan is a dynamic process, WEX’s TDM Coordinator will monitor the TDM Plan’s components to assess whether the company is achieving the trip and parking reduction targets listed above. The company will evaluate the value of various subsidies for preferred modes and make improvements. Another important piece will be to determine the flexibility of employees to utilize various travel modes to access the site.

This evaluation will be conducted twice annually during the first two years after WEX opens its new headquarters and once annually thereafter. The data collection and surveys will produce comparable data from year to year and be available

Surveying & Monitoring

- Twice annual surveying & monitoring for 1st two years; once annually thereafter
- Employee surveys
- Parking usage
- Employee use of multi-modal subsidies

for compilation with other sites' travel data by a third party, such as the city. Based upon the results of the monitoring, WEX will update the TDM Plan and submit a draft to the city's TDM Manager for review and comments. The following will be included in the monitoring assessment.

Employee Surveys

The survey will be developed in consultation with the city's TDM manager and conform to overall city TDM modeling and planning. It will include:

- Mode of travel to and from work
- Frequency of use (if any) of alternate work arrangements
- Preferences, barriers or concerns with modes of travel

Parking Usage

WEX will work with Ocean Gateway Garage to produce a summary of monthly parking leases and daily parking usage. This will also be used to assess whether the company can choose to lease fewer spaces.

Transit/Carpool/Vanpool/Bikeshare/Carshare Usage

WEX will track the number of employees utilizing monthly transit passes and multi-ride tickets, carpool and vanpool vouchers, monthly bikeshare memberships (when Portland Bikeshare launches), and usage of company UhaulCarShare account.

I. Project-Specific Infrastructure Improvements

General Contribution to Area Transportation Improvements

Through the state Traffic Movement Permit process, the developer of the WEX site will contribute \$650 per peak morning drive-alone trip to the city for transportation improvements within the commute shed of the project.

Sidewalk Improvements

The developer of the WEX site will rebuild the sidewalks immediately adjacent to the site on Hancock and Thames Streets.

Crossing Improvements

The developer will also make ADA and other improvements to the existing crosswalks at Hancock/Thames and the Ocean Gateway Terminal.



Bicycle Parking

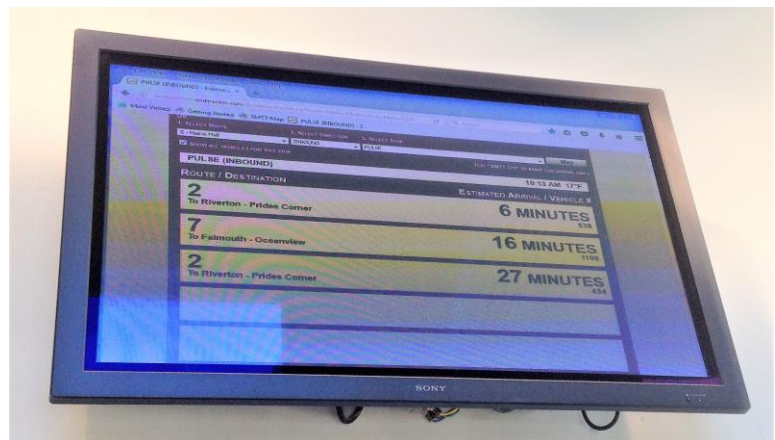
As part of WEX's site plan, eight bicycle racks will be placed near the WEX entry on Hancock Street and six racks will be available on the rear plaza - for a total of 28 bicycles. The company will also lease 6 bike storage lockers at Ocean Gateway garage. In addition, WEX is working to provide secure storage inside the building for larger bicycles and other multi-modal commuting equipment, such as hand carts, car seats, strollers and bike trailers. If demand warrants additional bike parking, WEX will provide it, including exploring additional locker space in the garage.



Bike lockers on 1st floor of Ocean Gateway Garage

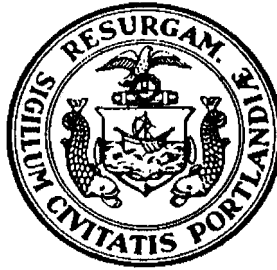
Transit Screen & TDM Kiosk

WEX will install a display screen in its downstairs lobby with Southern Maine Transit Tracker information and other transportation options. This will include live bus arrival information for routes near the site – for example, the METRO Crosstown 9A and 9B and Breez stop at India and Congress Street and the three South Portland routes that stop at Fore and Temple. Also in the lobby, and mirroring WEX's transportation web page and marketing via social media, the venue will erect a highly visible and well-maintained travel information kiosk.



CITY OF PORTLAND WASTEWATER CAPACITY APPLICATION

Department of Public Services,
212 Canco Road,
Portland, Maine 04103-4221



Bradley Roland, P.E.
Water Resources Division

Date: March 24 2023

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

Site Address: 0 Thames Street

Chart Block Lot Number: Tax Map 32/Lot U-003

Proposed Use: office/retail and 300 seat restaurant

Previous Use: Parking lot

Existing Sanitary Flows: 0 GPD

Existing Process Flows: 0 GPD

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

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

x

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

2. Please, Submit Contact Information.

City Planner's Name: not assigned yet Phone: _____

Owner/Developer Name: 144 Fore St. OZ LLC Attn: Jon Cohen

Owner/Developer Address: One Portland Square, Suite 6A Maine 04101

Phone: 207-879-7800

Fax: _____ E-mail: jcohen@a-d-w.biz

Engineering Consultant Name: Stephen Bushey, P.E.

Engineering Consultant Address: Gorill Palmer 300 Southborough Drive - Suite #200, So. Portland, ME 04106

Phone: 207-772-2515

Fax: _____ E-mail: sbushey@gorillpalmer.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: 9,960 GPD

Peaking Factor/ Peak Times: Not Applicable

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) XSUBSURFACE WASTEWATER DISPOSAL RULES

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 Available

Size of External Grease Interceptor:

1500 gal

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):

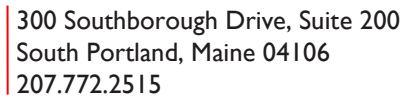
(<http://www.osha.gov/oshstats/sicser.html>)

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.

Building – Parking Garage/Office	Design Flow (GPD)
Office – 250 Employees @ 12 gpd/employee	3,000
Mercantile Space – 10 Employees @ 12 gpd/employee	120
Eating Place, 2 meals/day (20gpd/seat plus 12gpd/employee) 300 seats, 18 employees	6,216
Total Office/Retail/Restaurant	9,960



March 24, 2023

Mr. Brad Roland
City of Portland Public Works
Canco Road
 Portland, Maine 04104-3553

**Subject: 0 Thames Street
Mixed Use development
Request for Ability to Serve Wastewater Capacity**

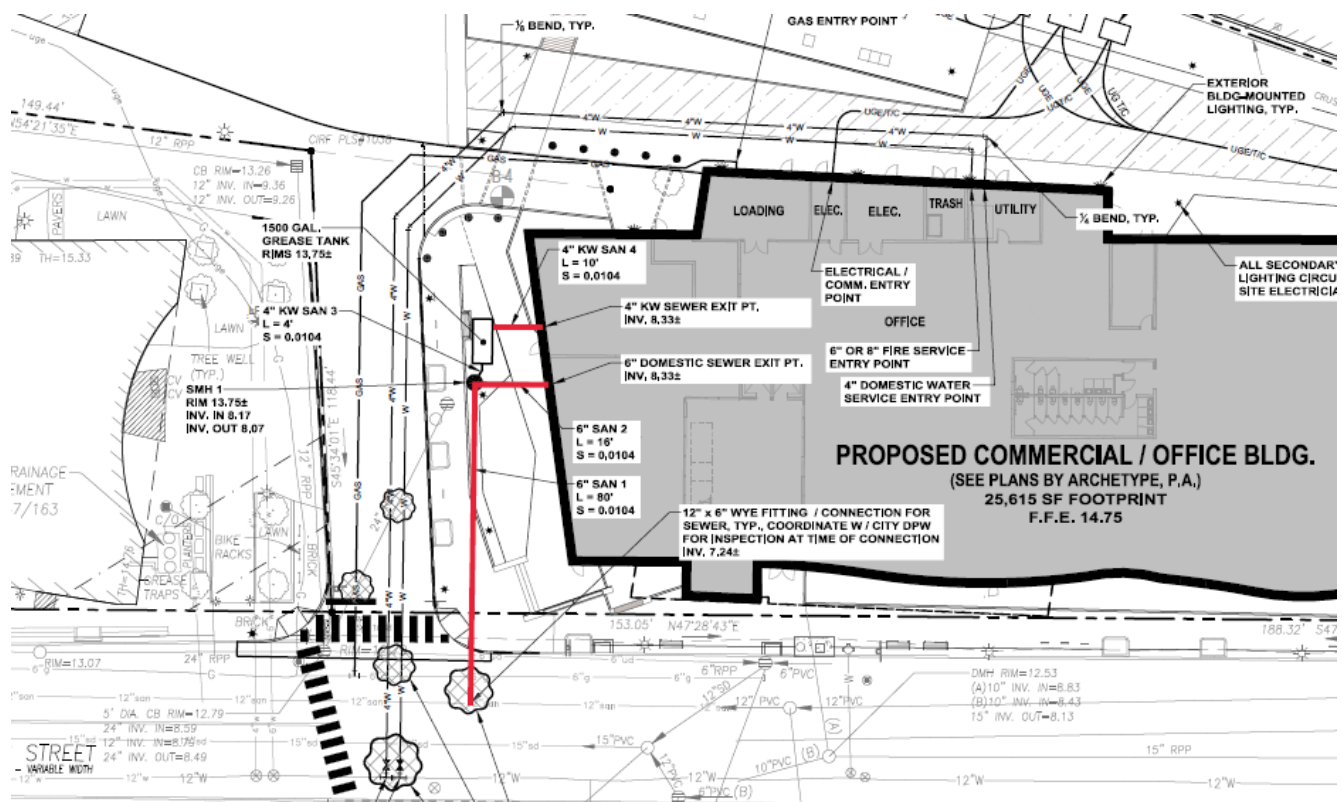
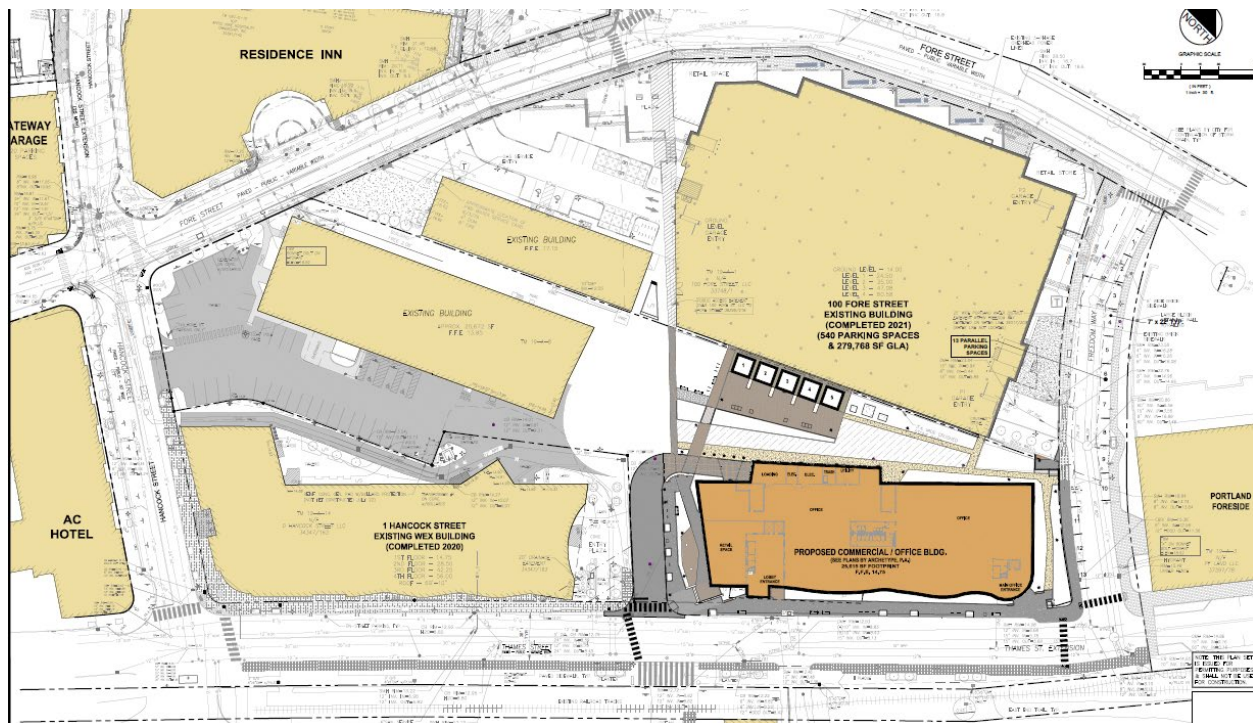
Dear Brad,

144 Fore St. OZ LLC (Applicant) has retained Gorrill Palmer to prepare plans and permit applications for the proposed development of a new mixed use 75,000 SF office building at the vacant City parking lot at 0 Thames Street in Portland. Besides approximately 42,000 SF of office space, the building will contain some mercantile space and a large restaurant on the upper floor. The project site is located on the following according to the City of Portland's Tax Map:

CBL 019 A002001 (City) and
CBL 019 A008/A013 (144 Fore St. OZ
LLC)

We would like to verify that the City has the ability to provide wastewater capacity for the project and to determine any impact fees. We are proposing to connect to the 12" sanitary line in Thames Street via a new 8" gravity line service out the side of the building. A kitchen waste line and grease tank are also proposed. We note that about 10,000 SF of the existing building at 144 Fore Street will be demolished to make way for the new building. The sanitary service(s) to that building, however, are expected to remain unchanged except for the demolition of some interior piping and plumbing. Ultimately, we expect the two lots to be reconfigured so each building will be on its own lot.







The projected Sanitary flow for the new building using the Maine State Plumbing Code and typical City of Portland flow information is as follows:

Building – Parking Garage/Office	Design Flow (GPD)
Office – 250 Employees @ 12 gpd/employee	3,000
Mercantile Space – 10 Employees @ 12 gpd/employee	120
Eating Place, 2 meals/day (20gpd/seat plus 12gpd/employee) 300 seats, 20 employees	6,240
Total Office/Retail/Restaurant	9,360

We appreciate your review and consideration of this request and a wastewater capacity authorization to the planning Department. If you have any questions on the information submitted, please contact our office.

Regards,

GORRILL PALMER

Stephen R. Bushey, P.E.
Senior Associate
Phone: (207) 772-2515
sbushey@gorrillpalmer.com

Attachment

U:\3924_Thames Street-WEX_Portland, ME\H Utilities\PWDlabs_Wastewater_03.24.2023 final

Date: May 30, 2023

Re: Wastewater Capacity Authorization

Address: 70 Thames Street

Applicant: 144 Fore St OZ LLC

Planner: Charles Tetelman

Estimate of Anticipated Wastewater Flows				
Development	Unit Size	Number of Units	Gallons per Day per Unit	Total Gallons per Day
Existing Flow to Remain				
Vacant				
Proposed Flow				
Office - Employees at place of employment with no showers	# Employees	250	12 GPD/Employee	3000
Commercial - Employees at place of employment with no showers	# Employees	10	12 GPD/Employee	120
Eating Place, 2 Meals/ Day	# Employees	18	12 GPD/Employee	216
Eating Place, 2 Meals/ Day	# Seats	300	20 GPD/Seat	6000
Net Change				+ 9,336
*Values based on STATE OF MAINE: SUBSURFACE WASTEWATER DISPOSAL RULES, most recent edition				

Comments:

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

If the City can be of further assistance, please contact me at all 874-8840 or brad@portlandmaine.gov

Sincerely,

A handwritten signature in dark ink, reading "Bradley A. Roland". The signature is written in a cursive style with a large, stylized 'B' and 'R'.

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

**DRAFT
STORMWATER DRAINAGE SYSTEM
MAINTENANCE AGREEMENT**

**144 Fore St. OZ LLC
Commercial Office Building – 70 Thames Street**

IN CONSIDERATION OF the site plan approval granted by the Planning Board of the City of Portland to the proposed **70 Thames Street PL-002437-2023** - shown on the Site Layout Plan and Grading, Drainage & Erosion Control Plan (Plans are on file with the City of Portland Project ID PL-002437-2023) prepared by Gorrill Palmer Consulting Engineers of 300 Southborough Drive, South Portland, Maine stamped approved on _____ and attached hereto as Exhibit A and pursuant to a condition thereof, 144 Fore St. OZ LLC with a principal place of business in Portland, Maine, and having a mailing address of One Portland Square, Suite 6A, Portland, Maine 04101, the owner/operator of the site, 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 roof drain filter systems, the bioswale, and related onsite drainage infrastructure, (hereinafter collectively referred to as the “stormwater system”), as shown on the Grading, Drainage & Erosion Control Plan in Exhibit A and in strict compliance with the approved Stormwater Inspection and Maintenance Manual prepared for the Owner by Gorrill Palmer Consulting Engineers a copy of which is attached hereto as Exhibit B and Chapter 32 of the Portland City Code.

Owner of the subject premises further agrees, at its own cost, to keep a Stormwater Maintenance Log. Such log shall be made available for inspection by the City of Portland upon reasonable notice and request and be made part of the annual Stormwater reporting duties of the applicant to the City.

Said agreement is for the benefit of the said City of Portland and all persons in lawful possession of said premises and abutters thereto; further, that the said City of Portland and said persons in lawful possession may enforce this Agreement by an action at law or in equity in any court of competent jurisdiction; further, that after giving the Owner written notice and a stated time to perform, the said City of Portland, by its authorized agents or representatives, may, but is not obligated to, enter upon said premises to maintain, repair, or replace said stormwater system 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 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 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 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 and mailed by certified mail, return receipt requested or ordinary mail or both 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 the tax rolls, service shall be complete by mailing it to only the first listed owner. The failure to receive any written notice required by this agreement shall not prevent the City from entering the property and performing maintenance or repairs on the stormwater system, or any component thereof, or liening it or create a cause of action against the City.

Dated at Portland, Maine this ____ day of _____, 2023.

(name of company)

(representative of owner, name and title)

STATE OF MAINE
CUMBERLAND, ss.

Date: _____

Personally appeared the above-named _____ (name and title), 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: _____

**OPERATION AND MAINTENANCE FOR
70 THAMES STREET OFFICE BLDG**

PREPARED FOR:

**144 FORE ST. OZ LLC
ONE PORTLAND SQUARE SUITE 6A
PORTLAND, MAINE 04101**

PREPARED BY:

**GORRILL PALMER CONSULTING ENGINEERS
300 SOUTHBOROUGH DRIVE
SOUTH PORTLAND, MAINE**

JULY 2023

A. **INTRODUCTION**

The 70 Thames Street development features one or more Fabco downspout cartridge filter units, model 10080-2, or approved equal, located within the building. The stormwater management system must be regularly inspected and maintained to ensure that each component is performing as intended throughout its life.

B. **FABCO MODEL 10080-2 STORMBASIN CARTRIDGE FILTER UNIT**

Preface: The roof drain filter unit is intended to provide water quality treatment for runoff from the proposed roof surface prior to discharge into the municipal drainage system in Thames Street. Primary contaminants from the roof include bird waste, metals, dust, and related pollutants.

Inspection: The roof filter unit must be inspected to ensure proper function during rain events. Primary inspection goals include removal of debris, leaves, or related solids preventing filtering and water pass through or blocking the internal overflow.

Maintenance: If the filter is not draining within 24 hours, the filter media shall be replaced in accordance with the manufacturer's instructions. Debris must be removed from the filter unit. With all debris removed from the StormBasin the filter cartridge(s) will be exposed at the bottom. To remove the cartridge(s) reach down into the basin and firmly grasp the plastic outer rim of the cartridge body just below the foam, twist the cartridge body counterclockwise about ¼ turn until it stops, and lift the cartridge straight up to remove. Insert the new StormBasin cartridge down through the hole in the base of the unit. The colored ring on the cartridge should be facing upwards. Push the cartridge all the way through the hole until it rests on the bottom. Slowly turn the cartridge in a clockwise direction until the tabs align with the slots and the cartridge body drops about ¼' further down. Once the tabs fall through the slots, continue turning firmly in a clockwise direction until the tabs contact the STOPS. The cartridge is now installed.

Frequency: During the first year, the unit should be inspected quarterly and following all major storm events. Thereafter, the unit should be inspected at least every 6 months. Debris and sediment buildup should be removed as needed in accordance with manufacturer's recommendations. The filter cartridges shall be replaced on an annual basis. Cartridges can be sourced from Fabco Industries, Inc., phone 631-393-6024, 66 Central Avenue Farmingdale, NH 11735.

C. **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, plaza scuppers, trench drains, and field inlets. Inlets exist throughout the system.

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 on parking decks or plaza areas. Grass clippings and leaves should be bagged and removed particularly near the yard inlets near the building.

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 for this project.

D. 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 and is intended to be trapped near the inlets or in pretreatment devices. Maintenance of this system can play a major role in the long-term maintenance costs and the effectiveness of the pond 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 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 ensure 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 ensure their 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 downstream detention pond, or the 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. If a filter bag has been designated for the inlet silt or other deleterious materials, can significantly reduce capacity and the bags should be removed with sediment and replaced. Catch basin cleaning would normally be accomplished with vacuum trucks contracted as a maintenance service for the retail center. 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. The tidal influence can aggregate sedimentation since there are periods of no flow. Backwater valves and connection points are intended to reduce this occurrence.

Frequency: The pipe 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 or replacement 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.

Comments: Maintenance of inlets is of utmost importance to the project to avoid unintended roof loading, ice accumulation, and cleanliness of the floors of the building.

E. RECORD KEEPING

Records of all inspections and maintenance work accomplished must be kept and maintained to document filter operation and related site maintenance. 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 City staff associated with the City's stormwater program. Copies of such records should also be filed with the City's Stormwater Program Coordinator. A Typical inspection and maintenance record form is attached hereto as Attachment B.

F. CONTRACT SERVICES

In some instances, or at specific times, the owner may not have the ability to conduct the required inspection and/or maintenance programs as outlined in this document. In such a case, 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 a 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.

ATTACHMENT A

Sample Inspection Logs

**70 THAMES STREET
144 FORE ST OZ, LLC
PORTLAND, ME**

ROOF DRAIN FILTER ANNUAL INSPECTION & MAINTENANCE LOG			
FACILITY:		YEAR:	
LOCATION: 70 Thames		CONTRACTOR:	
FUNCTION:		INSPECTOR:	
DATE OF INSPECTION:			
ITEM IDENTIFICATION	DESCRIPTION OF CONDITIONS	MAINTENANCE ACCOMPLISHED	DATE OF MAINTENANCE
GENERAL COMMENTS:			

**STORMWATER MANAGEMENT SYSTEM
MAINTENANCE PROGRAM – SUMMARY CHECKLIST**

Item	Commentary	Frequency				
		Monthly	Quarterly	Semi-Annual	Annual	Long Term
Vegetated Slopes	Slopes and related ground surface should be inspected for erosion and sedimentation		X (until vegetation established)		X	
Roof Drain Filters	Inspect systems to verify adequate functioning and capacity. Dispose of filters that have reached useful life in accordance with manufacturer's recommendations. Replace filters as required.	X				
Litter	Litter should be removed daily.					



June 7, 2023

Stephen Bushey
Gorrill Palmer
300 Southborough Drive, Suite 200
South Portland, ME 04106

Re: 0 Thames Street, PO
Ability to Serve with PWD Water

Dear Mr. Bushey:

The Portland Water District has received your request for an Ability to Serve Determination for the noted site submitted on March 24, 2023. 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 and is valid for eighteen (18) months after the date of issue. Any changes affecting the approved water system will require further review and approval by PWD.**

Conditions of Service

The following conditions of service apply:

- A new 2-inch domestic service with a 1.5-inch meter may be installed from the water main in Thames Street. The service should enter through the property's frontage on Thames Street at least 10-feet from any side property lines. An approved testable double check valve backflow prevention device must be installed on the service line directly after the meter prior to service activation.
- A new 6-inch fire service may be installed from the water main in Thames Street. The service should enter through the property's frontage on Thames Street at least 10-feet from any side property lines. An approved testable double check valve backflow prevention device must be installed on the service line directly before the sprinkler riser prior to service activation.
- 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 complete a Service Application and pay all necessary fees for each proposed service. When the project is ready for construction, an Application for each service can be requested by contacting the MEANS Group at MEANS@pwd.org or 207-774-5961 ext. 3199. Once a completed Application has been submitted with payment, please allow seven (7) days for processing.

Existing Site Service

According to District records, the project site does not currently have existing water service.

Water System Characteristics

According to District records, there is an 12-inch diameter ductile iron water main in Thames Street and a public fire hydrant located approximately 80 feet from the site. The estimated static pressure in the area is 110 psi.

Public Fire Protection

The installation of new public hydrants to be accepted into the District water system will most likely not be required. It is your responsibility to contact the 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

ENVIRONMENTAL – Thames Street

14.6.2 (A) Preservation of Significant Natural Features – Not applicable.

The site is located on previously developed lands and it contains an existing gravel parking lot as well as building space, some of which will be demolished to make way for the proposed development. There are no known features of historic



importance or natural features to be preserved/protected. The site does not contain any waterfowl habitat nor aquifers, or waterbodies.

14.6.2 (B) Landscape Preservation – The site plan aims to replenish an urban land area consisting of a parking lot, building, and grassed shoulders into a vibrant public space that integrates best management practices and low impact design through a robust native planting scheme, a rain garden, and related landscape enhancements. The proposed plan includes significant new street tree planting and various vegetative covers within the proposed pedestrian spaces at the rear of the site. New Brick sidewalks will be constructed and various site amenities for the benefit of tenants and visitors will be put in place. The existing trees along Thames Street may be preserved or replaced subject to coordination with the City's arborist or DPW staff.

14.6.2 (C) Site landscaping and Buffers – The site landscaping and buffers address the vibrant city streetscape that the building is designed to embrace. Unique to the site's urban context is a 200' +/- planting bed along the



Thames Street sidewalk that reinforces the connectivity of the site planting scheme and unifies this city block with native species and pollinator habitat. Buffering Planting is being used to screen the interior public/private space from the parking garage at 100 Fore Street to the west of the site. The native street tree species have been chosen to respond to the City of Portland preferred

list and are contextually appropriate with the existing street trees on Thames Street, Hancock, and India Street.

14.6.2 (D) Water Quality, Stormwater Management and Erosion control – The site plan documents include various details and narrative describing the erosion control measures to be implemented during construction. The site is not within an urban impaired stream watershed. The site's runoff patterns will be unchanged in that runoff will be collected and conveyed into the nearby municipal systems on Thames Street and the recently installed 60" storm drain line in Freedom Way that discharges directly to the Fore River. As the site is nearly all impervious surface, there will no significant impacts to runoff peak discharge and volume. The pedestrian plaza space at the rear of the site will provide a low impact approach to runoff collection and vegetative treatment. The applicant is requesting a waiver of the Flooding standards given the overall level of existing imperviousness and the proximity of direct discharge to the Fore River. This approach has been previously granted similar waivers by the Planning Board for the 1 Hancock Street and 100 Fore Street developments.

June 20, 2023

Mr. Charles Tetelman, Planner

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

**Subject: Major Site Plan, Master Development Plan Amendment
Project ID – PL-002437-2023
144 Fore Street LLC - Applicant
Letter of Response #1– Response to Staff comments**

Dear Charles:

On behalf of **144 Fore Street LLC (Applicant)**, our office is pleased to provide the following responses to staff review comments provided within an email and memo dated May 26, 2023. For ease of review, we have repeated all of the staff comments in *italics* and provide our responses in **bold** as follows:

GENERAL

- 1. The Design Review Memo has been attached to this comment document.*

Response: Archetype PA has completed updated building plans and supporting information related to the comments contained in the Design Review Memo and that information has been uploaded to EPlan for staff and Planning Board review. The file uploaded to Eplan is titled 2023.06.20 Thames Street Architectural Updates.

- 2. Please show all Snow Storage areas on site or include commentary on how Snow will be managed and removed from the site.*

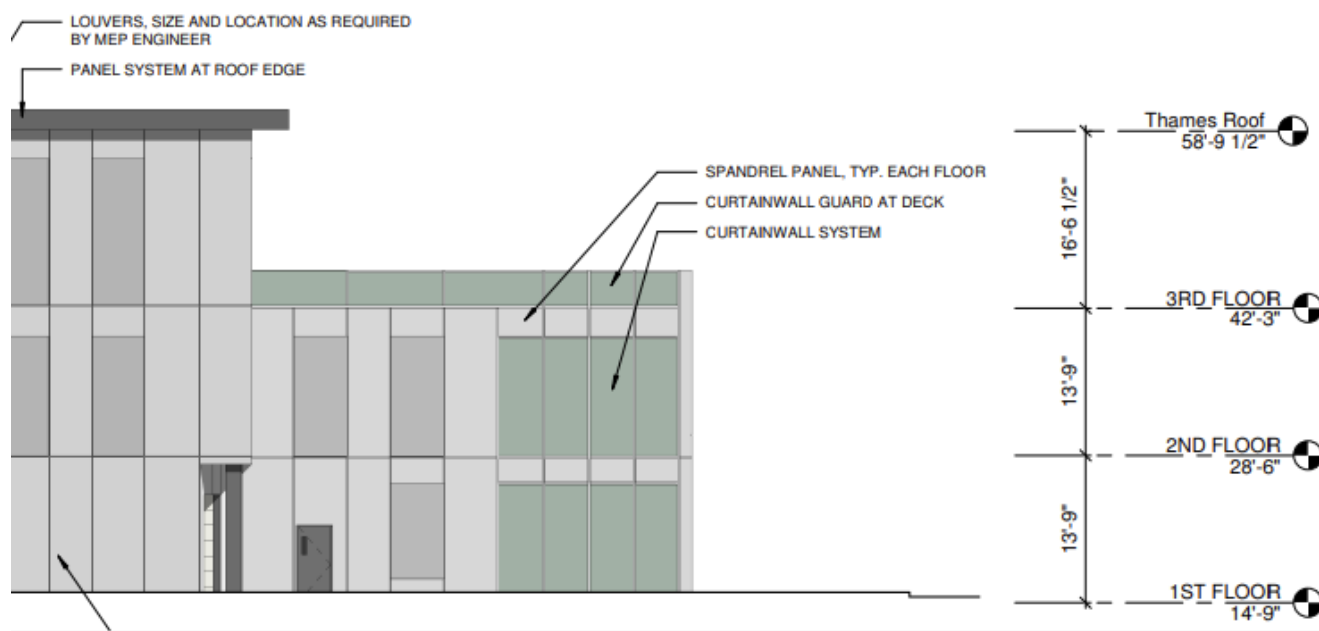
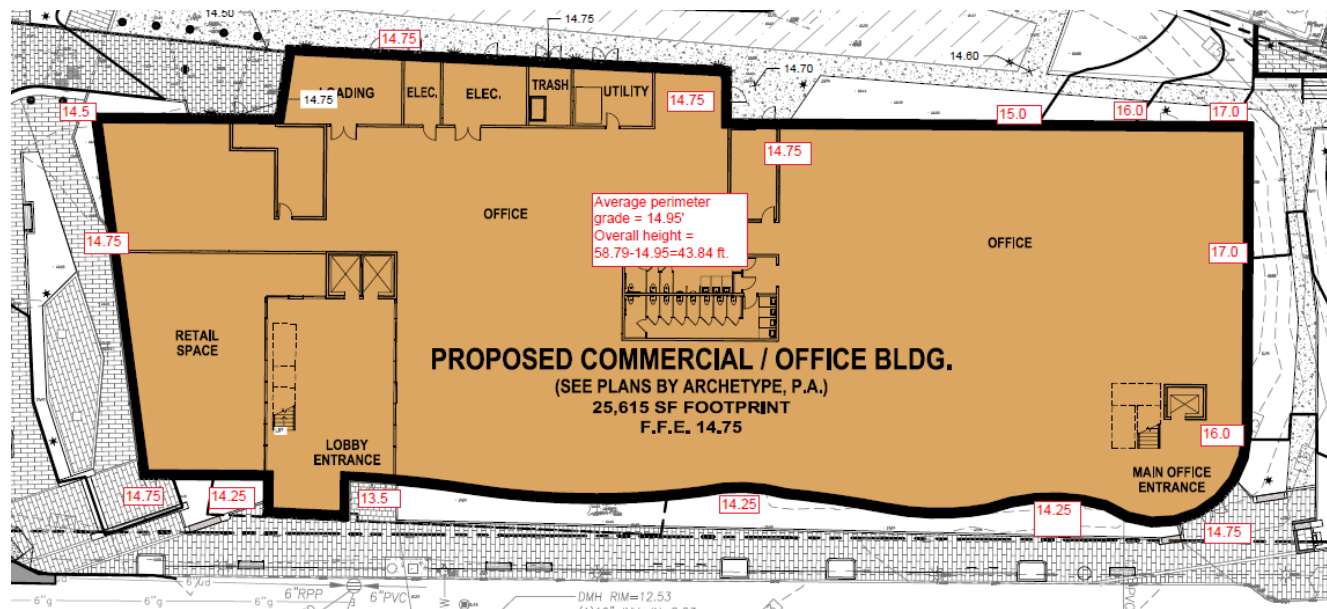
Response: Snow will be removed from the site by contracted snow removal services. This will include snow removal from the sidewalks, pedestrian areas, and vehicular drive off Thames Street.

ZONING

- 3. Zoning Analysis Table notes the required maximum height is 65 ft. Looking at the B-6 Zone Building Height Overlay Map, the proposed site is in the 45 ft. maximum height area. The elevations (A2.01) need to show the height from the average grade to the roof beam and also need to show how average grade is determined.*



Response: Based on an average grade around the building perimeter of 14.95', the overall building height is 43.84'. See the captions below:



4. *Note - for proposed roof top decks, any type of shade structure or roof will need to meet the 45 ft. maximum height from the average grade.*

Response: The applicant will be prepared to discuss these measures with the Planning Board at the workshop meeting.

5. *The applicant is proposing 100 off-street parking spaces in the 100 Fore St. Parking Garage. The*



applicant will have to meet the criteria outlined in section 19.1.6(B). A parking study is required.

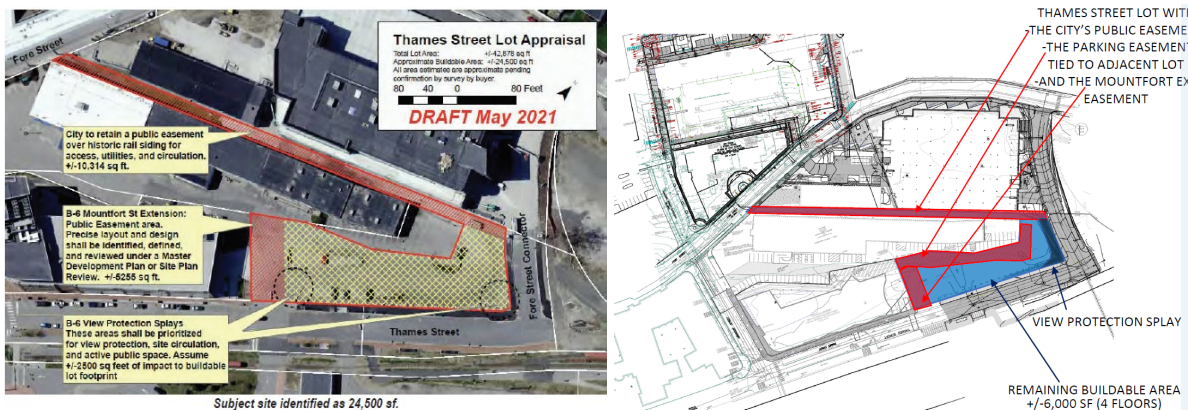
Response: The team is completing the parking assessment and will be prepared to discuss at the Planning Board Workshop and submit in the subsequent final application materials package.

6. *Please provide expected uses for the five buildings and provide a brief description of how they are intended to be operated (time, use, etc.)? Does the applicant have any solidified plans related to those structures? If 'incubator spaces', please elaborate further.*

Response: The incubator spaces are not yet tenanted with anyone nor are there any tenant uses even in discussion. The fundamental objective of the incubator spaces is to allow for a unique approach for very small commercial/retail tenants to provide life and vitality to the core pedestrian area between the buildings. Opportunities that have been discussed but not yet acted on include programming for small business owners, the migrant community, waterfront services and related themes consistent with downtown Portland and the surrounding uses. These spaces are small and will support only activity that is somewhat comparable to the street vendor and food truck community that has become popular in Portland.

7. *Freedom Way and Thames Street have 10 ft. setbacks. City Staff recommend moving the building footprint West towards Freedom Way and get rid of the walking path in between the existing sidewalk and the building (along Freedom Way). Additionally, please be sure to show setback dimensions on site plan.*

Response: The building layout primarily respects the City's desire for view splays as outlined in the original RFP solicitation as well as the proposal set forth by the applicant.



In addition, the sidewalk on the east side of the building is proposed since there is a variable grade differential of over 4 feet along the length of Freedom Way, fronting the side of the property. The positioning of the site sidewalk and maintaining the proposed building away from Freedom Way, aids with overcoming the grade difference and also allows for a greater view corridor width, when looking from Fore Street towards the waterfront. If the maximum setback were maintained, then much of the NW corner of the building would be below exterior grade.



TRANSPORTATION

8. *This application was part of the Eastern Waterfront Traffic Movement Permit. The applicant shall provide specific information that the following assumptions in the TMP are valid. City Staff note the current project includes retail and incubator business space.*
- *The development of a City of Portland owned parcel at 70 Thames Street, proposed to include 72,000 sf of office space with parking off-site in one of several parking garages being developed in the vicinity. City Tax Map 19; Block A, Lot #002001. The project is estimated to generate 126 AM and 139 PM weekday peak hour trip ends.*

Response: In the approved TMP the City land was estimated to generate 126 AM and 139 PM weekday peak hour trips. The proposed project now includes the following land uses and projected trip generation¹:

Table 1 – Trip Generation			
Land Use (LUC)	Area (SF)	AM Peak Trips	PM Peak Trips
Office (710)	43,730	51	50
Mercantile (814)	2,000	6	14
Restaurant (931)	8,315 (300 seats)	6	65
	Total	63 (50% of TMP)	129 (93% of TMP)

The incubator spaces will create 1,280 SF of space, which, even if considered as Mercantile, as shown in the above Table 1, will generate no more than 10 peak hour trips. Based on the originally approved trip generation the proposed project will not exceed the approved threshold values.

9. *The Eastern Waterfront Traffic Movement Permit noted the following:*
- *The City owned parcel shall pay the City's Traffic Impact Fee as stated in their Ordinance (\$2,800 per sf of office space, with the fee(s) adjusted as necessary based upon a site plan application once submitted).*
 - *City owned parcel. One general delivery driveway is expected to be incorporated into the final design. All parking demand is expected to be met elsewhere in the future structured parking in the vicinity. Final site access will be determined as part of Site Plan approval.*
 - *The period for which the traffic impacts of the project have been assessed is 5 years, with a full build-out at year 2023- If the full build-out extends beyond year 2023, the Department may require a study during the year of full occupancy. Coordination with MaineDOT is required.*

Response: The applicant is aware of these conditions, as we note that the applicant's representatives were also a participant in the EWTMP for the 100 Fore Street site development. We believe that the proposed development is entirely consistent with the development planning set forth by the City for the City owned parcel.

¹ Based on ITE 10th Edition Trip Generation



10. *The applicant shall provide turning templates for truck movements entering and exiting the site. This shall also include justification for the width of the driveway and size of the radii.*

Response: The turning template analysis is underway and will be made part of a final submission following the planning board workshop.

11. *The crosswalk location, alignment and ADA compliance on Thames Street will need to be reviewed and approved by DPW.*

Response: The crosswalk on Thames Street extends from a proposed curb radius at the SE corner of the driveway, over to the existing sidewalk landing on the opposite side of the street. Currently, this SE corner is squared off, and the project proposal is to reconfigure with a modest radius to better facility turning vehicle movements. The ramps on the opposite side of the street is also basically squared off.



Thames St at Gateway terminal entrance

12. *Improvements in the ROW shall be dimensions on the plan view sheets. For example ROW, street, lanes sidewalk, esplanade driveways (and other improvements) widths as well as when a width changes.*

Response: There are no street improvements on Thames Street except for the sidewalk enhancements to brick and the landscaping. Additional dimensional information will be provided on the final plan submission following the Planning Board workshop.

13. *The applicant shall update the plans to label or provide spot grades and slopes for the proposed sidewalks, accessible ramps and driveways at grade breaks.*

Response: Additional information will be provided on the final plan submission following the Planning Board workshop.

14. *The applicant shall provide clarification on what the proposed hardscape material is within the ROW.*



Response: The objective is to provide City standard brick sidewalk within the ROW and onsite. This includes new brick on Freedom Way and Thames Street to replace the existing asphalt surface the City previously installed. The landscape plans indicate some accent coursing as may be agreed upon with DPW.

15. The City's Technical Manual has been recently updated and approved. After reviewing the proposed details, applicant is using outdated details. The applicant shall update all proposed details (Site, Sewer, Stormwater, Landscape, details) to meet the requirements of the recently approved technical manual update.

Response: The final submission plans will include updated details as now contained in the Technical Manual.

16. The entrance to the property along Thames Street shall be constructed as a driveway not a roadway. This will eliminate/ change the two accessible ramps.

Response: We are amenable to this condition. It was unclear during the property transfer discussions with Corporation Counsel and others as to the City's direction for the driveway. The final plans will reflect these adjustments to represent the entrance as a driveway and not a street.

17. Any proposed accessible ramp shall be constructed separated from the driveway apron using the sidewalk as the landing. See example below.

The sidewalks and driveway shall be reconstructed in accordance with the City's Sidewalk and Driveway Apron Material Policy, and made compliant per the City's Technical Manual Section 1 and the current standard details. The sidewalk material shall be continued through the driveway aprons at grade with the proposed sidewalk and not in excess of 2% cross-slope per the current City standards.

Response: The final plans will reflect compliance with these requirements.

18. Consolidate proposed service trenches to have one final (full street width) trench repair.

Response: The trench restoration will be completed in accordance with the City's Street Moratorium requirements. Notes will be added to the final plans to achieve compliance.

19. The proposed trenches shall be repaired per the Minor Excavation Pavement Repair Details (prior to paving the finished surface) found in the Rules and Regulations for Excavation Activity. Update the plans and detail sheets to show these requirements.

Response: Notes referencing the City's requirements will be added to the final plans



prior to the final submission.

20. *The proposed UGE and Telecommunication connection in the sidewalk along Fore Street is not a valid connection Point. The applicant shall verify that services are available at this location and provide an alternate connection point on the next submittal.*

Response: The utility plan shows connections for underground power, telephone and communications on Freedom Way, as it has been understood that an underground duct bank for these services was previously installed during the construction of 100 Fore Street. We continue to investigate the ability to make these utility connections from this location.

WATER QUALITY, STORMWATER, & INFRASTRUCTURE

21. *The project is required to comply with MaineDEP Chapter 500 and City of Portland Section 5 standards for stormwater management.*

- *Basic Standard - The Applicant should provide an erosion control plan in accordance with the Basic Standards.*
- *General/Redevelopment Standard - The Applicant has not provided a stormwater management plan, but notes in their narrative on environmental standards that the sites runoff patterns will remain unchanged. Please confirm that there will not be 1,000 SF of new impervious surface or 5,000 SF of non-roof redeveloped impervious surface - if either of these thresholds are met, stormwater treatment will be required. It appears based on a review of the site plan that the redevelopment standard may need to be considered for the site.*
- *Flooding Standard - The project has requested a waiver of the Flooding Standard as it will discharge to tidal waters. This is consistent with waivers granted for similar projects discharging to Casco Bay.*

Response: A stormwater management review and report along with erosion controls narrative and plans will be made part of the final plan submission.

22. *The Grading, Drainage & Erosion Control Plan appears to have some layers turned off. I do not see any proposed drainage structures, piping, or erosion control measures shown. More information should be provided.*

Response: The next plan submission will contain additional information to address these comments.

23. *Thames Street is currently in a paving moratorium. The plans should reflect the paving repair required for utility installations.*

Response: Notes regarding adherence to the City's moratorium street repair requirements will be added to the plans.



24. *The applicant's narrative notes they will be connecting to utilities in Fore Street, but may also maintain existing utilities on the site. They should provide confirmation from utility providers on ability to serve for all services anticipated to be maintained or added.*

Response: A Determination letter from the Portland Water District and wastewater authorization from DPW have been uploaded to Eplan.

25. *The applicant shall update the grading and drainage plan to show proposed drainage infrastructure and connections to the City's storm drain system so DPW can review and provide comments.*

Response: The next plan submission will contain additional information to address these comments.

26. *The applicant shall provide a wastewater capacity application to DPW water resources for review and approval.*

Response: The wastewater authorization review dated May 30, 2023, has been uploaded to Eplan.

LANDSCAPING & ENVIRONMENTAL QUALITY

Mitchell & Associates have reviewed the Staff comments and are in the process of updating their plans accordingly. They will present information at the Planning Board workshop meeting to address these comments.

27. *Street trees should be spaced in accordance with Technical Manual chapter 4.6.3 requirements: every 25-35 feet on center in the City ROW. The Thames street frontage should meet that requirement. The trees currently proposed are very irregularly and sometimes widely spaced.*
28. *Removal of the two existing street trees (Pin Oaks) is acceptable, however the applicant should work with the City Arborist to evaluate the option of relocating them rather than disposing of them.*
29. *The current landscape plan proposes numerous Maples as street trees. Maples as a genus are currently very over-represented in the City's street tree canopy. The City Arborist would prefer to see non-maples being planted on Thames to increase the Portland's urban canopy resilience against pests and disease. Tulip Poplars could be a good choice for the Thames Street frontage.*
30. *Sheet L2 current landscape plan proposes numerous Maples as street trees. Maples as a genus are currently very over-represented in the City's street tree canopy. The City Arborist would prefer to see non-maples being planted on Thames to increase the Portland's urban canopy resilience against pests and disease. Tulip Poplars could be a good choice for the Thames Street frontage.*
31. *Please provide more information on the proposed "reinforced turf" in the form of a detail or specifications so that City Staff can better understand what is being proposed and why. Is this material being proposed due to anticipated vehicular traffic on the lawn?*



32. *There is a staircase wall extending into the Right of Way near the building's southern corner entrance. The wall (and stair if needed) should be adjusted to avoid narrowing/obstructing the sidewalk within the right-of-way.*
33. *Please clarify the inside dimensions of the proposed raised granite tree wells. They are labeled as 5'x7' in the tree well detail but appear to be smaller on the landscape plans.*
34. *When the raised granite tree wells directly abutt the street edge, they can form an obstruction to opening car doors. This can be avoided by the raised granite tree well "transitioning" to a flush curb where it abuts the street edge. Alternatively, the tree well may be shifted 2-3 feet away from the street-side curb to allow space for car doors to swing open.*
35. *The City is willing to provide support/assist with removal of parking barrier materials along the Thames St perimeter of the site.*

We look forward to the Planning Board workshop next week. Please find the attached information for your records.

Sincerely,

GORRILL-PALMER

Stephen Bushey, PE

Senior Associate

Phone: 207-772-2515 x286

sbushey@gorrillpalmer.com

Attachments:

c: Jon Cohen, 144 Fore Street OZ LLC
Katherine Lermond, Archetype
Braden Drypolcher, Landscape Architect

U:\3924_Thames Street-WEX_Portland, ME\IP Applications\Local\LOR #1 2023.06.19\LOR#1_Tetelman_06.19.23

July 21, 2023

Mr. Charles Tetelman, Planner

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

**Subject: Major Site Plan, Master Development Plan Amendment
Project ID – PL-002437-2023
144 Fore Street LLC - Applicant
Letter of Response #2– Response to Staff comments and Planning Board
Report**

Dear Charles:

On behalf of **144 Fore Street OZ, LLC (Applicant)**, our office is pleased to provide the following responses to staff review comments provided within an email and memo dated May 26, 2023, as well as those comments contained in the Planners Report dated June 23, 2023. We previously provided an initial set of preliminary responses to the staff comments in our Letter of Response #1 dated June 19, 2023. Much of what follows repeats and/or updates these responses. For ease of review, we have repeated all of the staff comments in *italics* and provide our responses in **bold** as follows:

Staff Comments dated May 26, 2023

GENERAL

1. *The Design Review Memo has been attached to this comment document.*

Response: Archetype PA has completed additional updated building plans and supporting information related to the comments contained in the Design Review Memo and that information has been uploaded to EPlan for staff and Planning Board review. The file uploaded to Eplan is titled 2023.07.21 Architectural reply to Design Review comments. This information is supplemented by various updated plan elevations and information related to the incubator spaces.

2. *Please show all Snow Storage areas on site or include commentary on how Snow will be managed and removed from the site.*

Response: Snow will be removed from the site by contracted snow removal services. This will include snow removal from the sidewalks, pedestrian areas, and vehicular

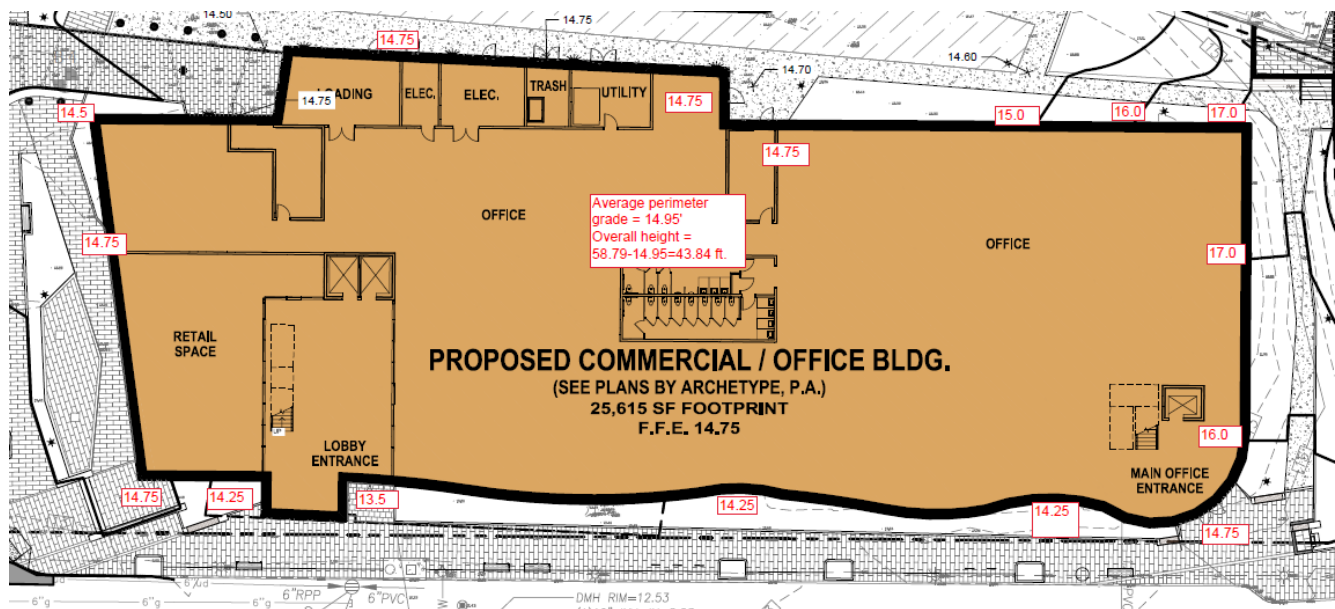


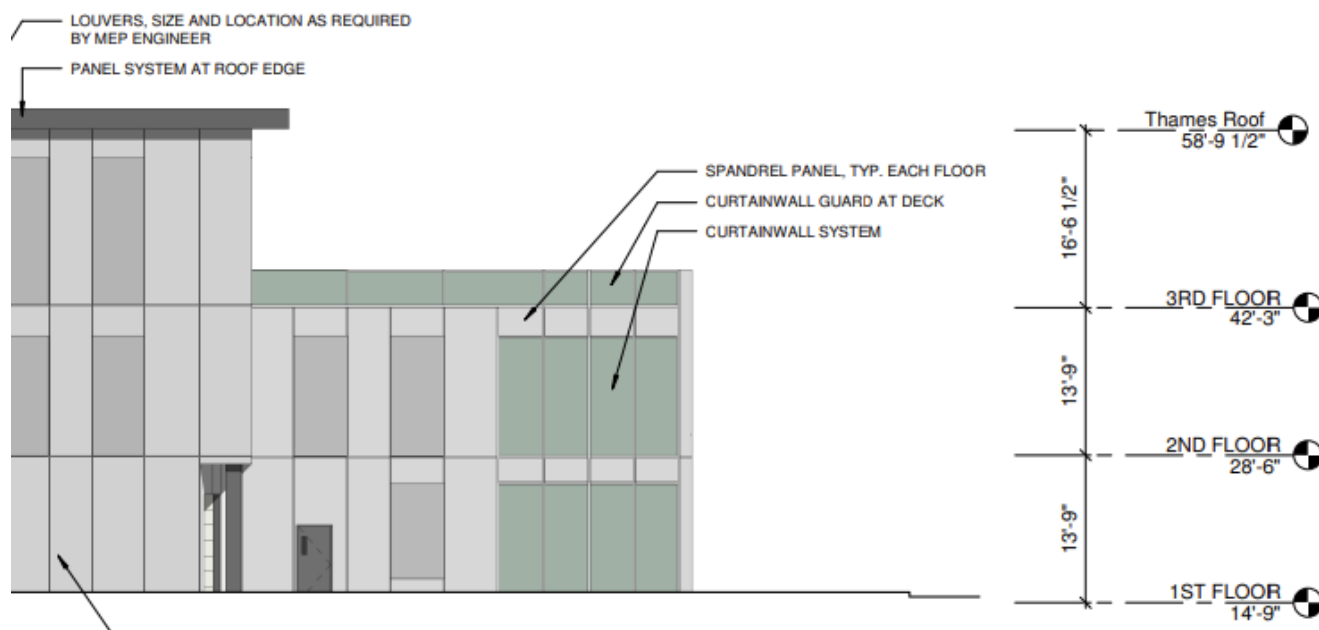
drive off Thames Street. Several small areas of snow storage are now identified on the plans; however, the expectation is that any significant snow volume will need to be removed from the site by a licensed snow removal vendor.

ZONING

3. Zoning Analysis Table notes the required maximum height is 65 ft. Looking at the B-6 Zone Building Height Overlay Map, the proposed site is in the 45 ft. maximum height area. The elevations (A2.01) need to show the height from the average grade to the roof beam and also need to show how average grade is determined.

Response: Based on an average grade around the building perimeter of 14.95', the overall building height is 43.84'. See the captions below and on the following page:





North Elevation view for height measurement

4. *Note - for proposed roof top decks, any type of shade structure or roof will need to meet the 45 ft. maximum height from the average grade.*

Response: The roof top deck will be located on the 2nd floor roof and no shade structures will be taller than the 3rd floor roof line, which shown above is less than the maximum 45' allowable height.

5. *The applicant is proposing 100 off-street parking spaces in the 100 Fore St. Parking Garage. The applicant will have to meet the criteria outlined in section 19.1.6(B). A parking study is required.*

Response: Currently the parking garage at 100 Fore Street, owned by the applicant, contains 543 parking spaces (distance <150' from site). The Roux Institute rents 167 spaces and Wex rents 267 spaces for a total of 434 spaces, leaving 109 spaces available for 70 Thames Street. The applicant also owns and manages the Ocean Gateway Garage (distance <600' from site) that contains 720 spaces for a total of 1,263 parking spaces owned by the applicant near the project site. Parking demand at both garages is currently well below the available supply values, post Covid, as many surrounding office users who might otherwise occupy the garages, continue to allow remote work opportunities to their staff, thus substantially decreasing parking demand at each garage. Observations made on July 21, 2023, found that both garages are utilized at less than 60%, with photos on the following pages supporting those findings. The applicant sees no foreseeable change in parking demand at the garages, given the expectation that work from Home benefits at WEX etc will remain long into the future. Thus there will remain an ample supply of parking in the area.

6. *Please provide expected uses for the five buildings and provide a brief description of how they are intended to be operated (time, use, etc.)? Does the applicant have any solidified plans related to those*

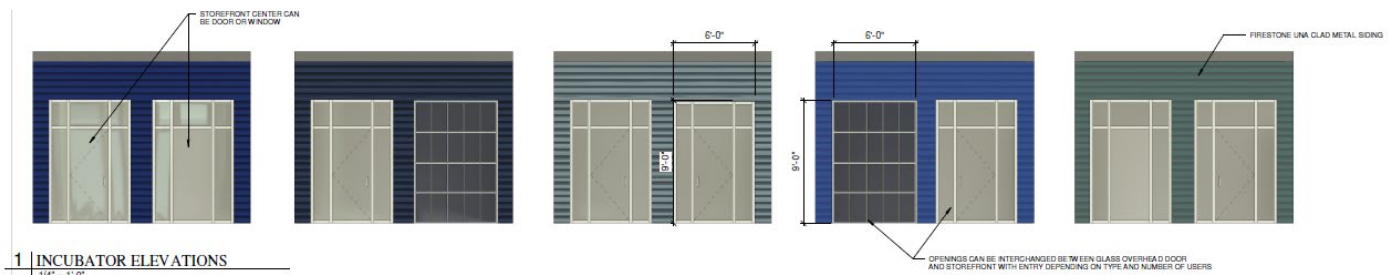


structures? If 'incubator spaces', please elaborate further.

Response: The incubator spaces are not yet tenanted with anyone nor are there any tenant uses even in discussion. The fundamental objective of the incubator spaces is to allow for a unique approach for very small commercial/retail tenants to provide life and vitality to the core pedestrian area between the buildings. Opportunities that have been discussed but not yet acted on include programming for small business owners, the migrant community, waterfront services and related themes consistent with downtown Portland and the surrounding uses. These spaces are small and will support only activity that is comparable to the street vendor and food truck community that has become popular in Portland.

Archetype has offered the following additional supporting information related to these incubator spaces:

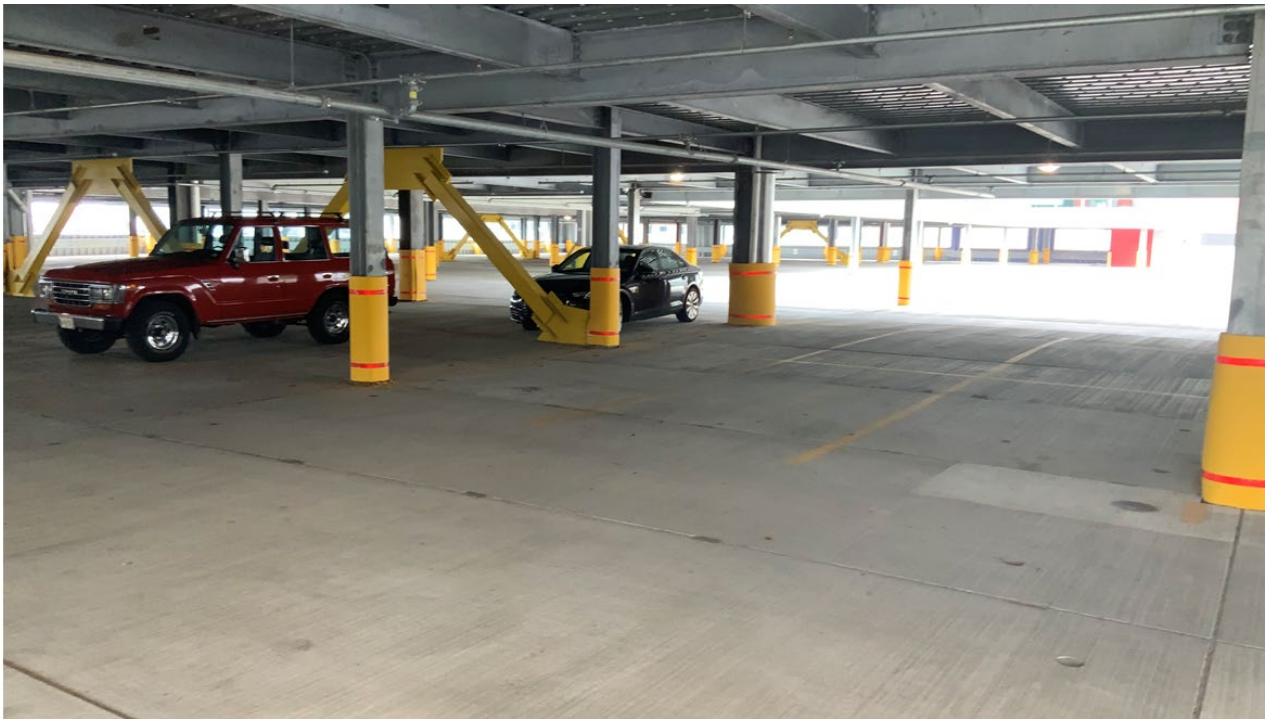
, The elevations have been added for the incubator spaces. They will be framed 16'x16' boxes that allow for flexibility in the front elevation as shown in the notes on the elevations. They can house a single user or be split into two or creating spaces similar to those in the Washington Ave incubator spaces. The siding is the same material as is used on the parking levels of 100 Fore, which they back up to, but we are proposing 5 different shades of blue to make the design more playful and to tie into the colors of the waterfront and nestle into all of the greenery."



Incubator spaces – elevations



100 Fore St garage P1 level 10:00 am 07/21/23



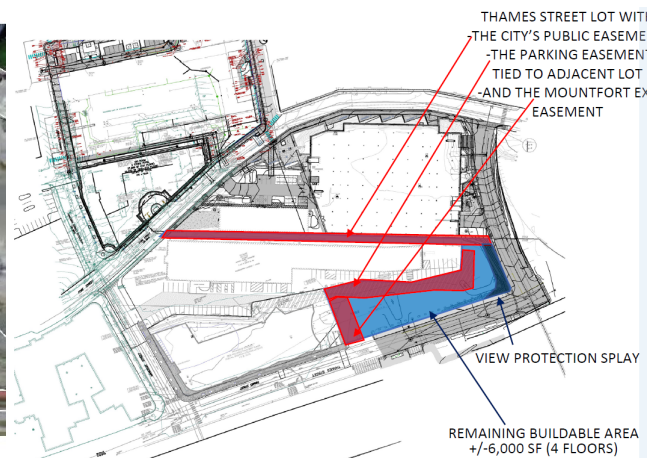
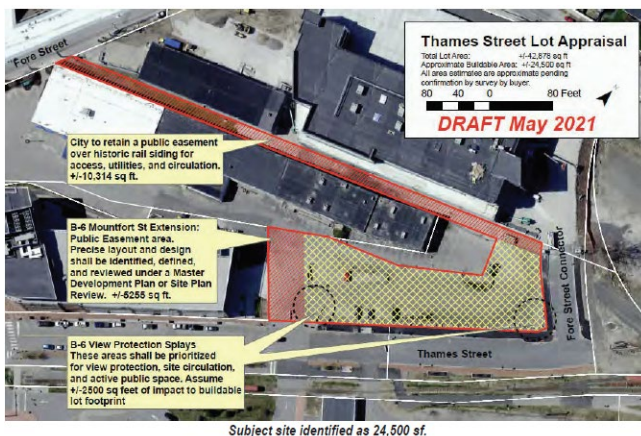
100 Fore St garage P2 level 10:00 am 07/21/23



Ocean Gateway 7th level 10:30 am 07/21/23

7. *Freedom Way and Thames Street have 10 ft. setbacks. City Staff recommend moving the building footprint West towards Freedom Way and get rid of the walking path in between the existing sidewalk and the building (along Freedom Way). Additionally, please be sure to show setback dimensions on site plan.*

Response: The building layout primarily respects the City's desire for view splays as outlined in the original RFP solicitation as well as the proposal set forth by the applicant.





In addition, the sidewalk on the east side of the building is proposed since there is a variable grade differential of over 4 feet along the length of Freedom Way, fronting the side of the property. The positioning of the site sidewalk and maintaining the proposed building away from Freedom Way aids in overcoming the grade difference and also allows for a greater view corridor width, when looking from Fore Street towards the waterfront. If the maximum setback were maintained, then much of the NW corner of the building would be below exterior grade.

TRANSPORTATION

8. *This application was part of the Eastern Waterfront Traffic Movement Permit. The applicant shall provide specific information that the following assumptions in the TMP are valid. City Staff note the current project includes retail and incubator business space.*
- *The development of a City of Portland owned parcel at 70 Thames Street, proposed to include 72,000 sf of office space with parking off-site in one of several parking garages being developed in the vicinity. City Tax Map 19; Block A, Lot #002001. The project is estimated to generate 126 AM and 139 PM weekday peak hour trip ends.*

Response: In the approved TMP the City land was estimated to generate 126 AM and 139 PM weekday peak hour trips. The proposed project now includes the following land uses and projected trip generation¹:

Table 1 – Trip Generation			
Land Use (LUC)	Area (SF)	AM Peak Trips	PM Peak Trips
Office (710)	43,730	51	50
Mercantile (814)	2,000	6	14
Restaurant (931)	8,315 (300 seats)	6	65
	Total	63 (50% of TMP)	129 (93% of TMP)

The incubator spaces will create 1,280 SF of space, which, even if considered as Mercantile, as shown in the above Table 1, will generate no more than 10 peak hour trips. Based on the originally approved trip generation the proposed project will not exceed the approved threshold values.

9. *The Eastern Waterfront Traffic Movement Permit noted the following:*
- *The City owned parcel shall pay the City's Traffic Impact Fee as stated in their Ordinance (\$2,800 per sf of office space, with the fee(s) adjusted as necessary based upon a site plan application once submitted).*
 - *City owned parcel. One general delivery driveway is expected to be incorporated into the final design. All parking demand is expected to be met elsewhere in the future structured parking in the vicinity. Final site access will be determined as part of Site Plan approval.*
 - *The period for which the traffic impacts of the project have been assessed is 5 years, with a full*

¹ Based on ITE 10th Edition Trip Generation



build-out at year 2023- If the full build-out extends beyond the year 2023, the Department may require a study during the year of full occupancy. Coordination with MaineDOT is required.

Response: The applicant is aware of these conditions, as we note that the applicant's representatives were also a participant in the EWTMP for the 100 Fore Street site development. We believe that the proposed development is entirely consistent with the development planning set forth by the City for the City owned parcel.

We note that the applicant is subject to the Impact fee ordinance (ReCode Section 16) which the fees are calculated as follows:

Table 2 – Impact fees*				
Land Use (LUC)	Area (SF)	Parks/Rec Impact fee	Transportation Impact fee	Amount
Office (710)	43,730	\$820/KSF	\$3,391/KSF	\$184,147.03
Mercantile (814)	2,000	\$647/KSF	\$9,990/KSF	\$21,274.00
Restaurant (931)	8,315 (300 seats)	\$647/KSF	\$9,990/KSF	\$88,446.66
	Total			\$293,867.69

***rates from January 2023**

10. *The applicant shall provide turning templates for truck movements entering and exiting the site. This shall also include justification for the width of the driveway and size of the radii.*

Response: The turning template analysis has been completed and is made part of the plans now uploaded to EPlan.

11. *The crosswalk location, alignment and ADA compliance on Thames Street will need to be reviewed and approved by DPW.*

Response: The crosswalk on Thames Street extends from the corner of 1 Hancock Street over to the existing sidewalk landing on the opposite side of the street. Currently, this SE corner is squared off, and the project proposal is to retain this design, based on the proximity of other sidewalk conditions. The ramps on the opposite side of the street are also basically squared off.





Thames St at Gateway terminal entrance



Existing Corner of 1 Hancock and site entry off Thames

- 12. Improvements in the ROW shall be dimensions on the plan view sheets. For example ROW, street, lanes sidewalk, esplanade driveways (and other improvements) widths as well as when a width changes.*

Response: There are no street improvements on Thames Street except for the sidewalk enhancements to brick and the landscaping. Additional dimensional information is provided on the final plan submission plans.

- 13. The applicant shall update the plans to label or provide spot grades and slopes for the proposed sidewalks, accessible ramps and driveways at grade breaks.*

Response: Additional information has been provided on the final plans.

- 14. The applicant shall provide clarification on what the proposed hardscape material is within the ROW.*

Response: The objective is to provide City standard brick sidewalk within the ROW and onsite. This includes new brick on the Freedom Way and Thames Street sidewalk to replace the existing asphalt surface the City previously installed. The landscape plans indicate some



accent coursing as may be agreed upon with DPW.

15. *The City's Technical Manual has been recently updated and approved. After reviewing the proposed details, applicant is using outdated details. The applicant shall update all proposed details (Site, Sewer, Stormwater, Landscape, details) to meet the requirements of the recently approved technical manual update.*

Response: The final submission plans have updated details as now contained in the Technical Manual.

16. *The entrance to the property along Thames Street shall be constructed as a driveway not a roadway. This will eliminate/ change the two accessible ramps.*

Response: We are amenable to this condition. It was unclear during the property transfer discussions with Corporation Counsel and others as to the City's direction for the driveway. The final plans will reflect these adjustments to represent the entrance as a driveway and not a street.

17. *Any proposed accessible ramp shall be constructed separate from the driveway apron using the sidewalk as the landing. See example below.*
- The sidewalks and driveway shall be reconstructed in accordance with the City's Sidewalk and Driveway Apron Material Policy and made compliant per the City's Technical Manual Section 1 and the current standard details. The sidewalk material shall be continued through the driveway aprons at grade with the proposed sidewalk and not in excess of 2% cross-slope per the current City standards.*

Response: The final plans will reflect compliance with these requirements.

18. *Consolidate proposed service trenches to have one final (full street width) trench repair.*

Response: The trench restoration will be completed in accordance with the City's Street Moratorium requirements. Notes will be added to the final plans to achieve compliance. This will include full street width pavement repair that extends 20' beyond the limits of excavation.

19. *The proposed trenches shall be repaired per the Minor Excavation Pavement Repair Details (prior to paving the finished surface) found in the Rules and Regulations for Excavation Activity. Update the plans and detail sheets to show these requirements.*

Response: Notes referencing the City's requirements have been added to the final plans.

20. *The proposed UGE and Telecommunication connection in the sidewalk along Fore Street is not a*



valid connection Point. The applicant shall verify that services are available at this location and provide an alternate connection point in the next submittal.

Response: The utility plan shows connections for underground power, telephone and communications on Freedom Way, as it has been understood that an underground duct bank for these services was previously installed during the construction of 100 Fore Street. We continue to investigate the ability to make these utility connections from this location and await further information from CMP.

WATER QUALITY, STORMWATER, & INFRASTRUCTURE

21. The project is required to comply with MaineDEP Chapter 500 and City of Portland Section 5 standards for stormwater management.

- *Basic Standard - The Applicant should provide an erosion control plan in accordance with the Basic Standards.*
- *General/Redevelopment Standard - The Applicant has not provided a stormwater management plan, but notes in their narrative on environmental standards that the sites runoff patterns will remain unchanged. Please confirm that there will not be 1,000 SF of new impervious surface or 5,000 SF of non-roof redeveloped impervious surface - if either of these thresholds are met, stormwater treatment will be required. It appears, based on a review of the site plan that the redevelopment standard may need to be considered for the site.*
- *Flooding Standard - The project has requested a waiver of the Flooding Standard as it will discharge to tidal waters. This is consistent with waivers granted for similar projects discharging to Casco Bay.*

Response: The following is a summary of the predevelopment and post development comparison of impervious and non-impervious areas on the site:

Table 3 – Area Calculations		
Description	Predevelopment	Post Development
Impervious Area		
-Roof	-13,390 SF (18.8%)	-26,895 SF (37.7%)
-pavement/sidewalks	-18,824 SF (26.4%)	-25,314 SF (35.4%)
-gravel	-21,186 SF (29.6%)	-
Non-Impervious area	18,000 SF (25.2%)	19,191 SF (26.9%)
Totals (Developed Area)	71,400 SF	71,400 SF (100%)

The following is offered related to Stormwater Management and Erosion Controls.

1. Water Quality, Stormwater Management and Erosion Control:

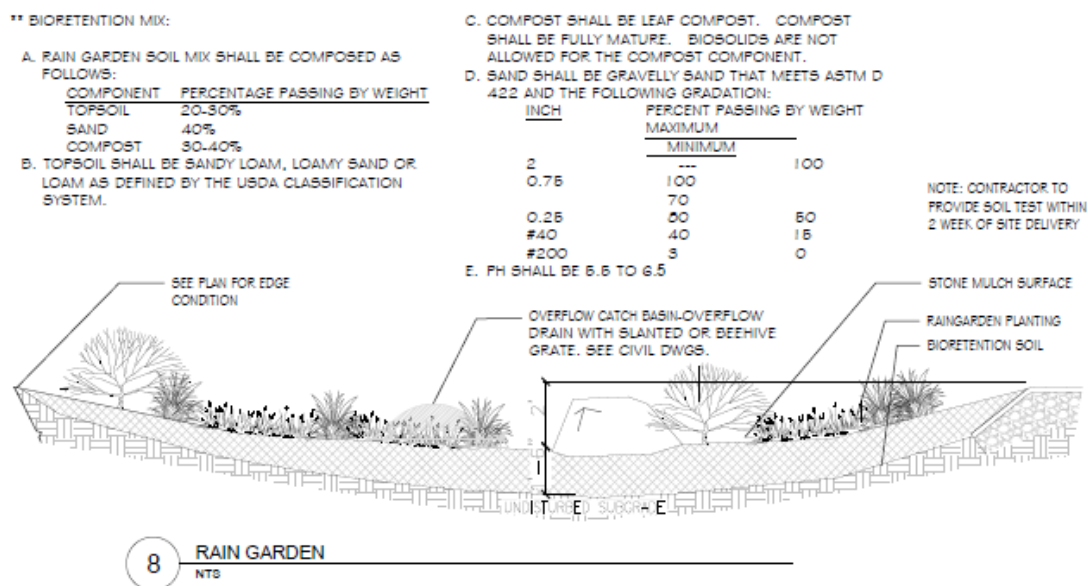


- a. The project proposes the development of a new building space covering 38% of the site with an additional plaza area covering another 35% of the site. The property is currently 75% impervious. Redevelopment of the site will slightly reduce the impervious cover and provide pervious landscaped surfaces that will reduce both the peak rate of runoff and the volume of runoff from the site under all storm conditions. The provision of landscaped green space will also enhance the quality of surface runoff from the site under all conditions. Removing the parking lot will also remove the primary source of water quality impact, as parking will no longer occur on the site. The site improvements will include measures for meeting the City of Portland Stormwater Management Standards. This will include the installation of roof drain water quality treatment devices² within the building as well as the installation of a vegetated bio-swale within the rear courtyard plaza. An existing tree box filter on Thames Street already provides treatment of the street and contributing sidewalks. The bioswale will contain 1,109 SF of Plant Mix D as shown on Sheet L2 of the Landscape plans. The bioswale is further detailed in Detail 8 of Sheet L9 and on the following page.



Below Ground DownSpout

² The applicant reserves the right to seek design and pricing from multiple vendors of roof drain filters. The design criteria will require a cartridge-based filter system to remove metals, animal waste and particulate from Industrial activities, often coming from roof runoff. See [DownSpout-Brochure.pdf \(fergusongss.com\)](https://www.fergusongss.com/DownSpout-Brochure.pdf) for more information.



The site is part of a larger area draining to the east and to an existing 60" storm drain that runs within Freedom Way and Thames Street with an outfall to the Fore River. A new onsite collection system including several new structures and conveyance pipe will be installed on the west side of the property to help capture runoff draining from the adjacent property and this system will be tied into the existing City system in Thames Street.

- b. The project will meet the General Standards under Chapter 500, Stormwater Law (City of Portland Technical Manual, Section 5 – Portland Stormwater Management and Maine DEP Ch. 500, 3 (e)). The Basic Standards will apply to this project and Soil Erosion and Sediment Control notes are included on Sheet C-1.1 of the plan set. Specific erosion control measures including a stabilized construction entrance, Catch basin protection and routine sweeping of adjacent streets are noted on sheet C-4.0. Two roof drain water quality filters will be installed to treat runoff from the building roof and there will be an overall increase of pervious area including landscaping to aid with improving water quality, since the site is now 75% covered with pavement or gravel parking lot.
- c. 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 contractor. Post-construction activities at the site do not pose a risk of groundwater contamination.
- d. A draft Stormwater Maintenance Agreement accompanies this letter.



22. The Grading, Drainage & Erosion Control Plan appears to have some layers turned off. I do not see any proposed drainage structures, piping, or erosion control measures shown. More information should be provided.

Response: The updated plans contain additional information to address these comments.

23. Thames Street is currently in a paving moratorium. The plans should reflect the paving repair required for utility installations.

Response: Notes regarding adherence to the City's moratorium street repair requirements have been added to the plans. This includes full street pavement restoration that extends at least 20' beyond the limits of excavation.

24. The applicant's narrative notes that they will be connecting to utilities in Fore Street but may also maintain existing utilities on the site. They should provide confirmation from utility providers on ability to serve for all services anticipated to be maintained or added.

Response: A Determination letter from the Portland Water District and wastewater authorization from DPW have been uploaded to Eplan. We await information from CMP regarding the power service.

25. The applicant shall update the grading and drainage plan to show proposed drainage infrastructure and connections to the City's storm drain system so DPW can review and provide comments.

Response: The updated plan submission contains additional information to address these comments.

26. The applicant shall provide a wastewater capacity application to DPW water resources for review and approval.

Response: The wastewater authorization review dated May 30, 2023, has been uploaded to Eplan.

LANDSCAPING & ENVIRONMENTAL QUALITY

Mitchell & Associates have reviewed the Staff comments and have completed updating their plans accordingly. They will present information at the Planning Board Public hearing meeting to address these comments. Updated landscape plans have been uploaded to Eplan.

27. Street trees should be spaced in accordance with Technical Manual chapter 4.6.3 requirements: every 25-35 feet on center in the City ROW. The Thames street frontage should meet that requirement.



- The trees currently proposed are very irregularly and sometimes widely spaced.*
- 28. Removal of the two existing street trees (Pin Oaks) is acceptable; however, the applicant should work with the City Arborist to evaluate the option of relocating them rather than disposing of them.*
 - 29. The current landscape plan proposes numerous Maples as street trees. Maples as a genus are currently very over-represented in the City's street tree canopy. The City Arborist would prefer to see non-maples being planted on Thames to increase the Portland's urban canopy resilience against pests and disease. Tulip Poplars could be a good choice for the Thames Street frontage.*
 - 30. Sheet L2 current landscape plan proposes numerous Maples as street trees. Maples as a genus are currently very over-represented in the City's street tree canopy. The City Arborist would prefer to see non-maples being planted on Thames to increase the Portland's urban canopy resilience against pests and disease. Tulip Poplars could be a good choice for the Thames Street frontage.*
 - 31. Please provide more information on the proposed "reinforced turf" in the form of a detail or specifications so that City Staff can better understand what is being proposed and why. Is this material being proposed due to anticipated vehicular traffic on the lawn?*
 - 32. There is a staircase wall extending into the Right of Way near the building's southern corner entrance. The wall (and stair if needed) should be adjusted to avoid narrowing/obstructing the sidewalk within the right-of-way.*
 - 33. Please clarify the inside dimensions of the proposed raised granite tree wells. They are labeled as 5'x7' in the tree well detail but appear to be smaller on the landscape plans.*
 - 34. When the raised granite tree wells directly abut the street edge, they can form an obstruction to opening car doors. This can be avoided by the raised granite tree well "transitioning" to a flush curb where it abuts the street edge. Alternatively, the tree well may be shifted 2-3 feet away from the street-side curb to allow space for car doors to swing open.*
 - 35. The City is willing to provide support/assist with removal of parking barrier materials along the Thames St perimeter of the site.*

Comments from the Staff Report for Planning Board Workshop

The following comments warrant replies as offered below:

- 1. Staff requested an updated and recorded quitclaim deed as well as finalized purchase and sale agreement.*

Response: The deeds for each property as well as the P&S that City have been provided.

- 2. Staff requested an updated letter of financial capacity.*

Response: We had previously uploaded a financial capacity letter.

- 3. City Staff Requested average grade calculations.*

Response: See information above.

- 4. Staff requested information regarding the anticipated uses of the incubator spaces.*



Response: See information above.

5. *Staff requested the Shoreland Zone line be shown on the plans.*

Response: The Shoreland zone line has been added to the plan.

6. *Include final dimensions for lanes, sidewalks, esplanades, driveways and other improvements on the site.*

Response: See the updated drawings.

7. *Staff asked for turning templates for truck and delivery movements.*

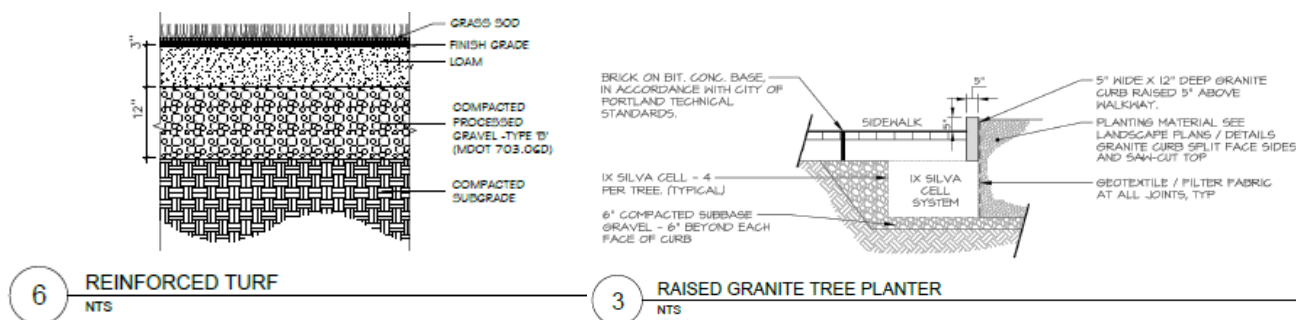
Response: A plan depicting various vehicle movements including a fire truck accompanies this letter.

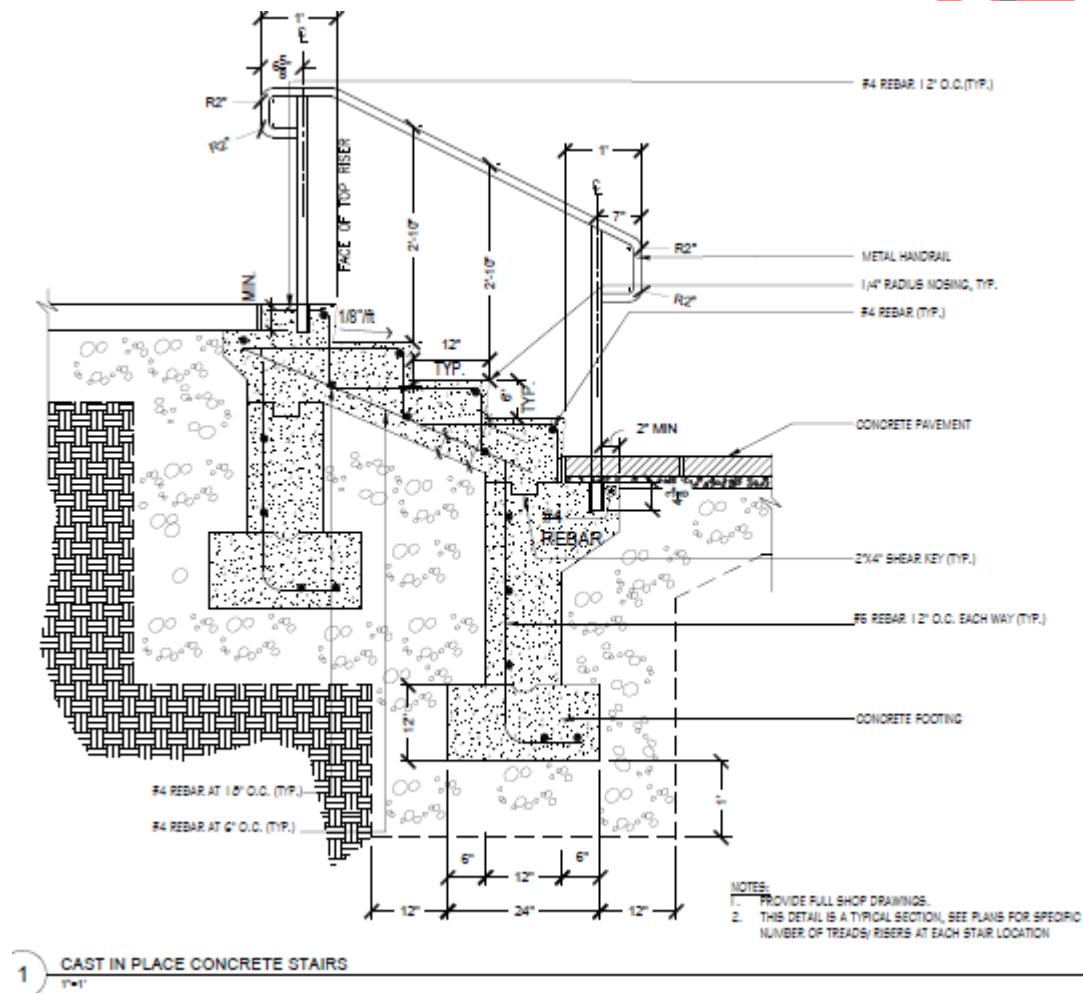
8. *The applicant will need to confirm the parking garage has capacity for the 100 spaces to be generated by the proposed development and provide more information on potential parking leases.*

Responses: See information above.

9. *Staff requested more information regarding the “reinforced turf” locations and designs of stairways, and design of the granite tree wells.*

Response: Additional information is contained on the updated landscape plans including details for these features.





Response: As shown in Table 3, the development results in less impervious areas on the site. However, the proposal also includes stormwater management measures to treat roof runoff as well as the pedestrian plaza. Overall, the site's water quality regime will be improved as it will no longer be used for vehicular parking and the overall landscape will be improved with plantings, vegetation, and otherwise newly developed surfaces. Water quality enhancements for treating roof runoff and plaza space runoff also address the site's compliance with the City's stormwater regulations and objectives.

Response: See information above

Page 413



Response: The Wastewater capacity and Portland Water District Determination letters have been submitted and uploaded to Eplan.

13. Cty staff have requested protocols for snow removal.

Response: various small areas have been identified on the site for snow storage, however the applicant expects to have snow removed by a contracted hauler when required, as snow storage place is limited on the site. The applicant reserves the right to install below grade snow melt systems under pavements and sidewalks, which, when used, aid significantly in snow removal needs/efforts. Similar systems are already in place at the 1 Hancock and 100 Fore Street sites.

14. Cty staff will need to review a final, updated photometric plan as part of the resubmission.

Response: An updated photometric plan is contained as part of the landscape series. The plan was prepared by Omnilite Illuminate on behalf of Mitchell & Associates.

Calculation Summary							
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
SITE	Illuminance	Fc	0.47	5.1	0.0	N.A.	N.A.
LEFT ENTRANCE	Illuminance	Fc	1.19	3.5	0.2	5.95	17.50
MIDDLE ENTRANCES	Illuminance	Fc	1.55	3.5	0.4	3.88	8.75
RIGHT ENTRANCE	Illuminance	Fc	1.55	3.9	0.3	5.17	13.00

Excerpt of Photometric Plan

15. Staff requested additional materials to assist in the architectural design review.

Response: Archetype PA has prepared a narrative and updated plans as part of this final submission. Updates to the building elevations have been done in a manner to address various staff design review comments.

Mr. Charles Tetelman
July 21, 2023
Page 19



We look forward to the Planning Board public hearing at its earliest availability. Please find the attached information for your records.

Sincerely,

GORRILL-PALMER

Stephen Bushey, PE

Senior Associate

Phone: 207-772-2515 x286

sbushey@gorrillpalmer.com

Attachments:

c: Jon Cohen, 144 Fore Street OZ LLC
Katherine Lermond, Archetype
Braden Drypolcher, Landscape Architect

U:\3924_Thames Street-WEX_Portland, ME\IP Applications\Local\LOR #1 2023.06.19\LOR#2_Tetelman_07.21.23

**DRAFT
STORMWATER DRAINAGE SYSTEM
MAINTENANCE AGREEMENT**

**144 Fore St. OZ LLC
Commercial Office Building – 70 Thames Street**

IN CONSIDERATION OF the site plan approval granted by the Planning Board of the City of Portland to the proposed **70 Thames Street PL-002437-2023** - shown on the Site Layout Plan and Grading, Drainage & Erosion Control Plan (Plans are on file with the City of Portland Project ID PL-002437-2023) prepared by Gorrill Palmer Consulting Engineers of 300 Southborough Drive, South Portland, Maine stamped approved on _____ and attached hereto as Exhibit A and pursuant to a condition thereof, 144 Fore St. OZ LLC with a principal place of business in Portland, Maine, and having a mailing address of One Portland Square, Suite 6A, Portland, Maine 04101, the owner/operator of the site, 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 roof drain filter systems, the bioswale, and related onsite drainage infrastructure, (hereinafter collectively referred to as the “stormwater system”), as shown on the Grading, Drainage & Erosion Control Plan in Exhibit A and in strict compliance with the approved Stormwater Inspection and Maintenance Manual prepared for the Owner by Gorrill Palmer Consulting Engineers a copy of which is attached hereto as Exhibit B and Chapter 32 of the Portland City Code.

Owner of the subject premises further agrees, at its own cost, to keep a Stormwater Maintenance Log. Such log shall be made available for inspection by the City of Portland upon reasonable notice and request and be made part of the annual Stormwater reporting duties of the applicant to the City.

Said agreement is for the benefit of the said City of Portland and all persons in lawful possession of said premises and abutters thereto; further, that the said City of Portland and said persons in lawful possession may enforce this Agreement by an action at law or in equity in any court of competent jurisdiction; further, that after giving the Owner written notice and a stated time to perform, the said City of Portland, by its authorized agents or representatives, may, but is not obligated to, enter upon said premises to maintain, repair, or replace said stormwater system 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 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 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 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 and mailed by certified mail, return receipt requested or ordinary mail or both 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 the tax rolls, service shall be complete by mailing it to only the first listed owner. The failure to receive any written notice required by this agreement shall not prevent the City from entering the property and performing maintenance or repairs on the stormwater system, or any component thereof, or liening it or create a cause of action against the City.

Dated at Portland, Maine this ____ day of _____, 2023.

(name of company)

(representative of owner, name and title)

STATE OF MAINE
CUMBERLAND, ss.

Date: _____

Personally appeared the above-named _____ (name and title), 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: _____

**OPERATION AND MAINTENANCE FOR
70 THAMES STREET OFFICE BLDG**

PREPARED FOR:

**144 FORE ST. OZ LLC
ONE PORTLAND SQUARE SUITE 6A
PORTLAND, MAINE 04101**

PREPARED BY:

**GORRILL PALMER CONSULTING ENGINEERS
300 SOUTHBOROUGH DRIVE
SOUTH PORTLAND, MAINE**

JULY 2023

A. INTRODUCTION

The 70 Thames Street development features one or more Fabco downspout cartridge filter units, model 10080-2, or approved equal, located within the building. The stormwater management system must be regularly inspected and maintained to ensure that each component is performing as intended throughout its life.

B. FABCO MODEL 10080-2 STORMBASIN CARTRIDGE FILTER UNIT

Preface: The roof drain filter unit is intended to provide water quality treatment for runoff from the proposed roof surface prior to discharge into the municipal drainage system in Thames Street. Primary contaminants from the roof include bird waste, metals, dust, and related pollutants.

Inspection: The roof filter unit must be inspected to ensure proper function during rain events. Primary inspection goals include removal of debris, leaves, or related solids preventing filtering and water pass through or blocking the internal overflow.

Maintenance: If the filter is not draining within 24 hours, the filter media shall be replaced in accordance with the manufacturer's instructions. Debris must be removed from the filter unit. With all debris removed from the StormBasin the filter cartridge(s) will be exposed at the bottom. To remove the cartridge(s) reach down into the basin and firmly grasp the plastic outer rim of the cartridge body just below the foam, twist the cartridge body counterclockwise about ¼ turn until it stops, and lift the cartridge straight up to remove. Insert the new StormBasin cartridge down through the hole in the base of the unit. The colored ring on the cartridge should be facing upwards. Push the cartridge all the way through the hole until it rests on the bottom. Slowly turn the cartridge in a clockwise direction until the tabs align with the slots and the cartridge body drops about ¼' further down. Once the tabs fall through the slots, continue turning firmly in a clockwise direction until the tabs contact the STOPS. The cartridge is now installed.

Frequency: During the first year, the unit should be inspected quarterly and following all major storm events. Thereafter, the unit should be inspected at least every 6 months. Debris and sediment buildup should be removed as needed in accordance with manufacturer's recommendations. The filter cartridges shall be replaced on an annual basis. Cartridges can be sourced from Fabco Industries, Inc., phone 631-393-6024, 66 Central Avenue Farmingdale, NH 11735.

C. 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, plaza scuppers, trench drains, and field inlets. Inlets exist throughout the system.

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 on parking decks or plaza areas. Grass clippings and leaves should be bagged and removed particularly near the yard inlets near the building.

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 for this project.

D. 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 and is intended to be trapped near the inlets or in pretreatment devices. Maintenance of this system can play a major role in the long-term maintenance costs and the effectiveness of the pond 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 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 ensure 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 ensure their 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 downstream detention pond, or the 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. If a filter bag has been designated for the inlet silt or other deleterious materials, can significantly reduce capacity and the bags should be removed with sediment and replaced. Catch basin cleaning would normally be accomplished with vacuum trucks contracted as a maintenance service for the retail center. 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. The tidal influence can aggregate sedimentation since there are periods of no flow. Backwater valves and connection points are intended to reduce this occurrence.

Frequency: The pipe 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 or replacement 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.

Comments: Maintenance of inlets is of utmost importance to the project to avoid unintended roof loading, ice accumulation, and cleanliness of the floors of the building.

E. RECORD KEEPING

Records of all inspections and maintenance work accomplished must be kept and maintained to document filter operation and related site maintenance. 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 City staff associated with the City's stormwater program. Copies of such records should also be filed with the City's Stormwater Program Coordinator. A Typical inspection and maintenance record form is attached hereto as Attachment B.

F. CONTRACT SERVICES

In some instances, or at specific times, the owner may not have the ability to conduct the required inspection and/or maintenance programs as outlined in this document. In such a case, 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 a 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.

ATTACHMENT A

Sample Inspection Logs

**70 THAMES STREET
144 FORE ST OZ, LLC
PORTLAND, ME**

ROOF DRAIN FILTER ANNUAL INSPECTION & MAINTENANCE LOG			
FACILITY:		YEAR:	
LOCATION: 70 Thames		CONTRACTOR:	
FUNCTION:		INSPECTOR:	
DATE OF INSPECTION:			
ITEM IDENTIFICATION	DESCRIPTION OF CONDITIONS	MAINTENANCE ACCOMPLISHED	DATE OF MAINTENANCE
GENERAL COMMENTS:			

**STORMWATER MANAGEMENT SYSTEM
MAINTENANCE PROGRAM – SUMMARY CHECKLIST**

Item	Commentary	Frequency				
		Monthly	Quarterly	Semi-Annual	Annual	Long Term
Vegetated Slopes	Slopes and related ground surface should be inspected for erosion and sedimentation		X (until vegetation established)		X	
Roof Drain Filters	Inspect systems to verify adequate functioning and capacity. Dispose of filters that have reached useful life in accordance with manufacturer's recommendations. Replace filters as required.	X				
Litter	Litter should be removed daily.					

August 25, 2023

Mr. Charles Tetelman, Planner

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

**Subject: Major Site Plan, Master Development Plan Amendment
Project ID – PL-002437-2023
144 Fore Street LLC - Applicant
Letter of Response #3– Response to Staff comments**

Dear Charles:

On behalf of **144 Fore Street LLC (Applicant)**, our office is pleased to provide the following responses to staff review comments provided within an email and Second review comments memo dated August 22, 2023. For ease of review, we have repeated all of the staff comments in *italics* and provide our responses in **bold** as follows:

GENERAL

- 1. City Staff understand that a portion of the 144 Fore Buildings will be demolished. Zoning noted that a few new tenants will be utilizing the remaining space. The overall site plan is the only plan that shows new site work related to 144 Fore. Please provide additional information.*

Response: The overall site plan is intended to provide basic context to what will remain of the 144 Fore Street building. The owner is pursuing updated tenants of the space as the primary tenant of what will remain of the building, The Veterans Administration, no longer occupies the space. The 144 Fore Street activity is however separate from the 70 Thames Street development and any activity for that building remainder will be permitted separately. What is shown on the current plans for the 70 Thames site is for informational purposes only.

- 2. The applicant is proposing entrance into the 100 Fore Street garage from Thames Street.*

Response: An entrance into the ground level space of the 100 Fore parking garage was identified in the applicant's original RFP response. The entrance will allow tenants/visitors to the 70 Thames building the ability to enter/exit the site via Thames Street and affords the ability for drop-off/pick-up, without need of traveling

3. *Does the applicant intend to utilize the existing granite blocks on site? The Parks Dept would happily remove them for the applicant.*

4. *All easements have been noted on the easement plan. City Staff have more comments below about how the public access easement from Hancock to Freedom.*

[illegible]

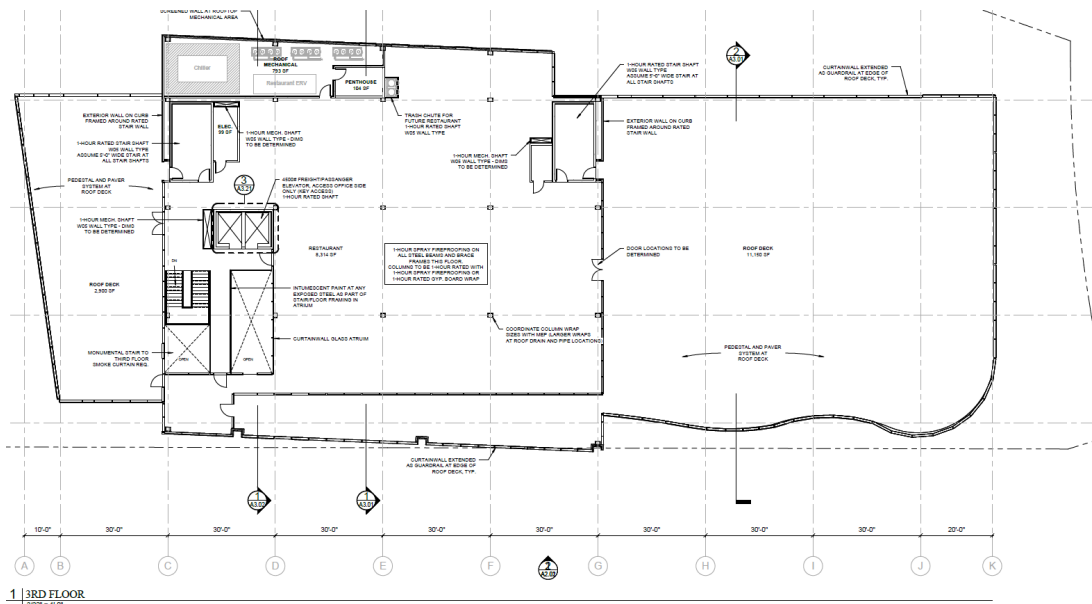
Easement Overlay Plan



14.6.1 Transportation Standards

5. The applicant shall provide supporting information that the restaurant will function as a Fine-Dining facility as defined by ITE, and why use of ITE Land Use Code 814 Variety Store was selected.

Response: The design intent, commencing with the original RFP response, has remained to include a **Quality Restaurant (ITE LUC 931)** on the third floor of the building. The architectural third floor plan shows an 8,314 SF Restaurant space and supporting roof decks, as rendered below. The first-floor Mercantile space is 1,825 SF and ITE LUC 814 was most representative of the expected tenant use, although a specific tenant has yet to be signed up.



Third Floor Architectural Floor plan

6. The City owned parcel shall pay the City's Traffic Impact fee as stated in their Ordinance (\$2,800 per SF of office space, with the fee(s) adjusted as necessary based upon a site application once submitted.

Response: As outlined in the July 21, 2023, LOR #2 previously posted, the following Impact fee calculations will apply:

Table 2 – Impact fees*				
Land Use (LUC)	Area (SF)	Parks/Rec Impact fee	Transportation Impact fee	Amount
Office (710)	43,730	\$820/KSF	\$3,391/KSF	\$184,147.03
Mercantile (814)	2,000	\$647/KSF	\$9,990/KSF	\$21,274.00
Restaurant (931)	8,315 (300 seats)	\$647/KSF	\$9,990/KSF	\$88,446.66
	Total			\$293,867.69

*rates from January 2023



7. *One general delivery driveway is expected to be incorporated into the final design. All parking demand is expected to be met elsewhere in the future structure parking in the vicinity. Final site access will be determined as part of the site plan approval.*

Response: The proposed site plan remains consistent with the original RFP submission plans and is consistent with the long-term planning that has been discussed over time as part of previous approvals for 1 Hancock Street (WEX Headquarters) and 100 Fore Street (WEX/Roux Institute). The driveway location remains consistent with the existing site conditions and will connect with the 144 Fore Street access, as it does currently. The positioning of the deliveries/loading area for the building is at the rear, which offers buffering from the surrounding streets to the best practicable extent.

8. *The TMP contemplated a five year build out to be completed in 2023. City Staff will follow up with more information. The DOT may require a study during the first year of full occupancy.*

Response: While the actual build-out of the City lot has lagged behind the original TMP project timeline, we'll note that traffic patterns and volumes have largely been influenced by post covid land use characteristics, including the work from home office model, thus, it's reasonable to believe that traffic volumes are lower than expected at the time of the TMP issuance. Future traffic analysis needs should consider these conditions and whether the need for the analysis actually remains warranted or not. Also, the nearby Portland Foreside Development would be expected to require a higher precedent of traffic analysis, given its sizably greater land use and intensity.

9. *The entrance to 100 Fore Street garage requires a site plan amendment to the 100 Fore Street application. The TMP did not envision an entrance to the Fore Street parking garage through Thames. Additional details shall be provided by the applicant as to the purpose of this driveway connection when three other garage entrances exist.*

Response: We respectfully suggest that the TMP actually didn't preclude the proposed entrance off Thames Street to the 100 Fore Street garage. This driveway has been consistently shown on the applicant's RFP submission and ongoing plans. The driveway will allow for ground level parking access to the 100 Fore Garage while offering access for pick-up/drop-off opportunity for tenants/visitors to the new building, all the while avoiding the need for vehicles to circumnavigate the Fore/Hancock/Freedom Way/Thames Block from the City site to the 100 Fore Garage. We don't believe there are any disadvantages to this access condition, while the advantages of improved access to the garage seem clear, in our opinion.

10. *The entrance to the property along Thames Street shall be constructed as a driveway not a roadway. This will eliminate the two accessible ramps (existing and proposed). Remove the two ramps and reconstruct the sidewalk on the adjacent property.*



Response: The updated plans reflect these comments.

- 11. The driveway across from the site shall be moved to the opposite side and outside of the limits of the driveway apron. Any proposed accessible ramp shall be constructed separate from the driveway apron using the sidewalk as the landing.*

Response: The updated plans reflect these comments.

- 12. The sidewalks and driveway shall be constructed in accordance with the City's sidewalk and Driveway Apron Material Policy and made compliance per the City's Technical Manual Section 1 and the current standard details. The sidewalk material shall be continued through the driveway aprons at grade with the proposed sidewalk and not in excess of 2% cross slope per the current City standards.*

Response: The updated plans reflect these comments and specifically Figure I-9B for Commercial/Industrial Driveway aprons, from the Technical Manual.

- 13. The proposed crosswalks within the property shall be raised crosswalks connecting the proposed sidewalk network.*

Response: The updated plans reflect these comments.

- 14. The stairs and associated wall provided for entry to the building's ground floor level appear to extend into the ROW. The wall and stair should not extend into the ROW and sidewalk.*

Response: The updated plans reflect these comments. The wall and stair have been moved out of the ROW.

- 15. Update the plans to provide signage information for the proposed parking in the ROW.*

Response: The updated plans reflect these comments. All signage is to be coordinated and supplied by the City's Parking Division.

- 16. Please confirm the number of parking spots to be allocated at the Ocean Gateway and 100 Fore Street Garages. City Staff note that the P&S dedicates parking spots in the garage.*

Response: As outlined in the response July 21st, response letter, the 100 Fore Street Garage contains at least 160 spaces made available to the 70 Thames Street site as outlined in the original RFP response. There also is an excess supply estimated to be greater than 100 spaces available, based on current demand patterns and leases, available in the 167 Fore Street Gateway garage. The executed Purchase and Sale Agreement also benefits the City by increasing the supply of parking available for City vehicles from the current 20 spaces, up to 25 spaces, between the two garages.



17. Please submit an updated TDM for review.

Response: The applicant requests any updates to the TDM be made a condition of approval tied to the issuance of a Certificate of Occupancy. As outlined in the original application materials, WEX's implementation of their TDM plan, which includes both the 1 Hancock and 100 Fore Street locations, has largely, been delayed/slowly started, due to the Covid pandemic and their evolving work practices. See [6 Steps to Build an Efficient Work From Home Model | WEX Inc.](#), which outlines how WEX successfully transitioned their workforce to nearly 99% work from home, during the pandemic. Their work from Home model has continued and largely outpaced the modest vehicular traffic reductions targeted by the TDM. For these reasons, TDM, while still relevant and important, has largely taken a backseat to the new post pandemic business model held by WEX. We believe further updating of the TDM, for now, can be postponed until a time prior to the need for a certificate of occupancy or at a time when office occupancy substantially returns to Pre-Pandemic conditions.

14.6.2 Environmental Quality Standards

18. Use Tick marks to layout the proposed parking along Thames Street to identify tree planter and vehicle door conflicts. Adjust where needed.

Response: The updated plans reflect these comments.

19. Street tree spacing & Staff appreciate the street tree layout in an improvement. Based on the pattern of street trees shown there should be one additional tree completing the sequence along Thames Street as it reaches Freedom Way. If there is a rationale for omitting this tree, please provide it.

Response: See the updated landscape and site plans for proposed street tree locations. The applicant prefers a tree not to be shown as suggested due to the proximity to the WEX office entrance at the east end of the building.

20. Street Tree species Composition & the diversity of the tree species proposed in the landscape plan and the applicant's willingness to consider switching away from Maples is appreciated. Upon further review with the City arborists, staff need to ascertain that the small granite tree wells coupled with the proposed Silva Cells provide adequate soil volume for tree survival, especially a larger tree. For larger street trees, minimum recommend soils volumes range from 1000 to 1500 CF. There is currently no indication of total soil volume on the plans or street tree planter sections. Please provide the Silva Cell model specifications and plan-view layout of silva cells to ascertain adequate soil volume is being provided and the proposed minimum depth of tree root zone. The maximum soil volume being provided per tree will help dictate what trees are able to survive and thrive in the proposed planters.

Response: The tree wells have been enlarged to 4' x 8' which exceeds the design standard in Figure IV-4B of the technical manual (4' min. x 6' min.). The applicant retains the right to omit or use Silva cells at the tree plantings, subject to affordability, and in accordance with



the manufacturer's recommendations. We are not aware that the Technical Manual or other City standard requires their use, therefore this is a voluntary choice.

- 21. The raised granite tree wells labeled as 5'x6' but are drafted as 4'x6' interior area. Which size is being proposed? In the City Arborists' experience, trees benefit from more than the absolute minimum size of tree well where space allows. Staff strongly encourage applicants to provide larger tree wells wherever space allows as the 4'x6' dimensions are the absolute minimum allowed specifically in circumstances where the walking surface of the sidewalk is very constrained.*

Response: The tree wells have been enlarged to 4' x 8'.

- 22. City staff need to confirm the status of the public access easement across the site. The applicant shall provide additional information on the paths type, lighting, and safety. The planning Board wanted to make this seem more like a pedestrian walkway rather than an alley behind the buildings.*

Response: The public access easements extend from Hancock Street to Freedom Way (the Hancock Easement) and from the existing public access easement on 100 Fore Street, to Thames Street (the Thames easement). These easements are made part of the executed Purchase and Sale Agreement with the City. These are presented in the color caption earlier in this letter. The plans call for a concrete surface sidewalk with a snowmelt system and ample lighting along both routes. See the latest site lighting plan for further information. We believe the activation of this Quad space between the rear of the new building and the incubator spaces will be largely increased simply due to the Incubator spaces as well as pedestrian connectivity between the garage and office areas. Similarly, unlike a traditional narrow alley between buildings, this site design includes a large separation between the structures that results in greater visibility, openness, and scale. The design eliminates the existing narrow grassed alley that lies between the existing 144 Fore Street building and the 100 Fore Street property. Substantial security measures and surveillance will be made part of the construction.



23. *The applicant should complete a project flood control analysis to ensure that the post development stormwater flow rates entering into the City's storm drain system do not exceed pre-development flow rates.*

Response: As evidenced by the table below the site's overall runoff conditions will be improved due to the reduction in impervious surface. The site is relatively small and thus, by inspection, normally the straightforward reduction in imperviousness yields reduced peak flow conditions. Typical hydrological modeling (TR55/TR20) is not specifically the ideal means of evaluating this type of small site and the reduction in impervious area is actually too small to change the site's runoff coefficient measurably in the computer methodology. Additional comments we can offer regarding the surface changes to the site include:

- The site has a long history of industrial development associated with the Grand Truck railroad.
- Existing grassed/landscaped conditions are considered to be in poor condition with little to no topsoil coverage and absorption capacity.
- The proposed landscaped conditions will improve the grass and landscape beds with sufficient topsoil (6"+) and mulched area to vastly improve water retention and decrease runoff.
- The site discharges entirely to nearby large diameter collection pipes that outfall to the nearby tidal conditions of the Fore River. The site is further located at the bottom of the overall watershed collection area, thus, from a timing/storage view,



the site runoff should be allowed to discharge as quickly as possible to avoid overlap of peak flow timing attributable to the upper sections of the contributing watershed.

- The building area roof drains will primarily discharge to the existing 10" drain lines that tie into the 60" storm drain in Freedom Way, both located at the east end of the property. We believe these pipes were designed to accommodate the site redevelopment activity. The roof drain system will include roof drain filters to aid with water quality treatment. The applicant reserves the right to contract with any of a number of roof filter vendors subject to a competitive bid selection process. Final product selection can be noted on the project record plans.
- The site's front yard area and sidewalk will continue to discharge to the Thames Street gutter line which collects within an existing tree box filter, generally centered along the property frontage.

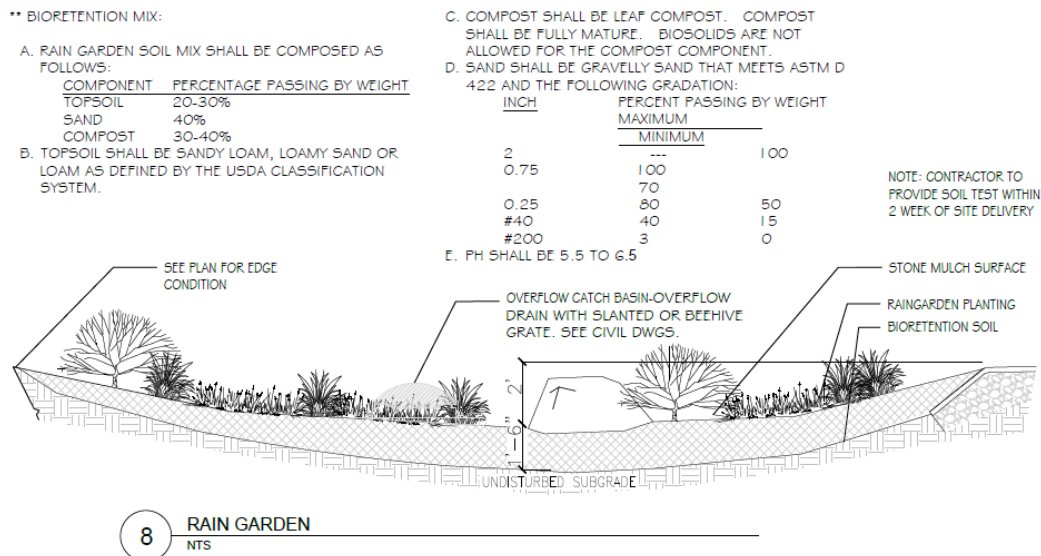
On the basis of this information, we believe no further stormwater analysis is warranted. If a waiver of any further stormwater evidence is needed, we respectfully ask this be made for the Boards deliberations.

Table 3 – Area Calculations		
Description	Predevelopment	Post Development
Impervious Area		
-Roof	-13,390 SF (18.8%)	-26,895 SF (37.7%)
-pavement/sidewalks	-18,824 SF (26.4%)	-25,314 SF (35.4%)
-gravel	-21,186 SF (29.6%)	-
Non-Impervious area	18,000 SF (25.2%)	19,191 SF (26.9%)
Totals (Developed Area)	71,400 SF	71,400 SF (100%)

70 Thames Street – Pre vs. Post area summary

24. It appears that the site plan updated for this submission includes additional non-roof redeveloped area associated with the proposed parking garage entrance and driveway to the existing 100 Fore Street building. This area should be included in the overall stormwater quality treatment calculations for the project. The applicant is proposing a rain garden in this latest submission, but design information has not been provided for review.

Response: The described area does include both non-roof impervious as well as increased landscaped area. Within this space, some runoff from the pedestrian quad area in front of the incubator spaces will sheet into the rain garden for treatment. See sizing analysis below. The parking garage entry drive will contain a closed drainage system consisting of several catch basins and storm drainage conveyance pipe that ties into the City's street system. The City's street system drains westerly and ultimately discharges collected runoff through a hydrodynamic separator that was previously installed by the City as part of the Ocean Gateway Terminal construction. The hydrodynamic separator aids with sediment and trash removal from the runoff flow.



The rain garden sizing calculations are as follows:

- **Contributing area – Impervious = 10,000 SF and Landscape = 7,968 SF**
- **Treatment Volume – Required = 1,100 CF / Provided = 1300 CF (6" pool depth and 6" within 18" filter)**
- **Filter area – required 940 SF/ Provided 1,300 SF (less than max size of 2,000 SF)**

25. Please submit a stormwater management plan as required in Chapter 500. The applicant should also provide a draft Stormwater Maintenance Agreement for City Staff review.

Response: On the basis of the information presented above, we request a waiver of the need for any further stormwater management plan materials. We've previously submitted a draft of the SWM agreement and offer it again, accompanying this letter.

26. The applicant is proposing a couple of different treatment methods or one for the building roof runoff and one for the site stormwater. With the redevelopment standards, 50% of the non-roof redeveloped area must be treated. If they would like to instead count roof treatment, they need to justify that and why treatment of non-roof area to meet the threshold cannot be met. With the info they have provided, City Staff does not see anything provided that allows us to evaluate treatments areas vs. thresholds.



Response: The following summarizes the treatment approach:

Description	Area	Treatment
Primary Building	26,895 SF	Roof drain filters
Rear Quad area	17,968 SF	Rain Garden with 18" soil filter.
Frontage along Thames	6,500 SF	Existing Tree box filter on Thames Street
West end of site	20,037 SF	Existing Hydrodynamic Separator at Gateway Terminal
Total	71,400 SF	

The non-roof developed area is 44,505 SF and 50% of this value is 22,253 SF. The design includes approximately 24,468 SF (55%) of developed area to be treated by either the Rain Garden or the existing tree box filter on Thames Street. The entire roof will be treated by roof drain filters. Sediment removal will also be provided with the proposed onsite catch basins and the offsite hydrodynamic separator. The use of snowmelt systems also minimizes the need for winter sanding use, which is a water quality benefit.

14.6.3 Public Infrastructure & Community Safety Standards

27. Confirm that the proposed trenches shall be repaired per the Minor Excavation Pavement Repair Details (prior to paving the finished surface) found in the Rules and Regulations for Excavation Activity. Update the plans and detail sheets to show these requirements.

Response: The street repair limits have been updated to include pavement repairs at least 20' beyond the trench limits for the full width of the street.

28. The applicant is aware they are required to repave the finished surface of the street per the moratorium standards. All pavement cuts in the City ROW shall be repaired per the Minor Excavation Pavement Repair Details (prior to paving the finished surface) found in the Rules and Regulations for Excavation Activity. Update the limits on the utility plans to meet the requirements.

Response: The repair limits have been updated on the plans and appropriate plan notes are on the plans insuring compliance by the contractor when the work is completed. These conditions are made part of any street opening permit the City issues to the contractor.

29. The proposed UGE and Telecommunications connections in the sidewalk along Fore Street are not a valid connection point. The applicant shall verify that services are available at this location and provide an alternative connection point on the next submittal.

Response: A conduit duct bank extending from Fore Street down Freedom Way was



previously installed as part of the 100 Fore Street construction, in anticipation of future power and communications lines extensions to the City lot and should thus be available for use. A new CMP 38Y Manhole for the primary power circuit will need to be installed under/adjacent the Freedom Way sidewalk as is commonly done in the City. There are alternative routes of service from Hancock Street, behind the existing Wex Building that may also be available, although it is anticipated they will not be needed.

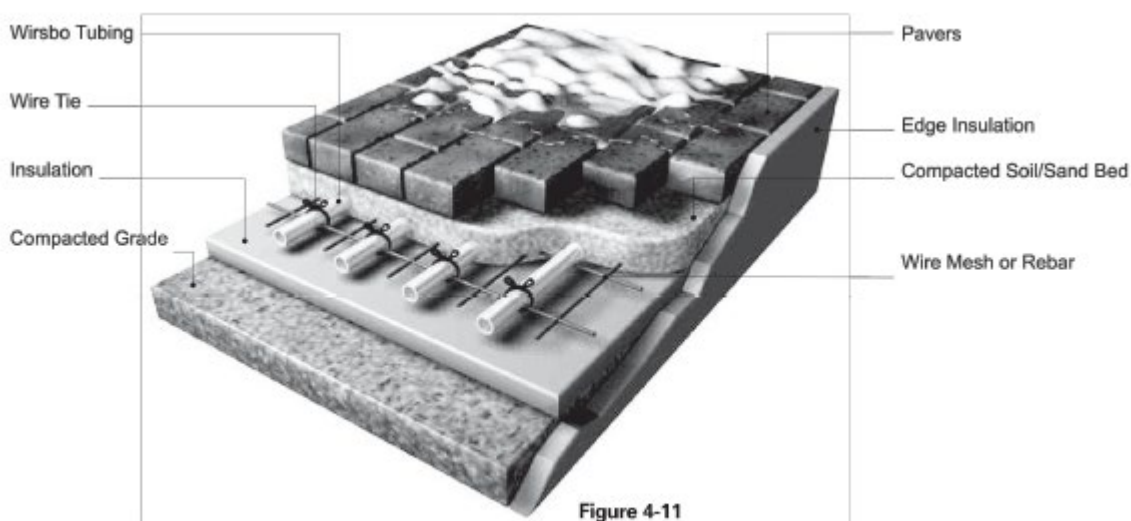
30. Relocate the existing street light conduit outside of the proposed planters.

Response: The updated plans reflect these comments. This work along with adjustments to several of the existing streetlight pole bases will be accomplished as part of the sidewalk reconstruction.

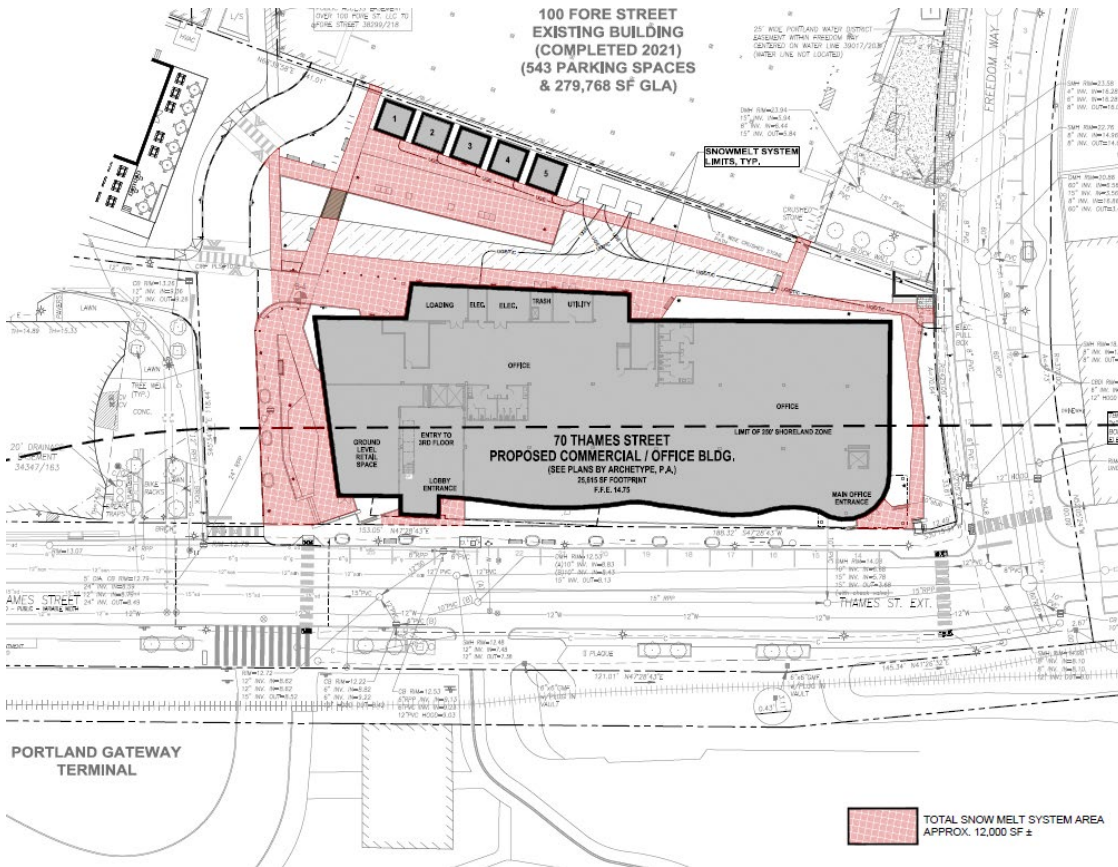
14.6.4 Site Design Standards

31. Cty staff request additional information regarding proposed protocols for snow removal.

Response: The applicant proposes 12,000 SF of underground snowmelt system (see detail below) that will effectively minimize the need for snow removal. As evidenced below, snow melt systems will be installed through the majority of the site's walkway surfaces. Any small amount of plowed/pushed snow onto these surfaces, is quickly melted, thereby minimizing any snow removal needs.



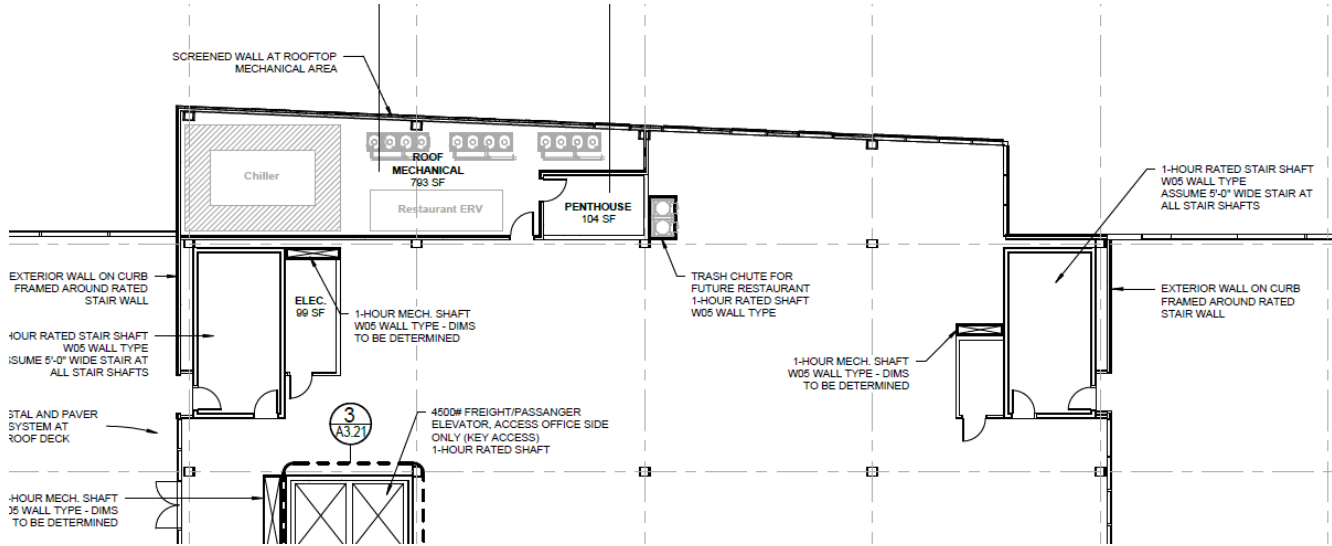
Pavers Over a Compactable Soil/Sand Bed



32. The applicant will need to provide additional information about the location of HVAC on the interior of the building, in the rear of the building, and/or on the rooftop. Will there be any additional HVAC associated with 144 Fore? Will there be any mechanical or HVAC associated with the incubator spaces?

Response: The building's HVAC systems are shown on the Third level floor plan on the next page. The mechanical space will contain a screen wall around the roof area perimeter. The 144 Fore Street site mechanicals for the remaining building space will remain unchanged for now. The incubator spaces will have power for electric lighting and heat and small water and plumbing services into each space. These will be tied into the main building.

Based on the Design Review memo we believe no further information or submissions are needed for the building design. We appreciate the thoroughness of the staff review.



Third Floor Mechanical Space

We look forward to the Planning Board public hearing in September. Please find the attached information for your review and records.

Sincerely,

GORRILL-PALMER

A handwritten signature in black ink, appearing to read 'Stephen Bushey'.

Stephen Bushey, PE

Senior Associate

Phone: 207-772-2515 x286

sbushey@gorrillpalmer.com

Attachments:

- c: Jon Cohen, 144 Fore Street OZ LLC
- Katherine Lermond, Archetype
- Braden Drypolcher, Landscape Architect

U:\3924_Thames Street-VVEX_Portland, ME\IP Applications\Local\LCR #3 2023.08.24\LCR#3_Tetelman_08.24.23



Attachment A – Draft SWM Agreement

**DRAFT
STORMWATER DRAINAGE SYSTEM
MAINTENANCE AGREEMENT**

**144 Fore St. OZ LLC
Commercial Office Building – 70 Thames Street**

IN CONSIDERATION OF the site plan approval granted by the Planning Board of the City of Portland to the proposed **70 Thames Street PL-002437-2023** - shown on the Site Layout Plan and Grading, Drainage & Erosion Control Plan (Plans are on file with the City of Portland Project ID PL-002437-2023) prepared by Gorrill Palmer Consulting Engineers of 300 Southborough Drive, South Portland, Maine stamped approved on _____ and attached hereto as Exhibit A and pursuant to a condition thereof, 144 Fore St. OZ LLC with a principal place of business in Portland, Maine, and having a mailing address of One Portland Square, Suite 6A, Portland, Maine 04101, the owner/operator of the site, 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 roof drain filter systems, the bioswale, and related onsite drainage infrastructure, (hereinafter collectively referred to as the “stormwater system”), as shown on the Grading, Drainage & Erosion Control Plan in Exhibit A and in strict compliance with the approved Stormwater Inspection and Maintenance Manual prepared for the Owner by Gorrill Palmer Consulting Engineers a copy of which is attached hereto as Exhibit B and Chapter 32 of the Portland City Code.

Owner of the subject premises further agrees, at its own cost, to keep a Stormwater Maintenance Log. Such log shall be made available for inspection by the City of Portland upon reasonable notice and request and be made part of the annual Stormwater reporting duties of the applicant to the City.

Said agreement is for the benefit of the said City of Portland and all persons in lawful possession of said premises and abutters thereto; further, that the said City of Portland and said persons in lawful possession may enforce this Agreement by an action at law or in equity in any court of competent jurisdiction; further, that after giving the Owner written notice and a stated time to perform, the said City of Portland, by its authorized agents or representatives, may, but is not obligated to, enter upon said premises to maintain, repair, or replace said stormwater system 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 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 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 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 and mailed by certified mail, return receipt requested or ordinary mail or both 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 the tax rolls, service shall be complete by mailing it to only the first listed owner. The failure to receive any written notice required by this agreement shall not prevent the City from entering the property and performing maintenance or repairs on the stormwater system, or any component thereof, or liening it or create a cause of action against the City.

Dated at Portland, Maine this ____ day of _____, 2023.

(name of company)

(representative of owner, name and title)

STATE OF MAINE
CUMBERLAND, ss.

Date: _____

Personally appeared the above-named _____ (name and title), 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: _____

**OPERATION AND MAINTENANCE FOR
70 THAMES STREET OFFICE BLDG**

PREPARED FOR:

**144 FORE ST. OZ LLC
ONE PORTLAND SQUARE SUITE 6A
PORTLAND, MAINE 04101**

PREPARED BY:

**GORRILL PALMER CONSULTING ENGINEERS
300 SOUTHBOROUGH DRIVE
SOUTH PORTLAND, MAINE**

JULY 2023

A. INTRODUCTION

The 70 Thames Street development features one or more Fabco downspout cartridge filter units, model 10080-2, or approved equal, located within the building. The stormwater management system must be regularly inspected and maintained to ensure that each component is performing as intended throughout its life.

B. FABCO MODEL 10080-2 STORMBASIN CARTRIDGE FILTER UNIT

Preface: The roof drain filter unit is intended to provide water quality treatment for runoff from the proposed roof surface prior to discharge into the municipal drainage system in Thames Street. Primary contaminants from the roof include bird waste, metals, dust, and related pollutants.

Inspection: The roof filter unit must be inspected to ensure proper function during rain events. Primary inspection goals include removal of debris, leaves, or related solids preventing filtering and water pass through or blocking the internal overflow.

Maintenance: If the filter is not draining within 24 hours, the filter media shall be replaced in accordance with the manufacturer's instructions. Debris must be removed from the filter unit. With all debris removed from the StormBasin the filter cartridge(s) will be exposed at the bottom. To remove the cartridge(s) reach down into the basin and firmly grasp the plastic outer rim of the cartridge body just below the foam, twist the cartridge body counterclockwise about ¼ turn until it stops, and lift the cartridge straight up to remove. Insert the new StormBasin cartridge down through the hole in the base of the unit. The colored ring on the cartridge should be facing upwards. Push the cartridge all the way through the hole until it rests on the bottom. Slowly turn the cartridge in a clockwise direction until the tabs align with the slots and the cartridge body drops about ¼' further down. Once the tabs fall through the slots, continue turning firmly in a clockwise direction until the tabs contact the STOPS. The cartridge is now installed.

Frequency: During the first year, the unit should be inspected quarterly and following all major storm events. Thereafter, the unit should be inspected at least every 6 months. Debris and sediment buildup should be removed as needed in accordance with manufacturer's recommendations. The filter cartridges shall be replaced on an annual basis. Cartridges can be sourced from Fabco Industries, Inc., phone 631-393-6024, 66 Central Avenue Farmingdale, NH 11735.

C. 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, plaza scuppers, trench drains, and field inlets. Inlets exist throughout the system.

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 on parking decks or plaza areas. Grass clippings and leaves should be bagged and removed particularly near the yard inlets near the building.

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 for this project.

D. 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 and is intended to be trapped near the inlets or in pretreatment devices. Maintenance of this system can play a major role in the long-term maintenance costs and the effectiveness of the pond 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 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 ensure 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 ensure their 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 downstream detention pond, or the 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. If a filter bag has been designated for the inlet silt or other deleterious materials, can significantly reduce capacity and the bags should be removed with sediment and replaced. Catch basin cleaning would normally be accomplished with vacuum trucks contracted as a maintenance service for the retail center. 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. The tidal influence can aggregate sedimentation since there are periods of no flow. Backwater valves and connection points are intended to reduce this occurrence.

Frequency: The pipe 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 or replacement 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.

Comments: Maintenance of inlets is of utmost importance to the project to avoid unintended roof loading, ice accumulation, and cleanliness of the floors of the building.

E. RECORD KEEPING

Records of all inspections and maintenance work accomplished must be kept and maintained to document filter operation and related site maintenance. 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 City staff associated with the City's stormwater program. Copies of such records should also be filed with the City's Stormwater Program Coordinator. A Typical inspection and maintenance record form is attached hereto as Attachment B.

F. CONTRACT SERVICES

In some instances, or at specific times, the owner may not have the ability to conduct the required inspection and/or maintenance programs as outlined in this document. In such a case, 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 a 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.

ATTACHMENT A

Sample Inspection Logs

**70 THAMES STREET
144 FORE ST OZ, LLC
PORTLAND, ME**

ROOF DRAIN FILTER ANNUAL INSPECTION & MAINTENANCE LOG			
FACILITY:		YEAR:	
LOCATION: 70 Thames		CONTRACTOR:	
FUNCTION:		INSPECTOR:	
DATE OF INSPECTION:			
ITEM IDENTIFICATION	DESCRIPTION OF CONDITIONS	MAINTENANCE ACCOMPLISHED	DATE OF MAINTENANCE
GENERAL COMMENTS:			

**STORMWATER MANAGEMENT SYSTEM
MAINTENANCE PROGRAM – SUMMARY CHECKLIST**

Item	Commentary	Frequency				
		Monthly	Quarterly	Semi-Annual	Annual	Long Term
Vegetated Slopes	Slopes and related ground surface should be inspected for erosion and sedimentation		X (until vegetation established)		X	
Roof Drain Filters	Inspect systems to verify adequate functioning and capacity. Dispose of filters that have reached useful life in accordance with manufacturer's recommendations. Replace filters as required.	X				
Litter	Litter should be removed daily.					

Thames Street

Resubmission for Planning Board Hearing

Prior to the workshop held on June 27th, 2023, multiple design changes were made to the building based on staff comments and those changes were presented and explained during the workshop. All of those changes remain in the version submitted for the hearing.

In addition to those changes, further modifications have been made based on the Board comments. At both the 3-story entry to the assembly space on the roof, and at the 2-story entry to the office space, the non-tinted structural glazing is now flanked by a pattern of solid panels from the ground to the roof. In the same pattern of the curtainwall a pattern of 2 solid bands followed by a glazed band and then a final solid band have been added to both sides of the structural glazing at both entries. On the office portion, this is pretty straightforward but at the assembly entry there is more play in the pattern due to the changing in massing as the building reaches to the roof. The move responds both to comments about the entries needing more highlighting and to comments that it would be nice to have the high levels of glazing more broken up.

This modification plays into the design well in a couple of ways beyond responding to the Board. Because this building is using metal infill panels instead of spandrel for banding, the verticals tie into that pattern. The metal is a lighter gray than the other buildings on the campus and during the day, with reflectivity, this will create a very visible light pattern across the mass. In contrast, in the evening, lights will shine from inside and the banding will become the dark in the pattern. The reverse of contrast during the course of 24 hrs is an intentional design move. Along with that, the banding around the 3-story portion changes as you view the building from different angles due to it wrapping and stepping to different planes where the massing changes.

Aside from the changes to the design the following is further explanation to why certain changes were not made that were brought up by the Board.

Sun shades – As mentioned at the hearing – vertical shades are not being installed on the entries as the design intent of those is to have maximum interaction with the interior and the fins would be distracting and block the views. As for horizontal sun shades on the 2-story portions where the building is curtainwall, I spoke with the client who is one of the largest glazing contractors in the northeast and has professional knowledge on glazing systems, and he said sunshades are limited in their reducing solar heat gain, especially based on orientation. An automated interior shade system, the same as has been installed on the Wex Headquarters, would function better than exterior shades and have adjustability which maximizes the heat control while also adjusting for maximum views.

Glazing – For the workshop resubmission spec sheets on the glazing being used were submitted and the basic take from these is that glass that either meets or exceeds the newly adopted energy requirements adopted by Portland.

Bird glass – Bird glass is far more expensive than standard glass so the effects of using it would have to prove important. On top of the cost, it has a wave to it that distorts images so both the views in and out

would be distorted as well as reflections from the outside. This would change the look of the building and the experience from within. The Wex building is a perfect example to use as it is in the same location with the same glazing and there has been only one known bird in the past five years that has hit the windows. Property maintenance is done regularly around the perimeter of the building and birds would be found if they were regularly flying into the building. This does not justify the cost or change in views and appearance that come with using the bird glass.

The elevations have been added for the incubator spaces. They will be framed 16'x16' boxes that allow for flexibility in the front elevation as shown in the notes on the elevations. They can house a single user or be split into two – creating spaces similar to those in the Washington Ave incubator spaces. The siding is the same material as is used on the parking levels of 100 Fore, which they back up to, but we are proposing 5 different shades of blue to make the design more playful and to tie into the colors of the waterfront and nestle into all of the greenery.

OWNER

TML 19-A-2
CITY OF PORTLAND
389 CONGRESS STREET
PORTLAND, ME 04101
PHONE: 207-874-8300
C.C.R.D. BOOK 10924 PAGE 84

TML 19-A-8
144 FORE STREET LLC
P.O. BOX 910
WESTBROOK, ME 04098-0910
C.C.R.D. BOOK 38799 PAGE 344

TAX MAP - BLOCK - LOT (ADDRESS)

MAP 19 - BLOCK A - LOT 2
MAP 19 - BLOCK A - LOT 8

CURRENT APPLICANT / DEVELOPER / OWNER

144 FORE STREET, OZ, LLC - SEE CITY ORDER 146-22/23 APPROVED 03.06.2023
P.O. BOX 910
WESTBROOK, MAINE 04098-0910

INDEX

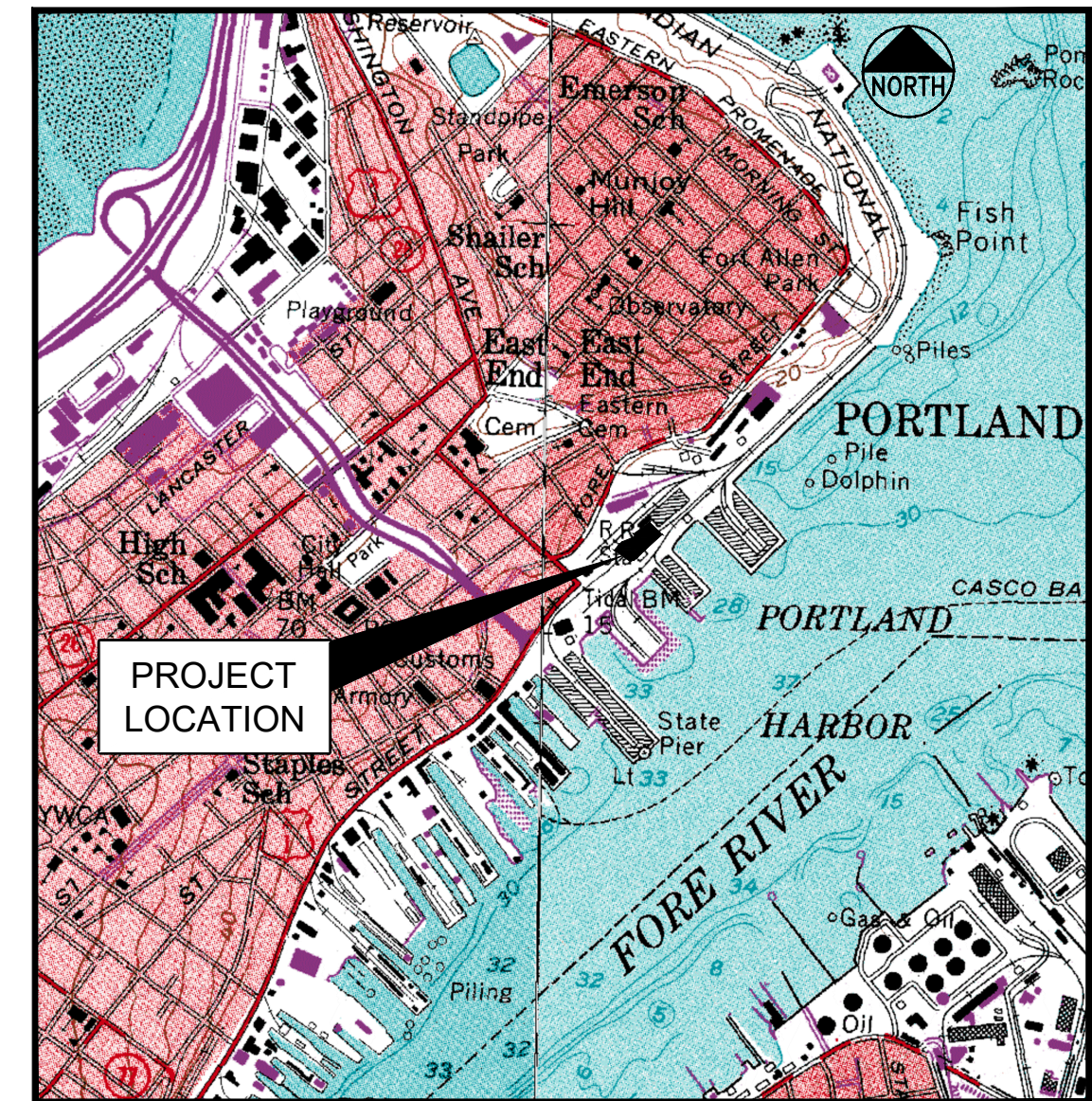
- C-1.0 COVER SHEET
C-1.1 GENERAL NOTES & LEGEND
C-2.0 BOUNDARY & TOPOGRAPHIC SURVEY - BY OWEN HASKELL
C-2.2 EXISTING CONDITIONS & DEMOLITION PLAN
C-2.3 CONSTRUCTION MANAGEMENT PLAN
C-3.0 OVERALL SITE PLAN
C-3.1 SITE LAYOUT PLAN
C-3.2 10 SCALE SITE ENLARGEMENT PLANS
C-3.3 EASEMENT OVERLAY PLAN
C-3.4 SNOW MELT AREA PLAN
C-4.0 GRADING, DRAINAGE & EROSION CONTROL PLAN
C-5.0 UTILITY PLAN
C-6.0 SITE DETAILS
C-6.1 SITE DETAILS
C-6.2 SITE & MISCELLANEOUS DETAILS
C-6.3 STORM DRAIN & UTILITY DETAILS
C-6.4 UTILITY & MISCELLANEOUS DETAILS
C-7.0 TRUCK / FIRE APPARATUS TURNING TEMPLATE PLANS

- L1 MATERIAL & LIGHTING PLAN - BY MITCHELL & ASSOCIATES
L2 PLANTING PLAN - BY MITCHELL & ASSOCIATES
L3 PHOTOMETRIC PLAN - BY MITCHELL & ASSOCIATES
L4 DETAILS - BY MITCHELL & ASSOCIATES
L5 DETAILS - BY MITCHELL & ASSOCIATES
L6 DETAILS - BY MITCHELL & ASSOCIATES
L7 DETAILS - BY MITCHELL & ASSOCIATES
L8 DETAILS - BY MITCHELL & ASSOCIATES
L9 DETAILS - BY MITCHELL & ASSOCIATES

Stephen R. Bushey

I HEREBY ACKNOWLEDGE THAT THESE PLANS AND SPECIFICATIONS WERE PREPARED UNDER MY DIRECT SUPERVISION, AND THAT I AM A DULY REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MAINE AND THAT I AM COMPETENT TO PREPARE THIS DOCUMENT.

SITE DEVELOPMENT PLANS
FOR A COMMERCIAL OFFICE BUILDING ON
70 THAMES STREET PROPERTY
PORTLAND, MAINE
AUGUST 2023
FINAL PERMITTING SET



LOCATION MAP
N.T.S.

UTILITIES

WATER:
PORTLAND WATER DISTRICT
22 DOUGLASS STREET
P.O. BOX 3553
PORTLAND, MAINE 04104
207.774.5961
CONTACT: ROBERT BARTELS

SEWER / STREETS:
CITY OF PORTLAND
PUBLIC SERVICES DIVISION
258 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

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
207.541.2570
CONTACT: SCOTT CARPENTER

CABLE:
TIME WARNER CABLE
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 / MAJOR SITE PLAN APPROVAL:

BUILDING PERMIT:

UTILITY / STREET OPENING PERMITS:

TRAFFIC MOVEMENT PERMIT:

STATE

SITE LOCATION OF DEVELOPMENT

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 PUBLIC SERVICES DIVISION
250 CANCO ROAD
PORTLAND, ME 04103
207.874.8801

CITY OF PORTLAND PLANNING AUTHORITY
CITY HALL, CONGRESS STREET
PORTLAND, MAINE 04103

MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION
CANCO ROAD
PORTLAND , ME 04101

STATUS/DATE ISSUED:

MAJOR SITE PLAN APPLICATION
SUBMITTED 03.24.2023 (PRE APP HELD 07.06.2022)
WORKSHOP HELD JUNE 13, 2023
FINAL SUBMISSION JULY 21, 2023
REVISED SUBMISSION AUGUST 25, 2023

TO BE FILED BY BUILDING CONTRACTOR

TO BE FILED PRIOR TO CONSTRUCTION

TMP ISSUED 03.20.2020
PROJECT ID REG. 01-000270

COVERED ON PERMIT ORDER #L-7866-26-E-N
(TRANSFER ORDER TO BE REQUESTED)

CONSULTANT LIST

CIVIL ENGINEER:
GORRILL PALMER
300 SOUTHBOROUGH DRIVE, SUITE 200
SOUTH PORTLAND, MAINE 04106
207.772.2515
ATTN: STEVE BUSHEY
SBUSHEY@GORRILLPALMER.COM

ARCHITECT:
ARCHETYPE ARCHITECTS
48 UNION WHARF
PORTLAND, MAINE 04101
207.772.6022
ATTN: BILL HOPKINS
HOPKINS@ARCHETYPEPEA.COM

SURVEYOR:
OWEN HASKELL, INC.
390 US ROUTE 1, UNIT 10
FALMOUTH, MAINE 04105
207.774.0424
ATTN: RANDY LOUBIER

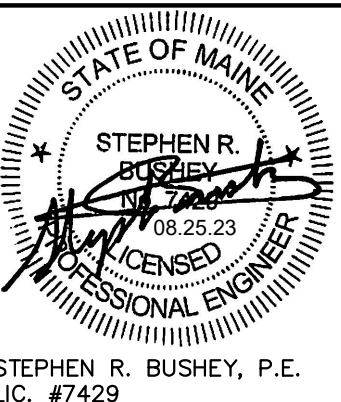
GEOTECHNICAL ENGINEER:
SUMMIT GEOENGINEERING SERVICES
210 MAINE AVENUE
FARMINGDALE, MAINE 04344
207.576.3313
ATTN: WILLIAM PETERLEIN
bpeterlein@summitgeoeng.com

LANDSCAPE ARCHITECT:
MITCHELL & ASSOCIATES
70 CENTER STREET, #3
PORTLAND, MAINE 04101
207.774.4427
ATTN: BRADEN DRYPOLCHER

TRAFFIC ENGINEER / TDM CONSULTANT:
GORRILL PALMER
300 SOUTHBOROUGH DRIVE, SUITE 200
SOUTH PORTLAND, MAINE 04106
207.772.2515
ATTN: RANDY DUNTON
RDUNTON@GORRILLPALMER.COM

DESIGN BUILD LEADER:
THE PENOBSCOT COMPANY
241 U.S. ROUTE ONE, SUITE 401
FALMOUTH, MAINE 04005
207.838.8021
ATTN: JONATHAN DICENTES
jdicentes@penobscotgc.com

NOTE: THIS PLAN SET
IS ISSUED FOR
PERMITTING PURPOSES
& SHALL NOT BE USED
FOR CONSTRUCTION.



Rev.	Date	Revision

Rev.	Date	Revision
3	2023.08.25	FINAL PLAN SUBMISSION TO CITY - REVISED PER STAFF COMMENTS
2	2023.07.21	FINAL PLAN SUBMISSION TO CITY
1	2023.03.24	MAJOR SITE PLAN APPLICATION TO CITY

Design: SRB	Draft: CDD	Date: JAN. 2022
Checked: SRB	Scale: AS NOTED	Job No.: 3924
File Name: 3924-COVER.dwg		
This plan shall not be modified without written permission from Gorrill Palmer. Any alterations, authorized or otherwise, shall be at the user's sole risk and without liability to Gorrill Palmer.		



GORRILL PALMER

Relationships. Responsiveness. Results.
www.gorrillpalmer.com
207.772.2515
300 Southborough Drive - Suite 200
South Portland, ME 04106

Drawing Name:	COVER SHEET
Project:	Commercial Office Building - 70 Thames Street 70 Thames Street, Portland, Maine
Client:	144 Fore Street, OZ, LLC PO Box 910, Westbrook, Maine 04098-0910

Drawing No.
C-1.0

U:\3924_Thomas Street-WEX-Portland, ME\3 - CAD\DWG\3924-GEN.dwg 8/25/2023 11:15 AM

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 THE 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 AND BOUNDARY SURVEY INFORMATION WAS PROVIDED BY OWEN HASKELL, INC. BENCHMARK = CHISELED X STREET SIDE HYDRANT BONNET BOLT ON MIDDLE STREET, ELEVATION 28.32, NGVD 1929 DATUM.
- FEMA MAP COMMUNITY PANEL NUMBER 2300510014B. THE SITE IS LOCATED IN A C ZONE.
- THE PROPERTY SHOWN ON THIS PLAN MAY BE DEVELOPED AND USED ONLY AS DEPICTED IN THIS APPROVED PLAN. ALL ELEMENTS AND FEATURES SHOWN ON THIS PLAN ARE 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.
- 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 NEW UNDERGROUND SYSTEM. SEE SITE ELECTRICAL PLANS FOR DETAILS.

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 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.

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 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 GRANULAR BORROW (MDOT 703.19). 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, PERISHABLE 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. EXCAVATED ON-SITE MATERIALS MAY NOT BE USED AS COMPACTED STRUCTURAL FILL BENEATH THE BUILDING AREAS OR AS FOUNDATION BACKFILL. 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.

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.

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 BRICK 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.

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.
- IF OPERATIONS DURING WET MONTHS RESULT IN TRACKING OF MUD OFF THE SITE ONTO PUBLIC ROADS, ROADS SHALL BE SWEEPED AT LEAST ONCE A WEEK AND PRIOR TO SIGNIFICANT STORM EVENTS. WHERE CHRONIC MUD TRACKING OCCURS, A STABILIZED CONSTRUCTION ENTRANCE SHOULD 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 BUILDING, HAUL OFF THE LOAM, AND EXCAVATE FOR THE BUILDING FOUNDATION.
- CONSTRUCT THE DRAINAGE SYSTEM.
- INSTALL STONE AND HAY BALE CHECK DAMS AT ANY CONCENTRATED FLOW DISCHARGE POINTS.
- 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.

UTILITY NOTES:

- ALL REQUIRED UTILITIES SERVING THE PROJECT SHALL BE COORDINATED BETWEEN THE SITE WORK CONTRACTOR AND DIVISION 22/25 CONTRACTOR(S). THE SITE WORK CONTRACTOR SHALL BE RESPONSIBLE TO EXTEND ALL PROPOSED UTILITIES TO WITHIN FIVE (5) FEET OF THE BUILDING TO A LOCATION COORDINATED WITH THE MECHANICAL AND ELECTRICAL SUBCONTRACTORS. THE BUILDING CONTRACTOR SHALL BE RESPONSIBLE FOR ALL UTILITIES WITHIN FIVE (5) FEET AND INSIDE THE BUILDING OR UNDER SLAB.
- THE CONTRACTOR SHALL COORDINATE THE INSTALLATION OF AND/OR RELOCATION OF OVERHEAD AND UNDERGROUND TELEPHONE WITH FAIRPOINT 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 FAIRPOINT COMMUNICATIONS AND CABLE SERVICE WITH TIME WARNER 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.
- A 10 FOOT MINIMUM EDGE TO EDGE HORIZONTAL SEPARATION SHALL BE PROVIDED BETWEEN ALL WATER AND SANITARY SEWER LINES. A 12 INCH OUTSIDE TO OUTSIDE VERTICAL SEPARATION SHALL BE PROVIDED AT ALL WATER AND SANITARY SEWER CROSSINGS.
- 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.
- ALL SANITARY SERVICES AND APPURTENANCES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CURRENT STANDARDS AND SPECIFICATIONS OF THE CITY OF PORTLAND PUBLIC WORKS DEPARTMENT. ALL SANITARY SERVICES AND APPURTENANCES TO BE ABANDONED SHALL BE PROPERLY RECORDED WITH PORTLAND PUBLIC WORKS ENGINEERING DEPARTMENT. A DIGITAL VIDEOTAPE SHALL BE MADE OF SANITARY SEWER SYSTEMS TO BE UTILIZED PRIOR TO CONSTRUCTION; UPSTREAM PIPES INTENDED FOR ABANDONMENT SHALL BE INSPECTED TO VERIFY THAT THEY NO LONGER SERVE OTHER FACILITIES.

GEOTECHNICAL

- SEE FINDINGS AND RECOMMENDATIONS CONTAINED IN "Geotechnical Report - New Commercial Building, Thames Street, Portland, Maine", BY SUMMIT ENGINEERING SERVICES, DATED March 08, 2022. SGS #21406.
- ALL FILL WITHIN THE BUILDING FOOTPRINT SHALL BE STRUCTURAL FILL OR CRUSHED STONE; ALL FILL OUTSIDE OF THE BUILDING FOOTPRINT SHALL BE FOUNDATION BACK-FILL (MDOT 703.06 TYPE E), STRUCTURAL FILL (MDOT 703.06 TYPE D) OR GRANULAR BORROW (MDOT 703.19).
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVALS OF UNSUITABLE SOILS AND ALL ABANDONED SUBSURFACE CONDITIONS INCLUDING FOUNDATIONS, PIPE, AND RELATED INFRASTRUCTURE ASSOCIATED WITH THE HISTORICAL SITE USE. NO EXTRA PAYMENT WILL BE MADE FOR REMOVALS AND REPLACEMENT WITH STRUCTURAL FILL OR GRANULAR BORROW.
- Geotechnical Recommendations
5.1 Allowable Bearing Pressure

We anticipate that footings will be constructed on the existing fill soil. Based on our analyses and assuming that the following guidelines are used, the building can be supported on conventional isolated and continuous spread footings. Based on discussions with our Client, we understand that ½" of total settlement is acceptable. Based on this, we recommend that the footings for the new building be proportioned using an allowable bearing pressure of 1,000 psf and a maximum footing size of 20 feet by 20 feet. This allowable bearing pressure is based on the following recommendations.

- Footings excavations extend to a depth of 12 inches below the bottom of the footings and the exposed subgrade soil is proof-rolled by making a minimum of 4 passes in each of two perpendicular directions using a large vibratory plate compactor.

- Loose, soft, and wet areas and/or rubble and man-made debris exposed at the base of the excavations is removed and replaced with ¾ inch crushed stone (beneath the geotextile).

- All footings are constructed on a minimum of 12 inches of ¾ inch crushed stone placed directly on a woven geotextile. The geotextile should extend a minimum of 2 feet beyond the edges of the footing on all sides and be placed directly on the proof-rolled subgrade soil. The crushed stone should be compacted to lock the particles together.

- The exposed subgrade soil beneath the footings is observed by SGS prior to placement of the geotextile and crushed stone.

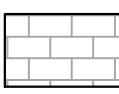
In no case should foundations be cast on frozen ground or in standing water.

We recommend that a test pit be excavated in the area of B-3 prior to construction in an attempt to confirm the extents of wood cribbing encountered at a depth of 13.7 feet.

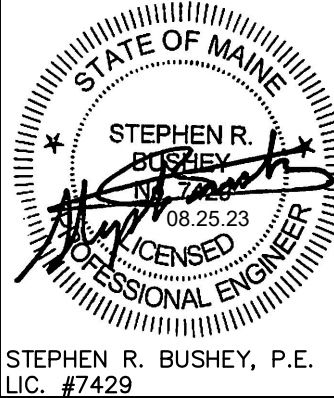
ZONING SUMMARY TABLE:

B-6 Urban Commercial Business Zone and Eastern Waterfront Mixed Zone Dimensional Requirements		
Description	B-6 Requirement	144 Fore St, OZ, LLC
Minimum Lot Size	None	T.B.D.
Minimum Frontage	None	353.86' (Thames)
Minimum Front Yard	None	0'
Minimum Side Yard	None	>10'
Minimum Rear Yard	None	>10'
Maximum Front Yard	10 Feet	Meets overlay standard
Maximum Lot Coverage	100%	< 90%
Maximum Building Height	45'	45'
Parking Retail Use	1 space per 200 s.f. of first floor area in excess of 2,000 s.f. not used for bulk storage	Retail 5,200 s.f. less 2,000 s.f. = 3,200/200 = 16 spaces
Parking Office Use	1 space per 400 s.f.	-
Total Spaces		(to be placed in Gateway Garage and/or 100 Fore St garage)

LEGEND:

PROPOSED	EXISTING
 BUILDING	 IRON PIN FOUND (IPF) OR CAPPED IRON ROD FOUND (CIR)
 LANDSCAPING	 ELECTRIC MANHOLE
 EDGE OF PAVEMENT	 CATCH BASIN
 VERTICAL GRANITE CURB	 SEWER MANHOLE
 SLIPFORM CONCRETE CURB	 DRAIN MANHOLE
 BRICK SIDEWALK	 DOWN SPOUT
	 WATER VALVE
	 WATER SHUTOFF
	 UTILITY POLE
	 SIGN
	 LIGHT POLE
	 ELECTRIC METER
	 GAS METER
	 EDGE OF PAVEMENT CURB (GRANITE, UNLESS NOTED)
	 EDGE OF GRAVEL
	 TREE
	 STUMP
	 EXISTING CONTOUR
	 SPOT GRADE
	 PROPERTY LINE
	 RIGHT OF WAY
	 STORM DRAIN
	 SEWER
	 UNDERGROUND WATER
	 OVERHEAD UTILITY WIRES
	 WOOD STOCKADE FENCE
	 CHAIN LINK FENCE
	 GUARD RAIL
	 EXISTING BUILDING

NOTE: THIS PLAN SET IS ISSUED FOR PERMITTING PURPOSES & SHALL NOT BE USED FOR CONSTRUCTION.



Drawing No.

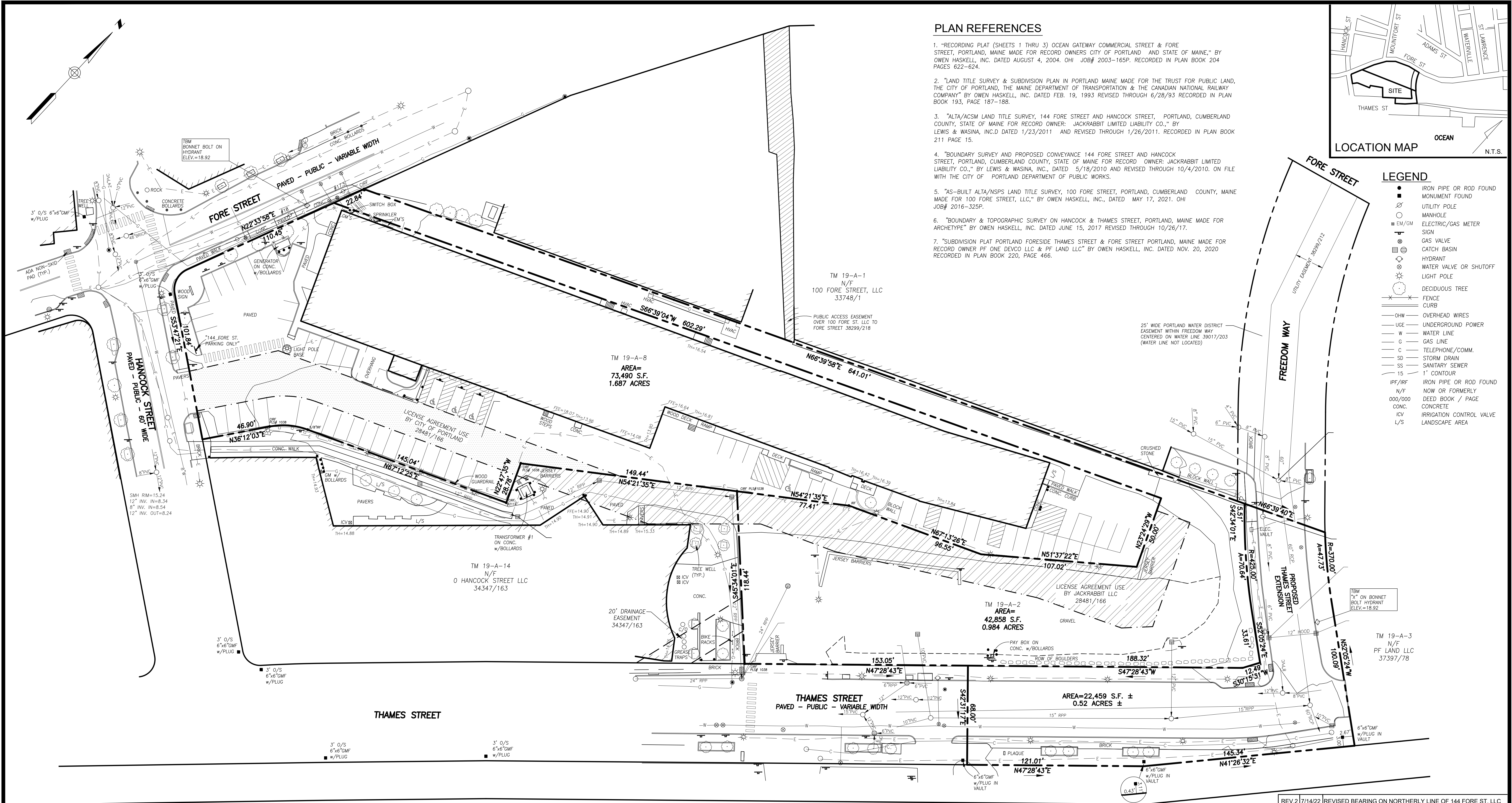
C-1.1

Design: SRR	Draft: CDD	Date: JAN, 2022
Checked: SRR	Scale: AS NOTED	Job No.: 3924
File Name: 3924-GEN.dwg		
3	2023.08.25	FINAL PLAN SUBMISSION TO CITY - REVISED PER STAFF COMMENTS
2	2023.07.21	FINAL PLAN SUBMISSION TO CITY
1	2023.03.24	MAJOR SITE PLAN APPLICATION TO CITY



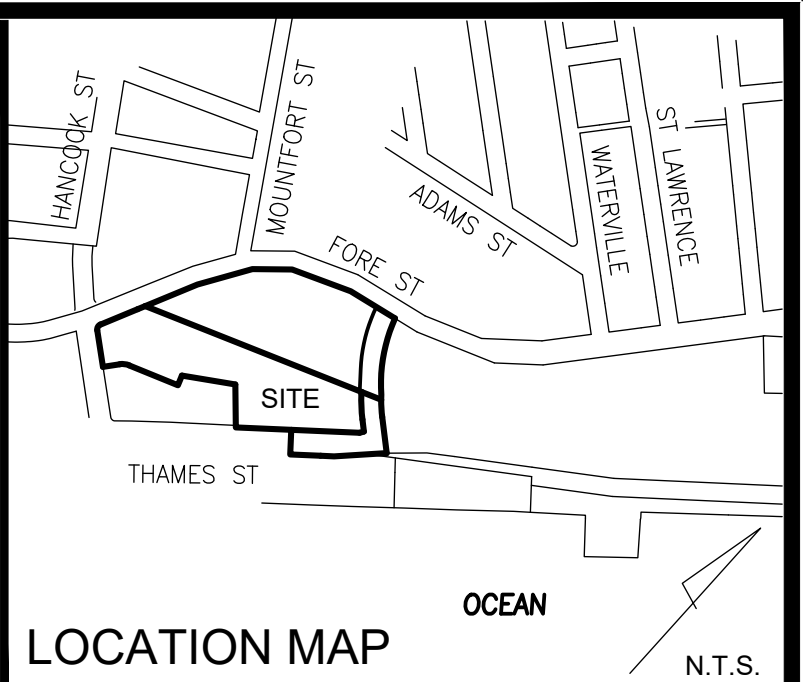
Relationships. Responsiveness. Results.
www.gorrillpalmer.com
207.772.2515
300 Southborough Drive - Suite 200
South Portland, ME 04106

Drawing Name:	GENERAL NOTES & LEGEND
Project:	Commercial Office Building – 70 Thames Street 70 Thames Street, Portland, Maine
Client:	144 Fore Street, OZ, LLC PO Box 910, Westbrook, Maine 04098–0910



PLAN REFERENCES

- 1. "RECORDING PLAT (SHEETS 1 THRU 3) OCEAN GATEWAY COMMERCIAL STREET & FORE STREET, PORTLAND, MAINE MADE FOR RECORD OWNERS CITY OF PORTLAND AND STATE OF MAINE," BY OWEN HASKELL, INC. DATED AUGUST 4, 2004. OHI JOB# 2003-165P. RECORDED IN PLAN BOOK 204 PAGES 622-624.
- 2. "LAND TITLE SURVEY & SUBDIVISION PLAN IN PORTLAND MAINE MADE FOR THE TRUST FOR PUBLIC LAND, THE CITY OF PORTLAND, THE MAINE DEPARTMENT OF TRANSPORTATION & THE CANADIAN NATIONAL RAILWAY COMPANY" BY OWEN HASKELL, INC. DATED FEB. 19, 1993 REVISED THROUGH 6/28/93 RECORDED IN PLAN BOOK 193, PAGE 187-188.
- 3. "ALTA/ACSM LAND TITLE SURVEY, 144 FORE STREET AND HANCOCK STREET, PORTLAND, CUMBERLAND COUNTY, STATE OF MAINE FOR RECORD OWNER: JACKRABBIT LIMITED LIABILITY CO.," BY LEWIS & WASINA, INC.D DATED 1/23/2011 AND REVISED THROUGH 1/26/2011. RECORDED IN PLAN BOOK 211 PAGE 15.
- 4. "BOUNDARY SURVEY AND PROPOSED CONVEYANCE 144 FORE STREET AND HANCOCK STREET, PORTLAND, CUMBERLAND COUNTY, STATE OF MAINE FOR RECORD OWNER: JACKRABBIT LIMITED LIABILITY CO.," BY LEWIS & WASINA, INC., DATED 5/18/2010 AND REVISED THROUGH 10/4/2010. ON FILE WITH THE CITY OF PORTLAND DEPARTMENT OF PUBLIC WORKS.
- 5. "AS-BUILT ALTA/NSPS LAND TITLE SURVEY, 100 FORE STREET, PORTLAND, CUMBERLAND COUNTY, MAINE MADE FOR 100 FORE STREET, LLC," BY OWEN HASKELL, INC., DATED MAY 17, 2021. OHI JOB# 2016-325P.
- 6. "BOUNDARY & TOPOGRAPHIC SURVEY ON HANCOCK & THAMES STREET, PORTLAND, MAINE MADE FOR ARCHETYPE" BY OWEN HASKELL, INC. DATED JUNE 15, 2017 REVISED THROUGH 10/26/17.
- 7. "SUBDIVISION PLAT PORTLAND FORESIDE THAMES STREET & FORE STREET PORTLAND, MAINE MADE FOR RECORD OWNER PF ONE DEVCO LLC & PF LAND LLC" BY OWEN HASKELL, INC. DATED NOV. 20, 2020 RECORDED IN PLAN BOOK 220, PAGE 466.



LEGEND

- IRON PIPE OR ROD FOUND
- MONUMENT FOUND
- UTILITY POLE
- MANHOLE
- ELECTRIC/GAS METER
- SIGN
- GAS VALVE
- CATCH BASIN
- HYDRANT
- WATER VALVE OR SHUTOFF
- LIGHT POLE
- DECIDUOUS TREE
- FENCE
- CURB
- OHW
- OVERHEAD WIRES
- UGE
- UNDERGROUND POWER
- W
- WATER LINE
- G
- GAS LINE
- C
- TELEPHONE/COMM.
- SD
- STORM DRAIN
- SS
- SANITARY SEWER
- 15
- 1' CONTOUR
- IPF/IRF
- IRON PIPE OR ROD FOUND
- N/F
- NOW OR FORMERLY
- 000/000
- DEED BOOK / PAGE
- CONC.
- CONCRETE
- ICV
- IRRIGATION CONTROL VALVE
- L/S
- LANDSCAPE AREA

UTILITY NOTE

THE UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND EXISTING DRAWINGS. THE SURVEYOR MAKES NO GUARANTEES THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH HE DOES CERTIFY THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM INFORMATION AVAILABLE. THE SURVEY HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES. CALL 1-888-DIGSAFE AT LEAST THREE BUSINESS DAYS BEFORE PERFORMING ANY CONSTRUCTION. DUE TO OSHA CONFINED SPACE REQUIREMENTS, ALL INVERTS AND PIPE SIZES MUST BE VERIFIED PRIOR TO ANY CONSTRUCTION.

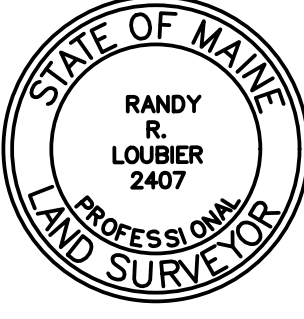
GENERAL NOTES

- 1. OWNERS OF RECORD:
TAX MAP 19 BLOCK A LOT 8
144 FORE STREET, LLC
C.C.R.D. BOOK 38799 PAGE 344
TAX MAP 19 BLOCK A LOT 2
CITY OF PORTLAND
C.C.R.D. BOOK 10924 PAGE 84
- 2. BEARINGS ARE BASED ON STATE PLANE COORDINATE SYSTEM, MAINE WEST ZONE, NAD 83 PER CITY CONTROL MONUMENTS:
PT# 3023 - OCEAN GATEWAY PROJECT
N:301390.32
E:2931443.86
PT# 3000 - N.E. CORNER HANCOCK/FORE
N:301536.149
E:2931222.69
- 3. BENCH MARK: NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION (NOAA) - TIDAL BENCHMARK. BENCH MARK STAMPING: NO. 3 1971 ELEVATION 11.02 FEET CITY DATUM.

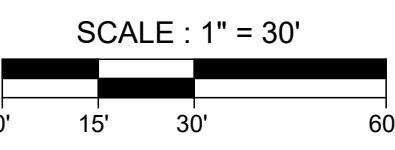
CERTIFICATE

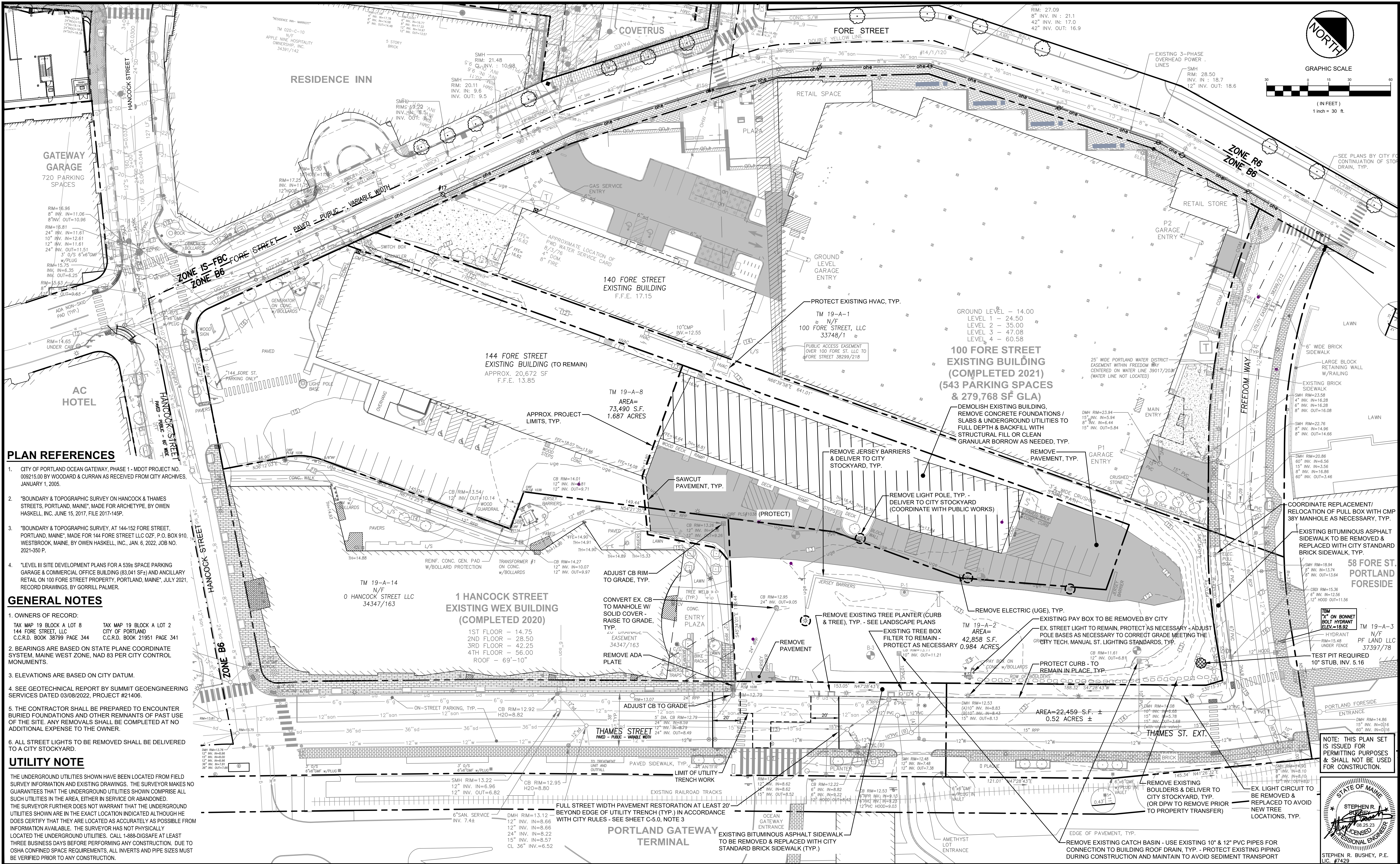
OWEN HASKELL, INC. HEREBY CERTIFIES THAT THIS PLAN IS BASED ON, AND THE RESULT OF, AN ON THE GROUND FIELD SURVEY AND THAT TO THE BEST OF OUR KNOWLEDGE, INFORMATION AND BELIEF, IT CONFORMS TO THE BOARD OF LICENSURE FOR PROFESSIONAL LAND SURVEYORS CURRENT STANDARDS OF PRACTICE.

7/14/2022
DATE
RANDY R. LOUBIER, PLS #2407



REV.2	7/14/22	REVISED BEARING ON NORTHERLY LINE OF 144 FORE ST. LLC
REV.1	1/27/22	REVISED DEED REFERENCE FOR CITY PARCEL
Boundary & Topographic Survey At 144 Fore Street, Portland, Maine Made for 144 Fore Street LLC OZF P.O. Box 910, Westbrook, Maine OWEN HASKELL, INC. PROFESSIONAL LAND SURVEYORS 390 US ROUTE 1, UNIT 10, FALMOUTH, ME 04105 TEL. 207-774-0424 DRAWN BY: NM/JLW DATE: JAN. 24, 2022 JOB NO. 2021-350 P CHECKED BY: RRL SCALE: 1" = 30' DRWG. NO. 1		





PLAN REFERENCES

- CITY OF PORTLAND OCEAN GATEWAY, PHASE 1 - MDOT PROJECT NO. 009215.00 BY WOODARD & CURRAN AS RECEIVED FROM CITY ARCHIVES, JANUARY 1, 2005.
- "BOUNDARY & TOPOGRAPHIC SURVEY ON HANCOCK & THAMES STREETS, PORTLAND, MAINE," MADE FOR ARCHTYPE, BY OWEN HASKELL, INC. JUNE 15, 2017, FILE 2017-145P.
- "BOUNDARY & TOPOGRAPHIC SURVEY, AT 144-152 FORE STREET, PORTLAND, MAINE," MADE FOR 144 FORE STREET LLC OZF, P.O. BOX 910, WESTBROOK, MAINE, BY OWEN HASKELL, INC., JAN. 6, 2022, JOB NO. 2021-350 P.
- "LEVEL III SITE DEVELOPMENT PLANS FOR A 539± SPACE PARKING GARAGE & COMMERCIAL OFFICE BUILDING (83,041 SF±) AND ANCILLARY RETAIL ON 100 FORE STREET PROPERTY, PORTLAND, MAINE," JULY 2021, RECORD DRAWINGS, BY GORRILL PALMER.

GENERAL NOTES

- OWNERS OF RECORD:
TAX MAP 19 BLOCK A LOT 8
144 FORE STREET, LLC
C.C.R.D. BOOK 36799 PAGE 344
C.C.R.D. BOOK 21951 PAGE 341
- BEARINGS ARE BASED ON STATE PLANE COORDINATE SYSTEM, MAINE WEST ZONE, NAD 83 PER CITY CONTROL MONUMENTS.
- ELEVATIONS ARE BASED ON CITY DATUM.
- SEE GEOTECHNICAL REPORT BY SUMMIT GEOENGINEERING SERVICES DATED 03/08/2022, PROJECT #21406.
- THE CONTRACTOR SHALL BE PREPARED TO ENCOUNTER BURIED FOUNDATIONS AND OTHER REMNANTS OF PAST USE OF THE SITE. ANY REMOVALS SHALL BE COMPLETED AT NO ADDITIONAL EXPENSE TO THE OWNER.
- ALL STREET LIGHTS TO BE REMOVED SHALL BE DELIVERED TO A CITY STOCKYARD.

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.

1 HANCOCK STREET
EXISTING WEX BUILDING
(COMPLETED 2020)

1ST FLOOR - 14.75
2ND FLOOR - 28.50
3RD FLOOR - 42.25
4TH FLOOR - 56.00
ROOF - 69'-10"

100 FORE STREET
EXISTING BUILDING
(COMPLETED 2021)
(543 PARKING SPACES
& 279,768 SF GLA)

GROUND LEVEL - 14.00
LEVEL 1 - 24.50
LEVEL 2 - 35.00
LEVEL 3 - 47.08
LEVEL 4 - 60.58

58 FORE ST.
PORTLAND
FORESIDE

U:\3924-Thames Street-WEX-Portland, ME\2 - CAD DWG\3924-THAMES-EX & DEMO.dwg
8/25/2023 11:39 AM

Rev.	Date	Revision
3	2023.08.25	FINAL PLAN SUBMISSION TO CITY - REVISED PER STAFF COMMENTS
2	2023.07.21	FINAL PLAN SUBMISSION TO CITY
1	2023.03.24	MAJOR SITE PLAN APPLICATION TO CITY

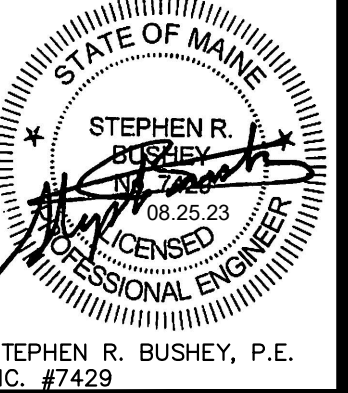
Rev.	Date	Revision
3	2023.08.25	FINAL PLAN SUBMISSION TO CITY - REVISED PER STAFF COMMENTS
2	2023.07.21	FINAL PLAN SUBMISSION TO CITY
1	2023.03.24	MAJOR SITE PLAN APPLICATION TO CITY

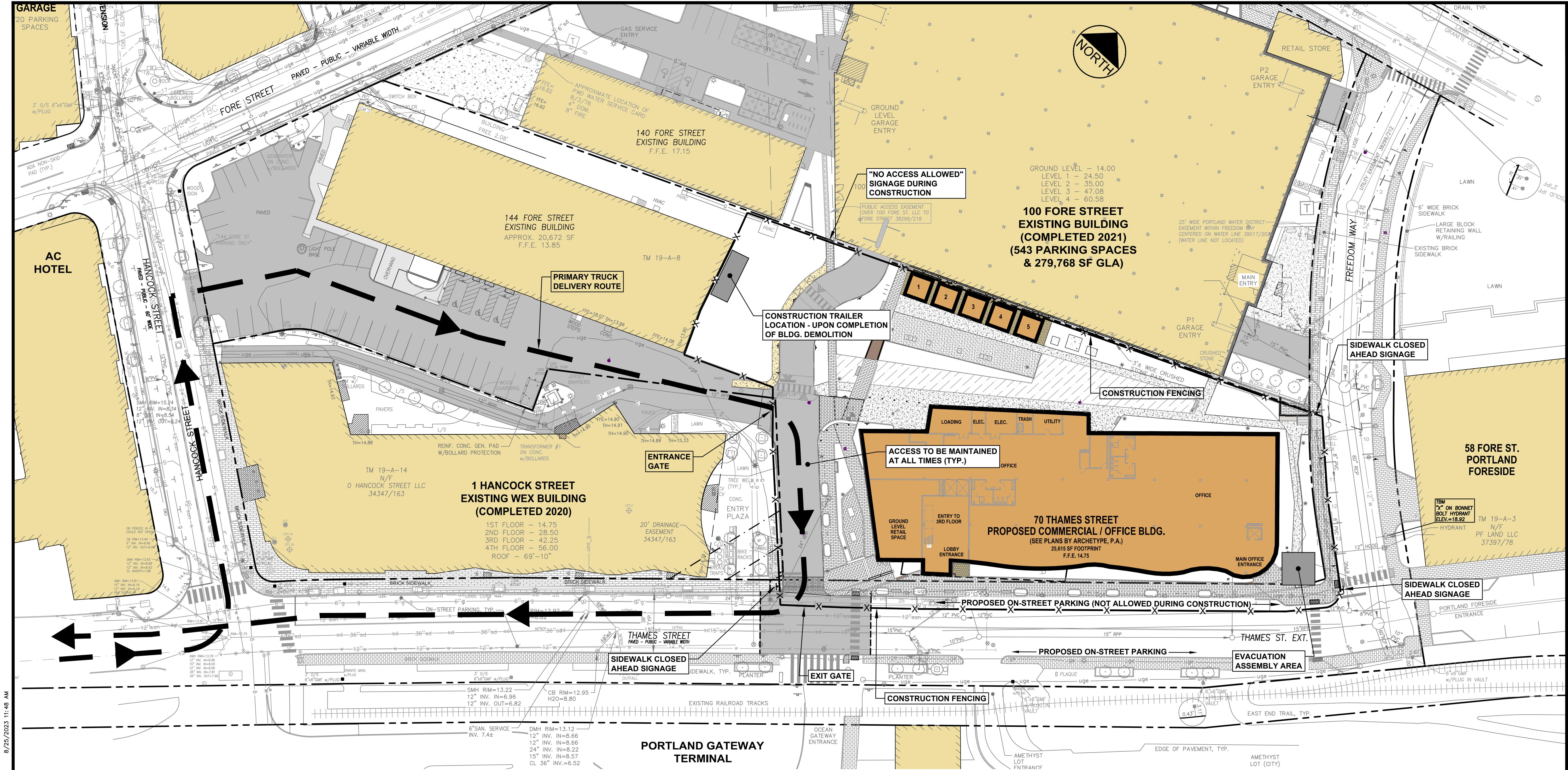
Design: SRR	Draft: CDD	Date: JAN, 2022
Checked: SRR	Scale: AS NOTED	Job No.: 3924
File Name: 3924-THAMES-EX & DEMO.dwg	This plan shall not be modified without written permission from Gorrill Palmer. Any alterations, authorized or otherwise, shall be at the user's sole risk and without liability to Gorrill Palmer.	



Relationships. Responsiveness. Results.
www.gorrillpalmer.com
207.772.2515
300 Southborough Drive - Suite 200
South Portland, ME 04106

Drawing Name:	EXISTING CONDITIONS & DEMOLITION PLAN	Drawing No.	C-2.2
Project:	Commercial Office Building - 70 Thames Street 70 Thames Street, Portland, Maine		
Client:	144 Fore Street, OZ, LLC PO BOX 910, Westbrook, Maine 04098-0910		





GENERAL NOTES

1. CONSTRUCTION GATE SWINGS INTO JOB SITE.

2. CLOSURE OF PROTECTIVE SIDEWALK AREA WILL BE REQUIRED FOR SHORT PERIODS OF TIME. CITY TRAFFIC ENGINEER WILL BE NOTIFIED 48-HOURS IN ADVANCE OF CLOSURE.

3. CONTRACTOR RESPONSIBLE FOR WINTER MAINTENANCE OF PUBLIC STREET AREAS WITHIN THE CONSTRUCTION ZONE, INCLUDING SIDEWALK AREAS AND VEHICLE TRAVEL WAYS. ALL SNOW WILL BE REMOVED WITHIN 24 HOURS OF THE STORM CONCLUSION. ALL SIDEWALK SURFACES WITHIN THE PROTECTIVE SIDEWALK AREA WILL BE TREATED WITH APPROPRIATE MATERIALS ENSURING A "DRY" PAVEMENT SURFACE IN CONFORMANCE WITH CITY REGULATIONS.

4. THE JERSEY BARRIER/SITE FENCING FORMING THE PERIMETER OF THE CONSTRUCTION WORK ZONE WILL BE MAINTAINED THROUGHOUT THE BUILDING CONSTRUCTION, UNLESS APPROVED OTHERWISE BY THE
- CITY ENGINEER.

5. NO PARKING WILL BE ALLOWED WITHIN THE CONSTRUCTION WORK ZONE AREA. PARKING FOR ALL CONTRACTOR EMPLOYEES, INCLUDING SUBCONTRACTORS WILL BE PROVIDED OFF-SITE.

6. CONTRACTOR WILL INSPECT AND CORRECT AS NECESSARY DAILY, SUNDAY THROUGH SATURDAY, ALL REQUIRED TRAFFIC CONTROL FEATURES ENSURING COMPLIANCE WITH THE DETAILS OF THE CONSTRUCTION MAINTENANCE PLAN.

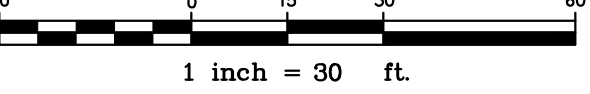
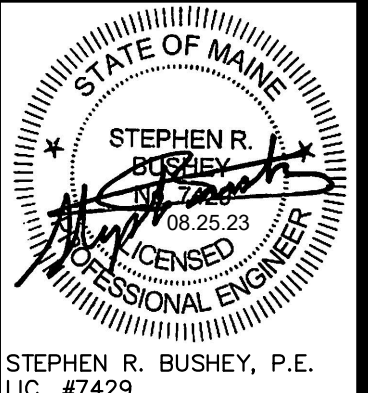
7. ALL TRAFFIC SIGNAGE, PAVEMENT MARKINGS, CHANNELIZATION DRUMS, REFLECTIVE PANELS, ETC. SHALL CONFORM TO THE LATEST VERSION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

8. CONTRACTOR WILL PAINT ALL CROSSWALKS AND STOP BAR MARKINGS WITHIN THE THAMES STREET / HANCOCK STREET INTERSECTION AS DIRECTED BY THE CITY'S TRAFFIC ENGINEER.
9. CONTRACTOR WILL APPROPRIATELY REPAIR OR REPLACE ALL SIDEWALK AREAS, GRANITE CURBING, ETC. DAMAGED BY THE BUILDING CONSTRUCTION PROJECT, AS DIRECTED BY THE CITY ENGINEER.

10. CONSTRUCTION MANAGEMENT PLAN MAY BE ADJUSTED BY CONTRACTOR IN CONSULTATION WITH CITY OF PORTLAND.

11. SEE THE WRITTEN CONSTRUCTION MANAGEMENT PLAN FOR SPECIFICS.

NOTE: THIS PLAN SET IS ISSUED FOR PERMITTING PURPOSES & SHALL NOT BE USED FOR CONSTRUCTION.



Deliveries
Due to the confined nature of the site, we will implement a Just In Time Delivery system to minimize onsite material storage.

ATTENTION
ALL VENDORS, VISITORS, and DELIVERIES MUST CHECK IN AT CONSTRUCTION MANAGERS OFFICE

NO UNAUTHORIZED PERSONNEL BEYOND THIS POINT
ALL VISITORS
MUST SIGN IN AT CONSTRUCTION MANAGEMENT OFFICE

NOTICE
THIS IS A TOBACCO FREE SITE
Use and Possession of Any Tobacco Products is Strictly Prohibited

NOTICE
Hard Hats, Safety Glasses and Hard Toed Boots REQUIRED BEYOND THIS POINT

NO TRESPASSING
AUTHORIZED PERSONNEL ONLY
VIOLATORS WILL BE PROSECUTED

CONSTRUCTION VEHICLES ENTERING/EXITING

U:\3924-Thames Street-WEX-Portland, ME\2 - CAD\DWG\3924-THAMES-CONSTR-MGMT.dwg 8/25/2023 11:48 AM

Rev.	Date	Revision
3	2023.08.25	FINAL PLAN SUBMISSION TO CITY - REVISED PER STAFF COMMENTS
2	2023.07.21	FINAL PLAN SUBMISSION TO CITY
1	2023.03.24	MAJOR SITE PLAN APPLICATION TO CITY

Rev.	Date	Revision
3	2023.08.25	FINAL PLAN SUBMISSION TO CITY - REVISED PER STAFF COMMENTS
2	2023.07.21	FINAL PLAN SUBMISSION TO CITY
1	2023.03.24	MAJOR SITE PLAN APPLICATION TO CITY

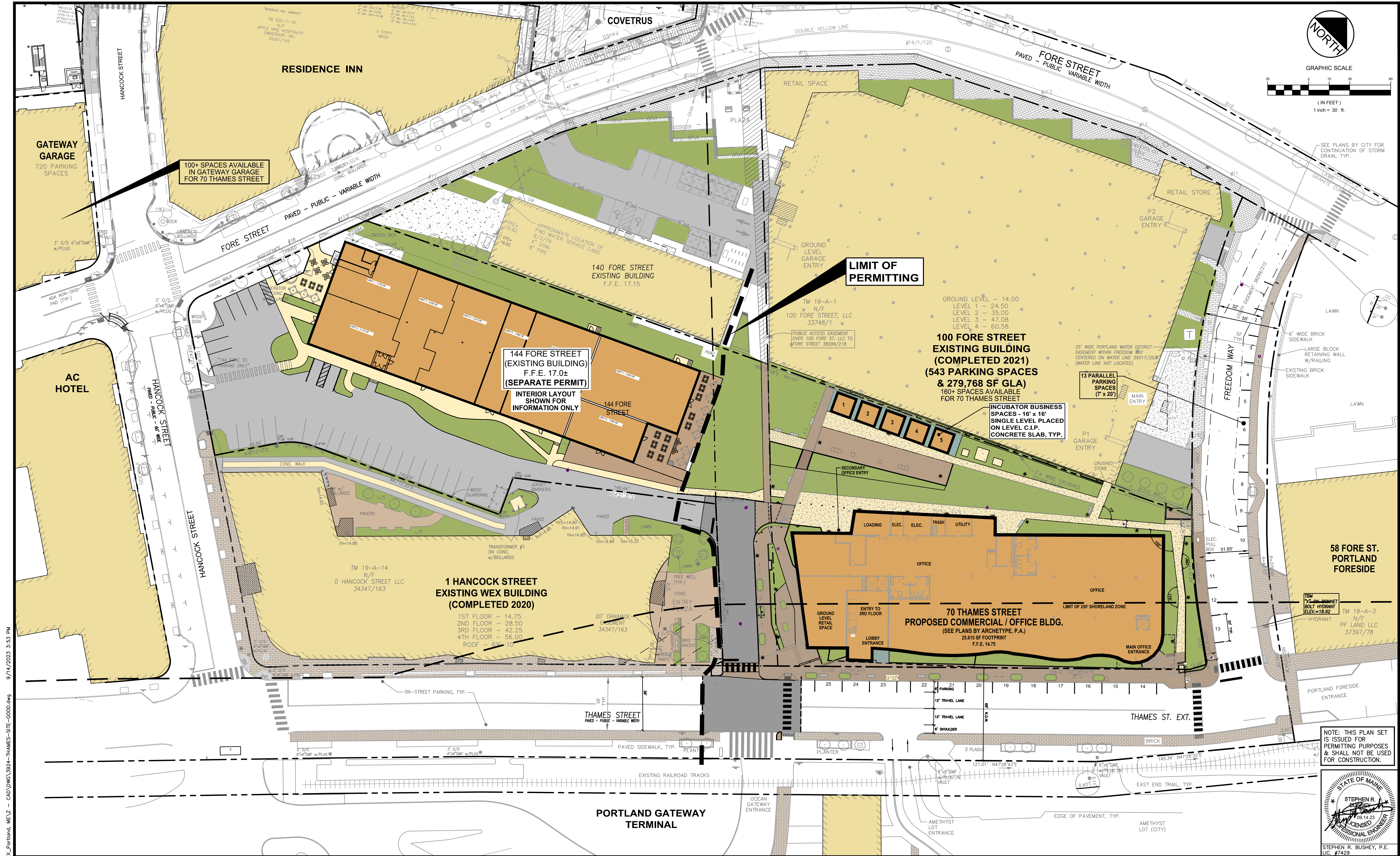
Design: SRR	Draft: CDD	Date: JAN. 2022
Checked: SRR	Scale: AS NOTED	Job No.: 3924
File Name: 3924-THAMES-CONSTR.MGMT.dwg		
This plan shall not be modified without written permission from Gorrill Palmer. Any alterations, authorized or otherwise, shall be at the user's sole risk and without liability to Gorrill Palmer.		

GORRILL PALMER

Relationships. Responsiveness. Results.
www.gorrillpalmer.com
207.772.2515
300 Southborough Drive - Suite 200
South Portland, ME 04106

Drawing Name:	CONSTRUCTION MANAGEMENT PLAN
Project:	Commercial Office Building - 70 Thames Street 70 Thames Street, Portland, Maine
Client:	144 Fore Street, OZ, LLC PO Box 910, Westbrook, Maine 04098-0910

Drawing No.	C-2.3
-------------	-------



U:\3924_Thames Street-WEX-Portland, ME.V - CAD\DWG\3924-THAMES-SITE-GOOD.dwg 9/14/2023 3:53 PM

Rev.	Date	Revision
1	2023.03.24	MAJOR SITE PLAN APPLICATION TO CITY
2	2023.07.21	FINAL PLAN SUBMISSION TO CITY
3	2023.08.25	FINAL PLAN SUBMISSION TO CITY - REVISED PER STAFF COMMENTS
4	2023.09.14	DELETED GARAGE ACCESS - RESUBMITTED

Rev.	Date	Revision
1	2023.03.24	MAJOR SITE PLAN APPLICATION TO CITY
2	2023.07.21	FINAL PLAN SUBMISSION TO CITY
3	2023.08.25	FINAL PLAN SUBMISSION TO CITY - REVISED PER STAFF COMMENTS
4	2023.09.14	DELETED GARAGE ACCESS - RESUBMITTED

Design: SRB	Draft: CDD	Date: JAN. 2022
Checked: SRB	Scale: AS NOTED	Job No.: 3924
File Name: 3924-THAMES-SITE-GOOD.dwg		
This plan shall not be modified without written permission from Gorrell Palmer. Any alterations, authorized or otherwise, shall be at the user's sole risk and without liability to Gorrell Palmer.		



GORRILL PALMER

Relationships. Responsiveness. Results.

www.gorrellpalmer.com
207.772.2515
300 Southborough Drive - Suite 200
South Portland, ME 04106

Drawing Name:	OVERALL SITE PLAN
Project:	Commercial Office Building - 70 Thames Street 70 Thames Street, Portland, Maine
Client:	144 Fore Street, OZ, LLC PO Box 910, Westbrook, Maine 04098-0910

Drawing No.	C-3.0
-------------	-------

100 FORE STREET
EXISTING BUILDING
(COMPLETED 2021)
(543 PARKING SPACES
& 279,768 SF GLA)

PLAN REFERENCES

- CITY OF PORTLAND OCEAN GATEWAY PHASE 1 - MDOT PROJECT NO. 009215.00 BY WOODARD & CURRAN AS RECEIVED FROM CITY ARCHIVES, JANUARY 1, 2005.
- BOUNDARY & TOPOGRAPHIC SURVEY ON HANCOCK & THAMES STREETS, PORTLAND, MAINE MADE FOR ARCHETYPE BY OWEN HASKELL, INC. JUNE 15, 2017 FILE 2017-145P.
- BOUNDARY & TOPOGRAPHIC SURVEY, AT 144-152 FORE STREET, PORTLAND, MAINE, MADE FOR 144 FORE STREET LLC OZF, P.O. BOX 910, WESTBROOK, MAINE, BY OWEN HASKELL, INC., JAN. 6, 2022, JOB NO. 2021-350 P.

SURFACE LEGEND

	STANDARD-DUTY BIT. PAVEMENT
	HEAVY-DUTY BIT. PAVEMENT
	REINFORCED CONCRETE
	GRANITE PAVERS
	BRICK PAVERS / BRICK SIDEWALK
	POLYMER AGGREGATE PAVING
	REINFORCED TURF AREA (RTA)

58 FORE ST.
PORTLAND
FORESIDE

70 THAMES STREET
PROPOSED COMMERCIAL / OFFICE BLDG.
(SEE PLANS BY ARCHETYPE, P.A.)

25,615 SF FOOTPRINT
F.F.E. 14.75' (4.75' ABOVE 100
YR. FLOOD = 10.0')

PROPOSED BUILDING AREA SUMMARY

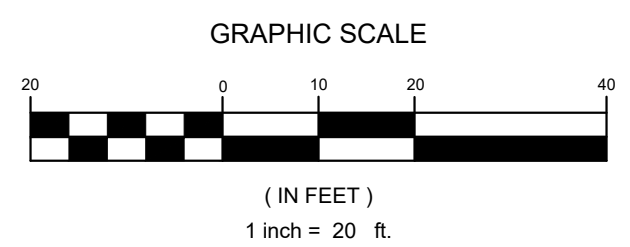
- 1st FLOOR:
- LOBBY: 1,473 SF
 - MERCANTILE: 1,825 SF
 - OFFICE: 19,485 SF
 - MEP: 1,400 SF
- 2nd FLOOR:
- OFFICE: 22,815 SF
- 3rd FLOOR:
- RESTAURANT: TOTAL SF IS 8,315 SF (INTERIOR SPACE)
 - ROOF DECK 2,900 SF + 11,150 SF = 14,050 SF

NOTES:

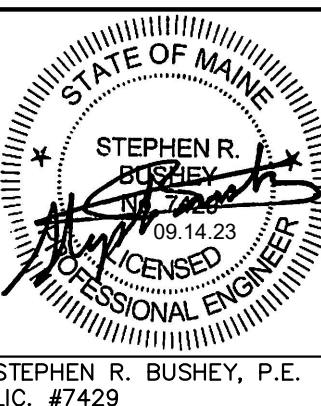
- A TOTAL OF 24 BIKE PARKING SPACES WILL BE PROVIDED ONSITE. SEE LANDSCAPE PLAN(S) FOR EXACT LOCATIONS.
- DIMENSIONING IS TO EDGE OF PAVEMENT, FACE OF BUILDING OR FACE OF CURB.
- A TOTAL OF 160 PARKING SPACES HAVE BEEN PROVIDED IN THE 100 FORE STREET PARKING GARAGE, INCLUDING 7 ADA ACCESSIBLE SPACES AND 1 VAN ACCESSIBLE SPACE.
- PROJECT SIGN(S) SUBJECT TO SEPARATE PERMIT FROM CODES & INSPECTIONS DIVISION.
- SEE SHEET C-3.2 FOR SITE LAYOUT PLAN ENLARGEMENTS.
- THE OWNER RESERVES THE RIGHT TO INSTALL SNOWMELT SYSTEMS BENEATH SIDEWALKS & PLAZAS SUBJECT TO FUNDING AVAILABILITY.
- ONSITE SNOW STORAGE WILL BE LIMITED AND, IN GENERAL, SNOW WILL BE REMOVED FROM THE SITE AND STOCKPILED AT AN APPROVED OFFSITE LOCATION BY A CONTRACTED SNOW REMOVAL CONTRACTOR.
- OFFSITE PARKING SIGNAGE FOR INFORMATION ONLY SHALL BE RESPONSIBILITY OF CITY PARKING DIVISION TO SUPPLY AND INSTALL.

SIGN LEGEND

R1-1 24"x 24" A	R7-8 12"x 18" B	R7-8 12"x 18" C	R8-3a 24"x 30" D	24"x 30" E
R5-11 30"x 24" F	- G	- H	W11A-2 30"x 30" I	



NOTE: THIS PLAN SET
IS ISSUED FOR
PERMITTING PURPOSES
& SHALL NOT BE USED
FOR CONSTRUCTION.



Relationships. Responsiveness. Results.
www.gorillpalmer.com
207.772.2515
300 Southborough Drive - Suite 200
South Portland, ME 04106

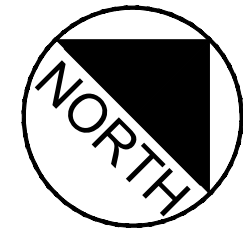
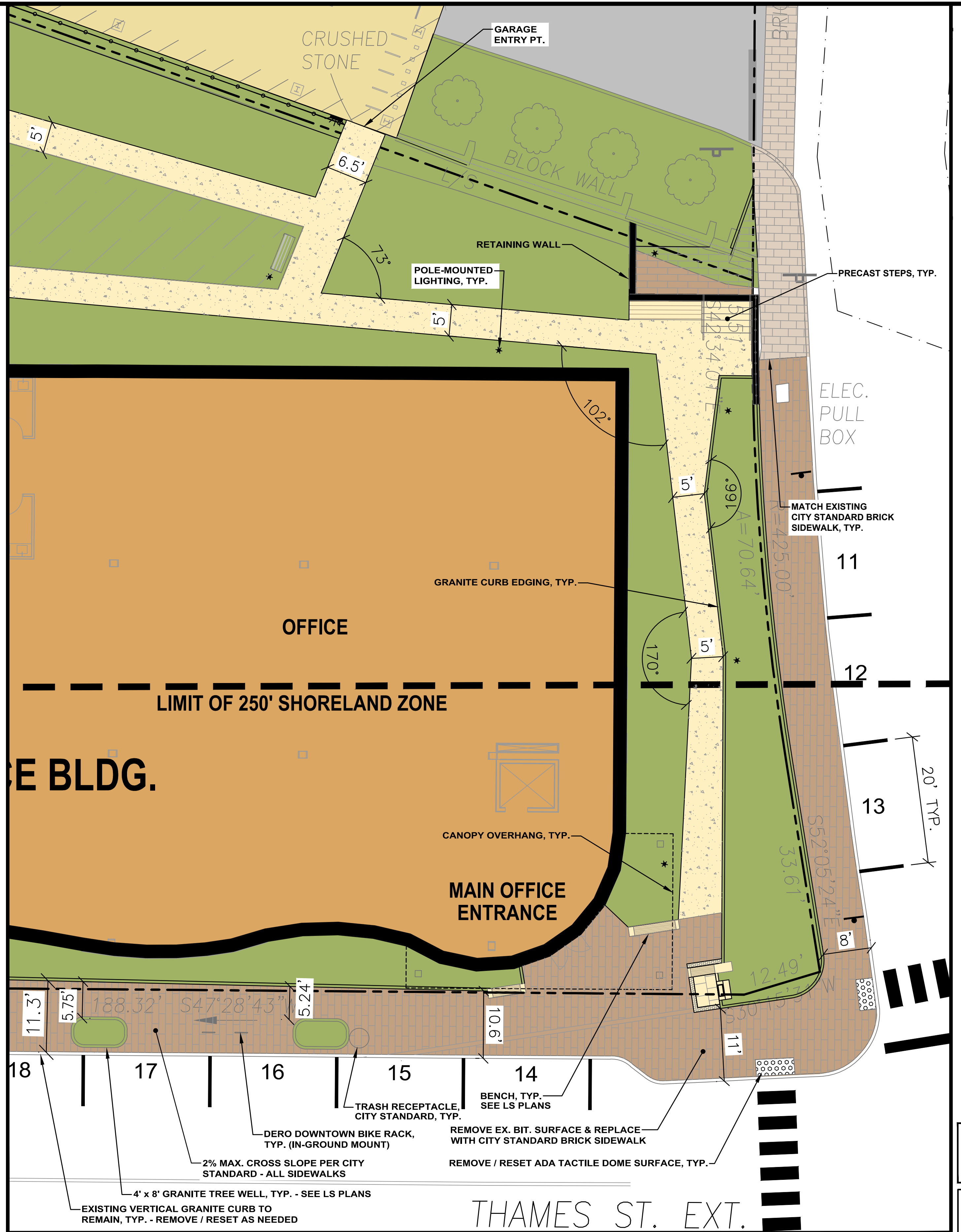
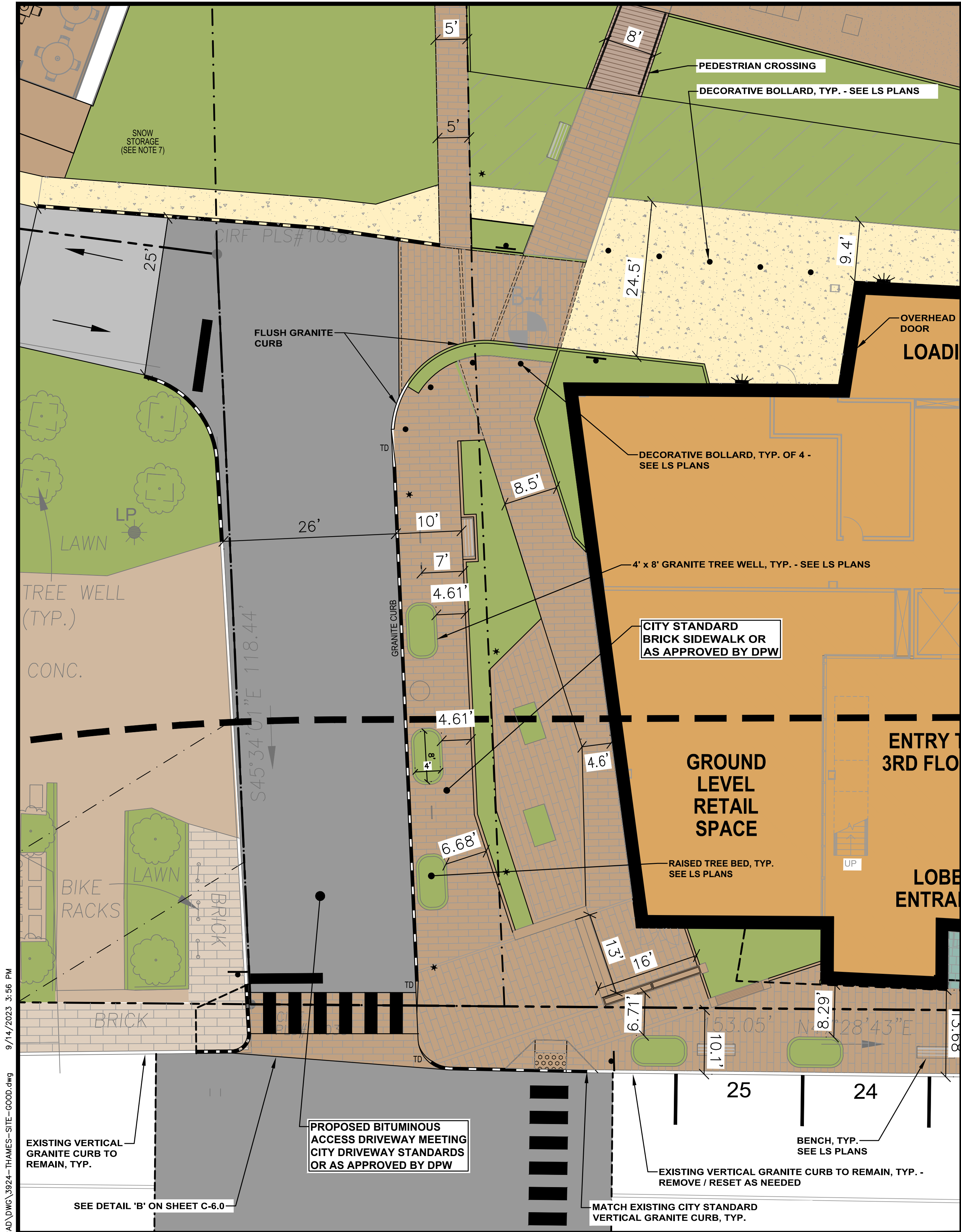
Drawing Name: SITE LAYOUT PLAN

Project: Commercial Office Building - 70 Thames Street
70 Thames Street, Portland, Maine

Client: 144 Fore Street, OZ, LLC
PO Box 910, Westbrook, Maine 04098-0910

Drawing No.

C-3.1



U:\3924_Thames Street-WEX-Portland, ME\2 - CAD\DWG\3924-THAMES-SITE-GOOD.dwg 9/14/2023 3:56 PM

Rev.	Date	Revision

Rev.	Date	Revision
4	2023.09.14	DELETED GARAGE ACCESS - RESUBMITTED
3	2023.08.25	FINAL PLAN SUBMISSION TO CITY - REVISED PER STAFF COMMENTS
2	2023.07.21	FINAL PLAN SUBMISSION TO CITY
1	2023.03.24	MAJOR SITE PLAN APPLICATION TO CITY

Design: SRB	Draft: CDD	Date: JAN. 2022
Checked: SRB	Scale: AS NOTED	Job No.: 3924
File Name: 3924-THAMES-SITE-GOOD.dwg		
This plan shall not be modified without written permission from Gorrill Palmer. Any alterations, authorized or otherwise, shall be at the user's sole risk and without liability to Gorrill Palmer.		



GORRILL PALMER

Relationships. Responsiveness. Results.

www.gorrillpalmer.com

207.772.2515

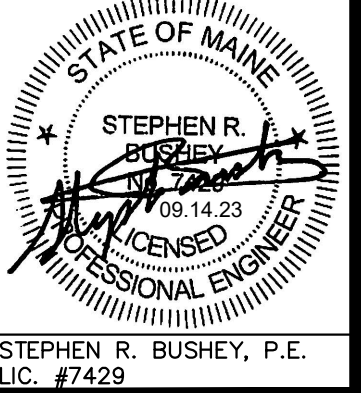
300 Southborough Drive - Suite 200

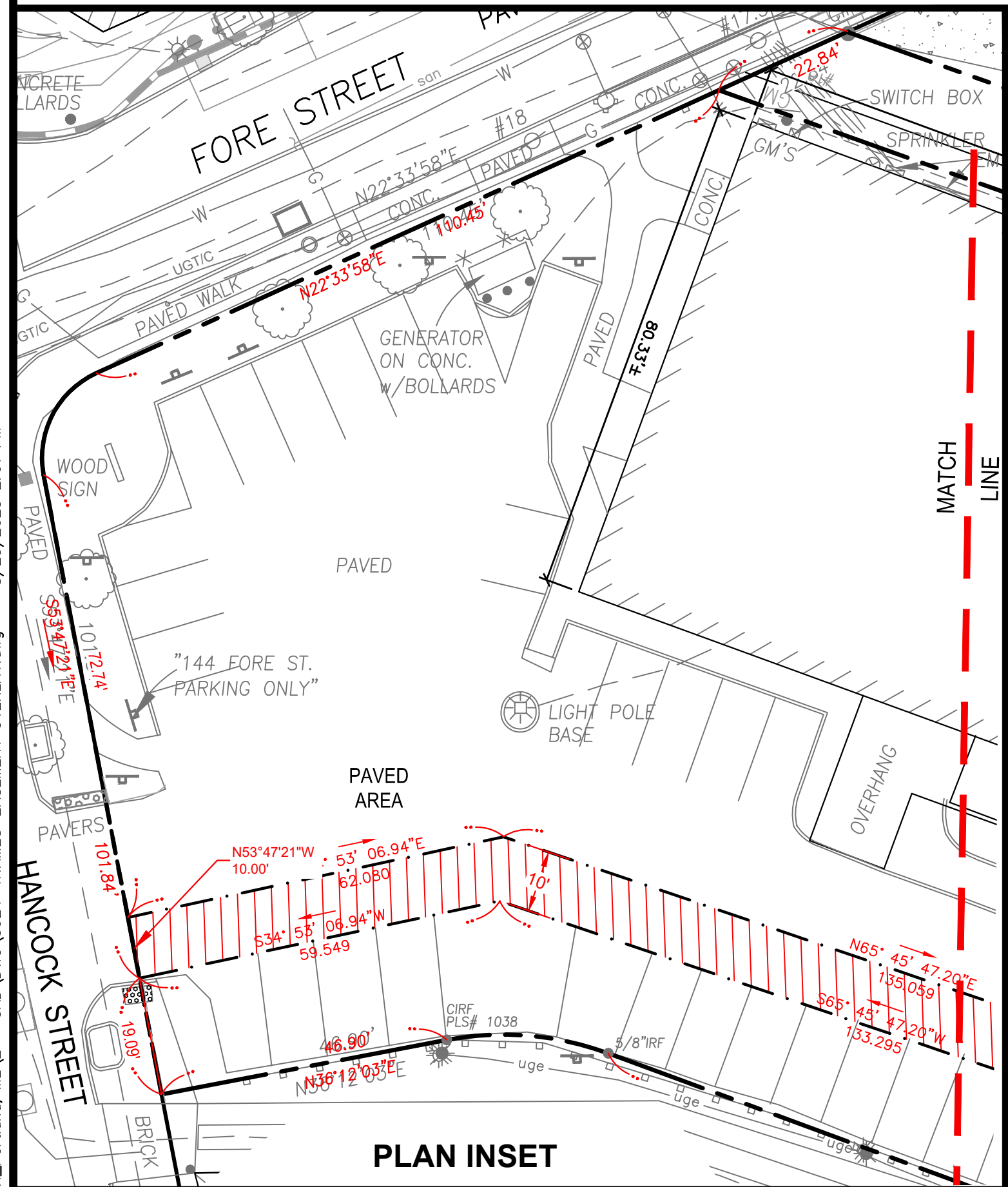
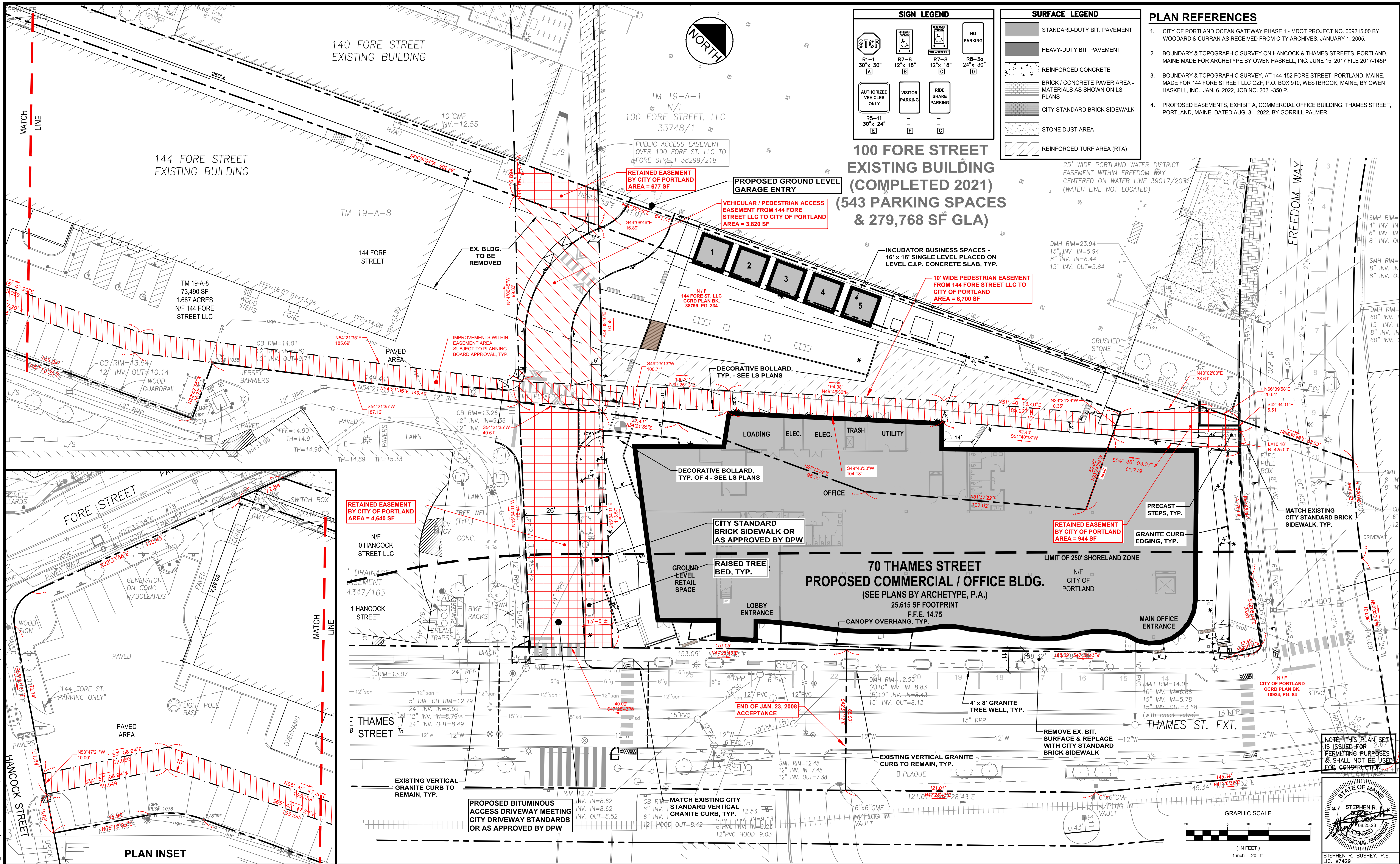
South Portland, ME 04106

Drawing Name:	10 SCALE SITE ENLARGEMENTS
Project:	Commercial Office Building - 70 Thames Street 70 Thames Street, Portland, Maine
Client:	144 Fore Street, OZ, LLC PO Box 910, Westbrook, Maine 04098-0910

Drawing No.
C-3.2

NOTE: THIS PLAN SET IS ISSUED FOR PERMITTING PURPOSES & SHALL NOT BE USED FOR CONSTRUCTION.





SIGN LEGEND			
	R1-1 30"x 30" [A]		R7-8 12"x 18" [B]
	R5-11 30"x 24" [E]		R7-8 12"x 18" [C]
	R8-30 24"x 30" [D]		

SURFACE LEGEND	
	STANDARD-DUTY BIT. PAVEMENT
	HEAVY-DUTY BIT. PAVEMENT
	REINFORCED CONCRETE
	BRICK / CONCRETE PAVER AREA - MATERIALS AS SHOWN ON LS PLANS
	CITY STANDARD BRICK SIDEWALK
	STONE DUST AREA
	REINFORCED TURF AREA (RTA)

- PLAN REFERENCES**
- CITY OF PORTLAND OCEAN GATEWAY PHASE 1 - MDOT PROJECT NO. 009215.00 BY WOODARD & CURRAN AS RECEIVED FROM CITY ARCHIVES, JANUARY 1, 2005.
 - BOUNDARY & TOPOGRAPHIC SURVEY ON HANCOCK & THAMES STREETS, PORTLAND, MAINE MADE FOR ARCHETYPE BY OWEN HASKELL, INC. JUNE 15, 2017 FILE 2017-145P.
 - BOUNDARY & TOPOGRAPHIC SURVEY, AT 144-152 FORE STREET, PORTLAND, MAINE, MADE FOR 144 FORE STREET LLC OZF, P.O. BOX 910, WESTBROOK, MAINE, BY OWEN HASKELL, INC., JAN. 6, 2022, JOB NO. 2021-350 P.
 - PROPOSED EASEMENTS, EXHIBIT A, COMMERCIAL OFFICE BUILDING, THAMES STREET, PORTLAND, MAINE, DATED AUG. 31, 2022, BY GORRILL PALMER.

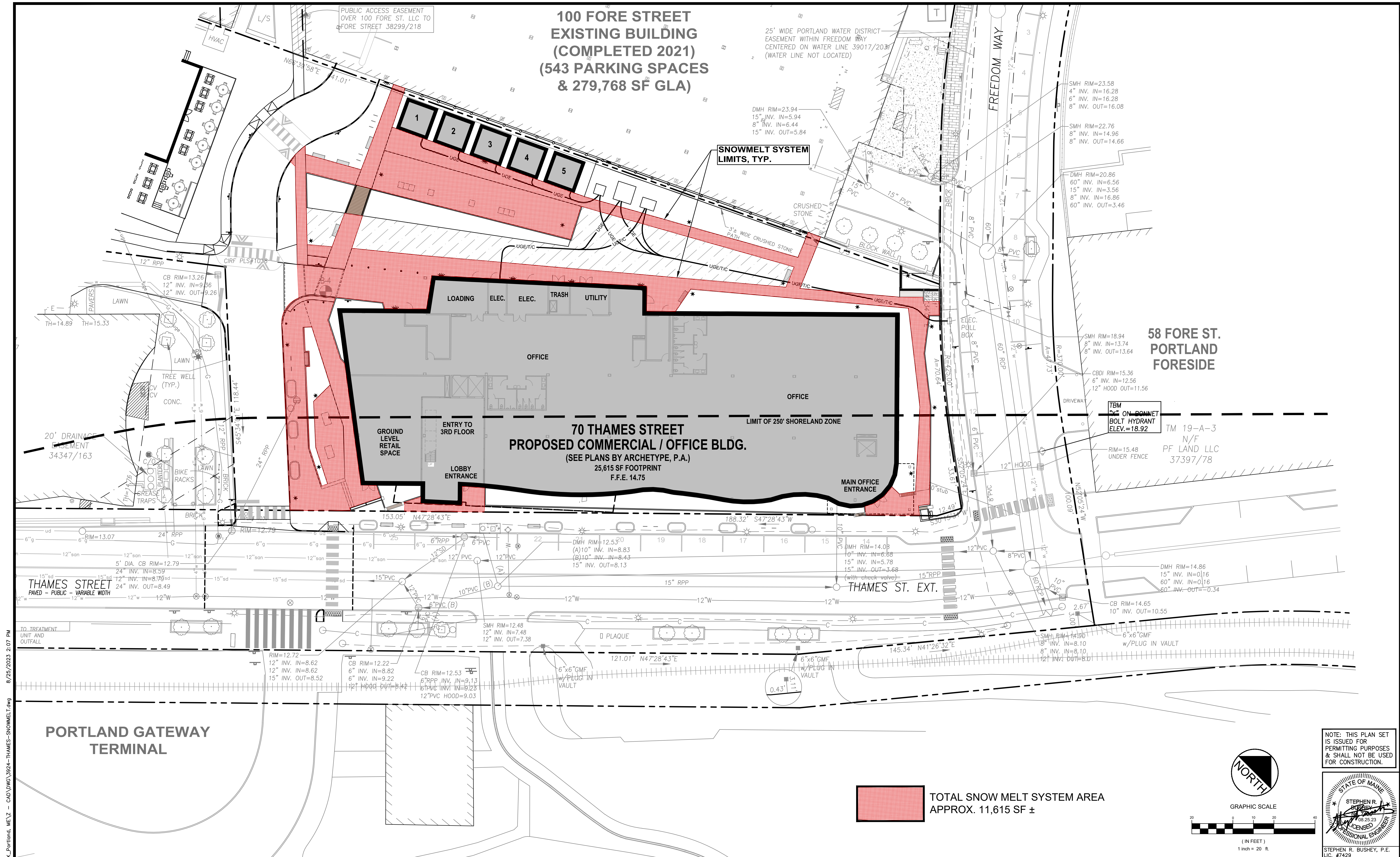
Rev.	Date	Revision
3	2023.08.25	FINAL PLAN SUBMISSION TO CITY - REVISED PER STAFF COMMENTS
2	2023.07.21	FINAL PLAN SUBMISSION TO CITY
1	2023.03.24	MAJOR SITE PLAN APPLICATION TO CITY

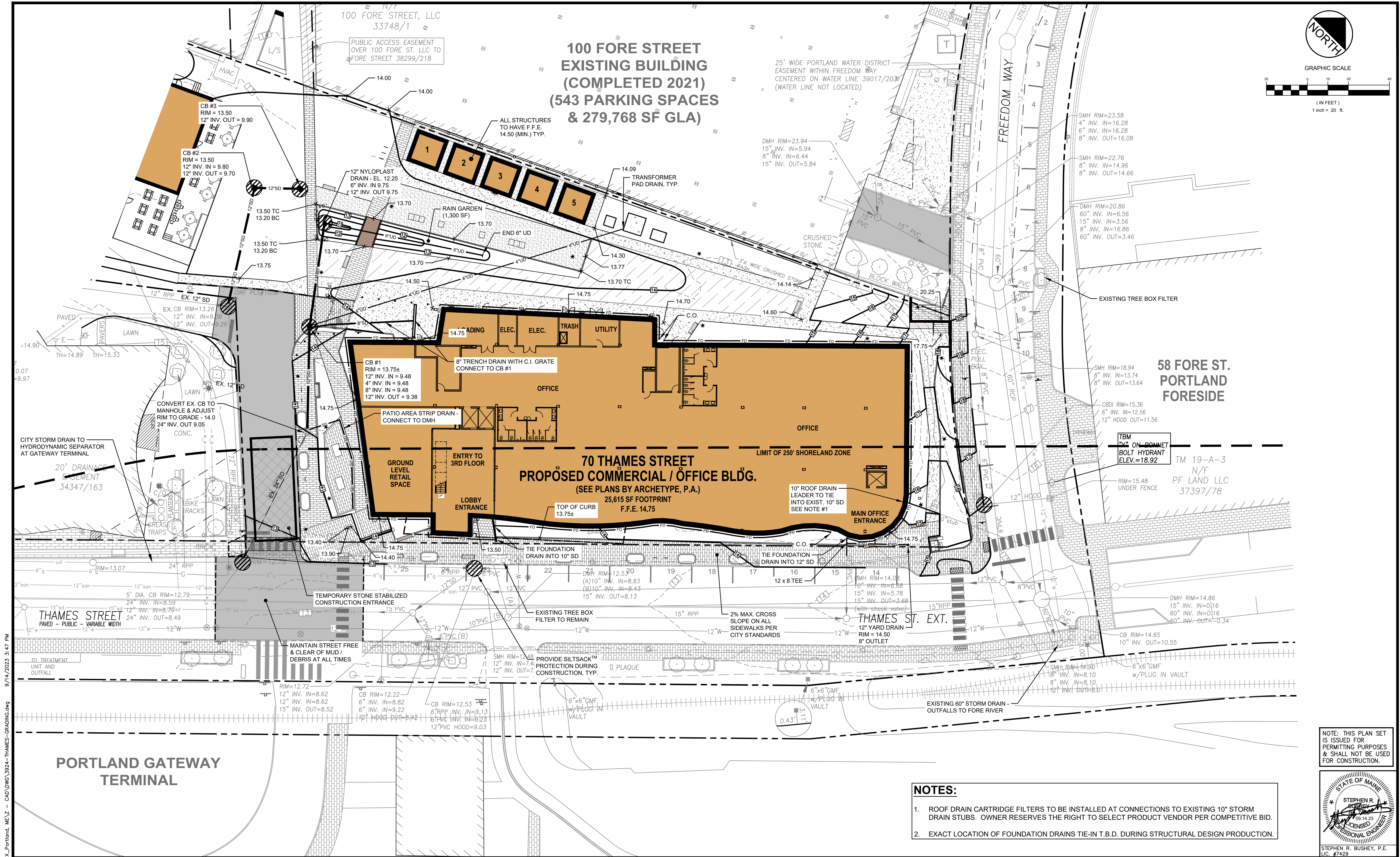
Design:	SRB	Draft:	CDD	Date:	JAN, 2022
Checked:	SRB	Scale:	AS NOTED	Job No.:	3924
File Name: 3924-THAMES-EASEMENT OVERLAY.dwg					
This plan shall not be modified without written permission from Gorrill Palmer. Any alterations, authorized or otherwise, shall be at the user's sole risk and without liability to Gorrill Palmer.					

Relationships. Responsiveness. Results.
www.gorrillpalmer.com
207.772.2515
300 Southborough Drive - Suite 200
South Portland, ME 04106

Drawing Name:	EASEMENT OVERLAY PLAN
Project:	Commercial Office Building - 70 Thames Street 70 Thames Street, Portland, Maine
Client:	144 Fore Street, OZ, LLC PO Box 910, Westbrook, Maine 04098-0910

Drawing No.	C-3.3
-------------	-------





U:\3924_Thames Street-WEX_Portland, ME\3 - CAD\DWG\3924-THAMES-GRADING.dwg 9/14/2023 3:47 PM

Rev.	Date	Revision
4	2023.09.14	DELETED GARAGE ACCESS - RESUBMITTED
3	2023.08.25	FINAL PLAN SUBMISSION TO CITY - REVISED PER STAFF COMMENTS
2	2023.07.21	FINAL PLAN SUBMISSION TO CITY
1	2023.03.24	MAJOR SITE PLAN APPLICATION TO CITY

Rev.	Date	Revision
4	2023.09.14	DELETED GARAGE ACCESS - RESUBMITTED
3	2023.08.25	FINAL PLAN SUBMISSION TO CITY - REVISED PER STAFF COMMENTS
2	2023.07.21	FINAL PLAN SUBMISSION TO CITY
1	2023.03.24	MAJOR SITE PLAN APPLICATION TO CITY

Design: SRR	Draft: CDD	Date: JAN, 2022
Checked: SRR	Scale: AS NOTED	Job No.: 3924
File Name: 3924-THAMES-GRADING.dwg		
This plan shall not be modified without written permission from Gorrill Palmer. Any alterations, authorized or otherwise, shall be at the user's sole risk and without liability to Gorrill Palmer.		



**GORRILL
PALMER**

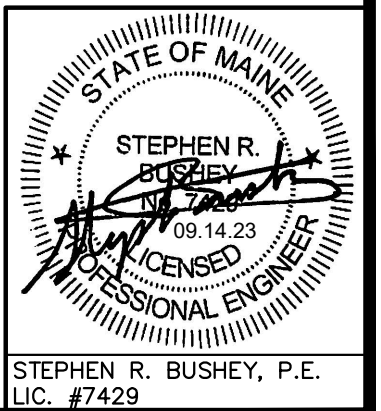
Relationships. Responsiveness. Results.
www.gorrillpalmer.com
207.772.2515
300 Southborough Drive - Suite 200
South Portland, ME 04106

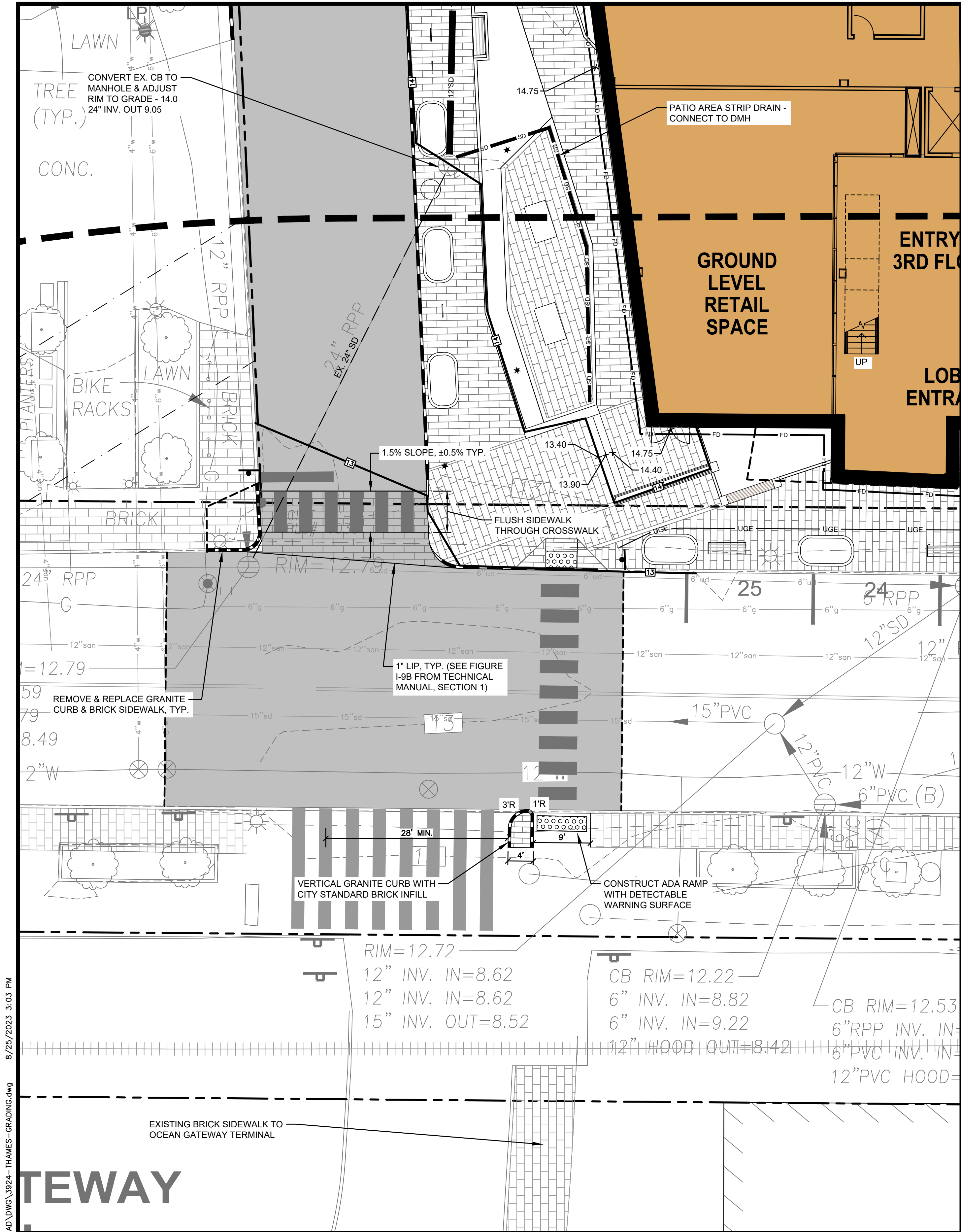
Drawing Name:	GRADING, DRAINAGE & EROSION CONTROL PLAN
Project:	Commercial Office Building - 70 Thames Street 70 Thames Street, Portland, Maine
Client:	144 Fore Street, OZ, LLC PO Box 910, Westbrook, Maine 04098-0910

Drawing No.	C-4.0
-------------	-------

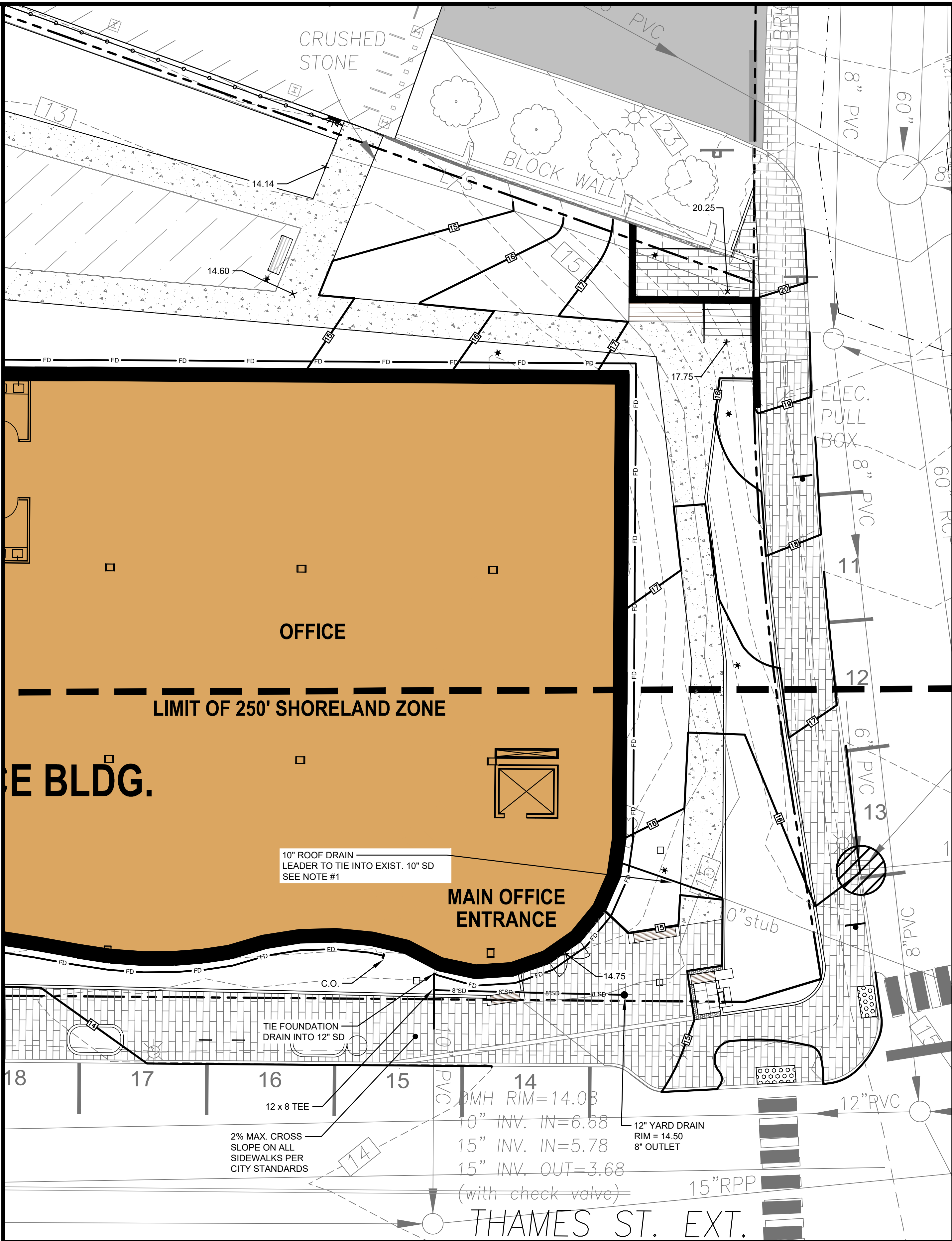
- NOTES:**
- ROOF DRAIN CARTRIDGE FILTERS TO BE INSTALLED AT CONNECTIONS TO EXISTING 10" STORM DRAIN STUBS. OWNER RESERVES THE RIGHT TO SELECT PRODUCT VENDOR PER COMPETITIVE BID.
 - EXACT LOCATION OF FOUNDATION DRAINS TIE-IN T.B.D. DURING STRUCTURAL DESIGN PRODUCTION.

NOTE: THIS PLAN SET IS ISSUED FOR PERMITTING PURPOSES & SHALL NOT BE USED FOR CONSTRUCTION.





WEST SIDE LAYOUT & GRADING ENLARGEMENT



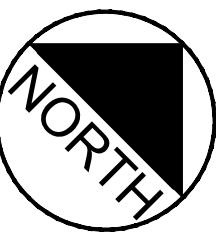
EAST SIDE GRADING ENLARGEMENT

U:\3924_Thames Street-WEX-Portland, ME\3 - CAD\DWG\3924-THAMES-GRADING.dwg 8/25/2023 3:03 PM

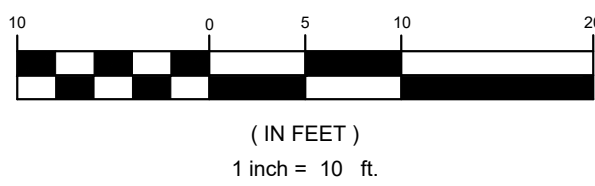
Rev.	Date	Revision

Rev.	Date	Revision
3	2023.08.25	FINAL PLAN SUBMISSION TO CITY - REVISED PER STAFF COMMENTS
2	2023.07.21	FINAL PLAN SUBMISSION TO CITY
1	2023.03.24	MAJOR SITE PLAN APPLICATION TO CITY

Design: SRB	Draft: CDD	Date: JAN. 2022
Checked: SRB	Scale: AS NOTED	Job No.: 3924
File Name: 3924-THAMES-GRADING.dwg		
This plan shall not be modified without written permission from Gorrell Palmer. Any alterations, authorized or otherwise, shall be at the user's sole risk and without liability to Gorrell Palmer.		



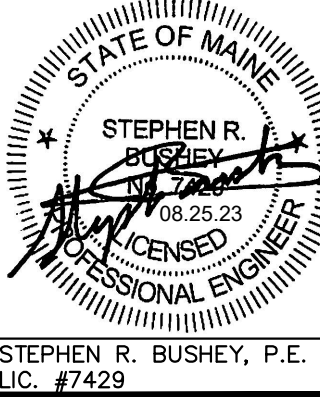
GRAPHIC SCALE



Relationships. Responsiveness. Results.
www.gorrellpalmer.com
207.772.2515
300 Southborough Drive - Suite 200
South Portland, ME 04106

Drawing Name:	10 SCALE GRADING ENLARGEMENTS
Project:	Commercial Office Building - 70 Thames Street 70 Thames Street, Portland, Maine
Client:	144 Fore Street, OZ, LLC PO Box 910, Westbrook, Maine 04098-0910

NOTE: THIS PLAN SET IS ISSUED FOR PERMITTING PURPOSES & SHALL NOT BE USED FOR CONSTRUCTION.



Drawing No.
C-4.1

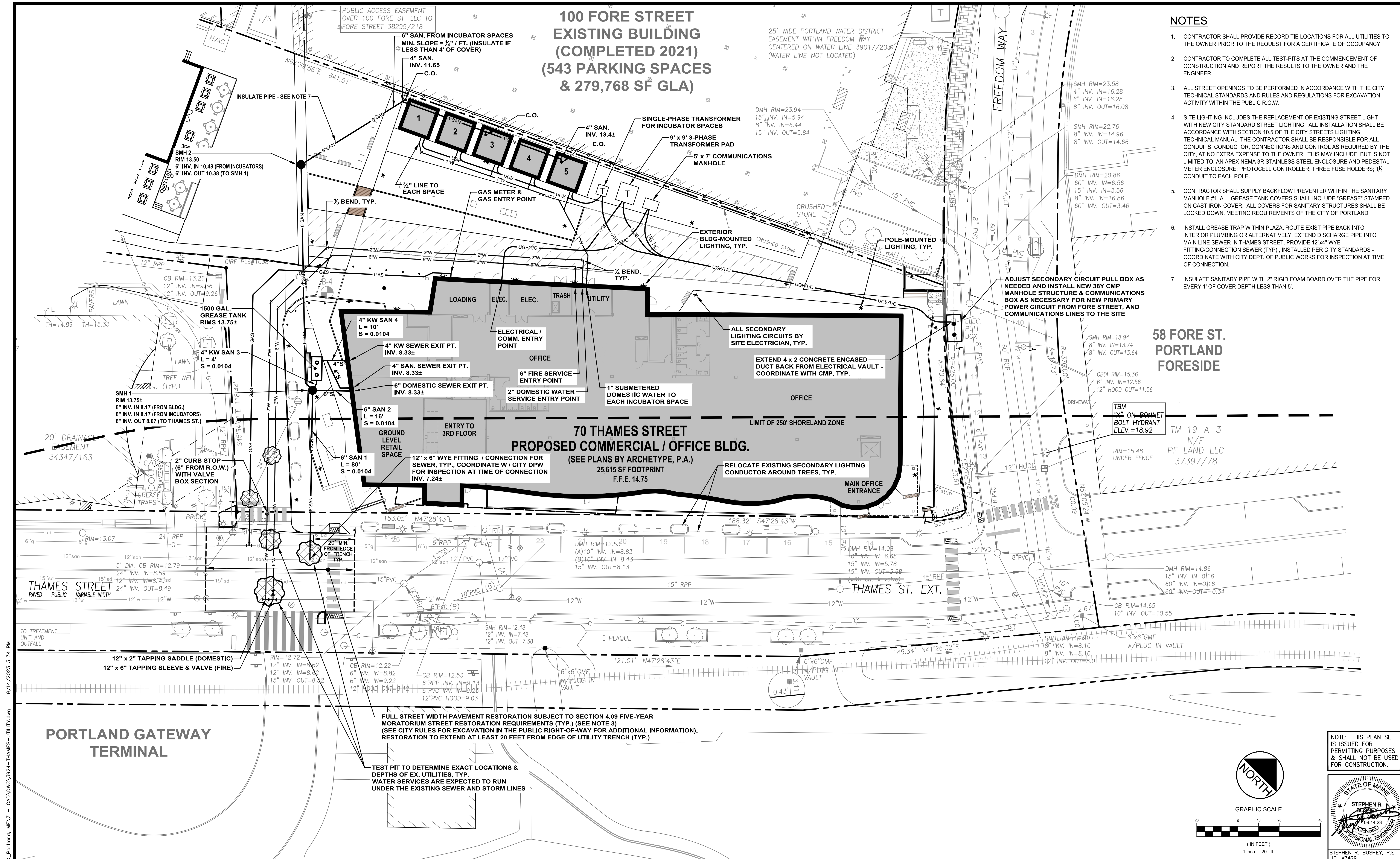
100 FORE STREET
EXISTING BUILDING
(COMPLETED 2021)
(543 PARKING SPACES
& 279,768 SF GLA)

NOTES

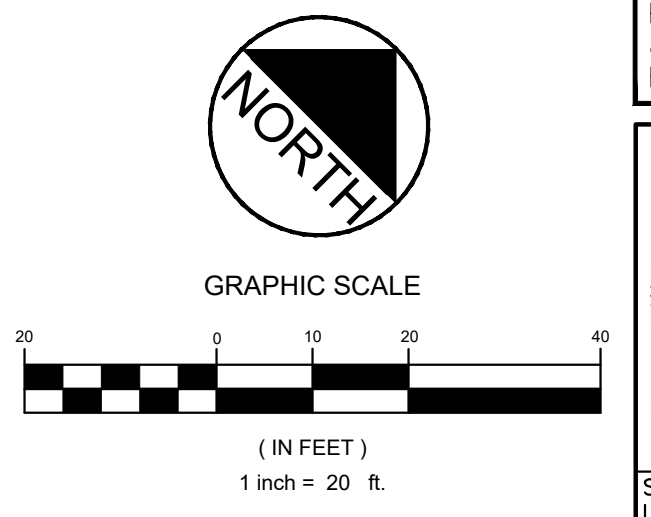
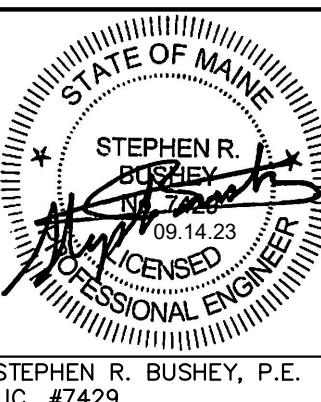
- CONTRACTOR SHALL PROVIDE RECORD TIE LOCATIONS FOR ALL UTILITIES TO THE OWNER PRIOR TO THE REQUEST FOR A CERTIFICATE OF OCCUPANCY.
- CONTRACTOR TO COMPLETE ALL TEST-PITS AT THE COMMENCEMENT OF CONSTRUCTION AND REPORT THE RESULTS TO THE OWNER AND THE ENGINEER.
- ALL STREET OPENINGS TO BE PERFORMED IN ACCORDANCE WITH THE CITY TECHNICAL STANDARDS AND RULES AND REGULATIONS FOR EXCAVATION ACTIVITY WITHIN THE PUBLIC R.O.W.
- SITE LIGHTING INCLUDES THE REPLACEMENT OF EXISTING STREET LIGHT WITH NEW CITY STANDARD STREET LIGHTING. ALL INSTALLATION SHALL BE ACCORDANCE WITH SECTION 10.5 OF THE CITY STREETS LIGHTING TECHNICAL MANUAL. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CONDUITS, CONDUCTOR, CONNECTIONS AND CONTROL AS REQUIRED BY THE CITY, AT NO EXTRA EXPENSE TO THE OWNER. THIS MAY INCLUDE, BUT IS NOT LIMITED TO, AN APEX NEMA 3R STAINLESS STEEL ENCLOSURE AND PEDESTAL; METER ENCLOSURE; PHOTOCELL CONTROLLER; THREE FUSE HOLDERS; 1/2" CONDUIT TO EACH POLE.
- CONTRACTOR SHALL SUPPLY BACKFLOW PREVENTER WITHIN THE SANITARY MANHOLE #1. ALL GREASE TANK COVERS SHALL INCLUDE "GREASE" STAMPED ON CAST IRON COVER. ALL COVERS FOR SANITARY STRUCTURES SHALL BE LOCKED DOWN, MEETING REQUIREMENTS OF THE CITY OF PORTLAND.
- INSTALL GREASE TRAP WITHIN PLAZA. ROUTE EXIST PIPE BACK INTO INTERIOR PLUMBING OR ALTERNATIVELY, EXTEND DISCHARGE PIPE INTO MAIN LINE SEWER IN THAMES STREET. PROVIDE 12"x4" WYE FITTING/CONNECTION SEWER (TYP.), INSTALLED PER CITY STANDARDS - COORDINATE WITH CITY DEPT. OF PUBLIC WORKS FOR INSPECTION AT TIME OF CONNECTION.
- INSULATE SANITARY PIPE WITH 2" RIGID FOAM BOARD OVER THE PIPE FOR EVERY 1' OF COVER DEPTH LESS THAN 5'.

58 FORE ST.
PORTLAND
FORESIDE

70 THAMES STREET
PROPOSED COMMERCIAL / OFFICE BLDG.
(SEE PLANS BY ARCHETYPE, P.A.)
25,615 SF FOOTPRINT
F.F.E. 14.75



NOTE: THIS PLAN SET
IS ISSUED FOR
PERMITTING PURPOSES
& SHALL NOT BE USED
FOR CONSTRUCTION.



U:\3924-Thames Street-WEX-Portland, ME\3 - CAD\DWG\3924-THAMES-UTILITY.dwg 9/14/2023 3:34 PM

Rev.	Date	Revision
1	2023.09.14	DELETED GARAGE ACCESS -- RESUBMITTED
2	2023.08.25	FINAL PLAN SUBMISSION TO CITY -- REVISED PER STAFF COMMENTS
3	2023.07.21	FINAL PLAN SUBMISSION TO CITY
4	2023.03.24	MAJOR SITE PLAN APPLICATION TO CITY

Rev.	Date	Revision
1	2023.09.14	DELETED GARAGE ACCESS -- RESUBMITTED
2	2023.08.25	FINAL PLAN SUBMISSION TO CITY -- REVISED PER STAFF COMMENTS
3	2023.07.21	FINAL PLAN SUBMISSION TO CITY
4	2023.03.24	MAJOR SITE PLAN APPLICATION TO CITY

Design: SRR	Draft: CDD	Date: JAN. 2022
Checked: SRR	Scale: AS NOTED	Job No.: 3924
File Name: 3924-THAMES-UTILITY.dwg		
This plan shall not be modified without written permission from Gorrill Palmer. Any alterations, authorized or otherwise, shall be at the user's sole risk and without liability to Gorrill Palmer.		

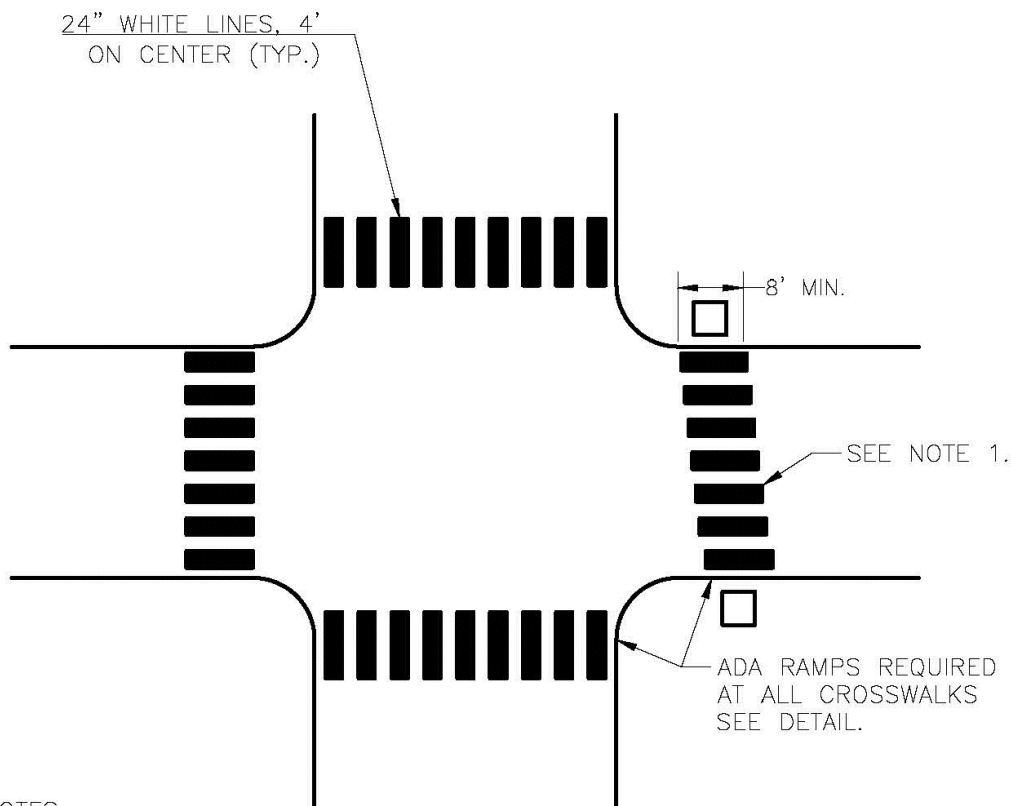


Relationships. Responsiveness. Results.
www.gorrillpalmer.com
207.772.2515
300 Southborough Drive - Suite 200
South Portland, ME 04106

Drawing Name:	UTILITY PLAN
Project:	Commercial Office Building -- 70 Thames Street 70 Thames Street, Portland, Maine
Client:	144 Fore Street, OZ, LLC PO Box 910, Westbrook, Maine 04098-0910

Drawing No.	C-5.0
-------------	-------

U:\3924_Thomas Street-WEX-Portland, ME\2 - CAD\DWG\3924-DETAILS.dwg 8/25/2023 2:39 PM



- NOTES:
- CROSSWALK BLOCKS SHALL BE STAGGERED AND REMAIN PARALLEL TO THE ROADWAY CENTERLINE AT SKEWED CROSSING LOCATIONS.
 - CROSSWALK MARKINGS LOCATED ON ARTERIAL STREETS SHALL BE APPLIED WITH A THERMOPLASTIC MATERIAL (OR APPROVED EQUAL) MEETING ALL MANUFACTURER AND MUTCD REQUIREMENTS.
 - THE ESTABLISHMENT PERIOD FOR CROSSWALK MARKINGS SHALL BE BASED ON MANUFACTURER'S SPECIFICATIONS AND SHALL AT A MINIMUM MEET MAINE DOT STANDARD SPECIFICATION 627.07 ESTABLISHMENT PERIOD REQUIREMENTS.

A CROSSWALK STRIPING DETAIL

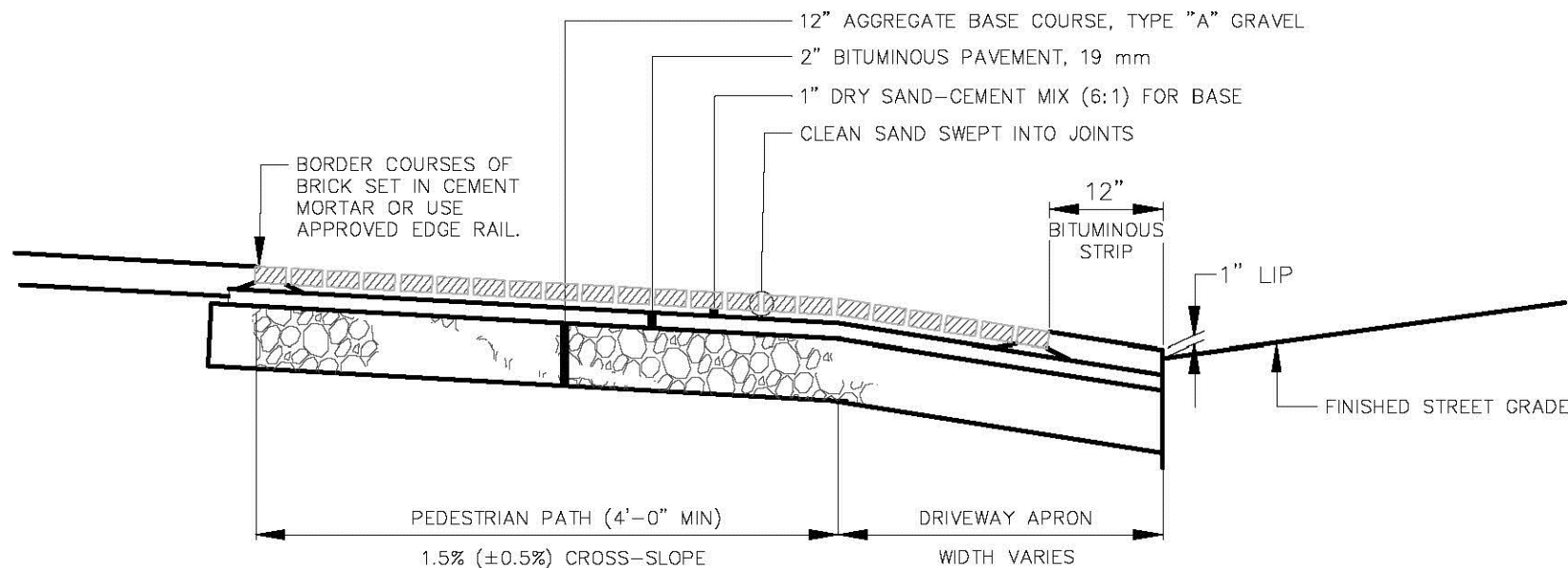
N.T.S.

AS OBTAINED FROM THE CITY OF PORTLAND "TECHNICAL MANUAL"

BRICKS TO BE USED:

NEW CONSTRUCTION:
4"x8" PINE HALL PATHWAY PAVER
BRICK; MFG. BY PINE HALL BRICK
CO., MADISON, NORTH CAROLINA.
LACHANCE ITEM # 193623, PINE
HALL PATHWAY PAVER BRICK.

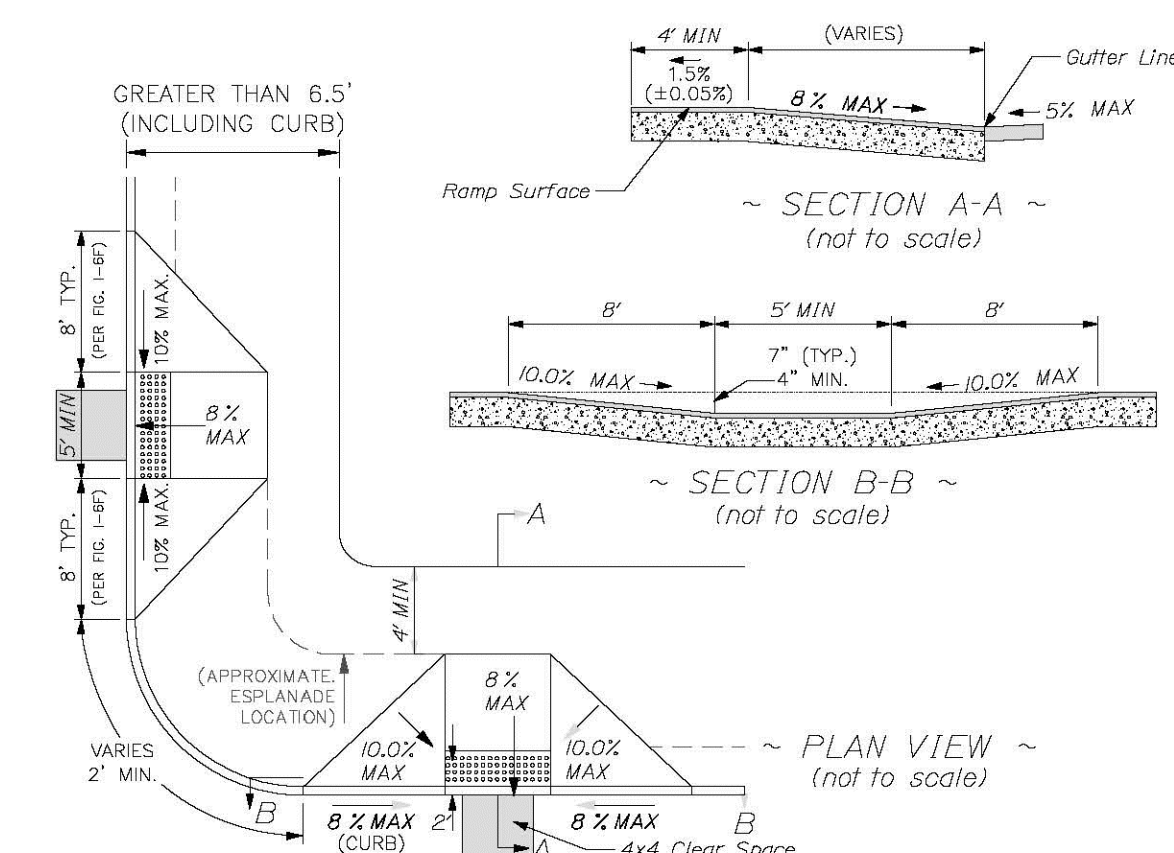
REPAIR /MAINTENANCE TO EXISTING
BRICK SIDEWALKS: VERMONT PAVES;
SUPPLIED BY GAGNE AND SONS.
SPECIFICATION NUMBER:
"VERMONT BACKER BRICK",
ITEM NUMBER # VB88



C BRICK DRIVEWAY APRON WITH BITUMINOUS BASE

N.T.S.

AS OBTAINED FROM THE CITY OF PORTLAND "TECHNICAL MANUAL"

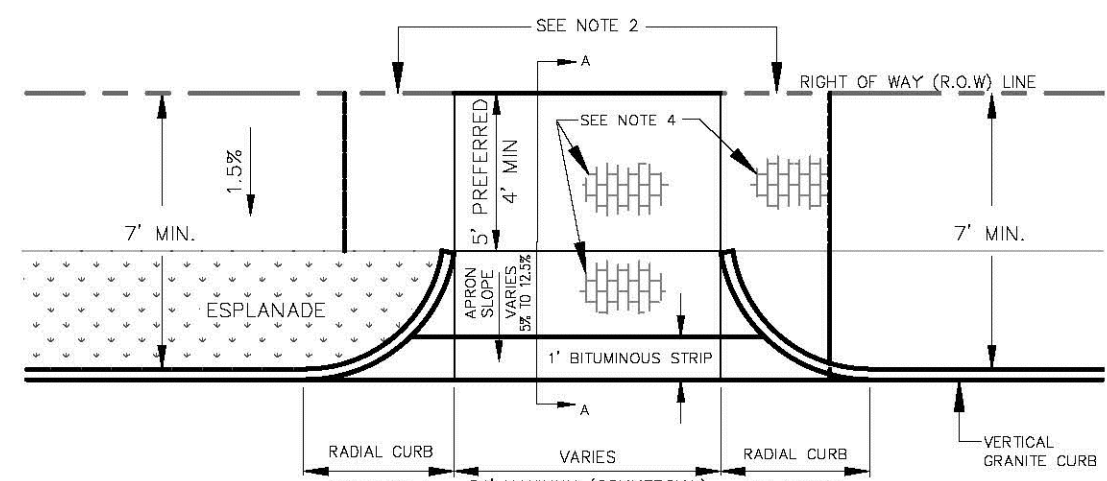


- NOTES:
- THIS DESIGN IS THE PREFERRED OPTION WHEN THE SIDEWALK WIDTH IS GREATER THAN 6.5'. USE OTHER OPTIONS ONLY WHEN REQUIRED BY DESIGN CONSTRAINTS.
 - A MINIMUM CURB REVEAL OF 4" IS REQUIRED AT THE APEX OF THE CURB RADIUS.
 - MINIMUM TERMINAL CURB LENGTH SHALL BE 4 FEET.
 - SIDEWALK MATERIAL PER CITY SIDEWALK MATERIAL POLICY.

F PERPENDICULAR ADA RAMP FOR SIDEWALK GREATER THAN 6.5' WITH OR WITHOUT ESPLANADE

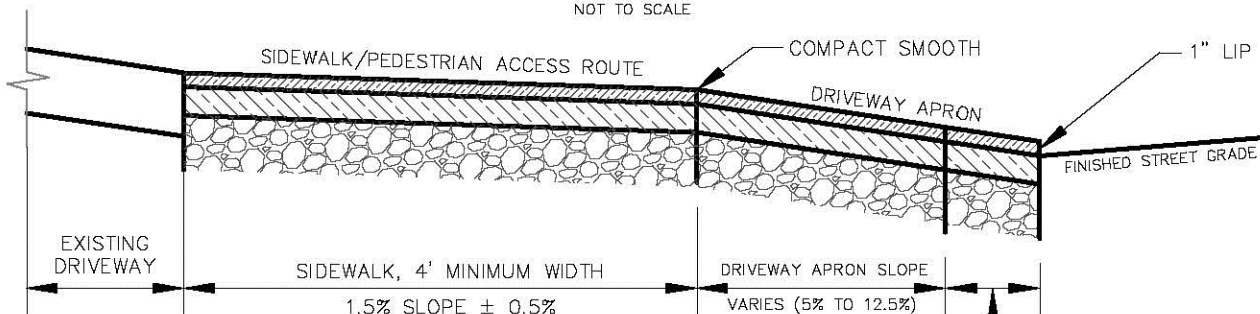
N.T.S.

AS OBTAINED FROM THE CITY OF PORTLAND "TECHNICAL MANUAL"



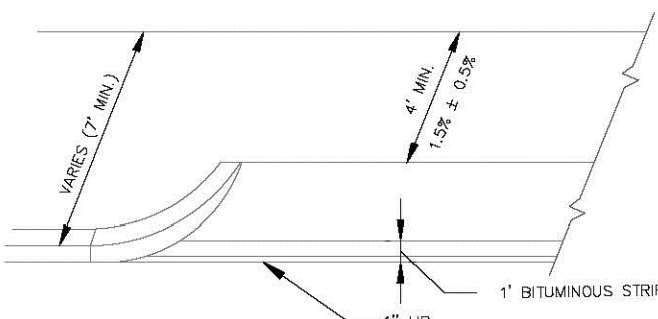
STANDARD COMMERCIAL DRIVEWAY APRON LAYOUT

N.T.S.



SECTION A-A

N.T.S.



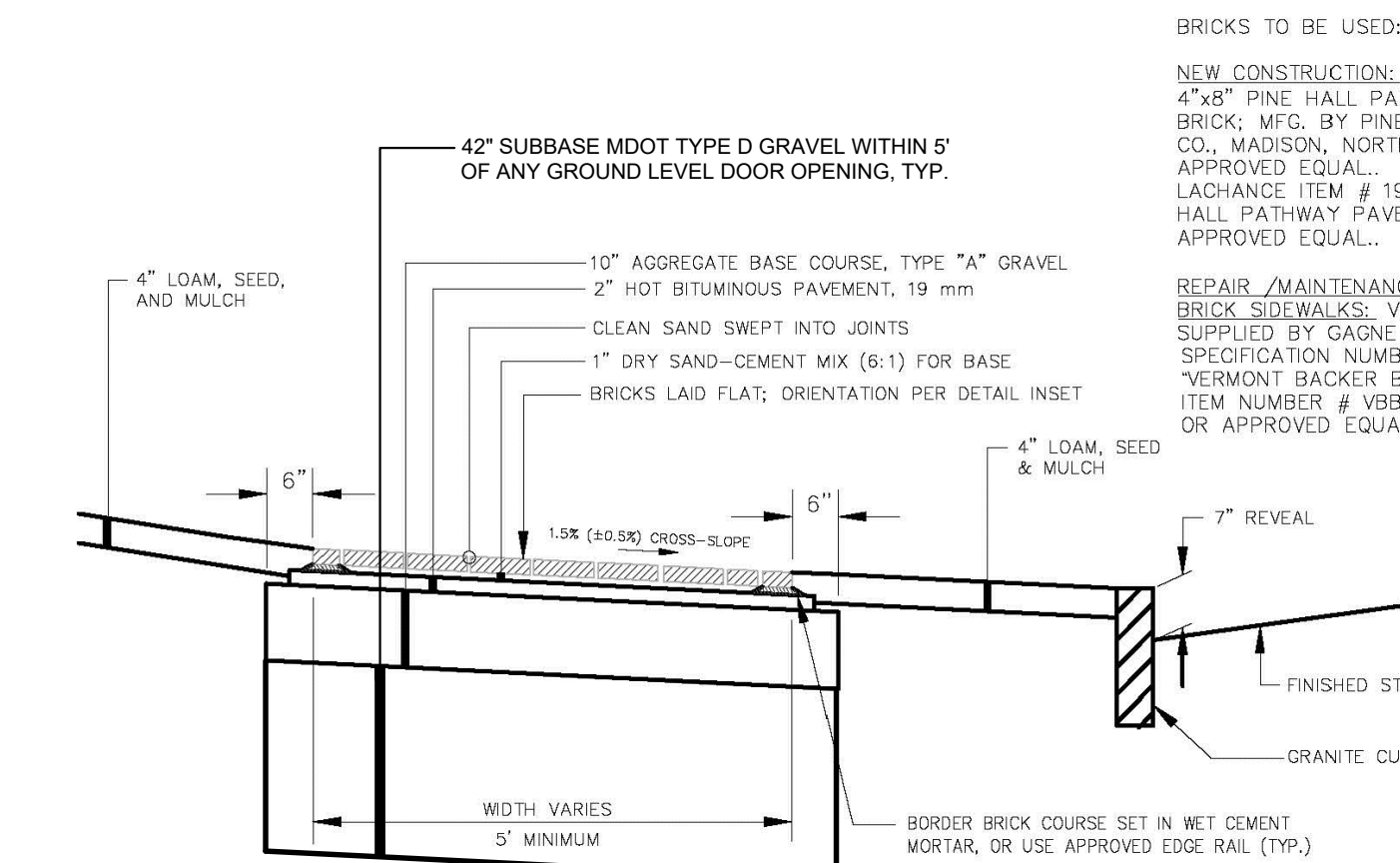
NOTES:

- MATCH EXISTING GRADE AT R.O.W. LINE, WHERE REQUIRED TO MEET A.D.A. AND DRIVEWAY APRON SLOPE REQUIREMENTS, A CONSTRUCTION EASEMENT MAY BE REQUIRED.
- IF MATCHING THE EXISTING GRADE AT ROW CAUSES APRON SLOPE TO EXCEED RECOMMENDED %, SIDEWALK TRANSITION AREAS MAY BE ADDED, BUT SHALL NOT EXCEED 8.33%.
- DRIVEWAY CURB RADIUS SHALL NOT BE LARGER THAN REQUIRED BY THE SITE'S DESIGN VEHICLE.
- ALL MATERIALS IN ROW TO COMPLY WITH CITY'S SIDEWALK & DRIVEWAY MATERIAL POLICY. BRICK IN DRIVEWAY APRONS, WHERE APPLICABLE, SHALL BE ORIENTED IN THE SAME WAY AS THE ADJACENT BRICK SIDEWALK..

B DRIVEWAY APRON LAYOUT

N.T.S.

AS OBTAINED FROM THE CITY OF PORTLAND "TECHNICAL MANUAL"



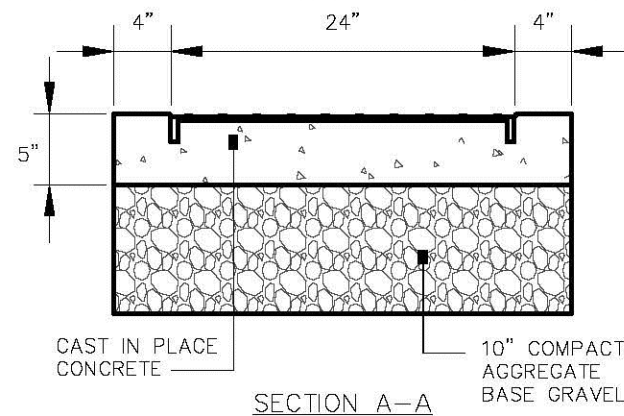
D BRICK SIDEWALK WITH BITUMINOUS BASE

N.T.S.

AS OBTAINED FROM THE CITY OF PORTLAND "TECHNICAL MANUAL"

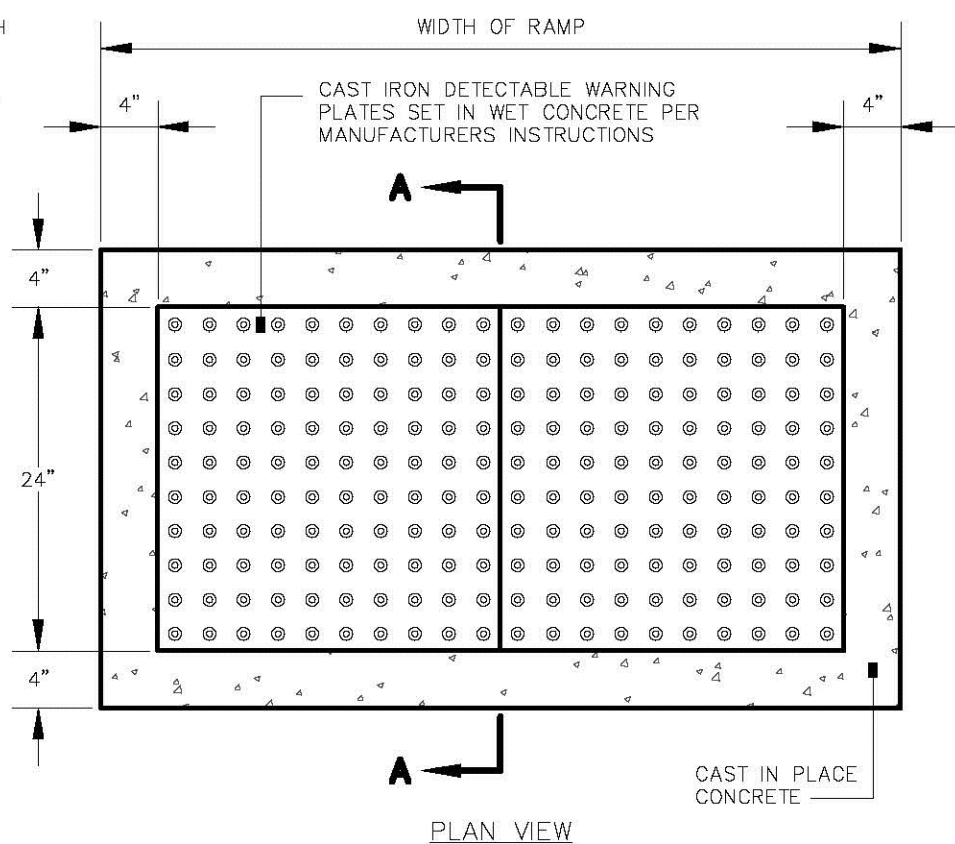
NOTES:

- ALL DETECTABLE WARNING PLATES SHALL BE UNCOATED CAST IRON. FOLLOW MANUFACTURER'S INSTRUCTIONS FOR INSTALLATION.
- CAST IN PLACE CONCRETE SHALL MEET SPECIFICATIONS FOR MDT 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.
- 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.
- 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.
- ORIENTATION: THE DETECTABLE WARNING PANEL SHALL BE LOCATED SO THAT THE EDGE NEAREST THE CURB LINE IS 6 INCHES MINIMUM AND 8 INCHES MAXIMUM FROM THE CURB LINE. THE PANEL SHALL BE ORIENTED TO THE DIRECTION OF TRAVEL AS IDENTIFIED BY THE POINT OF EGRESS.



SECTION A-A

N.T.S.



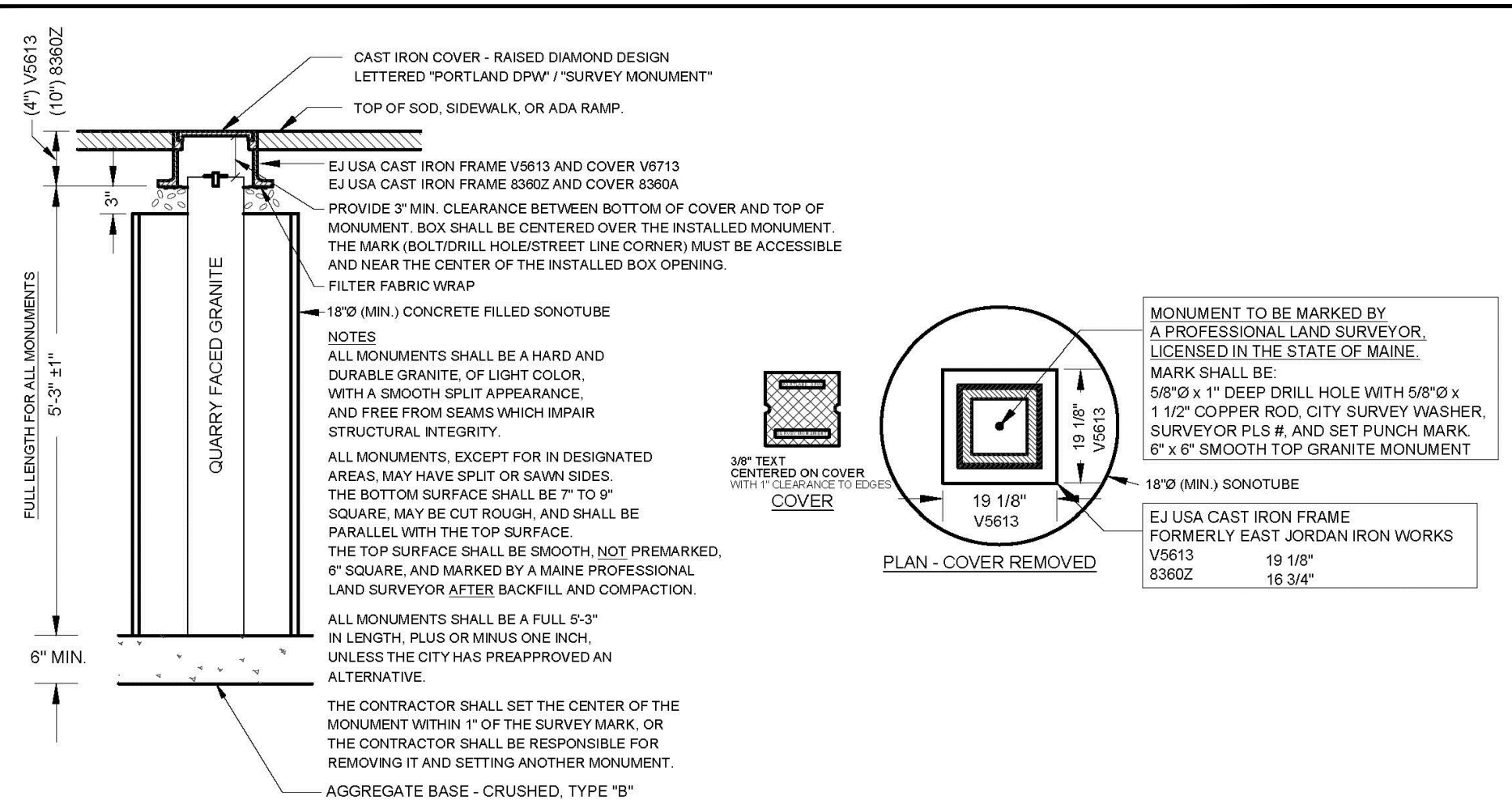
PLAN VIEW

N.T.S.

E SIDEWALK RAMP DETECTABLE WARNING PANEL

N.T.S.

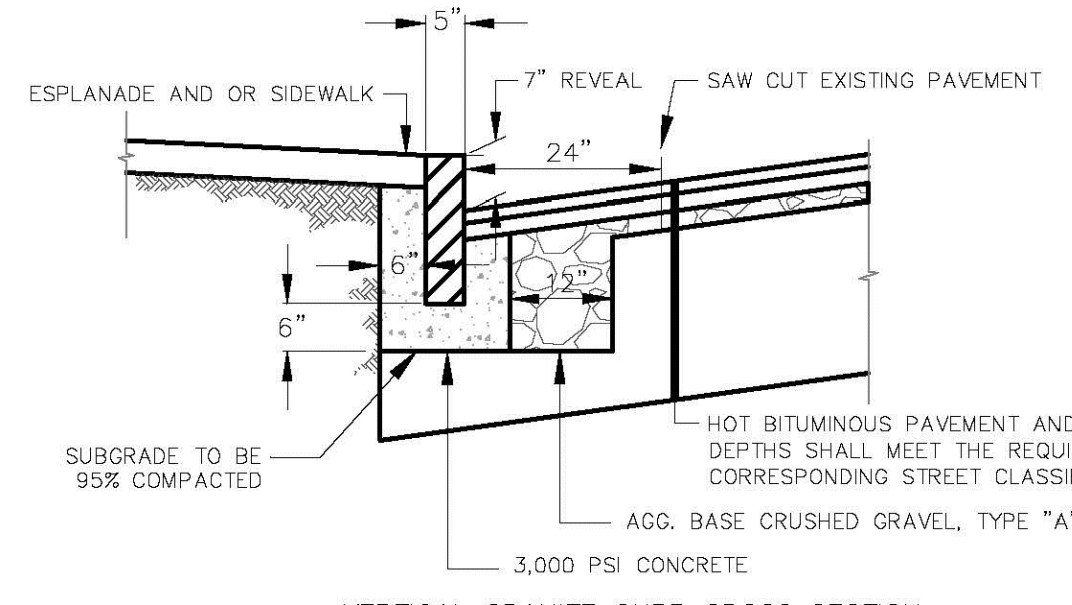
AS OBTAINED FROM THE CITY OF PORTLAND "TECHNICAL MANUAL"



H GRANITE STREET MONUMENT DETAIL

N.T.S.

AS OBTAINED FROM THE CITY OF PORTLAND "TECHNICAL MANUAL"



VERTICAL GRANITE CURB CROSS SECTION

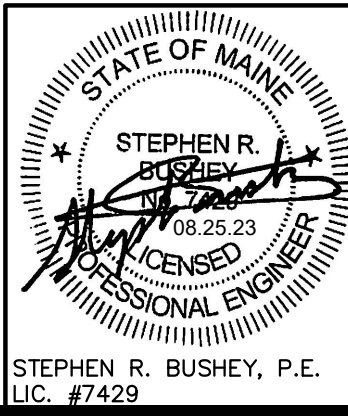
- NOTES:
- INDIVIDUAL PIECES OF CURB SHORTER THAN 4 L.F. ARE NOT ALLOWED, WITH THE EXCEPTION OF RADIAL CURB.
 - THE MINIMUM HEIGHT OF THE CONCRETE BACKING SHALL BE 10-INCHES OR TO THE BOTTOM OF THE HOT MIX ASPHALT PAVEMENT, WHICHEVER IS GREATER, MEASURED FROM THE BOTTOM OF CURB.
 - CURBING SHALL BE SET IN A 6-INCH BED OF POURED IN PLACE 3,000 PSI CONCRETE MIX.
 - WOODEN SHIMS MAY BE USED TO SET CURB.

G VERTICAL GRANITE CURB DETAIL

N.T.S.

AS OBTAINED FROM THE CITY OF PORTLAND "TECHNICAL MANUAL"

NOTE: THIS PLAN SET IS ISSUED FOR PERMITTING PURPOSES & SHALL NOT BE USED FOR CONSTRUCTION.



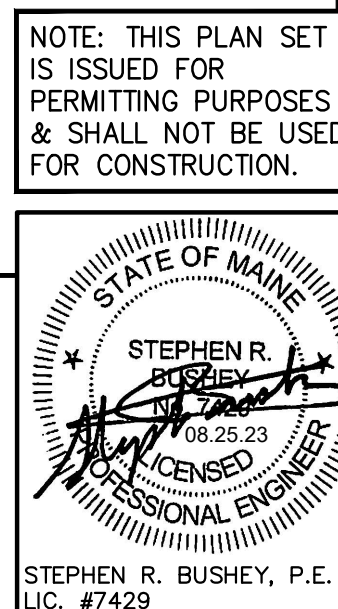
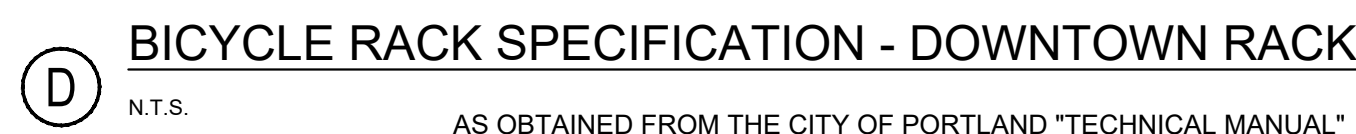
Design:	SRB	Draft:	CDD	Date:	JAN, 2022
Checked:	SRB	Scale:	AS NOTED	Job No.:	3924
File Name: 3924-DETAILS.dwg					
3	2023.08.25	FINAL PLAN SUBMISSION TO CITY - REVISED PER STAFF COMMENTS			
2	2023.07.21	FINAL PLAN SUBMISSION TO CITY			
1	2023.03.24	MAJOR SITE PLAN APPLICATION TO CITY			



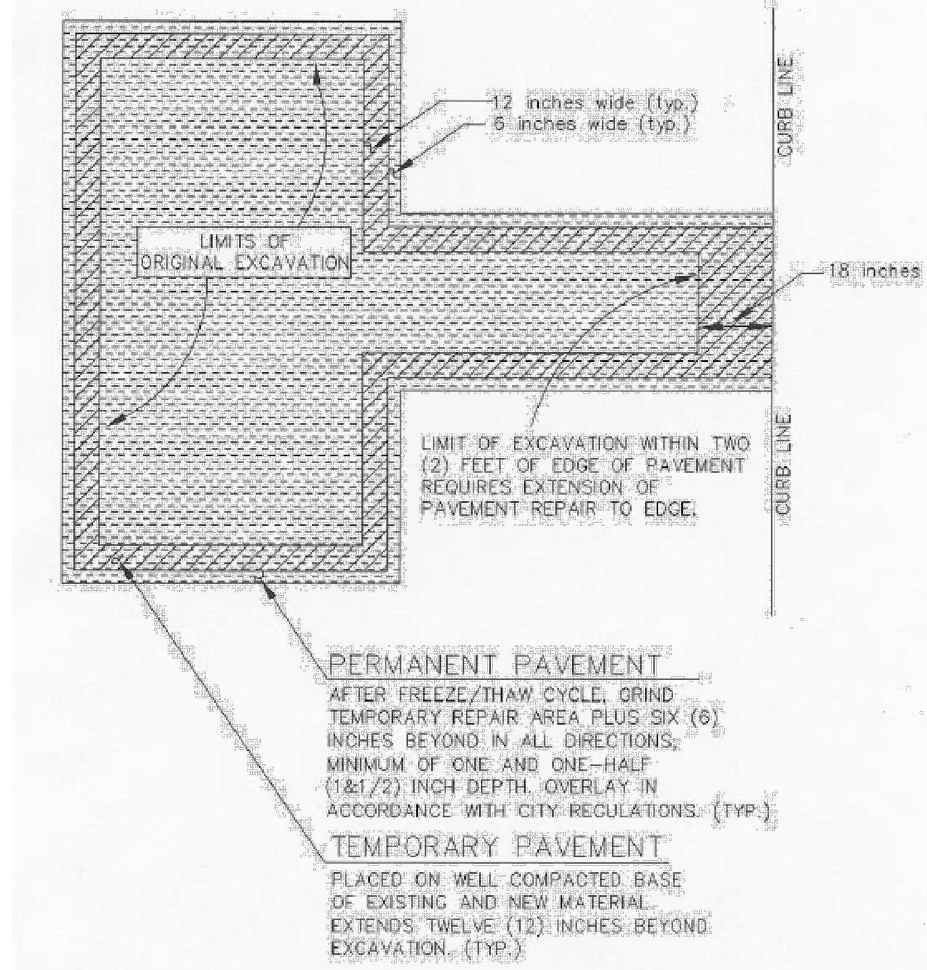
Relationships. Responsiveness. Results.
www.gorripalmer.com
207.772.2515
300 Southborough Drive - Suite 200
South Portland, ME 04106

Drawing Name:	SITE DETAILS
Project:	Commercial Office Building - 70 Thames Street 70 Thames Street, Portland, Maine
Client:	144 Fore Street, OZ, LLC PO Box 910, Westbrook, Maine 04098-0910

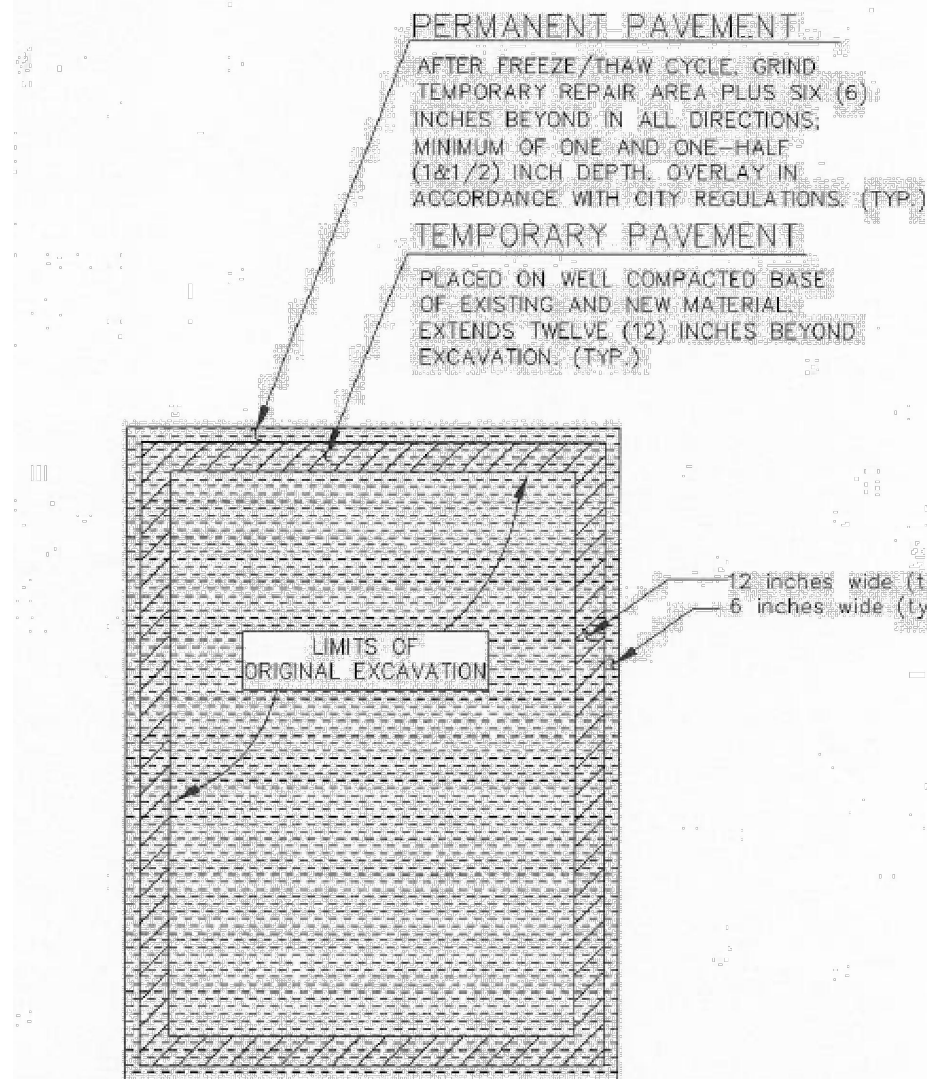
Drawing No.	C-6.0
-------------	-------

C-6.1

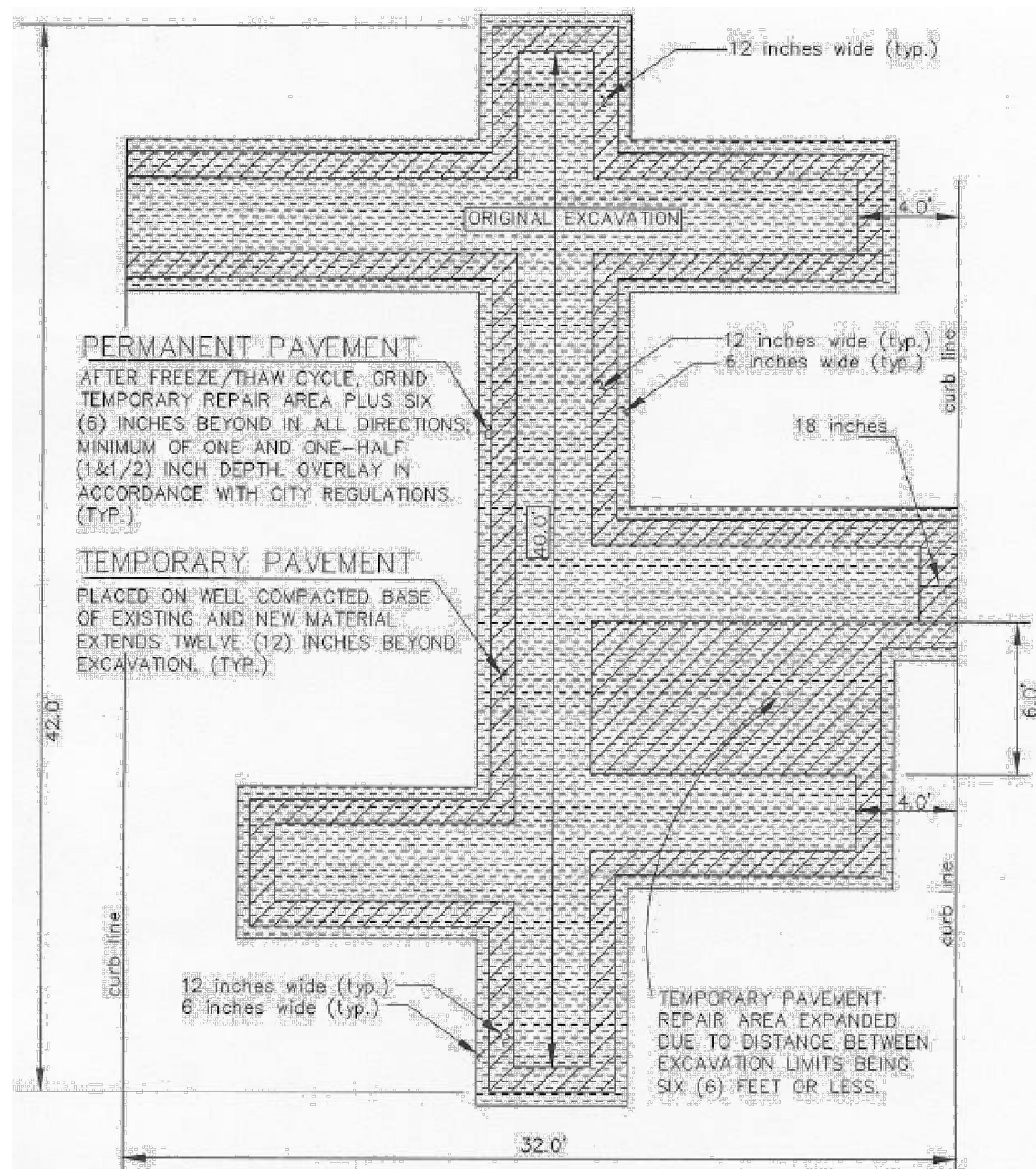
U:\3924_Thomas Street-WEX-Portland, ME\2 - CAD\DWG\3924-DETAILS.dwg 8/25/2023 2:40 PM



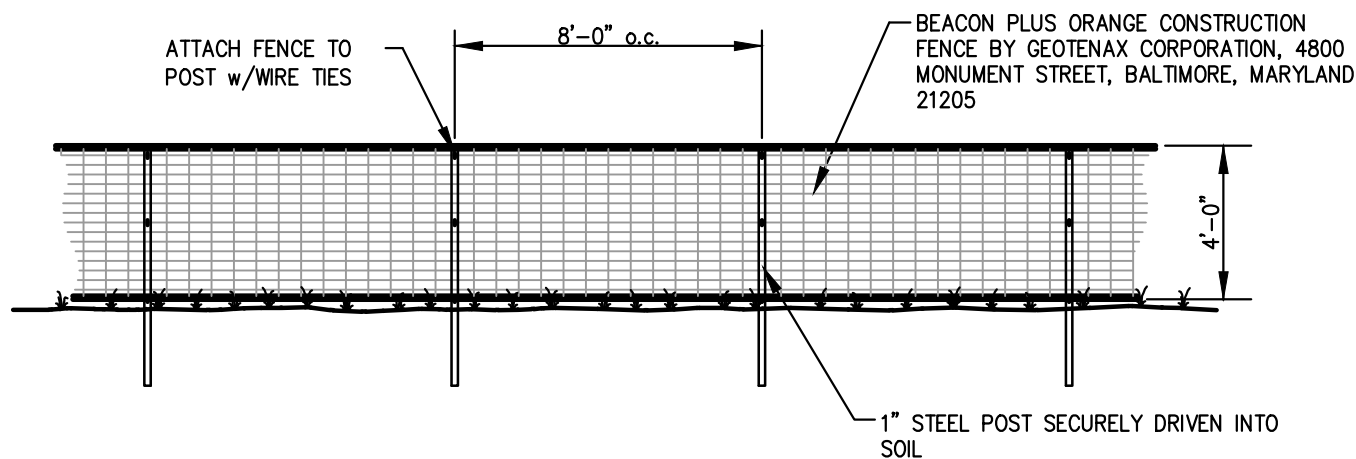
A PLAN VIEW OF MINOR EXCAVATION PAVEMENT REPAIR
AS OBTAINED FROM THE CITY OF PORTLAND "RULES AND REGULATIONS FOR EXCAVATION ACTIVITIES IN THE PUBLIC RIGHT OF WAY"



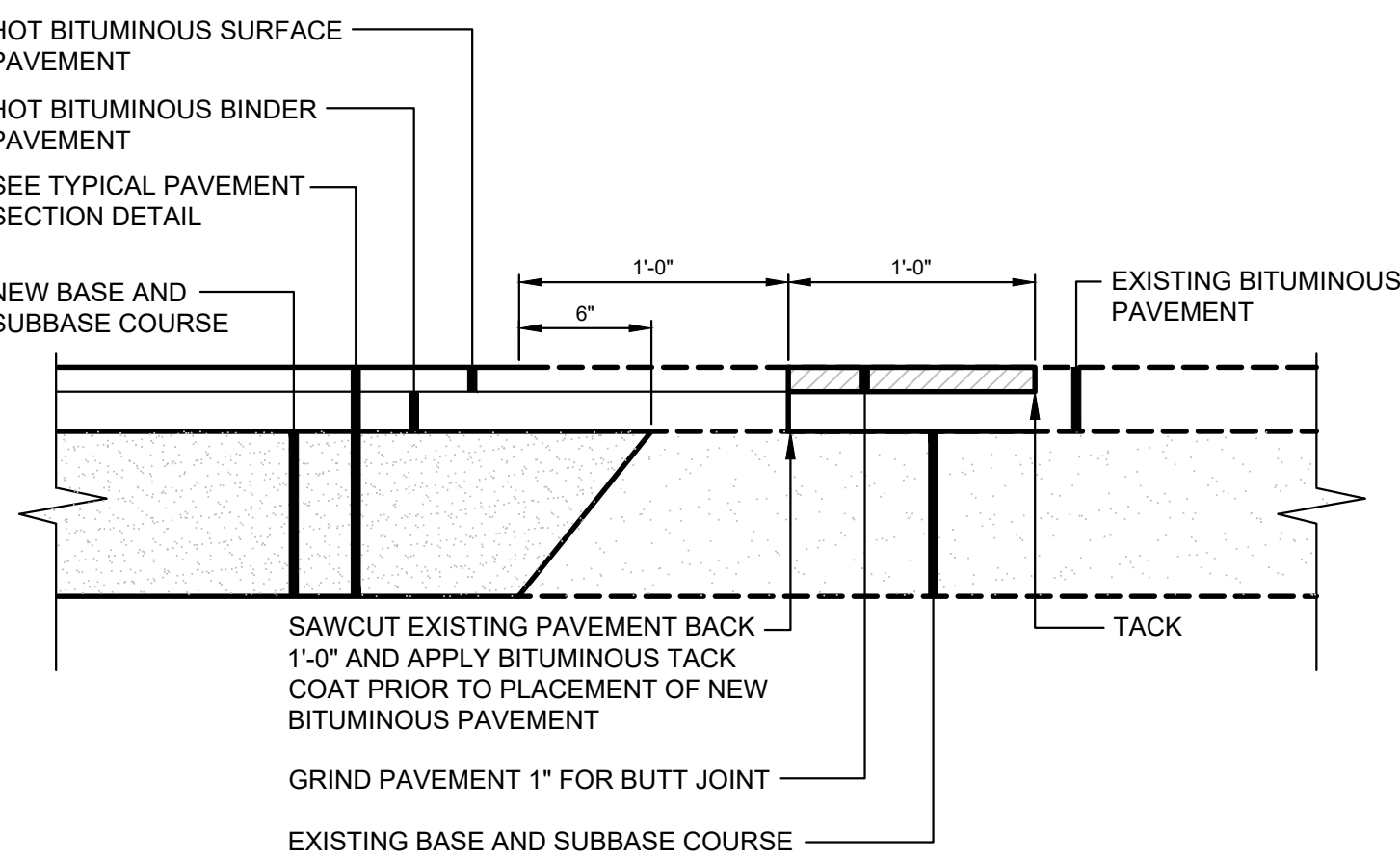
B PLAN VIEW OF MINOR EXCAVATION PAVEMENT REPAIR
AS OBTAINED FROM THE CITY OF PORTLAND "RULES AND REGULATIONS FOR EXCAVATION ACTIVITIES IN THE PUBLIC RIGHT OF WAY"



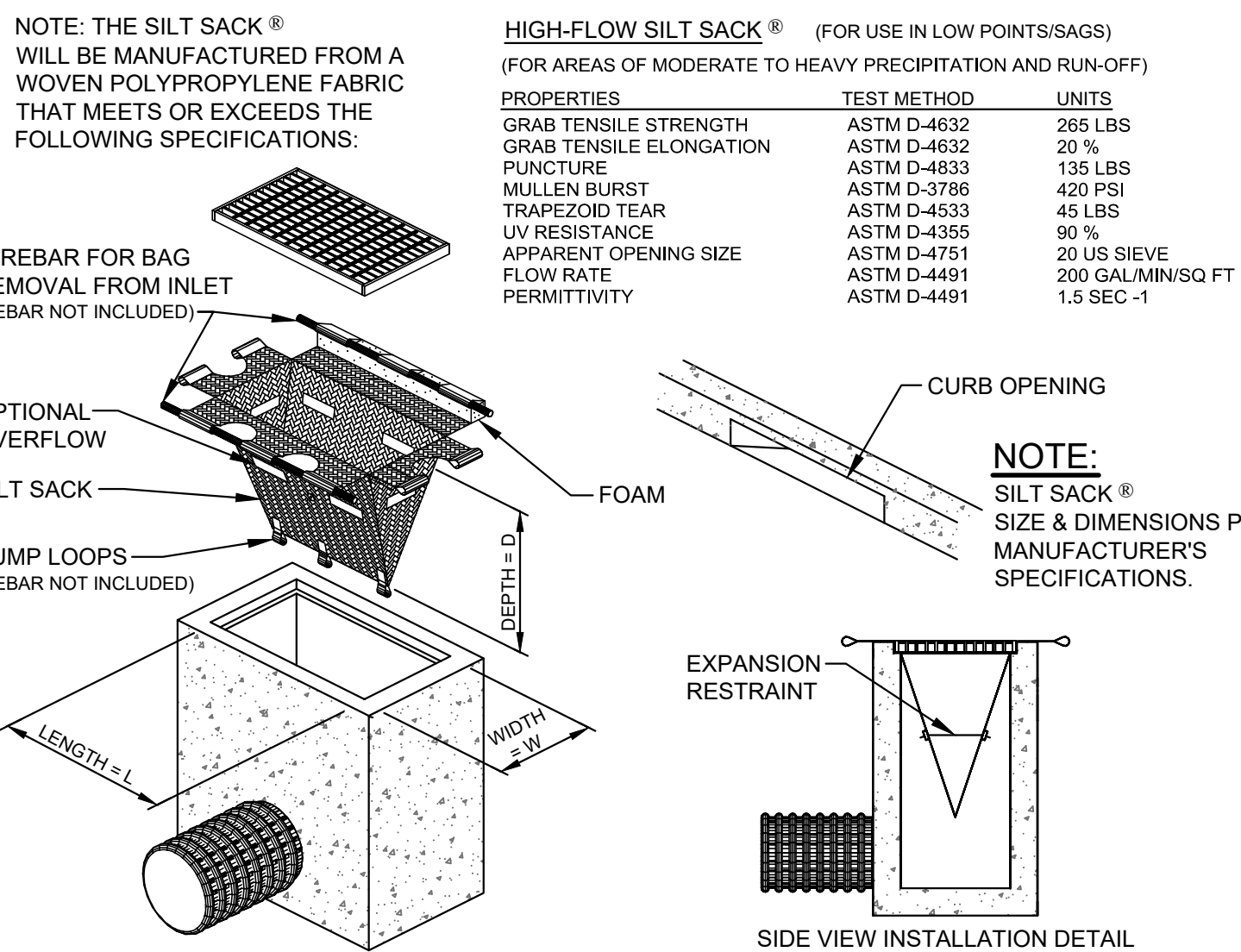
C PLAN VIEW OF MAJOR EXCAVATION PAVEMENT REPAIR
AS OBTAINED FROM THE CITY OF PORTLAND "RULES AND REGULATIONS FOR EXCAVATION ACTIVITIES IN THE PUBLIC RIGHT OF WAY"



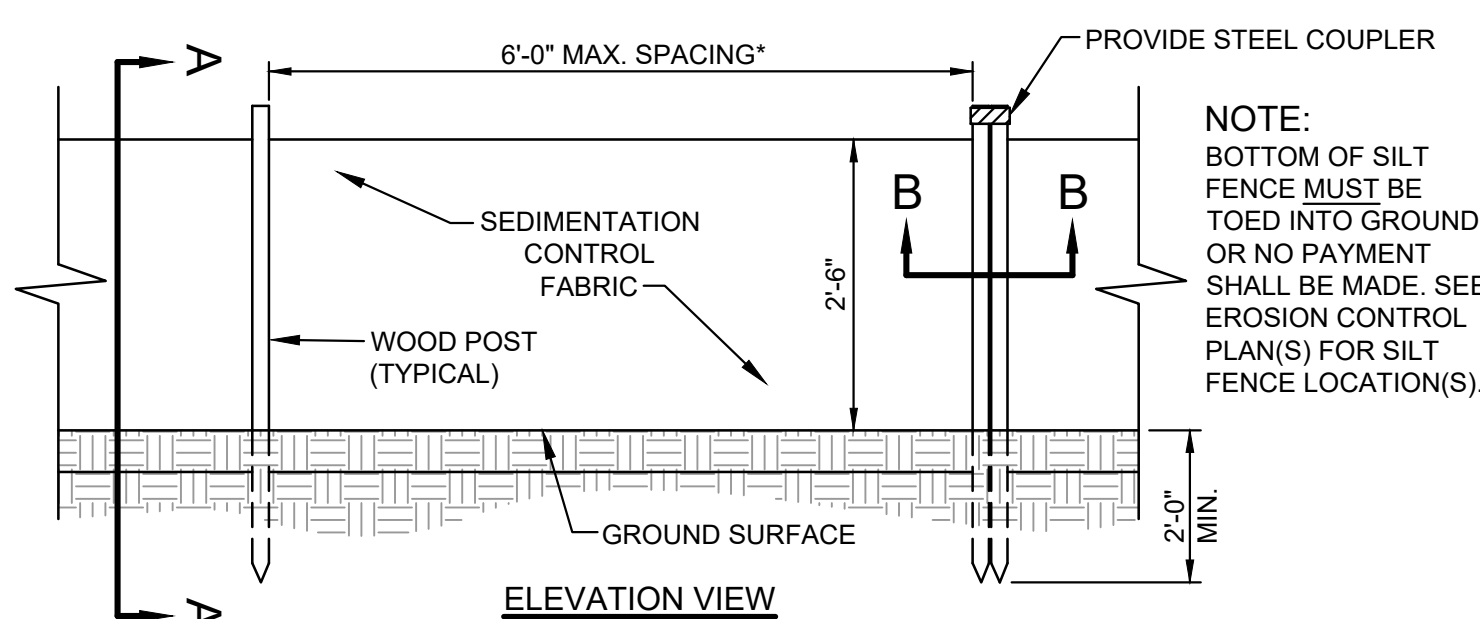
D ORANGE CONSTRUCTION FENCE DETAIL
N.T.S.



E PAVEMENT SAWCUT DETAIL
N.T.S.

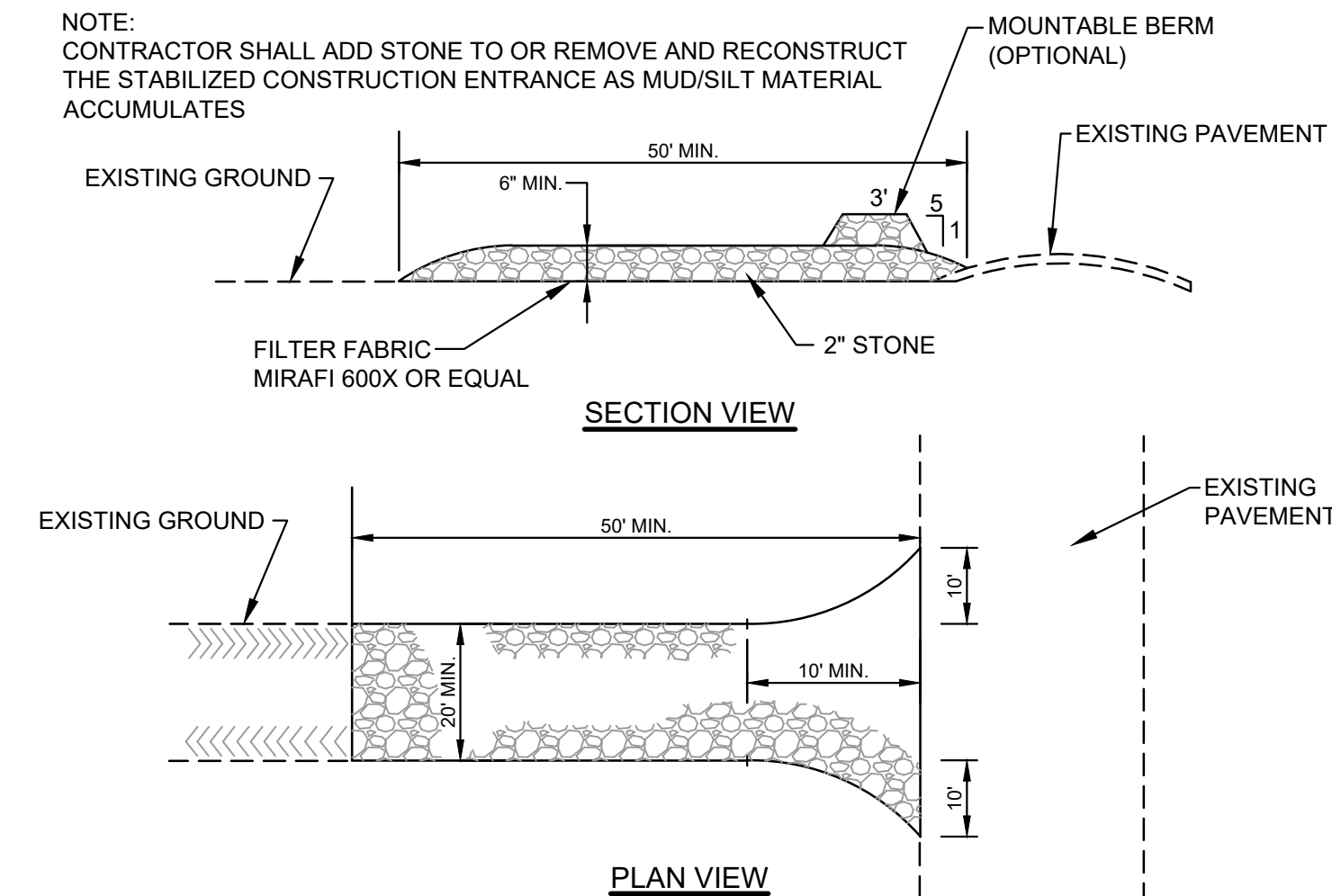


F SILT SACK ® DETAIL & SPECIFICATIONS
N.T.S.



*NOTE: THE SILT FENCE SHOULD HAVE A MAXIMUM STAKING DISTANCE OF 6', UNLESS THE FENCE IS SUPPORTED BY WIRE FENCE REINFORCEMENT, A MAXIMUM 14 GAUGE AND WITH A MINIMUM MESH SPACING OF 6".

G SILTATION FENCE DETAIL
N.T.S.



H STABILIZED CONSTRUCTION ENTRANCE DETAIL
N.T.S.

NOTE: THIS PLAN SET IS ISSUED FOR PERMITTING PURPOSES & SHALL NOT BE USED FOR CONSTRUCTION.

STATE OF MAINE
STEPHEN R. BUSHEY, P.E.
08-25-23
LICENSED PROFESSIONAL ENGINEER
STEPHEN R. BUSHEY, P.E.
LIC. #7429

Design: SRB Draft: CDD Date: JAN, 2022
Checked: SRB Scale: AS NOTED Job No.: 3924
File Name: 3924-DETAILS.dwg

This plan shall not be modified without written permission from Gorrill Palmer. Any alterations, authorized or otherwise, shall be at the user's sole risk and without liability to Gorrill Palmer.

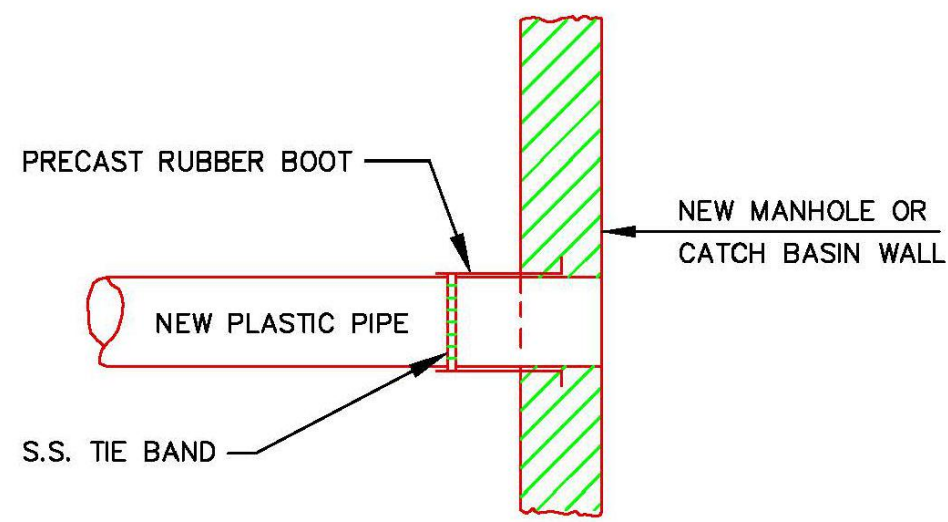
GP GORRILL PALMER

Relationships. Responsiveness. Results.
www.gorrillpalmer.com
207.772.2515
300 Southborough Drive - Suite 200
South Portland, ME 04106

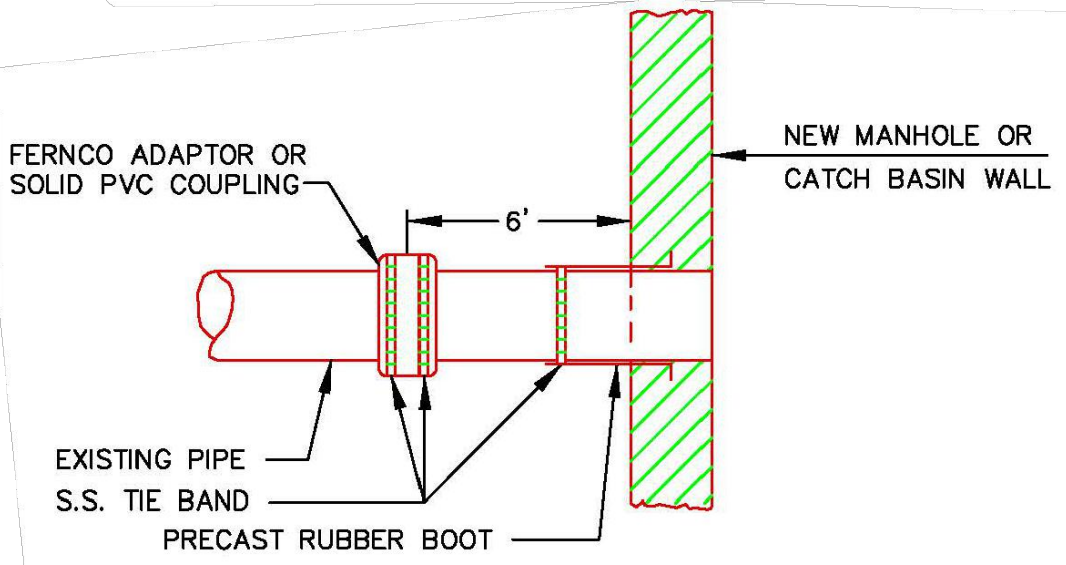
Drawing Name: SITE & MISCELLANEOUS DETAILS
Project: Commercial Office Building — 70 Thames Street
70 Thames Street, Portland, Maine
Client: 144 Fore Street, OZ, LLC
PO Box 910, Westbrook, Maine 04098-0910

Drawing No.
C-6.2

U:\3924-Thomas Street-WEX-Portland, ME\2 - CAD\DWG\3924-DETAILS.dwg 8/25/2023 2:40 PM



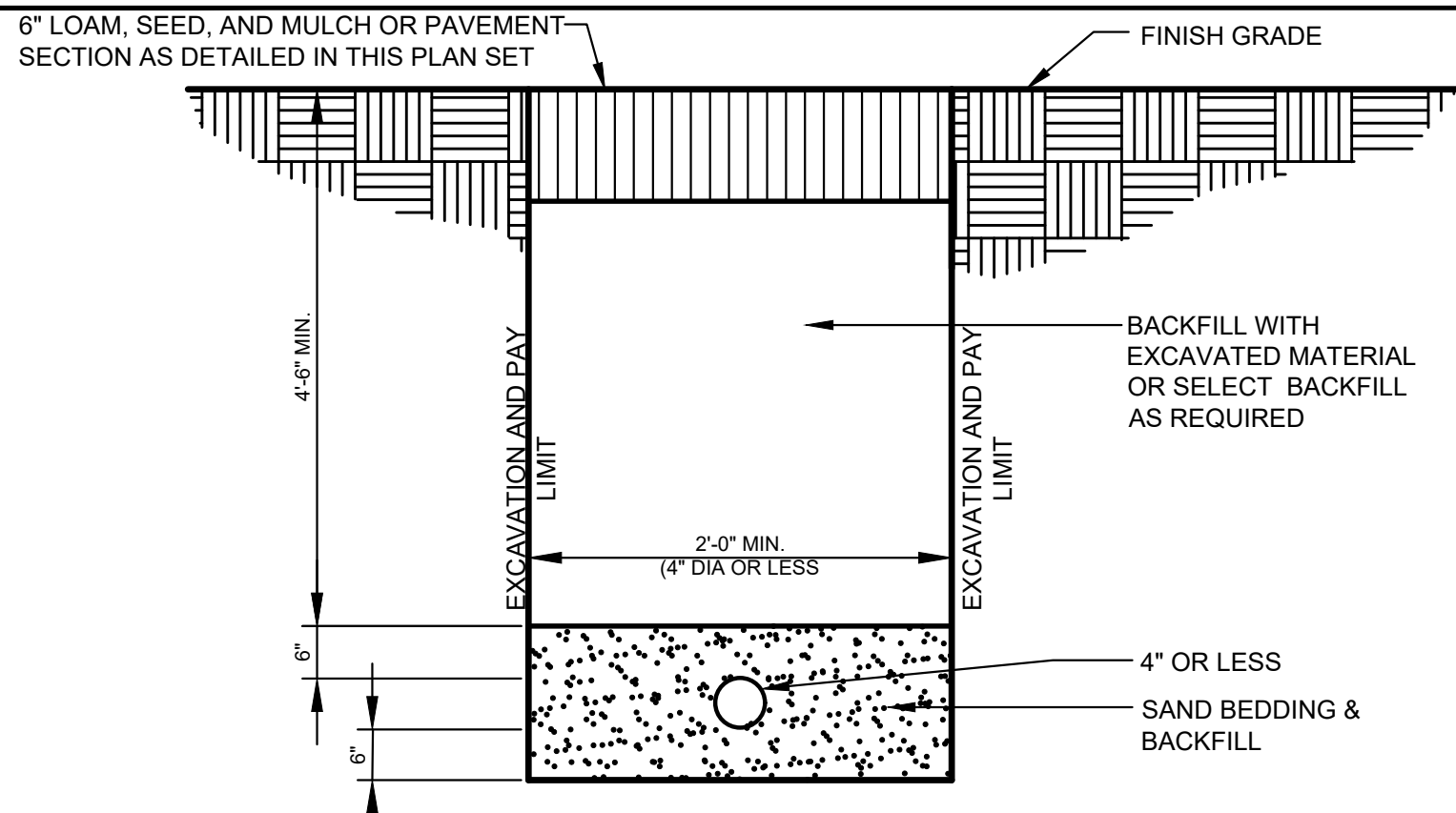
METHOD 2 — NEW CONSTRUCTION



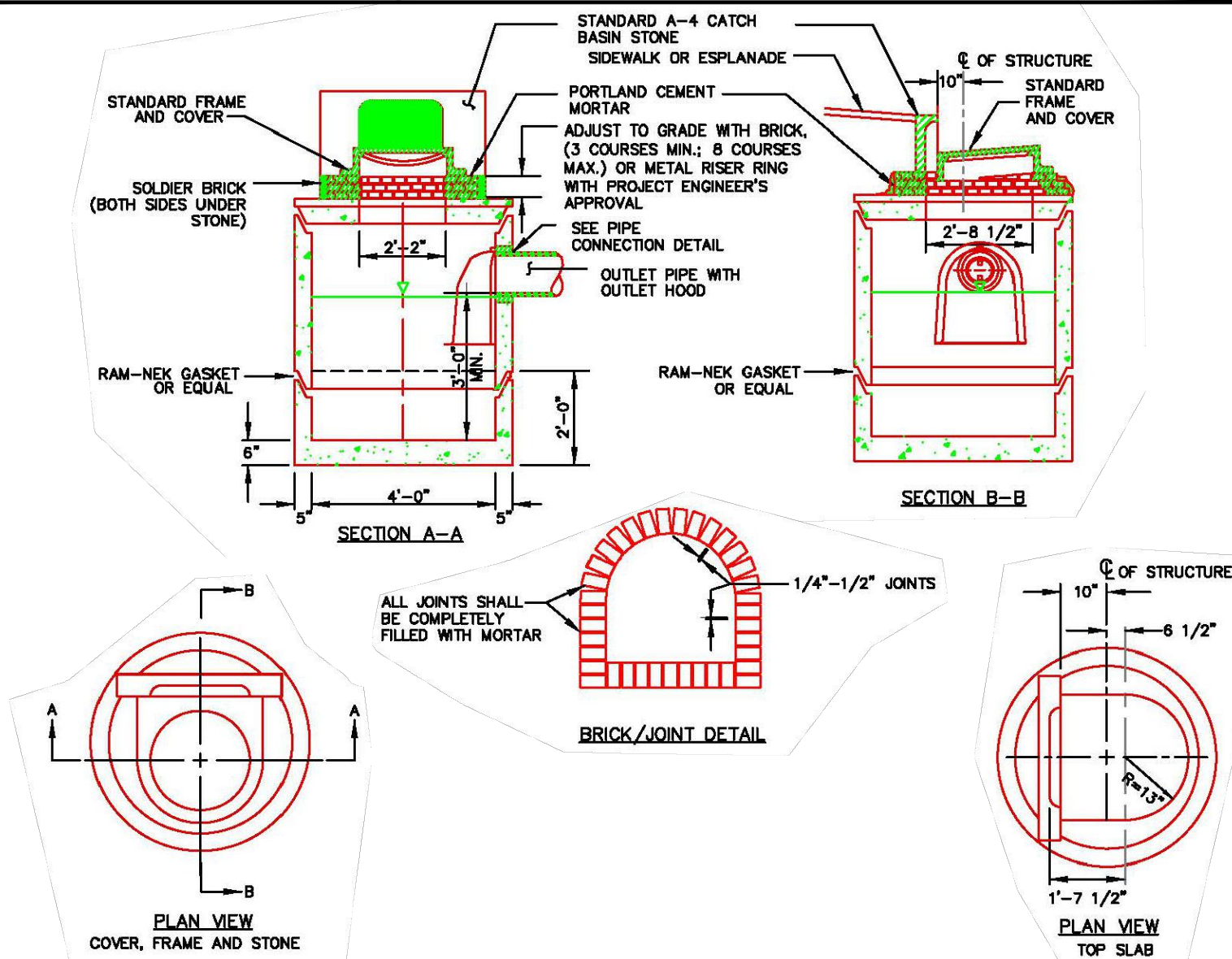
METHOD 1 — EXISTING PIPE INTO NEW STRUCTURE

A PLASTIC PIPE CONNECTION METHODS 1 & 2
N.T.S.

AS OBTAINED FROM THE CITY OF PORTLAND "TECHNICAL MANUAL"

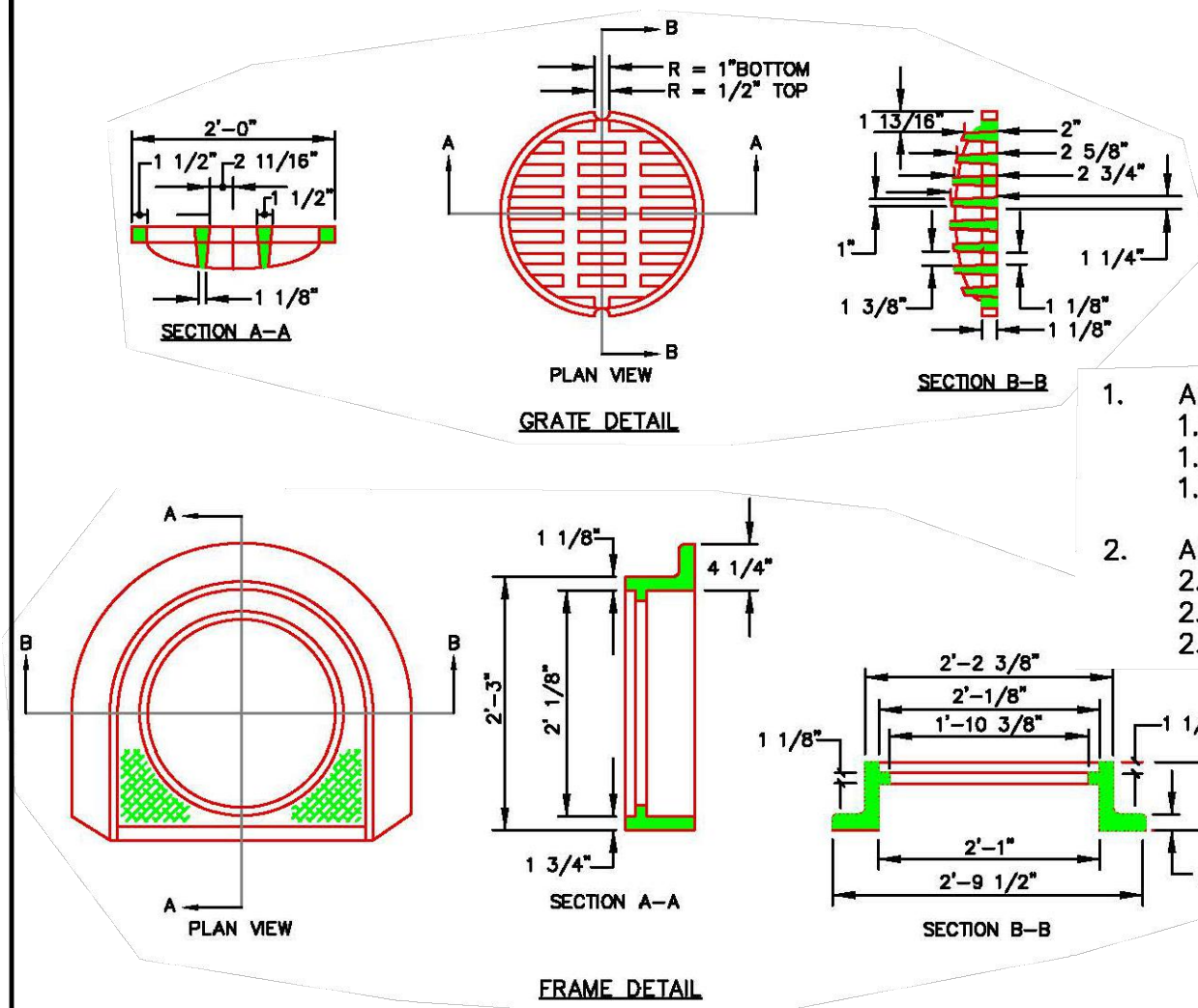


B WATER SERVICE TRENCH DETAIL
N.T.S.



C PRECAST CONCRETE CATCH BASIN - TYPE 'E'
N.T.S.

AS OBTAINED FROM THE CITY OF PORTLAND "TECHNICAL MANUAL"



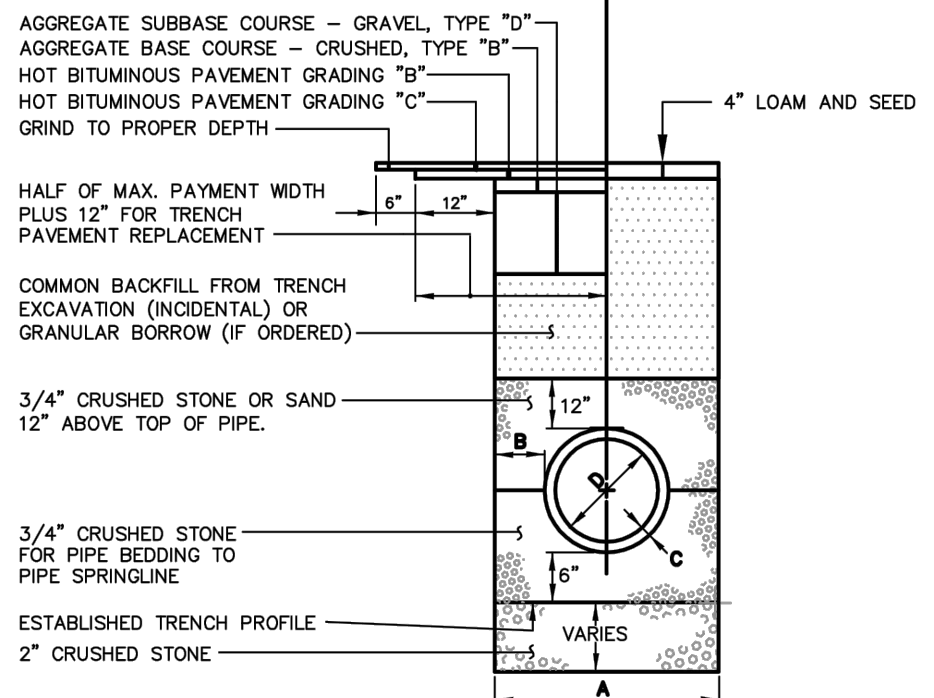
D CATCH BASIN FRAME AND GRATE
N.T.S.

AS OBTAINED FROM THE CITY OF PORTLAND "TECHNICAL MANUAL"

- NOTES:
1. ALTERNATIVE CONSTRUCTION METHODS OR PAYMENT METHODS SHALL BE APPROVED IN ADVANCE BY THE CITY.
 2. IN PAVED AREAS, DEPTHS OF GRAVEL AND HOT MIX ASPHALT PAVEMENT SHALL MATCH THE GREATER OF EXISTING CONDITIONS OR THE REQUIREMENTS FOR THE CORRESPONDING STREET CLASSIFICATION.
 3. 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".
 4. 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 FOLLOWING TABLE.

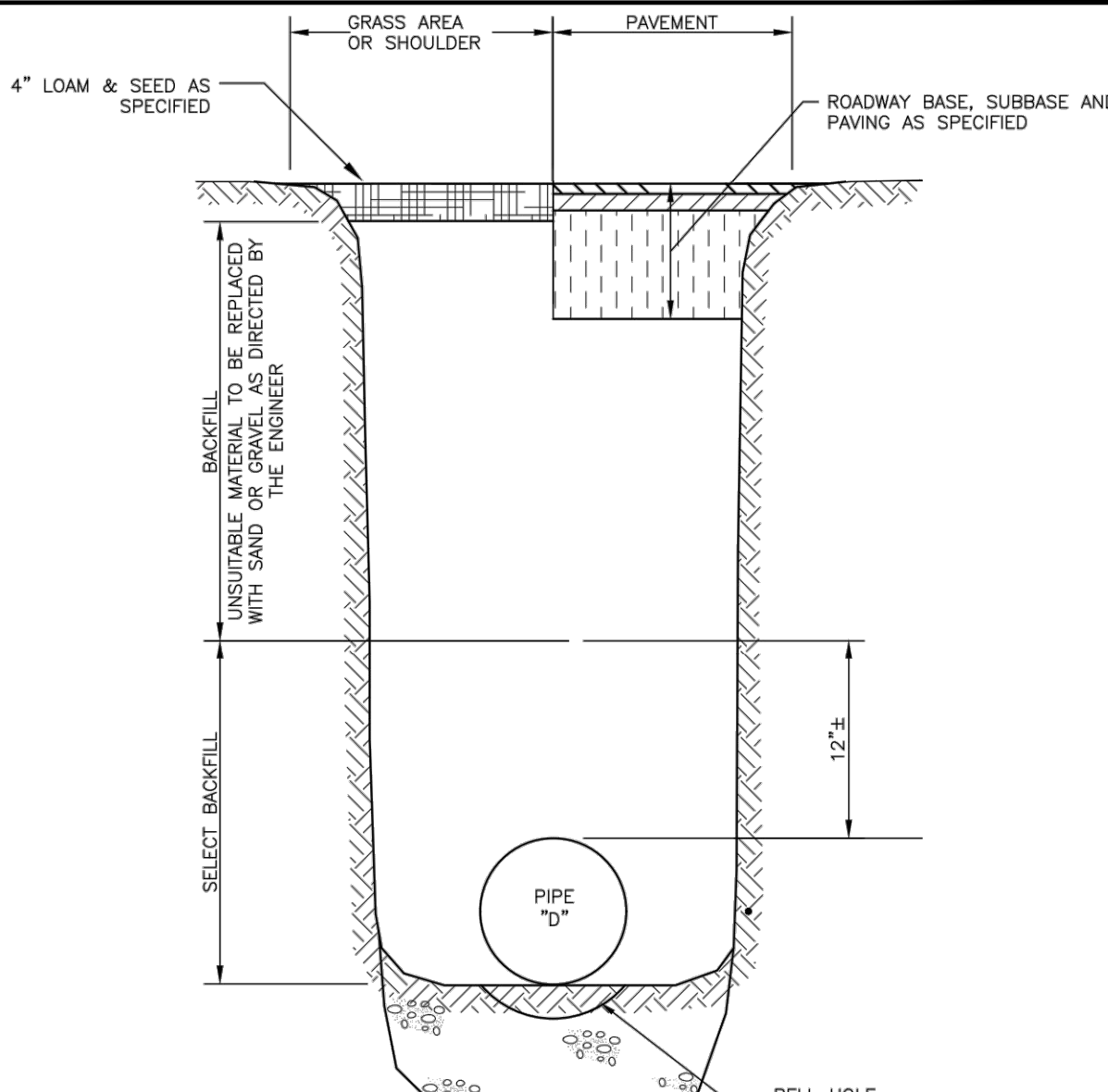
PIPE DIAMETER, D (INCHES)	MAX. TRENCH WIDTH, A (FEET)
4	4.0
6	4.0
8	4.0
10	4.0
12	4.0
15	5.0
18	5.0
21	5.0
24	6.0
27	6.0
30	6.0
36	7.0
42	7.0
48	7.0

NOTES:
DEPTH OF BITUMINOUS PAVEMENT AND AGGREGATE COURSES SHALL BE DETERMINED BY STREET CLASSIFICATION.
ANY ALTERNATE TRENCHING OR PAYMENT METHODS SHALL BE APPROVED IN ADVANCE BY THE CITY OF PORTLAND, DEPARTMENT OF PUBLIC SERVICES.

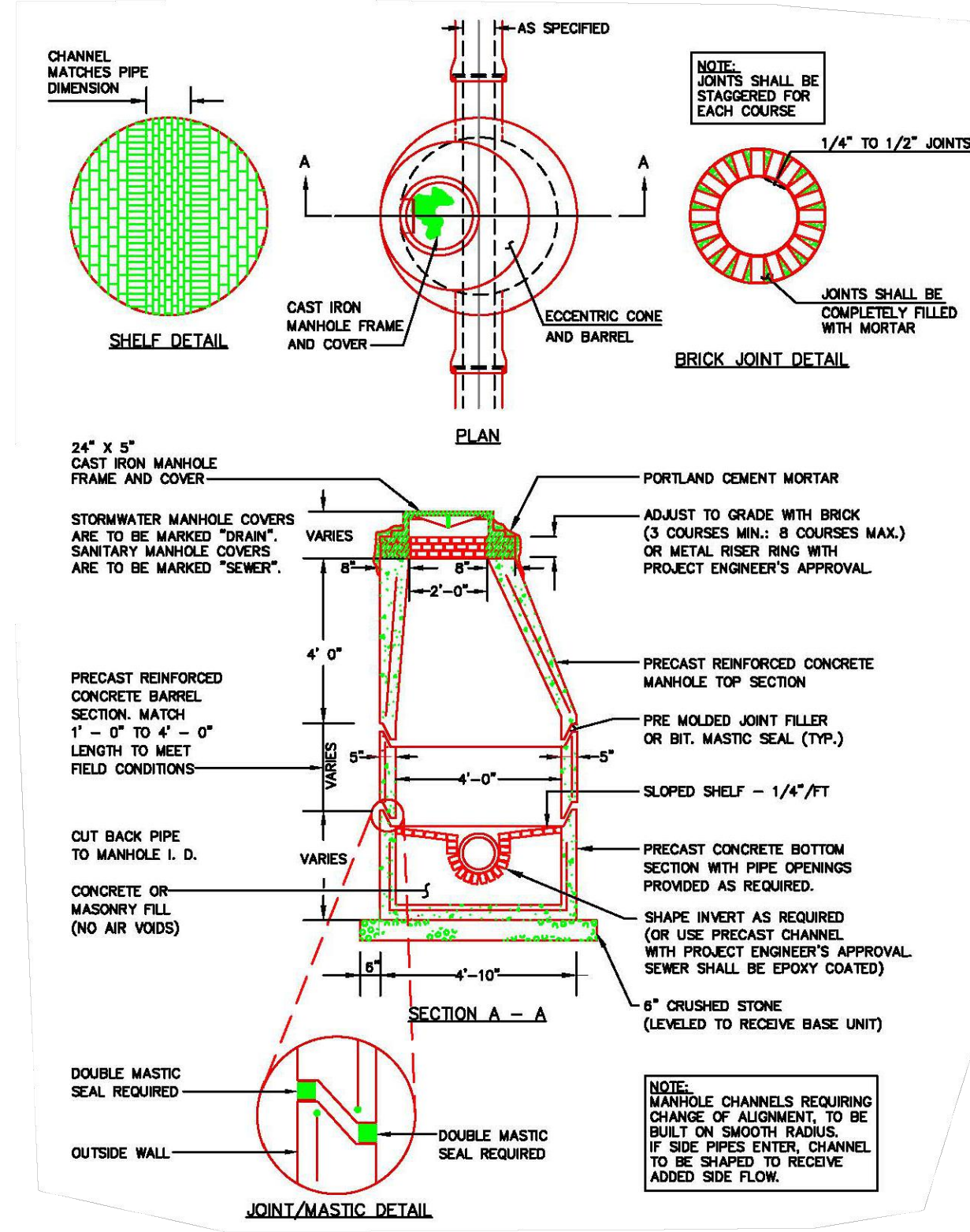


D TYPICAL PIPE TRENCH INSTALLATION AND NOTES
N.T.S.

AS OBTAINED FROM THE CITY OF PORTLAND "TECHNICAL MANUAL"

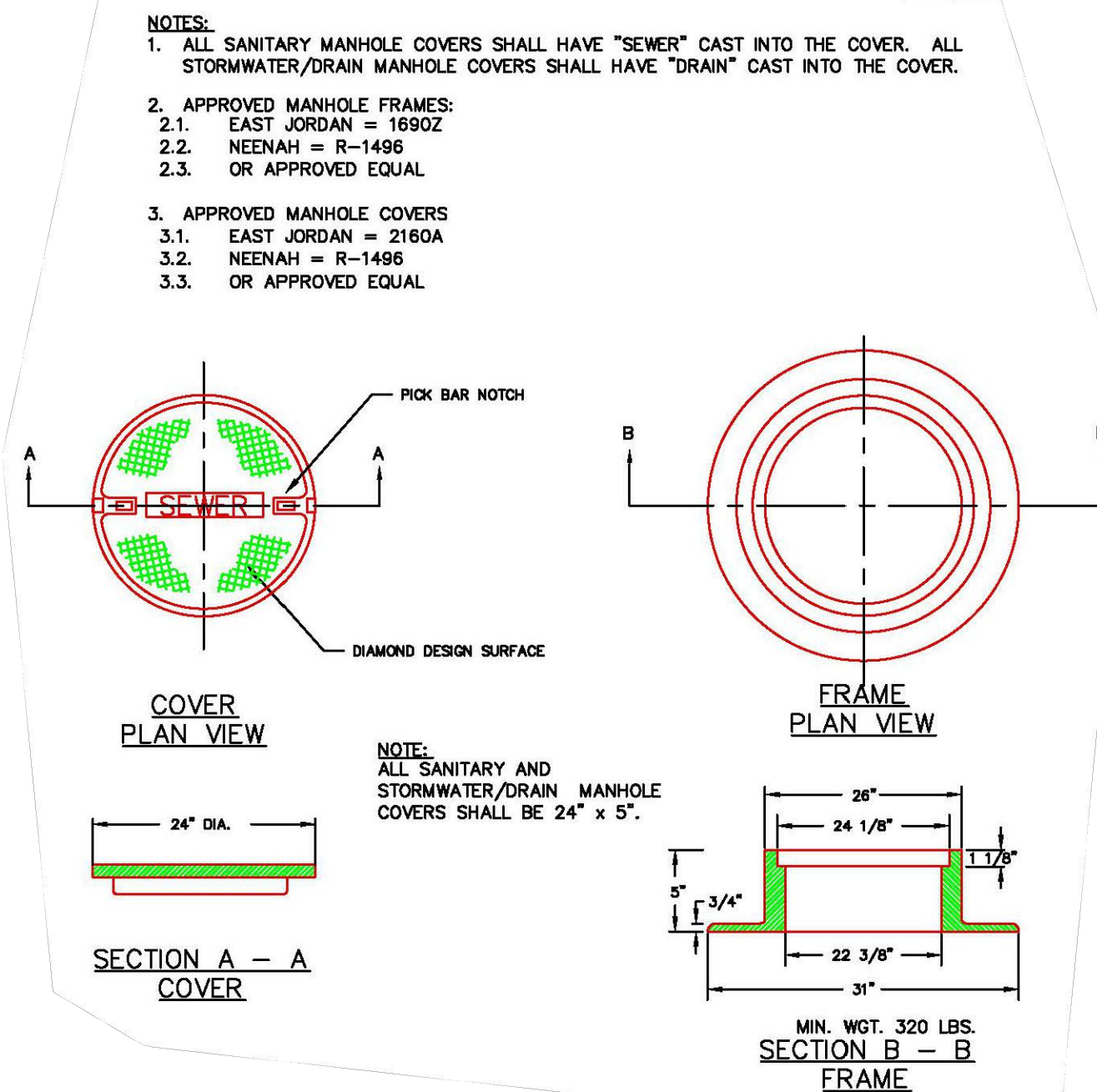


F TYPICAL WATER TRENCH DETAIL
N.T.S.



G PRECAST CONCRETE MANHOLE
N.T.S.

AS OBTAINED FROM THE CITY OF PORTLAND "TECHNICAL MANUAL"



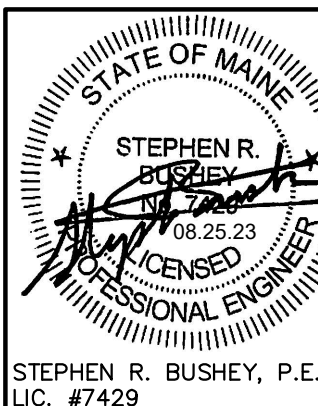
H CAST IRON MANHOLE COVER AND FRAME
N.T.S.

AS OBTAINED FROM THE CITY OF PORTLAND "TECHNICAL MANUAL"

1. ALL CONCRETE SHALL HAVE A MINIMUM ULTIMATE COMPRESSIVE STRENGTH OF 4000 LBS. PER SQ. INCH AT THE END OF 28 DAYS, UNLESS OTHERWISE NOTED.
2. MANHOLES MAY BE CONSTRUCTED OF PRECAST REINFORCED CONCRETE, OR CAST IN PLACE.
3. PRECAST REINFORCED CONE BARREL MANUFACTURED PER ASTM SPEC. C-178.
4. ALL PIPES ENTERING MANHOLES AND CATCH BASINS SHALL HAVE FLEXIBLE PIPE CONNECTIONS WITH STAINLESS STEEL BANDS, FILL ANY ANNUAL SPACE WITH NON SHRINK GROUT.
5. ALL STORM AND SEWER MANHOLE COVERS SHALL BE SOLID.
6. ALL SANITARY MANHOLE COVERS SHALL HAVE "SEWER" CAST INTO THE COVER. ALL STORMWATER/DRAIN MANHOLE COVERS SHALL HAVE "DRAIN" CAST INTO THE COVER.
7. SEWER BRICK SHALL CONFORM TO ASTM SPEC. DESIGNATE ON C-32-63, GRADE MA AND SA.
8. INVERTS SHALL BE BUILT TO THE HEIGHT OF THE FOLLOWING AS DETERMINED BY THE LARGEST PIPE SIZE.
8.1. FOR PIPE SIZES 4"-12" INVERTS SHALL GO TO THE TOP OF THE PIPE.
8.2. FOR PIPE SIZES 15"-36" INVERTS SHALL GO TO THE SPRING LINE.
8.3. FOR PIPE SIZES 42"-60" INVERTS SHALL GO TO THE 1/3 OF PIPE SIZE
9. ALL SANITARY MANHOLES SHALL HAVE A WATERPROOFING COATING APPLIED TO THE EXTERIOR SURFACE.
10. CASTINGS SHALL CONFORM TO ASTM DESIGNATION A48-CLASS 35.
11. EXISTING MANHOLES, CATCH BASINS, FRAMES, AND COVERS SHALL BE SALVAGED BY THE CONTRACTOR, AND SHALL REMAIN THE PROPERTY OF THE CITY OF PORTLAND.
12. ALL CATCH BASIN OUTLETS SHALL BE INSTALLED WITH A HOOD / CASCO TRAP. SEE FIGURE II-09.
13. ALL MANHOLES AND CATCH BASINS REQUIRE BUOYANCY CALCULATIONS AND THE STRUCTURES SHALL BE MODIFIED AS NECESSARY BASED ON THOSE CALCULATIONS.

GENERAL NOTES FOR MANHOLES AND CATCH BASINS

NOTE: THIS PLAN SET IS ISSUED FOR PERMITTING PURPOSES & SHALL NOT BE USED FOR CONSTRUCTION.



Design: SRB	Draft: CDD	Date: JAN. 2022
Checked: SRB	Scale: AS NOTED	Job No.: 3924
File Name: 3924-DETAILS.dwg		
This plan shall not be modified without written permission from Gorriil Palmer. Any alterations, authorized or otherwise, shall be at the user's sole risk and without liability to Gorriil Palmer.		

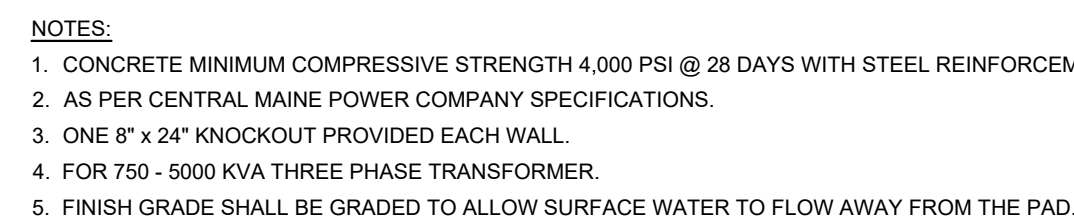
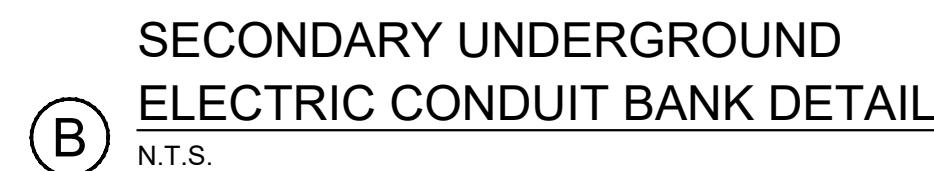


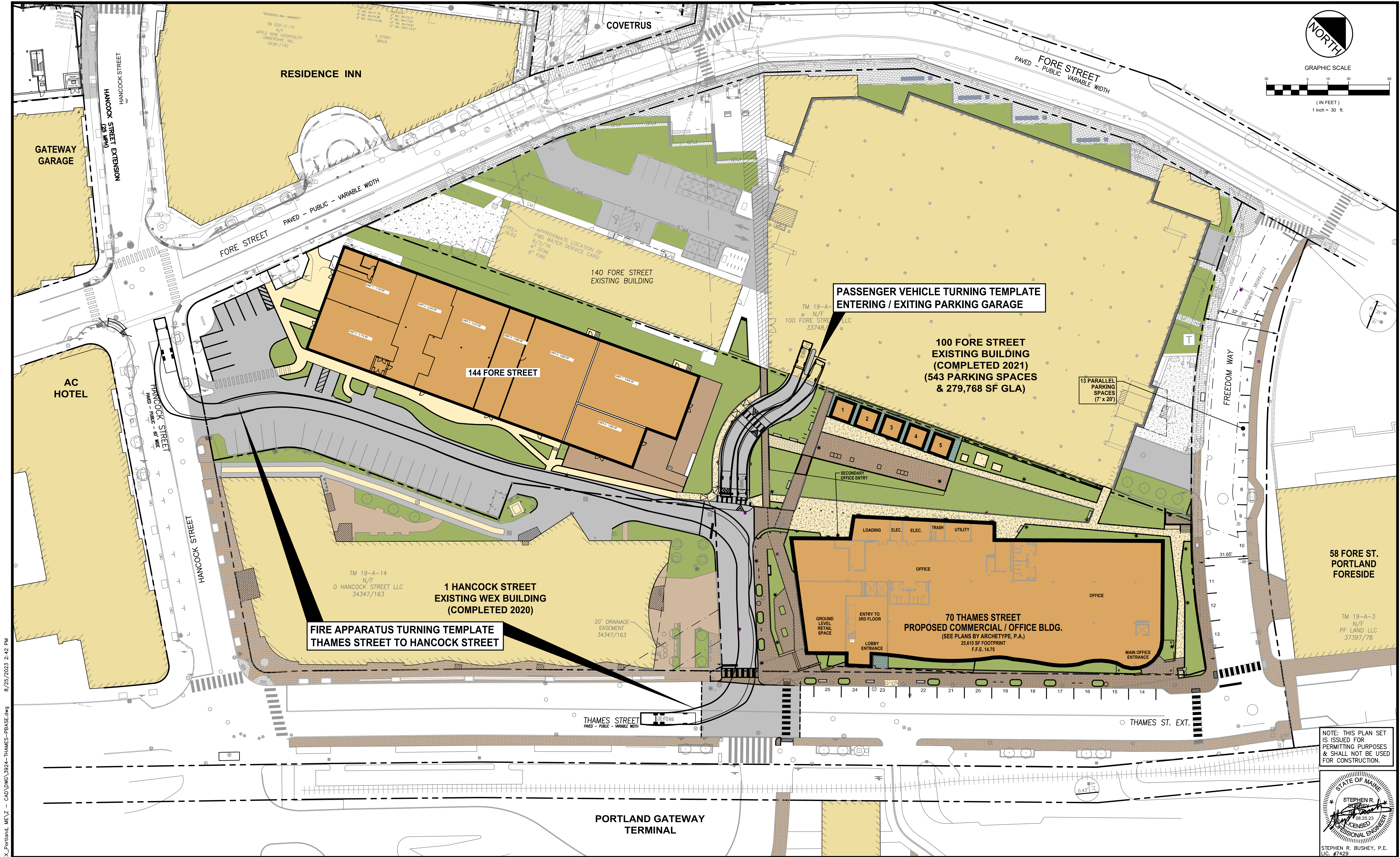
Relationships. Responsiveness. Results.
www.gorriilpalmer.com
207.772.2515
300 Southborough Drive - Suite 200
South Portland, ME 04106

Drawing Name:	STORM DRAIN & UTILITY DETAILS
Project:	Commercial Office Building — 70 Thames Street 70 Thames Street, Portland, Maine
Client:	144 Fore Street, OZ, LLC PO Box 910, Westbrook, Maine 04098-0910

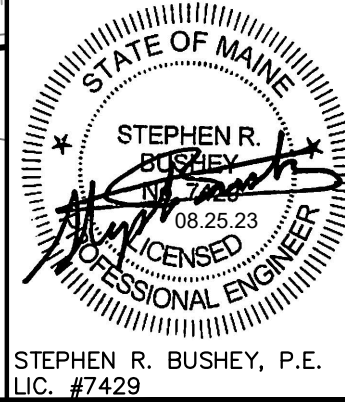
Drawing No.

C-6.3

C-6.4



NOTE: THIS PLAN SET IS ISSUED FOR PERMITTING PURPOSES & SHALL NOT BE USED FOR CONSTRUCTION.



U:\3924_Thames Street-WEX_Portland, ME\Z - CAD\DWG\3924-THAMES-PBASE.dwg 8/25/2023 2:42 PM

Rev.	Date	Revision

Rev.	Date	Revision
3	2023.08.25	FINAL PLAN SUBMISSION TO CITY - REVISED PER STAFF COMMENTS
2	2023.07.21	FINAL PLAN SUBMISSION TO CITY
1	2023.03.24	MAJOR SITE PLAN APPLICATION TO CITY

Design: SRB	Draft: CDD	Date: JAN. 2022
Checked: SRB	Scale: AS NOTED	Job No.: 3924
File Name: 3924-THAMES-PBASE.dwg		
This plan shall not be modified without written permission from Gorrill Palmer. Any alterations, authorized or otherwise, shall be at the user's sole risk and without liability to Gorrill Palmer.		

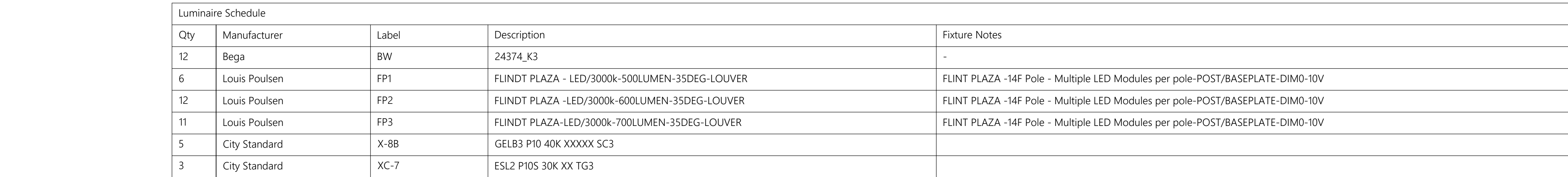


Relationships. Responsiveness. Results.
www.gorrillpalmer.com
207.772.2515
300 Southborough Drive - Suite 200
South Portland, ME 04106

Drawing Name:	VEHICLE TURNING TEMPLATE PLANS
Project:	Commercial Office Building - 70 Thames Street 70 Thames Street, Portland, Maine
Client:	144 Fore Street, OZ, LLC PO Box 910, Westbrook, Maine 04098-0910

Drawing No.
C-7.0

1. ANY DISCREPANCIES BETWEEN DRAWINGS, DETAILS, NOTES AND SPECIFICATIONS SHALL BE IMMEDIATELY REPORTED TO THE LANDSCAPE ARCHITECT FOR FURTHER DIRECTION AND RESOLUTION BEFORE ADDITIONAL WORK PROCEEDS.
2. CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND GRADES ON THE GROUND. ANY DISCREPANCIES SHALL BE REPORTED IMMEDIATELY TO THE LANDSCAPE ARCHITECT FOR DIRECTION AND RESOLUTION PRIOR TO ANY FURTHER WORK.
3. CONTRACTOR SHALL FIELD VERIFY LOCATION AND DEPTH OF ALL EXISTING UTILITIES WITH THE APPROPRIATE UTILITY COMPANIES PRIOR TO EXCAVATION OR INSTALLATION OF ANY PART OF THIS WORK. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING COMPLETE. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANY AT LEAST 48 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATIONS OF UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS.
4. CONTRACTOR SHALL NOTIFY DIG SAFE (1-888-344-7233) PRIOR TO EXCAVATION.
5. CONTRACTOR SHALL AVOID ALL AREAS NOT REQUIRING GRADING. CONTRACTOR SHALL NOT DISTURB THESE AREAS AND SHALL PRESERVE EXISTING VEGETATION.
6. CONTRACTOR SHALL LOAM AND SEED ALL GRADED AND DISTURBED AREAS NOT OTHERWISE IMPROVED.
7. ALL WORK ASSOCIATED WITH THE PROPOSED WATER SERVICE MUST ADHERE TO CITY OF PORTLAND WATER DISTRICT STANDARDS. ALL WORK ASSOCIATED WITH THE PROPOSED SANITARY SEWER LINE MUST ADHERE TO THE CITY OF PORTLAND DEPARTMENT OF WASTEWATER CONTROL STANDARDS.
8. THE CONTRACTOR SHALL BE HELD SOLELY RESPONSIBLE FOR UNDERTAKING THE WORK IN A SAFE AND EFFICIENT MANNER. IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL SAFETY REGULATIONS, ALL WORK AREAS SHALL BE DELINEATED CLEARLY AND FENCED AS APPROPRIATE TO PREVENT UNAUTHORIZED ACCESS. THE SITE SHALL BE LEFT IN A SAFE, ORDERLY AND TIDY MANNER AT THE END OF EACH WORK DAY.
9. THE CONTRACTOR SHALL PROVIDE ALL MATERIALS AND PERFORM ALL WORK NECESSARY TO REGULATE TRAFFIC IN THE AREA OF THE SITE, AND SHALL BE RESPONSIBLE FOR MAINTAINING ACCESS TO AND FROM PUBLIC AND PRIVATE PROPERTIES AND RIGHTS OF WAY DURING CONSTRUCTION.
10. CONTRACTOR SHALL REMOVE AND REPLANT PIN OAK TREES ON THAMES STREET IN ACCORDANCE WITH THE CITY OF PORTLAND FORESTRY STANDARDS. SEE PLANTING PLAN FOR RELOCATION AREA.



L1







GENERAL PLANT NOTES

1. CALL DIG-SAFE (1-888-344-7233) PRIOR TO BEGINNING WORK. THE LANDSCAPE CONTRACTOR IS ADVISED OF THE PRESENCE OF UNDERGROUND UTILITIES AND SHALL VERIFY THE EXISTENCE AND LOCATION OF SAME BEFORE COMMENCING AND DIGGING OPERATIONS. THE LANDSCAPE CONTRACTOR SHALL REPLACE OR REPAIR UTILITIES PAVING, WALKS, CURBING, ETC. DAMAGED IN PERFORMANCE OF THIS JOB AT NO ADDITIONAL COST TO OWNER.
2. CONTRACTOR SHALL THOROUGHLY FAMILIARIZE HIMSELF WITH ALL SITE CONDITIONS PRIOR TO CONSTRUCTION BIDDING.
3. DO NOT SCALE FROM DRAWINGS, ANY OMISSIONS IN DIMENSIONING SHALL BE REPORTED IMMEDIATELY TO THE LANDSCAPE ARCHITECT. ANY DISCREPANCIES BETWEEN DRAWINGS, DETAILS, NOTES AND SPECS SHALL BE IMMEDIATELY REPORTED TO THE LANDSCAPE ARCHITECT FOR FURTHER DIRECTION AND RESOLUTION BEFORE ANY ADDITIONAL WORK PROCEEDS.
4. PROVIDE SMOOTH TRANSITION WHERE NEW WORK MEETS EXISTING CONDITIONS.
5. CONTRACTOR SHALL FURNISH AND PLACE 18 INCHES OF LOAM IN ALL SHRUB BEDS, 30 INCHES IN ALL TREE PITS, AND 6 INCHES UNDER ALL TURF AREAS. THE LANDSCAPE CONTRACTOR SHALL COORDINATE SUBGRADE PREPARATION WITH THE GENERAL CONTRACTOR PRIOR TO PLACING LOAM.
6. ALL PLANT MATERIAL INSTALLED SHALL MEET THE SPECIFICATIONS OF "AMERICAN STANDARDS FOR NURSERY STOCK BY THE AMERICAN ASSOCIATION OF NURSERYMEN" LATEST EDITION.
7. ALL PLANT MATERIAL SHALL BE FREE FROM INSECTS AND DISEASE.
8. ALL PLANTING SHALL BE DONE IN ACCORDANCE WITH ACCEPTABLE HORTICULTURAL PRACTICES. THIS IS TO INCLUDE PROPER PLANTING MIX, PLANT BED AND TREE PIT PREPARATION, PRUNING, STAKING OR GUYING, WRAPPING, SPRAYING, FERTILIZATION, PLANTING AND ADEQUATE MAINTENANCE UNTIL ACCEPTANCE FROM THE OWNER.
9. ALL GRASS, OTHER VEGETATION AND DEBRIS SHALL BE REMOVED FROM ALL PLANTING AREAS PRIOR TO PLANTING.
10. EXISTING TREES TO BE PRESERVED SHALL BE PROTECTED DURING CONSTRUCTION AND SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR.
11. ALL SHRUB BEDS AND TREE PITS SHALL BE MULCHED WITH 3" CLEAN SHREDDED BLACK MULCH (DO NOT EXCEED 3" DEPTH).
12. ANY DEVIATION FROM THE LANDSCAPE PLAN, INCLUDING PLANT LOCATION, SELECTION, SIZE, QUANTITY, OR CONDITION SHALL BE REVIEWED AND APPROVED BY THE OWNER AND LANDSCAPE ARCHITECT PRIOR TO INSTALLATION ON SITE.
13. WHERE INDICATED ON PLAN, PLANTING SOIL MIXTURE FOR GROUND COVER AND PERENNIAL BED AREAS SHALL CONSIST OF FOUR PARTS TOPSOIL, TWO PARTS SPHAGNUM PEAT MOSS, AND ONE PART HORTICULTURAL PERLITE BY VOLUME. PEAT MOSS MAY BE SUBSTITUTED WITH WELL-ROTTED OR DEHYDRATED MANURE OR COMPOST. ROTOTILL BEDS TO A DEPTH OF 8 INCHES.
14. DAMAGE TO EXISTING SITE IMPROVEMENTS DURING INSTALLATION OF LANDSCAPE MATERIAL SHALL BE THE RESPONSIBILITY OF THE LANDSCAPE CONTRACTOR.
15. PROVIDE SLOW-RELEASE WATER BAGS ON ALL NEW TREE PLANTINGS AT THE TIME OF PLANTING, WATER ALL TREES TWICE A WEEK IN THE SPRING, SUMMER AND FALL OF FIRST YEAR OF PLANTINGS.
16. LANDSCAPE ARCHITECT SHALL BE CONTACTED BY THE LANDSCAPE CONTRACTOR PRIOR TO PLANTING OF TREES AND SHRUBS TO CONDUCT A SITE VISIT TO INSPECT THE PLANT MATERIAL.
17. MAINTAIN 4 FT CLEAR MOW STRIP AT EDGE OF PAVEMENT - WHEN PLANTING, OFFSET 4 FT MINIMUM BETWEEN ANTICIPATED MATURE SIZE OF SHRUB OR TREE SPECIES AND PAVEMENT EDGE.

PLANT LIST

TREES					
CODE	BOTANICAL NAME	COMMON NAME	QTY.	SIZE	SPACING
AA	<i>Amelanchier alnifolia</i> 'Obelisk'	Standing Ovation Serviceberry	7	6-8'	as shown
BN	<i>Betula nigra</i> 'Heritage'/'Cully'	River Birch 'Heritage'/'Cully'	3	2.5-3' cal	as shown
OT	<i>Gleditsia tricanthos</i> var. <i>inermis</i>	Street keeper Honey Locust	5	2.5-3' cal	
LT	<i>Liriodendron tulipifera</i> 'Arnold'	Columnar Tulip Tree	9	1-7.5' cal	(i)Existing BMP tree replacement
QP	<i>Quercus paubstris</i>	Pin Oak	4	2.5-3' cal	as shown
NS	<i>Nyssa sylvatica</i>	Black Tupelo	4	2.5-3' cal	as shown

SHRUBS - Large					
BOTANICAL NAME	COMMON NAME	QTY.	SIZE	SPACING	NOTES
CS	<i>Cornus sericea</i> 'Arctic Fire'	Red Twig Dogwood 'Arctic Fire'	4	2.5-3' H	42" OC
HV	<i>Hammamelis virginiana</i>	Common Witchazel	1	4-5' H	as shown
IO	<i>Ilex glabra</i>	Inkberry	12	4-5' H	
JV	<i>Juniperus virginiana</i> 'Globosa'	Juniper	3	2.5-3' H	
JT	<i>Juniperus virginiana</i> 'Taylor'	Taylor Juniper	15	4-4.5' H	
MC	<i>Morella carolinensis</i>	Small Bayberry	12	18"-2' H	as shown
MP	<i>Myrica pensylvanica</i>	Northern Bayberry	5	4' H	48" OC
PM	<i>Prunus maritima</i>	Beach Plum	5	4'-4.5' H	as shown
VA	<i>Viburnum acerifolium</i>	Mapleleaf Viburnum	7	2.5-3' H	48" OC
VN	<i>Viburnum nudum</i>	Smooth Withered	6	3-3.5' H	72" OC

PLANT MIX A: Coastal Meadow (1,639 SF)					
BOTANICAL NAME	COMMON NAME	QTY.	SIZE	SPACING	NOTES
CA	<i>Ceanothus americanus</i>	New Jersey Tea	30	#2 CONT.	24" OC
RH	<i>Rudbeckia hirta</i>	Black-eyed Susan	126	plug	15" OC
SS	<i>Schizachryum scoparium</i>	Little Bluestem	800	#2 CONT.	15" OC
SO	<i>Symphoricarum oblongifolium</i>	Aromatic Aster	126	plug	15" OC
PA	<i>Pterosida atriplicifolia</i>	Russian sage	100	#2 CONT.	24" OC

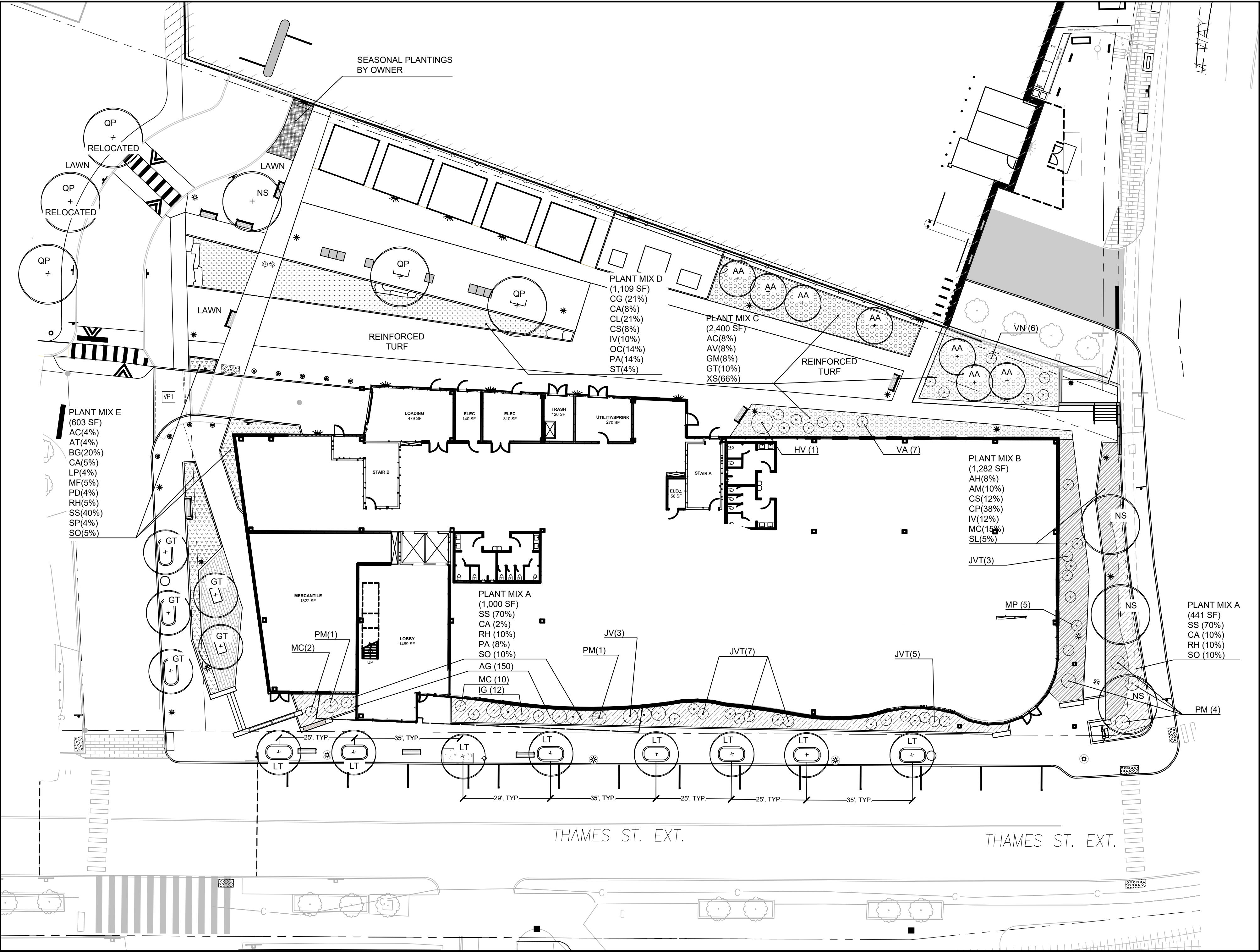
PLANT MIX B: Shrub Mosaic (1,282 SF)					
BOTANICAL NAME	COMMON NAME	QTY.	SIZE	SPACING	NOTES
AH	<i>Anemone huibrenii</i>	Hubert's Blue Star	14	#2 CONT.	30" OC
AM	<i>Aronia melanocarpa</i> 'Low Scape Hedge'	Black Chokeberry 'Low Scape Hedge'	4	12-18" H	36" OC
CS	<i>Cornus sericea</i> 'Arctic Fire'	Red Twig Dogwood 'Arctic Fire'	4	12-18" H	48" OC
CP	<i>Comptonia peregrina</i>	Sweetfern	75	12-18" H	30" OC
IVR	<i>Ilex verticillata</i> 'Red Sprite'	Winterberry 'Red Sprite'	12	12-18" H	36" OC
JVR	<i>Ilex verticillata</i> 'Jim Dandy'	Winterberry 'Jim Dandy'	2	12-18" H	36" OC
MC	<i>Morella carolinensis</i>	Small Bayberry	27	12-18" H	30" OC
SL	<i>Symphoricarum laeve</i>	Smooth Blue Aster	14	12-18" H	24" OC

PLANT MIX C: Groundcovers (2,400 SF)					
BOTANICAL NAME	COMMON NAME	QTY.	SIZE	SPACING	NOTES
AV	<i>Arenaria virginiana</i>	Tall Thimbleweed	161	plug	15" OC
AC	<i>Aster cordifolius</i>	Blue Woodland Aster	161	plug	15" OC
GM	<i>Geranium maculatum</i>	Wild Geranium	161	plug	15" OC
GT	<i>Gillenia trifoliata</i>	Boman's Root	85	#1 CONT.	24" OC
XS	<i>Xanthorhiza simplissima</i>	Yellowroot	120	#1 CONT.	36" OC

PLANT MIX D: Bioswale (1,109 SF)					
BOTANICAL NAME	COMMON NAME	QTY.	SIZE	SPACING	NOTES
CG	<i>Carex gracilis</i>	Gray's Sedge	200	plug	12" OC
CA	<i>Clethra alnifolia</i> 'Sugarina'	Summersweet 'Sugarina'	8	#1 CONT.	36" OC
CL	<i>Chamaenidium latifolium</i>	Northern Sea Oats	294		
CS	<i>Cornus sericea</i> 'Kelsey'	Red Twig Dogwood 'Kelsey'	8	#1 CONT.	36" OC
IV	<i>Iris versicolor</i>	Blue Flag	68	plug	15" OC
OC	<i>Osmundastrum cinnamomea</i>	Cinnamon Fern	33	plug	24" OC
PA	<i>Pachysandra</i>	Golden Groundsel	94	plug	15" OC
ST	<i>Spiraea tomentosa</i>	Rosy Meadowsweet	68	plug	18" OC

PLANT MIX E: Meadow Garden (603 SF)					
BOTANICAL NAME	COMMON NAME	QTY.	SIZE	SPACING	NOTES
AC	<i>Allium cernuum</i>	Nodding Onion	8	#1 CONT.	15" OC
AT	<i>Asclepias tuberosa</i>	Butterflyweed	8	#1 CONT.	15" OC
BG	<i>Bouteloua gracilis</i>	Mosquito Grass	75	plug	15" OC
CA	<i>Ceanothus americanus</i>	New Jersey Tea	3	#1 CONT.	24" OC
LP	<i>Lupinus perennis</i>	Sundial Lupine	8	#1 CONT.	15" OC
MF	<i>Monarda fistulosa</i>	Beebalm	14	#1 CONT.	15" OC
PD	<i>Pensstemon digitalis</i>	Foxglove Beardtongue	8	#1 CONT.	15" OC
RH	<i>Rudbeckia hirta</i>	Black-eyed Susan	14	plug	15" OC
SS	<i>Schizachryum scoparium</i>	Little Bluestem	150	plug	15" OC
SP	<i>Solidago pubescens</i>	Downy Goldenrod	8	#1 CONT.	15" OC
SA	<i>Symphoricarum oblongifolium</i>	Aromatic Aster	14	plug	15" OC

Bulbs					
BOTANICAL NAME	COMMON NAME	QTY.	SIZE	SPACING	NOTES
AG	<i>Allium gladiator</i>	Gladiator Allium	150	bulb	random



Prepared For:
144 FORE STREET, OZ, LLC
PO BOX 910
Westbrook, Me 04098-0910

Prepared By:
Mitchell & Associates
LANDSCAPE ARCHITECTS
70 Center Street
Portland, Maine 04101
P: 207.774.4427

THAMES STREET
Portland, Maine
Thames Street

Date:
MARCH 13, 2023

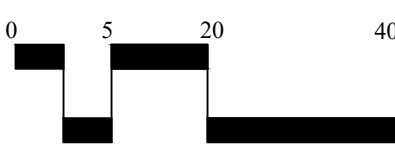
Issued For:
PERMITTING

Revisions:
COMMENT RESPONSE 08.24.2023

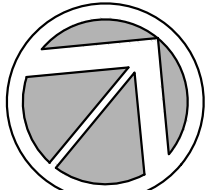
Reproduction or reuse of this document without the expressed written consent of Mitchell & Associates is prohibited.
© 2023

Title: PLANTING PLAN

Scale: 1" = 20'-0"

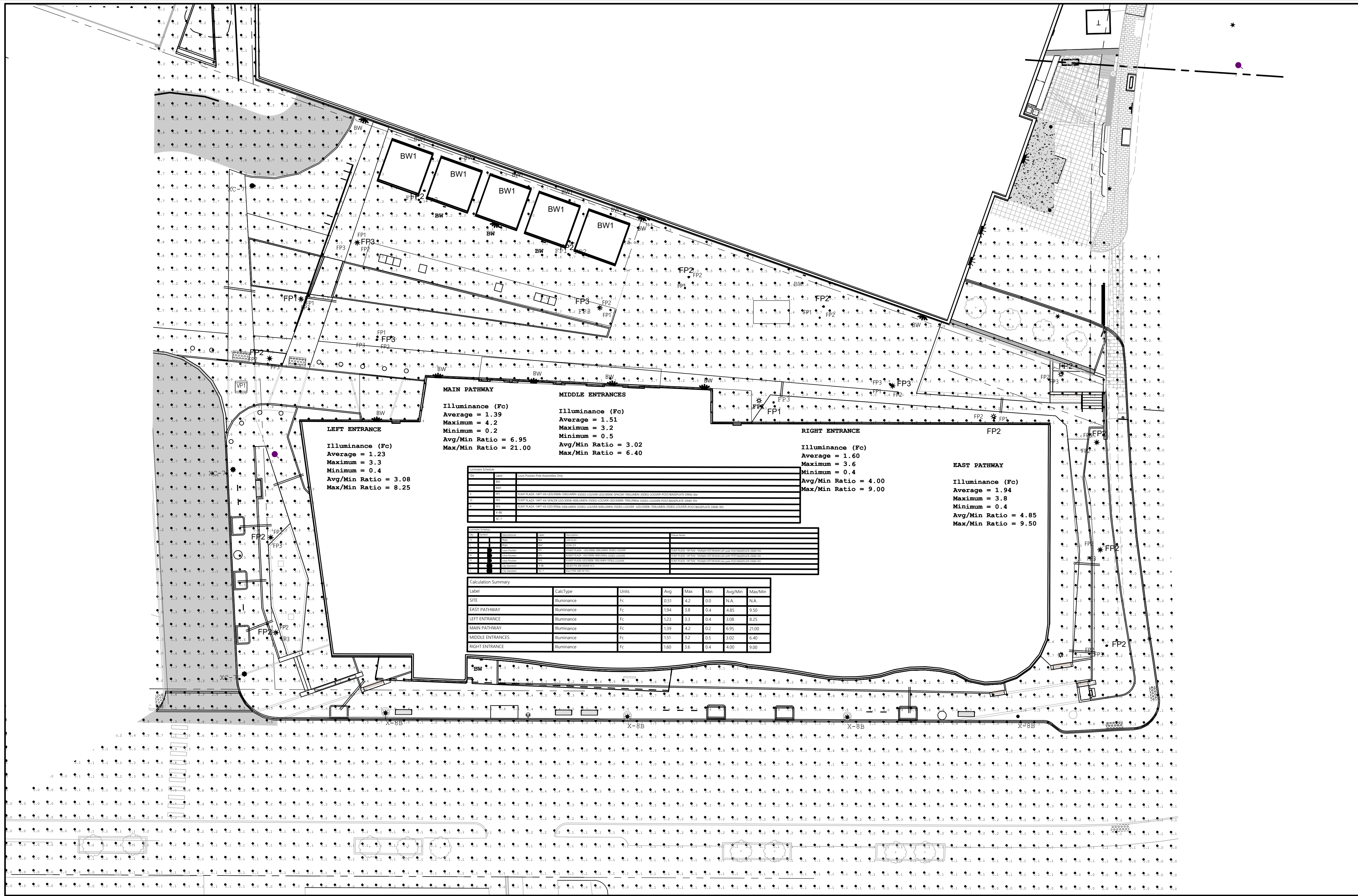
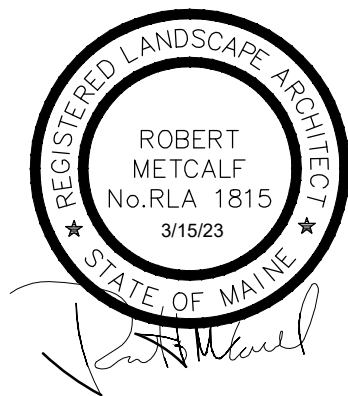


North:



Sheet No.:

L2



Luminaire Schedule					
Qty	Manufacturer		Label	Description	Fixture Notes
13	Bega		BW	24374_K3	-
5	Bega		BW1	22261_K3	-
11	Louis Poulsen		FP1	FLINDT PLAZA - LED/3000k-500LUMEN-35DEG-LOUVER	FLINT PLAZA -14F Pole - Multiple LED Modules per pole-POST/BASEPLATE-DIM0-10V
16	Louis Poulsen		FP2	FLINDT PLAZA -LED/3000k-600LUMEN-35DEG-LOUVER	FLINT PLAZA -14F Pole - Multiple LED Modules per pole-POST/BASEPLATE-DIM0-10V
13	Louis Poulsen		FP3	FLINDT PLAZA-LED/3000k-700LUMEN-35DEG-LOUVER	FLINT PLAZA -14F Pole - Multiple LED Modules per pole-POST/BASEPLATE-DIM0-10V
5	City Standard		X-8B (TO REMAIN)	GELB3 P10 40K XXXXX SC3	
3	City Standard		XC-7	ESL2 P10S 30K XX TG3	

Prepared For:
144 FORE STREET, OZ, LLC
PO BOX 910
Westbrook, Me 04098-0910

Prepared By:
Mitchell & Associates
LANDSCAPE ARCHITECTS
70 Center Street
Portland, Maine 04101
P. 207.774.4427

THAMES STREET

Portland, Maine

Thames Street

Date:
MARCH 13, 2023

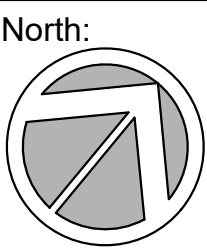
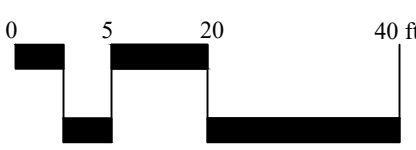
Issued For:
PERMITTING

Revisions:

Reproduction or reuse of this document without the expressed written consent of Mitchell & Associates is prohibited.
© 2023

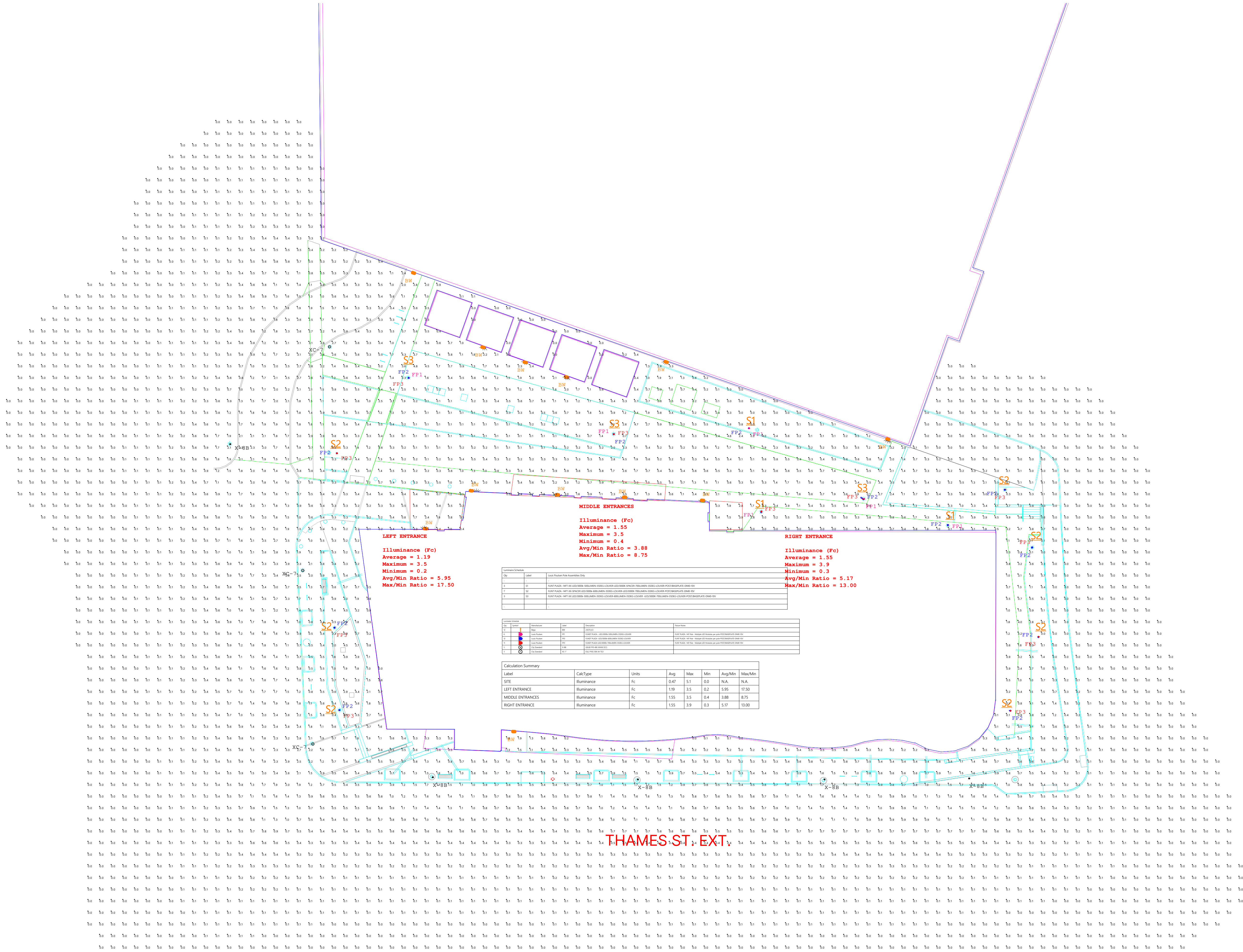
Title: PHOTOMETRIC PLAN

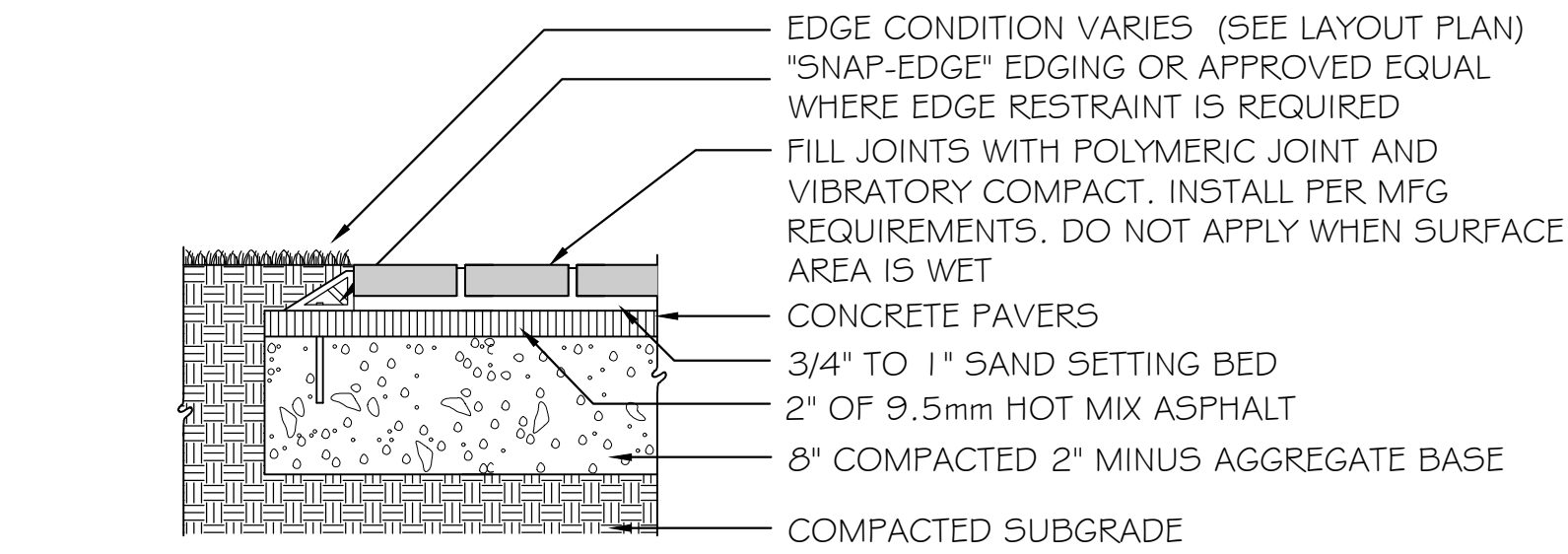
Scale: 1" = 20'-0"



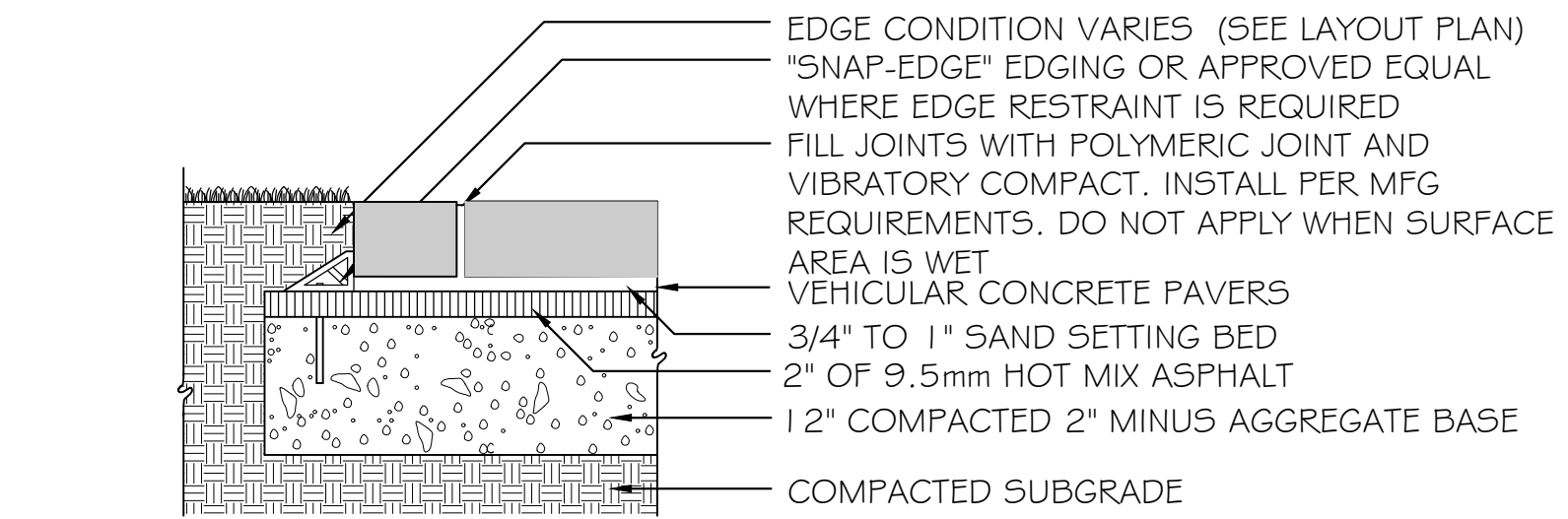
Sheet No.:
L3

#	Date	Comments
Revisions		

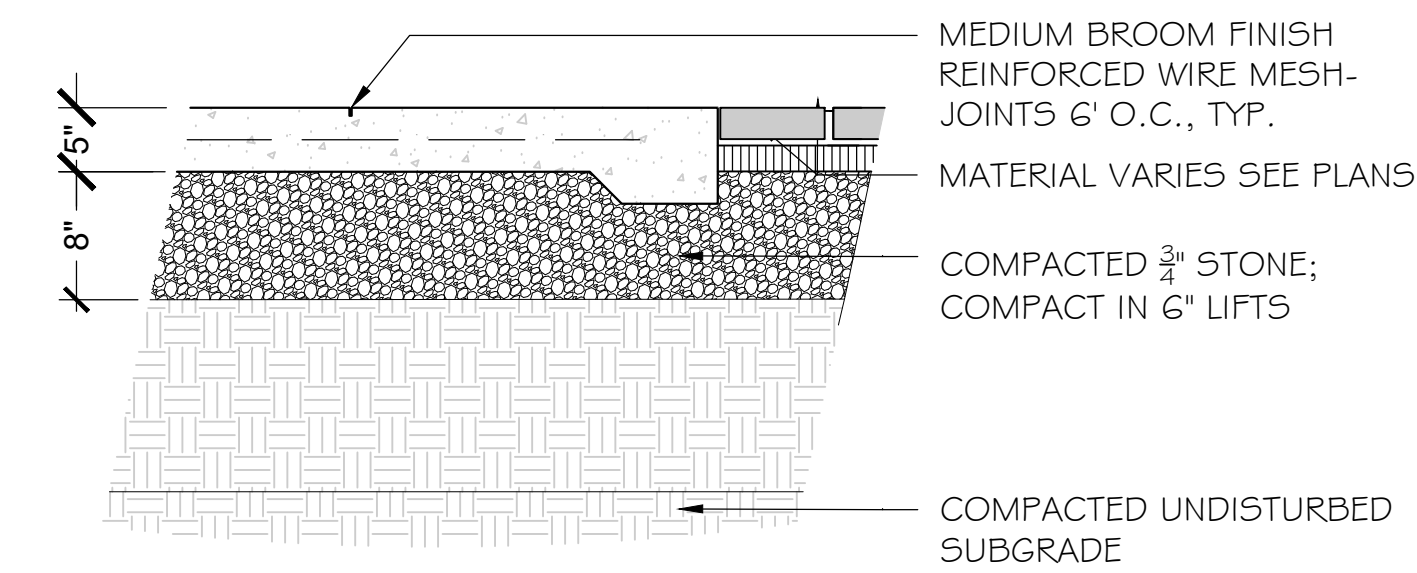




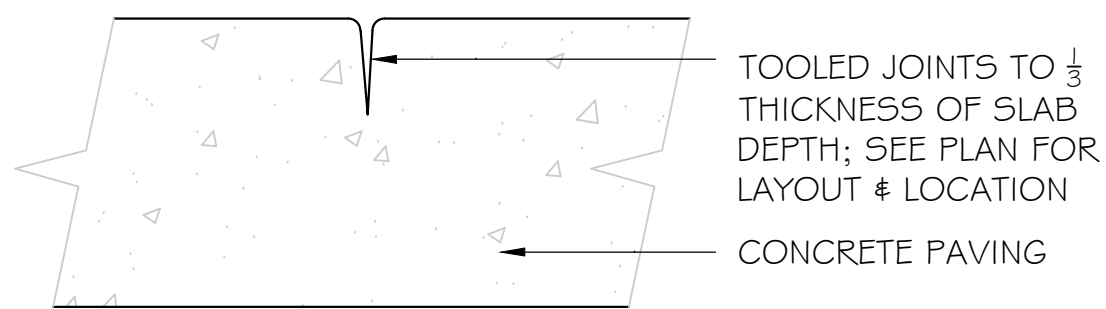
1 CONCRETE UNIT PAVERS (PEDESTRIAN)
NTS



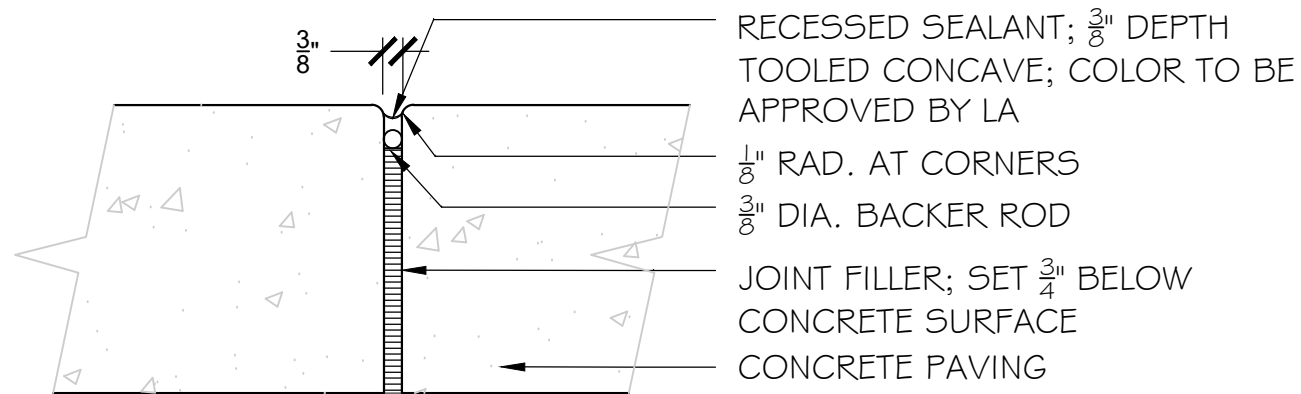
2 CONCRETE UNIT PAVERS (VEHICULAR)
1"=1'



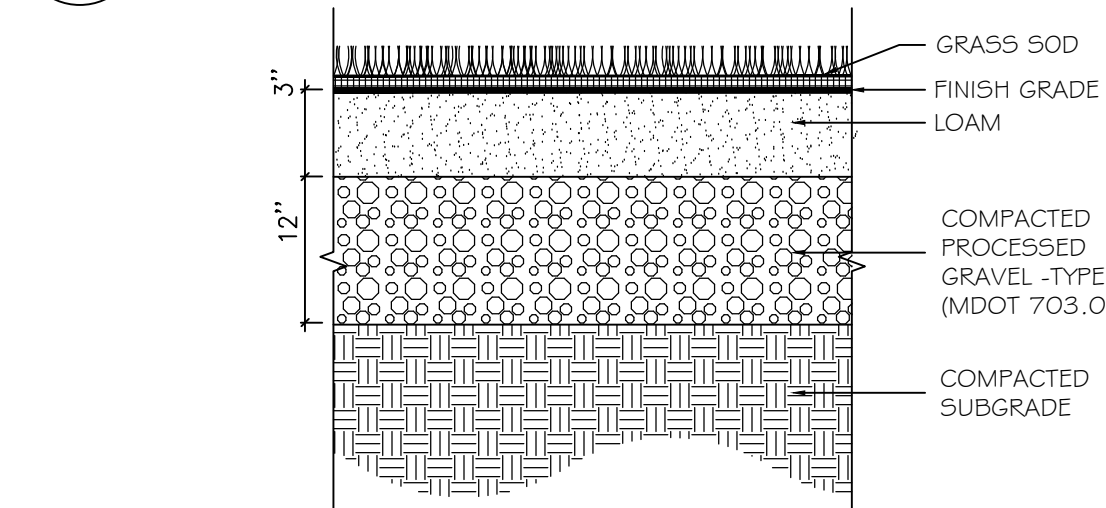
3 CONCRETE PAVING -ADJACENT CONCRETE UNIT PAVERS-NIC
1"=1'



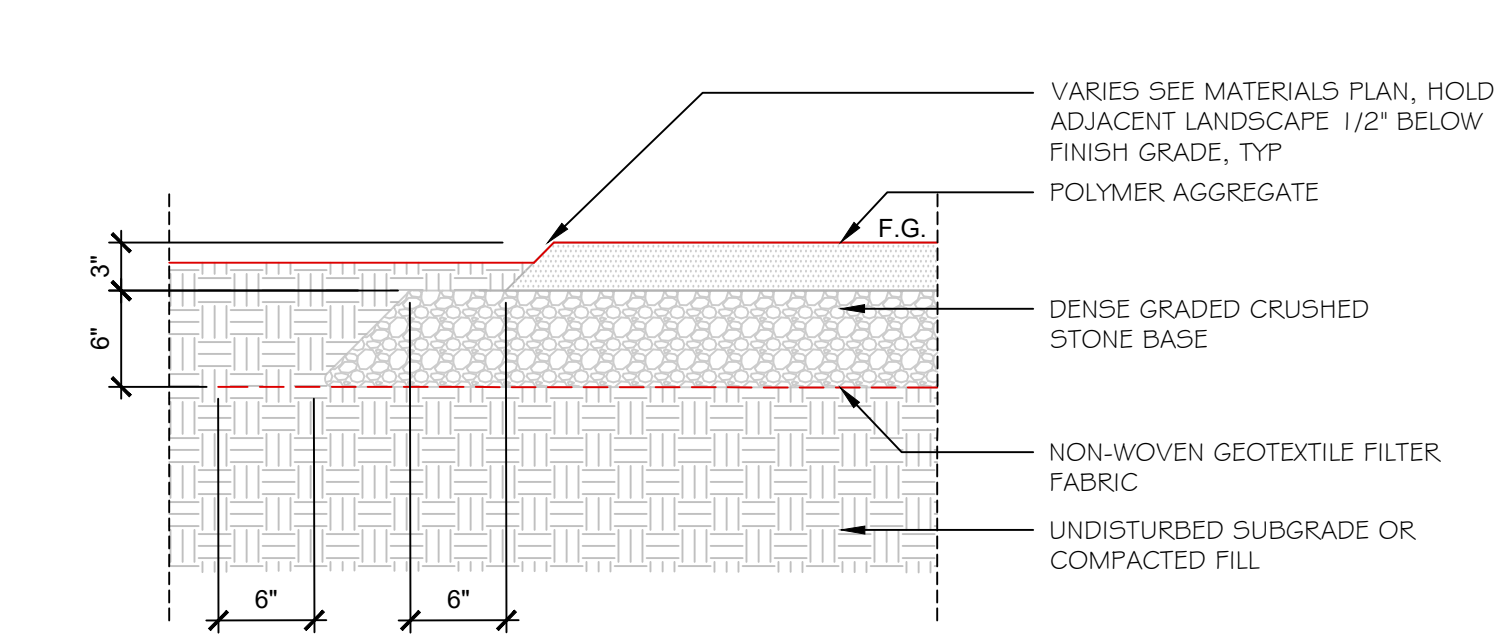
4 CONTROL JOINT
3"=1'



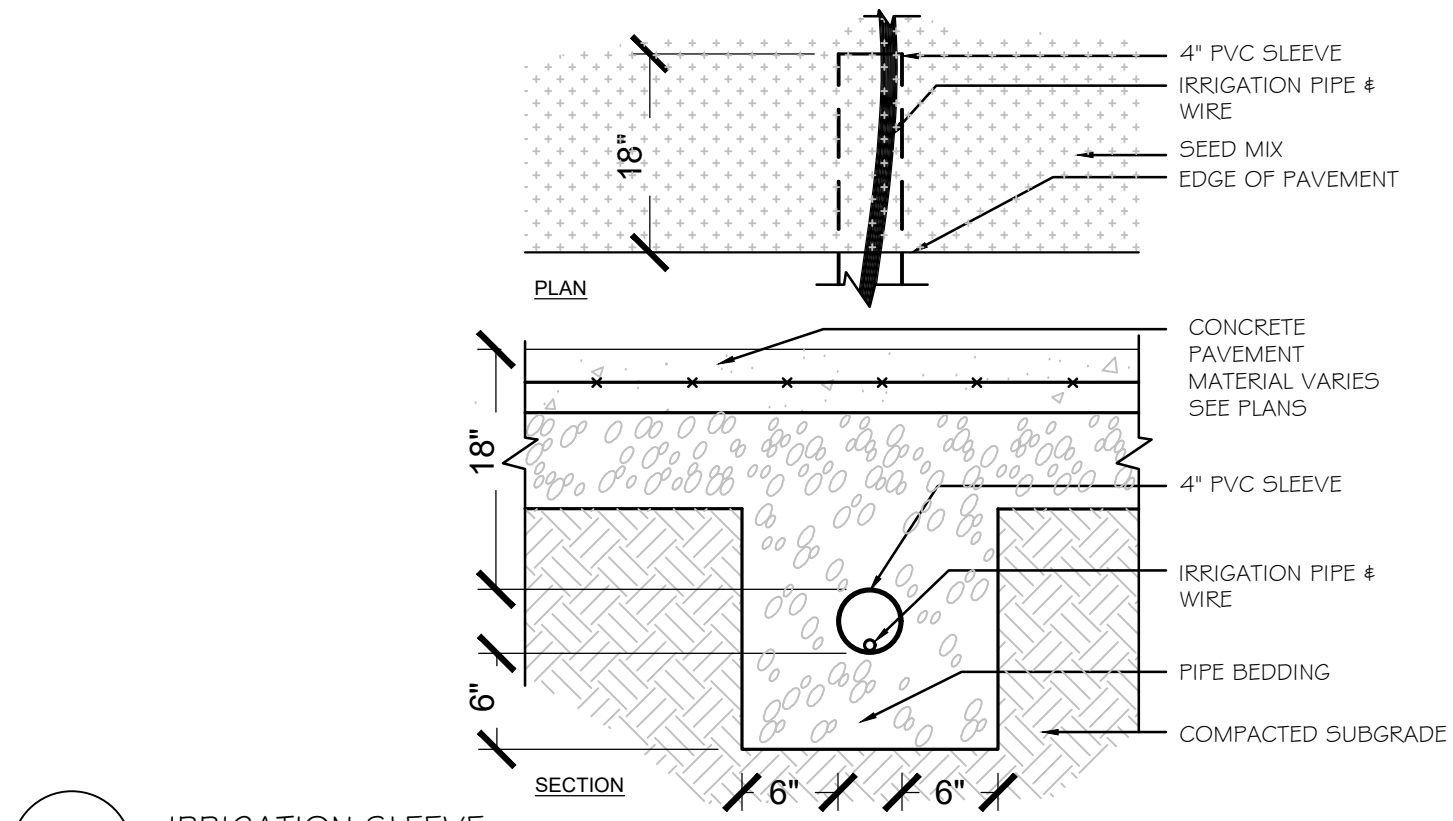
5 EXPANSION JOINT
3"=1'



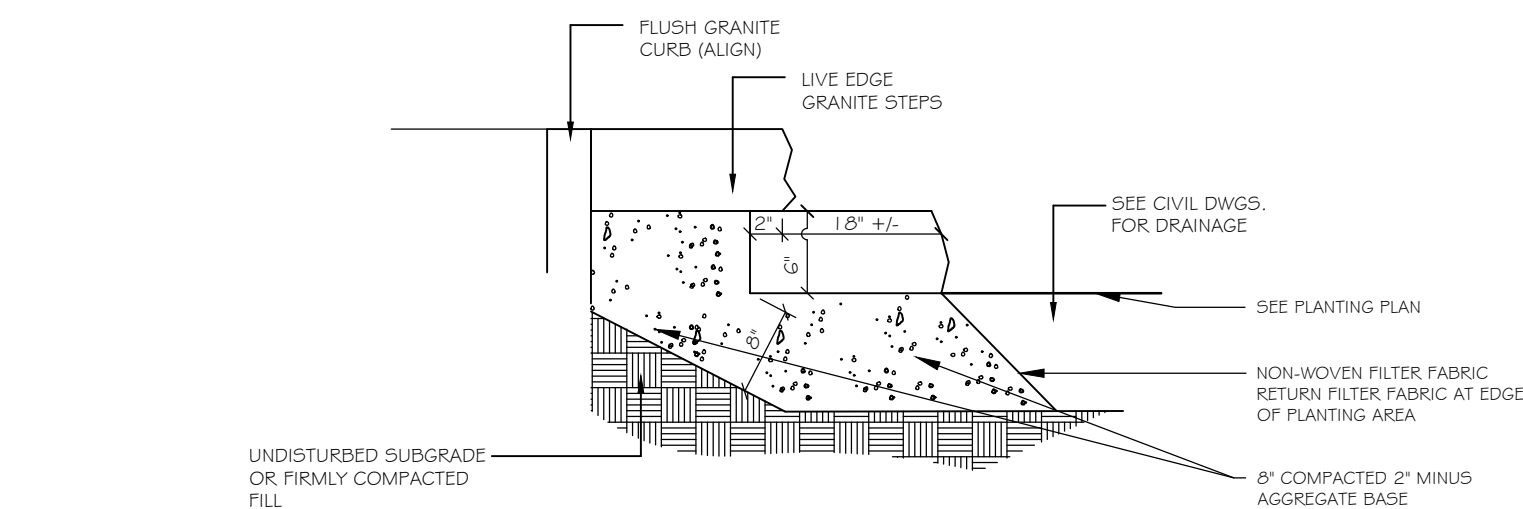
6 REINFORCED TURF
NTS



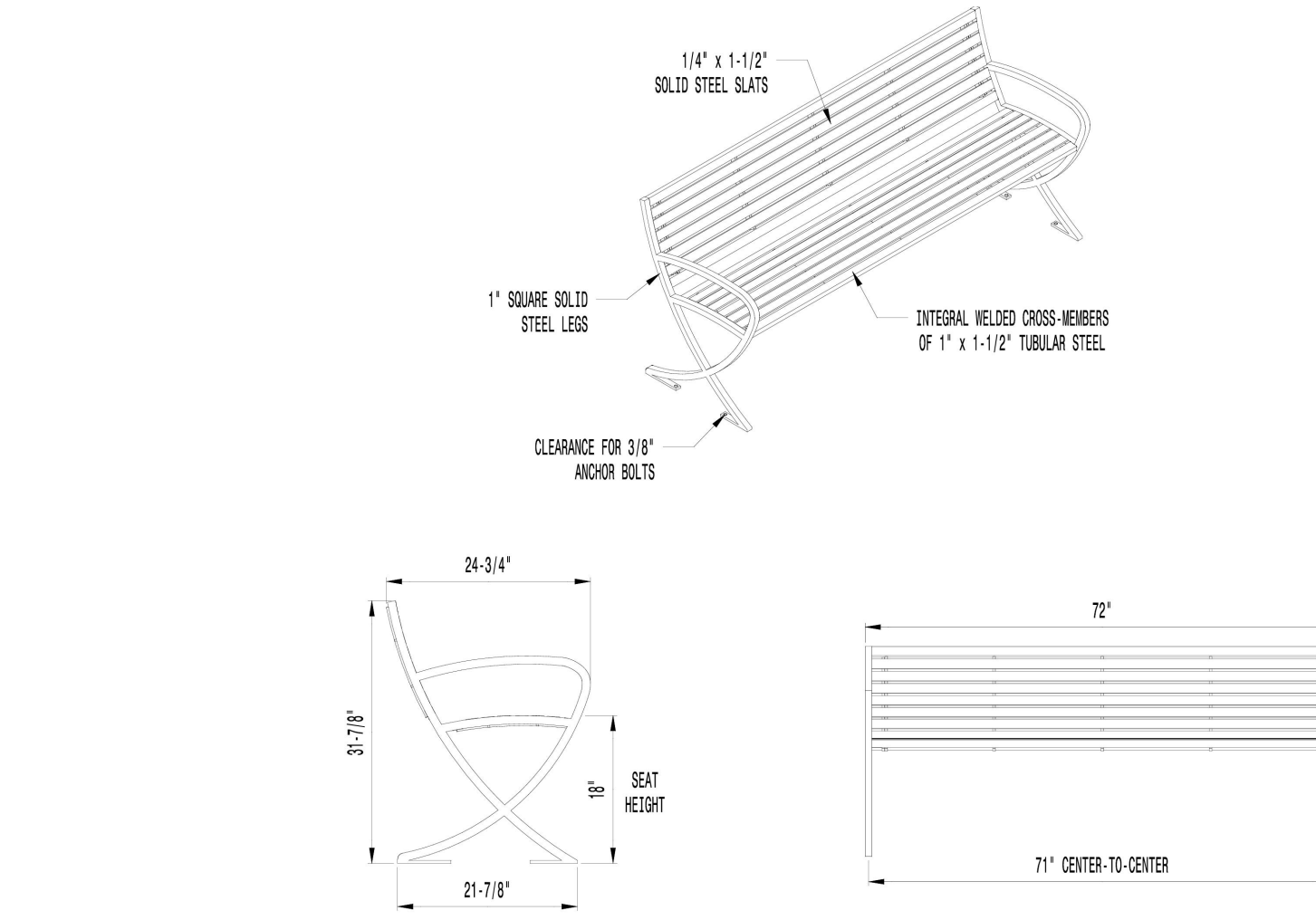
7 POLYMER AGGREGATE - PEDESTRIAN
1"=1'



8 IRRIGATION SLEEVE
1"=1'



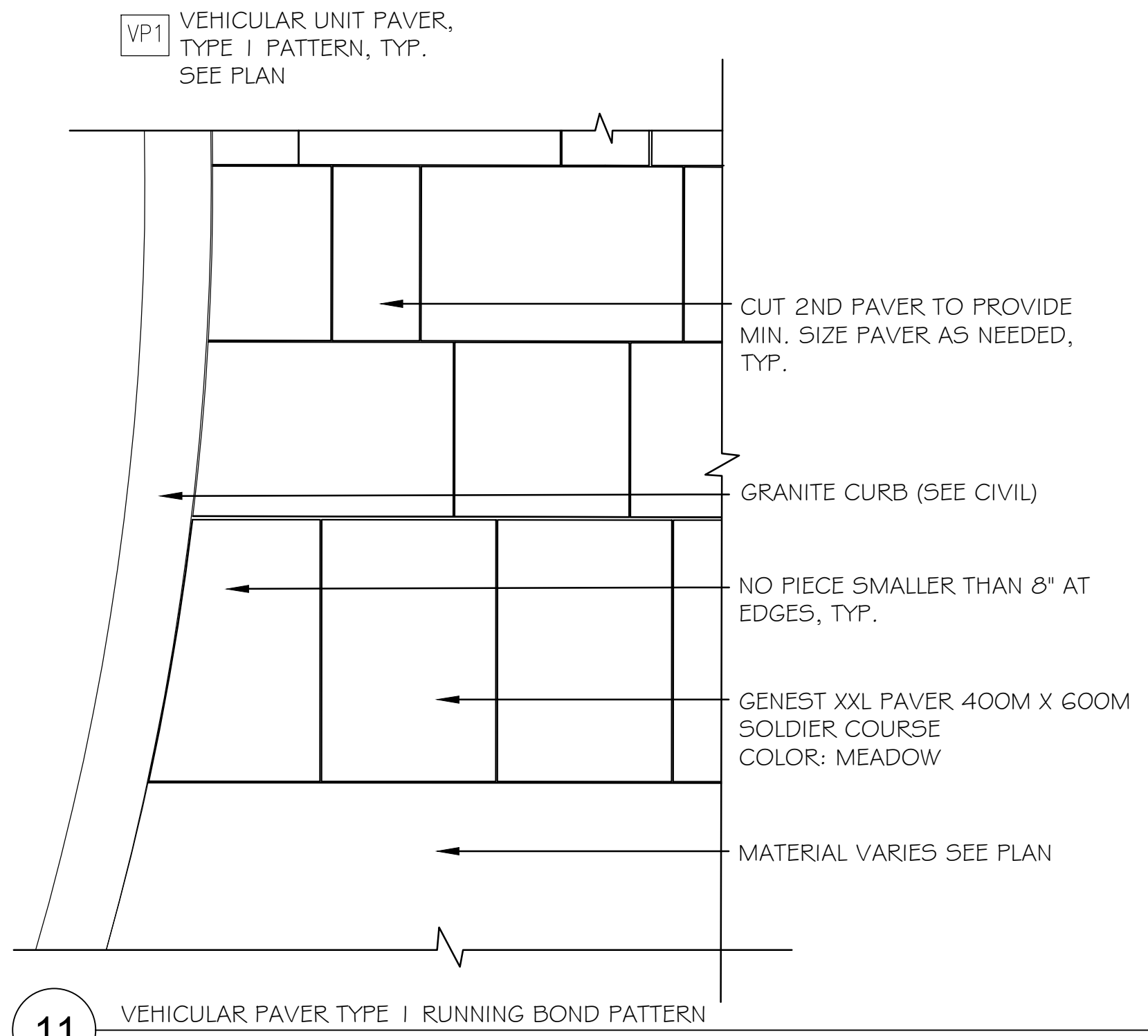
9 STACKED LIVE EGDE GRANITE
NTS



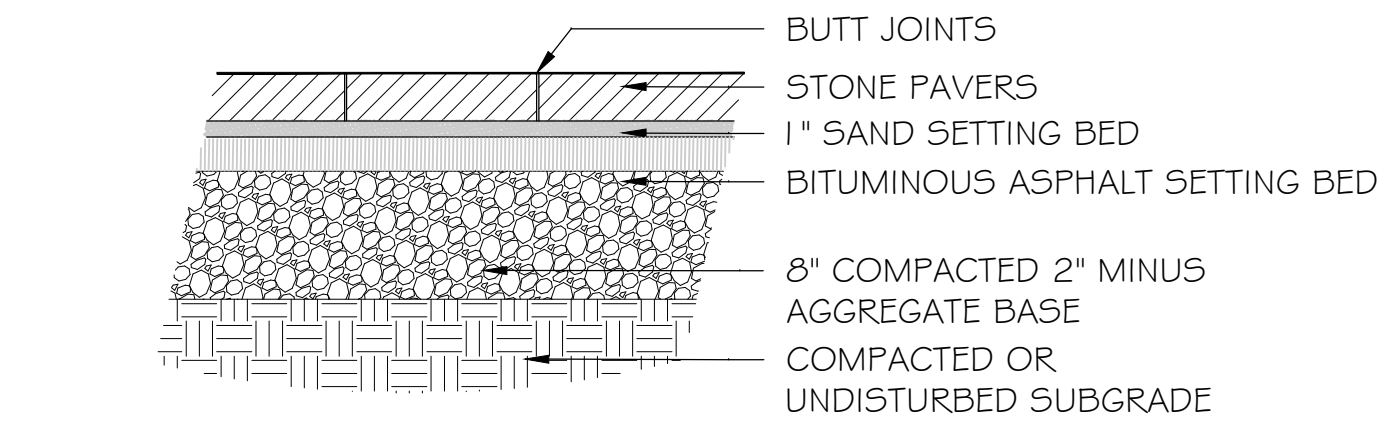
AVAILABLE OPTIONS:
POWDER COATING
10 STANDARD COLORS, 2 OPTIONAL METALLIC COLORS,
CUSTOM COLORS (EXCLUDING THE RAL RANGE)

LENGTHS
STANDARD 4'
STANDARD 6' (AS SHOWN)

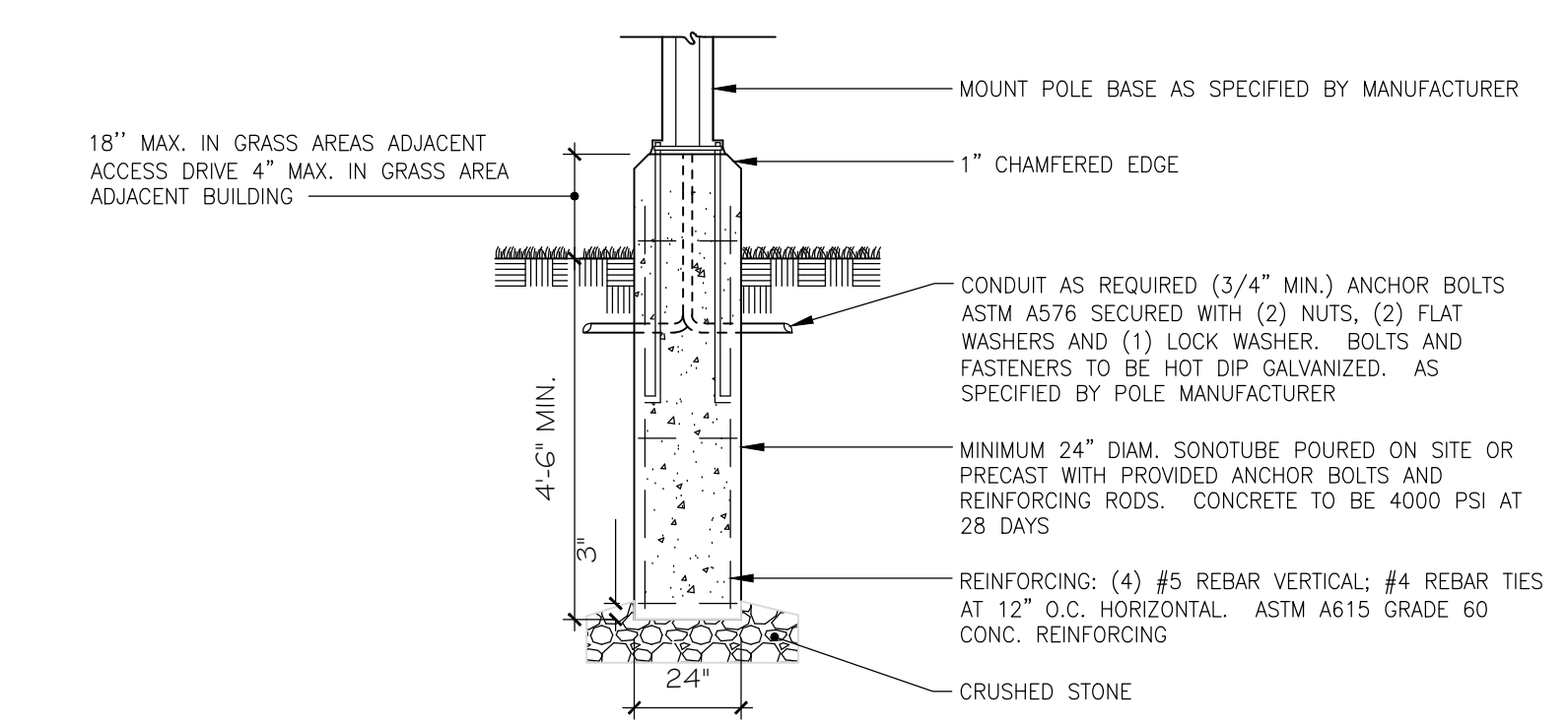
10 STREETScape BENCH DETAIL
NTS



11 VEHICULAR PAVER TYPE 1 RUNNING BOND PATTERN
1"=1'



12 STONE PAVER ON BITUMINOUS CONCRETE BASE - TYPICAL SECTION
1"=1'



13 LIGHT POLE BASE
NTS

Prepared For:
144 FORE STREET, OZ, LLC
PO BOX 910
Westbrook, Me 04098-0910

Prepared By:
Mitchell & Associates
LANDSCAPE ARCHITECTS
70 Center Street
Portland, Maine 04101
P: 207.774.4427

THAMES STREET

Portland, Maine

Thames Street

Date:
MARCH 13, 2023

Issued For:
PERMITTING

Revisions:
COMMENT RESPONSE 08.24.2023

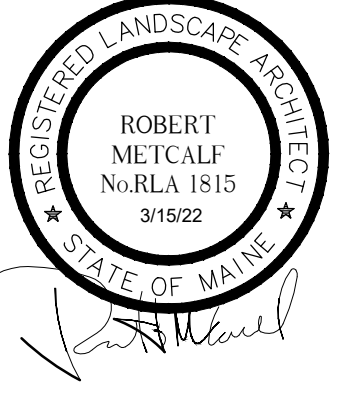
Reproduction or reuse of this document
without the expressed written consent
of Mitchell & Associates is prohibited.
© 2023

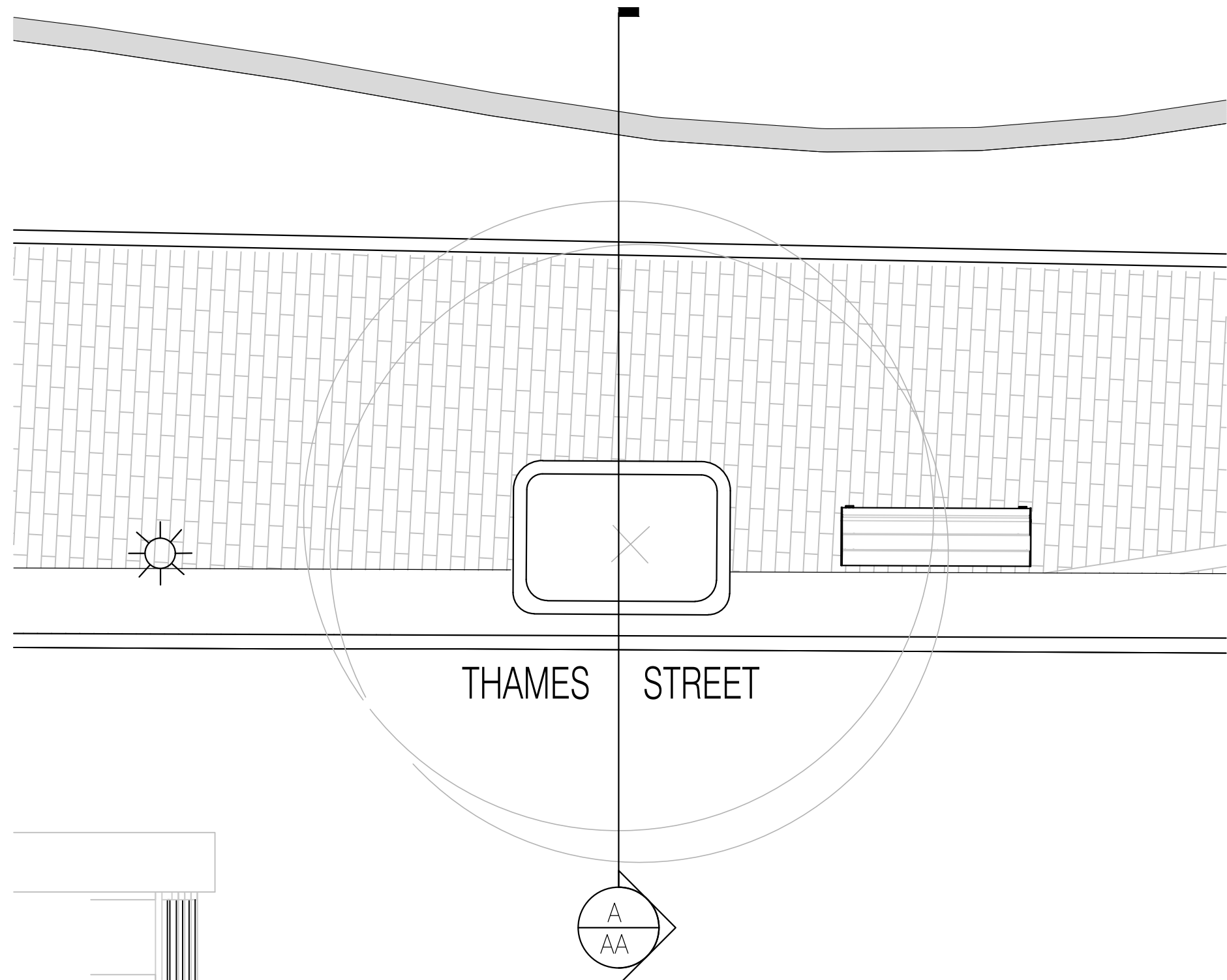
Title: DETAILS

Scale: AS NOTED

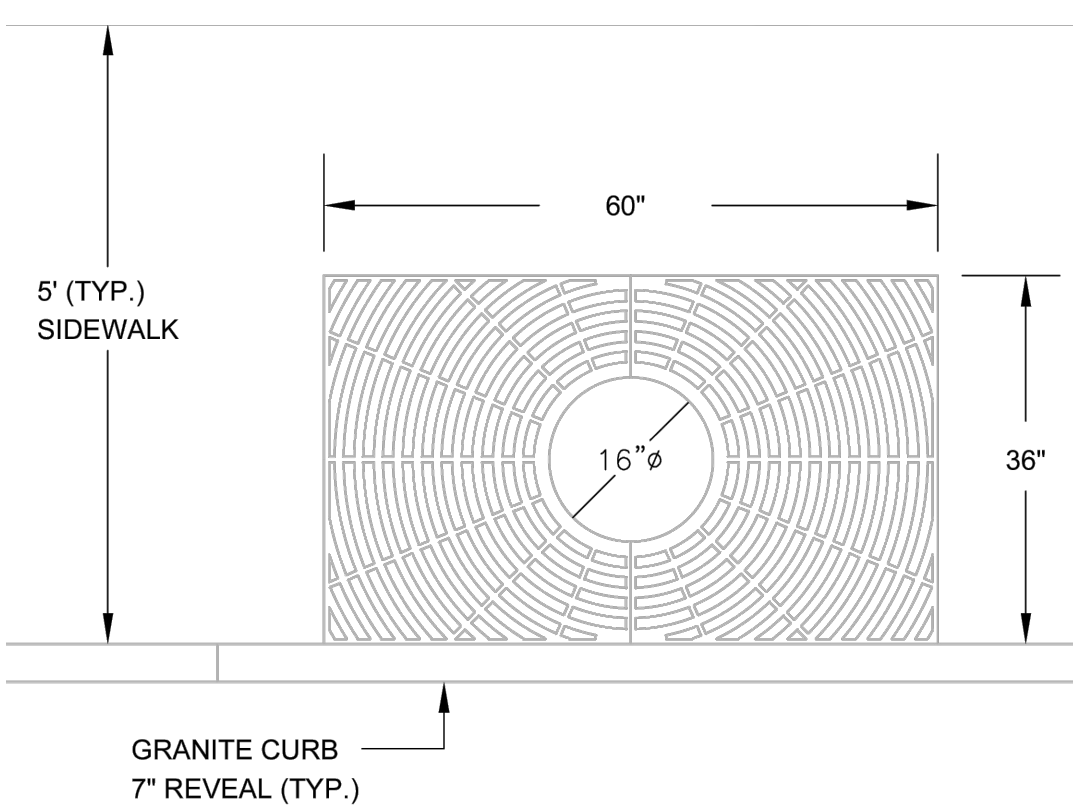
North:

Sheet No.:
L4





1 THAMES STREET SECTION - A-AA
NTS

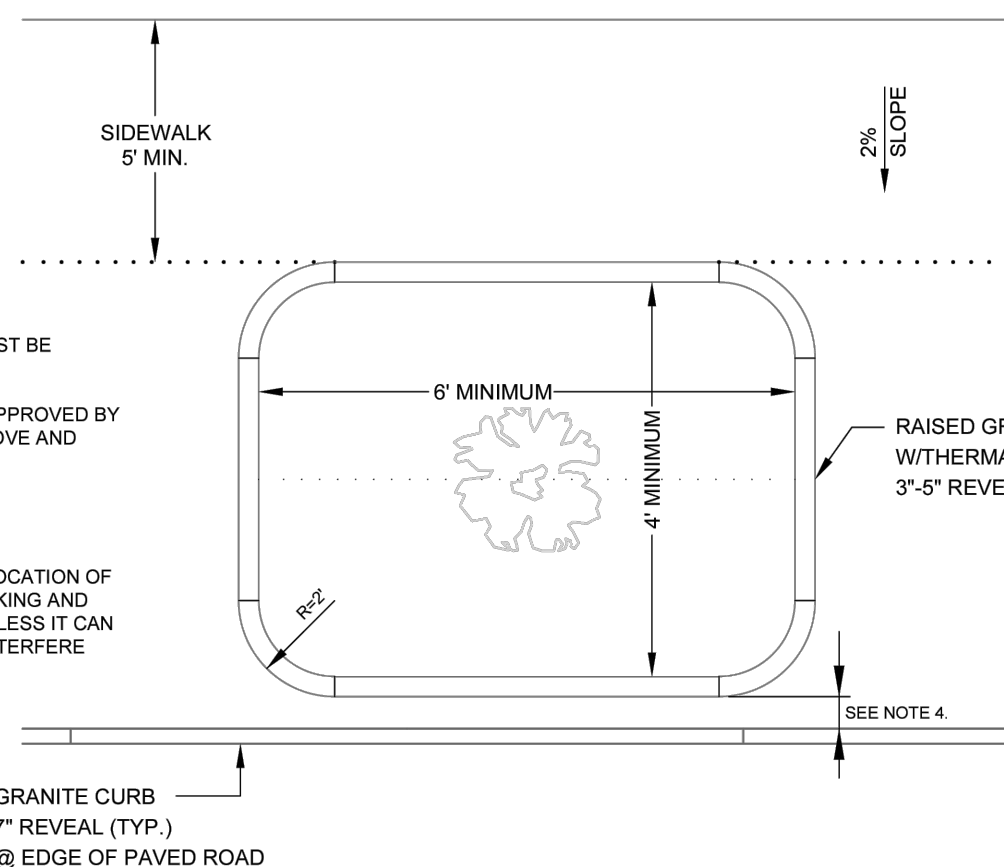


PLAN VIEW

2 FLUSH TREE GRATE - Expandable Neenah Model R-8810
NTS

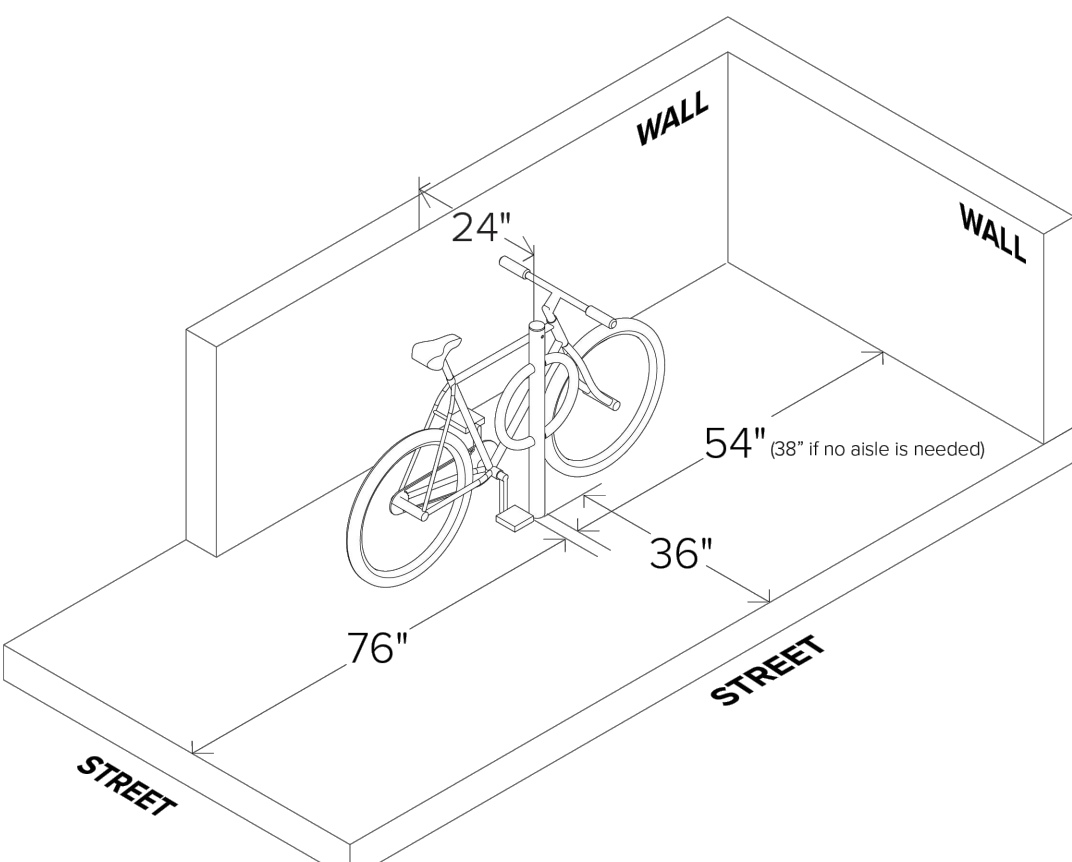
NOTES:

1. ALL TREE WELLS SHALL COMPLY WITH CITY TECHNICAL STANDARDS AND MUST BE APPROVED BY THE CITY ARBORIST.
2. FINAL PLACEMENT LOCATION OF THE GRANITE CURB TREE WELL SHALL BE APPROVED BY DPW AND SHALL CONSIDER SIDEWALK WIDTH, STREET PARKING STATUS, ABOVE AND BELOW GROUND UTILITIES AND OTHER OBSTRUCTIONS.
3. SIDEWALK MATERIAL PER CITY SIDEWALK MATERIAL POLICY. SEE SIDEWALK CONSTRUCTION DETAILS IN SECTION 1 OF THE TECHNICAL MANUAL.
4. RAISED CURB TREE WELL OFFSETS FROM THE CURB LINE SHALL TAKE THE LOCATION OF ON-STREET PARKING INTO ACCOUNT. WHERE ADJACENT TO ON-STREET PARKING AND SIDEWALK WIDTH ALLOWS, A MINIMUM OFFSET OF 2 FEET IS PREFERRED. UNLESS IT CAN BE DEMONSTRATED THAT THE PLACEMENT OF THE TREE WELLS WILL NOT INTERFERE WITH THE OPENING OF VEHICLE DOORS.



3 RAISED GRANITE TREE PLANTER
NTS

- NOTES:
- MANUFACTURER: DERO
 - MODEL: BIKE HITCH
 - METAL COLOR: STAINLESS STEEL

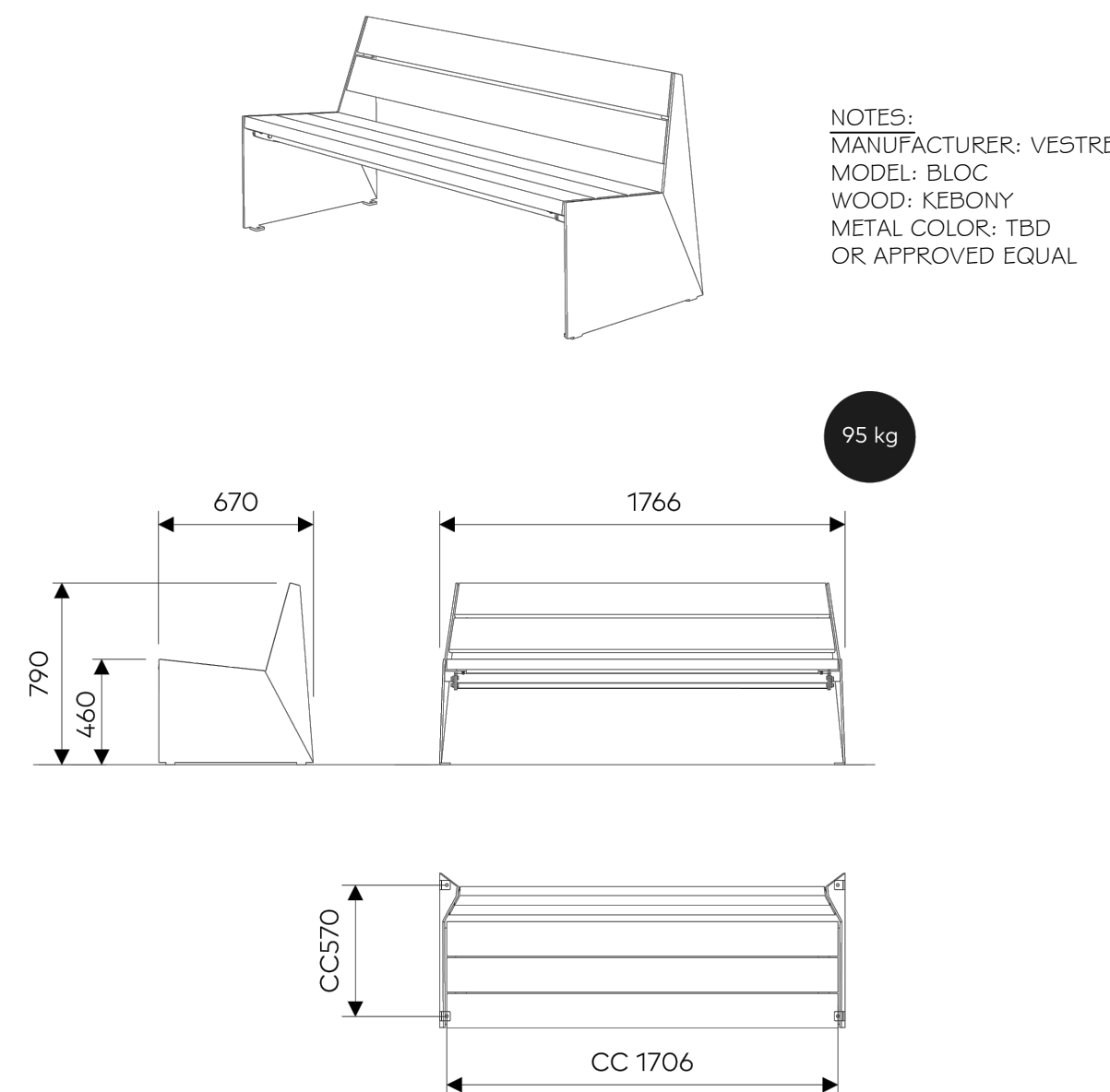


4 BIKE RACK
nts

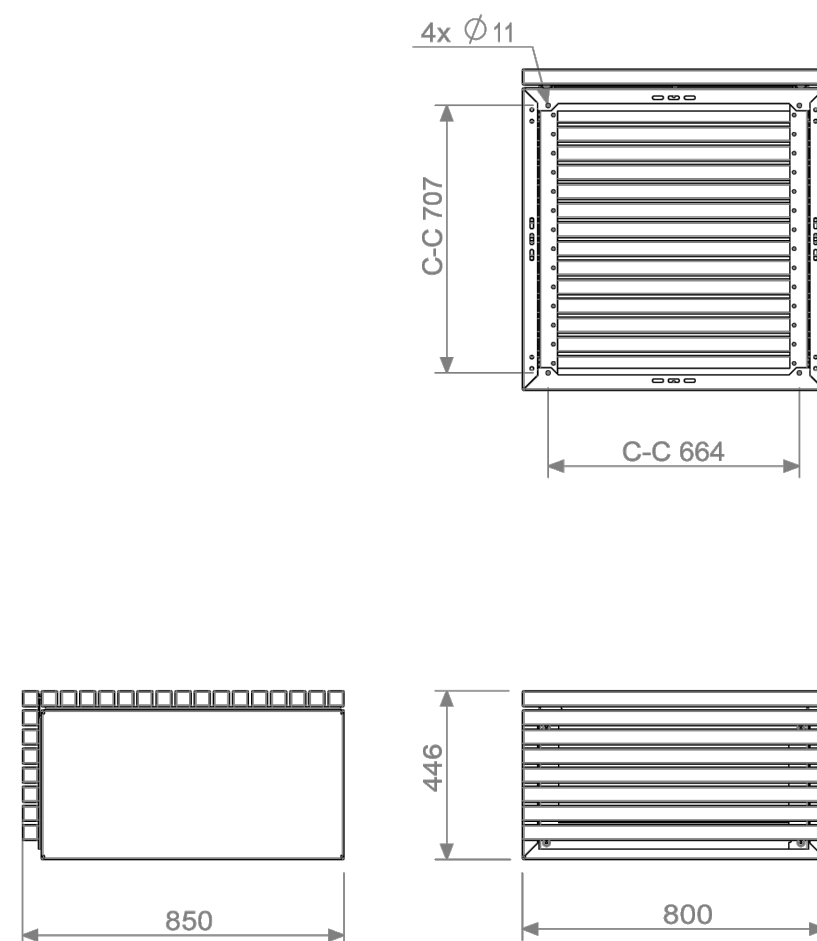
NOTES:

1. 16"Ø EXPANDABLE TREE OPENING. 0.25" SLOT OPENINGS.
2. ALL TREE GRATES SHALL COMPLY WITH CITY TECHNICAL STANDARDS AND MUST BE APPROVED BY THE CITY ARBORIST.
3. FINAL PLACEMENT LOCATION OF TREE GRATES SHALL BE APPROVED BY DPW AND SHALL CONSIDER SIDEWALK WIDTH AND ADA COMPLIANCE, ON-STREET PARKING CONFIGURATIONS, ABOVE AND BELOW GROUND UTILITIES AND OTHER OBSTRUCTIONS.
4. SIDEWALK MATERIAL PER CITY SIDEWALK MATERIAL POLICY. SEE SIDEWALK CONSTRUCTION DETAILS IN SECTION 1 OF THE TECHNICAL MANUAL.
5. WHEN THE TREE GRATE IS INSTALLED IN A CONCRETE SIDEWALK, A NOTCH MUST BE INSTALLED ALONG THE EDGE TO HOLD THE GRATE. WHEN INSTALLED IN A BRICK SIDEWALK IT REQUIRES A FRAME TO BE INSTALLED TO HOLD THE GRATE IN PLACE.

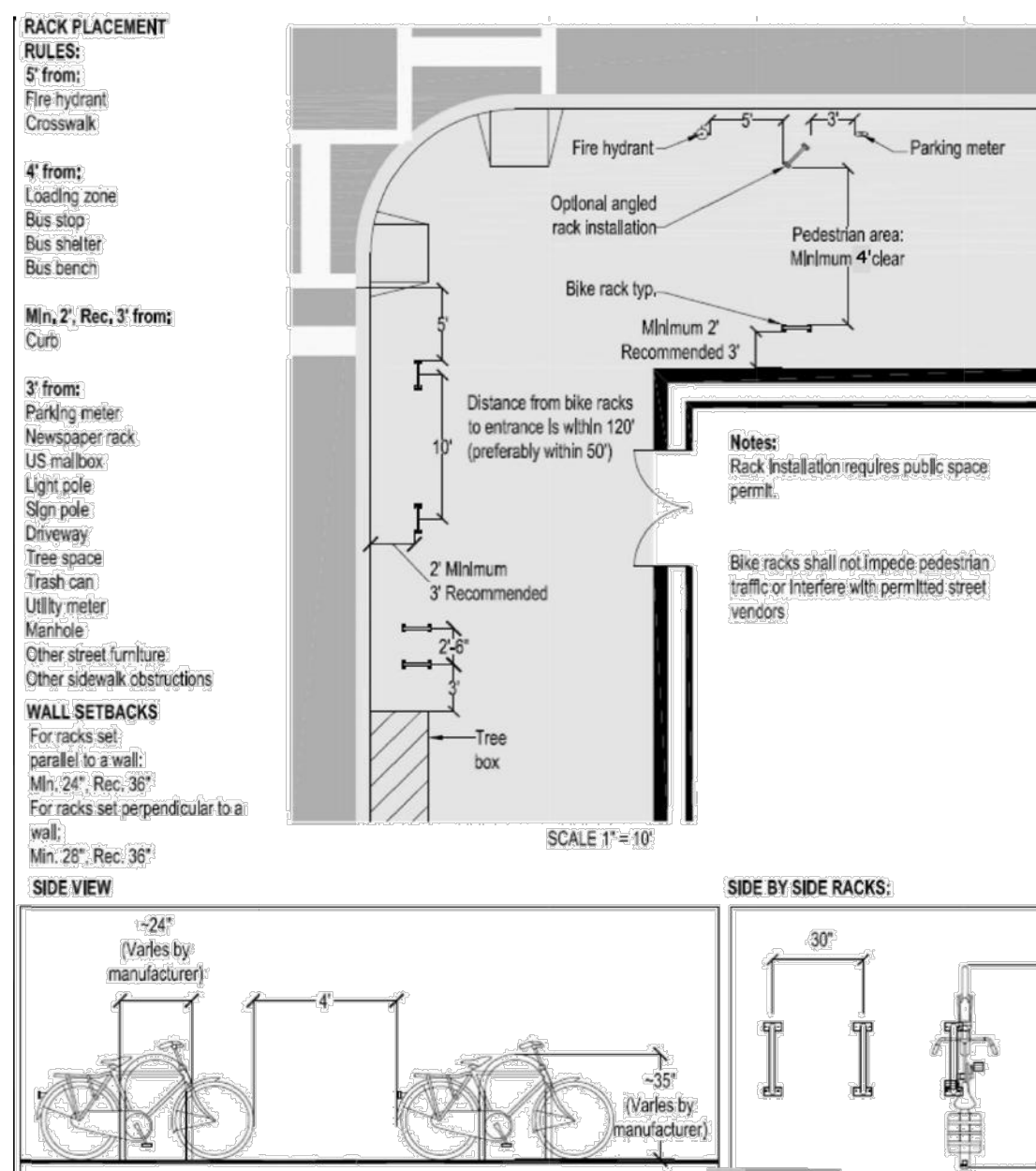
5 TYPE 1 BENCH DETAIL
NTS



- NOTES:
- MANUFACTURER: VESTRE
 - MODEL: CUBE
 - WOOD: KEBONY
 - METAL COLOR: TBD
 - OR APPROVED EQUAL



6 TYPE 2 BENCH DETAIL
NTS



Prepared For:
144 FORE STREET, OZ, LLC
PO BOX 910
Westbrook, Me 04098-0910

Prepared By:
Mitchell & Associates
LANDSCAPE ARCHITECTS
70 Center Street
Portland, Maine 04101
P: 207.774.4427

THAMES STREET
Portland, Maine
Thames Street

Date:
MARCH 13, 2023

Issued For:
PERMITTING

Revisions:
COMMENT RESPONSE 08.24.2023

Reproduction or reuse of this document without the expressed written consent of Mitchell & Associates is prohibited.
© 2023

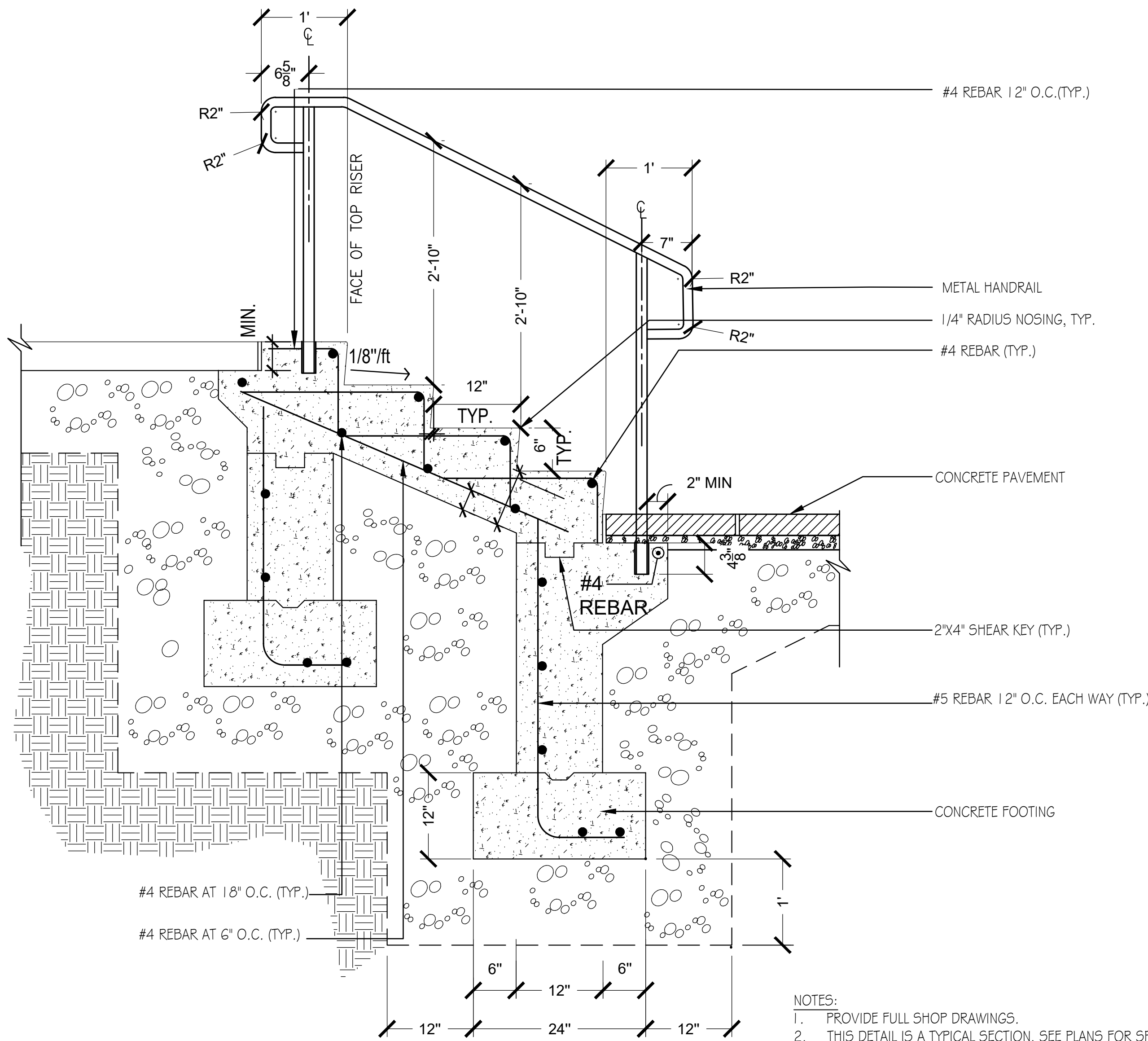
Title: DETAILS

Scale: AS NOTED

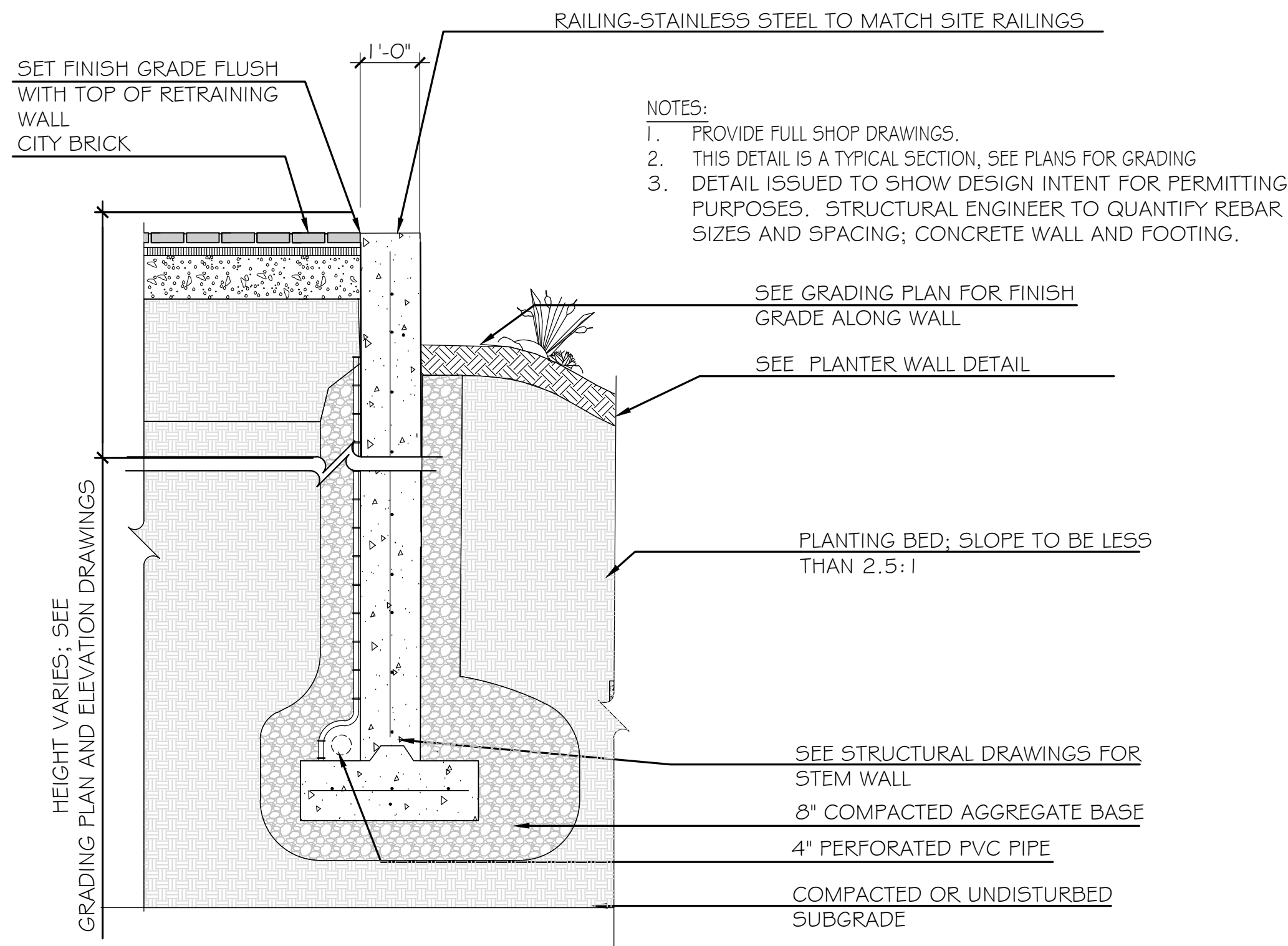
North:

Sheet No.:

L5



1 CAST IN PLACE CONCRETE STAIRS
1"=1'



2 NORTHEAST RETAINING WALL
NTS

Prepared For:
144 FORE STREET, OZ, LLC
PO BOX 910
Westbrook, Me 04098-0910

Prepared By:
Mitchell & Associates
LANDSCAPE ARCHITECTS
70 Center Street
Portland, Maine 04101
P: 207.774.4427

THAMES STREET
Thames Street
Portland, Maine

Date:
MARCH 13, 2023

Issued For:
PERMITTING

Revisions:
COMMENT RESPONSE 08.24.2023

Reproduction or reuse of this document
without the expressed written consent
of Mitchell & Associates is prohibited.
© 2023

Title: DETAILS

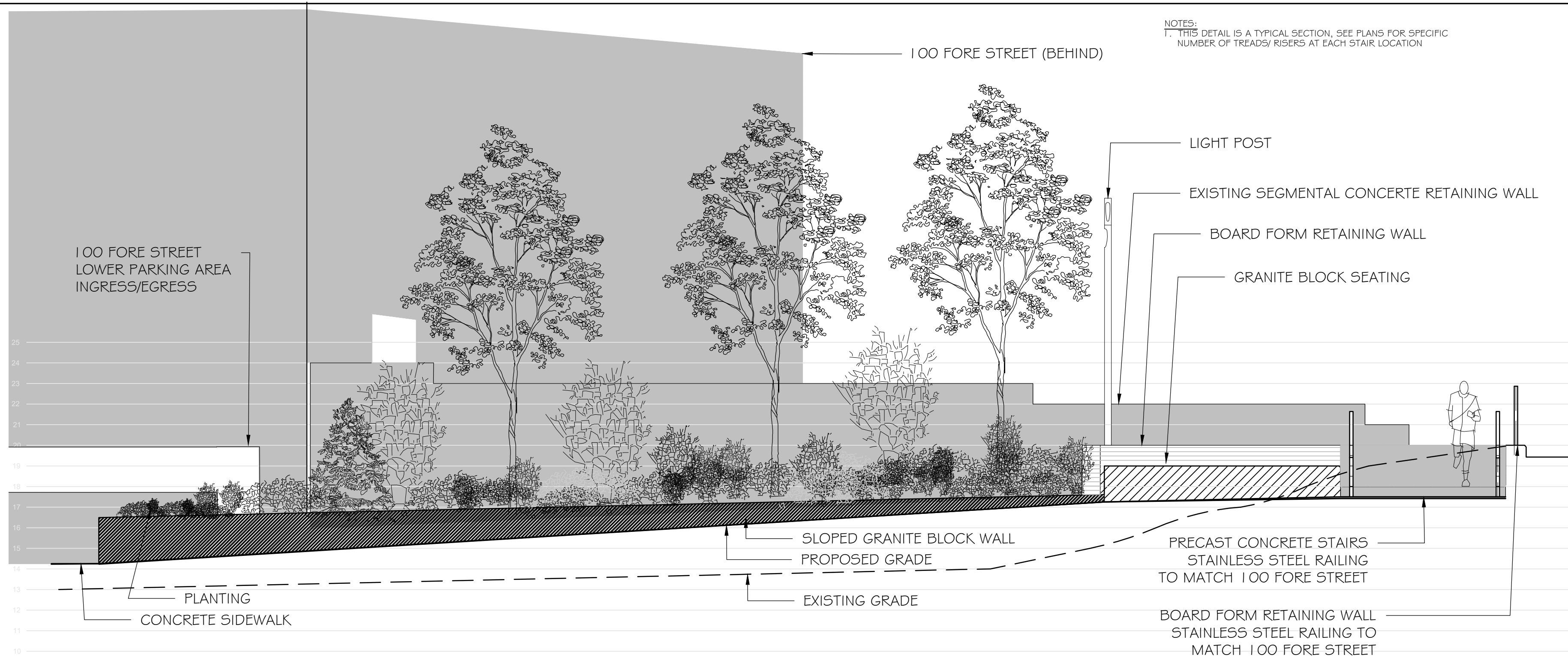
Scale: AS NOTED

North:

Sheet No.:

L6





NOTES:
1. THIS DETAIL IS A TYPICAL SECTION. SEE PLANS FOR SPECIFIC
NUMBER OF TREADS/ RISERS AT EACH STAIR LOCATION

1 NORTHEAST TERRACE-METAL PLANTER EDGING - SECTION B-BB
NTS



2 SECTION C-CC
NTS

Prepared For:
144 FORE STREET, OZ, LLC
PO BOX 910
Westbrook, Me 04098-0910

Prepared By:
**Mitchell
& Associates**
LANDSCAPE ARCHITECTS
70 Center Street P: 207.774.4427
Portland, Maine 04101

THAMES STREET
Thames Street
Portland, Maine

Date:
MARCH 13, 2023

Issued For:
PERMITTING

Revisions:
COMMENT RESPONSE 08.24.2023

Reproduction or reuse of this document
without the expressed written consent
of Mitchell & Associates is prohibited.
© 2023

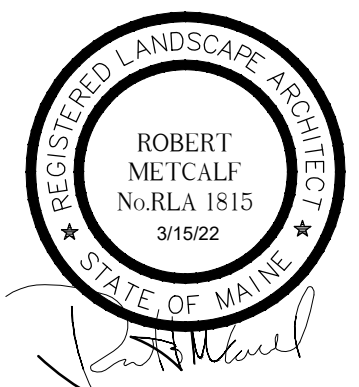
Title: DETAILS

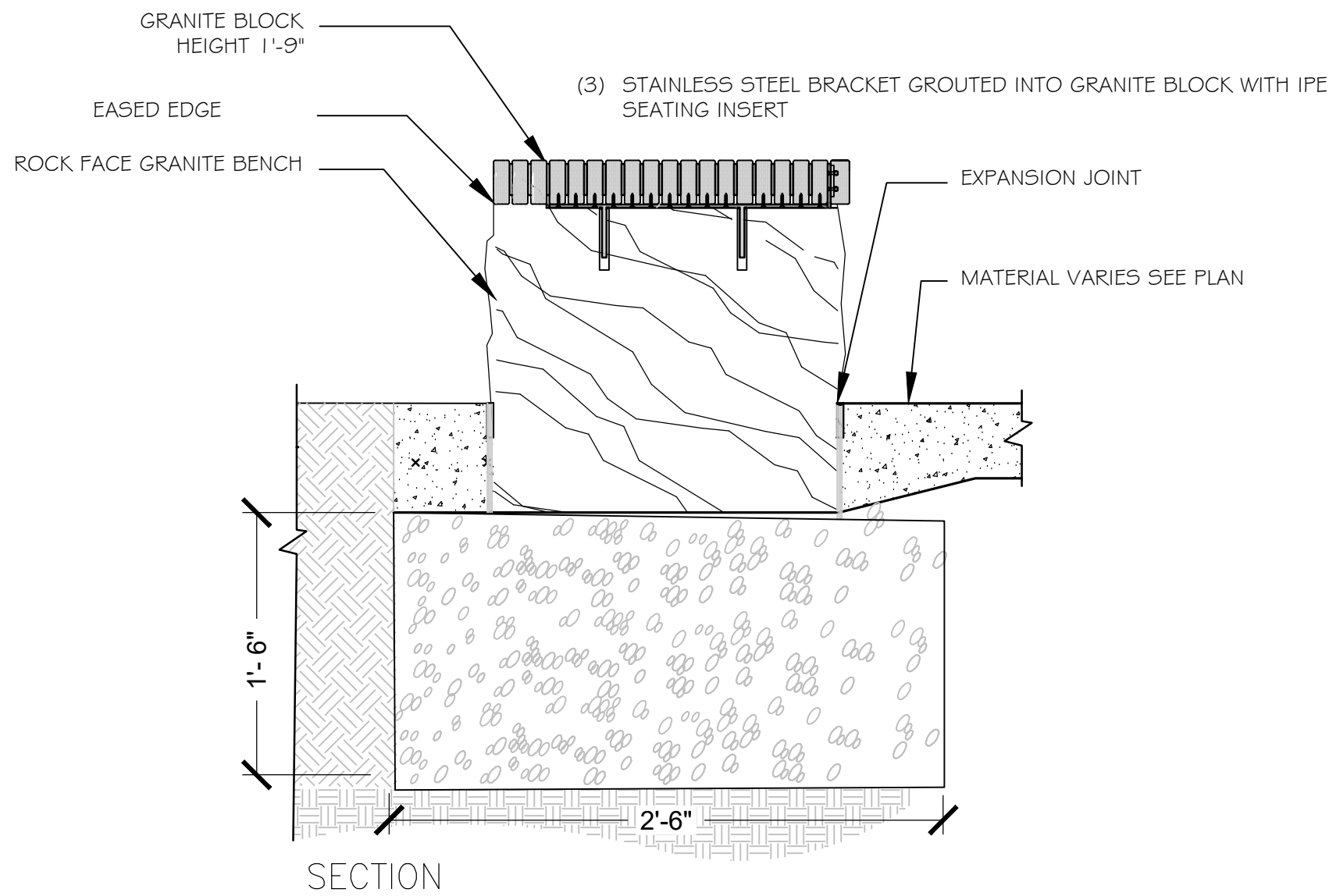
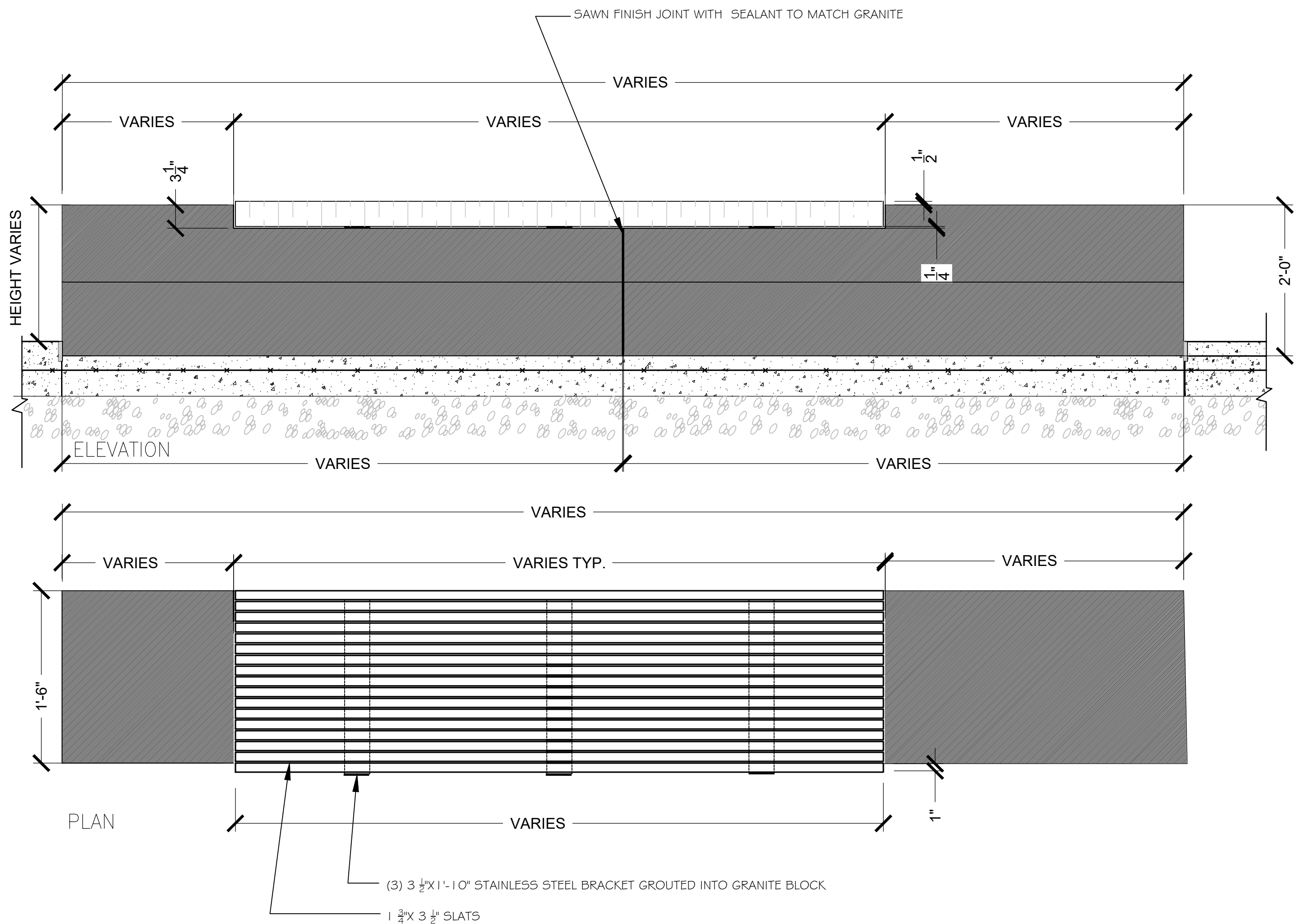
Scale: AS NOTED

North:

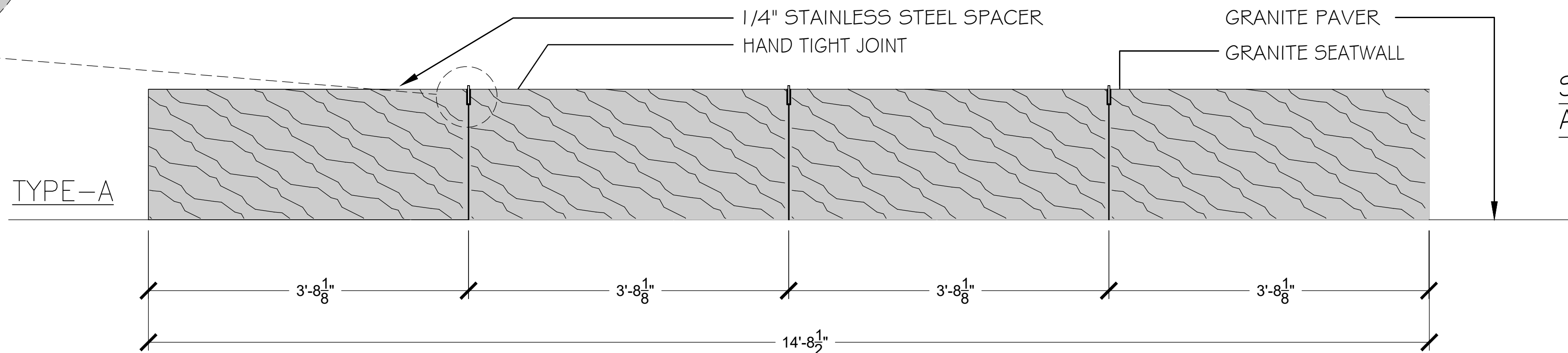
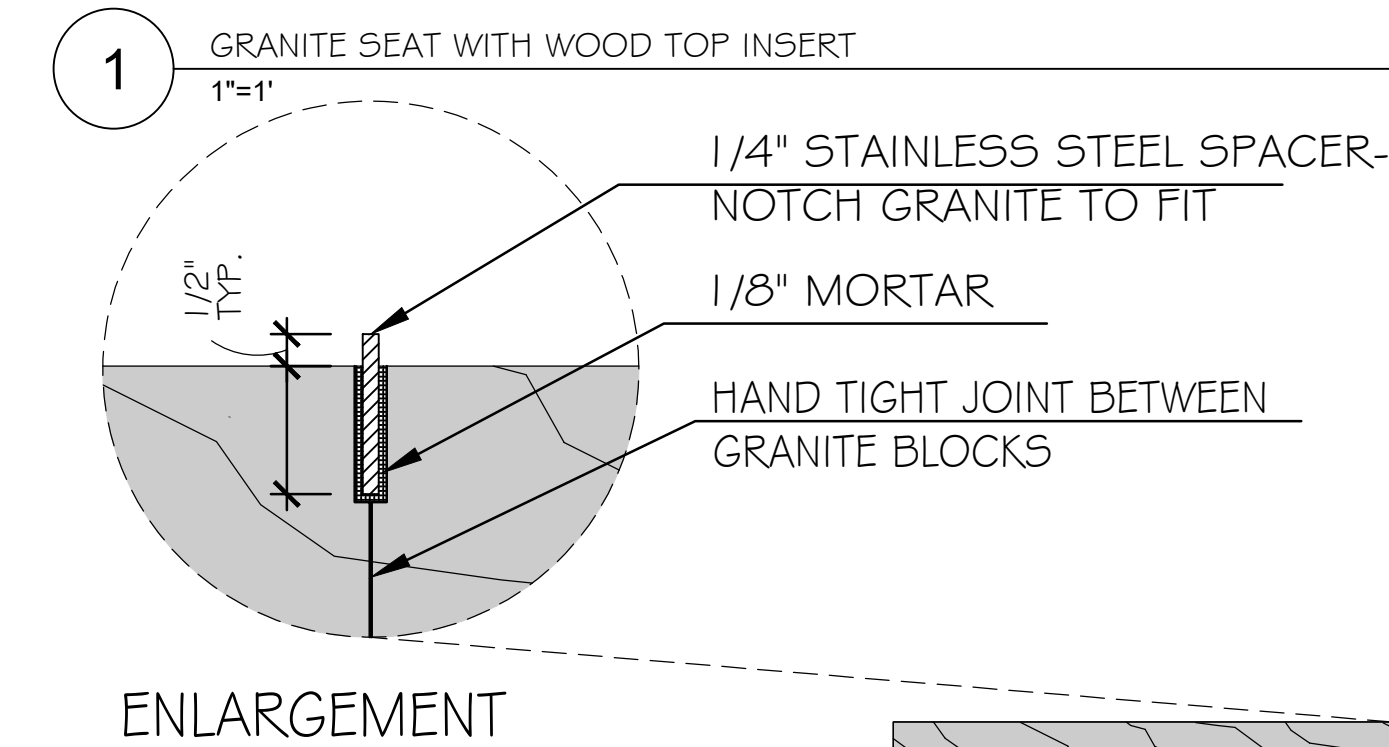
Sheet No.:

L7

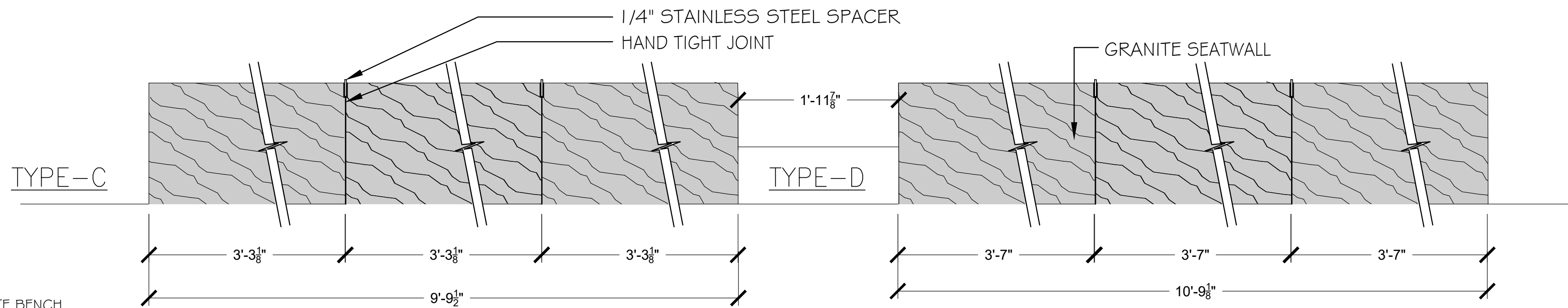




SKATEBOARD DETERENT ON ALL BENCHES



SKATEBOARD DETERENT ON ALL BENCHES



2 MONOLITHIC GRANITE BENCH
1"=1'



Prepared For:
144 FORE STREET, OZ, LLC
PO BOX 910
Westbrook, Me 04098-0910

Prepared By:
Mitchell & Associates
LANDSCAPE ARCHITECTS
70 Center Street
Portland, Maine 04101
P: 207.774.4427

THAMES STREET

Portland, Maine

Thames Street

Date:
MARCH 13, 2023

Issued For:
PERMITTING

Revisions:
COMMENT RESPONSE 08.24.2023

Reproduction or reuse of this document
without the expressed written consent
of Mitchell & Associates is prohibited.
© 2023

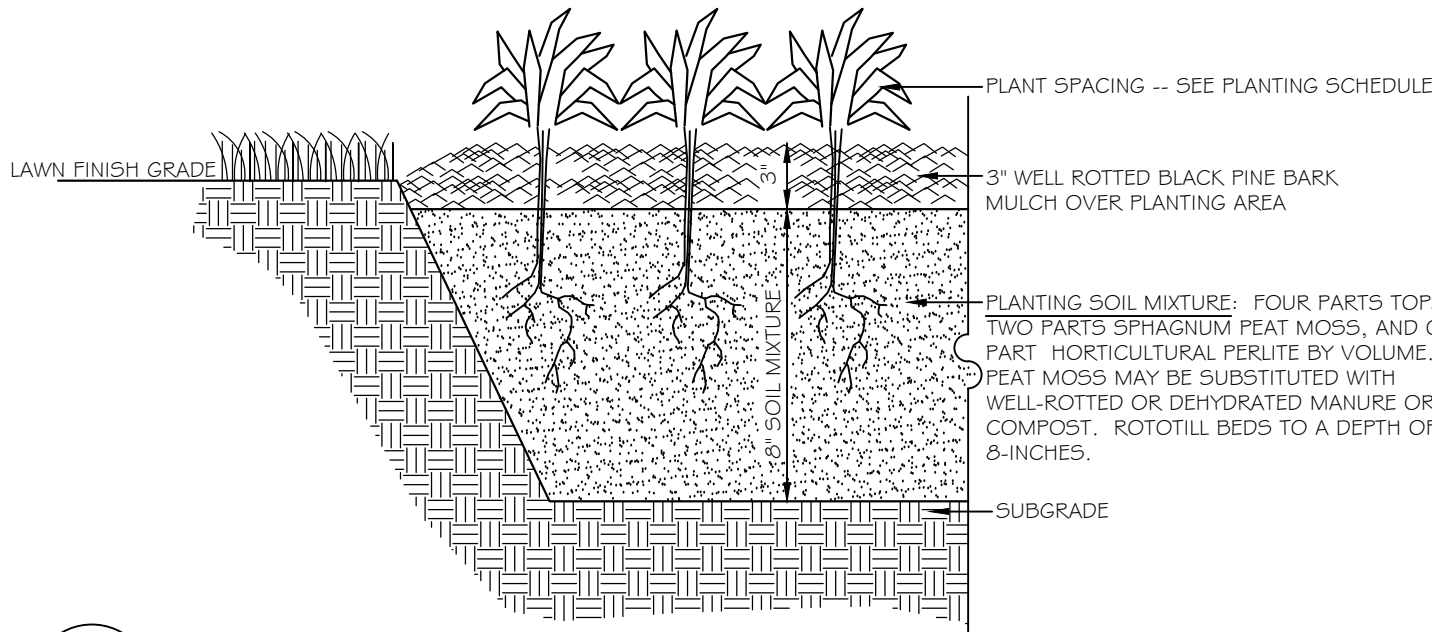
Title: DETAILS

Scale: AS NOTED

North:

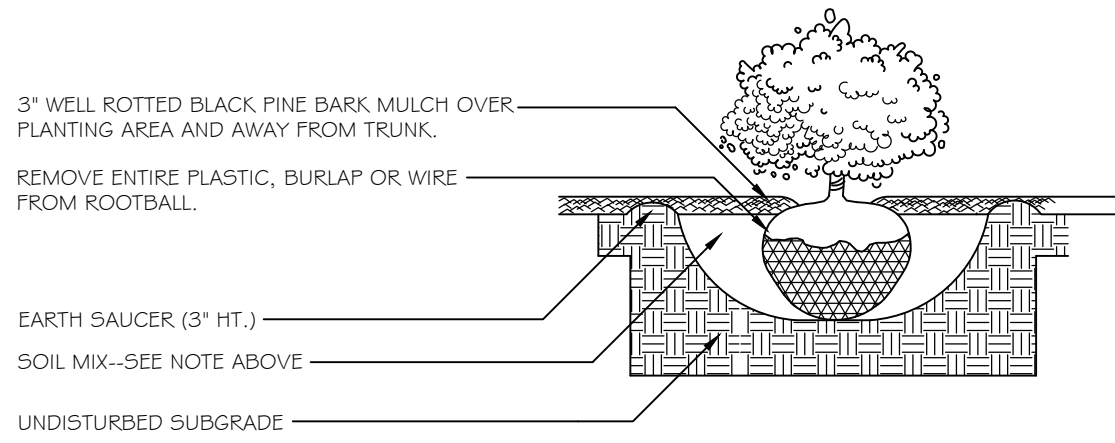
Sheet No.:

L8



1 PLANTING BED AND MULCH DETAIL

NTS



2 SHRUB INSTALLATION

NTS

PLANT INSTALLATION NOTES:

DIG HOLE AT LEAST 2 TIMES THE WIDTH OF ROOT BALL AND AS DEEP AS THE ROOT BALL (NO DEEPER). SET ROOT BALL CENTERED, WITH TOP AT GROUND LEVEL OR SLIGHTLY HIGHER. CORRECT HOLE DEPTH AS NEEDED.

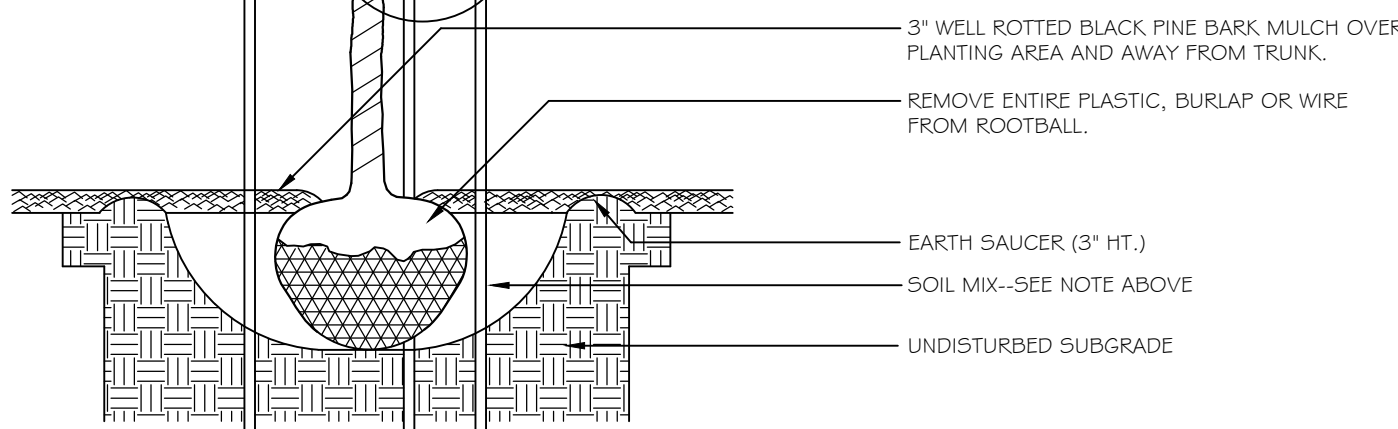
FOR DECIDUOUS AND NEEDLED EVERGREEN TREES AND SHRUBS: 1 FULL WHEELBARROW EXISTING SOIL, 2 SHOVELS PEAT, 1 SHOVEL WELL ROTTED MANURE, OR OTHER COMPOSTED ORGANIC MATERIAL.

FOR BROADLEAVED EVERGREENS AND RELATED ERICACEAE PLANTS: 1 FULL WHEELBARROW EXISTING SOIL, 3-4 SHOVELS PEAT, 1 SHOVEL WELL ROTTED MANURE, OR OTHER COMPOSTED ORGANIC MATERIAL OF LOW pH

CONTAINER GROWN STOCK: REMOVE CONTAINER PROTECTING ROOT BALL. GENTLY COMB OUT ROOTS, PRUNE DAMAGED ROOTS.

BACKFILL 2/3 OF HOLE WITH AMENDED SOIL THEN FILL HOLE WITH WATER, LET DRAIN, REPEAT WATER AND DRAIN. BACK FILL TO FINISH GRADE, TAMP GENTLY, AND CREATE EARTH SAUCER. WATER THOROUGHLY ONCE AGAIN TO REMOVE REMAINING AIR POCKETS.

2" X 2" OR 2 1/2" DIAMETER STAKES WITH 2 #12 GAUGE WIRES ENCASED IN 2-PLY REINFORCED RUBBER HOSE 1/2" DIAMETER OR CHAINLOCK AS APPROVED BY LANDSCAPE ARCHITECT. THREE (3) STAKES LOCATED 120" APART. STAKES SHALL BE FIRMLY SET TO PROVIDE NECESSARY TENSION.



3 DECIDUOUS TREE DETAIL

NTS

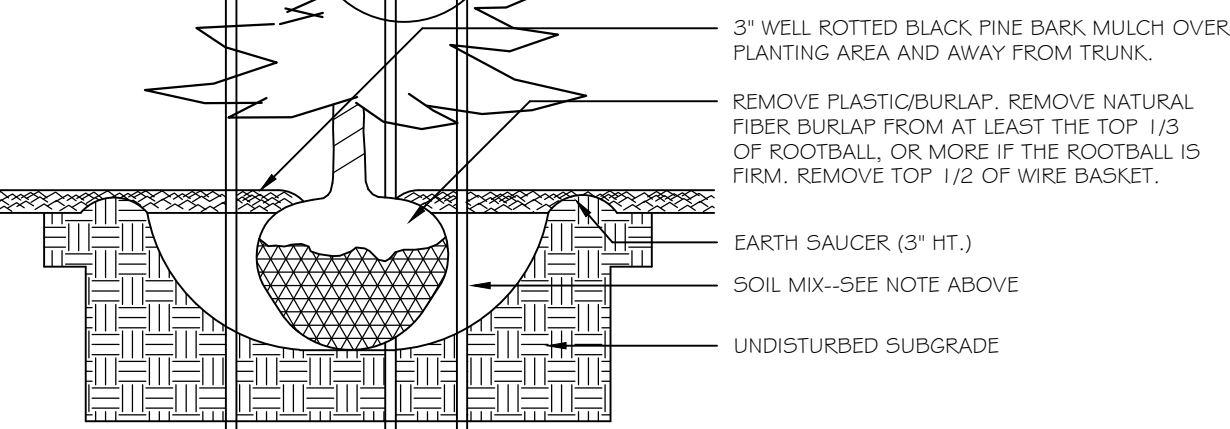
PLANT INSTALLATION NOTES:

DIG HOLE AT LEAST 2 TIMES THE WIDTH OF ROOT BALL AND AS DEEP AS THE ROOT BALL (NO DEEPER). SET ROOT BALL CENTERED, WITH TOP AT GROUND LEVEL OR SLIGHTLY HIGHER. CORRECT HOLE DEPTH AS NEEDED.

FOR NEEDLED EVERGREEN TREES: 1 FULL WHEELBARROW EXISTING SOIL, 2 SHOVELS PEAT, 1 SHOVEL WELL ROTTED MANURE, OR OTHER COMPOSTED ORGANIC MATERIAL.

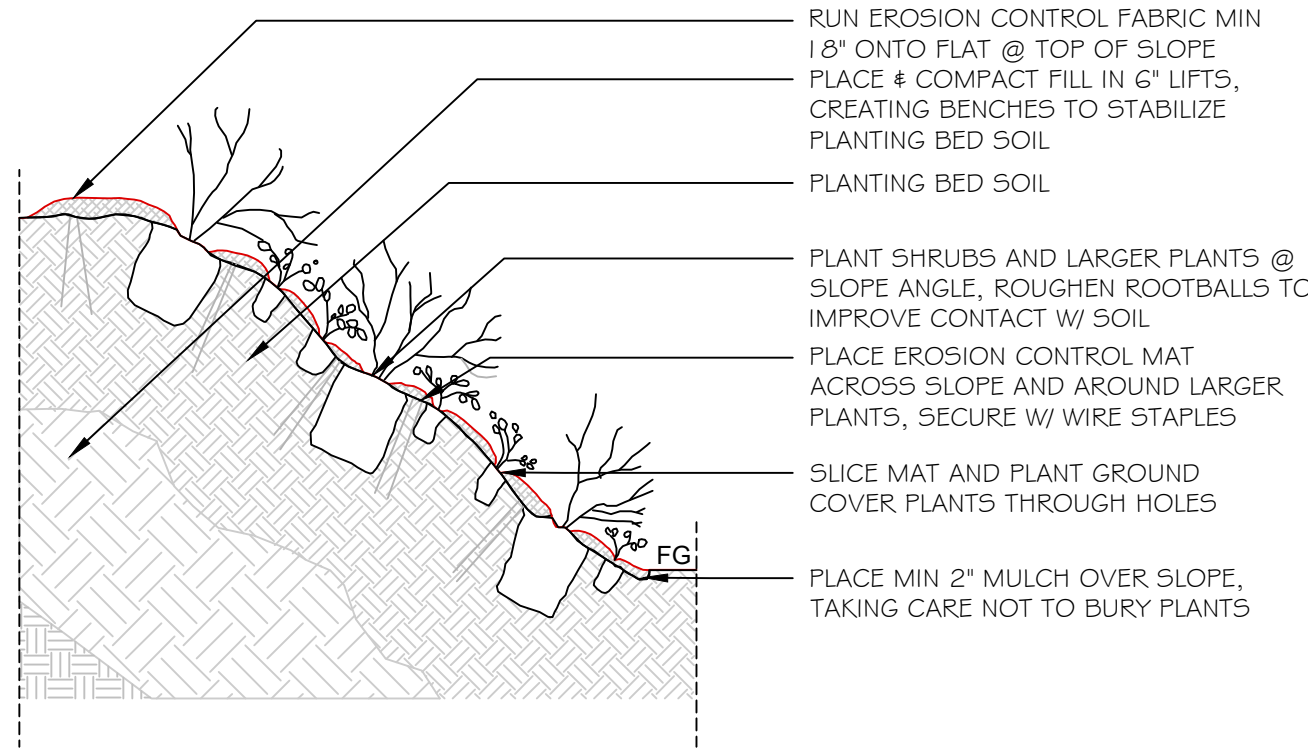
BACKFILL 2/3 OF HOLE WITH AMENDED SOIL THEN FILL HOLE WITH WATER, LET DRAIN, REPEAT WATER AND DRAIN. BACK FILL TO FINISH GRADE, TAMP GENTLY, AND CREATE EARTH SAUCER. WATER THOROUGHLY ONCE AGAIN TO REMOVE REMAINING AIR POCKETS.

2" X 2" OR 2 1/2" DIAMETER STAKES WITH 2 #12 GAUGE WIRES ENCASED IN 2-PLY REINFORCED RUBBER HOSE 1/2" DIAMETER OR CHAINLOCK AS APPROVED BY LANDSCAPE ARCHITECT. THREE (3) STAKES LOCATED 120" APART (STAKES SHALL BE FIRMLY SET TO PROVIDE NECESSARY TENSION).



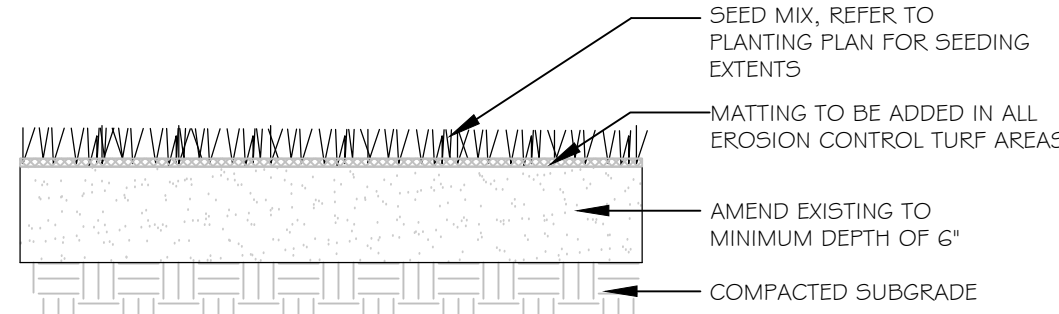
4 CONIFEROUS TREE INSTALLATION

NTS



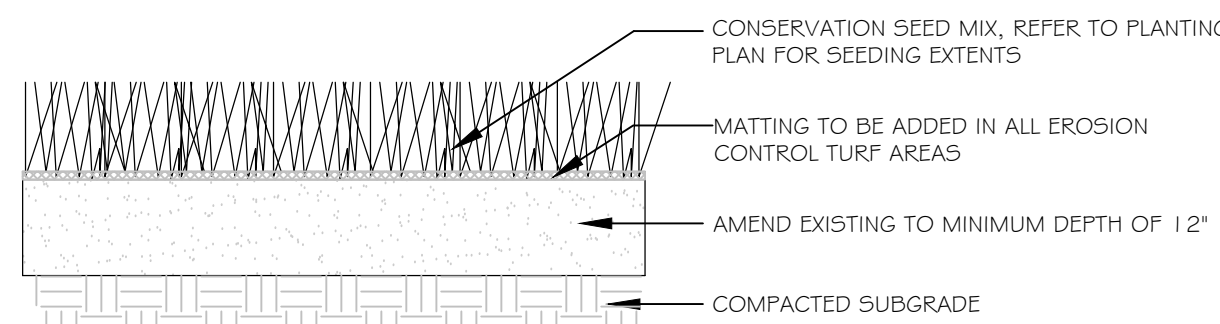
5 SLOPE PLANTING

NTS



6 LAWN (SEED)

NTS



7 MEADOW SEED MIX

NTS

** BIORETENTION MIX:

A. RAIN GARDEN SOIL MIX SHALL BE COMPOSED AS FOLLOWS:

COMPONENT	PERCENTAGE PASSING BY WEIGHT
TOPSOIL	20-30%
SAND	40%
COMPOST	30-40%

B. TOPSOIL SHALL BE SANDY LOAM, LOAMY SAND OR LOAM AS DEFINED BY THE USDA CLASSIFICATION SYSTEM.

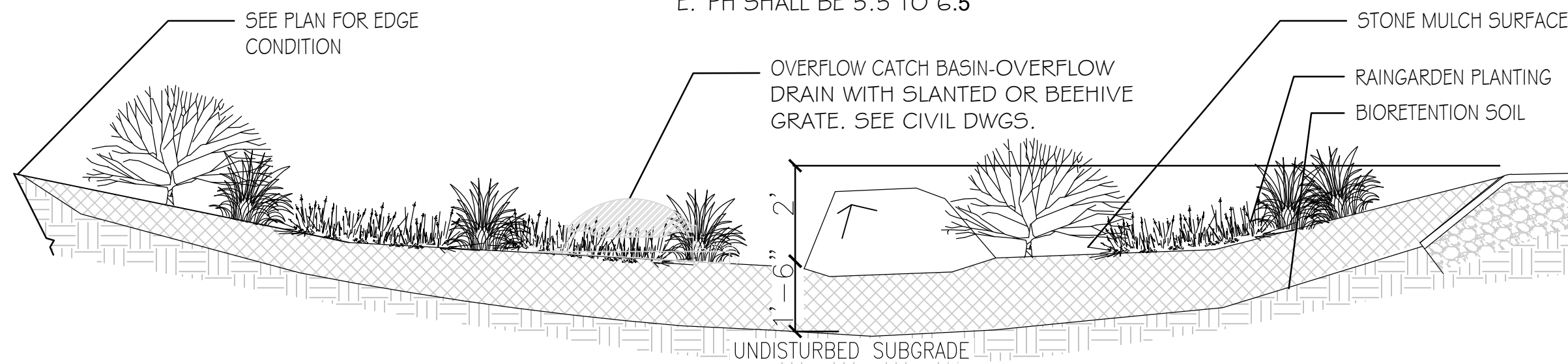
C. COMPOST SHALL BE LEAF COMPOST. COMPOST SHALL BE FULLY MATURE. BIOSOLIDS ARE NOT ALLOWED FOR THE COMPOST COMPONENT.

D. SAND SHALL BE GRAVELLY SAND THAT MEETS ASTM D 422 AND THE FOLLOWING GRADATION:

INCH	PERCENT PASSING BY WEIGHT	
	MAXIMUM	
	MINIMUM	
2	---	100
0.75	100	
	70	
0.25	80	50
#40	40	15
#200	3	0

E. PH SHALL BE 5.5 TO 6.5

NOTE: CONTRACTOR TO PROVIDE SOIL TEST WITHIN 2 WEEK OF SITE DELIVERY



8 RAIN GARDEN

NTS

Prepared For:
144 FORE STREET, OZ, LLC
PO BOX 910
Westbrook, Me 04098-0910

Prepared By:
Mitchell & Associates
LANDSCAPE ARCHITECTS
70 Center Street
Portland, Maine 04101
P: 207.774.4427

THAMES STREET
Portland, Maine
Thames Street

Date:
MARCH 13, 2023

Issued For:
PERMITTING

Revisions:
COMMENT RESPONSE 08.24.2023

Reproduction or reuse of this document without the expressed written consent of Mitchell & Associates is prohibited.
© 2023

Title: DETAILS

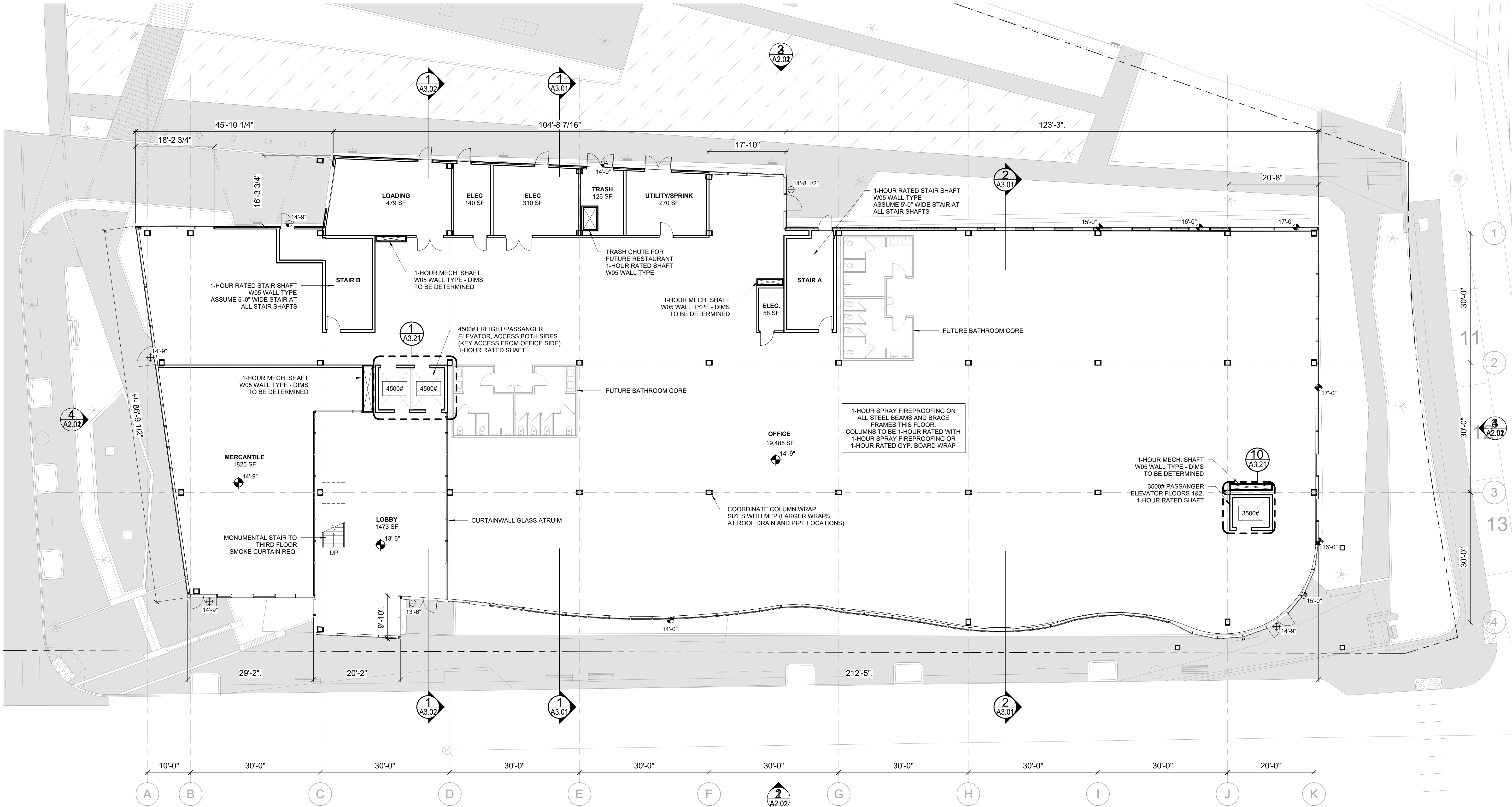
Scale: AS NOTED

North:

Sheet No.:

L9





1 | 1ST FLOOR
3/32" = 1'-0"

SYMBOL LEGEND:	
WALL	
RATED COORIDOR OR DEMISING WALL	
WALL TYPE/FLOOR TYPE DESIGNATION	
DOOR SWING AND IDENTIFICATION, SEE DOOR SCHEDULE FOR REQUIREMENTS	
FIRE EXTINGUISHER CABINET	
BUILDING SECTION	
WALL SECTION	
PLAN DETAIL	

GENERAL NOTES:	
1. ALL INTERIOR PARTITIONS, RATED AND UNRATED, SHALL EXTEND FROM FLOOR DECK TO UNDERSIDE OF DECK ABOVE CONTINUOUSLY. WHERE UNRATED PARTITION WALLS ARE BELOW GYPSUM BOARD SUSPENDED SOFFITS, THESE WALLS SHALL STOP AT THE LEVEL OF THE SOFFIT, PROVIDED THOSE WALLS ARE NOT AN ELEMENT OF THE SOUND OR FIRE-RATED ASSEMBLIES BETWEEN DWELLINGS AND BETWEEN DWELLINGS AND CORRIDORS.	4. ALL DIMENSIONS ARE TO FACE OF ROUGH FRAMING, COLUMN CENTERLINES AND FACE OF MASONRY. ALL DIMENSIONS MUST BE FIELD VERIFIED AND ANY ADJUSTMENTS MADE FOR ACTUAL FOUND CONDITIONS. CLEAR FINISHED DIMENSIONS ARE NOTED.
2. ALL RATED CORRIDOR AND DEMISING WALLS TO EXTEND TO UNDERSIDE OF DECK ABOVE, OR PROVIDE SOLID WOOD FIRE BLOCKING CONTINUOUS ALONG TOP PLATE, UNLESS NOTED OTHERWISE IN THE DETAIL.	5. ALL WORK SHALL CONFORM TO 2015 INTERNATIONAL BUILDING CODE, THE NFPA-101 LIFE SAFETY CODE AND ALL OTHER APPLICABLE CODES AND REGULATIONS WITHIN THE TOWN.
3. OFFSET STUDS WHERE REQUIRED TO ACCOMMODATE STRAIGHT RUNS OF WALLS WITH 1 AND 2 LAYERS OF GYP BOARD. FINISHED GYP BOARD SHALL BE A CONTINUOUS PLANE.	6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR EXACT QUANTITY TAKE-OFFS BASED ON FILE OBSERVATIONS.
	7. GC SHALL COORDINATE THE LOCATION OF REQUIRED BLOCKING IN WALLS THAT RECIEVE CABINETS, SHELVING, ARTWORK, COAT ROD AND SHELVEYING WITH MILLWORK SUBCONTRACTOR.
	8. WHERE FIRE-RATED AND FULL HEIGHT PARTITIONS ARE PENETRATED BY STRUCTURAL MEMBERS, DUCTWORK, PIPING AND CONDUIT, THE GYPSUM BOARD SHALL BE SCRIBED TO FIT TIGHT AGAINST THE PENETRATING ITEM AND SEALED WITH THE APPROPRIATE SEALANT (RED). COORDINATE WITH MEP WORK AND DETAILS.

Prepared For:

Consultant:
ARCHETYPE ARCHITECTS
48 Union Wharf Portland, Maine 04101
207.772.6022 archetype@archetypepepa.com

Architect:
ARCHETYPE ARCHITECTS
48 Union Wharf Portland, Maine 04101
207.772.6022 archetype@archetypepepa.com

Project:
THAMES STREET OFFICE BUILDING
Thames Street
Portland, Maine

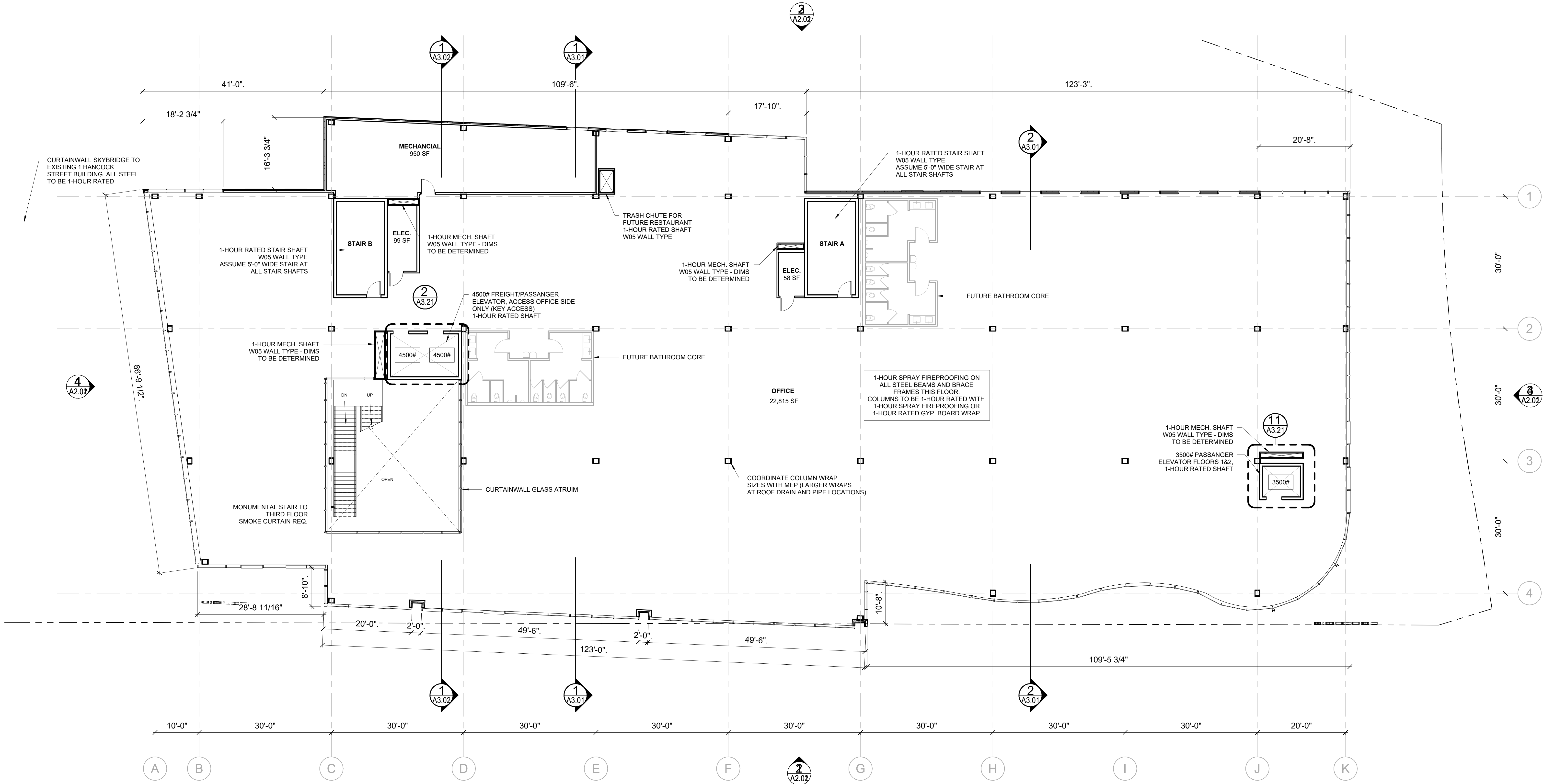
Revisions:

Date:
JUNE 09 2023

Scale:
As indicated

First Floor Plan

A1.01



2 | 2ND FLOOR
3/32" = 1'-0"

SYMBOL LEGEND:	
WALL	
RATED COORIDOR OR DEMISING WALL	
WALL TYPE/FLOOR TYPE DESIGNATION	
DOOR SWING AND IDENTIFICATION, SEE DOOR SCHEDULE FOR REQUIREMENTS	
FIRE EXTINGUISHER CABINET	
BUILDING SECTION	
WALL SECTION	
PLAN DETAIL	

GENERAL NOTES:	
1. ALL INTERIOR PARTITIONS, RATED AND UNRATED, SHALL EXTEND FROM FLOOR DECK TO UNDERSIDE OF DECK ABOVE CONTINUOUSLY. WHERE UNRATED PARTITION WALLS ARE BELOW GYPSUM BOARD SUSPENDED SOFFITS, THESE WALLS SHALL STOP AT THE LEVEL OF THE SOFFIT, PROVIDED THOSE WALLS ARE NOT AN ELEMENT OF THE SOUND OR FIRE-RATED ASSEMBLIES BETWEEN DWELLINGS AND BETWEEN DWELLINGS AND CORRIDORS.	4. ALL DIMENSIONS ARE TO FACE OF ROUGH FRAMING, COLUMN CENTERLINES AND FACE OF MASONRY. ALL DIMENSIONS MUST BE FIELD VERIFIED AND ANY ADJUSTMENTS MADE FOR ACTUAL FOUND CONDITIONS. CLEAR FINISHED DIMENSIONS ARE NOTED.
2. ALL RATED CORRIDOR AND DEMISING WALLS TO EXTEND TO UNDERSIDE OF DECK ABOVE, OR PROVIDE SOLID WOOD FIRE BLOCKING CONTINUOUS ALONG TOP PLATE, UNLESS NOTED OTHERWISE IN THE DETAIL.	5. ALL WORK SHALL CONFORM TO 2015 INTERNATIONAL BUILDING CODE, THE NFPA-101 LIFE SAFETY CODE AND ALL OTHER APPLICABLE CODES AND REGULATIONS WITHIN THE TOWN.
3. OFFSET STUDS WHERE REQUIRED TO ACCOMMODATE STRAIGHT RUNS OF WALLS WITH 1 AND 2 LAYERS OF GYP BOARD. FINISHED GYP BOARD SHALL BE A CONTINUOUS PLANE.	6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR EXACT QUANTITY TAKE-OFFS BASED ON FILE OBSERVATIONS.
	7. GC SHALL COORDINATE THE LOCATION OF REQUIRED BLOCKING IN WALLS THAT RECIEVE CABINETS, SHELVING, ARTWORK, COAT ROD AND SHELVING WITH MILLWORK SUBCONTRACTOR.
	8. WHERE FIRE-RATED AND FULL HEIGHT PARTITIONS ARE PENETRATED BY STRUCTURAL MEMBERS, DUCTWORK, PIPING AND CONDUIT, THE GYPSUM BOARD SHALL BE SCRIBED TO FIT TIGHT AGAINST THE PENETRATING ITEM AND SEALED WITH THE APPROPRIATE SEALANT (RED). COORDINATE WITH MEP WORK AND DETAILS.

Prepared For:

Consultant:
ARCHETYPE ARCHITECTS
48 Union Wharf Portland, Maine 04101
207.772.6022 archetype@archetypepa.com

Architect:
ARCHETYPE ARCHITECTS
48 Union Wharf Portland, Maine 04101
207.772.6022 archetype@archetypepa.com

Project:
THAMES STREET OFFICE BUILDING
Thames Street
Portland, Maine

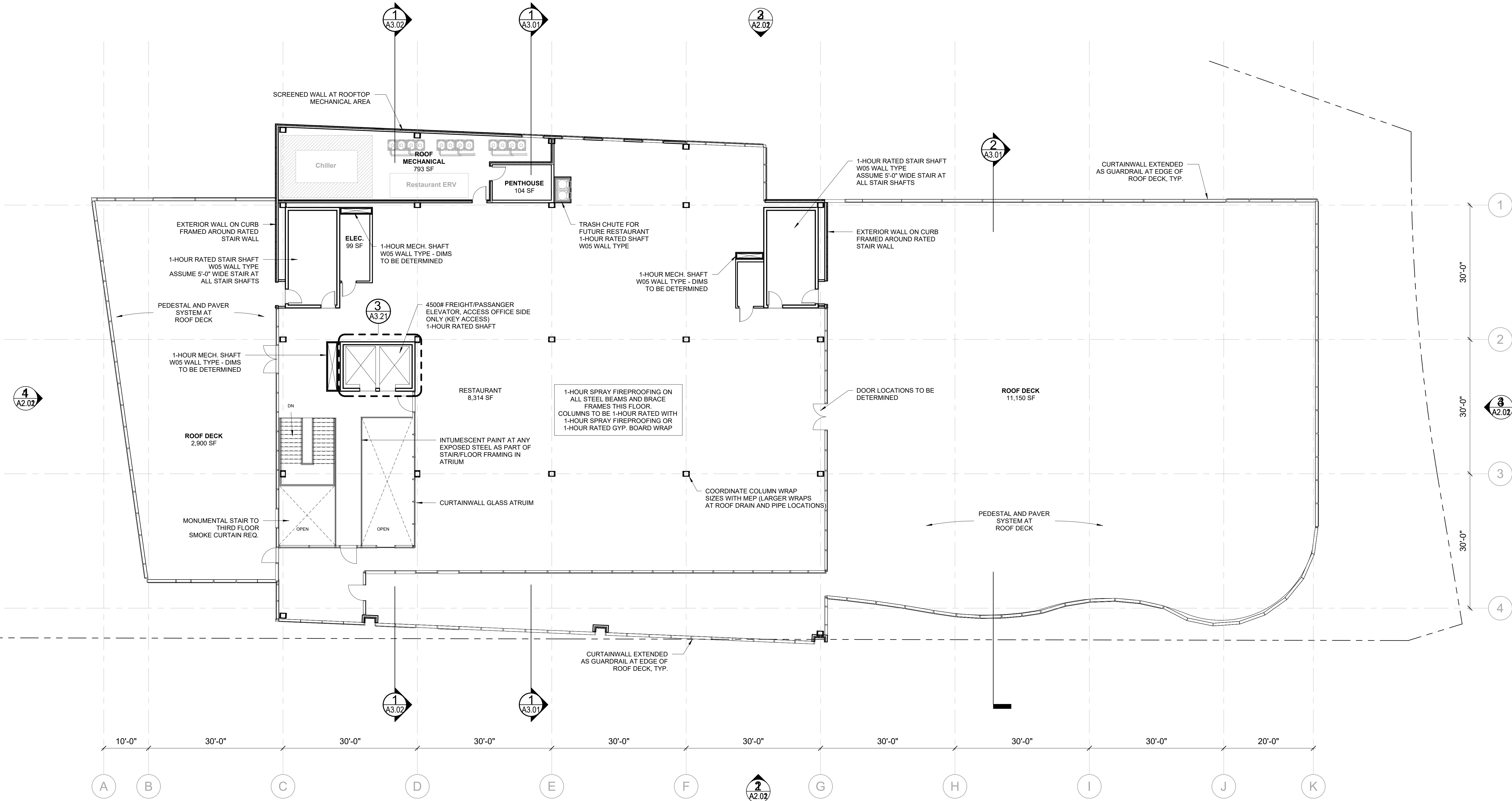
Revisions:

Date:
JUNE 09 2023

Scale:
As indicated

Second Floor Plan

A1.02



1 | 3RD FLOOR
3/32" = 1'-0"

SYMBOL LEGEND:		GENERAL NOTES:	
WALL		1. ALL INTERIOR PARTITIONS, RATED AND UNRATED, SHALL EXTEND FROM FLOOR DECK TO UNDERSIDE OF DECK ABOVE CONTINUOUSLY. WHERE UNRATED PARTITION WALLS ARE BELOW GYPSUM BOARD SUSPENDED SOFFITS, THESE WALLS SHALL STOP AT THE LEVEL OF THE SOFFIT, PROVIDED THOSE WALLS ARE NOT AN ELEMENT OF THE SOUND OR FIRE-RATED ASSEMBLIES BETWEEN DWELLINGS AND BETWEEN DWELLINGS AND CORRIDORS.	4. ALL DIMENSIONS ARE TO FACE OF ROUGH FRAMING, COLUMN CENTERLINES AND FACE OF MASONRY. ALL DIMENSIONS MUST BE FIELD VERIFIED AND ANY ADJUSTMENTS MADE FOR ACTUAL FOUND CONDITIONS. CLEAR FINISHED DIMENSIONS ARE NOTED.
RATED COORIDOR OR DEMISING WALL		2. ALL RATED CORRIDOR AND DEMISING WALLS TO EXTEND TO UNDERSIDE OF DECK ABOVE, OR PROVIDE SOLID WOOD FIRE BLOCKING CONTINUOUS ALONG TOP PLATE, UNLESS NOTED OTHERWISE IN THE DETAIL.	5. ALL WORK SHALL CONFORM TO 2015 INTERNATIONAL BUILDING CODE, THE NFPA-101 LIFE SAFETY CODE AND ALL OTHER APPLICABLE CODES AND REGULATIONS WITHIN THE TOWN.
WALL TYPE/FLOOR TYPE DESIGNATION		3. OFFSET STUDS WHERE REQUIRED TO ACCOMMODATE STRAIGHT RUNS OF WALLS WITH 1 AND 2 LAYERS OF GYP BOARD. FINISHED GYP BOARD SHALL BE A CONTINUOUS PLANE.	6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR EXACT QUANTITY TAKE-OFFS BASED ON FILE OBSERVATIONS.
DOOR SWING AND IDENTIFICATION, SEE DOOR SCHEDULE FOR REQUIREMENTS			7. GC SHALL COORDINATE THE LOCATION OF REQUIRED BLOCKING IN WALLS THAT RECIEVE CABINETS, SHELVING, ARTWORK, COAT ROD AND SHELVING WITH MILLWORK SUBCONTRACTOR.
FIRE EXTINGUISHER CABINET			8. WHERE FIRE-RATED AND FULL HEIGHT PARTITIONS ARE PENETRATED BY STRUCTURAL MEMBERS, DUCTWORK, PIPING AND CONDUIT, THE GYPSUM BOARD SHALL BE SCRIBED TO FIT TIGHT AGAINST THE PENETRATING ITEM AND SEALED WITH THE APPROPRIATE SEALANT (RED). COORDINATE WITH MEP WORK AND DETAILS.
BUILDING SECTION			
WALL SECTION			
PLAN DETAIL			

Prepared For:

Address
City, State

Consultant:

ARCHETYPE
ARCHITECTS

48 Union Wharf Portland, Maine 04101
207.772.6022 archetype@archetypepa.com

Project:

THAMES STREET
OFFICE BUILDING

Thames Street
Portland, Maine

Revisions:

Date:

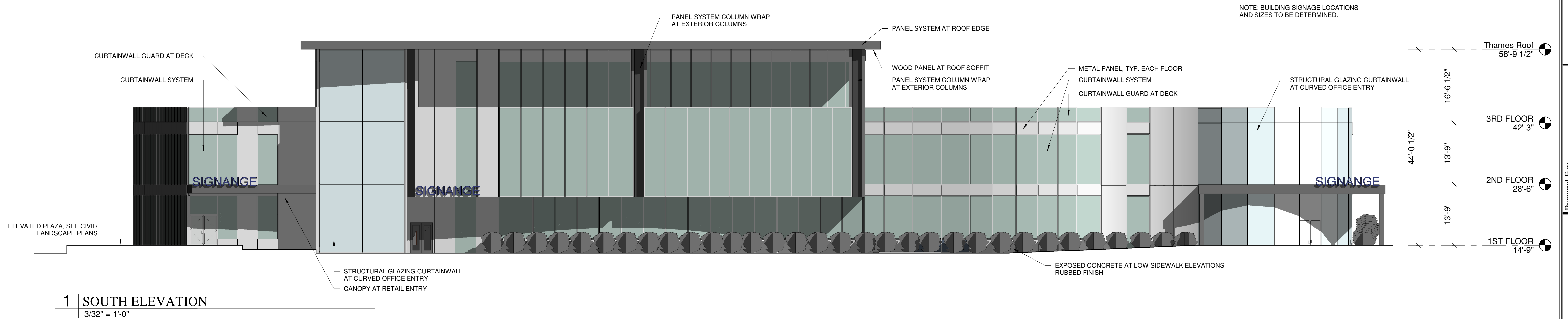
JUNE 09 2023

Scale:

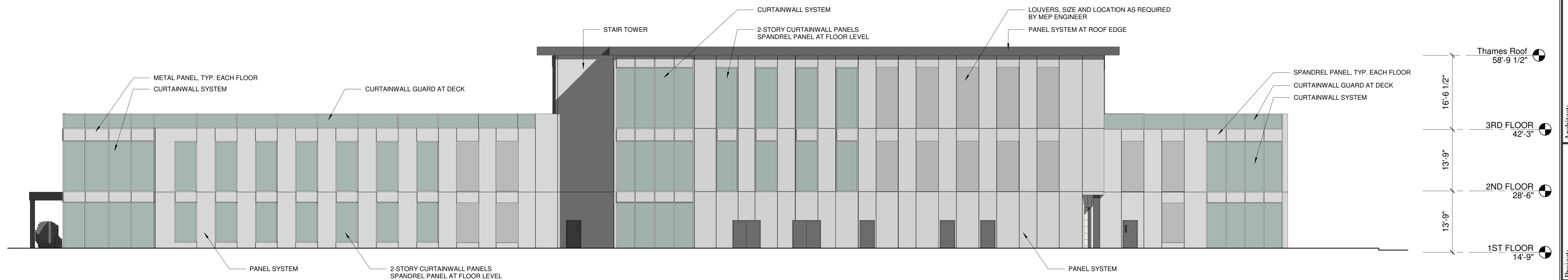
As indicated

Third Floor Plan

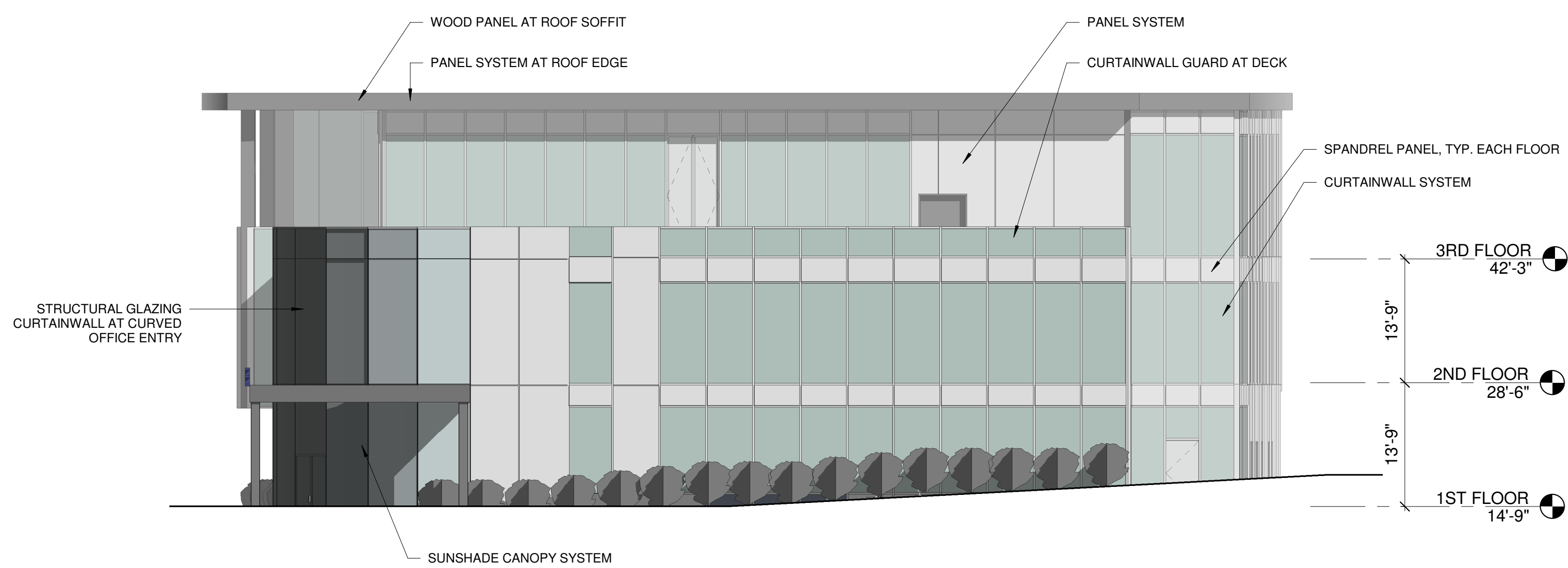
A1.03



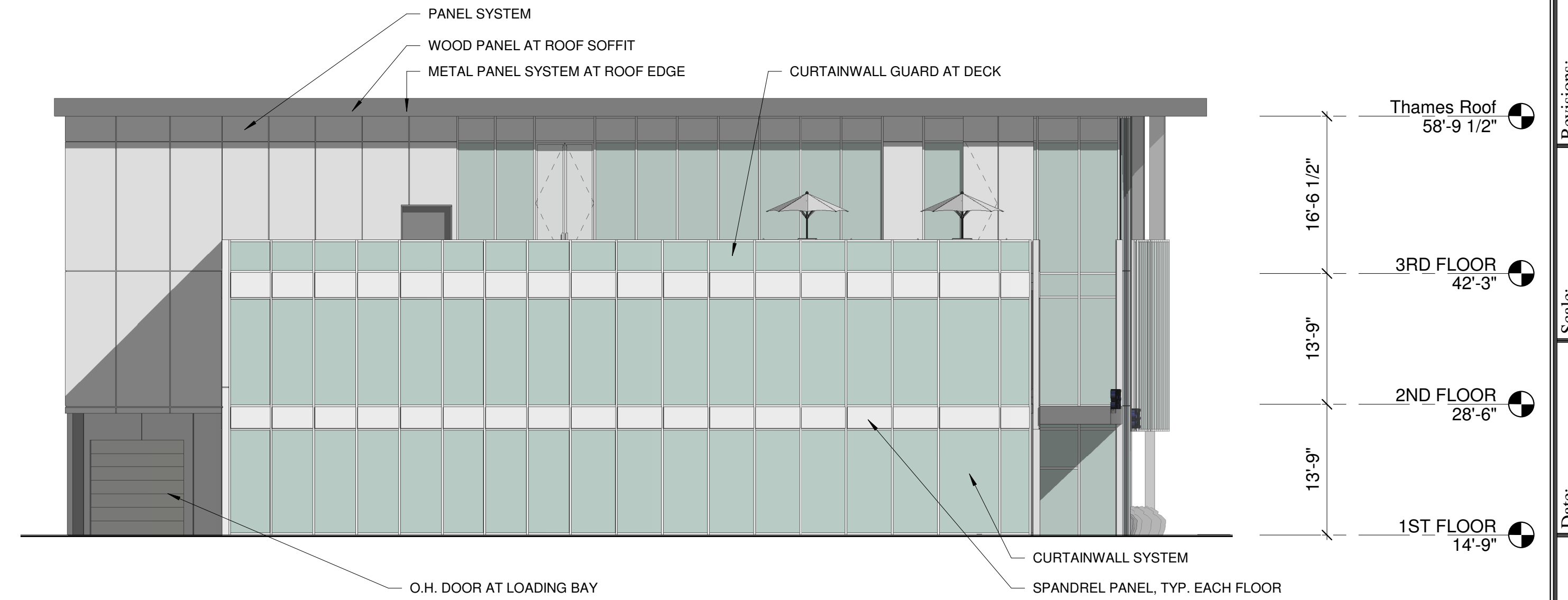
1 | SOUTH ELEVATION
3/32" = 1'-0"



2 | NORTH ELEVATION
3/32" = 1'-0"

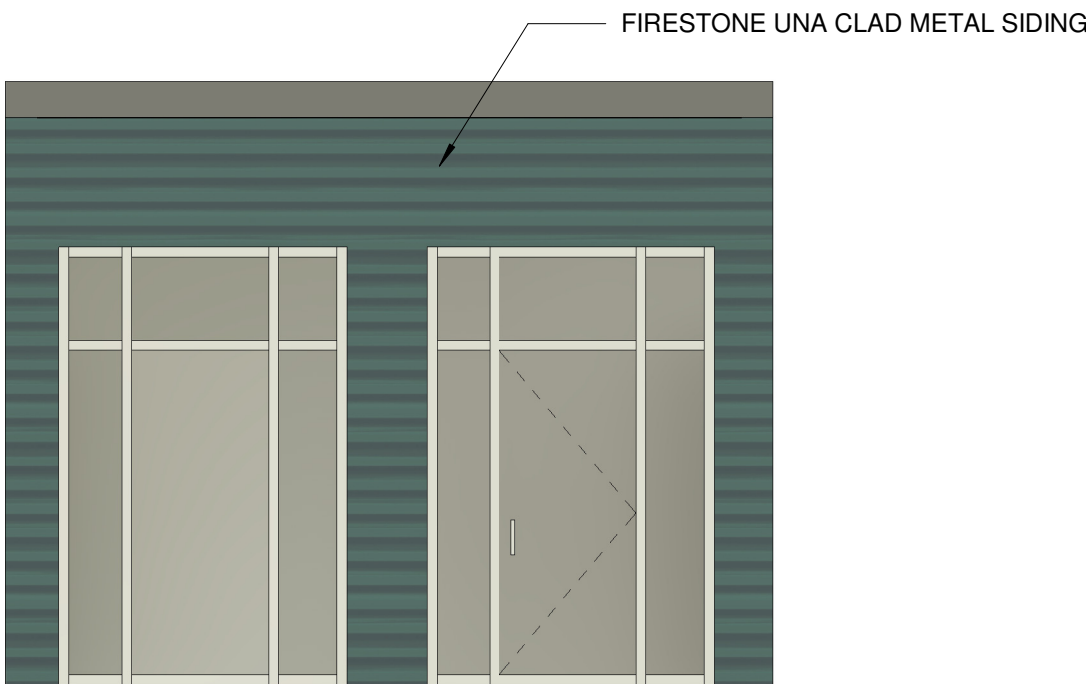
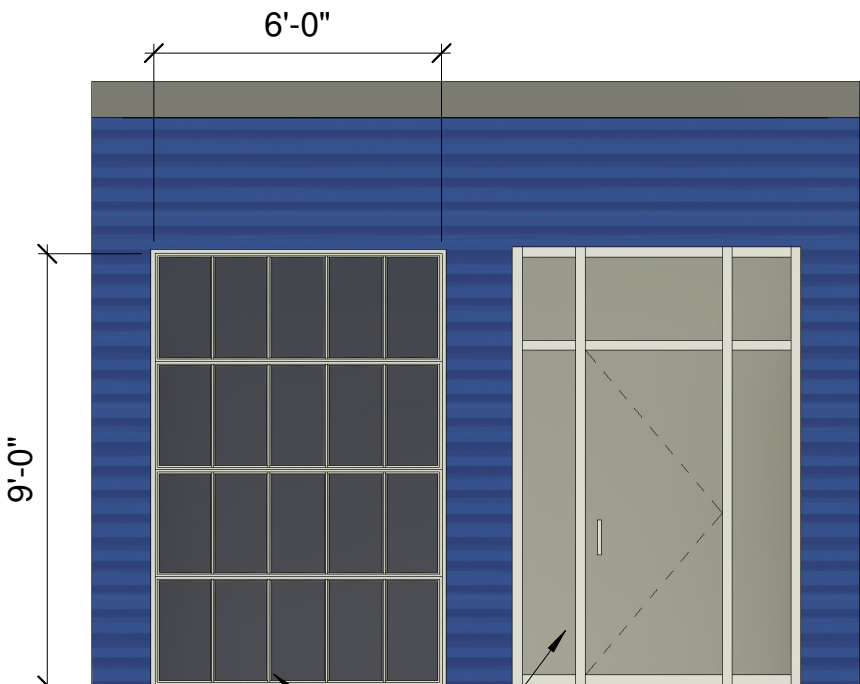
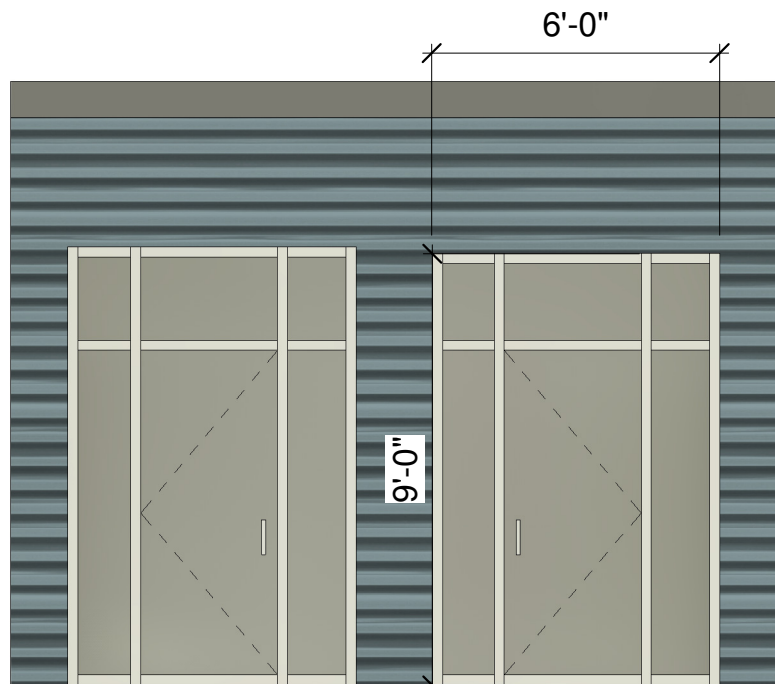
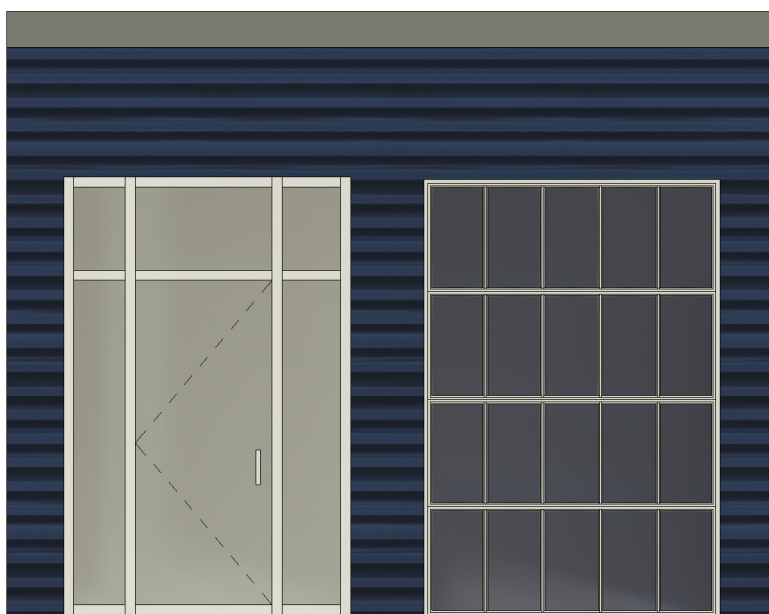
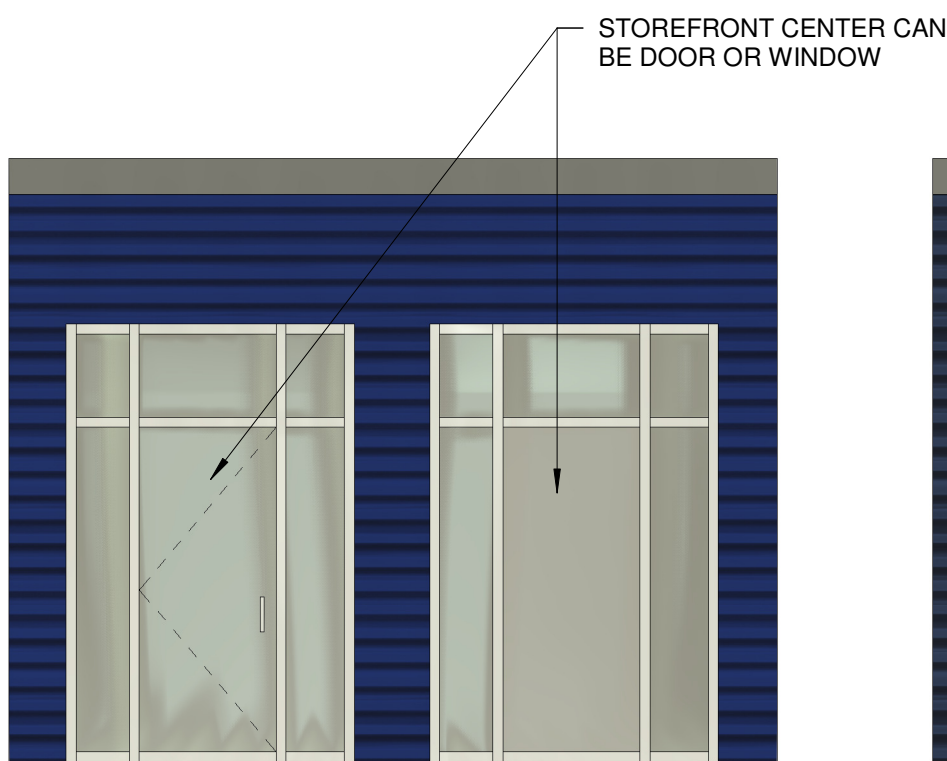


3 | EAST ELEVATION
3/32" = 1'-0"



4 | WEST ELEVATION
3/32" = 1'-0"

Prepared For: --- Address City, State	
Consultant:	
Architect:	ARCHETYPE ARCHITECTS 48 Union Wharf Portland, Maine 04101 207.772.6022 archetype@archetypepa.com
Project:	THAMES STREET OFFICE BUILDING Thames Street Portland, Maine
Revisions:	
Date:	Scale:
JULY 05 2023	3/32" = 1'-0"
Building Elevations	
A2.01	



1 | INCUBATOR ELEVATIONS
1/4" = 1'-0"



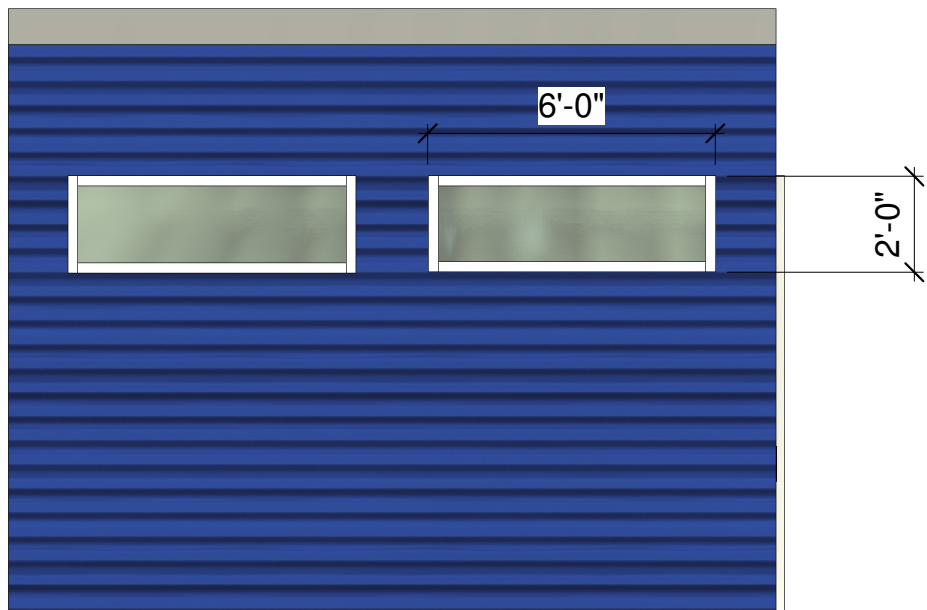
UNA-CLAD™ METAL
COLOR SELECTION

Stone White	Bone White	Almond	Sandstone	Sierra Tan
Slate Gray	Aged Zinc*	Cityscape	Charcoal Gray	Matte Black
Mansard Brown	Burnished Slate*	Medium Bronze	Dark Bronze	Extra Dark Bronze
Brandywine	Regal Red	Colonial Red	Terra Cotta	Hartford Green
Award Blue*	Regal Blue	Sky Blue	Electric Blue*	Teal
Sherwood Green	Dark Ivy	Patina Green	Helmlock Green	Tropical Patina
Vintage*®	Silver Metallic*	Classic Copper*	Champagne Metallic*	

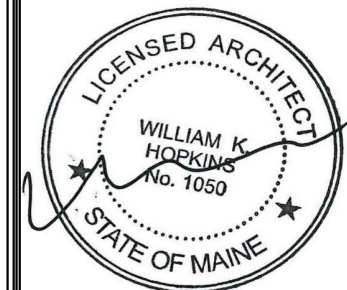
Colors shown are as close to actual painted steel as allowed by the printing process. Contact your local Sales Rep for actual metal samples.
SRI numbers available by request.
* = Denotes premium color. ® = 20-year finish warranty.

Item #1185R2

Firestone
firestonebpco.com



2 | INCUBATOR SIDE ELEVATION
1/4" = 1'-0"



Prepared For:

Issued:	Issued For Construction - 11/15/2017
Issued For Permit - 10/23/2017	

Architect:

ARCHETYPE
architects

48 Union Wharf Portland, Maine 04101
(207) 772-6002 ARCHETYPE@ARCHETYPEPA.COM

Project:

**THAMES STREET
OFFICE BUILDING**

Thames Street
Portland, Maine

Revisions:

Date: JULY 05 2023

Scale: 1/4" = 1'-0"

**INCUBATOR
ELEVATIONS**

A2.02





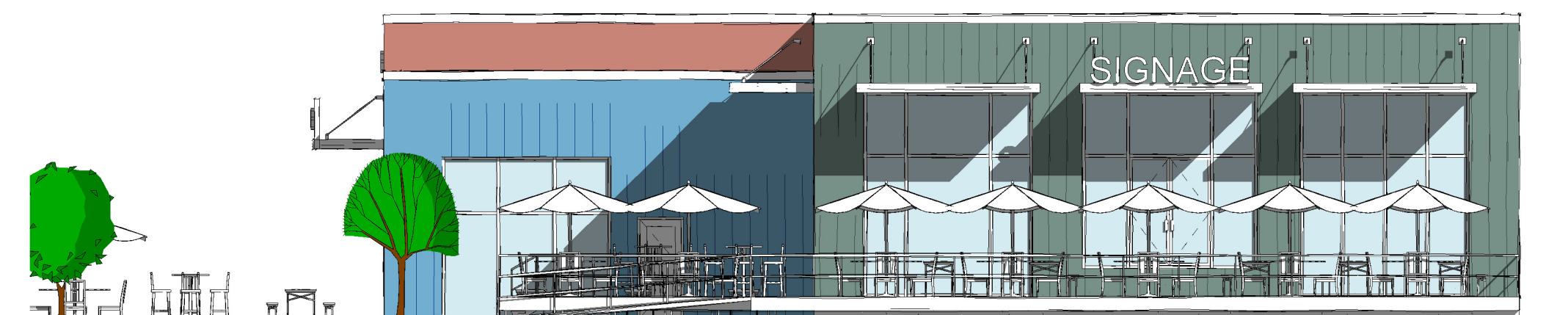
4 | 1ST FLOOR - NEW
1" = 10'-0"



1 | SOUTH ELEVATION
1" = 10'-0"



2 | WEST ELEVATION
1" = 10'-0"



3 | EAST ELEVATION
1" = 10'-0"

144 FORE STREET

PORTLAND, ME

04-28-2023

ARCHETYPE
ARCHITECTS
48 Union Wharf Portland, Maine 04101
(207) 772-6022 Fax (207) 772-4056



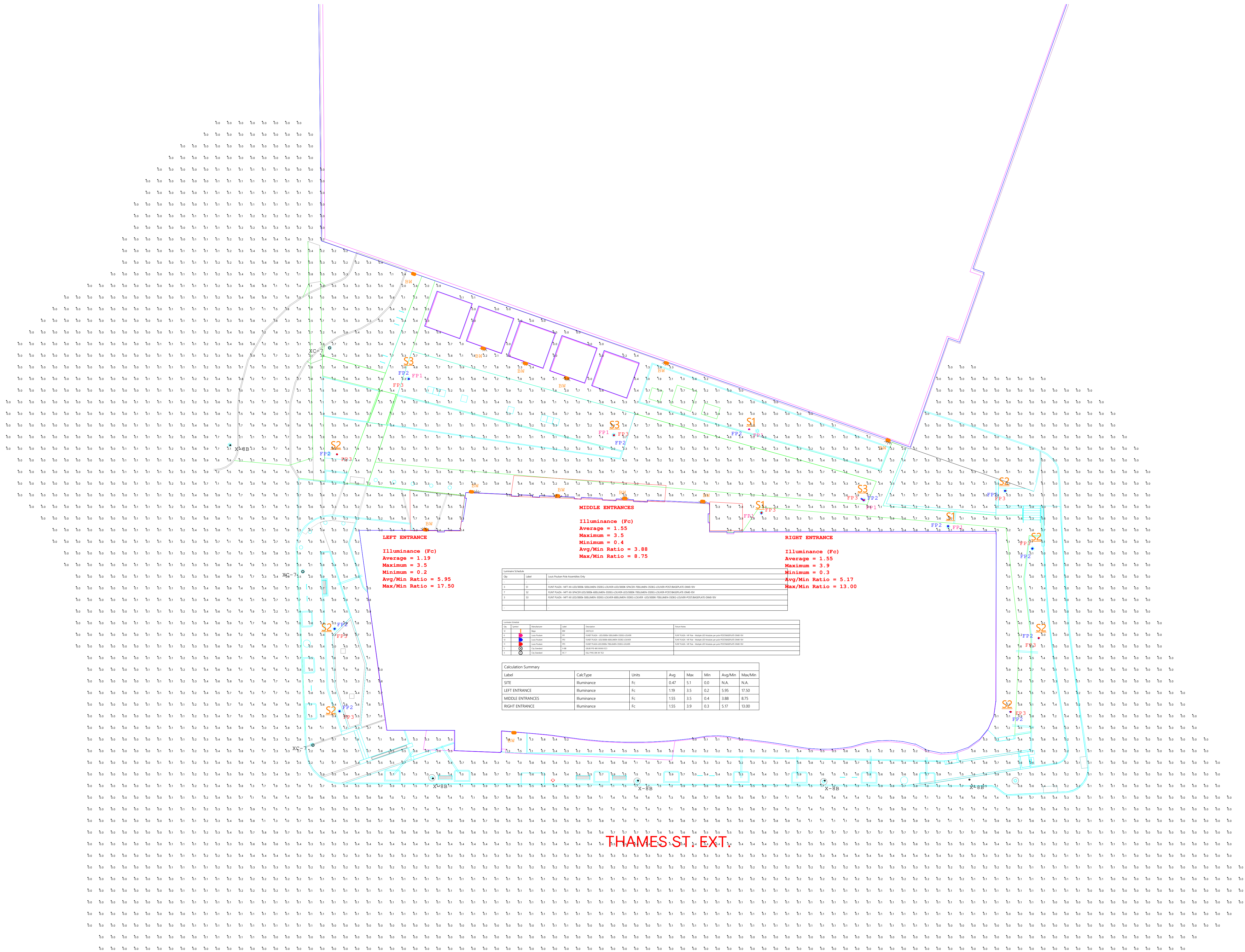
Revisions		
#	Date	Comments

Drawn By: MC

Checked By: MC

Date: 7/11/2023

Scale: 1" = 20ft



Review Criteria:

- Chapter 14 Site Plan Standards (Major Site Plan)
- Design Review
- B-6 Zoning Dimensional Standards and Guidelines

Please submit a written response to the comments below and upload the response, revised submissions, and new material to Project Dox (make sure all submissions maintain the same file naming format to allow for versioning) Once uploaded, please send an email to ctetelman@portlandmaine.gov notifying the planner of the resubmission:

GENERAL

- The Design Review Memo has been attached to this comment document.
- Please show all Snow Storage areas on site or include commentary on how Snow will be managed and removed from the site.

ZONING

- Zoning Analysis Table notes the required maximum height is 65 ft. Looking at the B-6 Zone Building Height Overlay Map, the proposed site is in the 45 ft. maximum height area. The elevations (A2.01) need to show the height from the average grade to the roof beam and also need to show how average grade is determined.
- Note – for proposed roof top decks, any type of shade structure or roof will need to meet the 45 ft. maximum height from the average grade.
- The applicant is proposing 100 off-street parking spaces in the 100 Fore St. Parking Garage. The applicant will have to meet the criteria outlined in section 19.1.6(B). A parking study is required.
- Please provide expected uses for the five buildings and provide a brief description of how they are intended to be operated (time, use, etc.)? Does the applicant have any solidified plans related to those structures? If ‘incubator spaces’, please elaborate further.
- Freedom Way and Thames Street have 10 ft. setbacks. City Staff recommend moving the building footprint West towards Freedom Way and get rid of the walking path in between the existing sidewalk and the building (along Freedom Way). Additionally, please be sure to show setback dimensions on site plan.

TRANSPORTATION

- This application was part of the Eastern Waterfront Traffic Movement Permit. The applicant shall provide specific information that the following assumptions in the TMP are valid. City Staff note the current project includes retail and incubator business space.
 - *The development of a City of Portland owned parcel at 70 Thames Street, proposed to include 72,000 sf of office space with parking off-site in one of several parking garages being developed in the vicinity. City Tax Map 19; Block A, Lot #002001. The project is estimated to generate 126 AM and 139 PM weekday peak hour trip ends.*
- The Eastern Waterfront Traffic Movement Permit noted the following:
 - The City owned parcel shall pay the City’s Traffic Impact Fee as stated in their Ordinance (\$2,800 per sf of office space, with the fee(s) adjusted as necessary based upon a site plan application once submitted).

- City owned parcel. One general delivery driveway is expected to be incorporated into the final design. All parking demand is expected to be met elsewhere in the future structured parking in the vicinity. Final site access will be determined as part of Site Plan approval.
- The period for which the traffic impacts of the project have been assessed is 5 years, with a full build-out at year 2023. If the full build-out extends beyond year 2023, the Department may require a study during the year of full occupancy. Coordination with MaineDOT is required.
- The applicant shall provide turning templates for truck movements entering and exiting the site. This shall also include justification for the width of the driveway and size of the radii.
- The crosswalk location, alignment and ADA compliance on Thames Street will need to be reviewed and approved by DPW.
- Improvements in the ROW shall be dimensions on the plan view sheets. For example ROW, street, lanes sidewalk, esplanade driveways (and other improvements) widths as well as when a width changes.
- The applicant shall update the plans to label or provide spot grades and slopes for the proposed sidewalks, accessible ramps and driveways at grade breaks.
- The applicant shall provide clarification on what the proposed hardscape material is within the ROW.
- The City's Technical Manual has been recently updated and approved. After reviewing the proposed details, applicant is using outdated details. The applicant shall update all proposed details (Site, Sewer, Stormwater, Landscape, details) to meet the requirements of the recently approved technical manual update.
- The entrance to the property along Thames Street shall be constructed as a driveway not a roadway. This will eliminate / change the two accessible ramps.
- Any proposed accessible ramp shall be constructed separated from the driveway apron using the sidewalk as the landing. See example below.



- The sidewalks and driveway shall be reconstructed in accordance with the City's Sidewalk and Driveway Apron Material Policy, and made compliant per the City's Technical Manual Section 1 and the current standard details. The sidewalk material shall be continued through the driveway aprons

at grade with the proposed sidewalk and not in excess of 2% cross-slope per the current City standards.

- Consolidate proposed service trenches to have one final (full street width) trench repair.
- The proposed trenches shall be repaired per the Minor Excavation Pavement Repair Details (prior to paving the finished surface) found in the Rules and Regulations for Excavation Activity. Update the plans and detail sheets to show these requirements.
- The proposed UGE and Telecommunication connection in the sidewalk along Fore Street is not a valid connection Point. The applicant shall verify that services are available at this location and provide an alternate connection point on the next submittal.

WATER QUALITY, STORMWATER, & INFRASTRUCTURE

- The project is required to comply with MaineDEP Chapter 500 and City of Portland Section 5 standards for stormwater management.
 - Basic Standard – The Applicant should provide an erosion control plan in accordance with the Basic Standards.
 - General/Redevelopment Standard – The Applicant has not provided a stormwater management plan, but notes in their narrative on environmental standards that the sites runoff patterns will remain unchanged. Please confirm that there will not be 1,000 SF of new impervious surface or 5,000 SF of non-roof redeveloped impervious surface – if either of these thresholds are met, stormwater treatment will be required. It appears based on a review of the site plan that the redevelopment standard may need to be considered for the site.
 - Flooding Standard – The project has requested a waiver of the Flooding Standard as it will discharge to tidal waters. This is consistent with waivers granted for similar projects discharging to Casco Bay.
- The Grading, Drainage & Erosion Control Plan appears to have some layers turned off. I do not see any proposed drainage structures, piping, or erosion control measures shown. More information should be provided.
- Thames Street is currently in a paving moratorium. The plans should reflect the paving repair required for utility installations.
- The applicant's narrative notes they will be connecting to utilities in Fore Street, but may also maintain existing utilities on the site. They should provide confirmation from utility providers on ability to serve for all services anticipated to be maintained or added.
- The applicant shall update the grading and drainage plan to show proposed drainage infrastructure and connections to the City's storm drain system so DPW can review and provide comments.
- The applicant shall provide a wastewater capacity application to DPW water resources for review and approval.

LANDSCAPING & ENVIRONMENTAL QUALITY

- Street trees should be spaced in accordance with Technical Manual chapter 4.6.3 requirements: every 25-35 feet on center in the City ROW. The Thames street frontage should meet that requirement. The trees currently proposed are very irregularly and sometimes widely spaced.

- Removal of the two existing street trees (Pin Oaks) is acceptable, however the applicant should work with the City Arborist to evaluate the option of relocating them rather than disposing of them.
- The current landscape plan proposes numerous Maples as street trees. Maples as a genus are currently very over-represented in the City's street tree canopy. The City Arborist would prefer to see non-maples being planted on Thames to increase the Portland's urban canopy resilience against pests and disease. Tulip Poplars could be a good choice for the Thames Street frontage.
- Sheet L2 current landscape plan proposes numerous Maples as street trees. Maples as a genus are currently very over-represented in the City's street tree canopy. The City Arborist would prefer to see non-maples being planted on Thames to increase the Portland's urban canopy resilience against pests and disease. Tulip Poplars could be a good choice for the Thames Street frontage.
- Please provide more information on the proposed "reinforced turf" in the form of a detail or specifications so that City Staff can better understand what is being proposed and why. Is this material being proposed due to anticipated vehicular traffic on the lawn?
- There is a staircase wall extending into the Right of Way near the building's southern corner entrance. The wall (and stair if needed) should be adjusted to avoid narrowing/obstructing the sidewalk within the right-of-way.
- Please clarify the inside dimensions of the proposed raised granite tree wells. They are labeled as 5'x7' in the tree well detail but appear to be smaller on the landscape plans.
- When the raised granite tree wells directly abutt the street edge, they can form an obstruction to opening car doors. This can be avoided by the raised granite tree well "transitioning" to a flush curb where it abuts the street edge. Alternatively, the tree well may be shifted 2-3 feet away from the street-side curb to allow space for car doors to swing open.
- The City is willing to provide support/assist with removal of parking barrier materials along the Thames St perimeter of the site.

City Staff and Third-Party Peer Reviewers have completed the latest review of this application based off of the most recent submissions. Comments below have been provided to the Planning & Urban Development Department from the Department of Public Works, Water Resources, Zoning, and Third-Party Consulting Engineers (Stormwater + Traffic).

Please submit a written response to the comments below and upload the response, revised submissions, and new material to Project Dox (make sure all submissions maintain the same file naming format to allow for versioning). Once uploaded, please send an email to ctetelman@portlandmaine.gov notifying the planner of the resubmission.

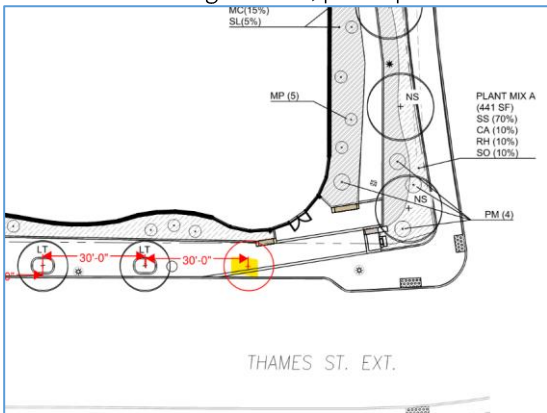
Be advised that additional comments may be forthcoming and other changes may still be required if the comments are not addressed adequately. If you have any questions, please do not hesitate to ask.

General Review Comments		
Review	Discussion	Status
General	<u>Overview:</u> Please provide information regarding plans for 144 Fore Street and the 100 Fore Street garage new entrance.	Not Met
	<u>Comments:</u> • City Staff understands that a portion of the 144 Fore buildings will be demolished. Zoning noted that a few new tenants will be utilizing the remaining space. The overall site plan is the only plan that shows new site work related to 144 Fore. Please provide additional information. • The applicant is proposing an entrance into the 100 Fore Street garage from Thames Street.	
RTI	<u>Overview:</u> The existing purchase and sale agreement between the applicant and the City has certain elements that need to be included.	Not Met
	<u>Comments:</u> • Does the applicant intend on utilizing the existing granite blocks on site? Parks Dept. would happily remove them for the applicant. • All easements have been noted on the easement plan. City Staff have more comments below about how the public access easement from Hancock to Freedom.	
<u>Additional Submissions Requested:</u> • Information Regarding 144 Fore Street • Information Regarding 100 Fore Street Garage		

14.6.1: Transportation Standards		
Standard	Discussion	Status
Impact on Surrounding Street Systems	<u>Overview:</u> This application is included under the Eastern Waterfront Traffic Movement Permit (TMP). City Staff requested specific information to confirm that no modification of this TMP is required.	Not Met
	<u>Comments:</u> The applicant shall provide supporting information that the restaurant will function as a Fine-Dining facility as defined by ITE, and why use of ITE Land Use code 814 Variety Store was selected.	

	• The City owned parcel shall pay the City's Traffic Impact Fee as stated in their Ordinance (\$2,800 per sf of office space, with the fee(s) adjusted as necessary based upon a site plan application once submitted). • One general delivery driveway is expected to be incorporated into the final design. All parking demand is expected to be met elsewhere in the future structured parking in the vicinity. Final site access will be determined as part of Site Plan approval. • The TMP contemplated a five year build out to be completed in 2023. City Staff will follow up with more information – the DOT may require a study during the first year of full occupancy. • The entrance to 100 Fore Street garage requires a site plan amendment to the 100 Fore St. application. The TMP did not envision an entrance to the Fore Street parking garage through Thames. Additional detail shall be provided by the applicant as to the purpose of this driveway connection when three other garage entrances exist.	
Access and Circulation	Overview: The applicant is proposing an ADA-accessible walkway from the 100 Fore Street Parking garage to the proposed building at 70 Thames Street. The applicant is proposing to install brick sidewalks along Freedom Way and the property's Thames Street frontage.	Not Met
	Comments: • The entrance to the property along Thames Street shall be constructed as a driveway not a roadway. This will eliminate the two accessible ramps (existing and proposed). Remove the two ramps and reconstruct the sidewalk on the adjacent property. • The driveway across from the site at shall be moved to the opposite side and outside of the limits of the driveway apron. Any proposed accessible ramp shall be constructed separated from the driveway apron using the sidewalk as the landing. • The sidewalks and driveway shall be constructed in accordance with the City's Sidewalk and Driveway Apron Material Policy, and made compliant per the City's Technical Manual Section 1 and the current standard details. The sidewalk material shall be continued through the driveway aprons at grade with the proposed sidewalk and not in excess of 2% cross-slope per the current City standards. • The proposed crosswalks within the property shall be raised crosswalks connecting the proposed sidewalk network. • The stair and associated wall provided for entry to the building's ground floor level appears to extend into the ROW. The wall and stair should not extend into the ROW and sidewalk.	
Public Transit Access	Overview: METRO Route 8 runs along Commercial Street and India Street to the west of the proposed development, with stops at Casco Bay Lines and along India Street. The site is not within a ¼ mile of a transit stop.	Met
	Comments: • None	
Parking	Overview: The applicant notes that parking for 70 Thames Street will be at the Ocean Gateway and 100 Fore Street parking garages.	Under Review
	Comments:	

	• Update the plans to provide signage information for the proposed parking in the ROW. • Please confirm the number of parking spots to be allocated at the Ocean Gateway and 100 Fore Street garages. City Staff note that the P+S dedicates parking spots in the garage to the City.	
Transportation Demand Management	<u>Overview:</u> The applicant will be required to update the existing TDM plan that was developed as part of the 1 Hancock Street and 100 Fore Street site plan applications.	Under Review
	<u>Comments:</u> • Please submit an updated TDM for review.	
<u>Additional Submissions Requested:</u> • Supporting information for Fine-Dining restaurant as defined by ITE and why use 814 is selected. • TMP Clarification (from City Staff) • Fore Street Garage entrance (from Thames) details and information • Updated plans showing parking in the ROW		

14.6.2: Environmental Quality Standards		
Standard	Discussion	Status
Preservation of Significant Natural Features	There are no existing significant natural features on site. The site is located on an existing surface parking lot that is mostly impervious surface.	N/A
Landscape Preservation	The proposed development 'aims to replenish an urban land area consisting of a parking lot, building, and grassed shoulders' (Attachment 8). The existing site has little landscaping currently and the proposed landscaping plan seeks to revitalize the outdoor spaces.	N/A
Site Landscaping and Buffers	Overview: The applicant has submitted an updated landscape plan. Comments: - Use tick marks to layout the proposed parking along Thames Street to identify tree planter and vehicle door conflicts. Adjust where needed. - Street Tree Spacing - Staff appreciate the revisions to street tree quantity, cadence and spacing. The revised street tree layout is an improvement. Based on the pattern of street trees shown, there should be one additional tree completing the sequence along Thames Street as it reaches Freedom Way. If there is a rationale for omitting this tree, please provide it. 	Not Met

	• Street Tree Species Composition - the diversity of the tree species proposed in the landscape plan and the applicant's willingness to consider switching away from Maples is appreciated. Upon further review with the City arborists, staff need to ascertain that the small granite tree wells coupled with the proposed Silva Cells provide adequate soil volume for tree survival, especially a larger tree (like the Tulip Trees suggested and represented on the plans). For larger street trees, minimum recommended soil volumes range from 1000 to 1500 cubic feet. There is currently no indication of total soil volume on the plans or street tree planter sections. Please provide the Silva Cell model specifications and plan-view layout of silva cells to ascertain adequate soil volume is being provided and the proposed minimum depth of tree root zone. The maximum soil volume being provided per tree will help dictate what trees are able to survive and thrive in the proposed planters. • The raised granite tree wells labeled as 5'x6' but are drafted as 4'x6' interior area. Which size is being proposed? In the City Arborists' experience, trees benefit from more than the absolute minimum size of tree well where space allows. Staff strongly encourage applicants to provide larger tree wells wherever space allows as the 4'x6' dimensions are the absolute minimum allowed specifically in circumstances where the walking surface of the sidewalk is very constrained. • City Staff need to confirm the status of the public access easement across the site. The applicant shall provide additional information on the paths type, lighting, and safety. The Planning Board wanted to make this seem more like a pedestrian walkway rather than an alley behind the buildings.	
Water Quality, Stormwater Management and Erosion Control	<u>Overview:</u> City Staff requested that the applicant provide both existing and proposed impervious surface area calculations to determine if the MaineDEP Chapter 500 and City of Portland Section 5 standards for stormwater management apply to this development. <u>Comments:</u> • DPW has provided record drawings to the applicant for the Thames Street Extension project completed by the City in 2020 and has provided guidance on how new storm drain connections into the City's systems should be made. DPW will ensure proposed connections meet City technical standards when updated plans are submitted. • The applicant should complete a project flood control analysis to ensure that post development stormwater flow rates entering into the City's storm drain system do not exceed pre-development flow rates. • It appears that the site plan updated for this submission includes additional non-roof redeveloped area associated with the proposed parking garage entrance and driveway to the existing 100 Fore Street building. This area should be included in the overall stormwater quality treatment calculations for the project. The applicant is proposing a rain garden in this latest submission, but design information has not been provided for review. • Please submit a Stormwater Management Plan as required in Chapter 500. The applicant could also provide a draft Stormwater Maintenance Agreement for City Staff review. • The applicant is proposing a couple of different treatment methods – one for the building roof runoff and one for the site stormwater. With the redevelopment standards, 50% of the non-roof redeveloped area must be treated. If they would like to instead count roof treatment, they need to justify	Not Met

	that and why treatment of non-roof area to meet the threshold cannot be met. With the info they have provided, City Staff does not see anything provided that allows us to evaluate treatment areas vs. thresholds.	
Additional Submissions Requested: • Updated plans to show parking and street tree layout • Updated details on connections to City infrastructure • Flood Control Analysis • Stormwater Management Plan • Stormwater Maintenance Agreement • Street Tree species update and details		

14.6.3: Public Infrastructure + Community Safety Standards		
Standard	Discussion	Status
Consistency with City Master Plans	<u>Overview:</u> The site falls within the scope of the Eastern Waterfront Master Plan from most recently amended in 2006. The plan informed the zoning for both the B-6 Eastern Waterfront and Eastern Waterfront Port Zone zones. The plan has since been incorporated into Portland Plan 2030 and building’s meeting the zoning is considered consistent with the Master Plan.	Met
	<u>Comments:</u> • None	
Public Safety and Fire Prevention	<u>Overview:</u> In their submission package, the applicant highlighted that the building will be fully sprinkled with a Fire Department Connection along the Thames Street frontage. The nearest hydrant is located along Thames Street in front of the building.	Met
	<u>Comments:</u> • City Staff may have more comments regarding life safety depending on the final site plan layout regarding the 100 Fore St. garage connection.	
Public Utilities	<u>Overview:</u> City Staff will confirm the status of the ability to serve verifications from utility providers.	Not Met
	<u>Comments:</u> • Confirm that the proposed trenches shall be repaired per the Minor Excavation Pavement Repair Details (prior to paving the finished surface) found in the Rules and Regulations for Excavation Activity. Update the plans and detail sheets to show these requirements. • The applicant is aware they are required to repave the finished surface of the street per the moratorium standards. All pavement cuts in the City ROW shall be repaired per the Minor Excavation Pavement Repair Details (prior to paving the finished surface) found in the Rules and Regulations for Excavation Activity. Update the limits on the utility plans to meet the requirements. • The proposed UGE and Telecommunication connection in the sidewalk along Fore Street is not a valid connection Point. The applicant shall verify that services are available at this location and provide an alternate connection point on the next submittal. • Relocate the existing street light conduit outside of the proposed planters.	
<u>Additional Submissions Requested:</u> • Updated utility submissions		

14.6.4: Site Design Standards		
Standard	Discussion	Status
Massing, Ventilation and Wind Impact	Overview: As proposed, the structure is not expected to have significant wind or ventilation impacts on nearby structures or public spaces.	Met
	Comments: None	
Shadow	This standard is not applicable to this project.	N/A
Snow and Ice Loading	Overview: The applicant is proposing to remove snow from the site following major snowfall events.	Not Met
	Comments: City staff request additional information regarding proposed protocols for snow removal.	
View Corridors	Overview: The site contains two View Protection Splays at the corners of Mountfort St. Ext. and Thames St. as well as Freedom Way and Thames St. The B-6 Building Height Overlay & Building Envelopes Map states that view protection splay areas are to be prioritized for view protection, site circulation, and active public space. The view protection splays have been incorporated into the building design as the entrances to the buildings at Mountfort St. Ext. and Freedom Way perpendicular to the street corners.	Met
	Comments: None.	
Historic Resources	The application is not located within a designated Historic Preservation District nor within 100 feet of a district. No Historic Preservation review is required as part of this application.	N/A
Exterior Lighting	Overview: The applicant has submitted a photometric plan.	Met
	Comments: None	
Noise and Vibration	Overview: The applicant is proposing mechanical and HVAC on site.	Not Met
	Comments: - The applicant will need to provide additional information about the location of HVAC on the interior of the building, in the rear of the building, and/or on the rooftop. - Will there be any additional HVAC associated with 144 Fore? - Will there be any mechanical or HVAC associated with the incubator spaces?	
Signage and Wayfinding	No signage is currently proposed as part of this application.	N/A
Design Standards	Overview:	Not Met

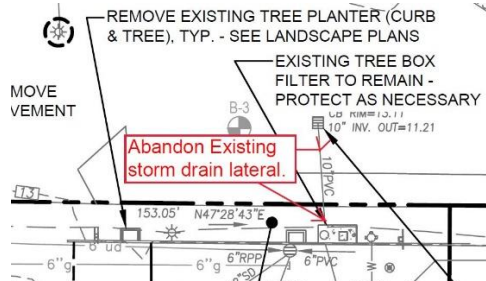
	The proposed development is subject to a Design Review conducted by the City's Urban Designer and Planning Staff. The major site plan application is subject to the policies and design standards found in the Eastern Waterfront Master Plan Design Guidelines for Portland's Eastern Waterfront and the City of Portland Design Manual (g) EWPZ Eastern Waterfront Port Zone and B-6 Eastern Waterfront Mixed Use Zone.	
	<u>Comments:</u> • City Staff have provided a design review memo.	
<u>Additional Submissions Requested:</u> • Snow removal plan • Questions / clarification regarding Noise and Vibration • Design Review Memo response		

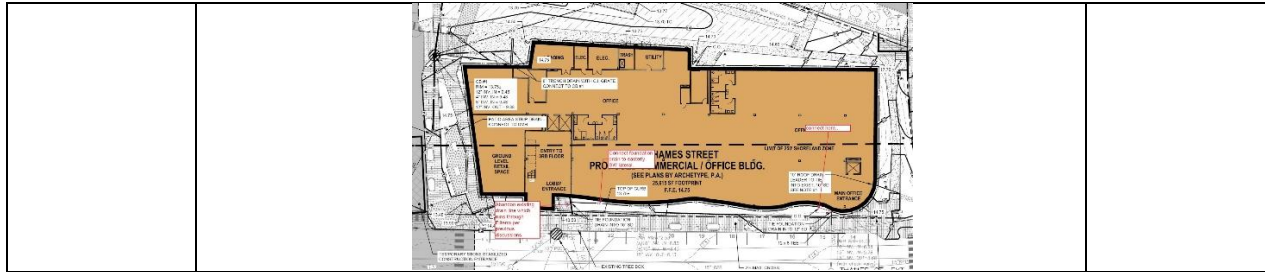
City Staff and Third-Party Peer Reviewers have completed the latest review of this application based off of the most recent submissions. Comments below have been provided to the Planning & Urban Development Department from the Department of Public Works, Water Resources, Zoning, and Third-Party Consulting Engineers (Stormwater + Traffic).

Please submit a written response to the comments below and upload the response, revised submissions, and new material to Project Dox (Project Dox has automatic versioning so long as the files has the same name as the original submission). Once uploaded, please send an email to ctetelman@portlandmaine.gov notifying the planner of the resubmission.

Be advised that additional comments may be forthcoming and other changes may still be required if the comments are not addressed adequately. If you have any questions, please do not hesitate to ask.

14.6.1: Transportation Standards		
Standard	Discussion	Status
Access and Circulation	<u>Comments:</u> • Test Remove the crosswalk striping on the driveway within the right of way. • Correct the Thames Street ROW dimensions to reflect two 8' parking lanes not a 6' shoulder and two 11' travel lanes. • Center the proposed tree wells at the parking space tick marks. • Revise the plans to maintain a 6ft min clear space between any elevated object (proposed planters) and the back of the proposed sidewalk. • Revise plans to place the proposed D1 signs to the front of the parking spaces • The applicant shall define the type of parking proposed along Freedom Way. We recommend metered or unmetered two hour parking. • Grading Sheets: Spot grades and slopes shall be added to plans for proposed improvements within the ROW at grade breaks for proposed driveways, pedestrian ramps, accessible crossings, sidewalks and at the end of the limits of the proposed improvements for the property.	Requires Final Updates
Parking	<u>Comments:</u> • The applicant has provided general observations of current parking usage in the Fore Street garage and there is parking space availability at this time. It was noted that 109 parking spaces will be available for 70 Thames Street, but a parking demand analysis has not been performed. A parking demand estimate shall be provided. • The site plan should be modified to depict on-street parking on both sides of Thames Street.	Requires Final Updates
Transportation Demand Management	<u>Overview:</u> The applicant will be required to update the existing TDM plan that was developed as part of the 1 Hancock Street and 100 Fore Street site plan applications.	Requires Final Updates
	<u>Comments:</u> • Please submit an updated TDM for review.	

14.6.2: Environmental Quality Standards		
Standard	Discussion	Status
Landscape Preservation + Site Landscaping and Buffers	<u>Comments:</u> - Comment #20: Adequate soil volume is not optional. Section 4.6 of the Technical Manual notes "Adequate soil volume to ensure tree survival shall also be required, as determined by the City Arborist." What constitutes adequate soil volume is determined by the general size of the street tree species proposed. Given the impervious nature of the surrounding streetscape, Silva Cells or similar are a reasonable way to provide soil volume for street trees. As noted in the previous round of comments, minimum soil volume requirements for larger street trees range from 1000 to 1500 CF. The reason Staff requested specifications for the proposed Silva Cell model in the previous round of review comments is that typically the manufacturer of these units provides guidance on soil volumes for different categories of trees. If the applicant follows the Silva Cell unit specifications and selects trees from the range of trees recommended by the City Arborist, the soil volume provided is expected to be appropriate. Please provide requested Silva Cell specifications. A follow-up conversation with the City Arborist will help with selecting a tree species appropriate to the location, raised granite tree wells and the soil volume being provided. Number and Spacing of Street Trees #19: The easternmost street tree could be located 25' on center from the nearest proposed tree well and avoid overlapping with the building entrance and any conflicts with parked car doors. - Pedestrian access north/south through Thames easement: should be more open and wider access for pedestrians. 8' would seem more appropriate than the 5' proposed. Pedestrian access through the Hancock easement should also be widened out. In some stretches, the pedestrian path narrows to just 5' wide and runs along the face of the building with multiple service entrances opening onto it.	Requires Final Updates
Water Quality, Stormwater Management and Erosion Control	<u>Comments:</u> - The applicant should submit a complete Stormwater Management Plan. The applicant included many elements of a SW Plan but not in one complete document. - The existing storm drain lateral pipe which runs through the City's Filterra box should not be utilized and be abandoned per methodology in the technical manual. See below: 	Requires Final Updates



14.6.4: Site Design Standards		
Standard	Discussion	Status
Design Standards	<u>Comments:</u> 70 Thames Street application includes demolition of a portion of the 144 Fore Street building to allow for Mountfort St extension pedestrian easement. Can the applicant be prepared to share with the Planning Board their proposed building replacement facade and site programming shown on the overall site plan? And if their intention is to apply for either a separate permit or site plan for later review.	Requires Final Updates

Subject: 70 Thames Street
Zone: B6
Date of Review: Monday May 15, 2023
Reviewer(s): Sean King (Urban Designer), Charles Tetelman (Planner), Kevin Kraft (Deputy Director)
Project ID: PL-0024372-2023

I. OVERVIEW

The preliminary review of the proposed commercial mixed-use building at 70 Thames Street was conducted by Sean King, Urban Designer, Charles Tetelman, Planner, and Kevin Kraft, Deputy Director. The following memo reflects general comments and concerns about the project and frames the areas that would benefit from discussion and feedback during the first Planning Board workshop.

II. DESIGN REVIEW CRITERIA:

The Major Site Plan application is subject to the policies and design standards listed below:

- A. Eastern Waterfront Master Plan - Design Guidelines for Portland's Eastern Waterfront
- B. City of Portland Design Manual – (g) EWPZ Eastern Waterfront Port Zone and B6 Eastern Waterfront Mixed Use Zone

III. REQUEST FOR ADDITIONAL MATERIALS:

Staff is requesting the following additional materials to assist with the design review:

- 1. Architectural narrative, plans, elevations and renderings for the proposed incubator business spaces.

IV. DESIGN REVIEW COMMENTS:

Text in **red** indicates standards have not been met and resubmission is required.

Eastern Waterfront Master Plan - Design Guidelines for Portland's Eastern Waterfront: All major and minor development reviewed under the provisions of the eastern waterfront zones shall be designed to support the development of this urban neighborhood as a dense, mixed-use, pedestrian friendly neighborhood.

Streets:

- 1. **Public Streets:** The development proposes to continue the Thames street design with parallel parking spaces, brick sidewalks, pedestrian scaled light poles (to remain), street trees and tree wells.
- 2. **Appropriate Street Design:** The development proposes to create a street design for the proposed driveway with brick sidewalks, pedestrian scale light poles, street trees and tree wells along the west property line that is consistent with the Eastern Waterfront master plan street extension of Mountfort Street.
- 3. **Sidewalks:** Brick sidewalks are proposed along streets and building entries are accessible by brick and/or concrete walkways throughout the development.

4. **View corridors:** View corridors and view protection splays are observed with the proposed development and building design.
6. **Underground Utilities:** Underground utilities are proposed throughout the development to connect to existing service at perimeter streets.

Buildings and Architecture:

1. **Contextual Design:** The proposed development site is located within the Eastern Waterfront, comprised of the working waterfront and marine-focused uses at the water's edge, mixed-use buildings with academic, office, hotel, and retail use along Thames and Fore Street and the residential complex of Munjoy South located north of the site. Staff finds the proposed development recognize the existing development pattern and adjacent building heights that vary from three to five stories of the 1 Hancock Street, 100 Fore Street and 110 Thames Street properties. In addition, the Portland Foreside development located east of the site further extends Thames Street through the Portland Company designated historic district to include active street frontages and building entrances directly at the street. Staff finds the proposed development enhances the surrounding context in scale, building placement and materiality.
2. **Building Composition:**
 - a. **Placement:** The proposed building placement allow for primary entrances at Thames Street that face the water. The proposed development and building design preserve water views along streets with generous side setbacks and view splays at the front elevation massing to allow for additional water views.
 - b. **Height:** The proposed building heights are compatible with the adjacent building heights that vary from three to five stories and transition with building stepdown in height towards the waterfront.
 - c. **Massing:** The proposed building utilizes horizontal lines that transition from straight edges, to wavy, and ultimately curving at the corner of Thames Street and Freedom Way. The building provides massing variation by incorporating a third-floor extension and projecting the three-story portion of the building and vertical glass circulation tower out towards Thames Street, which breaks the horizontal massing, which staff finds to be successful. This projection along Thames Street provides a unique building element creating multiple levels of scale to avoid a flat appearance. Given the various components and complexity of the overall massing, it is important to use other design elements to give hierarchy and contextuality to the project. To accomplish this **Staff recommends incorporating a third exterior column to define and frame the three-story portion of the massing and to consider adding a special element to the glass circulation tower such as aluminum vertical sun louvers or another feature to define and accentuate the atrium. This would create additional building articulation, breaking up the largely glass building, while still maintaining a high-level of transparency.**
 - d. **Proportion:** The proposed building is directly compatible with the adjacent building at 1 Hancock Street that is horizontally oriented with a vertically arranged curtainwall system

and framed building entries. Staff recommends additional architectural detailing to frame the building entries facing Thames Street to balance the proportions of the façade.

- e. **Articulation:** The top of the building is terminated by an extension of the curtainwall above the second floor along with a roof overhang with pronounced soffit above the third floor. The applicant has provided a typical spandrel panel detail at each floor, although staff observes the detail appears to be distinctly varied. Staff recommends the applicant provide more horizontal distinction between floors for the two-story portion of the façade that is set back.
 - f. **Materials:** The building façade materials are comprised primarily of glass along with a panel system to segment the division of floors and internal program. Staff are not opposed to the use of a curtain wall in this location but there is concern about light pollution and drawn shades, as well as impact on birds. Staff is requesting the applicant consider incorporating architectural features such as sun louvres or another type of architecture feature to accentuate portions of the facade. Additionally, staff is requesting the applicant provide material specifications for curtainwall system color, tint, screening, panel system, spandrel panel, wood panel at roof soffit and canopy systems. The applicant should also consider utilizing materials to emphasize the various entrances.
3. **Pedestrian Environment:** The proposed development provides a balance of pedestrian experiences through the inclusion of wide sidewalks with streetscape amenities including benches, and lighting. Staff is requesting the applicant provide the visual transmittance (VT) value of the proposed glass at the ground floor along Thames Street and at the proposed mercantile space. In addition, staff recommends to reduce the planting area along Thames Street to align with the 2nd floor building overhang, which would create an opportunity for an inviting plaza with potential seating adjacent to the lobby atrium entrance.
 4. **Primary Entrances and Service Entrances:** The proposed building includes primary entrances for the lobby atrium entrance, main office entrance, secondary office entrance and mercantile space with access to public sidewalks. Staff finds the locations of the proposed entrances, which are oriented towards the street and waterfront, appropriate. As proposed, the sunshade canopy system at the office entry introduces a new form to the building and reads more as an appendage resulting in a disjointed appearance. Staff are not opposed to the use of slightly varied treatments for each entrance, however the sunshade canopy system does not convey a clear concept or hierarchy and confuses the legibility of the building, which currently incorporates strong horizontal and vertical lines and curved façade as opposed to sharp, angular features. Furthermore, staff finds the atrium lobby entrance to be hidden and vanishes into the building.

Staff recommends consideration for the lobby entrance to be relocated to the prominent stair tower projection to clearly identify as a primary entry or to create an architectural expression and definition around the lobby's current entrance location that makes it highly legible and clearly identifiable. The current retail entrance is oriented towards Thames Street and the waterfront, which staff finds appropriate, however staff recommends the applicant consider a chamfered corner for the retail use at the building's corner for greater activation and visibility.

at view splays and to provide greater distinction between the office use. This may offer more directional orientation and engagement with the plaza space along the internal drive.

5. **Infill and Small-Scale Development:** The proposed development is an infill development defined by an existing street grid. The proposed building's placement establishes a street wall consistent with adjacent buildings along Thames Street.

Open Space and the Public Realm:

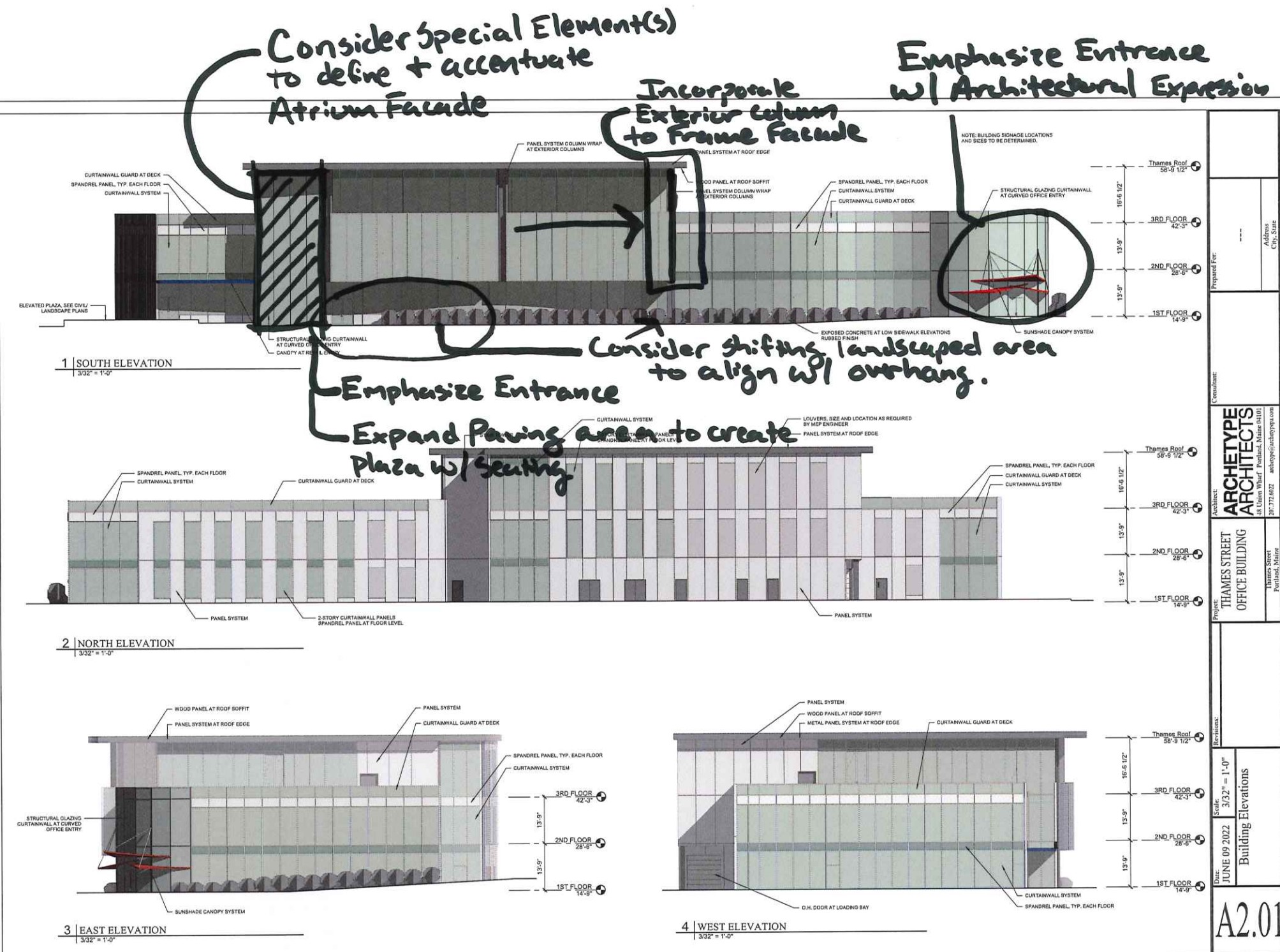
1. **Public Open Space and Plazas:** The proposed development includes publicly accessible open space at the rear of the property activated by incubator business spaces and pedestrian circulation to connect around new building and gathering areas. Plazas are proposed at the east and west elevations to identify building entries, create outdoor seating and pedestrian comfort with tree and low plantings. The proposed development includes a private rooftop deck as open space.

A. City of Portland Design Manual

(g) EWPZ Eastern Waterfront Port Zone and B6 Eastern Waterfront Mixed Use Zone: *Eastern Waterfront design standards: All major and minor development viewed under the provisions of the eastern waterfront zones shall be designed to support the development of this urban neighborhood as a dense, mixed-use, pedestrian friendly neighborhood.*

Staff comment: Staff finds the proposed development to support a dense, mixed-use, pedestrian friendly neighborhood at a building scale that is consistent with adjacent properties. Staff requests an architectural narrative along with renderings and/or elevations of the incubator business spaces for review.

Design Review Comments - Round 1
5/15/23



70 Thames Street - Applicant preparation for workshop

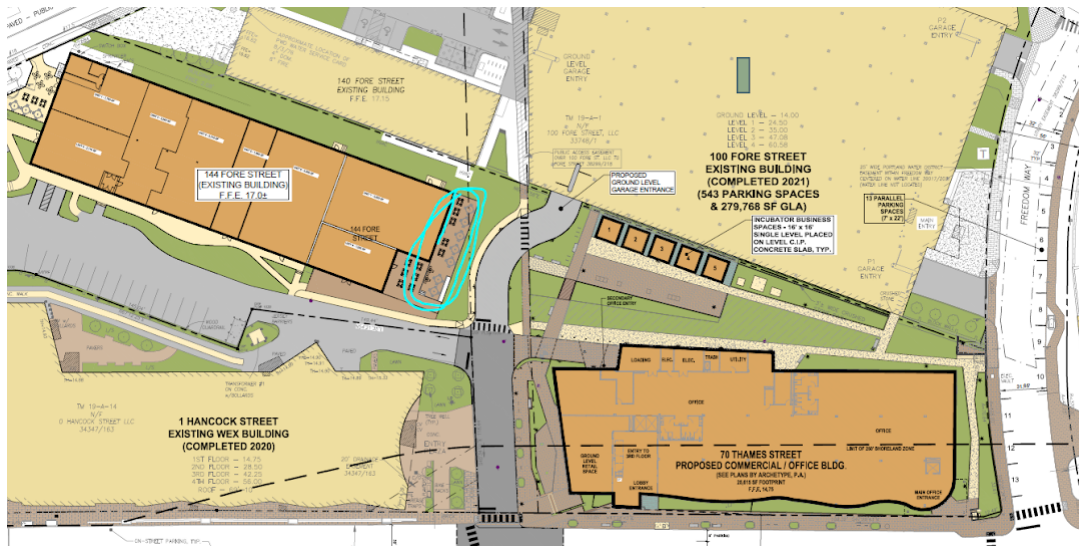
Sean King <sking@portlandmaine.gov>

Thu, Sep 7, 2023 at 3:41 PM

To: Charles Tetelman <ctetelman@portlandmaine.gov>

Hello Charles,

70 Thames Street application includes demolition of a portion of the [144 Fore Street](#) building to allow for Mountfort St extension pedestrian easement. Can the applicant be prepared to share with the Planning Board their proposed building replacement facade and site programming shown on the overall site plan? And if their intention is to apply for either a separate permit or site plan for later review.



Thank you, Sean

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

PLANNING BOARD REPORT PORTLAND, MAINE



70 Thames Street
Major Site Plan
PL-002437-2023
144 Fore St. OZ, LLC, Applicant

Submitted to:	Portland Planning Board	Prepared By:	Charles Tetelman
Public Hearing Date:	September 26, 2023	Date:	September 22, 2023

I. INTRODUCTION

144 Fore St. OZ, LLC has submitted a Major Site Plan application to facilitate the construction of a 72,857 square foot, three-story mixed-use building at 70 Thames Street and 144 Fore Street. The building includes corporate office space for WEX, a third-floor restaurant, and first-floor retail space. Additionally, the application includes plaza and park spaces containing five, 256 square foot buildings intended as business incubator spaces. This application is being referred to the Planning Board for compliance with the City of Portland's Land Use Code Site Plan Standards, section 14.6.



Figure 1: Proposed Rendering at 70 Thames Street

The Planning and Urban Development Department mailed 32 notices advertising this meeting to property owners within 500 feet of the site. A legal advertisement ran in the September 16, 2023 and September 19, 2023 editions of the *Portland Press Herald*.

The Planning Board held a workshop on June 23, 2023.

Applicant: 144 Fore St. OZ, LLC
Applicant Representative: Gorrill Palmer

II. REQUIRED REVIEWS + WAIVER REQUEST + PROJECT DATA

Review	Applicable Standards
Site Plan Standards	Section 14.6

Design Review	Eastern Waterfront Master Plan (<i>Design Guidelines for Portland's Eastern Waterfront</i>) City of Portland Design Manual (<i>EWPZ Eastern Waterfront Port Zone and B-6 Eastern Waterfront Mixed Use Zone</i>)
Zoning	B-6 Zoning Dimensional Standards and Guidelines

Waiver Requests	Applicable Standards
Waiver of the Flooding Standard Maine DEP Chapter 500. The applicant is proposing to discharge stormwater directly tidal waters of the eastern waterfront.	Technical Manual Section 5. III: A waiver is available for proposed development in the watershed of a major river segment provided the applicant demonstrates that the project conveys stormwater exclusively in sheet flow, in a manmade open channel, or in a piped system directly into one of these resources.

Project Data	
Existing Zoning	B-6 Eastern Waterfront + Shoreland Zone
Property Size	70 Thames St.: 42,858 sq. ft. 144 Fore St.: 73,490 sq. ft.
Existing Use	70 Thames St.: Surface Parking Lot 144 Fore St.: Commercial Building
Proposed Use	Office, Restaurant, Retail

	Existing	Proposed	Net Change
Building Footprint	0 sq. ft.	25,615 sq. ft.	+ 25,615 sq. ft.
Building Floor Area	0 sq. ft.	72,857 sq. ft.	+ 72,857 sq. ft.
Parking Spaces	0	0	0
Bicycle Parking Spaces	0	16	+16

III. BACKGROUND

144 Fore St. OZ, LLC is seeking to develop the lot at 70 Thames Street as part of the surrounding campus including developments at 1 Hancock Street and 100 Fore Street. The applicant received approval for a Level III Site Plan at 1 Hancock Street on September 29, 2017 ([Project ID 2017-180](#)) for a four-story, 102,545 square foot building. On January 8, 2019, the applicant received approval for a Level III Site Plan at 100 Fore Street ([PL-000358-2018](#)) to construct a five-story, 247,887 square foot building with three levels of parking (539 spaces, 45 bicycle spaces) and two levels of commercial office space.

The City of Portland put out a Request for Proposals (RFP) to develop the City-owned lot at 70 Thames Street (019 A002001) to develop the existing surface parking lot according to the goals outlined in the [Eastern Waterfront Master Plan](#) and the city's economic development goals. The applicant submitted a proposal to the City Council to develop the site in response to the RFP. On March 6, 2023, Portland City Council approved the purchase and sale agreement between 144 Fore St. OZ LLC and the City of Portland for the parcel located at 70 Thames Street ([Order 146-22/23](#)). The applicant's submission envisioned a three-story mixed-use structure with outdoor programming in the rear of the building. The agreement

requires that the applicant convey the private street, Freedom Way, to the City as a public street, along with a public access easement for Mountfort Street Extension (from Thames to Fore), and a public access easement from Hancock Street to Freedom Way. The Purchase and Sale also includes requirements for public restrooms in the building, five city parking spaces in adjacent garages, and improvements to Mountfort and Hancock streets.

IV. EXISTING CONDITIONS AND SURROUNDING AREA



Figure 2: Surrounding Context

The proposed development is located at the corner of Thames Street and the recently constructed Freedom Way. The subject property is located in the B-6 Eastern Waterfront zone. This zone encompasses the land east of Hancock Street, south of Fore Street and north of the Eastern Waterfront Port zone (EWPZ). Previously owned by the City, 70 Thames street is currently operating as a surface parking lot. The applicant is proposing to demolish a portion of the building at 144 Fore Street which currently contains a variety of commercial businesses. The abutting lots at 1 Hancock Street and 100 Fore Street have recently been developed into commercial buildings for Wex Inc. and include ground floor retail. East of the proposed development, the former Portland Company site is in the process of being redeveloped in accordance with the approved Portland Foreside Master Development Plan, which upon completion, will feature a range of commercial, office, hotel, and residential uses along with a commercial marina.

V. PROPOSED DEVELOPMENT

144 Fore Street OZ, LLC is proposing to construct a three-story, 25,615 square foot commercial building (office, retail, and restaurant) at 70 Thames Street and a plaza containing five business incubator spaces behind the building on the eastern portion of the 144 Fore Street lot. Additionally, the applicant will be improving 125 feet of the Mountfort Street Extension Right of Way from Thames Street towards Fore Street. The design of the building matches the surrounding structures at 1 Hancock and 100 Fore to form a larger, unified campus of commercial buildings.

The proposed total floor area is approximately 72, 857 square feet. The primary commercial activity in the building will be office space for Wex Inc. totaling 42,300 square feet on the first and second floors of the building. The third-floor will include a 8,134 square foot restaurant space with 11,150 square foot rooftop deck. The first-floor also includes 1,825 square feet of retail space and a 1,473 square foot lobby with access

to a staircase to the third-floor restaurant as well as elevators to the second and third floor. The applicant is providing a rear pedestrian courtyard with access from the Mountfort Street Extension, Freedom Way, and Fore Street. The courtyard includes five business incubators that will accommodate small businesses alongside the pedestrian corridor.

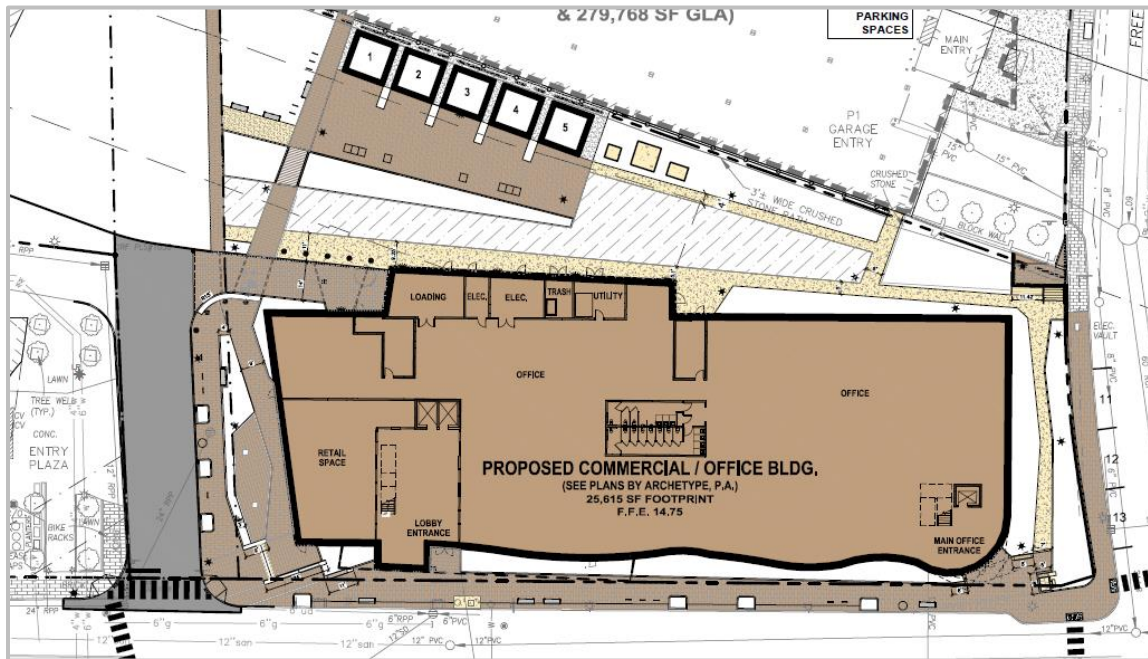


Figure 3: Site Plan (out of date)

VI. PREVIOUS WORKSHOPS

At the July 23 workshop, the Planning Board discussed the applicable B-6 Eastern Waterfront zoning dimensional requirements for the project. The applicant and City Staff noted the relationship between the setback requirement and the defined viewsplays on the Thames St. frontage of the proposed development. Staff confirmed that the applicant met both requirements and the applicant's plans adequately conformed to the B-6 zone. The applicant had presented plans that displayed a connection to the 100 Fore St. garage through Thames St. (along the Mountfort St. Extension corridor) which has since been removed from the proposed development.

VII. RIGHT, TITLE, & INTEREST

The applicant has submitted a quitclaim deed dated August 30, 1993 (Attachment 3) which demonstrates the City's ownership of the parcel at 70 Thames Street. City Staff have reviewed the draft Purchase and Sale Agreement which was included as part of City Council Order 146-22/23 to sell the parcel to 144 Fore Street OZ, LLC. The applicant will need to provide an updated and recorded quitclaim deed as well as a finalized Purchase and Sale agreement.

The applicant has submitted a quitclaim deed dated October 20, 2021 (Attachment 3) which demonstrates adequate evidence of right, title, and interest for the property at 144 Fore Street.

VIII. FINANCIAL & TECHNICAL CAPACITY

As part of the Request for Proposals submission, the applicant provided a letter from NBT Bank dated September 22, 2021 noting that the applicant and associated partners have the financial capacity and industry experience to complete the project envisioned at the time of the RFP review.

The applicant submitted a document (Attachment 4) which includes information, experience, and credentials for the applicant team assisting 144 Fore St. OZ, LLC as part of the proposed development. The applicant and applicant team have demonstrated technical capacity to undergo and complete the proposed project.

IX. ZONING ANALYSIS

The proposed development is located in the B-6 Eastern Waterfront zone and is within the Shoreland Zone as shown in Figure 4. The purpose of the B-6 zone is:

“To establish a zoning district for the upland portion of the Eastern Waterfront area. The B-6 zone encourages this district to acquire a distinctly urban form through development that emphasizes a quality pedestrian experience, promotes public transit, and demonstrates exemplary urban design. The zone promotes a range of uses to achieve 24-hour urban vitality and shared use of parking infrastructure as recommended in the Eastern Waterfront Master Plan for redevelopment. The B-6 zone promotes a mixed-use development pattern envisioned for urban land on Portland’s peninsula.”

The primary structure proposed includes a variety of commercial uses including office, retail, and restaurant that match the intent of the B-6 zone. The applicant is also providing substantial pedestrian improvements including expanded sidewalks and a new pedestrian-oriented plaza at the rear of the proposed building. The design and form of the building are consistent with the surrounding urban context and new developments on the adjacent parcels.

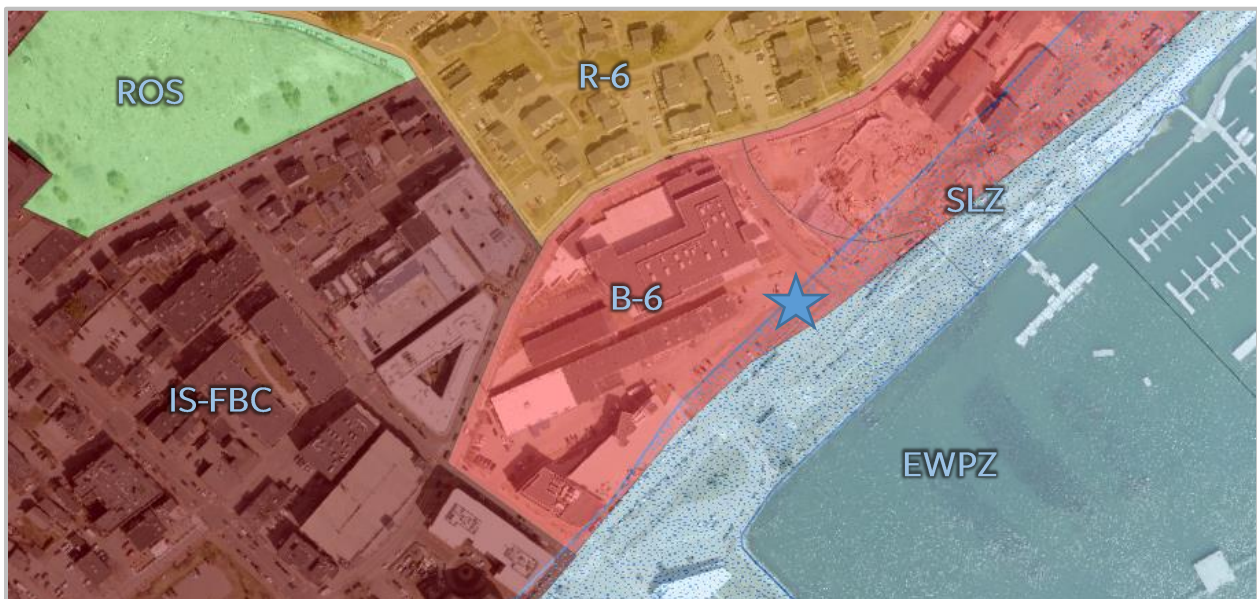


Figure 4: Zoning Context

The application is being reviewed under the B-6 Eastern Waterfront zone standards and dimensional requirements (Table 7-E) shown below:

Dimensional Requirement	Required	Status
Maximum Front Setback from All Street Frontages	Chapter 14: 10 ft. New structures shall build to the key building envelopes shown on the B-6 Building Height Overlay Map. B-6 Height Map: ...when a Building Envelope does not align with a view corridor or street extension, the boundary shall be the parcel boundary.	Met
Minimum Length of Building Wall at Maximum Setback	Chapter 14: 70% of Street Frontage or 25% of Building Perimeter. For buildings fronting on two or more streets, the minimum building wall on one street may be decreased so long as the frontage is proportionally increased on other streets in so far that the building wall on the secondary street is not reduced to less than 25 ft.	Met
Maximum Structure Height	Chapter 14: 65 ft. or as otherwise governed by the B-6 Building Height Overlay Map. B-6 Height Map: The site is located within the 45 ft. height limit east of the Mountfort St. Ext. and west of the 'future Fore Street connector' now constructed as Freedom Way.	Met
View Protection Splays	B-6 Height Map: These areas shall be prioritized for view protection, site circulation, and active public space.	Met

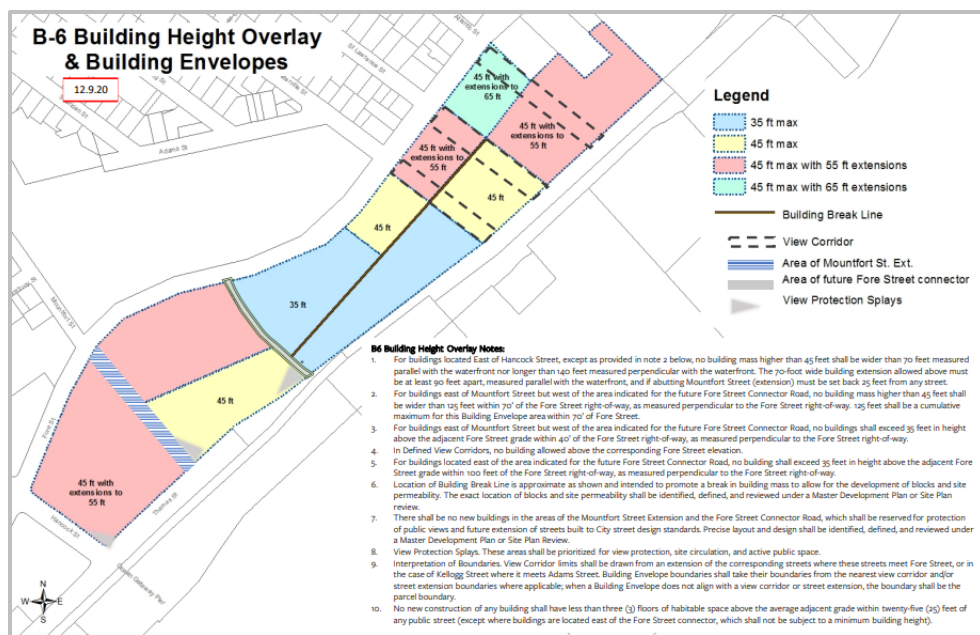


Figure 6: B-6 Building Height Overlay & Building Envelopes

As it relates to the Shoreland Zone, the proposed development is being constructed on a vacant, cleared lot. The portions of the site within the Shoreland Zone are existing impervious surface and not subject to the clearing or removal of vegetation standard. Furthermore, the proposed development is beyond 75 feet horizontal distance from the normal high-water line of Casco Bay. Erosion and sedimentation controls will be included and captured under the City's stormwater review discussed below.

Section 11.5.1 of the Land Use Code requires that site plans located within the shoreland zone meet the Shoreland Zone Supplemental Site Plan Standards as listed below:

1. *The proposal will maintain safe and healthful conditions*

Staff Finding: The proposed development minimizes impact to the water and coastline while providing safe, accessible routes for pedestrians through and around the site.

2. *The proposal will not result in water pollution, erosion, or sedimentation to surface waters*

Staff Finding: The proposed development incorporates Best Management Practice (BMPs) for Stormwater Management and Erosion and Sedimentation Control. The site is further subject to Maine DEP Chapter 500 Stormwater Standards and the Site Location of Development standards, which are discussed later in this report.

3. *The proposal will adequately provide for the disposal of all wastewater*

Staff Finding: The applicants have received an ability to serve confirmation from Portland Water District demonstrating that the proposed development can adequately provide for all disposal of wastewater (Attachment 13).

4. *The proposal will not have an adverse impact on spawning grounds, fish, aquatic life, bird or other wildlife habitat*

Staff Finding: The proposed development will not have an adverse impact on any existing wildlife or habitat areas in or surrounding the site.

5. *The proposal will conserve shore cover and visual, as well as actual, points of access to inland coastal waters*

Staff Finding: The proposed development is setback away from the shore and meets the relevant View Corridor and View Splay dimensional standards of the B-6 Eastern Waterfront zone.

6. *The proposal will protect archaeological and historic resources*

Staff Finding: There are no documented archaeological sites within the vicinity of the proposed development nor is the application subject to any reviews under the Section 17 Historic Preservation.

7. *The proposal will not adversely affect existing commercial fishing or maritime activities*

Staff Finding: The proposed development will not interfere or adversely affect existing commercial fishing or maritime activities.

8. *The proposal will avoid problems associated with flood plain development and use.*

Staff Finding: The applicant is in conformance with Section 11 and will be constructed to avoid problems associated with flood plain development and use. Furthermore, the proposed development is not within a FEMA identified flood zone.

X. SITE PLAN REVIEW STANDARDS (Section 14.6)

The proposed development has been reviewed by staff for conformance with the relevant review standards of the City of Portland's Site Plan Ordinance, Section 14.6. Staff comments were submitted to the applicant on May 26, 2023 (Attachment A), August 22, 2023 (Attachment B), and September 19, 2023 (Attachment C). City Staff also submitted a Design Review Memo to the applicant team (Attachments D+E). The applicant

has provided a response to comments (Attachment 17-20). The applicant team provided a response to the design review memo discussed below.

1. Transportation Standards (Section 14.6.1)

A. Impact on surrounding street systems

This application is included under the Eastern Waterfront Traffic Movement Permit (TMP). The applicant provided traffic counts and parking distribution numbers to confirm that no modification of this TMP is required. The proposed development is consistent with the trip generation and parking counts envisioned in the TMP. The site layout follows certain conditions of the TMP including payment of impact fees, delivery driveway, and the potential for a study during the first year of full occupancy. The existing TMP (Attachment F) includes methodology to determine the costs of impact fees and highlights the TMP anticipated a driveway located on site.

Staff Finding: The proposed development is consistent with the approved Eastern Waterfront TMP and will not have an adverse impact on the surrounding street systems.

B. Access and circulation

The applicant is proposing an ADA-accessible walkway from the 100 Fore Street Parking garage to the proposed building at 70 Thames Street. The applicant is proposing to install brick sidewalks along Freedom Way and the property's Thames Street frontage. City Staff noted that the crosswalk location, alignment, and ADA compliance on Thames Street will need to be reviewed and approved by DPW. The applicant has updated the details for crosswalks and pedestrian walkways to meet ADA accessibility standards.

Staff Finding: City Staff noted that the Pedestrian Access Easements (Montforth Street Ext. and Hancock-to-Freedom) should be expanded to 8 ft. to accommodate wider pathways for pedestrians. Some portions of the pedestrian walkways narrow to 5 ft. wide and run parallel to the face of buildings with multiple service entrances. City Staff have included this as a condition of approval.

C. Public transit access

METRO Route 8 and the Husky Line run along Commercial Street and India Street to the west of the proposed development, with stops at Casco Bay Lines and along India Street. There is a Husky Line stop at Hancock and Thames within ¼ mile of the proposed development.

D. Parking

The applicant will be providing parking for 70 Thames street at the 100 Fore Street parking garage. The garage contains 539 parking spaces with 24 ADA spaces and 25 bicycle racks. The proposed development includes eight standard bike racks surrounding the building totaling 16 bicycle spaces.

As part of the 100 Fore Street approval, the applicant received approval for 539 spaces that were intended to be leased from 1 Hancock Street and future tenants in the area. Also, a condition of the Purchase and Sale Agreement includes dedicated spaces for municipal use in the 100 Fore Street lot.

Staff Finding: The applicant will need to provide a parking demand estimate to confirm that existing garages in the area have capacity for the proposed development at 70 Thames. Additionally, City Staff have requested that on-street parking be depicted on the site plan along Thames Street (both sides) and Freedom Way (where possible). These have been included as a condition of approval.

E. Transportation demand management (TDM)

The applicant needs to provide an update to the existing TDM plan that was developed as part of the 1 Hancock Street and 100 Fore Street site plan applications. The applicant has incorporated the proposed development into the existing TDM encompassing 1 Hancock Street and 100 Fore Street.

Staff Finding: City Staff will need to review the updated TDM and a condition of approval has been included to submit a final TDM.

2. Environmental Quality Standards (Section 14.6.2)**A. Preservation of significant natural features**

Staff Finding: There are no existing significant natural features on site. The site is located on an existing surface parking lot that is mostly impervious surface.

B. Landscape preservation

The proposed development ‘aims to replenish an urban land area consisting of a parking lot, building, and grassed shoulders’ (Attachment 8). The existing site has little landscaping currently and the proposed landscaping plan seeks to revitalize the outdoor spaces.

C. Site landscaping and buffers

The applicant has submitted a landscaping plan (Plan 29). The applicant is required to provide street trees every 25 ft. to 35 ft. along all street frontages. The applicant has included 11 street trees along Thames St. and Freedom Way. City Staff provided significant feedback on the plan including location of street trees, species of trees and plantings, more information regarding the ‘reinforced turf’, locations and design of stairways, and design of the granite tree wells along the street edge. The updated plans incorporate most of the City Staff comments and species alternatives.

Staff Finding: The proposed site landscaping reinvigorates a site without any landscaping. City Staff find the proposed plantings and layout adequate. City Staff have requested specifications for the proposed Silva Cell model, proposed soil volume, and street tree species. City Staff are concerned that there is not adequate soil volume for the proposed species. City Staff have included a condition of approval to submit updated soil volumes and street tree species as recommended by the City Arborist.

D. Water quality/storm water management/erosion control

The applicant is proposing a variety of different treatment methods for the building roof runoff and on-site stormwater. With the MaineDEP Chapter 500 redevelopment standards, 50% of the non-roof redeveloped area must be treated. All Major Site Plan applications are required to submit a Stormwater Management Plan. In the applicant’s August 25 response to comments, the applicant provided responses including treatment method descriptions, rain garden calculations, and pre-development/post-development calculations.

Staff Finding: City Staff do not anticipate any impact to water quality in the surrounding area of the proposed development. The applicant will need to submit a final Stormwater Management Plan as required in the City of Portland’s *Technical Manual*. This has been included as a condition of approval.

The applicant has requested a waiver of the Maine DEP Ch. 500 Flooding Standard as the project proposes to discharge to tidal waters along the eastern waterfront. This is consistent with waivers granted for similar projects discharging to Casco Bay. The applicant has demonstrated that the project will be conveying stormwater in a piped system directly into these waters. City Staff are supportive of this waiver.

3. Public Infrastructure and Community Safety Standards (Section 14.6.3)

A. Consistency with City Master Plans

The project is consistent with the goals of the Eastern Waterfront Master Plan, as well as the Design Guidelines for the Eastern Waterfront, and The Eastern Waterfront Building Height Study. These documents informed the vision for the area and the zoning that governs sites within the area.

Staff Finding: The proposed development would facilitate the construction of a commercial building on a currently undeveloped lot. The proposed project was informed and is governed by the B-6 Eastern Waterfront zone. By meeting the underlying zoning requirements, the proposed development is broadly consistent with the Comprehensive Plan and City Master Plans for the area.

B. Public safety and fire prevention

In their submission package, the applicant highlighted that the building will be fully sprinkled with a Fire Department Connection along the Thames Street frontage. The nearest hydrant is located along Thames Street in front of the building.

Staff Finding: City Staff have determined that the site provides adequate space and access for public safety and fire prevention vehicles.

C. Availability and capacity of public utilities

The applicant has submitted a determination letter from the Portland Water District for water (Attachment 15) and DPW confirmation on wastewater authorization (Attachments 11-13). The applicant still needs to submit confirmation from other utility providers including CMP and Unutil.

Staff Finding: The applicant will be required to submit final confirmation from utility providers that the proposed development has adequate availability and capacity of public utilities from CMP and Unutil. This has been included as a Condition of Approval.

4. Site Design Standards (Section 14.6.4)

A. Massing, ventilation, and wind impact

As proposed, the structure is not expected to have significant wind or ventilation impacts on nearby structures or public spaces. The proposed development has been designed to integrate into the surrounding developments located at 1 Hancock Street and 100 Fore Street. Mechanical equipment has been located in the interior of the building and on the roof behind appropriate screening; this equipment has been located to minimize disruption to abutting properties and public ways.

Staff Finding: The proposed structure will not result in health or safety problems as the proposed building's massing has been designed to reflect the surrounding context. Only a portion of the building is built to the maximum permitted height, with the remainder of the top floor open as an accessible rooftop area. These building elements limit the scale of the overall building, and the mechanical equipment has been located either internally or mounted on the roof with adequate screening.

B. Shadows

Staff Finding: According to the City's Land Use Code and Technical Manual, development within the B-3, B-5, B-6, and B-7 zones is not required to conduct a shadow study. This standard is not applicable to this project.

C. Snow and ice loading

The applicant is proposing to remove snow from the site following major snowfall events. The site plan includes a handful of small areas for on-site snow storage but expects a contracted hauler to move a majority of the snow. The applicant is proposing to install below grade snow melt systems under pavements and sidewalks which will significantly reduce the need for snow removal efforts.

Staff Finding: The applicant has met this standard as the proposed building is designed to prevent snow and ice from accumulating and falling into public ways and by removing snow off site.

D. View corridors

The site contains two View Protection Splays at the corners of Mountfort St. Ext. and Thames St. as well as Freedom Way and Thames St. The B-6 Building Height Overlay & Building Envelopes Map states that view protection splay areas are to be prioritized for view protection, site circulation, and active public space.

Staff Finding: The applicant is meeting this standard as the view protection splays have been incorporated into the building design as the entrances to the buildings at Mountfort St. Ext. and Freedom Way, which are perpendicular to the street corners. The location of the site is not within a view corridor as depicted in the B-6 Building Height & Building Envelope map.

E. Historic resources

Staff Finding: The application is not located within a designated Historic Preservation District nor within 100 feet of a district. No Historic Preservation review is required as part of this application.

F. Exterior lighting

The applicant has submitted a site lighting plan (Plan 23) as part of their submission.

Staff Finding: This standard is met because the proposed exterior lighting as shown in the photometric plan shows full cutoff lights that will not emit light above the horizontal plane or spill onto adjacent properties. The photometric plan and related details meet the applicable standards of the *Technical Manual*.

G. Noise and vibration

The applicant notes that the proposed development minimizes noise impacts and does not expect excessive noise nor anticipate noise to negatively impact the adjacent properties. HVAC and building operating equipment have been located either in the interior or on the top of the building.

Staff Finding: The proposed development will be housing some of the building operating equipment and HVAC systems inside of the proposed development and appropriately screening any remaining equipment on the rear façade or on the rooftop. City Staff consider this site plan standard to be met.

H. Signage and wayfinding

Staff Finding: The signage and wayfinding standards are not applicable to the proposed development. Any signage will be reviewed alongside the building permit.

I. Zoning-related design standards

The City's Urban Designer, alongside the Planning Department Deputy Director and lead Planner on the project, submitted a design review memo (Attachments D + E). The application is subject to the design elements of:

- i. the *Design Guidelines for Portland's Eastern Waterfront* in the Eastern Waterfront Master Plan; and
- ii. City of Portland Design Manual sections (g) *EWPZ Eastern Waterfront Port Zone and B-6 Eastern Waterfront Mixed Use Zone* and (i) *Two-family, special needs independent living units, multiple-family, lodging houses, bed and breakfasts and emergency shelters*.

City Staff requested additional materials to assist in the design review including an architectural narrative, plans, elevations, and renderings for the proposed incubator business spaces. Additionally, the final design comments asked for the eastern elevation for the remaining portion of the building at 144 Fore Street. City Staff recommended updating the Thames Street façade to incorporate a third exterior column to 'define and frame the three-story portion of the massing' and add distinct elements (ex. Vertical sun louvres or other features) to define and accentuate the atrium. The applicant submitted an updated architectural narrative and updated renderings (Plan 20 + 28) to City Staff on June 19, 2023. City Staff have reviewed the updated drawings and determined that the proposed development is meeting the relevant design standards noted above.

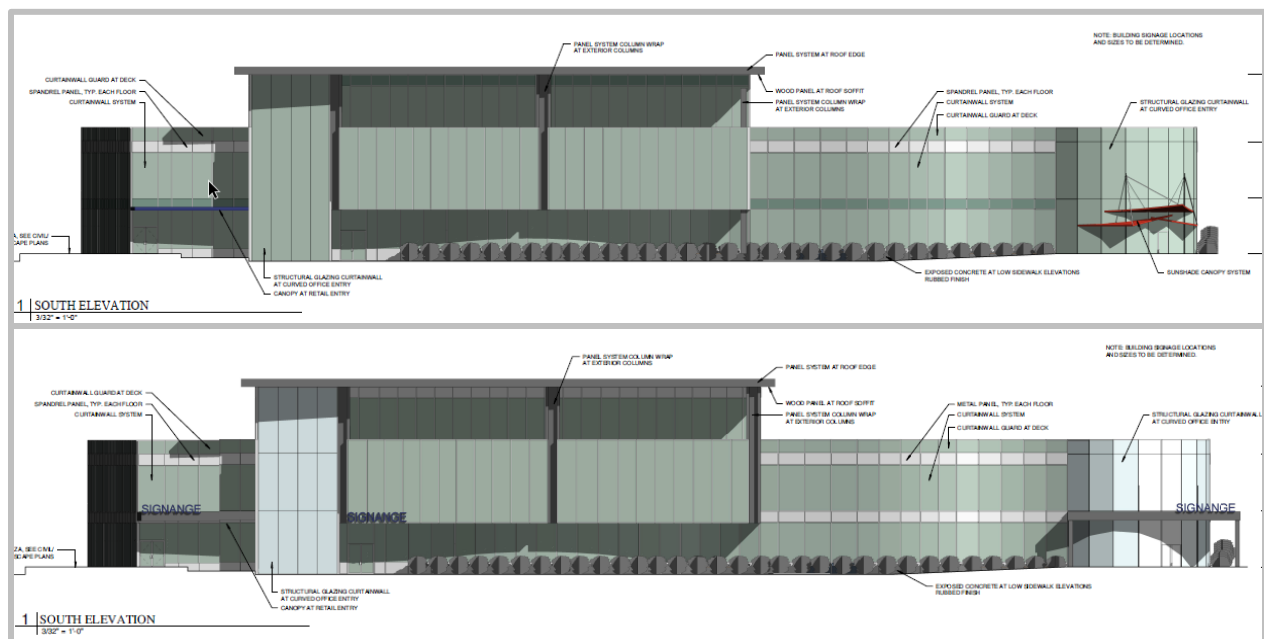


Figure 7: Original Elevation (Top) + Updated Elevation (Bottom) along Thames Street façade

XI. NEIGHBORHOOD MEETING & PUBLIC COMMENT

The applicant held a neighborhood meeting on May 10, 2023. Three members of the applicant team and one member of the public were present. The applicant provided the neighborhood meeting notice and certification following the meeting (Attachment 21).

At the time the Report was posted, the Planning + Urban Development Department has not received any public comment regarding this proposed development.

XII. STAFF RECOMMENDATION

Subject to the proposed motions and conditions of approval listed below, Planning Department staff recommends that the Planning Board approve the major site plan for application PL-002437-2023.

XIII. PROPOSED 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 on September 26, 2023 for application PL-002437-2023 at 70 Thames 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 public hearing:

1. The Planning Board [finds/does not find], based upon City Staff and the Third-Party Stormwater Engineer's review, that extraordinary conditions exist or undue hardship may result from strict compliance with the City of Portland's *Technical Manual* Section 5.III which does not allow the discharging of water directly into a Major River segment. The Planning Board [waives/does not waive] the Technical Manual Standard to allow discharging directly into a Major River segment.

B. SHORELAND ZONE 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 September 26, 2023 for application PL-002437-2023 at 70 Thames Street relevant to the Shoreland Zoning standards and the testimony presented at the Planning Board hearing, the Planning Board [finds/does not find] that the plan is in conformance with the Shoreland Zoning standards.

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 September 26, 2023 for application PL-002437-2023 at 70 Thames 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 ISSUANCE OF A BUILDING PERMIT

1. The applicant shall submit finalized landscaping and site plans that include updated walkway design and layout for the Pedestrian Assessment Easements located on site. All drawings shall be finalized and approved to the satisfaction of the Planning Authority and the Department of Public Works.
2. The applicant shall submit final Parking Demand estimates to confirm that the proposed parking plan is adequate for the proposed development. All documents shall be finalized and approved to the satisfaction of the Planning Authority, Department of Public Works, and the Third-Party Traffic Engineer.

3. The applicant shall submit a final Transportation Demand Management plan finalized and approved to the satisfaction of the Planning Authority and Department of Public Works.
4. The applicant shall submit finalized Plantings Plan that incorporate comments from the City Arborist and Parks Plan reviewers. All documents and drawings shall be finalized and approved to the satisfaction of the Planning Authority and the City Arborist.
5. The applicant shall submit a final Stormwater Management Plan finalized and approved to the satisfaction of the Planning Authority, Department of Public Works, and the Third-Party Stormwater Engineer.
6. The applicant shall submit all remaining utility ability to serve letters from utility providers. All documents shall be finalized and approved to the satisfaction of the Planning Authority.

XIV. ATTACHMENTS

REPORT ATTACHMENTS

- A. Staff Review Comments 1
- B. Staff Review Comments 2
- C. Staff Review Comments 3
- D. Design Review Comments 1
- E. Design Review Comments 2

APPLICANT SUBMITTAL

1. Project Summary
2. Waiver Table
3. RTI
4. Technical Capability
5. Zoning Analysis Table
6. Major Site Plan Checklist
7. Public Infrastructure
8. Site Design
9. Transportation
10. WEX TDM Plan
11. WW Capacity
12. WW Capacity Authorization
13. WW Capacity Authorization
14. Stormwater Maintenance Agreement Draft
15. Water Ability To Serve
16. Environmental Standards
17. Comment Response 1
18. Comment Response 2
19. Comment Response 3
20. Design Review Memo Response

PLANS

- Plan 1. Cover Sheet
- Plan 2. General Notes
- Plan 3. Boundary + Topographic Survey

Plan 4. Demo Plan
Plan 5. CM Plan
Plan 6. Overall Site Plan
Plan 7. Site Layout Plan
Plan 8. 10 Scale Site Enlargements
Plan 9. Easement Overlay Plan
Plan 10. Snow Melt Area
Plan 11. Grading Drainage Erosion Plan
Plan 12. 10 Scale Grading Enlargement
Plan 13. Utility Plan
Plan 14. Site Details 1
Plan 15. Site Details 2
Plan 16. Site + Misc Details
Plan 17. SD + Utility Details
Plan 18. Utility + Misc Details
Plan 19. Vehicle Turning Template
Plan 20. Materials + Lighting Plan
Plan 20. Renderings
Plan 21. Planting Plan
Plan 22. Photometric Plan
Plan 23. Photometric Plan
Plan 24. Details
Plan 25. Floorplans
Plan 26. 144 Fore Renderings
Plan 27. 144 Site Plan
Plan 28. 144 Fore Rendering
Plan 29. Landscaping Plan

CHAPTER 32 STORM WATER

Art. I. Prohibited Discharges, §§ 32-1--32-15

Art. II. Prohibited Discharges, §§ 32-16--32-35

Art. III. Post-Construction Stormwater Management, §§32-36-32-40

ARTICLE I. IN GENERAL

Sec. 32-1. Definitions.

For the purposes of this article, the terms listed below are defined as follows:

Applicant. "Applicant" means a person with requisite right, title or interest or an agent for such person who has filed an application for a development project that requires a post-construction stormwater management plan under this article.

Best management practices ("BMP"). "Best management practices" or "BMPs" means schedules or activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of waters of the state. BMPs also include treatment requirements, operating procedures, and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage.

Clean Water Act. "Clean Water Act" means the federal Water Pollution Control Act (33 U.S.C. § 1251 *et seq.*, also known as the "Clean Water Act"), and any subsequent amendments thereto.

Discharge. "Discharge" means any spilling, leaking, pumping, pouring, emptying, dumping, disposing or other addition of pollutants to "waters of the state." "Direct discharge" or "point source" means any discernable, confined and discrete conveyance, including, but not limited to, any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation or vessel or other floating craft, from which pollutants are or may be discharged.

Enforcement authority. "Enforcement authority" means the person(s) or department authorized under section 32-3 of this article to administer and enforce this article.

Exempt person or discharge. "Exempt person or discharge" means any person who is subject to a multi-sector general permit for industrial activities, a general permit for construction activity, a general permit for the discharge of storm water from the Maine department of transportation and the Maine turnpike authority

municipal separate storm sewer systems, or a general permit for the discharge of storm water from state or federally owned authority municipal separate storm sewer system facilities; and any non-storm water discharge permitted under a NPDES permit, waiver, or waste discharge license or order issued to the discharger and administered under the authority of the U.S. environmental protection agency ("EPA") or the Maine department of environmental protection ("DEP"). City of Portland

Municipality. "Municipality" means the city of Portland.

Municipal separate storm sewer system, or MS4. "Municipal separate storm sewer system" or "MS4," means conveyances for storm water, including, but not limited to, roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, human-made channels or storm drains (other than publicly owned treatment works and combined sewers) owned or operated by any municipality, sewer or sewage district, fire district, state agency or federal agency or other public entity that discharges directly to surface waters of the state.

National pollutant discharge elimination system (NPDES) storm water discharge permit. "National pollutant discharge elimination system (NPDES) storm water discharge permit" means a permit issued by the EPA or by the DEP that authorizes the discharge of pollutants to waters of the United States, whether the permit is applicable on an individual, group, or general area-wide basis.

Non-storm water discharge. "Non-storm water discharge" means any discharge to an MS4 that is not composed entirely of storm water.

Person. "Person" means any individual, firm, corporation, municipality, quasi-municipal corporation, state agency or federal agency or other legal entity which creates, initiates, originates or maintains a discharge of storm water or a non-storm water discharge.

Pollutant. "Pollutant" means dredged spoil, solid waste, junk, incinerator residue, sewage, refuse, effluent, garbage, sewage sludge, munitions, chemicals, biological or radiological materials, oil, petroleum products or by-products, heat, wrecked or discarded equipment, rock, sand, dirt and industrial, municipal, domestic, commercial or agricultural wastes of any kind.

Post-construction stormwater management plan. "Post-construction stormwater management plan" means BMPs employed by a development project to meet the stormwater standards of Section V of the department of planning and urban development's Technical and Design Standards and Guidelines.

Premises. "Premises" means any building, lot, parcel of land, or portion of land, whether improved or unimproved, including adjacent sidewalks and parking strips, located within the municipality from which discharges into the storm drainage system are or may be created, initiated, originated or maintained.

Qualified post-construction stormwater inspector. "Qualified post-construction stormwater inspector" means a person who conducts post-construction stormwater best management practice inspections for compensation and who has received the appropriate training for the same from DEP or otherwise meets DEP requirements to perform said inspections.

Regulated small MS4. "Regulated small MS4" means any small MS4 regulated by the State of Maine "general permit for the discharge of storm water from small municipal separate storm sewer systems" dated July 1, 2008 ("general permit") or the general permits for the discharge of storm water from the Maine department of transportation and Maine turnpike authority small MS4s or state or federally owned or operated small MS4s, including all those located partially or entirely within an urbanized area (UA).

Small municipal separate storm sewer system, or small MS4. "Small municipal separate storm sewer system", or "small MS4," means any MS4 that is not already covered by the phase I MS4 storm water program including municipally owned or operated storm sewer systems, state or federally-owned systems, such as colleges, universities, prisons, Maine department of transportation and Maine turnpike authority road systems and facilities, and military bases and facilities.

Storm drainage system. "Storm drainage system" means the City of Portland's regulated small MS4 and other conveyances for storm water located in areas outside the UA that drain into the regulated small MS4.

Storm water. "Storm water" means any storm water runoff, snowmelt runoff, and surface runoff and drainage; "Stormwater" has the same meaning as "storm water".

Urbanized area ("UA"). "Urbanized area" or "UA" means the areas of the State of Maine so defined by the latest decennial (2000) census by the U.S. Bureau of Census.
(Ord. No. 85-08/09, 10-20-08; Ord. No. 35-09/10, 8-17-09)

Sec. 32-2. Reserved.

Sec. 32-3. Reserved.

Sec. 32-4. Reserved.

Sec. 32-5.	Reserved.
Sec. 32-6.	Reserved.
Sec. 32-7.	Reserved.
Sec. 32-8.	Reserved.
Sec. 32-9.	Reserved.
Sec. 32-10.	Reserved.
Sec. 32-11.	Reserved.
Sec. 32-12.	Reserved.
Sec. 32-13.	Reserved.
Sec. 32-14.	Reserved.
Sec. 32-15.	Reserved.

ARICLE II. PROHIBITED DISCHARGES

Sec. 32-16. Applicability.

This Article shall apply to all persons discharging storm water and/or non-storm water discharges from any premises into the storm drainage system.

(Ord. No. 85-08/09, 10-20-08; Ord. No. 35-09/10, 8-17-09)

Sec. 32-17. Responsibility for administration.

The department of public services is the enforcement authority who shall administer, implement, and enforce the provisions of this article.

(Ord. No. 85-08/09, 10-20-08; Ord. No. 35-09/10; 8-17-09)

Sec. 32-18. Prohibition of non-storm water discharges.

(a) *General prohibition.* Except as allowed or exempted herein, no person shall create, initiate, originate or maintain a non-storm water discharge to the storm drainage system. Such non-storm water discharges are prohibited notwithstanding the fact that the city may have approved the connections, drains or conveyances by which a person discharges un-allowed non-storm water discharges to the storm drainage system.

(b) *Allowed non-storm water discharges.* The creation, initiation, origination and maintenance of the following non-storm water discharges to the storm drainage system is allowed:

- (1) Landscape irrigation; diverted stream flows; rising ground waters; uncontaminated flows from foundation drains; air conditioning and compressor condensate; irrigation water; flows from uncontaminated springs; uncontaminated water from crawl space pumps; uncontaminated flows from footing drains; lawn watering runoff; flows from riparian habitats and wetlands; residual street wash water (where spills/leaks of toxic or hazardous materials have not

occurred, unless all spilled material has been removed and detergents are not used); hydrant flushing and fire fighting activity runoff; water line flushing and discharges from potable water sources; individual residential car washing; and de-chlorinated swimming pool discharges.

- (2) Discharges specified in writing by the enforcement authority as being necessary to protect public health and safety.
- (3) Dye testing, with verbal notification to the enforcement authority prior to the time of the test.

(c) *Exempt person or discharge.* This article shall not apply to an exempt person or discharge, except that the enforcement authority may request from exempt persons and persons with exempt discharges copies of permits, notices of intent, licenses and orders from the EPA or DEP that authorize the discharge(s).

(Ord. No. 85-08/09, 10-20-08; Ord. No. 35-09/10, 8-17-09)

Sec. 32-19. Suspension of access to the city's small MS4.

The enforcement authority may, without prior notice, physically suspend discharge access to the storm drainage system to a person when such suspension is necessary to stop an actual or threatened non-storm water discharge to the storm drainage system which presents or may present imminent and substantial danger to the environment, or to the health or welfare of persons, or to the storm drainage system, or which may cause the city to violate the terms of its environmental permits. Such suspension may include, but is not limited to, blocking pipes, constructing dams or taking other measures, on public ways or public property, to physically block the discharge to prevent or minimize a non-storm water discharge to the storm drainage system. If a person fails to comply with a suspension order issued in an emergency, the enforcement authority may take such steps as deemed necessary to prevent or minimize damage to the storm drainage system, or to minimize danger to persons.

(Ord. No. 85-08/09, 10-20-08; Ord. No. 35-09/10, 8-17-09)

Sec. 32-20. Monitoring of discharges.

In order to determine compliance with this article, the enforcement authority may enter upon and inspect premises subject to this article at reasonable hours to inspect the premises and connections thereon to the storm drainage system; and to conduct monitoring, sampling and testing of the discharge to the storm drainage system.

(Ord. No. 85-08/09, 10-20-08; Ord. No. 35-09/10, 8-17-09)

Sec. 32-21. Enforcement.

It shall be unlawful for any person to violate any provision of or to fail to comply with any of the requirements of this article. Whenever the enforcement authority believes that a person has violated this article, the enforcement authority may enforce this article in accordance with 30-A M.R.S.A. § 4452.

- (a) *Notice of violation.* Whenever the enforcement authority believes that a person has violated this article, the enforcement authority may order compliance with this article by written notice of violation to that person indicating the nature of the violation and ordering the action necessary to correct it, including, without limitation:
- (1) The elimination of non-storm water discharges to the storm drainage system, including, but not limited to, disconnection of the premises from the MS4.
 - (2) The cessation of discharges, practices, or operations in violation of this article.
 - (3) At the Person's expense, the abatement or remediation (in accordance with best management practices in DEP rules and regulations) of non-storm water discharges to the storm drainage system and the restoration of any affected property; and/or
 - (4) The payment of fines, of the city's remediation costs and of the city's reasonable administrative costs and attorneys' fees and costs. If abatement of a violation and/or restoration of affected property is required, the notice shall set forth a deadline within which such abatement or restoration must be completed.
- (b) *Penalties/fines/injunctive relief.* In addition to the imposition of any other costs or penalties provided for herein, any person who violates this section shall be subject to fines, penalties and orders for injunctive relief and shall be responsible for the city's attorney's fees and costs, all in accordance with 30-A M.R.S.A. § 4452. Each day such violation continues shall constitute a separate violation. Moreover, any person who violates this section also shall be responsible for any and all fines, penalties, damages and costs, including, but not limited to attorneys' fees and costs, incurred by the city for violation of federal and State environmental laws and

regulations caused by or related to that person's violation of this article; this responsibility shall be in addition to any penalties, fines or injunctive relief imposed under this section.

- (c) *Consent agreement.* The enforcement authority may, with the approval of the city manager, enter into a written consent agreement with the violator to address timely abatement of the violation(s) of this article for the purposes of eliminating violations of this article and of recovering fines, costs and fees without court action.
- (d) *Appeal of notice of violation.* Any person receiving a notice of violation or suspension notice may appeal the determination of the enforcement authority to the city manager or his or her designee. The notice of appeal must be received within 30 days from the date of receipt of the notice of violation. The city manager shall hold a hearing on the appeal within 30 days from the date of receipt of the notice of appeal, except that such hearing may be delayed by agreement of the city manager and the appellant. The city manager may affirm, reverse or modify the decision of the enforcement authority. A suspension under Section 32-5 of this article remains in place unless or until lifted by the city manager or by a reviewing court. A party aggrieved by the decision of the city manager may appeal that decision to the Maine superior court within 45 days of the date of the city manager's decision pursuant to Rule 80B of the Maine Rules of Civil Procedure.
- (e) *Enforcement measures.* If the violation has not been corrected pursuant to the requirements set forth in the notice of violation, or, in the event of an appeal to the city manager, within 45 days of a decision of the city manager affirming the enforcement authority's decision, then the enforcement authority may recommend that the corporation counsel's office file an enforcement action in a Maine court of competent jurisdiction under Rule 80K of the Maine Rules of Civil Procedure.
- (f) *Ultimate responsibility of discharger.* The standards set forth herein are minimum standards; therefore this article does not intend nor imply that compliance by any person will ensure that there will be no contamination, pollution, nor unauthorized discharge of pollutants into waters of the U.S. caused by said person. This article shall not create liability on the part of the city, or any officer agent or employee thereof for any damages that

result from any person's reliance on this article or any administrative decision lawfully made hereunder.
(Ord. No. 85-08/09, 10-20-08; Ord. No. 35-09/10, 8-17-09)

Sec. 32-22. Severability.

The provisions of this article are hereby declared to be severable. If any provision, clause, sentence, or paragraph of this article or the application thereof to any person, establishment, or circumstances shall be held invalid, such invalidity shall not affect the other provisions, clauses, sentences, or paragraphs or application of this article.

(Ord. No. 85-08/09, 10-20-08; Ord. No. 35-09/10, 8-17-09)

Sec. 32-23. Reserved.
Sec. 32-24. Reserved.
Sec. 32-25. Reserved.
Sec. 32-26. Reserved.
Sec. 32-27. Reserved.
Sec. 32-28. Reserved.
Sec. 32-29. Reserved.
Sec. 32-30. Reserved.
Sec. 32-31. Reserved.
Sec. 32-32. Reserved.
Sec. 32-33. Reserved.
Sec. 32-34. Reserved.
Sec. 32-35. Reserved.

ARTICLE III. POST-CONSTRUCTION STORMWATER MANAGEMENT.

Sec. 32-36. Applicability.

This article applies to all development projects that require a stormwater management plan pursuant to section V of the department of planning and urban development's Technical and Design Standards and Guidelines.

(Ord. No. 35-09/10, 8-17-09)

Sec. 32-37. Post-construction stormwater management plan approval.

Notwithstanding any ordinance provision to the contrary, no applicant for a development project to which this article is applicable shall receive approval for that development project unless the applicant also receives approval for its post-construction stormwater management plan and for the best management practices ("BMPs") for that development project.

(Ord. No. 35-09/10, 9-17-09)

Sec. 32-38. Post-construction stormwater management plan compliance.

Any person owning, operating, or otherwise having control over a BMP required by a post construction stormwater management plan shall maintain the BMPs in accordance with the approved plan and shall demonstrate compliance with that plan as follows:

- (a) *Inspections.* The owner or operator of a BMP shall hire a qualified post-construction stormwater inspector to at least annually, inspect the BMPs, including but not limited to any parking areas, catch basins, drainage swales, detention basins and ponds, pipes and related structures, in accordance with all municipal and state inspection, cleaning and maintenance requirements of the approved post-construction stormwater management plan.
- (b) *Maintenance and repair.* If the BMP requires maintenance, repair or replacement to function as intended by the approved post-construction stormwater management plan, the owner or operator of the BMP shall take corrective action(s) to address the deficiency or deficiencies as soon as possible after the deficiency is discovered and shall provide a record of the deficiency and corrective action(s) to the department of public services ("DPS") in the annual report.
- (c) *Annual report.* The owner or operator of a BMP or a qualified post-construction stormwater inspector hired by that person, shall, on or by June 30 of each year, provide a completed and signed certification to DPS in a form provided by DPS, certifying that the person has inspected the BMP(s) and that the year adequately maintained and functioning as intended by the approved post-construction stormwater management plan, or that they require maintenance or repair, including the record of the deficiency and corrective action(s) taken.
- (d) *Filing fee.* Any persons required to file an annual certification under this section shall include with the annual certification a filing fee established by DPS to pay the administrative and technical costs of review of the annual certification.
- (e) *Right of entry.* In order to determine compliance with this article and with the post-construction stormwater management plan, DPS may enter upon property at reasonable hours with the consent of the owner, occupant or agent to inspect the BMPs.

Sec. 32-39. Enforcement.

It shall be unlawful for any person to violate any provision of or to fail to comply with any of the requirements of this article or of the post-construction stormwater management plan. Whenever the enforcement authority believes that a person has violated this article, DPS may enforce this article in accordance with 30-A M.R.S.A. § 4452. Each day on which a violation exists shall constitute a separate violation for purposes of this section.

- (a) *Notice of violation.* Whenever DPS believes that a person has violated this article or the post-construction stormwater management plan, DPS may order compliance by written notice of violation to that person indicating the nature of the violation and ordering the action necessary to correct it, including, without limitation:
 - (1) The abatement of violations, and the cessation of practices or operations in violation of this article or of the post-construction stormwater management plan;
 - (2) At the person's expense, compliance with BMPs required as a condition of approval of the development project, the repair of BMPs and/or the restoration of any affected property; and/or
 - (3) The payment of fines, of the City's remediation costs and of the City's reasonable administrative costs and attorneys' fees and costs.
 - (4) If abatement of a violation, compliance with BMPs, repair of BMPs and/or restoration of affected property is required, the notice shall set forth a deadline within which such abatement, compliance, repair and/or restoration must be completed.
- (b) *Penalties/fines/injunctive relief.* In addition to the imposition of any other costs or penalties provided for herein, any person who violates this section shall be subject to fines, penalties and orders for injunctive relief and shall be responsible for the city's attorney's fees and costs, all in accordance with 30-A M.R.S.A. § 4452. Each day such violation continues shall constitute a separate violation. Moreover, any person who violates this section also shall be responsible for any and all fines, penalties, damages and costs, including, but not limited to

attorneys' fees and costs, incurred by the city for violation of federal and state environmental laws and regulations caused by or related to that person's violation of this article; this responsibility shall be in addition to any penalties, fines or injunctive relief imposed under this section.

- (c) *Consent agreement.* The enforcement authority may, without approval of the city manager, enter into a written consent agreement with the violator to address timely abatement of the violation(s) of this article for the purposes of eliminating violations of this article and of recovering fines, costs and fees without court action.
- (d) *Appeal of notice of violation.* Any person receiving a notice of violation or suspension notice may appeal the determination of the enforcement authority to the city manager or his or her designee. The notice of appeal must be received within 30 days from the date of receipt of the notice of violation. The city manager shall hold a hearing on the appeal within 30 days from the date of receipt of the notice of appeal, except that such hearing may be delayed by agreement of the city manager and the appellant. The city manager may affirm, reverse or modify the decision of the DPS. A party aggrieved by the decision of the city manager may appeal that decision to the Maine superior court within forty-five (45) days of the date of the city manager's decision pursuant to Rule 80B of the Maine Rules of Civil Procedure.
- (e) *Enforcement measures.* If the violation has not been corrected pursuant to the requirements set forth in the notice of violation, or , in the event of an appeal to the city manager, within forty-five (45) days of a decision of the city manager affirming the enforcement authority's decision, then the enforcement authority may recommend that the corporation counsel's office file an enforcement action in a Maine court of competent jurisdiction under Rule 80K of the Maine Rules of Civil Procedure.

(Ord. No. 35-09/10, 8-17-09)

Sec. 32-40. Severability.

The provisions of this article are hereby declared to be severable. If any provision, clause, sentence, or paragraph of this article or the application thereof to any person, establishment, or circumstances shall be held invalid, such invalidity shall not affect the other provisions, clauses, sentences, or paragraphs or application of this article.

(Ord. No. 35-09/10, 8-17-09)



Performance Guarantee, Inspection Fee, and Infrastructure Financial Contribution Packet Portland, Maine Planning and Urban Development Department

A. Site Plan/Subdivision Performance Guarantees Requirement

Portland's Land Use Code requires all developers with approved site plan and/or subdivision applications to submit a performance guarantee to the City prior to the start of any construction or site improvements. The performance guarantee represents 100% of the total cost of site improvements, as determined by the City.

The code further requires developers to pay an inspection fee of 2% of the performance guarantee amount to the City for the administrative costs associated with inspecting construction activity to ensure that it conforms with plans and specifications. (Portland's Land Use Code, Sections 14.11.3 and 14.11.4)

B. Cost Estimate Form and Inspection Fee

The performance guarantee covers major site improvements related to site plan and subdivision review, such as paving, roadway, utility connections, drainage, landscaping, lighting, etc. Please submit an itemized cost estimate form to determine the detailed costs of both public and private site improvements to the Planning office for review and approval. The cost estimate form is a downloadable excel spreadsheet that can be downloaded from the website here:

<https://www.portlandmaine.gov/467/Performance-Guarantee>

The approved amount on the Cost Estimate form is the amount to be covered by the performance guarantee and is the basis for calculating the 2% inspection fee.

C. Acceptable Types of Performance Guarantees

The accepted forms of a performance guarantee, covering the amount approved on the Cost Estimate form, must be one of the following options listed below, with **NO** exceptions.

[PG Letter of Credit from a Bank/Credit Union](#)

[PG Escrow Account with Financial Institution](#)

[PG Escrow Account with the City](#)

NOTE: No land use application of any kind shall be processed, reviewed or issued, no signed subdivision plat shall be released or recorded, and no building permit of any kind shall be issued unless all fees have been paid in full and every aspect of the proposed development is in compliance with the City of Portland Code, as determined by the Development Review Coordinator in the Planning and Urban Development Department.

The developer is eligible to receive up to three reductions from the performance guarantee in a calendar year equal to the estimated cost of the completed improvements. In no case, however, shall any performance guarantee be reduced 1) in any line item where improvements remain to be completed; or 2) to a value which is less than the estimated cost of completing all remaining required improvements; or 3) to a value less than 10% of the Performance Guarantee. *(The Cost Estimate Form can also be used during the construction phase to submit reductions of fully completed site work items)*

At the conclusion of the project, the City will release 90% of the performance guarantee after the Development Review Coordinator determines that site improvements have been satisfactorily completed at the time of the final inspection. The City will then retain a 10% defect guarantee to cover the workmanship and durability of materials used in construction. The defect guarantee will be released one (1) year from date of acceptance, subject to the Development Review Coordinator inspecting the site and finding it in compliance with the approved site plan.

D. Housing Replacement Performance Guarantees

For those projects that are subject to Portland's Housing Preservation and Replacement Ordinance (Section 18.1) and have an approved plan, then a performance guarantee is required for housing replacement. An owner or developer must post a performance guarantee in the form of a letter of credit in the amount equivalent to the amount the applicant would have been required to contribute to the City's Housing Fund, if the applicant had chosen that option. The guarantee shall be valid for no more than three years, after which the full amount shall be provided to the City's Housing Trust Fund, if replacement units meeting the code do not have certificates of occupancy. The guarantee can be released upon the issuance of a certificate of occupancy for the replacement units.

[PG Housing Replacement Letter of Credit](#)

E. Infrastructure Accounts

Contributions to infrastructure accounts may be required as part of the conditions of site plan approval. The contributions must be submitted prior to the issuance of any permits, unless stated otherwise in the approval.

[Infrastructure Financial Contribution Form](#)

F. Administrative Process for Submitting a Performance Guarantee

- **Step 1 – Submit a Cost Estimate for Review**
Submit completed cost estimate form to the Planning Division for review and approval. Once approved, use this total amount as the performance guarantee amount in Step 2.

- **Step 2 – Drafting a Performance Guarantee**
Complete a draft of 1 of the 3 performance guarantee templates listed above, inputting project specific information (refer to last page of this document for a help guide) into blank and bracketed areas, and submit to the Planning Office for final approval. Submit a draft to planning@portlandmaine.gov to ensure fields are correctly entered. Once staff approves the draft, the applicant shall submit the official signed original performance guarantee document, which for option 1) or 2) **must be on Bank/Credit Union letterhead** with original signatures.
- **Step 3 - Submit Performance Guarantee, Inspection Fee, and Infrastructure Contributions**
Submit the final original Performance Guarantee, the required inspection fee, and any infrastructure contributions to the Planning Division. The Planning Office will confirm that the final documents are accurate and acceptable.
- **Step 4 - Release of Recording Plat and Permits**
Only after the performance guarantee is issued, fees paid, and all other conditions of site plan approval and compliance are met, will the recording plat be released for recording at the Cumberland County Registry of Deeds and/or City permits issued.

Contact: Please email the Cost Estimate Form to Max Martin at mjmartin@portlandmaine.gov Once the cost estimate is approved, all Performance Guarantees and Infrastructure Contributions can be submitted by mail to:

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

Guide for Determining Performance Guarantee Fields

[Please note: While drafting, the tracking feature should remain enabled]

Fields	What to Use
Address of Project, Portland, Maine	Reference Application Approval Letter
Amount of Performance Guarantee	Reference Grand Total on the Approved Cost Estimate Form
Application ID #	Reference Project's Approval Letter
Approval Date	See First Sentence of the Approval Letter which contains the Date of Approval. <i>(Note: If any amendments occurred following the approval, please list, "and amended on [add amendment date]"</i>
Date	The Date of the Agreement Indicates the Effective Start Date of the Agreement
Date one year from the date of this Letter of Credit [or] Escrow Account	The Expiration Date of the Agreement will be at least One-year from the Effective Date of the Agreement <i>[Note: If the one-year expiration date falls between October 30th and April 15th, the expiration should default to April 15th]</i>
Name of Applicant	Reference Entity Listed on Application Approval Letter <i>(Note: The entity eligible to post the Performance Guarantee must be the Applicant/Developer listed on the Approval Letter)</i>
subdivision and/ or site plan	Reference Application Approval Letter for Applicable Type of Approval. <i>(Ex. If pertaining to both, the text would read, "subdivision and site plan,")</i>

Additional Fields on Financial Institution Templates

(i.e. Letter of Credit or Escrow Account with Financial Institution)

Account Number	Any Number the Financial Institution Chooses to Assign the Agreement
Name of Bank/Credit Union	The Name of Financial Institution (i.e. the Surety) posting funds for the Applicant/Developer
Address of Financial Institution	Address of Financial Institution's Office Managing Letter of Credit and/or Escrow Accounts
Name	The Name of the Financial Institution's Authorized Signatory
Title	Title of Authorized Signatory

STORMWATER DRAINAGE SYSTEM MAINTENANCE AGREEMENT

For SUBDIVISIONS

IN CONSIDERATION OF the site plan and subdivision approval granted by the Planning Board of the City of Portland to the proposed _____ (name of developments and project number) shown on the Subdivision Plat (Exhibit A) recorded in Cumberland Registry of Deeds in Plan Book ____, Page ____ submitted by _____, and associated Grading, Drainage & Erosion Control Plan (*insert correct name of plan*) (Exhibit B) prepared by _____ (engineer/agent) of _____(address) dated and pursuant to a condition thereof, _____ (name of owner), a Maine limited liability company with a principal place of business in Portland, Maine, and having a mailing address of _____, 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 _____ (*details of the system such as underdrained subsurface sand filter BMP system, rain gardens, storm drain pipes, underdrain pipes, catch basins*), (hereinafter collectively referred to as the “stormwater system”), as shown on the _____ Plan in Exhibit B and in strict compliance with the approved Stormwater Maintenance and Inspection Agreement (*insert correct name of document*) prepared for the Owner by _____ (copy attached in Exhibit C) and Chapter 32 of the Portland City Code.

Owner of the subject premises further agrees, at its own cost, to keep a Stormwater Maintenance Log. 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 said premises and abutters thereto; further, that the said City of Portland and said persons in lawful possession may enforce this Agreement by an action at law or in equity in any court of competent jurisdiction; further, that after giving the Owner written notice and a stated time to perform, the said City of Portland, by its authorized agents or representatives, may, but is not obligated to, enter upon said premises to maintain, repair, or replace said stormwater system 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 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 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 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 and mailed by certified mail, return receipt requested or ordinary mail or both 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 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 lienied it or create a cause of action against the City.

Dated at Portland, Maine this _____ day of _____, 2014.

(*name of company*)

(*representative of owner, name and title*)

STATE OF MAINE
CUMBERLAND, ss.

Date: _____

Personally appeared the above-named _____ (*name and title*), 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: Subdivision Plat as recorded

Exhibit B: Approved Grading and Drainage Plan (*name of the plan showing the Stormwater System in detail*)

Exhibit C: Approved Stormwater Maintenance and Inspection Agreement

Planning Board Report

Planning & Urban Development

182 Rear & 186 Woodford Street
Zoning Map Amendment
ZN-002325-2023

Submitted to:	Portland Planning Board	Prepared By:	Zach Powell
Public Hearing Date:	October 10, 2023	Date:	October 6, 2023

I. INTRODUCTION

Community Housing of Maine (CHOM) has submitted a zoning map amendment application requesting to rezone property at 186 Woodford Street from R-5 Residential, B-1 Neighborhood Business & B-2 Community Business, to B-2 Community Business. The zoning map amendment would enable redevelopment of the eastern portion of the site, which is currently occupied by a surface parking lot, to affordable housing. While not under ownership of CHOM or proposed to be included as part of the proposed development, Planning Staff is recommending the inclusion of 182 Rear Woodford Street as part of the rezoning (Figure 1, outlined in green).



Figure 1: Aerial View of 182 Rear (Outlined in Green) and 186 (Outlined in Blue) Woodford Street

This application has been scheduled for a Planning Board Hearing without an initial Workshop. The Planning and Urban Development Department mailed 131 notices advertising this meeting to property owners within 500 feet of the site. A legal advertisement ran in the September 30, 2023 and October 3, 2023 editions of the *Portland Press Herald*.

Applicant: Community Housing of Maine (CHOM)
Authorized Agent: Peter Heil, Acorn Engineering

II. PROJECT DATA

Property Size	182 Rear Woodford Street: 4,203 square feet (0.1 acre) 186 Woodford Street: 83,934 square feet (1.93 acres)
Existing Zones	R-5 (Residential), B-1 (Neighborhood Business), B-2 (Community Business)
Existing Uses	General office (<5,000 sq. ft.), General services (<5,000 sq. ft.), Place of assembly, Surface parking lot
Proposed Zone	B-2 (Community Business)
Proposed Uses	General office (<5,000 sq. ft.), General services (<5,000 sq. ft.), Place of assembly, Residential, Surface parking lot

III. BACKGROUND & PROPOSED PROJECT

The property at 186 Woodford Street is an 83,934 square foot lot, and is the site of Woodfords Congregational Church. The property also leases space to A Company of Girls, Maine Council of Churches, Project Feed, and Stages Youth Theater. The property at 182 Rear Woodford Street is a 4,203 square foot undeveloped lot that is utilized for parking of the adjacent multi-family building at 180 Woodford Street.

The proposed zoning map amendment for 186 Woodford Street would facilitate CHOM's future plans to subdivide the lot into two parcels with the church and cloister remaining under the ownership of the Woodfords Congregation and the Parish House, and surface parking area under the ownership of CHOM. The development on the new parcel by CHOM proposes to retain the existing Parish House (shown in gray), demolish the rear ell, and construct a rear addition with a similar footprint to the current ell that would house 31 residential units. Along with the addition, the project proposes the construction of a new affordable housing building on the eastern portion of the site with 59 units.

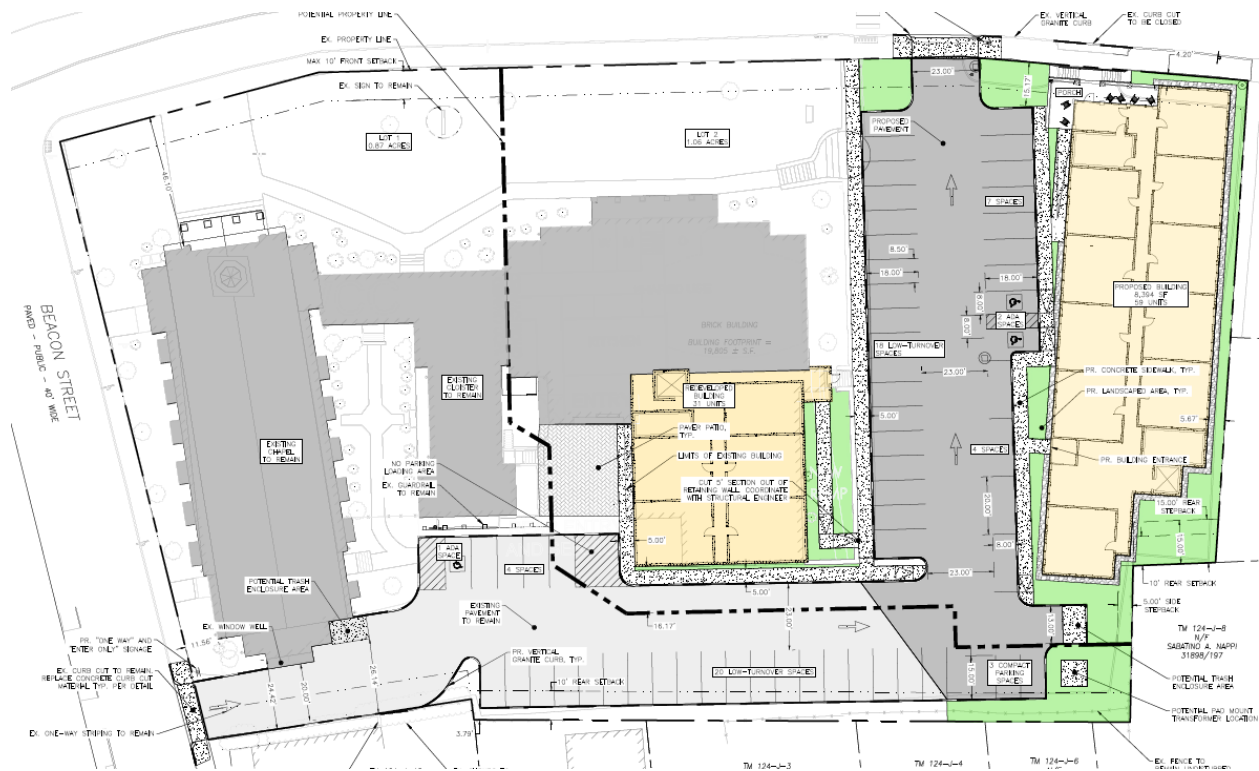


Figure 2: Conceptual Site Plan showing the redevelopment of the Parish building with 31 units (shown in the center) and construction of a new multi-family building with 59 units (shown on the right).

IV. EXISTING CONDITIONS AND SURROUNDING AREA

The proposed zoning map amendments include the Woodfords Congregational Church parcel at 186 Woodford Street (Chart 124, Block J, Lot 5001) and an undeveloped parcel at 182 Rear Woodford Street Cumberland Avenue (Chart 124, Block J, Lot 021001).

The property at 186 Woodford Street is bounded by Woodford Street (State Route 9) to the north and Beacon Street to the west. The site currently includes a General office (<5,000 sq. ft.) use (Maine Council of Churches), General services (<5,000 sq. ft.) use (Project Feed), Place of assembly uses (A Company of Girls, Stages Youth Theater & Woodfords Congregational Church), and an 83-space surface parking lot. The property at 182 Rear Woodford Street does not have street frontage and is an undeveloped parcel, but is

under common ownership with 180 Woodford Street. 180 Woodford Street has frontage along Woodford Street and improved with a multi-family building.

The surrounding area contains a mixture of residential, commercial, institutional, and light industrial uses. Two blocks to the east sits Woodford's Corner, which serves as a commercial node for the neighboring Back Cove, Rosemont, and Deering neighborhoods along Forest Avenue. Woodford Street includes a mixture of both commercial and residential uses. Lower-density residential uses are primarily located to the west and south whereas a greater mix of low- to mid-density residential, commercial, institutional, and light industrial uses are located to the north and east.



Figure 3: Route 2 Map (source: Greater Portland Metro)

The properties are an approximately one-minute walk from the METRO Route 2 line, which stops at Woodford's Corner every 30 minutes. The site is in close proximity to a neighborhood bikeway on Concord & Saunders Street and the Back Cove Shared Use Path (12-minute walk, 4-minute bike ride). The surrounding area is supported by a strong, connected pedestrian network with sidewalk facilities.

The southern portion of 186 & the entirety of 182 Rear Woodford Street are within the R-5 (Residential) zone, which extends south and southwest of the sites. The northeastern portion of 186 Woodford Street is zoned B-2

(Community Business) and northwestern portion is zoned B-1 (Neighborhood Business), with each zone respectively extending to the east and west.

V. PROPOSED MAP AMENDMENT

The applicant proposes a zoning map amendment to rezone 186 Woodford Street from R-5 (Residential), B-1 (Neighborhood Business), and B-2 (Community Business) completely to B-2. The proposed zoning map amendment will remove the existing split lot condition and will bring the Parish building into zoning conformity for height. Currently, the Church and Parish buildings are legally nonconforming in regards to height at 50 feet and 135 feet, respectively. With affordable housing density bonus allowances in the B-2 zone, rezoning this site would allow for renovations and increased density,

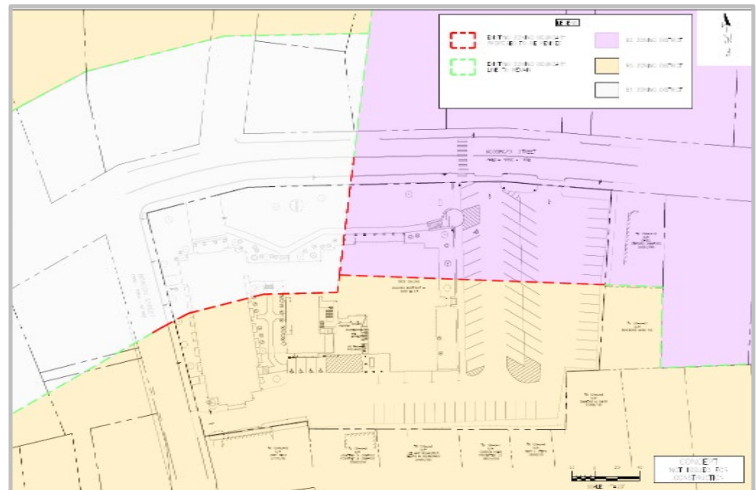


Figure 4: Existing Zoning with R-5 shown in yellow, B-1 in gray, and B-2 in purple.

facilitating affordable housing opportunities near a priority node and corridor identified in the Comprehensive Plan. The applicant's submittal (Plan 2) shows the proposed Zoning Map Amendment.

VI. ZONING ANALYSIS

R-5 (Residential) Zone

The entirety of 182 Rear Woodford Street and the southern portion of 186 Woodford Street is zoned R-5 (Residential). The purpose of the R-5 zone is to:

“provide appropriate areas of the city for medium-density residential development characterized by single-family, two-family, and low-intensity multifamily dwellings on individual lots; to ensure the stability of established medium-density neighborhoods by controlling residential conversion; and to provide for planned residential unit development on substantially-sized parcels.”

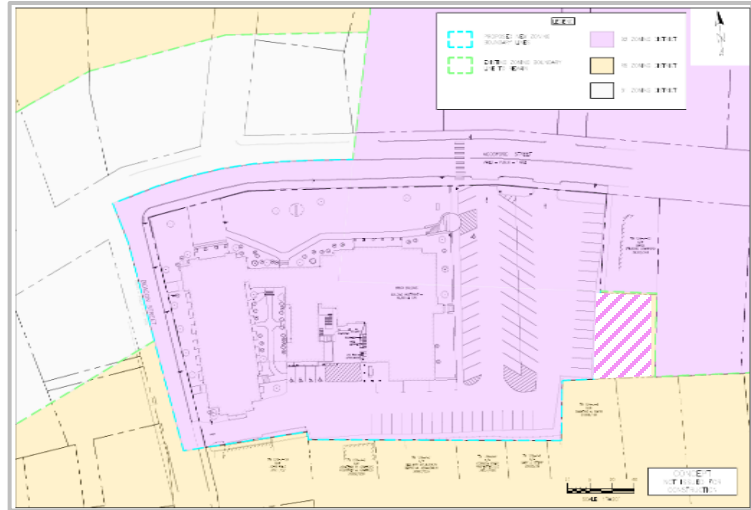


Figure 5: Proposed Zoning Map Amendment, with proposed amendment from Planning Staff to rezone 182 Rear Woodford Street to B-2 (Shown with diagonal stripes).

The R-5 zone limits residential density by requiring a minimum of 3,000 square feet of lot area per dwelling unit and further requires a minimum lot area of 5,000 to 6,000 square feet for residential uses. The maximum height in the R-5 zone is 35 feet and affordable housing height and density bonuses are not permitted. A number of categorical exemptions to off-street parking minimums are permitted for development in the R-5 zone (e.g., Affordable housing, Multi-Family housing, Transit proximate development and uses) and can be found in Table 19-B of the Land Use Code.

B-1 (Neighborhood Business) Zone

Currently, the northwestern portion of 186 Woodford Street is in the B-1 (Neighborhood Business) Zone. The purpose of the B-1 zone is to:

“provide limited areas for the location of small-scale commercial establishments intended to serve a local market. Uses that are complimentary, quiet, and generally do not disturb the comfort and enjoyment of the adjoining neighborhood environment are encourage, and should be designed for the pedestrian scale and to provide convenient access for nearby residents and workers to walk in to purchase goods and services. Buildings and uses shall be designed with attractive storefronts or similar features, with windows and doors convenient to a public sidewalk. This zone encourages mixed-use buildings, such as commercial first floor with residential uses above or combined retail/office uses in a multi-story structure. The zone also provides the opportunity for high residential density. Suitable locations for this zone may include street intersections and arterial streets with existing or proposed traditional neighborhood retail and service uses.”

The B-1 zone limits residential density by requiring a minimum of 1,000 square feet of lot area per dwelling unit, though affordable housing development within the zone is eligible to take advantage of density bonuses, which would allow for a reduction in the minimum lot area per dwelling unit requirement down to a minimum

of 400 square feet per unit, if 75% or more of the dwelling units were to be low-income units ($\leq 80\%$ of AMI for rental units and $\leq 100\%$ of AMI for ownership units).

Maximum heights in the B-1 zone are 35 feet and again, affordable housing development within the zone is eligible to take advantage of height bonuses up to 15 feet, if $\geq 50\%$ of units are low-income units or if 100% of units are workforce units ($\leq 80\%$ of AMI for rental and ownership units).

B-2 (Community Business) Zone

Currently, the northeastern portion of 186 Woodford Street is in the B-2 (Neighborhood Business) Zone and the applicant is requesting that this zone be expanded to encompass the entirety of both 182 Rear & 186 Woodford Street. The purpose of the B-2 zone is to:

“provide appropriate locations for the development and operation of community centers offering a mixture of commercial uses, housing, and services serving the adjoining neighborhoods and the larger community. The variety, sites, and intensity of the permitted commercial uses in the B-2 zone are intended to be greater than those permitted in the B-1/B-1b zones. The zone provides a broad range of goods and services with a mixture of large and small buildings, such as grocery stores, shops and services located in major shopping centers and along arterial streets. Such establishments should be readily accessible by automobile, by pedestrians and by bicycle. Development in the B-2 zone should related to the surrounding neighborhoods by design, orientation, and circulation patterns. The zone should provide locations for moderate to high-density housing in urban neighborhoods along arterials.”

The B-2 zone requires a minimum of 1,000 square feet of lot area per dwelling unit. Similar to the B-1 zone, density bonuses can be utilized to reduce the minimum lot area per dwelling unit requirement down to 400 square feet if 75% of dwelling units are low-income units ($\leq 80\%$ of AMI for rental units and $\leq 100\%$ of AMI for ownership units). Maximum heights in the B-2 zone are 45 feet (50 feet with a commercial ground floor use) though affordable housing height bonuses permit up to 25 feet of additional height if $\geq 50\%$ of units are low-income units, or if 100% of units are workforce units ($\leq 80\%$ of AMI for rental and ownership units). The Parish Building would come into conformance for height at 50 feet.

Table 1 provides a comparison of the permitted uses for zones under consideration. Uses marked with a ‘P’ are permitted uses in the zone. A ‘C’ indicates a conditional use. Uses with an empty cell are not permitted in the zone. “**” indicates that other restrictions may apply.

Table 1 - Permitted Uses	R-5	B-1	B-2
Single-family dwellings	P	P	P
Two-family dwellings	P	P	P
Multi-family dwellings	C	P*	P
Multiplex	P		
Congregate care facilities		P	
Handicapped family units	P		
Special needs independent dwelling units	P		
Combined living/working spaces		P	P
Lodging houses	C	P	P
Sheltered care group homes	C		
Clinics		P	P

Elementary, middle, and secondary schools	C	P	P
Governmental uses	P	P	P
Hospitals	C		
Intermediate care facilities	C		P
Long-term and extended care facilities	C		P
Places of assembly (<10,000 sq. ft.)	C	P	P
Places of assembly (>10,000 sq. ft.)	C		P
Preschool facilities	C	P	P
Post-secondary schools	C		P
Bed and breakfasts		P	P
Adult business establishments			P
Bars			P
General offices (<5,000 sq. ft.)		P	P
General offices (>5,000 sq. ft.)			P
General services (<5,000 sq. ft.)		P	P
General services (>5,000 sq. ft.)			P
Hostels		P	
Hotels			P
Marijuana retail store			P
Registered marijuana dispensary			P
Restaurants		P	P
Retail (<5,000 sq. ft.)		P	P
Retail (5,000 – 25,000 sq. ft.)			P
Retail (>25,000 sq. ft.)			P
Small-scale marijuana caregiver			P
Theaters and performance halls			P
Veterinary services			P
Communication studios			P
Laboratory and research facilities			C
Low-impact industrial (<10,000 sq. ft.)			P*
Low-impact industrial (>10,000 sq. ft.)			P*
Printing and publishing			C*
Repair services			P
Studios for artists and craftspeople		P	P
Warehouse, storage, and distribution			C*
Off-street parking	C		
Parks and open spaces	P	P	P
Solar energy system (minor)	P	P	P
Utility substations	C	P	P
Wind energy system (minor)			C

Table 2 provides a comparison of the dimensional requirements for zones under consideration.

Table 2 - Dimensional Standards	R-5	B-1	B-2
Lot Size (min)	6,000 sq. ft. to 5 ac. (depending on use)	Place of Assembly: 10,000 sq. ft. School: 20,000 sq. ft.	
Density (lot area per dwelling unit)	3,000 sq. ft.	1,000 sq. ft.	1,000 sq. ft. (435 sq. ft. if active street frontage)
Street Frontage (min)	50 ft.	20 ft.	20 ft.
Front Yard (min)	25 ft. (or average depth of adjacent yards)		
Front Yard (max)		10 ft., or average front yard depth of nearest developed lots if <10 ft.	10 ft.
Rear Yard (min)	20 ft.	10 ft. for principal & 5 ft. for accessory if abutting residential zone	Principal: 10 ft. Accessory: 5 ft.
Side Yard (min)	5-15 ft. (depending on height and location)	5 ft. if abutting residential zone	Accessory: 5 ft.
Stepbacks >35 ft. when abutting residential zone (min)		Side: 10 ft. Rear: 15 ft.	Side: 5 ft. Rear: 15 ft.
Lot Coverage (max)	40%		
Impervious Surface Ratio (max)		90%	Residential: None Other uses: 80%
Lot Width (min)	General: 60 ft. Multiplex: 90 ft.		
Building Height (max)	Principal: 35 ft. Accessory: 18 ft.	35 ft.	45 ft. (50 ft. if first floor is in commercial use)
Floor Area (max)		Restaurants (public area): 2,000 sq. ft. Clinics: 3,000 sq. ft. Non-residential uses on first floor: 10,000 sq. ft. total	Laboratory and research facilities & warehousing: 10,000 sq. ft.

Table 3 provides the information from Table 18-C of the Land Use Code on Dimensional Bonuses for Eligible Affordable Housing Projects.

Table 3 - Dimensional Bonuses for Eligible Affordable Housing Projects				
% Low-income Units	% Workforce Units	Density Permitted ¹	Additional Height Permitted	Setback Reductions ²
10%	20%	1.1 x base	N/A	N/A
20%	40%	1.2 x base	10 ft.	N/A
30%	60%	1.3 x base	10 ft.	15 ft.
50%	100%	2.0 x base	15 ft.	15 ft.
75%	N/A	2.5 x base	25 ft.	10 ft.

¹“Base” is the number of units allowed under the zoning without this bonus but with any other bonuses applied. If an eligible project is providing both workforce and affordable housing units, the applicant shall have the option of utilizing applicable incentives, but not cumulatively.

²Setback reductions are absolute reductions in front, side, and/or rear setback requirements.

VII. COMPREHENSIVE PLAN CONSISTENCY

Staff have identified that the map amendment aligns with Portland’s comprehensive plan, *Portland’s Plan 2030* by enhancing the ability for the applicant to rehabilitate and reuse existing historic structures on-site, facilitate future affordable housing development through infill of a surface parking lot, and provide housing opportunities within a multi-modal urban context. In addition, the map amendment would foster sustainable growth by providing contextually appropriate housing density in and approximate to Woodfords Corner; a priority node for the City with a concentration of services and amenities, and convenient access to transit; attributes which together make Woodfords Corner one of the most complete neighborhoods in Portland.

Relevant Comprehensive Plan goals and objectives include:

Environmental:

Support Sustainable Land Use & Transportation Policies

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

Historic Resources:

Local Goal

“Stabilize and enhance historic areas of the city by ensuring quality investment in existing structures and compatible infill development.”

Housing:

Local Goals

“Increase, preserve, and modify the overall supply of housing city-wide to meet the needs, preferences and financial capabilities of all Portland residents”

“Encourage additional contextually appropriate housing density in and proximate to neighborhood centers, concentrations of services, and transit nodes and corridors as a means of supporting complete neighborhoods.”

“Pursue policies to enable people who work in Portland to have the option to live in Portland.”

Strategies

Remove Housing Barriers

“Evaluate whether current zoning allows for new development consistent with historic patterns of form, density, and/or use, as well as whether it allows for priority growth areas.”

“Coordinate linkages between accessible transportation and housing affordability.”

Promote Sustainability

“Encourage rehabilitation of existing historic buildings and materials.”

Support Age-Friendly Housing Options

“Create, promote, and facilitate safe, affordable, and practical housing solutions that will meet the evolving needs of Portland residents as they age.”

Adapt Affordable Housing

“Pursue new opportunities for increased energy efficiency, increased densities, mixed incomes, and greater connectivity to surrounding neighborhoods.”

Future Land Use:

Priority Nodes & Corridors

“Priority nodes and corridors indicate areas that would be appropriate for new development to provide needed housing, businesses, and services proximate to transit, or areas that otherwise warrant some examination of potential for positive change in form and/or function.”

VIII. NEIGHBORHOOD MEETING & PUBLIC COMMENT

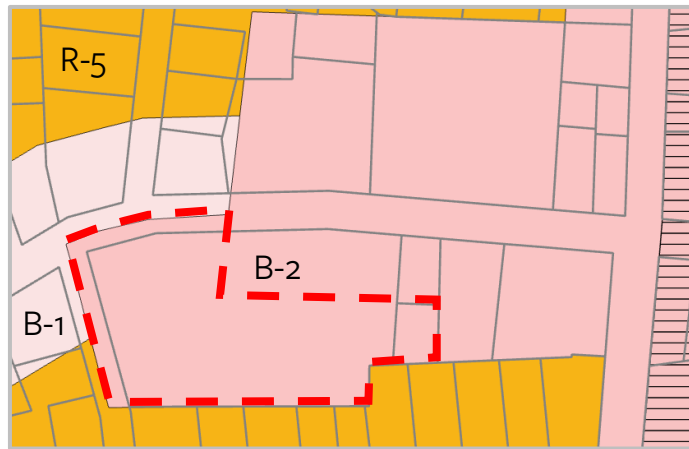
No public comment has been submitted. The Applicant held a neighborhood meeting on September 20, 2023 and was attended by 17 people. Comments at the neighborhood meeting primarily focused on changes to the surface parking, project schedules, and dwelling unit characteristics.

IX. REQUISITE COUNCIL ACTION

Any proposed rezoning, regardless of whether it is recommended by the Planning Board, must be approved by City Council vote in order to take effect.

X. PROPOSED MOTION

1. On the basis of materials submitted by the applicant, the City of Portland Land Use Code, Portland's Comprehensive Plan, public comment, and the information provided in the public hearing on October 10, 2023 for the application ZN-002325-2023 (182 Rear & 186 Woodford Street), and/or other findings, the Planning Board finds that the proposed zoning map amendment **[is/is not]** consistent with the Comprehensive Plan for the city of Portland; and therefore, the Planning Board **[recommends/does not recommend]** to the City Council adoption of the Zoning Map amendment for the area of land that includes 182 Rear & 186 Woodford Street as shown below:



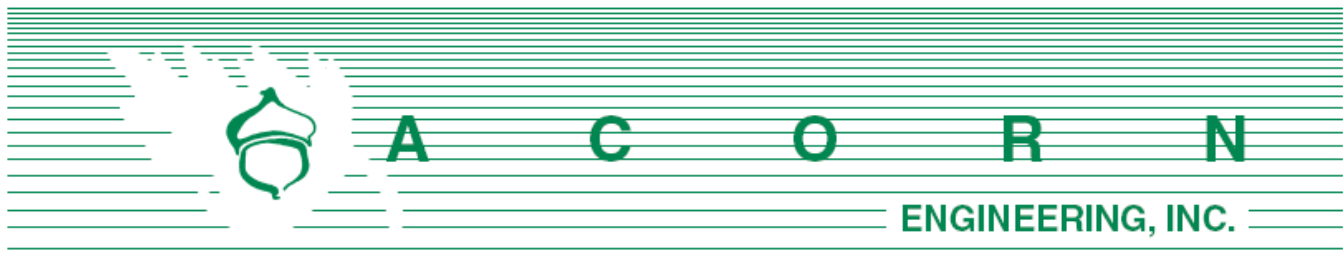
XI. ATTACHMENTS

APPLICANT SUBMITTAL

- A. Project Summary
- B. Consistency with Comprehensive Plan
- C. Checklist
- D. Right, Title, & Interest
- E. September 20, 2023 Neighborhood Meeting Materials

PLANS

- Plan 1. Vicinity Map
- Plan 2. Existing and Proposed Zoning Maps
- Plan 3. Conceptual Site Plan



Planning & Urban Development Department
Attn: Matthew Grooms, Development Review Manager
City of Portland, Maine
389 Congress Street, 4th Floor
Portland, ME 04101

June 1, 2023

Subject: Proposed Zoning Map Amendment Request
202 Woodford Street, Portland, ME

Matt:

On behalf of Community Housing of Maine (CHOM), we are pleased to submit a map amendment zoning change request for the approximate 1.92-acre parcel located at 202 Woodford Street (Chart 124, Block J, Lot 5). The parcel is currently located within three different zoning districts, including the Neighborhood Business B1, Community Business B2, & Residential R5 districts. The map amendment proposes to extend the existing B2 zone over the entire parcel.

The property is currently owned and occupied by the Woodfords Congregational Church and accompanying parking lot. Abutting the parcel to the east, west, and south are various single and multi-family residential buildings, to the north, existing commercial uses consisting of a funeral home as well as the Woodfords Club.

The proposed map amendment will allow CHOM to construct permanent supportive affordable rental housing on portions of the property, while preserving all of the existing church . The sale and future development of the Parish House will allow for the property to remain a functioning Neighborhood hub for services, performances, and meeting space. The proposed zoning change maximizes the housing options by providing residential density bonuses for affordable housing , while consolidating infrastructure and preserving open space and natural resources. The project will also be applying for a Major Site Plan application with the Planning Board, subject to the City's application Code requirements and standards, with the understanding final Planning Board approval of the Site Plan cannot occur without final approval of the Map Amendment by City Council.

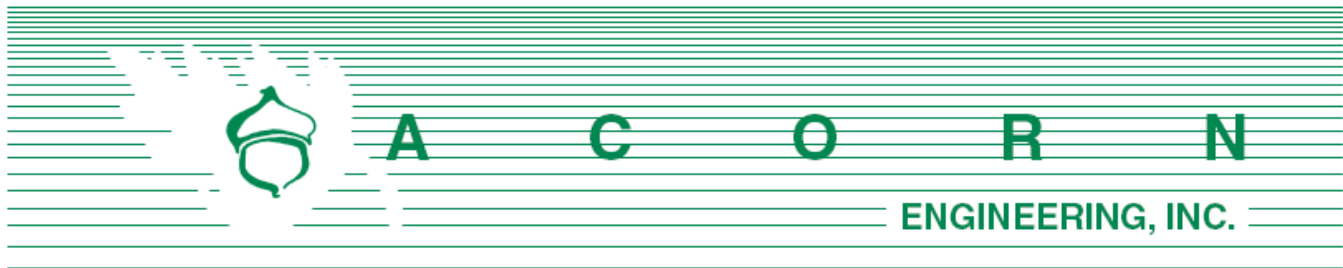
We are pleased to submit this map amendment application which is consistent with Portland's Comprehensive Plan and will unlock the parcel's ability to increase the City's available affordable housing stock through a low-impact approach. We look forward to your review of this project – if you have any questions regarding these application materials, please do not hesitate to reach out.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Peter Heil'.

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



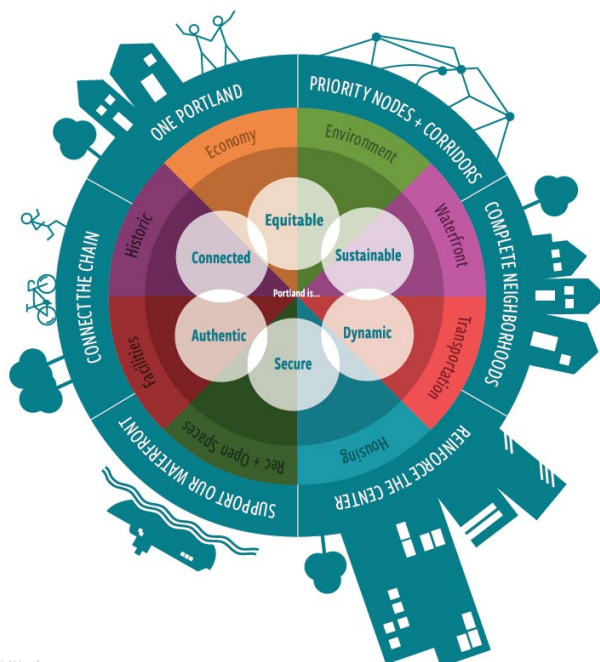


Consistency with Portland's Comprehensive Plan

This document provides an analysis of the consistency of the zone change request with the goals, policies and land use plan of Portland's Comprehensive Plan.

This map amendment helps implement goals and strategies outlined in *Portland's Plan 2030*, as well as the future land use plan. It will unlock the potential of the site for much-needed affordable housing within the City. In addition, given that this site is within walking distance of Forest Avenue, it will promote development along an identified priority corridor as well as a major transit route. Please see the attached Priority Nodes & Corridors Exhibit for the project site location and the proximity to the 'enhanced' designation from the city.

Plan Structure



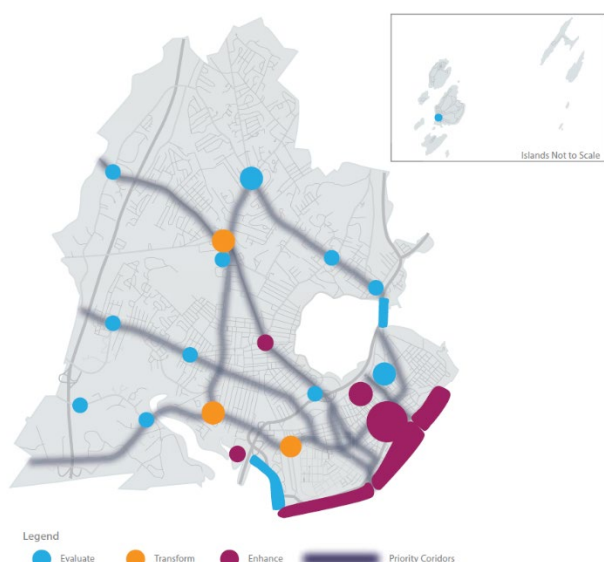
The B2 designation will allow this site to better meet goals and strategies primarily outlined in the *Housing* and *Economy* sections of the Comprehensive Plan. By unlocking the potential for higher density allowed under the B2, the site will be more efficiently developed and gain eligibility to affordable housing density bonuses that it would not otherwise have within the R5 zone. Further it will compliment recent planning initiatives, such as the City's streetscape investments near Woodfords Corner. In addition, the proposed amendment will not introduce a new zoning district to the parcel, it simply requests to extend the existing B2 zone designation to the rest of the parcel, therefore a zoning boundary island will not be created.

The B2 zone is intended to “provide appropriate locations for the development and operation of community centers offering a mixture of commercial uses, housing, and services serving the adjoining neighborhoods and the larger community.” It allows for a plan that promotes an active, walkable street, while allowing for efficient use of portions of the site that will be developed. Given the current development goals of this part of the city, this zoning designation will maximize the allowable density for affordable housing developments as well as potential growth for future commercial businesses, including the existing community centers and Woodfords Congregational Church. Please see the attached Land Use Context Exhibit showing the existing parcel is currently located in a Mixed Use / Commercial / Office designation which aligns with the proposed affordable housing project.

Conversely, the R5 zone is intended for areas “characterized by single-family, two-family, and low intensity multifamily dwellings on individual lots.” The Forest Avenue corridor, Woodfords Corner, as well as the existing parcel do not currently meet this characterization. In addition, the B1 zone is intended for areas “of small-scale commercial establishments intended to serve a local market”. Due to the higher growth potential and density around Woodfords Corner and the Forest Avenue corridor, expansion of the existing B2 zone that currently overlays portions of the parcel is more desirable than the B1 zone as it allows for a wider range of goods and services in both large and small buildings.

Specifically, this map change helps achieve the following Plan goals:

HOUSING



✓ Increase, preserve, and modify the overall supply of housing city-wide to meet the needs, preferences, and financial capabilities of all Portland residents.

✓ Encourage additional contextually appropriate housing density in and proximate to neighborhood centers, concentrations of services, and transit nodes and corridors as a means of supporting complete neighborhoods.

✓ Pursue policies to enable people who work in Portland to have the option to live in Portland.

✓ Encourage quality, sustainable design in new housing development.

✓ Increase the supply of Affordable Housing

ECONOMY

✓ Invest in, attract, and retain human capital to support a growing economy.

Additionally, it helps meet the following strategies:

HOUSING

✓ Evaluate whether current zoning allows for new development consistent with historic patterns of form, density, and/or use, as well as whether it allows for priority growth areas, including Woodfords Corner priority node and Forest Avenue priority corridor.



- ✓ Coordinate linkages between accessible transportation and housing affordability. The parcel is located less than a 1/4 mile away from the existing METRO Bus Stop at Woodfords Corner.
- ✓ Support programs and tools that facilitate aging safely in place.

FUTURE LAND USE

- ✓ Promote higher density growth adjacent to priority corridors to take advantage of the transit benefits and services that well-designed, diverse corridors can offer. (Please see the attached Priority Nodes & Corridors Exhibit).

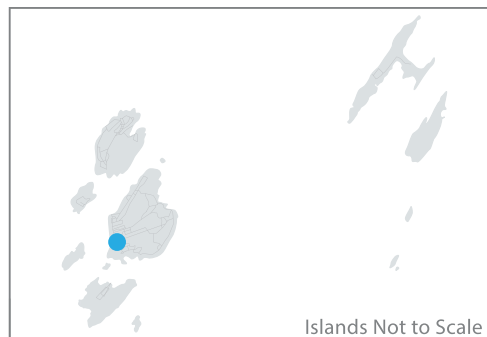
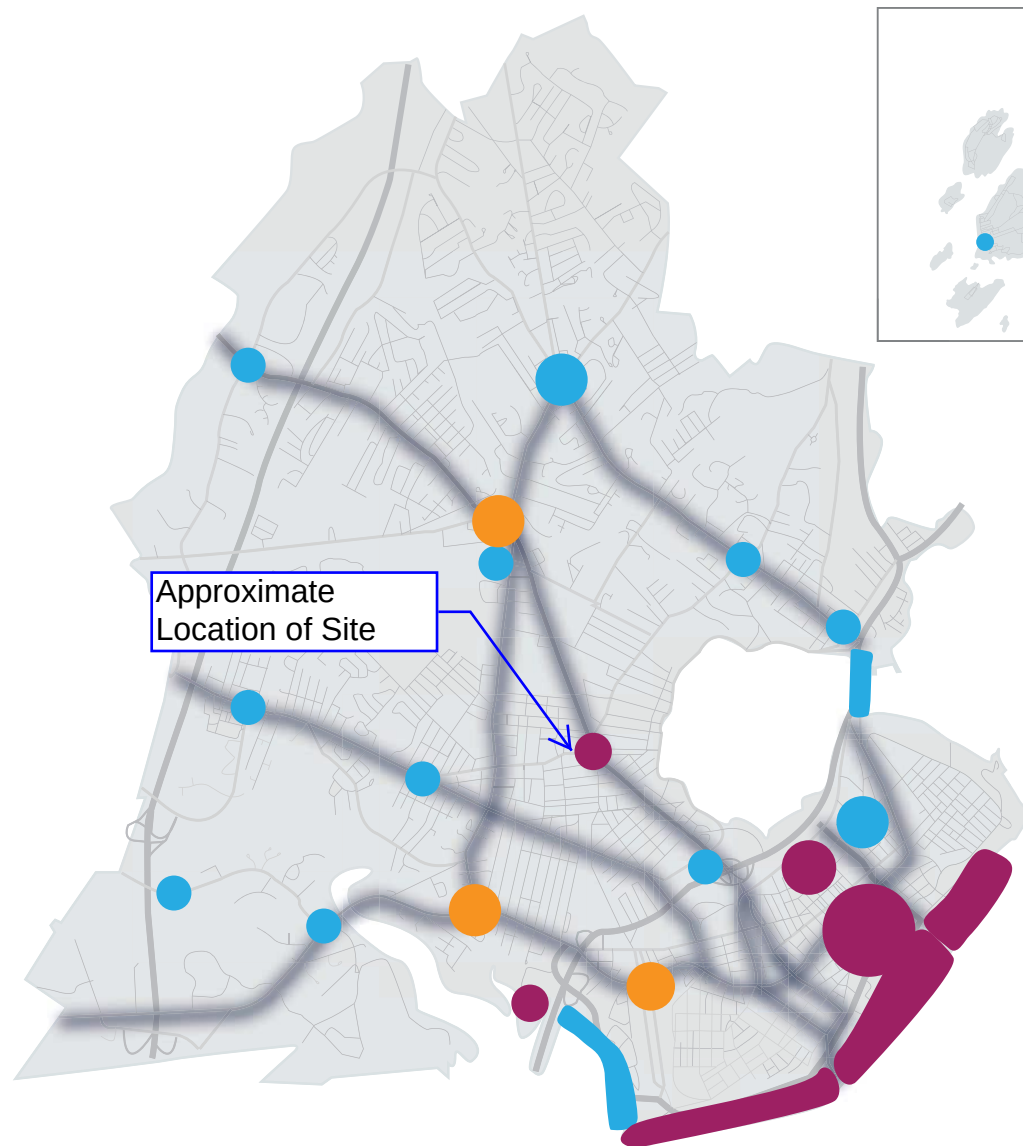
Portland's Plan sets a goal of production of at least 2,557 new housing units in next ten years, or 256 a year. This map change will help meet approximately 20% of one year's worth of that ten-year goal. It will do so within a short distance of the Forest Avenue priority corridor and the priority node at Woodford Street and Forest Avenue. In summary, this map change is fully consistent with the Comprehensive Plan.





**FUTURE
LAND USE**

Priority Nodes & Corridors



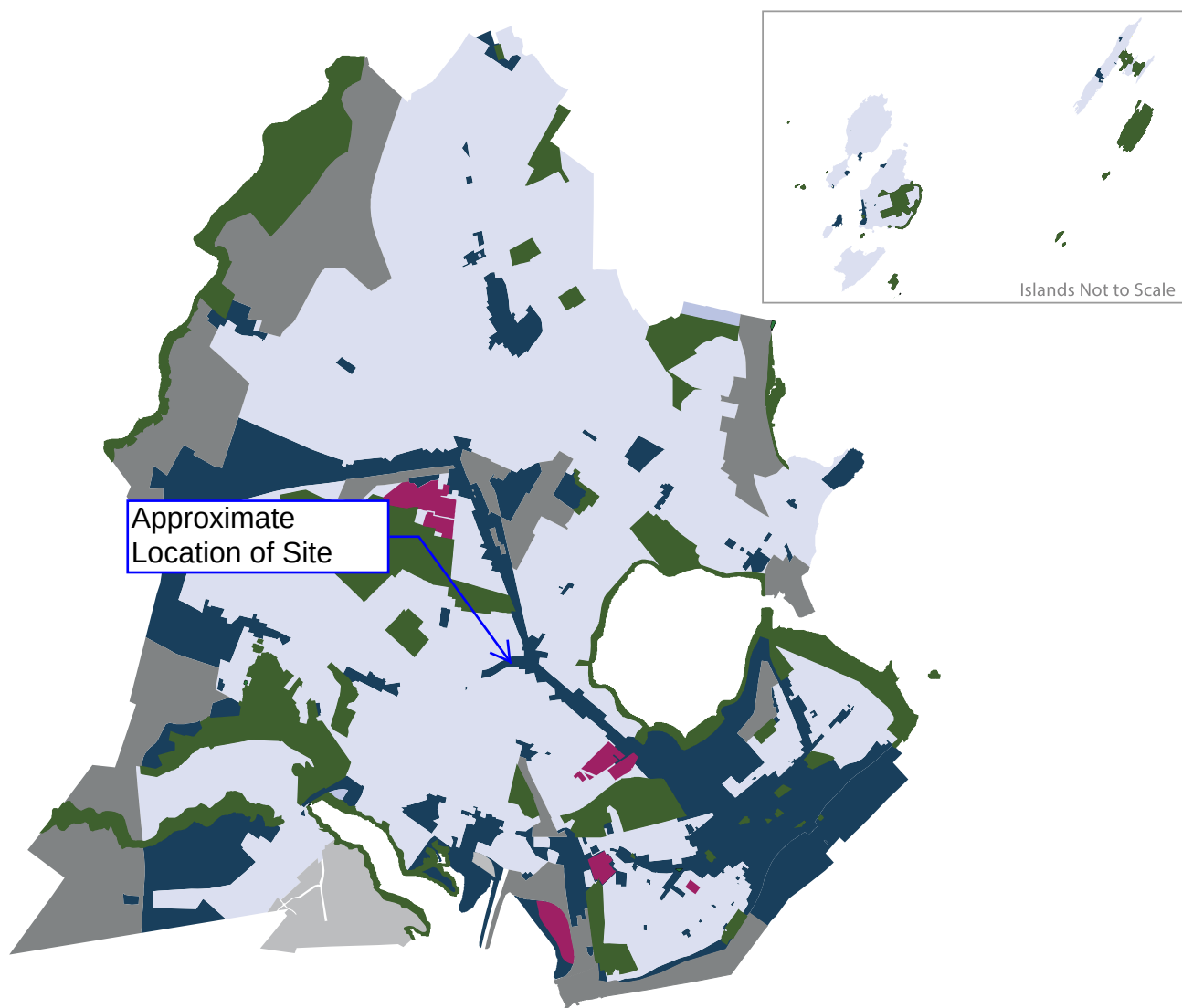
Legend

-  Evaluate
-  Transform
-  Enhance
-  Priority Corridors



**FUTURE
LAND USE**

Land Use Context



Shaded areas are characterized as predominantly:

- Open Space
- Industrial
- Institutional
- Transportation
- Residential
- Mixed-Use/
Commercial/Office

CITY OF PORTLAND
Planning & Urban Development Department

MAP AMENDMENT SUBMISSION CHECKLIST	
* Please submit each document <u>and</u> drawing as a separate PDF file * Please submit all drawings in a <u>24 x 36</u> sheet size * Please confirm each item by electronically checking the boxes to the left for each document/drawing	
GENERAL APPLICATION DOCUMENTS	
☒	Project Description Cover Letter with detailed project description
☒	Consistency with Comprehensive Plan Analysis of the consistency of the zone change request with the goals, policies and land use plan of Portland's Comprehensive Plan.
☒	Completed Checklist – Map Amendment Application (this document)
☒	Right, Title and Interest Deeds, leases, or purchase and sales agreements
PLANS	
☒	Vicinity Map
☒	Proposed Map Amendment (please use the Portland zoning map as a reference)
☐	Site Plan (if applicable) Provide a site plan of the property showing existing and proposed improvements, including such features as buildings, parking, driveways, walkways, landscape and property boundaries.

OPTION AGREEMENT

THIS OPTION AGREEMENT (the "Agreement") made and entered into as of the 5th day of April, 2023 (the "Effective Date"), by and between WOODFORDS CONGREGATIONAL CHURCH OF THE UNITED CHURCH OF CHRIST, a Maine nonprofit corporation with a place of business and mailing address of 202 Woodford Street, Portland, Maine 04103 ("Grantor") and COMMUNITY HOUSING OF MAINE, INC., a Maine nonprofit corporation with a place of business and mailing address of One City Center, 4th Floor, Portland, Maine 04101 ("Grantee").

WITNESSETH:

WHEREAS, Grantor wishes to grant the option set forth below to Grantee on the terms and conditions set forth in this Agreement; and

NOW THEREFORE, in consideration of \$5,000 paid by Grantee to Grantor (the "Initial Option Consideration") and the covenants and agreements set forth herein, the receipt and sufficiency of which are hereby acknowledged, Grantor and Grantee hereby agree as follows:

1. Grant of Option. Grantor hereby grants to Grantee, its successors and assigns, the exclusive and irrevocable option to purchase certain land and a portion of that certain existing building commonly known as the Parish House, all located on Woodfords Street, Portland, Maine, an amount of land sufficient to accommodate the construction of a new four (4) story building, which, together with the portion of the Parish House, will accommodate up to 85 residential units, with required frontage on public ways, all as determined pursuant to the City of Portland zoning ordinance, together with the fixtures and improvements thereon, all as more particularly shown on the drawing attached hereto as Exhibit A, being a portion of the real property and improvements conveyed to Grantor by deed of Woodfords Congregational Parish dated May 17, 2013 and recorded in the Cumberland County Registry of Deeds in Book 30671, Page 65 (the "Property"). The Property shall be conveyed to Grantee together with (i) a perpetual and non-exclusive appurtenant easement for ingress and egress by foot and vehicles and for the installation, maintenance, repair and replacement of utilities from Beacon Street to the Property over other land of the Grantor in a location mutually agreeable to Grantor and Grantee (the "Access Easement"), and (i) a perpetual appurtenant easement for the exclusive use of the parking area as shown on Exhibit A (the "Parking Lot Easement"). The Property shall also be conveyed subject to a reciprocal easement agreement concerning Grantor's and Grantee's use, maintenance and enjoyment of the Access Easement and the Parking Lot Easement, and the sharing of expenses associated therewith (the "Reciprocal Easement Agreement"). The scope of use and provisions of the Reciprocal Easement Agreement shall be mutually agreed to by the parties prior to the Closing Date (defined below) and is subject to approval by Grantee's lenders and investors. The parties further agree to negotiate and enter into an amendment to this Agreement within sixty (60) days of receipt of a boundary survey prepared by a professional land surveyor of Grantee's choosing, which amendment shall specify the precise boundaries of the Property and replace and supersede Exhibit A attached hereto. The boundary survey shall be subject to Grantor's approval, which

approval shall not be unreasonably delayed, conditioned, or withheld provided that the boundary survey is materially consistent with Exhibit A attached here. The amendment shall not have a material adverse effect upon Grantee's proposed development or the approvals necessary for such development or the conveyance contemplated herein. As the conveyance of the Property to Grantee will result in the creation of a subdivision under Maine law, Grantee shall pursue all necessary permits and approvals for the creation of such subdivision, at Grantee's sole cost and expense.

2. Expiration. This option shall expire twenty four (24) months from the date of execution of this Agreement, at midnight, Maine time (the "Option Period") unless earlier terminated or extended as set forth herein, or exercised by that date and time. Grantee may extend the Option Period for up to two (2) additional periods of six (6) months each by providing written notice to Grantor of its election to extend prior to the expiration of the then-current Option Period, together with an additional payment of \$2,500 for each such extension, to be credited against the Purchase Price (the "Additional Option Consideration;" together with the Initial Option Consideration, the "Option Consideration").

3. Notice of Exercise; Failure to Exercise. This option may be exercised only by Grantee giving written notice of election to exercise ("Grantee's Notice of Election") to Grantor by nationally recognized overnight delivery service (such as Federal Express or UPS), addressed to Grantor at the address set forth at the beginning of this Agreement, or to such other address as Grantor may designate to Grantee in writing. Said notice shall be deemed to have been duly given if postmarked prior to the expiration date and time specified in Section 2 above. In the event that Grantee fails to exercise the option granted in this Agreement within the Option Period, as it may be extended, the Option Consideration shall be retained by Grantor, and thereafter neither Grantor nor Grantee shall have any further rights or claims against the other; provided, however, and notwithstanding anything to the contrary elsewhere in this Agreement, the Option Consideration is fully refundable to the Grantee until satisfactory completion of the environmental review process required by the United States Department of Housing and Urban Development, at which time the Option Consideration shall become non-refundable, unless Grantor defaults in its obligations hereunder beyond the expiration of all applicable notice, grace, and cure periods or is unable to transfer the Property to Grantee with good and marketable title free and clear of liens and encumbrances, except for the Permitted Exceptions (defined below) .

4. Exercise. In the event that Grantee timely and duly exercises the option granted in this Agreement, the following provisions shall be applicable:

(a) Purchase Price. At the Closing Date as defined below, Grantee shall pay to Grantor the sum of Four Hundred Fifty Thousand Dollars (\$450,000), by wire transfer or bank cashier's check at closing (the "Purchase Price"). The Option Consideration shall be credited against the Purchase Price at closing.

(b) Title. Grantee shall examine title to the Property during the Option Period. Grantor shall cooperate with Grantee in good faith to cure any title conditions during the Option Period that are unsatisfactory to Grantee. Any title conditions not objected to by Grantee during the Option Period shall be deemed "Permitted Exceptions." On the Closing Date, title to the Property shall be good and marketable and free and clear of all liens, claims and encumbrances except for the

Permitted Exceptions, zoning restrictions, taxes for the current year which may be due and payable as of the Closing Date, and other easements, restrictions, and covenants that appeared of record during the Option Period and were not objected to by Grantor during the Option Period. In the event that title to the Property is not in accordance with the preceding sentence as of the Closing Date, Grantor shall be given a reasonable period of time, not to exceed thirty (30) days, after receipt of notice from Grantee in which to remedy any title defects. In the event that said defects cannot be corrected or remedied within said time period, or in the event that Grantor elects not to remedy same, then this Agreement shall terminate whereupon Grantor shall fully refund to Grantee the Option Consideration. Grantee may elect to close notwithstanding such defects as may exist at no cost or liability to Grantor.

(c) Closing. The closing under this Agreement shall take place not later than ninety (90) days after the date of Grantee's Notice of Election (the "Closing Date") at 10:00 AM, local time, at Grantee's counsel's office, or at such other time and place as Grantor and Grantee shall mutually agree upon in writing. At the closing, Grantor shall execute and deliver a Quitclaim Deed with Covenant as to the Property, a quitclaim bill of sale as to any Personal Property, the Reciprocal Easement Agreement, an assignment of leases, rents and security deposits (if any), an underground storage tank certification, such title insurance affidavits as may be required in order to omit from Grantee's title insurance policy all exceptions for parties in possession and mechanics' liens, REW and FIRTPA forms and such other affidavits, instruments and documents as Grantee may reasonably request and which are customary in commercial real estate transactions in Maine. The deed shall include the Access Easement and the Parking Easement in form and substance reasonably acceptable to Grantor and Grantee. If it shall be reasonable or necessary for the parties to create and declare a condominium on all or any portion of the Property and/or the larger property of which the Property is a part, the parties shall cooperate in good faith to execute and deliver such documents at closing as shall be reasonable and necessary to effectuate the foregoing.

(d) Adjustments, Prorations and Closing Costs. The recording fee for the deed and any expenses related to Grantee's financing will be paid for by Grantee. The parties shall pay their respective shares of the Maine real estate transfer tax in accordance with 36 M.R.S.A. § 4641-A. Real estate taxes shall be prorated as of the closing date on the basis of the latest available tax bill. Grantor is responsible for paying all past due property taxes, if any.

(e) Possession. Grantor shall deliver possession of the Property to Grantee at the closing, free and clear of all leases, tenancies or occupancies by any person.

(f) Risk of Loss. All risk of loss to the Property prior to the closing shall be on Grantor.

(g) Default; Remedies. In the event either party defaults under this Agreement, and such default is not cured within thirty (30) days of written notice thereof, the sole remedy of either party shall be to terminate this Agreement. In addition, if Grantor is the defaulting party, the Option Consideration shall immediately be returned to Grantee, and if the Grantee is the defaulting party, Grantor shall be entitled to retain the Option Consideration as liquidated damages and not as a penalty.

(h) Condition Precedent. Grantee's obligation to purchase the Property is subject to Grantee's full and complete satisfaction with all of the following:

i. There shall have been no material adverse change in or to the Property between the Effective Date and the Closing Date.

ii. Title to the Property shall be good and marketable, and the same shall be conveyed to the Grantee free and clear of all liens, claims and encumbrances except as provided in Section 4(b) above.

If the conditions described in subsections (i)-(ii) of this Section 5(h) are not satisfied as of the Closing Date, Grantee shall have the option of terminating this Agreement, whereupon the Option Consideration shall promptly be refunded to Grantee by the Grantor, and neither party shall any further obligation hereunder.

5. Inspection. Upon reasonable prior notice, Grantee and any prospective lender or investor of Grantee's shall have the right to enter the Property and perform, at Grantee's expense, any and all inspections, tests, surveys or other due diligence inquiries with respect to the Property as Grantee deems necessary or appropriate for a period of 120 days from the date of this Agreement (the "Due Diligence Period"). Grantee agrees to return the Property as nearly as possible to its original condition after any of such tests and inspections. Grantee shall indemnify Grantor for any property damage, bodily injury or death occurring by reason of such entry and/or testing. Grantor shall cooperate with Grantee in such inspections. All inspections shall occur at reasonable times agreed upon by Grantor and Grantee, and Grantee shall use good faith efforts not to interfere unreasonably with the use and enjoyment of the Property or the larger property of which the Property is a part by Grantor. In the event Grantee is not satisfied for any reason by the results of such due diligence inspections, Grantee shall have the option of terminating this Agreement by written notice to Grantor, and the Option Consideration shall promptly be refunded to Grantee. Without limiting the generality of the foregoing, this Agreement and Grantee's purchase of the Property are subject to a determination by Maine State Housing Authority ("MaineHousing") as to the desirability of the Property for Grantee's intended use as a result of the completion of the environmental review process required by the United States Department of Housing and Urban Development, and if such determination is unsatisfactory, at any time during the Option Period, Grantee may terminate this Agreement, whereupon the Option Consideration shall promptly be refunded to Grantee.

6. Assignment. Grantee may assign this Agreement and all its rights and obligations hereunder to an affiliate of Grantee without the prior written consent of Grantor; provided, however, that Grantee shall provide notice of such assignment within a reasonable period of time following such assignment. Upon notice of such assignment, Grantor agrees to look solely to such affiliate for performance of the obligations of the Grantee hereunder.

7. Brokerage. The parties represent to one another that neither has dealt with or had contact with any broker in connection with the transaction described in this Agreement. The parties shall indemnify, defend and hold harmless one another from and against any breach of the foregoing representation.

8. Recording of Option. Grantor and Grantee agree that this Option shall not be recorded. Grantor agrees upon request of Grantee to execute and tender for recording a memorandum summarizing the terms of this Agreement (except the Purchase Price).

9. Notices. Except as provided in Section 3 above, all notices, demands and other communications hereunder shall be in writing and shall be deemed to have been duly given on the date of service if served personally on the party to whom notice is to be given, or on the first business day after mailing if mailed to the party to whom notice is to be given by first class mail, postage prepaid, registered or certified, return receipt requested, or by nationally recognized overnight delivery service (such as Federal Express or UPS), addressed to the recipient at the addresses set forth at the beginning of this Agreement. Either party may change its address for purposes of this Section by giving the other party notice of the new address in the manner described herein.

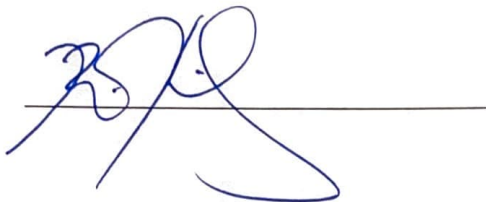
10. Condition of Property as of the Closing Date. The parties agree that no work shall be done on the Property between the Effective Date and the date Grantee receives written notice of environmental clearance from MaineHousing. In the event Grantor takes any action on or near the Property before the Closing Date that is determined to be a "choice limiting action" and thus causes Grantee to lose either any MaineHousing funding or any project based vouchers awarded to it, Grantee shall have the option of terminating this Agreement in writing and receiving a full refund of the Option Consideration.

11. Miscellaneous. Time is of the essence hereof. This Agreement constitutes the entire agreement between Grantor and Grantee, there are no agreements or understandings between the parties except as set forth herein, and all prior agreements and understandings, including, are superseded by this Agreement. This Agreement will inure to the benefit of and bind the respective successors and assigns of Grantor and Grantee. As used in this Agreement, the singular number shall include the plural, the plural the singular, and the use of one gender shall be deemed applicable to all genders. This Agreement shall be governed by and construed in accordance with the laws of Maine. The recitals contained in this Agreement are deemed by the parties to be accurate statements of fact. If any provision of this Agreement is determined to be invalid or unenforceable, it shall not affect the validity or enforcement of the remaining provisions hereof.

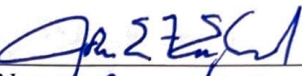
[remainder of page left blank intentionally; signatures begin on next page]

IN WITNESS WHEREOF, Grantor and Grantee have executed this Option Agreement as of the day and year first written above.

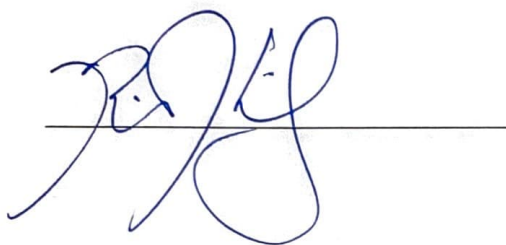
WITNESS:



WOODFORDS CONGREGATIONAL
CHURCH OF THE UNITED CHURCH OF
CHRIST, Grantor

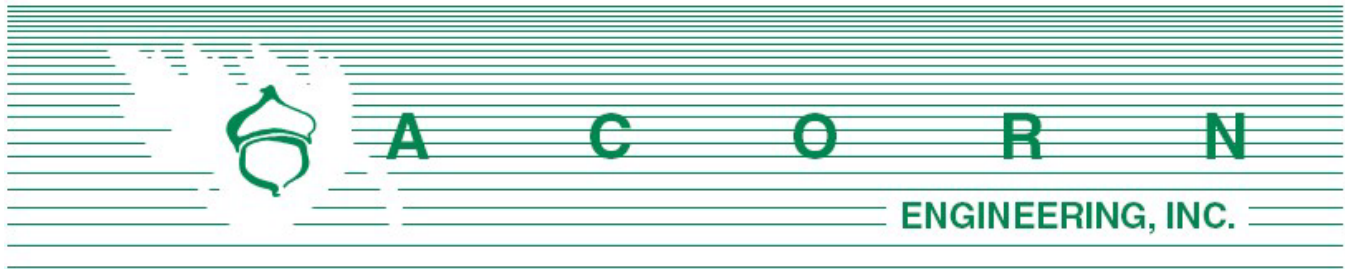
By: 
Name: JOHN E. ENGLAND
Title: MODERATOR

WITNESS:



COMMUNITY HOUSING OF MAINE, INC.,
Grantee

By: 
Cullen Ryan, its Executive Director



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

September 22, 2023

Subject: Woodfords Affordable Housing Map Amendment Neighborhood Meeting

I, Peter Heil, hereby certify that a neighborhood meeting was held on September 20, 2023 at 202 Woodford Street at 6:30 pm.

I also certify that on September 5, 2023, invitations were mailed to the following:

1. All addresses on the mailing list provided by the Planning Division which includes property owners within 500 feet of the proposed development.
2. Residents on the “interested parties” list.

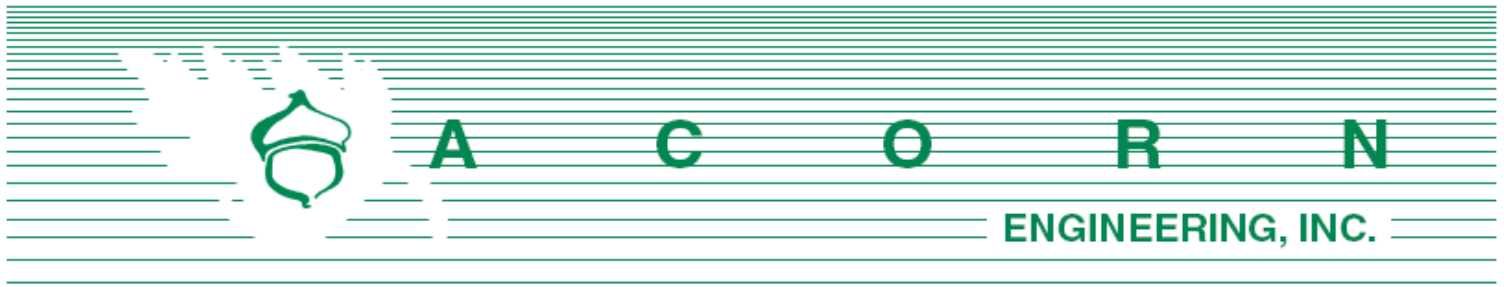
Sincerely,

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

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

Included with this certification are:

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



Dear Neighbor:

September 5, 2023

On behalf of Community Housing of Maine (CHOM), we are pleased to invite you to a neighborhood meeting to discuss the Map Amendment and future Site Plan applications for the proposed redevelopment of 202 (aka 186) Woodford Street. The parcel is currently located within three different zoning districts, including the Neighborhood Business B1, Community Business B2, & Residential R5 districts. The map amendment proposes to extend the existing B2 zone over the entire parcel. The project is also planning on submitting a Major Site Plan application to support a new affordable housing building and redevelopment of portions of the existing Church Parish House, with new amenity space and associated infrastructure improvements.

A sign-in sheet will be circulated, and a record of the meeting will be taken. Both the sign-in sheet and record will be submitted to the Planning Board. If you have any questions, please call (207) 775-2655.

**Meeting Location: Woodfords Congregation Church – Memorial Hall
202 Woodford Street, Portland, ME 04101**

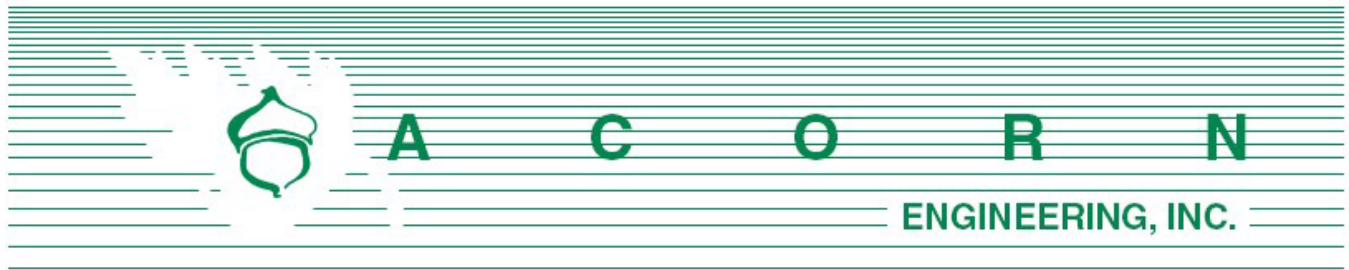
Meeting Date/Time: Wednesday, September 20, 2023 at 6:30 p.m.

Note: Under the City of Portland land use code, an applicant for a major site plan, master development plan, subdivision of over five lots, or zoning map amendment is required to hold a neighborhood meeting within 30 days of an application being deemed complete and no less than seven calendar days before a public hearing. Should you wish to offer additional comments on this proposed development, you may forward them by e-mail to planning@portlandmaine.gov or by mail to the Planning and Urban Development Department, Planning Division, 4th Floor, 389 Congress Street Portland, ME 04101.

Sign-in Sheet

Name	Email
Jonathan Graffius	Graffius@gmail.com
Teresa Valliere	Tvallier@maine.rr.com
John England	Jefengland@gmail.com
Ben Walter	Bwalter@CWSarch.com
Elisabeth Gray	Lizbetgray@aol.com
Stephen Gray	SWG2@icloud.com
Michael Gaige	Mkgaige@gmail.com
Carolyn Bell	Cwbell65@gmail.com
Jennifer Baldwin	Jlibbybaldwin@gmail.com
Pam Meader	Mdr112351@gmail.com
Alyssa Lodewick	Alodewick@woodfordschurch.org
George Cox	Geocornishriver@gmail.com
Elizabeth Simkoff	rubysimkoff@gmail.com
Heather latham	Hlatham@gmail.com
Susan Bassi Brown	Sbassibrown@gmail.com

Robin Carter	Robincarter@gmail.com
Marryanne MacMath	MMacmath@maine.rr.com
Project Team	
Brian Kilgallen	brian@chomhousing.org
Zach Stevens, P.E.	zstevens@acorn-engineering.com
David Horne, E.I.	dhorne@acorn-engineering.com
Ben Walter	bwalter@cwsarch.com



CHOM Woodfords Senior Apartments Map Amendment Application & Pre-Site Plan

Neighborhood Meeting Minutes

September 20, 2023 / 6:30 pm
202 Woodford Street – Memorial Hall

Project Team Attendees:

Brian Kilgallen (BK): Developer/Presenter – (CHOM)
Zachary Stevens (ZS): Civil Engineer/Presenter (Acorn Engineering)
David Horne (DH): Civil Engineer/Note Taker (Acorn Engineering)
Ben Walter (BW): Architect/Presenter (CWS)

The meeting started at approximately 6:30 pm.

Presentation:

Brian Kilgallen:

- Welcomed the neighborhood to the meeting.
- Introduced Community Housing of Maine (CHOM) to the neighborhood.
- Explained that Renovation of Parish House will start before the new construction in the parking lot.
- Explained the current multiple zoning district designation on the parcel and how the project proposes a map amendment to simplify the zoning.
- Explained the Site Plan approval process.

Zachary Stevens:

- Welcomed audience to neighborhood meeting.
 - o Neighborhood Meeting is a City requirement for the Map Amendment Application.
 - o Sign In sheet is available for everyone which will become public record along with the meeting minutes.
- Provided an overview of project location & proximity to public transit route at the corner of Woodford Street and Forest Avenue.
- The project proposes to construct a new senior housing building that will contain 42 affordable housing units and renovate a portion of the existing parish house to contain 37 affordable housing units. Portions of the church will remain undisturbed. The project also

includes a property division and associated landscape, utility, and parking lot improvements.

- The entire parcel is split into 3 different zones. CHOM has submitted a map amendment application to the city to have the entire parcel rezoned to B2. The B2 designation maintains the existing character of the parcel and simplifies the permitting process vs the existing multiple zoning designation.
- The map amendment process is expected to go through in October. Shortly after we will submit a site plan application. We will have another neighborhood meeting as part of the site plan application process.

Ben Walter:

- Introduction to his history working with CHOM and how they are equipped and passionate about providing affordable housing in Portland.
- Project Background:
 - o The character of the building should be retained. The façade along Woodford Street will look very similar to its current condition.
 - o The existing gymnasium will be demolished, and a new addition will be constructed in almost the same footprint and will contain housing.
 - o The existing color scheme of the site will also be preserved and applied to the new building to maintain a cohesive campus. The new building will appear as a 21st century building but conserve the look and feel of the existing church and parish house.

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.

Neighbor: If half the parking lot is gone where are people going to park?

- **Brian:** The resident we serve often time cannot afford the luxury of owning and operating a vehicle. In past projects we were required to build and maintain expensive parking garages that generally sit vacant and take up valuable resources for creating new housing units. Part of our submission process will include the production of a Traffic Demand Management Plan that will detail our parking needs and show what if any parking needs, we truly have.

Neighbor: Will the redeveloped portion of the parish house addition encroach on the existing parking lot to the rear of the site?

- **Brian:** The building footprint will increase slightly in width and will not encroach toward the parking lot. Circulation through the parking lot will be maintained. The redeveloped portion of the building will provide an easy transition to the proposed building.
- **Ben:** Looking for a unified campus.
- **Brian:** CHOM builds buildings and does not walk away from them. They are thoughtfully designed, built, and maintained by us.

Neighbor: This property was owned by the church. What is the relationship the church has with the project?



- **Brian:** The Congregation will not own the property that is being developed. The proposed lot division shown on the screen divides the lot so the Sanctuary and Cloister will remain owned by the Congregation. CHOM will own and operate the renovated parish house and the new building in the existing parking lot.
- **Neighbor:** The church will work in harmony with CHOM to do whatever it can to improve the site and community. The church will remain as a sanctuary but is in full agreement with CHOMs plans for the site.

Neighbor: Is CHOM involved with supportive services?

- **Brian:** Yes, CHOM has supportive services in all of our properties.

Neighbor: Will the new building be only senior housing?

- **Brian:** Yes, both the renovation and new construction will be affordable senior housing.

Neighbor: What is the expected schedule for this project?

- **Brain:** Expect to break ground in 2025.
- **Ben:** The redeveloped building will finish shortly before the new proposed building.

Neighbor: How long will construction last?

- **Brian:** It's hard to say at this point in time. Ideally 18-20 months on the redeveloped building and 16 months on the proposed building.
- **Ben:** Construction materials can vary so it's hard to say with certainty.

Neighbor: How many units in the proposed building?

- **Brain:** 37 in parish house and 42 in new senior housing building.

Neighbor: How much will the units cost to rent?

- **Brain:** Affordable units vary year to year, but rent is based on 50% or 60% of Area Median Income or AMI.

Neighbor: Are the units 1 bedroom or studio?

- **Brain:** All the units in the redeveloped portion of the existing building will vary from one-bedroom or studio apartments. The new building will only contain 1-bedroom units.

Neighbor: How many square feet to a unit?

- **Brain:** The area varies unit to unit, but we are forecasting between 500SF – 700SF.

Brain: Closing remarks & gives contact information out. Pease reach out with any more questions.



The meeting concluded at approximately 7:30 pm.

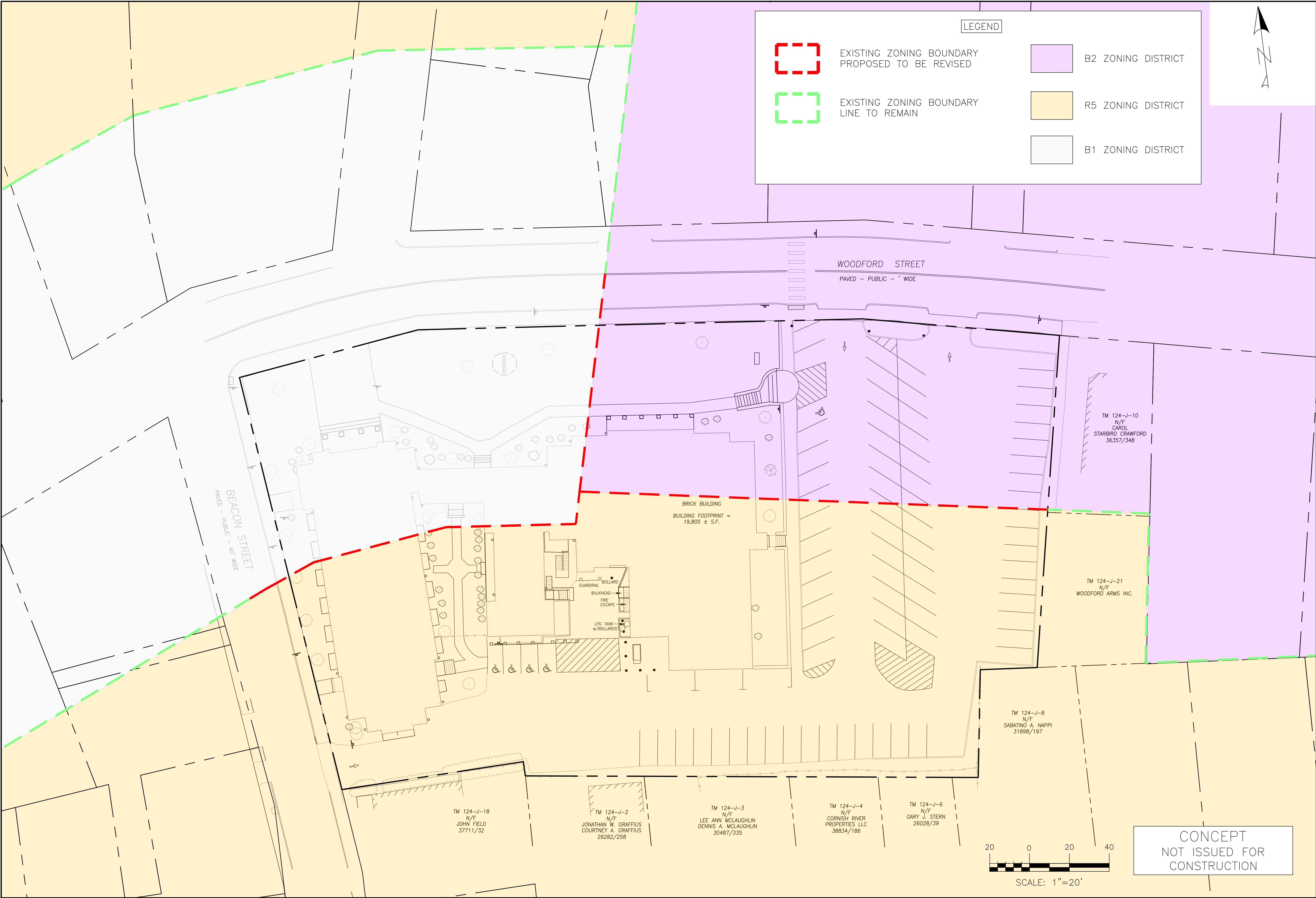
The abovementioned material was as interpreted and recorded from handwritten notes. Please note and relay any discrepancies or disputed information in the recorded minutes to the below address so that they can be reviewed, revised, and resubmitted, as necessary.

Recorded by,



David Horne, EI
Design Engineer, Acorn Engineering, Inc.
Dhorne@acorn-engineering.com





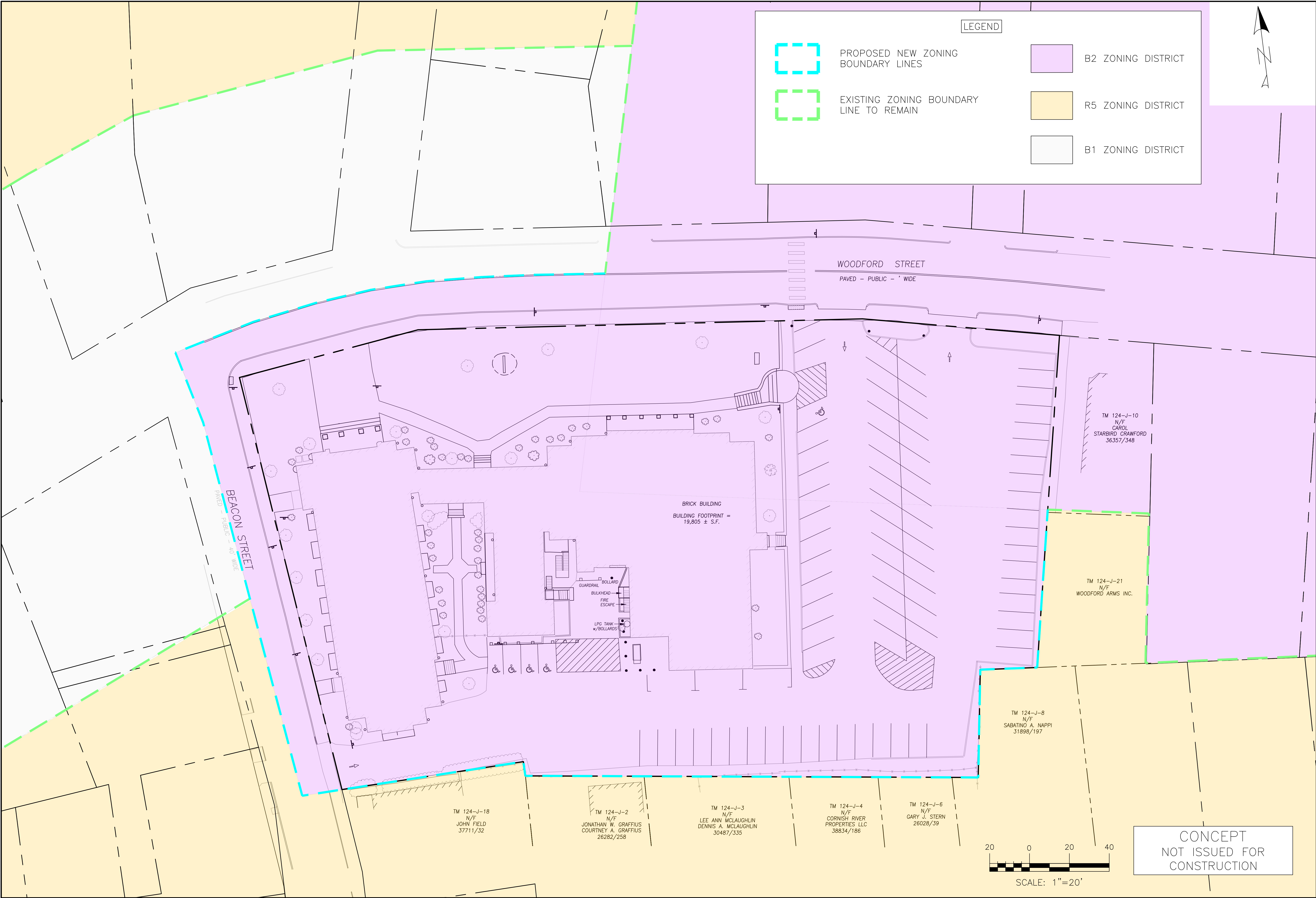
ISSUED FOR	BY
CONCEPT	DATE
	PFH
	3/6/23

ZONING MAP AMENDMENT PLAN	PROJECT NAME
	WOODFORD STREET AFFORDABLE HOUSING REDEVELOPMENT
	186 WOODFORD STREET, PORTLAND, MAINE
DRAWING NO.	CLIENT
EXISTING ZONING	COMMUNITY HOUSING OF MAINE
	ONE CITY CENTER, 4TH FLOOR, PORTLAND, MAINE, 04101

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

FILE:	1200_CIVL
JN:	1200
SCALE:	AS NOTED
DESIGNED BY:	PFH
DRAWN BY:	DSH
CHECKED BY:	WHS

DRAWING NO.
EXISTING ZONING



ISSUED FOR	BY
CONCEPT	DATE
	PFH
	3/6/23

ZONING MAP AMENDMENT PLAN	
PROJECT NAME	WOODFORD STREET AFFORDABLE HOUSING REDEVELOPMENT
	186 WOODFORD STREET, PORTLAND, MAINE
CLIENT	COMMUNITY HOUSING OF MAINE
	ONE CITY CENTER, 4TH FLOOR, PORTLAND, MAINE, 04101

FILE:	1200_CIVL
JN:	1200
SCALE:	AS NOTED
DESIGNED BY:	PFH
DRAWN BY:	DSH
CHECKED BY:	WHS

DRAWING NO.
PROPOSED ZONING

PARKING SUMMARY				
	UNITS	SPACES REQUIRED	EXISTING	PROPOSED
MULTIFAMILY	90	1 SPACE PER DWELLING UNIT = 90 SPACES*		—
PLACES OF ASSEMBLY	APPROX. 5,200SF FLOOR AREA	1 SPACE PER 150 SF OF FLOOR AREA = 35 SPACES		
ADA (8'X18')	—	—	5	3
STANDARD (9'X18')			16	11
LOW TURNOVER (8.5' X 18')			0	38
COMPACT (8' X 15')			3	3
PARALLEL (8' X 20')			3	4
ANGLED 60° (9' X 18')			59	0
TOTAL SPACES	—	125*	83	60*

* PER THE CITY OF PORTLAND LAND USE CODE, TABLE 19-B: CATEGORICAL EXCEPTIONS TO OFF-STREET PARKING REQUIREMENTS.

NO OFF STREET PARKING SHALL BE REQUIRED FOR NON RESIDENTIAL USES IN THE B-2 ZONE.

NO OFF-STREET PARKING SHALL BE REQUIRED WITHIN 1/4 MILE OF FIXED ROUTE TRANSIT SERVICE. NEW USES OR CHANGES OF USE OF MORE THAN 10,000 SF TAKING ADVANTAGE OF THIS EXCEPTION SHALL BE REQUIRED TO PROVIDE A TRANSPORTATION DEMAND MANAGEMENT PLAN IF THEY USE THIS PROVISION IN LIEU OF PARKING REQUIREMENTS.

3. AFFORDABLE HOUSING: THE PLANNING BOARD MAY ESTABLISH A PARKING REQUIREMENT WITHIN THAT IS LESS THAN 1 SPACE PER AFFORDABLE HOUSING UNIT REGARDLESS OF SIZE OF STRUCTURE

- [illegible]

Planning Board Report

Planning & Urban Development Department



Warehouse building
180 Read Street
Major Site Plan
PL-002223-2022
Rob Cowans, Applicant

Submitted to:	Portland Planning Board	Prepared By:	Maya Balassa
Public Hearing Date:	October 10, 2023	Date:	October 6, 2023

I. INTRODUCTION

NEPW Logistics has submitted a Major Site Plan application to facilitate the development of a new 60,630 square foot warehouse adjacent to two existing buildings at 180 Read Street, zoned I-M Moderate Impact Industrial.

The Planning and Urban Development Department mailed 110 notices advertising this meeting to property owners within 500 feet of the site. A legal advertisement ran in the September 30 and October 1, 2023 editions of the *Portland Press Herald*. The Planning Board held a workshop on January 24, 2023.

Applicant: Rob Cowans
Applicant Andrew Godfrey, Acorn Engineering
Representatives:

II. REQUIRED REVIEWS

<i>Review</i>	<i>Applicable Standards</i>
Major Site Plan	Site Plan Ordinance

III. PROJECT DATA

Existing Zoning	I-M Moderate Impact Industrial
Property Size	267,111 Square Feet
Existing Use	Industrial – Warehousing and Distribution
Proposed Use	Industrial - Warehousing and Distribution

	<i>Existing</i>	<i>Proposed</i>	<i>Net Change</i>
Building Footprint (Square Feet)	77,925	138,555	+60,630
Building Floor Area (Square Feet)	77,925	138,555	+60,630
Impervious Surface Area (Square Feet)	198,067	199,356	+1,289
Parking Spaces	8	23	+15
Bicycle Parking Spaces	0	2	+2

IV. BACKGROUND AND EXISTING CONDITIONS

The property at 182/184 Read Street is currently functioning as one of eleven sites for NEPW Logistics, a company specialized in warehousing and distribution. The site currently features two warehouse buildings,

totaling 77,925 square feet in floor area. Access to the site is provided via an existing driveway at the northwest corner of the site along Read Street. There is a second curb cut at the northeast corner of the site, also along Read Street, which is currently inaccessible, and disconnected from the parking area. There are several existing street trees along Read Street, with the rear of the site being vegetated. The surrounding context includes Maine DOT Rail right of way located immediately west of the development site, and other industrial and commercial uses surrounding the property on all sides.



Figure 1 180 Read Street Google Earth



Figure 2 180 Read Street Eastern Entrance

V. PROPOSED DEVELOPMENT

The proposed development involves construction of an additional 41.5-foot tall, single-story warehouse, totaling 60,630 square feet of new floor area, to the rear of the existing buildings on the site. The proposed expansion will be constructed within an existing paved area. A new 30-foot shared driveway is proposed along the eastern property line. This application seeks to expand the capacity of the warehousing/distribution use currently operating, and does not introduce any new uses to the site.

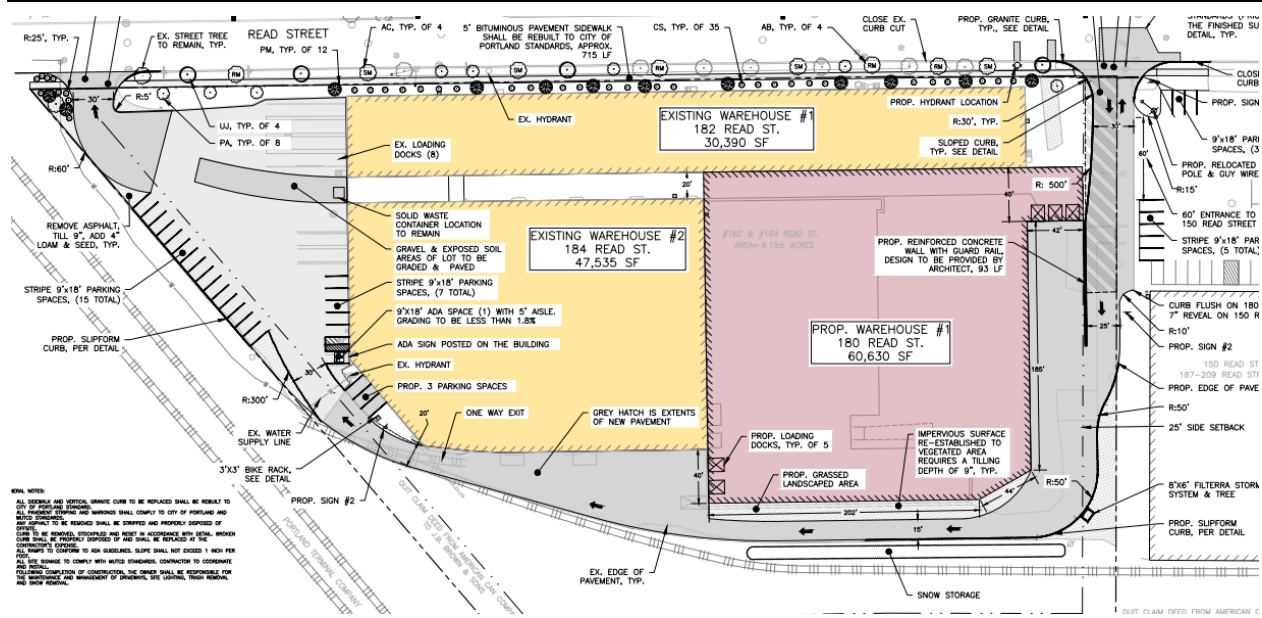


Figure 3 Site Plan

VI. PREVIOUS WORKSHOPS

A workshop was held on January 24, 2023 for this project. To highlight the points of discussion:

STORMWATER

The planning board expressed concerns over stormwater impacts to abutting properties. Since the project is creating more than 5,000 SF (19,130 square feet) of redeveloped non-roof impervious area, it is subject to treat 50% of the 19,130 square feet. A filterra system has been added to meet this standard.

TRUCK ROUTING

A question was raised by the Board and members of the public concerning potential truck traffic impacts on Ocean Avenue. It was clarified that there are no truck restrictions on Ocean Avenue or Read Street. The applicant stated that there was no intent to reroute trucks from their current path into more residential neighborhoods.

PARKING LOT IMPROVEMENTS

Board members brought up concerns about the gravel in the parking lot where the retired train tracks used to run and parking along the other tracks without a barrier. The application has been updated to add a curb along the edge of the property to inhibit parking past the paved parking area. The site plan now includes paving the gravel section onsite to meet parking lot standards.

STREET IMPROVEMENTS

At the time of the workshop, the applicant was not planning on reconstructing the sidewalk. The applicant has since updated the site plan to include reconstruction of the sidewalk along the entire frontage. There were questions raised from the board around scope. During major site plan review, the entire site is subject to site plan standards.

RIGHT, TITLE, AND INTEREST

The board brought up the right, title, and interest of the applicant to close the existing driveway at 150 Read Street and create a new shared driveway between the two properties. The applicant has since submitted

documentation to confirm approval from the owner of 150 Read Street. A condition of approval has been added for the applicant to submit finalized documentation for the two easements proposed.

VII. RIGHT, TITLE, & INTEREST

The applicant has demonstrated right, title, and interest through the property deed (Attachment C). The applicant has also provided a letter by the abutting property owner at 150 Read Street in support of the work anticipated to occur on the neighboring property, which includes construction of a new shared driveway, and striping of some additional spaces. The City has drafted a condition of approval which would require that the applicant provide a copy of the executed construction and access easement between the two property owner prior to the issuance of any building permits.

VIII. FINANCIAL & TECHNICAL CAPACITY

Documentation to verify financial capacity from Charles Schwab is included in the submission. Documentation for technical capacity has also been included. The applicant team includes Acorn Engineering and Ryan Senatore Architecture.

IX. ZONING ANALYSIS

The property is zoned I-M Moderate Impact Industrial, which permits a variety of low- and moderate-impact industrial and transportation related uses. The surrounding zoning context includes areas of I-M Industrial along Read Street and Canco Road, R-5 and R-3 Residential to the East, B-2 Community Business Zone to the West, and several pockets of property zoned I-L Low-Impact Industrial to the West and Northwest. The application includes a zoning analysis which confirms that the proposal meets zoning dimensional standards. Warehousing, storage, and distribution facilities are permitted uses in the I-M Zone.

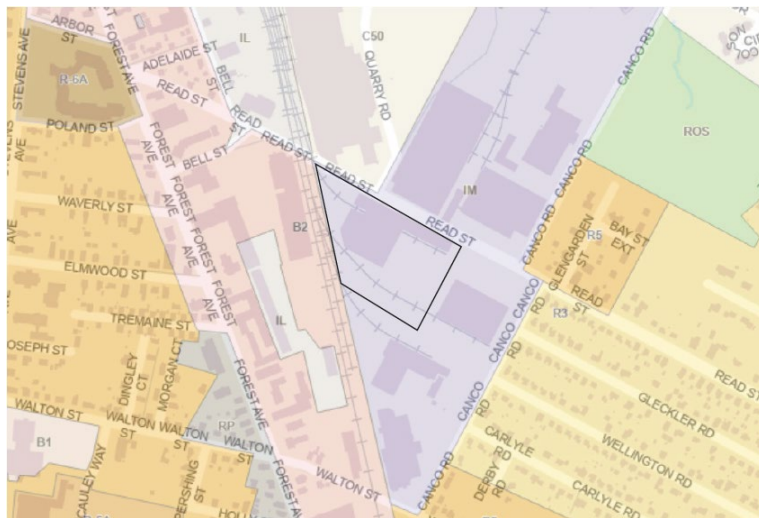


Figure 4 Zoning Map Context

SITE PLAN REVIEW STANDARDS (Section 14.6)

The proposed development has been reviewed by staff for conformance with the relevant review standards of the City of Portland's Site Plan Ordinance, Section 14.6. Staff comments are below:

1. Transportation Standards (Section 14.6.1)

A. Impact on surrounding street systems

The warehouse will support the expansion of the existing business for warehousing and distribution of goods. The expansion of this use is anticipated to increase truck traffic to and from this site by between approximately eight and twenty trucks per day. The city's third-party traffic engineer reviewer finds the increase acceptable based upon the site's proposed design and current roadway capacity. The applicant will be improving the existing sidewalk along Read Street by repaving with bituminous asphalt, which is consistent with the sidewalk material on the east side of Read Street. Furthermore, utilizing bituminous asphalt will minimize impacts to the existing street trees along the property's Read Street frontage.

B. Access and circulation

The application includes a truck movement template which shows trucks entering the site via a newly proposed driveway at the eastern edge of the site, and exiting via the existing driveway. A truck turning template has been submitted for vehicles entering and exiting 150 Read Street, via the shared drive. The sight distance reported for both driveways is 500 feet, which meets the City's sight distance requirements for this classification of roadway.

C. Public transit access

Not applicable. Neither the use nor the size of the proposed project meets the transit shelter requirements. Additionally, the site is not located along an existing public transit route.

D. Parking

The existing parking lot is being restriped to add 15 parking spaces, increasing the parking space count from 8 to 23. The minimum parking required for industrial uses is 1 space for every 1,000 square feet of floor area in excess of 3,000 square feet, which equates to 60 parking spaces. The applicant has submitted a parking narrative justifying the number of parking spaces being provided, which is well beneath the what is required per Ch. 14, Article 19, Table 19-A. The information provided has been reviewed by the City's third-party traffic engineer, and has been found to be an acceptable number of off-street parking spaces based upon the proposed use of the development. Staff are recommending that the Planning Board approve the proposed number of parking spaces per the Board's authority to establish parking requirements for major site plans as stated in Table 19-B.

As stated above, no new parking area is being created under this proposal, and so the development is exempt from meeting the City's electric vehicle charging requirements, and no new EV spaces are being provided. Two bike spaces are being proposed to comply with bike parking requirements in Table 19-A.

E. Transportation demand management (TDM)

Not applicable. A TDM plan is not required based upon the scope of this project.

2. Environmental Quality Standards (Section 14.6.2)

A. Preservation of significant natural features

There are no significant natural features identified on this site.

B. Landscape preservation

The parcel includes several existing mature street trees along its Read Street frontage, which the applicant proposes to retain.

C. Site landscaping and buffers

Trees and shrubs are proposed along Read Street to meet landscaping standards. Included in the overall landscaping plan are eight maple trees. Currently, maple trees make up approximately 30 percent of the city's tree canopy, which makes the City's tree canopy as a whole more susceptible to tree borne diseases and insects such as the asian long horned beetle. Based upon this fact, the City Arborist is strongly encouraging the planting of alternative species to help diversify the City's tree canopy.

In response to this recommendation, the City is requesting, as a condition of approval, that the applicant update their landscape plan to provide an alternative native tree specie in place of the currently proposed maples.

D. Water quality/storm water management/erosion control

The project has proposed to meet the DEP Chapter 500 Stormwater Standards requiring treatment of 50% new impervious or regraded area by adding a Filterra system in the southeast corner of the property to treat 12,000 square feet of impervious area. The treatment proposed meets Chapter 500 stormwater standards.

An erosion and sediment control berm is proposed along the rear edge. Staff are proposing a condition of approval that would require the applicant to update their Erosion and Sedimentation Control Plan to provide additional erosion control measures along the perimeter of the entire area of disturbance to capture all runoff.

3. Public Infrastructure and Community Safety Standards (Section 14.6.3)**A. Consistency with City Master Plans**

A secure and local economy are key components of Portland's Comprehensive Plan, *Portland's Plan 2030*. By investing in and expanding an existing industrial business that provides transportation and warehousing opportunities supporting the surrounding region, the project supports State Goals outlined in the City's Economic Policy Guide (*Portland's Plan 2030*, pg. 41) to promote an economic climate that creates job opportunities and overall economic well-being.

B. Public safety and fire prevention

A proposed fire hydrant is placed to the west of the new shared entrance, abutting 150 Read Street. Truck turning templates have been reviewed and approved by staff and the third-party traffic engineer to show safe movements in and out of the proposed driveway (Plan 16).

C. Availability and capacity of public utilities

Ability to serve letters from gas and water have been submitted. The applicant is still waiting on electric; a condition of approval to provide final ability to serve letters is recommended.

4. Site Design Standards (Section 14.6.4)**A. Massing, ventilation, and wind impact**

The bulk, location or height of the proposed building is not anticipated to result in any adverse impacts to surrounding property or areas accessible to the public. The proposed building will rise to a maximum height of approximately 41 feet, which is below the maximum permitted height of 75 feet in the I-M zone.

B. Shadows

Shadow impacts are not anticipated.

C. Snow and ice loading

Snow storage has been identified on the site plan at the rear of the site. The snow storage was originally proposed along the 150 Read/180 Read property line adjacent to a slope down to the building on 150 Read Street. The applicant has relocated the snow storage to the rear of the site to address staff concerns. The current proposal is meeting applicable standards.

D. View corridors

Not applicable. This site is not in a view corridor.

E. Historic resources

Not applicable. This site is not designated as historic.

F. Exterior lighting

The applicant proposes to install cobrahead fixtures onto existing utility poles along the property's frontage on Read Street, and is proposing to place full cutoff wall pack light fixtures around the exterior of the proposed warehouse. The photometric plan as provided, meets tech manual site lighting standards.

G. Noise and vibration

The proposal is not expected to create noise and vibration impacts.

H. Zoning-related design standards

The project is not subject to any zoning-related design standards.

X. NEIGHBORHOOD MEETING & PUBLIC COMMENT

The applicant held a neighborhood meeting on December 7, 2022 and meeting minutes have been submitted. One public comment has been submitted to the city with concerns of increased truck traffic through nearby residential neighborhoods.

XI. STAFF RECOMMENDATION

Subject to the proposed motions and conditions of approval listed below, Planning Department staff recommends to the Planning Board that the warehouse proposed at 180 Read Street with application PL-002223-2023 meets the applicable standards of Portland's Land Use Code.

XII. PROPOSED MOTIONS**A. SITE PLAN REVIEW**

On the basis of the application, plans, reports and other information submitted by the applicant; findings and recommendations contained in the Planning Board Report for the public hearing on October 10, 2023 for application PL-002223-2022 at 180 Read 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

1. The applicant shall submit an updated landscaping plan to replace the proposed maples to be reviewed and approved by the Planning Authority and City Arborist.

2. The applicant shall submit an updated plan to extend the erosion and sediment control barrier to all downslope areas of site disturbance to be reviewed and approved by the Planning Authority.
3. The applicant shall provide utility capacity confirmation from Central Maine Power to the Planning Authority.
4. The applicant shall add the City's standard catch basin details to the drainage detail sheet to depict the installation of the relocated City catch basin PR-CB 1. The 4' diameter CB needs to be installed with a D-style flat top, D-frame and grate, and a granite headstone in accordance with tech manual section # 2 details. Updated plans will be reviewed and approved by the Planning Authority.
5. The applicant shall update the plans to show the foundation connection into the storm drain. The updated plans will be reviewed and approved by the Planning Authority.

PRIOR TO THE ISSUANCE OF THE CERTIFICANT OF OCCUPANCY

6. The applicant shall submit documentation of the finalized easements that have been proposed:
 - a. 150 Read Street (J.B. Brown & Sons) grants access easement to 182 & 184 Read Street (NEPW Logistics) for grading and access.
 - b. 182 & 184 Read Street (NEPW Logistics) grants access easement to 150 Read Street (J.B. Brown & Sons) for the proposed shared access driveway.

B. PLANNING BOARD DECISION

On the basis of the findings, conclusions and recommendations contained in the Planning Board report for the public hearing on October 10, 2023 related to application PL-002223-2022 for 180 Read Street, which is attached to the draft approval letter and incorporated therein, the Planning Board **[adopts/does not adopt]** the approval letter as drafted as the Planning Board's decision for application PL-002223-2022, and authorizes the Planning Board Chair to sign the approval letter as drafted.

XIII. ATTACHMENTS

1. Applicant Submittal
 - A. Cover Letter
 - B. Major Site Plan Checklist
 - C. Deed
 - D. Zoning Assessment
 - E. Easements
 - F. Waivers
 - G. Financial Capacity
 - H. Technical Capacity
 - I. Conformity with Land Use Ordinance
 - J. Stormwater Report
 - K. Erosion & Sedimentation Control
 - L. Fire Department Letter
 - M. Wastewater Capacity
 - N. Lighting
 - O. Utilities
 - P. Construction Management Plan
 - Q. Solid Waste Disposal
 - R. Stormwater Delegated Review
 - S. Certification Letter
 - T. Sign-In Sheet

- U. Read St. Neighborhood Meeting Invitation
- V. Neighborhood Meeting Minutes
- W. Conbrahead B Spec
- X. Filterra Sizing Summary
- Y. Post Construction Maintenance Agreement
- Z. ADA Design Confirmation
- AA. CMP Ability to Serve 180 Read Street
- BB. Contech Design Confirmation
- CC. PWD ATS
- DD. Redeveloped Impervious Exhibit
- EE. Truck Routing Exhibit
- FF. Turn Templates
- GG. Unitil ATS
- HH. 1.19.23 Comment Response Letter
- II. 2-1-23 Comment Response Letter
- JJ. 6.30.23 Comment Response Letter
- KK. 9.5.23 Comment Response Letter
- LL. Shared Entrance Letter

2. Plans

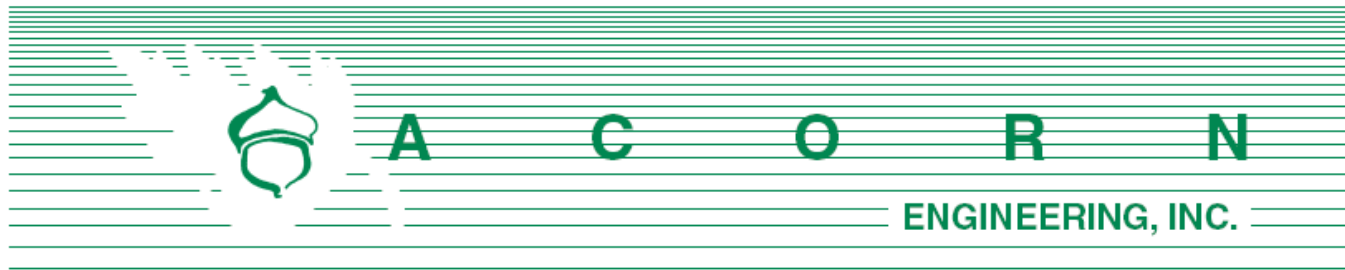
- 1. Cover Sheet & Legend
- 2. General Notes
- 3. Construction Management Plan
- 4. Site Plan
- 5. Utility Plan
- 6. Grading Plan
- 7. Site Details -1
- 8. Site Details -2
- 9. Utility Details -1
- 10. Drainage Details
- 11. Filterra Details
- 12. Erosion & Sedimentation Control Notes and Details
- 13. Lighting Plan
- 14. Architectural Plans
- 15. Boundary & Topographic Survey
- 16. Turn Templates
- 17. Underdrain Subsurface Filter Details

3. Public Comment

- PC 1. Gretchen Stanton 12-15-2022

4. Report Attachments

- 1. Staff Review Comments
- 2. Staff Review Comments 2
- 3. Staff Review Comments 3
- 4. Draft Approval Letter



Planning Division
Attn: James Rather, Development Review Manager
City of Portland, Maine
389 Congress Street, 4th Floor
Portland, ME 04101

October 31, 2022

Subject: Major Site Plan Application
Redevelopment of 182 Read Street

To Whom It May Concern:

On behalf of NEPW Logistics, we are pleased to submit the accompanying package of materials related to the proposed warehouse expansion redevelopment of 182 Read Street (147-B-1) between Forest Avenue and Canco Road. The 6.15-acre parcel is currently the site of NEPW's warehouse and storage operations.

This submission package is intended to meet the City's Submission Requirements as outlined in the Major Site Plan Application procedures. The redevelopment is proposed to include the construction of a new 60,630 SF warehouse building adjacent and attached to two existing structures on the property along with associated site circulation improvements. The site of the proposed building is currently being used as outdoor storage on top of a former building's concrete foundation. The redevelopment site is located within the City's I-M Zoning District and complies with the permitted uses and all applicable standards within the zone.

NEPW Logistics and the design team look forward to discussing this project with you. Included with this letter are site, architectural, and existing conditions plans for your review prior to the meeting. Please do not hesitate to reach out to me with any questions or preliminary comments.

Sincerely,

A handwritten signature in black ink, appearing to read "Travis Letellier", is written over a circular stamp that is partially obscured by the signature.

Travis Letellier, P.E.
Project Manager
Acorn Engineering, Inc.

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

Documents:

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

Drawings:

- Civil Site Plan Set, dated 10/31/22
- Architectural Plan Set,



CITY OF PORTLAND
Planning & Urban Development Department

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

MAJOR SITE PLAN STANDARDS AND SUBMISSION CHECKLIST

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

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

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

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

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

MAJOR SITE PLAN DRAWINGS CHECKLIST

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

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

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

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

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

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

Existing Conditions Plan with the following:

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

Proposed Site Plan with the following:

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

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

DLN: 1002140138275

Warranty Deed

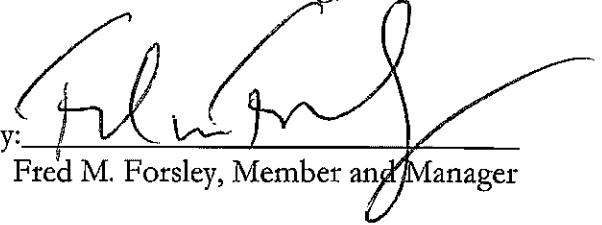
MAINE REAL ESTATE TAX-Paid

Read Street Warehousing, LLC, a Maine Limited Liability Company with an address of 8 Western Avenue, County of York, State of Maine, for consideration paid, grants an undivided 69% interest to **Read Warehouse, LLC**, a Delaware Limited Liability Company, and an undivided 31% interest to **NEPW Read Warehouse, LLC**, a Delaware Limited Liability Company, as tenants in common, both with an address of 70 Quarry Road, Portland, Maine 04103, with **Warranty Covenants**, the land and buildings located in Portland, County of Cumberland, State of Maine, described on Exhibit A attached hereto.

In Witness Whereof, **Fred M. Forsley**, in his capacity as Manager and Member of **Read Street Warehousing, LLC**, has hereunto set his hand and seal this 1st day of ~~March~~, 2021.

April

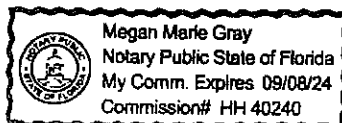
Read Street Warehousing, LLC

By: 
Fred M. Forsley, Member and Manager

State of Florida
County of Pinellas, ss.

March 30th, 2021

Personally appeared the above-named **Fred M. Forsley** in his capacity as Member and Manager of **Read Street Warehousing, LLC** and acknowledged the foregoing instrument to be his free act and deed in said capacity and the free act and deed of **Read Street Warehousing, LLC**. Before me,




Notary Public/Attorney-at-Law
Print Name: Megan Gray
My Commission Expires: 09/08/24

Exhibit A

A certain lot or parcel of land with the building thereon situated on the southerly side of Read Street in the City of Portland, County of Cumberland and State of Maine, bounded and described as follows:

Commencing at the northeasterly corner of land now or formerly of Gilbert F. Congdon III, et al recorded in the Cumberland County Registry of Deeds in Book 31249, Page 305 as shown on a plan entitled "ALTA/ACSM Land Title Survey 150-184 Read Street Portland, Cumberland County, Maine made for J. B. Brown & Sons, 36 Danforth Street, Portland, Maine" dated March 2, 2016 by Owen Haskell, Inc. and recorded in the Cumberland County Registry of Deeds in Plan Book 216, Page 82 (the "Plan");

Thence, N 44° 45' 00" W along the northerly line of land of said Congdon 373.46 feet to southeasterly corner of the lot herein described labeled as "Proposed Lot #182 - #184 Read St." and the southwesterly corner of the lot labeled as "Remaining Lot #150 Read St." as shown on said plan, also being the point of beginning;

Thence, from the point of beginning N 44° 45' 00" W continuing along the northerly line of land of Congdon 168.84 feet to an angle point;

Thence, N 45° 42' 00" W continuing along the northerly line of land of Congdon 282.30 feet to the easterly line of land now or formerly of Portland Terminal Company;

Thence, N 04° 29' 00" E along the easterly line of land of said Portland Terminal Company 522.02 feet to the southerly sideline of said Read St.;

Thence, S 44° 45' 00" E along the easterly sideline of Read Street 639.23 feet to an angle point in said sideline;

Thence, S 44° 45' 00" E continuing along the easterly sideline of Read Street 172.42 feet to the northeasterly corner of the lot herein described and the northwesterly corner of land of said "Remaining Lot #150 Read St.;"

Thence, S 45° 15' 00" W along the westerly line of the "Remaining Lot #150 Read St." 424.00 feet to the point of beginning.

Together with the exclusive right to use, occupy and cross said fifty (50) foot wide strip of land with switch railroad tracks located on the Premises hereby conveyed.

Further, the above-described Premises are conveyed together with a certain perpetual non-exclusive right and easement for vehicular and pedestrian access and utilities access to and from Read Street in common with J. B. Brown & Sons, its successors and assigns, appurtenant to the Premises hereby conveyed, over and across the curb cut off Read Street

located on the westerly side of land now or formerly of J. B. Brown & Sons and near the easterly boundary of the said Premises, for purposes of ingress and egress to and from the Premises, and depicted on the Plan as the "Proposed Access Easement for #182 & #184." Neither Grantor nor J. B. Brown & Sons, their successors and assigns shall have any obligation to maintain the foregoing access easement, including, without limitation, snow-plowing, ice removal or sanding; provided, however, Grantee is hereby authorized, at Grantee's sole expense and discretion, to maintain the foregoing access easement with its own snow-plowing, ice removal or sanding. Grantee, its successors and assigns, agrees to indemnify and hold Grantor and J. B. Brown & Sons, their successors and assigns, harmless from and against any and all liability, loss, cost, damage or expense, including court costs or fees related to litigation or alternative dispute resolution and attorneys' fees, incurred by Grantor or J. B. Brown & Sons, and their successors and assigns, as a result of or in connection with the use of the aforesaid access easement on land now or formerly of J. B. Brown & Sons by Grantee or Grantee's employees, agents, or contractors, except to the extent attributable to the misconduct or gross negligence of J. B. Brown & Sons or its employees, agents or contractors. J. B. Brown & Sons, its successors and assigns, shall have the right to relocate said easement from time to time at the sole cost and expense of J. B. Brown & Sons. Said easement shall run with the land and be for the benefit of the Grantee, its successors and assigns, their tenants, agents, and business invitees, in common with J. B. Brown & Sons, its successors and assigns.

Being the same premises conveyed to Read Street Warehousing, LLC by Quitclaim Deed with Covenant given by J.B. Brown & Sons dated April 12, 2016 and recorded in the Cumberland County Registry of Deeds on April 12, 2016 at Book 33033, Page 310.

Portland, Maine



Yes. Life's good here.

Planning & Urban Development Department

ZONING ANALYSIS Relevant Zone(s) IM

All Projects:

	Required	Proposed
Lot Size	None	6.15 acres
Area Per Dwelling Unit	None	N/A
Minimum Street Frontage	60'	800'
Front Yard Minimum	N/A	N/A
Front Yard Maximum	41.5'	66'
Rear Yard	25'	110'
Yard Right	25'	25'
Yard Left	N/A	N/A
Side Street Setback	N/A	N/A
Step Back	N/A	N/A
Maximum Lot Coverage	None	52%
Minimum Lot Coverage	N/A	N/A
Maximum Height	75'	41.5'
Open Space	N/A	N/A
Maximum Impervious Area	75%	74.9%
Pavement Setback	10'	10'
Floor Area Ratio	N/A	N/A
Off Street Parking Spaces	N/A	15
Loading Bays	N/A	12
Other 1		
Other 2		
Other 3		

E. Summary of Written Easements

Existing easements:

- o See Attachment C, Deed Bk: 38021 Pg: 294 for existing vehicular, pedestrian, and utility access easement for purposes of ingress and egress to and from 182 & 184 Read Street.

Proposed Easements:

- o 150 Read Street (J.B. Brown & Sons) grants access easement to 182 & 184 Read Street (NEPW Logistics) for grading and access.
- o 182 & 184 Read Street (NEPW Logistics) grants access easement to 150 Read Street (J.B. Brown & Sons) for the proposed shared access driveway.



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 5.IV	DEP Flooding Standard	Flooding Standard for the 2 and 10-yr storm	Per Chapter 500 Section 5.II.F.3.b, a project is eligible for a waiver of the flooding standard when there is an insignificant increase in peak flows rates from the project site that will not increase the extent, frequency, or duration of flooding at downstream conveyance structures.
Technical Manual 1.6.1	Sidewalk Materials Policy	Concrete Sidewalk Reconstruction	The existing sidewalk in both the eastern and western directions from the property frontage have recently been replaced in bituminous pavement, therefore we propose to replace the sidewalk along our frontage with the same bituminous pavement. Although specified in the Material Policy, we believe concrete will not fit into the overall scheme of the existing streetscape.



10/05/2022

Account # ****-* 629

Questions: 1-800-435-4000

L LEVY & J BRODIE TTEE
THE SPRINGBOK IRREVOCABLE TRUS
U/A DTD 09/02/1997
HYDE PARK HOLDINGS LLC
570 LEXINGTON AVE FL 44
NEW YORK NY 10022

Here is the requested account balance information.

We're writing in response to a request for balance information on the account noted above.
On 10/05/2022 the total account value was in excess of \$5,000,000.00.

The following is Schwab's terms of withdrawal policy:

Charles Schwab doesn't restrict access to available funds and securities in the above-referenced account(s). An account holder or authorized agent can request withdrawals from an account on demand.

Please note: The balance is based on our records at the time this letter was written, and may include cash and securities. The value of the account is subject to change depending upon market conditions and/or activities in the account.

Please note: This letter is for informational purposes only and is not an official record of the account.

Thank you for choosing Schwab. We appreciate your business and look forward to serving you in the future. If you have any questions, please call us at +1 (800) 435-4000.

H. Technical Capacity

NEPW Logistics is northern New England's leading asset-based warehousing and transportation provider. With nine warehouses in Maine and northern Massachusetts of more than 1.1 million SF of flexible storage space, plus a range of other services: cross-docking, paper converting, reverse logistics, and more.

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

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

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 14.6.1-4

OVERVIEW

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

14.6.1 Transportation Standards

A. Impact on Surrounding Street Systems:

- a. The project will not create any significant hazard to safety on the surrounding street network. The site is located Read Street in the I-M Industrial Zone. It is classified as a Major Urban Collector Street according to the City of Portland Street Classification map.
- b. A minor traffic increase is expected for this project due to the enlargement of the facility. It is not anticipated that congestion will worsen in the area.

B. Access and Circulation:

1) In general

- a. The development will provide safe access and internal circulation for vehicles and emergency vehicles as seen on the Site Plan.
- b. Not applicable
- c. The warehouse and loading docks will be accessed from Read Street. The driveway through the site will be one way and exit the site on Read Street further along to the west. Points of access have been located to avoid conflicts with turning movements and traffic flows on the site.
- d. The site does not feature drive up services as mentioned in this requirement.

2) Loading and Servicing:

The loading docks provided will be sufficient for the delivery schedule and demands of the warehouse. Tractor trailers will have sufficient space to access the docks or to wait for a dock to become available within the confines of the site.



3) Curbs and Sidewalks:

- a. Curb and sidewalks currently exist along the property frontage.
- b. Where disturbed, curb and sidewalks will be rebuilt along the property frontage in conformance with City standards.
- c. Not applicable
- d. Not applicable

C. Public Transit Access:

- 1) The proposed development will not generate public transit usage.

D. Parking:

1) Vehicular Parking

- a. The proposed project is anticipated to require a slight increase in employee parking. Seven parking spaces will be striped on the north portion of the site.
- b. A parking study will not be required.
- c. Not applicable.
- d. The parking space and aisle dimensions are in conformance with the Technical Standards. Please refer to the Site Plan for more information.

2) Location and Required Number of Bicycle Parking Spaces:

- a. Not applicable

3) Snow Storage:

- a. Snow storage areas are provided throughout the site. The Owner will be responsible for managing snow at their discretion and/or coordinating snow removal from the site when necessary.
- b. Snow storage areas will not encroach on parking, walkways, or stormwater management systems.

E. Transportation Demand Management (TDM):

- 1) Not applicable



14.6.2 Environmental Quality Standards

A. Preservation of Significant Natural Features:

1. The site is currently more than half impervious area and there are no significant natural features.

B. Landscape Preservation:

- 1) No existing trees or landscape areas will be disturbed.

C. Site Landscaping and Buffers

- 1) Buffers
 - a. Not applicable.
- 2) Parking Landscaping
 - a. Not applicable.
- 3) Street Trees
 - a. Street trees along the property frontage will not be disturbed.

D. Water Quality, Stormwater Management and Erosion Control:

- a. The site drainage will not be directed to flow or pond onto adjacent lots. The runoff created from the redevelopment will be collected and discharged to the separated storm system within Read Street.
- b. Stormwater from the development entering adjacent watersheds will not exceed the pre-development flows.
- c. The stormwater entering the separated storm sewer will be increased, but not anticipated to be a problem for the system to handle.
- ii. 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 Erosion & Sedimentation Control and Stormwater Management Plans, respectively, for more information.
- iii. The development is not anticipated to pose a contamination risk to groundwater during or after construction. The property is and will be serviced by a public



wastewater system.

14.6.3 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. Not applicable.
 - b. Emergency access has been provided. Fire trucks and ambulance will be able to access the site and buildings.
3. Public Utilities
 - a. Ability to Serve letters have been sent to the respective companies. Responses are forthcoming.
 - b. The electrical service will be wired overhead from a relocated pole on site.
 - c. The stormwater and sewer infrastructure will meet the provisions of the Technical Manual.
 - d. The project will be served by connection to the public sewer system within Read Street. The stormwater management system is designed to meet the standards of Chapter 500.
 - e. Solid waste storage is provided on the existing site.

16.4.4 Site Design Standards

A. Massing, Ventilation and Wind Impact:

- a. Please refer to Section O. Architectural Design Narrative.

B. Shadows:

- a. Not applicable.

C. Snow and Ice Loading:

- a. The structure will not distribute snow and ice onto adjacent properties.

D. View Corridors:

Please refer to Section O. Architectural Design Narrative.



E. 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.

F. Exterior Lighting:

- a. Exterior lighting in the form of wall packs will be designed to meet the requirements of Section 12 of the Technical Manual.
- b. Any lighting that may adversely impact the abutting residential properties will feature shielding.
- c. No architectural or specialty lighting is proposed.
- d. No up-lighting is proposed.
- e. No new street lights are proposed.

G. 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.

H. Signage and Wayfinding:

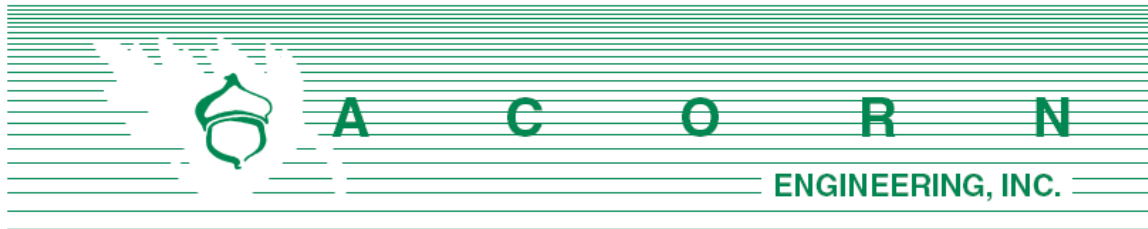
- a. All street and wayfinding signage shall meet the requirements of the Manual on Uniform Traffic Devices (MUTCD) and Division 22 of the City Code.
- b. The project is not located in a historic district or subject to Article IX.
- c. Signage will only be related to vehicular access.
- d. All street and wayfinding signage shall meet the requirements of the Manual on Uniform Traffic Devices (MUTCD) and Division 22 of the City Code.



I. Design Standards.

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





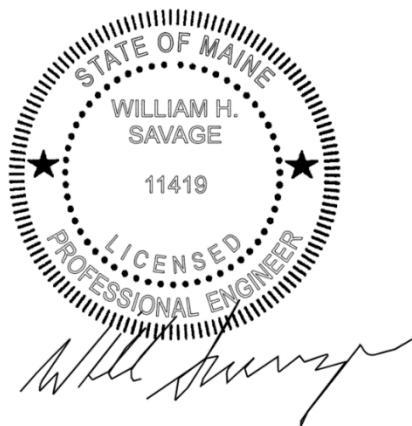
POST CONSTRUCTION - STORMWATER INSPECTION & MAINTENANCE PLAN

Prepared For:

**NEPW Logistics
Portland, Maine 04103**

Prepared By:

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



September 2023

RESPONSIBLE PARTY

The owner, NEPW Logistics, 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 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

Sweeping:

Annual sweeping of the driveways and parking areas following the snow melt for accumulated winter sand, if necessary. Appropriately dispose of all collected material.

Vegetated Areas and Embankments:

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 by Aceto Landscape Architects.

Catch Basins:

Catch basins shall be inspected to confirm that 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.
- If the basin outlet is designed with a hood to trap floatable materials (e.g. Snout), check to ensure watertight seal is working.
- Appropriately dispose of all collected material.

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.

Filtrerra:

The maintenance for the Filterra shall be in accordance with the attached “Filtrerra Maintenance Steps”. Additionally, the downstream catch basins and drainage manholes shall be inspected to confirm the structures are operation 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.
- If the basin outlet is designed with a hood to trap floatable materials (e.g. Snout), check to ensure watertight seal is working.



Subsurface Chamber System:

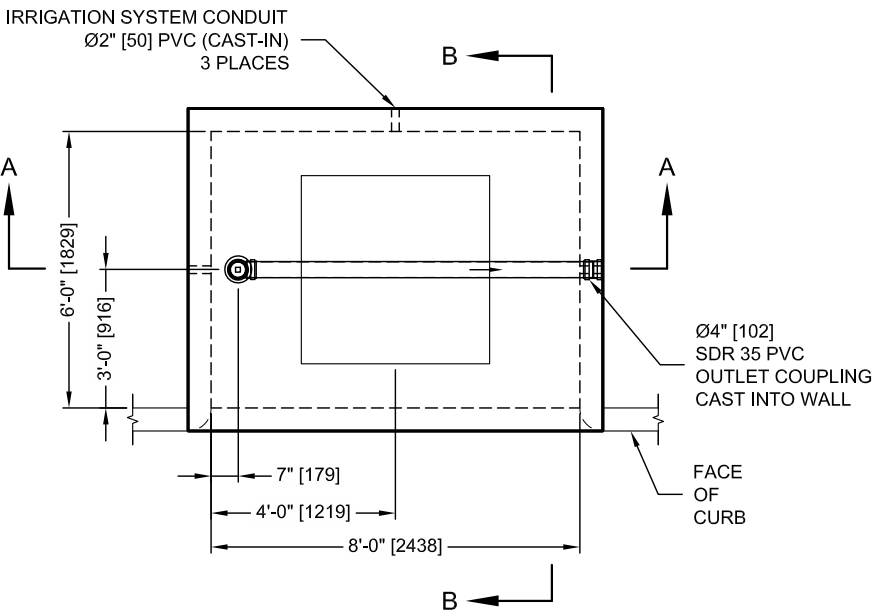
The maintenance of the subsurface chamber system shall be completed be in accordance with the following activities identified below:

- The system should be inspected after every major storm in the first few months to ensure proper function. Thereafter, the system should be inspected at least once every six months to ensure that it is draining within 24 hours to 36 hours.
- Inspect and maintain the StormTech Isolator Row in accordance with the attached proprietary Operation and Maintenance Plan.

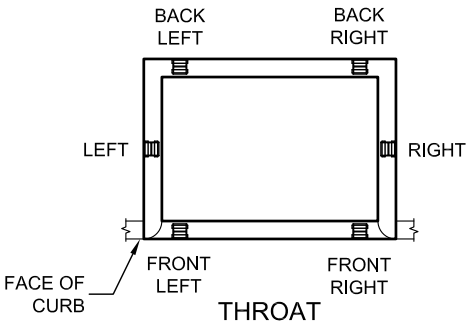
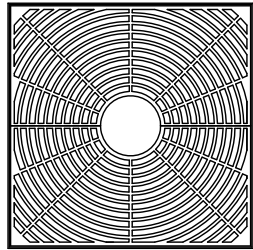
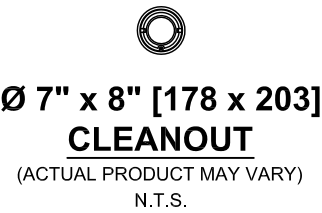
INSPECTION AND MAINTENANCE TABLE

Inspection and Maintenance Frequency	Spring or Yearly	Summer	Fall	As Necessary
Sweeping/Sand Removal	X			
Catch Basins	X		X	X
Filterra	X			X
Subsurface Chamber System	X		X	X
Storm Drains		X		X
Vegetated Areas & Embankments	X	X		



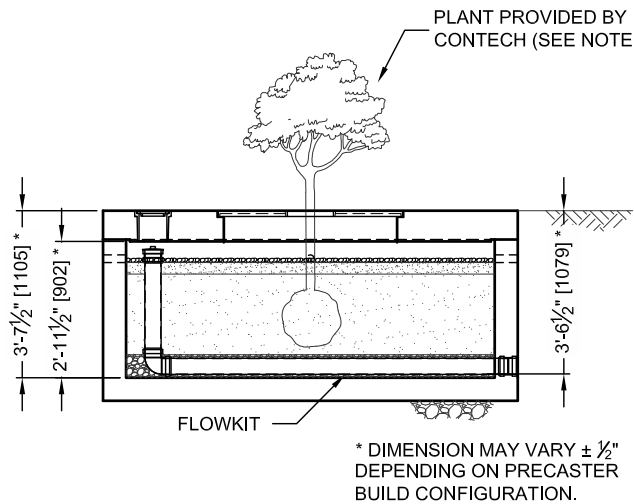


PLAN VIEW

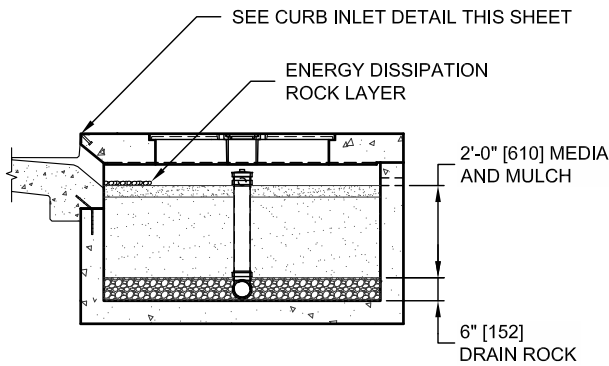


OUTFLOW PIPE ORIENTATION OPTIONS
ORIENTATION REFERENCE IS INLET THROAT

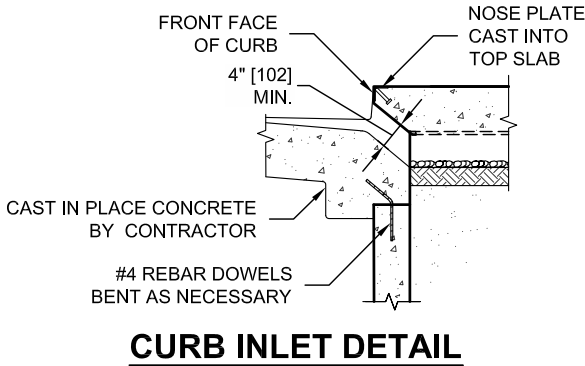
SITE SPECIFIC DATA REQUIREMENTS			
STRUCTURE ID		*	
SYSTEM TREATMENT CAPACITY (CFS / l/s)		*	
WATER QUALITY FLOW RATE (CFS / l/s)		*	
PEAK FLOW RATE (CFS / l/s)		*	
RETURN PERIOD OF PEAK FLOW (YRS)		*	
REQUIRED MEDIA INFILTRATION RATE		*	
PIPE DATA:	I.E.	MATERIAL	DIAMETER
OUTLET PIPE	*	SCH 40 PVC	4"
CURB OPENING ORIENTATION			*
TOP OF CURB ELEVATION			*
ANTI-FLOTATION BALLAST IF REQUIRED		WIDTH	HEIGHT
		*	*
NOTES/SPECIAL REQUIREMENTS:			
* PER ENGINEER OF RECORD			



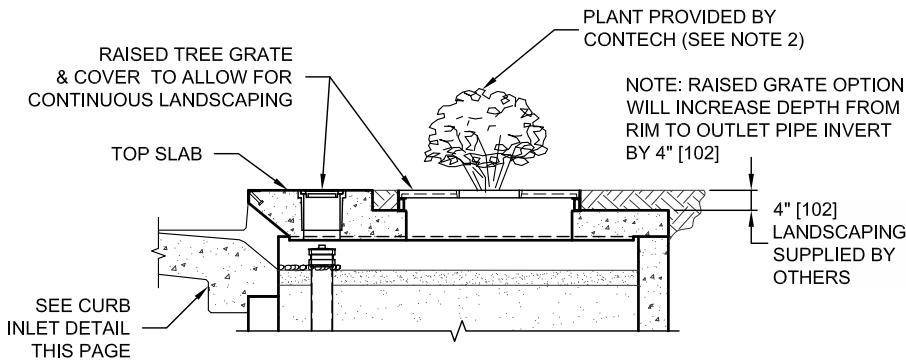
SECTION A-A



SECTION B-B



- GENERAL NOTES**
- CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
 - PLANT, MULCH, AND DISSIPATION ROCK ARE SUPPLIED BY CONTECH AND DELIVERED AT TIME OF SYSTEM ACTIVATION. PLANT SELECTION SHALL BE DONE BY THE ENGINEER OF RECORD IN ACCORDANCE WITH THE PROJECT PLANS AND SPECIFICATIONS.
 - DIMENSIONS MARKED WITH () ARE REFERENCE DIMENSIONS. ACTUAL DIMENSIONS MAY VARY.
 - FOR SITE SPECIFIC DRAWINGS WITH DETAILED VAULT DIMENSIONS AND WEIGHTS, PLEASE CONTACT YOUR CONTECH REPRESENTATIVE. www.ContechES.com
 - FILTERRA WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING.
 - STRUCTURE DESIGNED FOR PEDESTRIAN LIVE LOAD WITH H5 (4,000 LBS.) WHEEL LOAD MOUNTING THE CURB AND ADJACENT HS-2 LIVE LOAD SURCHARGE ON THE WALLS ON THE STRUCTURE.
 - FILTERRA STRUCTURE SHALL BE PRECAST CONCRETE CONFORMING TO ASTM C-857, ASTM C-918, AND ACI-318 LOAD FACTOR DESIGN METHOD.
- INSTALLATION NOTES**
- ANY SUB-BASE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
 - CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE FILTERRA VAULT (LIFTING CLUTCHES PROVIDED). SPREADER BAR WITH SUFFICIENT CABLE IS REQUIRED FOR SAFETY AND REDUCTION OF DAMAGE TO CONCRETE STRUCTURE.
 - CONTRACTOR TO INSTALL JOINT SEALANT BETWEEN ALL VAULT SECTIONS AND ASSEMBLE VAULT.
 - CONTRACTOR TO PROVIDE AND INSTALL OUTLET PIPE. PVC COUPLING CAST-IN TO WALL FOR OUTLET PIPE CONNECTION.
 - CONTRACTOR TO SUPPLY AND INSTALL INLET PROTECTION BAR IF REQUIRED BY LOCAL JURISDICTION.
 - CONTRACTOR TO TAKE APPROPRIATE MEASURES TO PROTECT FILTERRA MEDIA BAY FROM CONSTRUCTION-RELATED EROSION RUNOFF.
 - CONTECH IS RESPONSIBLE FOR ACTIVATION OF THE SYSTEM AND PLANTING OF THE PLANT THAT IS SPECIFIED. ACTIVATION ONLY OCCURS WHEN THE SITE IS FULLY STABILIZED, FINAL PAVEMENT INSTALLED AND SWEEP CLEAN OF CONSTRUCTION SEDIMENT.
 - ALL FILTERRA UNITS MUST BE WATERED BY IRRIGATION LINES OR SPRINKLER SYSTEMS ON A REGULAR BASIS. EACH FILTERRA UNIT INCLUDES IRRIGATION HOLES FOR NEW OR EXISTING IRRIGATION LINES.



OPTIONAL RECESSED TOP SLAB DETAIL
(TYPICAL TOP SLAB DETAIL SHOWN IN SECTION B-B)



CONTECH
ENGINEERED SOLUTIONS LLC
www.ContechES.com
9025 Centre Pointe Dr., Suite 400, West Chester, OH 45069
800-338-1122 513-645-7000 513-645-7993 FAX

FILTERRA 8x6 OFFLINE STANDARD
LONG SIDE INLET
MODEL: FT0806

STORMWATER MAINTENANCE AND INSPECTION AGREEMENT: INSPECTION LOG

Filterra Systems:							
Location: 1700 Westbrook Street, Portland, ME 04102				Latitude: 43.658294°N Longitude: -70.32915° W			
Description of Located Point: Recorded Construction Documents - Filterra				Inspector: Date of Inspection: Weather Conditions:			
Days since last precipitation:				MEDEP Permit # N/A			
Quantity of last precipitation (in):				Design Drawings: YES			
Maintenance Items	Inspect In Spring	Inspect In Fall	Inspect As Necessary		Maintenance Requested (Date)	Maintenance Completed (Date)	Summary of Maintenance Required
Inlets, Outlets, Culverts & Storm Drains							
Inspection and cleaning of Filterra and surrounding area	☒	☐	☐	☐ Yes ☐ No ☐ N/A			
Removal of debris and trash	☒	☐	☐	☐ Yes ☐ No ☐ N/A			
Replace mulch	☒	☐	☐	☐ Yes ☐ No ☐ N/A			
General							
Access to facility is adequate	☒	☐	☐	☐ Yes ☐ No ☐ N/A			
Photographs of most recent site inspection are included	☒	☐	☐	☐ Yes ☐ No ☐ N/A			Photographs are attached.
Additional Comments:							

Filterra® Maintenance Steps



1. Inspection of Filterra and surrounding area



2. Removal of tree grate and erosion control stones



3. Removal of debris, trash and mulch



4. Mulch replacement



5. Clean area around Filterra



6. Complete paperwork and record plant height and width

Contech has created a network of Certified Maintenance Providers (CCMP's) to provide maintenance on Filterra systems. To find a CCMP in your area please visit www.conteches.com/maintenance

STORMWATER MAINTENANCE AND INSPECTION AGREEMENT: INSPECTION LOG

Stormtech Chamber System:							
Location: 1700 Westbrook Street, Portland, ME 04102				Latitude: 43.658294°N			
				Longitude: -70.32915° W			
Description of Located Point: Recorded Construction Documents - Stormtech Chamber System				Inspector:			
				Date of Inspection:			
				Weather Conditions:			
Days since last precipitation:				MEDEP Permit # N/A			
Quantity of last precipitation (in):				Design Drawings: YES			
Maintenance Items	Inspect In Spring	Inspect In Fall	Inspect As Necessary		Maintenance Requested (Date)	Maintenance Completed (Date)	Summary of Maintenance Required
Inlets, Outlets, Culverts & Storm Drains							
Inspection and cleaning of Filterra and surrounding area	☒	☐	☐	☐ Yes ☐ No ☐ N/A			
Removal of debris and trash	☒	☐	☐	☐ Yes ☐ No ☐ N/A			
Replace mulch	☒	☐	☐	☐ Yes ☐ No ☐ N/A			
General							
Access to facility is adequate	☒	☐	☐	☐ Yes ☐ No ☐ N/A			
Photographs of most recent site inspection are included	☒	☐	☐	☐ Yes ☐ No ☐ N/A			Photographs are attached.
Additional Comments:							

Isolator[®] Row

O&M Manual



The Isolator[®] Row

Introduction

An important component of any Stormwater Pollution Prevention Plan is inspection and maintenance. The StormTech Isolator Row is a technique to inexpensively enhance Total Suspended Solids (TSS) and Total Phosphorus (TP) removal with easy access for inspection and maintenance.

The Isolator Row

The Isolator Row is a row of StormTech chambers, either SC-160, SC-310, SC-310-3, SC-740, DC-780, MC-3500 or MC-7200 models, that is surrounded with filter fabric and connected to a closely located manhole for easy access. The fabric-wrapped chambers provide for sediment settling and filtration as stormwater rises in the Isolator Row and passes through the filter fabric. The open bottom chambers and perforated sidewalls (SC-310, SC-310-3 and SC-740 models) allow stormwater to flow both vertically and horizontally out of the chambers. Sediments are captured in the Isolator Row protecting the adjacent stone and chambers storage areas from sediment accumulation.

ADS geotextile fabric is placed between the stone and the Isolator Row chambers. The woven geotextile provides a media for stormwater filtration, a durable surface for maintenance, prevents scour of the underlying stone and remains intact during high pressure jetting. A non-woven fabric is placed over the chambers to provide a filter media for flows passing through the chamber's sidewall. The non-woven fabric is not required over the SC-160, DC-780, MC-3500 or MC-7200 models as these chambers do not have perforated side walls.

The Isolator Row is designed to capture the “first flush” runoff and offers the versatility to be sized on a volume basis or a flow-rate basis. An upstream manhole provides access to the Isolator Row and includes a high/low concept such that stormwater flow rates or volumes that exceed the capacity of the Isolator Row bypass through a manifold to the other chambers. This is achieved with an elevated bypass manifold or a high-flow weir. This creates a differential between the Isolator Row row of chambers and the manifold to the rest of the system, thus allowing for settlement time in the Isolator Row. After Stormwater flows through the Isolator Row and into the rest of the chamber system it is either exfiltrated into the soils below or passed at a controlled rate through an outlet manifold and outlet control structure.

The Isolator Row may be part of a treatment train system. The treatment train design and pretreatment device selection by the design engineer is often driven by regulatory requirements. Whether pretreatment is used or not, StormTech recommend using the Isolator Row to minimize maintenance requirements and maintenance costs.

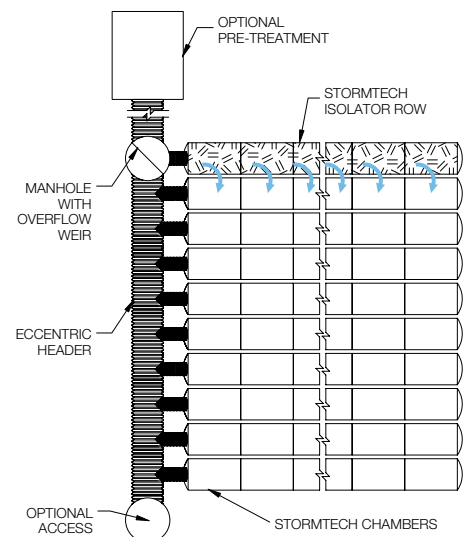
Note: See the *StormTech Design Manual* for detailed information on designing inlets for a StormTech system, including the Isolator Row.



Looking down the Isolator Row from the manhole opening, woven geotextile fabric is shown between the chamber and stone base.



StormTech Isolator Row with Overflow Spillway (not to scale)



Isolator Row Inspection/Maintenance

Inspection

The frequency of inspection and maintenance varies by location. A routine inspection schedule needs to be established for each individual location based upon site specific variables. The type of land use (i.e. industrial, commercial, residential), anticipated pollutant load, percent imperviousness, climate, etc. all play a critical role in determining the **actual frequency of inspection and maintenance practices**.

At a minimum, StormTech recommends annual inspections. Initially, the Isolator Row should be inspected every 6 months for the first year of operation. For subsequent years, the inspection should be adjusted based upon previous observation of sediment deposition.

The Isolator Row incorporates a combination of standard manhole(s) and strategically located inspection ports (as needed). The inspection ports allow for easy access to the system from the surface, eliminating the need to perform a confined space entry for inspection purposes.

If upon visual inspection it is found that sediment has accumulated, a stadia rod should be inserted to determine the depth of sediment. When the average depth of sediment exceeds 3 inches throughout the length of the Isolator Row, clean-out should be performed.

Maintenance

The Isolator Row was designed to reduce the cost of periodic maintenance. By “isolating” sediments to just one row, costs are dramatically reduced by eliminating the need to clean out each row of the entire storage bed. If inspection indicates the potential need for maintenance, access is provided

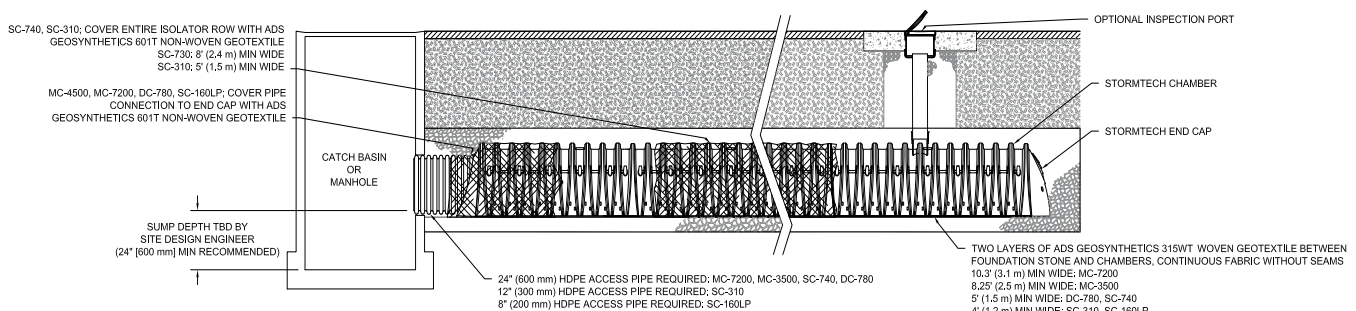
via a manhole(s) located on the end(s) of the row for cleanout. If entry into the manhole is required, please follow local and OSHA rules for a confined space entries.

Maintenance is accomplished with the JetVac process. The JetVac process utilizes a high pressure water nozzle to propel itself down the Isolator Row while scouring and suspending sediments. As the nozzle is retrieved, the captured pollutants are flushed back into the manhole for vacuuming. Most sewer and pipe maintenance companies have vacuum/JetVac combination vehicles. Selection of an appropriate JetVac nozzle will improve maintenance efficiency. Fixed nozzles designed for culverts or large diameter pipe cleaning are preferable. Rear facing jets with an effective spread of at least 45° are best. JetVac reels can vary in length. For ease of maintenance, ADS recommends Isolator Row lengths up to 200' (61 m). **The JetVac process shall only be performed on StormTech Isolator Rows that have AASHTO class 1 woven geotextile (as specified by StormTech) over their angular base stone.**



StormTech Isolator Row (not to scale)

Note: Non-woven fabric is only required over the inlet pipe connection into the end cap for SC-160LP, DC-780, MC-3500 and MC-7200 chamber models and is not required over the entire Isolator Row.



Isolator Row Step By Step Maintenance Procedures

Step 1

Inspect Isolator Row for sediment.

- A) Inspection ports (if present)
 - i. Remove lid from floor box frame
 - ii. Remove cap from inspection riser
 - iii. Using a flashlight and stadia rod, measure depth of sediment and record results on maintenance log.
 - iv. If sediment is at or above 3 inch depth, proceed to Step 2. If not, proceed to Step 3.
- B) All Isolator Row
 - i. Remove cover from manhole at upstream end of Isolator Row
 - ii. Using a flashlight, inspect down Isolator Row through outlet pipe
 - 1. Mirrors on poles or cameras may be used to avoid a confined space entry
 - 2. Follow OSHA regulations for confined space entry if entering manhole
 - iii. If sediment is at or above the lower row of sidewall holes (approximately 3 inches), proceed to Step 2. If not, proceed to Step 3.

Step 2

Clean out Isolator Row using the JetVac process.

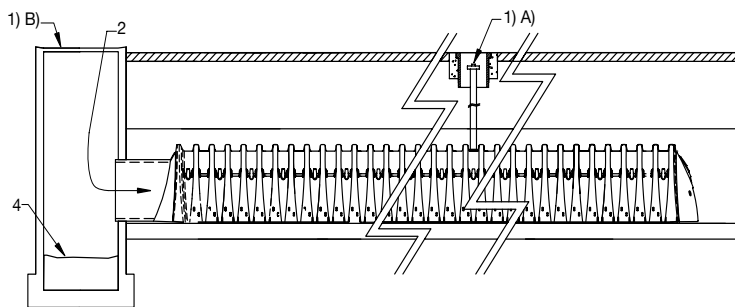
- A) A fixed floor cleaning nozzle with rear facing nozzle spread of 45 inches or more is preferable
- B) Apply multiple passes of JetVac until backflush water is clean
- C) Vacuum manhole sump as required

Step 3

Replace all caps, lids and covers, record observations and actions.

Step 4

Inspect & clean catch basins and manholes upstream of the StormTech system.



Sample Maintenance Log

Date	Stadia Rod Readings		Sedi- ment Depth (1)-(2)	Observations/Actions	Inspector
	Fixed point to chamber bottom (1)	Fixed point to top of sediment (2)			
3/15/11	6.3 ft	none		New installation. Fixed point is CI frame at grade	DJM
9/24/11		6.2	0.1 ft	Some grit felt	SM
6/20/13		5.8	0.5 ft	Mucky feel, debris visible in manhole and in Isolator Row, maintenance due	NV
7/7/13	6.3 ft		0	System jetted and vacuumed	DJM

adspipe.com

800-821-6710

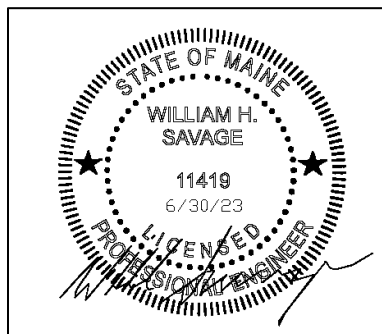
J. STORMWATER MANAGEMENT **REPORT**

Prepared For:

**NEPW Logistics
Portland, Maine 04103**

Prepared By:

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



**October 2022
(Rev. January 2023)
(Rev. June 2023)**



INTRODUCTION

Acorn Engineering, Inc. has been retained by NEPW Logistics to provide civil engineering services for the proposed development at 180 Read Road. The property consists of approximately 6.15 acres of land and contains the following parcels (147-B-1).

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

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

A waiver for the flooding standard has been requested in the application per Section 5.II.F.3.b.

EXISTING CONDITIONS

The project site is bordered by Read Street and abuts the Springfield Terminal railroad bed to the west. A boundary plan has been prepared by Owen Haskell Inc., dated August 12th, 2022. The site is not in the watershed of an urban impaired stream.

The site is currently the location of NEPW Logistics warehouse operations. The site in its existing condition drains water in roughly two directions, to the north and south. Half of the building closest to Read Street and a portion of the eastern half of the site drain to the separated storm system within Read Street. The rest drains to the south along the existing railroad tracks and behind the building at 150 Read Street. It then flows into the separated stormwater system within Canco Road through a culvert. The flows off the site are combined within the storm drain system and discharge at a location off Ocean Ave that drains to the Bay.

PROPOSED DEVELOPMENT

The redevelopment will include the construction of a new 60,650 SF warehouse building adjacent and attached to two existing structures on the property along with associated site circulation improvements. The proposed building will be in the footprint of a warehouse in existence until 2012. Some areas on site that were previously impervious area are being converted to landscaped area. Overall, the project proposes to increase the impervious area on site by approximately 639 SF.



Existing Impervious Area (SF)	Proposed Impervious Area (SF)
198,067	198,706 (+0.3%)

The redeveloped portion of the site has been graded to match with the existing topography of the site while providing for appropriate slopes in the parking and tractor trailer access areas. Catch basins and piping are provided to convey stormwater from the site to the separated storm system within Read Street.

All the paved areas associated with this re-development project are in areas where pavement exists in its current condition and has been used previously for site access and loading areas. This project aims to regrade and repave this area around the proposed building in a way that meets the definition of Maintenance within the Maine Department of Environmental Protection's Chapter 500 rules. The small increase in impervious area on the site is due to the roof area, not from an increase in pavement on the site. Best management practices (BMPs) to be constructed for runoff water quality and quantity include one tree filter and a subsurface chamber system.

The development will be served by the Portland Water District, CMP, and municipal sewer and storm systems. Utility mains and services have been coordinated with each respective utility company.

BASIC STANDARDS – EROSION & SEDIMENTATION CONTROL

The development shall provide erosion and sedimentation control, inspection and maintenance, and housekeeping standards as specified in the attached Exhibit K: Erosion and Sedimentation Control Report. Grading and construction activity will not impede or otherwise alter drainageways to have an unreasonable adverse impact on adjacent downgradient parcels.

GENERAL STANDARDS - WATER QUALITY

The project will meet the Water Quality standards as a redevelopment project, as described in Section 3(c).d of the Chapter 500, General Standard rules. The pollutant ranking difference in the existing and proposed condition is negligible, therefore the project is required to provide treatment for 50% of the redeveloped non-roof impervious area. This will be achieved by a Filterra tree filter, a proprietary high-performance filtration BMP. The Filterra is designed to be in accordance with the Maine Stormwater Best Management Practice Manual, Appendix B Proprietary System requirements specified within the MaineDEP February 2, 2017 approval letter. Please see the redeveloped impervious area exhibit for more information. The following table shows the percentage of area treated:



Proposed Redeveloped Non-Roof Impervious Area (SF)	Proposed Treated Area by Filterra
19,130	10,625 (55.5%)

With 55.5% of treatment of redeveloped driveway area, the project will exceed the minimum required water quality treatment.

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 (Tc)

The times of concentration for subcatchments in both the pre and post conditions were calculated by entering the flow path with the associated ground cover and slopes. HydroCAD then calculated the Tc's and incorporated the total Tc for each subcatchment into the model. When the calculated Tc was less than six minutes (0.1 hours), a direct entry of six minutes was used as advised by the TR-55 model. Consistent with previous submissions and best practices, the sheet flow length for any Tc path was capped at 100 feet.

Curve Number (CN)

Within the pre-development model, the vegetated areas were considered grass or woods cover in fair condition as demonstrated by aerial images and site visits. The post development landscaped areas were given a good rating all within the A hydrologic soil group.

Pre-development Calculations

The site consists of a predominately industrial lot in the predevelopment condition. For the purpose of this analysis the land has been divided into two (2) separate subcatchments.

- SC 1A – Half of Building 1 and eastern portion of site draining towards Read Street. It is assumed that these flows eventually convey to the separated storm system within Read Street.



- SC 2A – Building 2 and the remainder of property draining south to brush and trees

Post-development Calculations

The post condition features the same two (2) points of interest that exist in the pre-development condition. The delineations are slightly changed to account for the new building and parts of the access road draining to catch basins and the separated storm system within Read Street. The sub catchments are as follows:

- SC 1P – Half of Building 1, the proposed building and eastern portion of site draining to Read Street including half of the access drive, drained by catch basins. This flow eventually conveys to the separated storm system within Read Street.
- SC 2P – Building 2 and the remainder of property draining south to brush and trees

A proposed subsurface chamber system will provide detention of runoff from roughly half of the new roof area. Roof drains will connect to an inlet control structure that will distribute flow throughout the subsurface system. Storage volume will be provided through a combination of ADS Stormtech Chambers (52 total) and 3/4" crushed stone. A concrete weir with two orifices inside an outlet structure will control the rate of runoff that is ultimately discharged to POI 1 along Read Street via a closed drainage system. The subsurface chamber system provides detention to limit the proposed peak rates of runoff to predevelopment levels as demonstrated in the table below.

The post-development calculations include changes to the land use, and the compensation provided by the USSF's and associated engineered orifices. The following table represents comparison of pre-development and post-development condition peak runoff rates at the two points of interest (POI).

Table 8 – 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	1.9	1.9	3.3	3.3	4.6	4.6
POI 2	5.1	4.1	9.9	7.8	14.0	11.2

As shown in Table 7 and 8, the total post development peak flows leaving the site will be equal to or slightly lower than pre-development levels. It is anticipated that this drainage pattern will improve the conditions of the watershed by conveying more of the runoff to the separated stormwater system immediately instead of the through neighboring properties, which have documented flooding issues.

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. A waiver for the flooding standard has been requested per Chapter 500 Section 5.II.F.3.b. The insignificant increase in peak flows rates from the project site for the 2-year and 10-year



storm will not increase the extent, frequency, or duration of flooding at downstream conveyance structures.

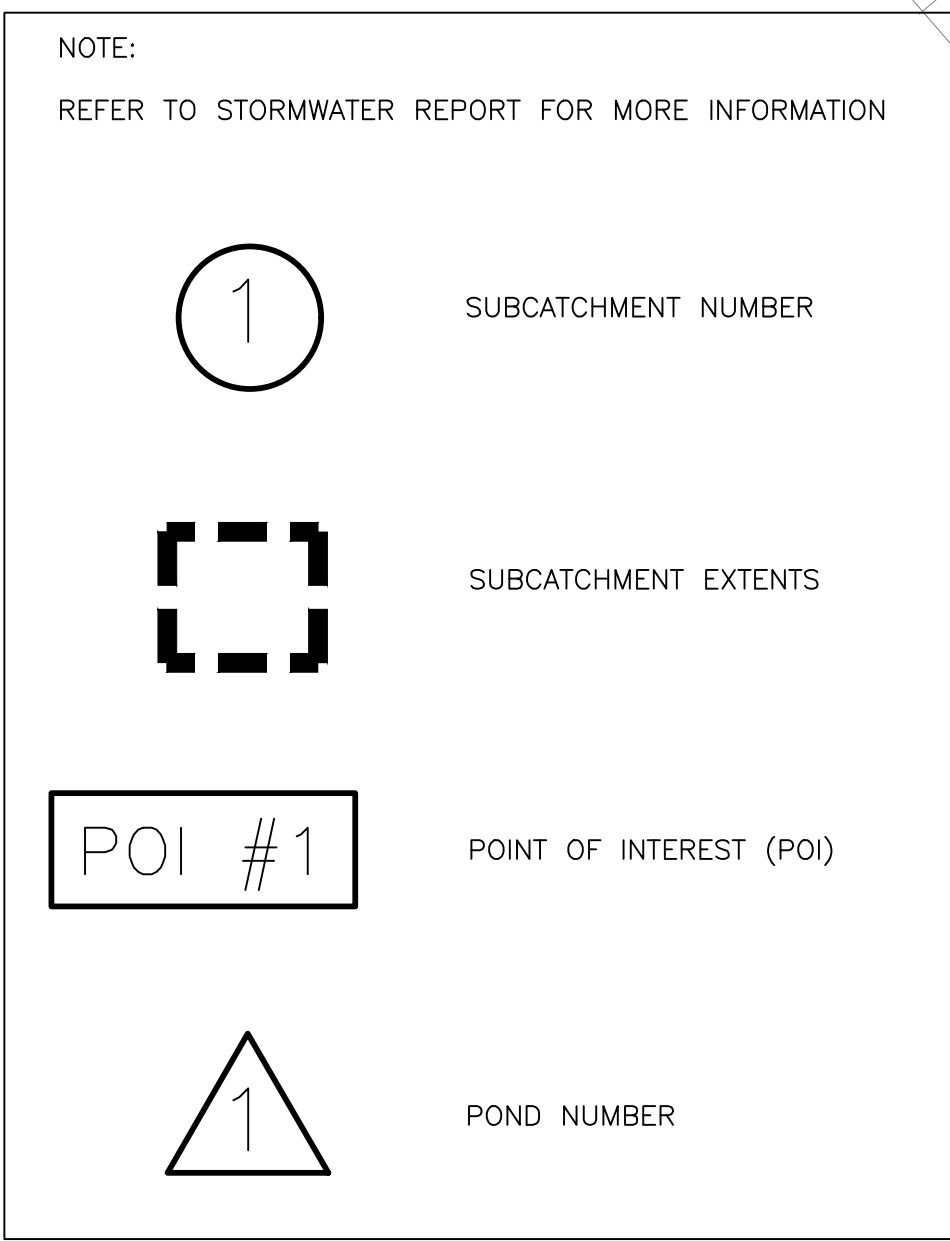
CONCLUSION

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

ATTACHMENTS

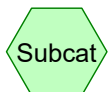
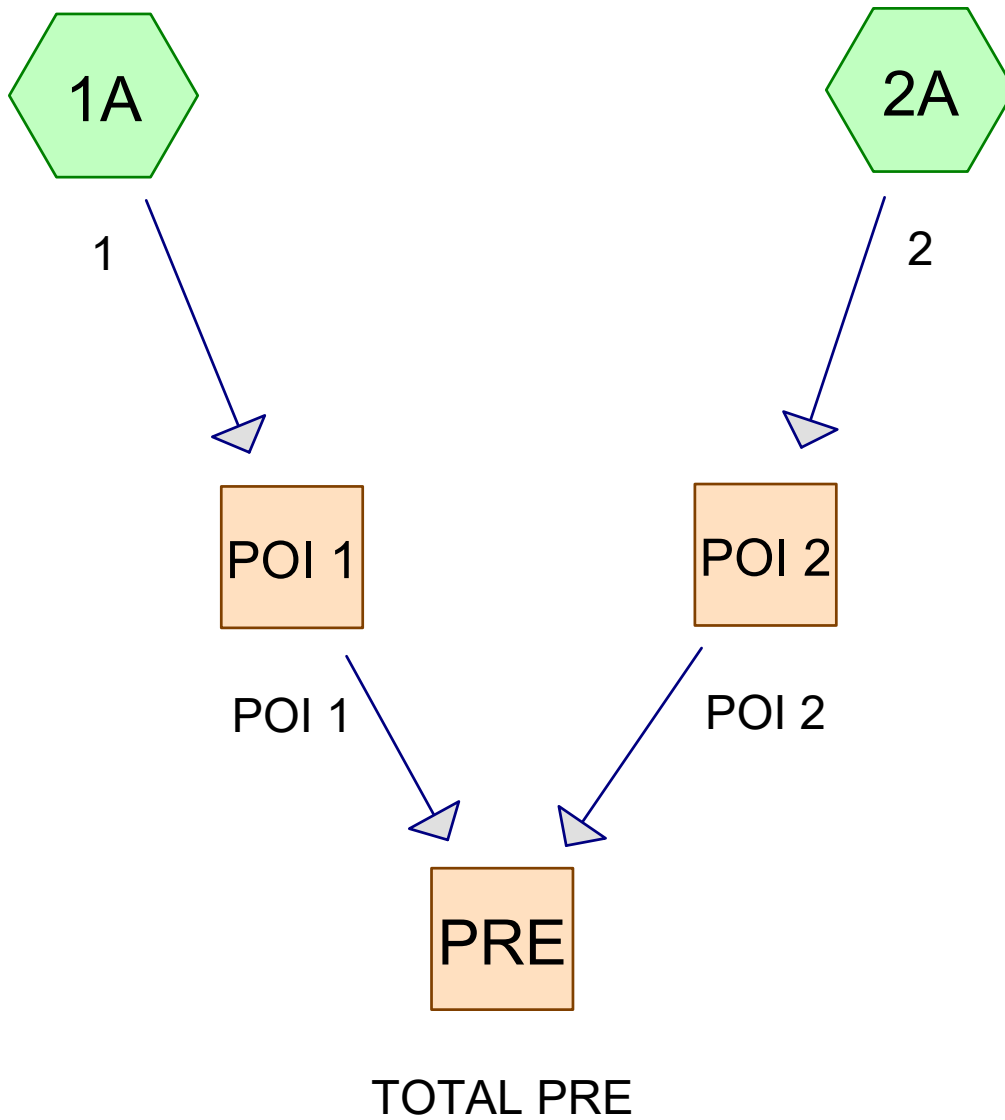
Attachment A: Pre-Development Watershed Map
Attachment B: Post-Development Watershed Map
Attachment C: HydroCAD Calculations
Attachment D: Soil Survey





PERMIT LEVEL
NOT ISSUED FOR
CONSTRUCTION

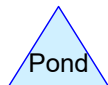
[illegible]



Subcat



Reach



Pond



Link

Routing Diagram for 1176_PRE
Prepared by HP, Printed 10/17/2022
HydroCAD® 10.00-26 s/n 00620 © 2020 HydroCAD Software Solutions LLC

Project Notes

Rainfall events imported from "Post Development_4-21-21.hcp"

Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.494	49	50-75% Grass cover, Fair, HSG A (1A, 2A)
1.102	36	Woods, Fair, HSG A (2A)
3.420	98	buildings/pave (2A)
1.127	98	pave/roof (1A)
6.143	83	TOTAL AREA

Soil Listing (all nodes)

Area (acres)	Soil Group	Subcatchment Numbers
1.596	HSG A	1A, 2A
0.000	HSG B	
0.000	HSG C	
0.000	HSG D	
4.547	Other	1A, 2A
6.143		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
0.494	0.000	0.000	0.000	0.000	0.494	50-75% Grass cover, Fair	1A, 2A
1.102	0.000	0.000	0.000	0.000	1.102	Woods, Fair	2A
0.000	0.000	0.000	0.000	3.420	3.420	buildings/pave	2A
0.000	0.000	0.000	0.000	1.127	1.127	pave/roof	1A
1.596	0.000	0.000	0.000	4.547	6.143	TOTAL AREA	

1176_PRE

Prepared by HP

HydroCAD® 10.00-26 s/n 00620 © 2020 HydroCAD Software Solutions LLC

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

Printed 10/17/2022

Page 6

Time span=1.00-48.00 hrs, dt=0.05 hrs, 941 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment1A: 1

Runoff Area=63,319 sf 77.56% Impervious Runoff Depth=1.83"
Flow Length=340' Tc=21.2 min CN=87 Runoff=2.04 cfs 0.221 af

Subcatchment2A: 2

Runoff Area=204,287 sf 72.92% Impervious Runoff Depth=1.46"
Flow Length=898' Tc=32.6 min CN=82 Runoff=4.32 cfs 0.570 af

Reach POI 1: POI 1

Inflow=2.04 cfs 0.221 af
Outflow=2.04 cfs 0.221 af

Reach POI 2: POI 2

Inflow=4.32 cfs 0.570 af
Outflow=4.32 cfs 0.570 af

Reach PRE: TOTAL PRE

Inflow=6.03 cfs 0.791 af
Outflow=6.03 cfs 0.791 af

Total Runoff Area = 6.143 ac Runoff Volume = 0.791 af Average Runoff Depth = 1.55"
25.99% Pervious = 1.596 ac 74.01% Impervious = 4.547 ac

Summary for Subcatchment 1A: 1

Runoff = 2.04 cfs @ 12.29 hrs, Volume= 0.221 af, Depth= 1.83"

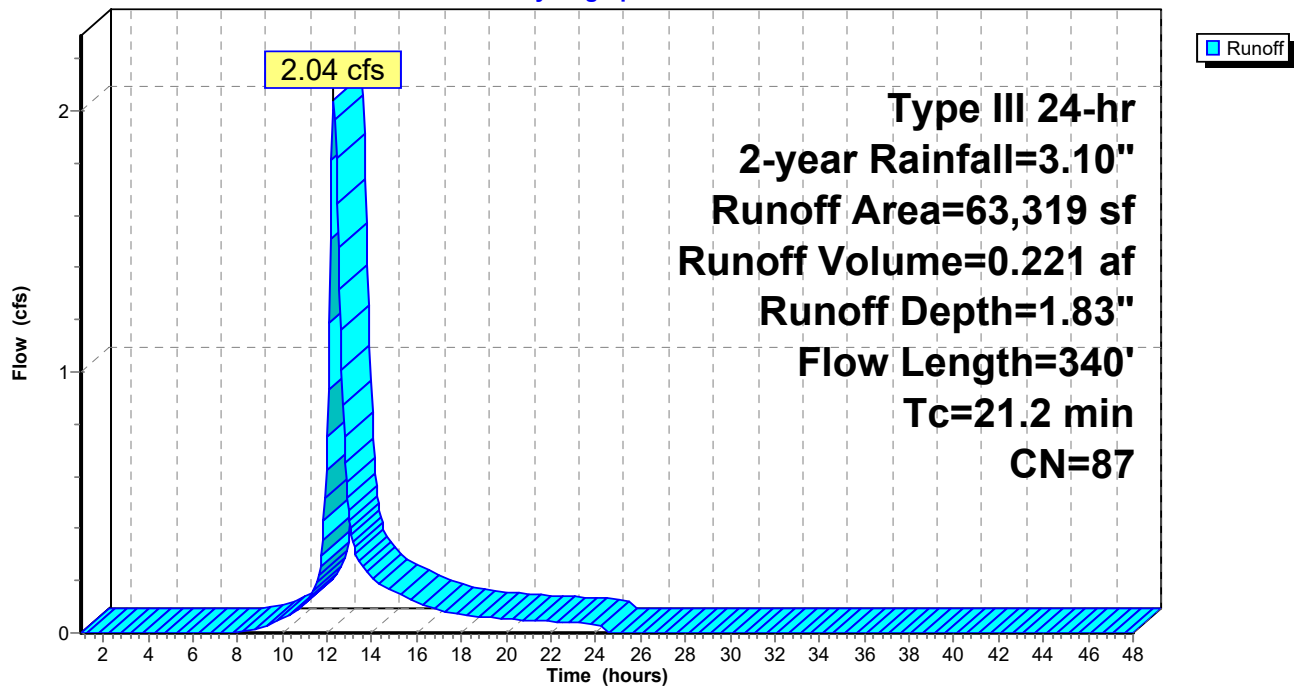
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-year Rainfall=3.10"

Area (sf)	CN	Description
14,209	49	50-75% Grass cover, Fair, HSG A
* 49,110	98	pave/roof
63,319	87	Weighted Average
14,209		22.44% Pervious Area
49,110		77.56% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
16.9	100	0.0050	0.10		Sheet Flow, A TO B Grass: Short n= 0.150 P2= 3.27"
3.6	154	0.0050	0.71		Shallow Concentrated Flow, C TO D Nearly Bare & Untilled Kv= 10.0 fps
0.7	86	0.0380	1.95		Shallow Concentrated Flow, D TO E Nearly Bare & Untilled Kv= 10.0 fps
21.2	340	Total			

Subcatchment 1A: 1

Hydrograph



Summary for Subcatchment 2A: 2

Runoff = 4.32 cfs @ 12.47 hrs, Volume= 0.570 af, Depth= 1.46"

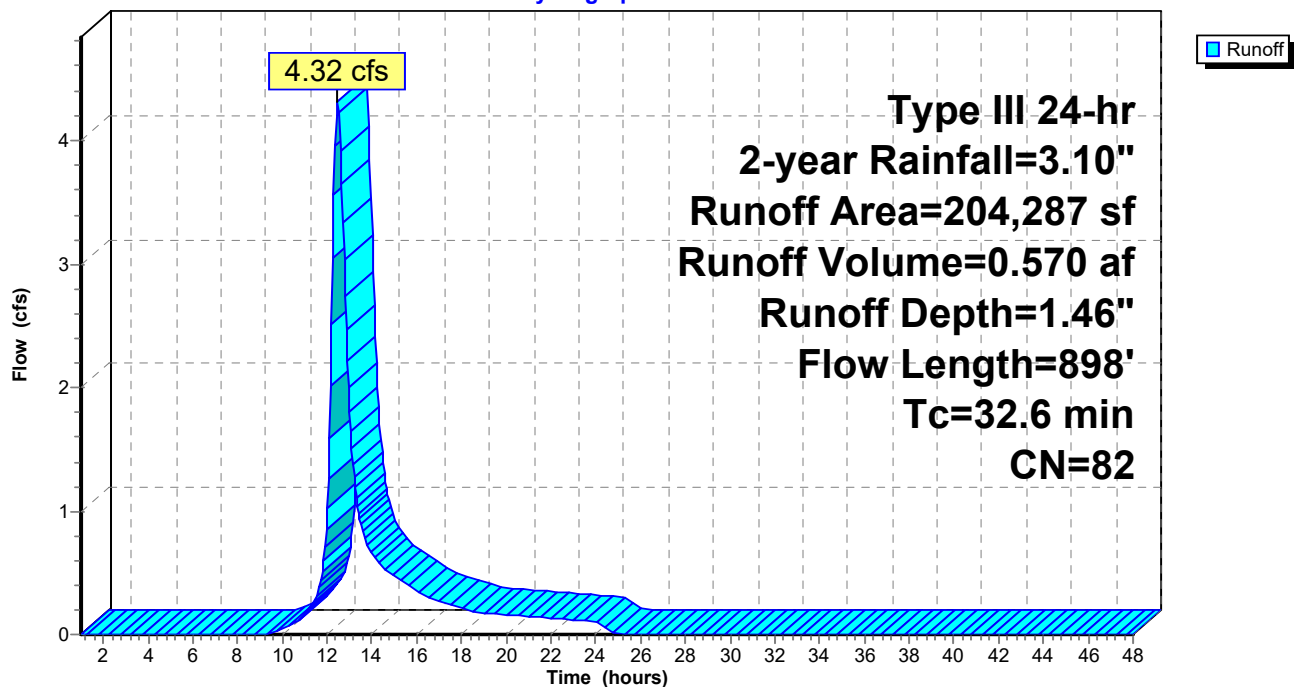
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-year Rainfall=3.10"

	Area (sf)	CN	Description
*	148,957	98	buildings/pave
	48,019	36	Woods, Fair, HSG A
	7,311	49	50-75% Grass cover, Fair, HSG A
	204,287	82	Weighted Average
	55,330		27.08% Pervious Area
	148,957		72.92% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.6	100	0.0100	1.05		Sheet Flow, A TO B Smooth surfaces n= 0.011 P2= 3.27"
1.4	237	0.0200	2.87		Shallow Concentrated Flow, B TO C Paved Kv= 20.3 fps
29.6	561	0.0160	0.32		Shallow Concentrated Flow, C TO D Forest w/Heavy Litter Kv= 2.5 fps
32.6	898	Total			

Subcatchment 2A: 2

Hydrograph



Summary for Reach POI 1: POI 1

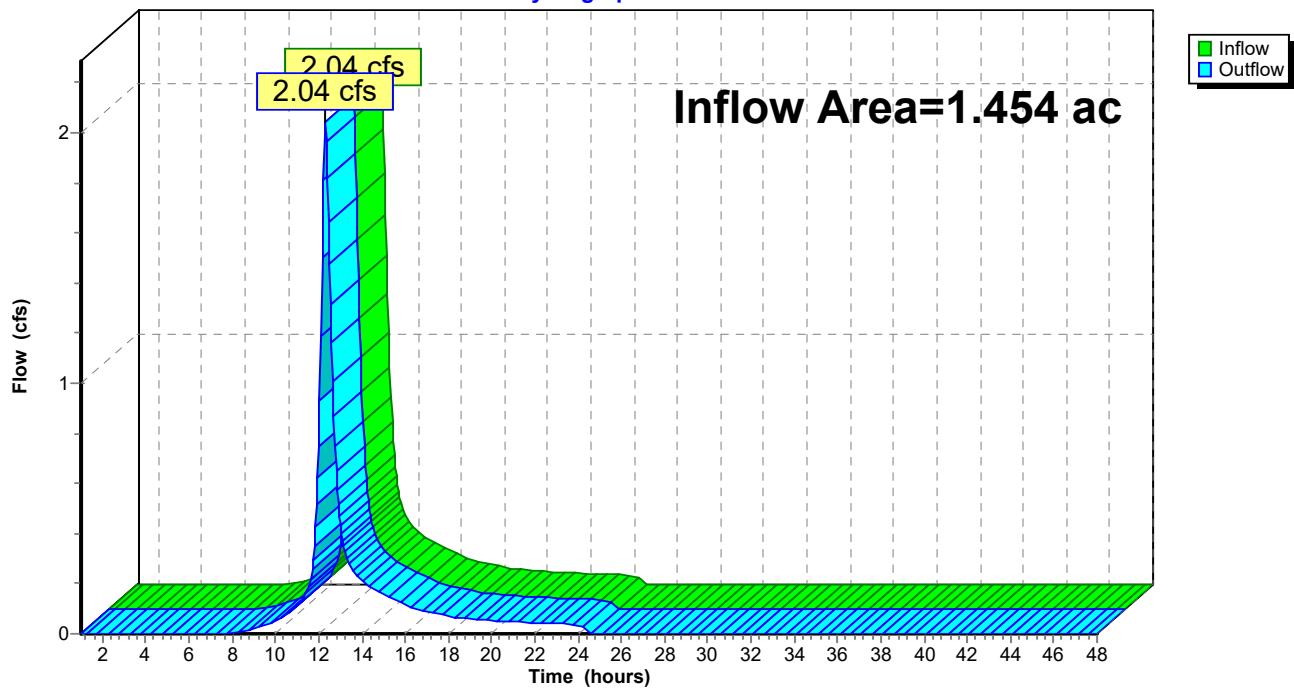
[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 1.454 ac, 77.56% Impervious, Inflow Depth = 1.83" for 2-year event
Inflow = 2.04 cfs @ 12.29 hrs, Volume= 0.221 af
Outflow = 2.04 cfs @ 12.29 hrs, Volume= 0.221 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs

Reach POI 1: POI 1

Hydrograph



Summary for Reach POI 2: POI 2

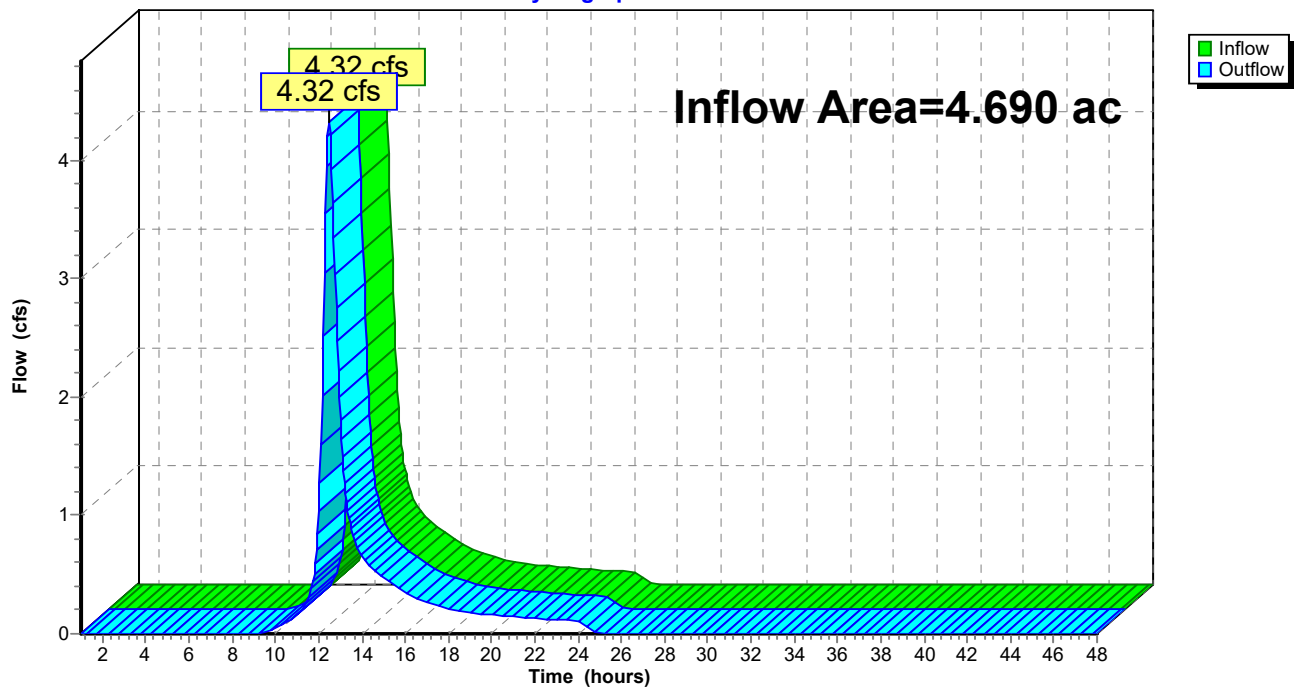
[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 4.690 ac, 72.92% Impervious, Inflow Depth = 1.46" for 2-year event
Inflow = 4.32 cfs @ 12.47 hrs, Volume= 0.570 af
Outflow = 4.32 cfs @ 12.47 hrs, Volume= 0.570 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs

Reach POI 2: POI 2

Hydrograph



Summary for Reach PRE: TOTAL PRE

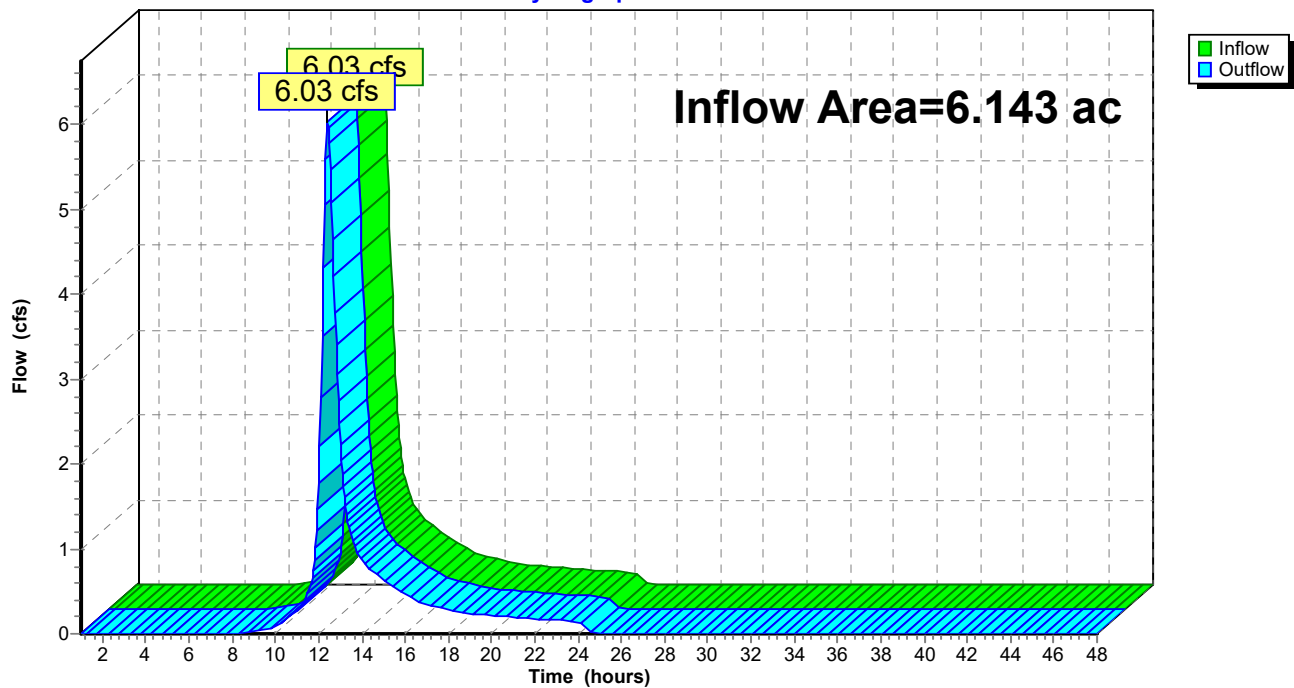
[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 6.143 ac, 74.01% Impervious, Inflow Depth = 1.55" for 2-year event
Inflow = 6.03 cfs @ 12.41 hrs, Volume= 0.791 af
Outflow = 6.03 cfs @ 12.41 hrs, Volume= 0.791 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs

Reach PRE: TOTAL PRE

Hydrograph



1176_PRE*Type III 24-hr 10-year Rainfall=4.60"*

Prepared by HP

Printed 10/17/2022

HydroCAD® 10.00-26 s/n 00620 © 2020 HydroCAD Software Solutions LLC

Page 12

Time span=1.00-48.00 hrs, dt=0.05 hrs, 941 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment1A: 1

Runoff Area=63,319 sf 77.56% Impervious Runoff Depth=3.19"
Flow Length=340' Tc=21.2 min CN=87 Runoff=3.53 cfs 0.387 af

Subcatchment2A: 2

Runoff Area=204,287 sf 72.92% Impervious Runoff Depth=2.72"
Flow Length=898' Tc=32.6 min CN=82 Runoff=8.13 cfs 1.065 af

Reach POI 1: POI 1

Inflow=3.53 cfs 0.387 af
Outflow=3.53 cfs 0.387 af

Reach POI 2: POI 2

Inflow=8.13 cfs 1.065 af
Outflow=8.13 cfs 1.065 af

Reach PRE: TOTAL PRE

Inflow=11.10 cfs 1.451 af
Outflow=11.10 cfs 1.451 af

Total Runoff Area = 6.143 ac Runoff Volume = 1.451 af Average Runoff Depth = 2.83"
25.99% Pervious = 1.596 ac 74.01% Impervious = 4.547 ac

Summary for Subcatchment 1A: 1

Runoff = 3.53 cfs @ 12.29 hrs, Volume= 0.387 af, Depth= 3.19"

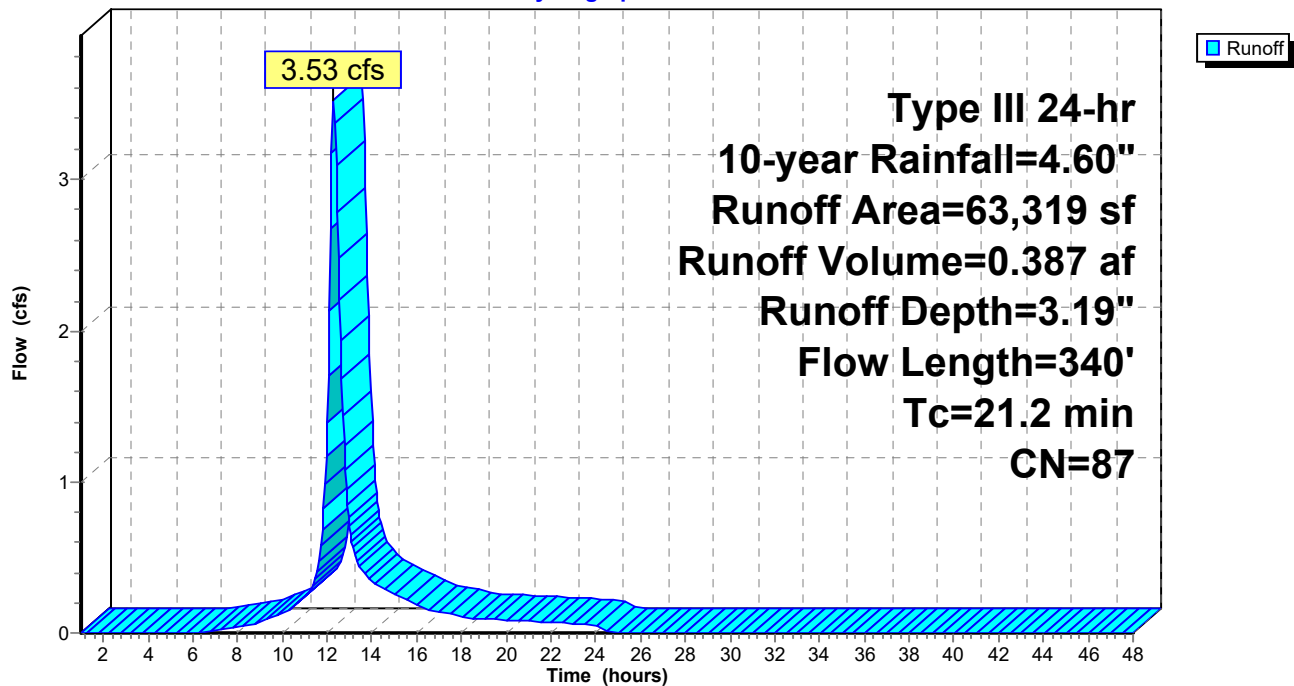
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-year Rainfall=4.60"

Area (sf)	CN	Description
14,209	49	50-75% Grass cover, Fair, HSG A
* 49,110	98	pave/roof
63,319	87	Weighted Average
14,209		22.44% Pervious Area
49,110		77.56% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
16.9	100	0.0050	0.10		Sheet Flow, A TO B Grass: Short n= 0.150 P2= 3.27"
3.6	154	0.0050	0.71		Shallow Concentrated Flow, C TO D Nearly Bare & Untilled Kv= 10.0 fps
0.7	86	0.0380	1.95		Shallow Concentrated Flow, D TO E Nearly Bare & Untilled Kv= 10.0 fps
21.2	340	Total			

Subcatchment 1A: 1

Hydrograph



Summary for Subcatchment 2A: 2

Runoff = 8.13 cfs @ 12.45 hrs, Volume= 1.065 af, Depth= 2.72"

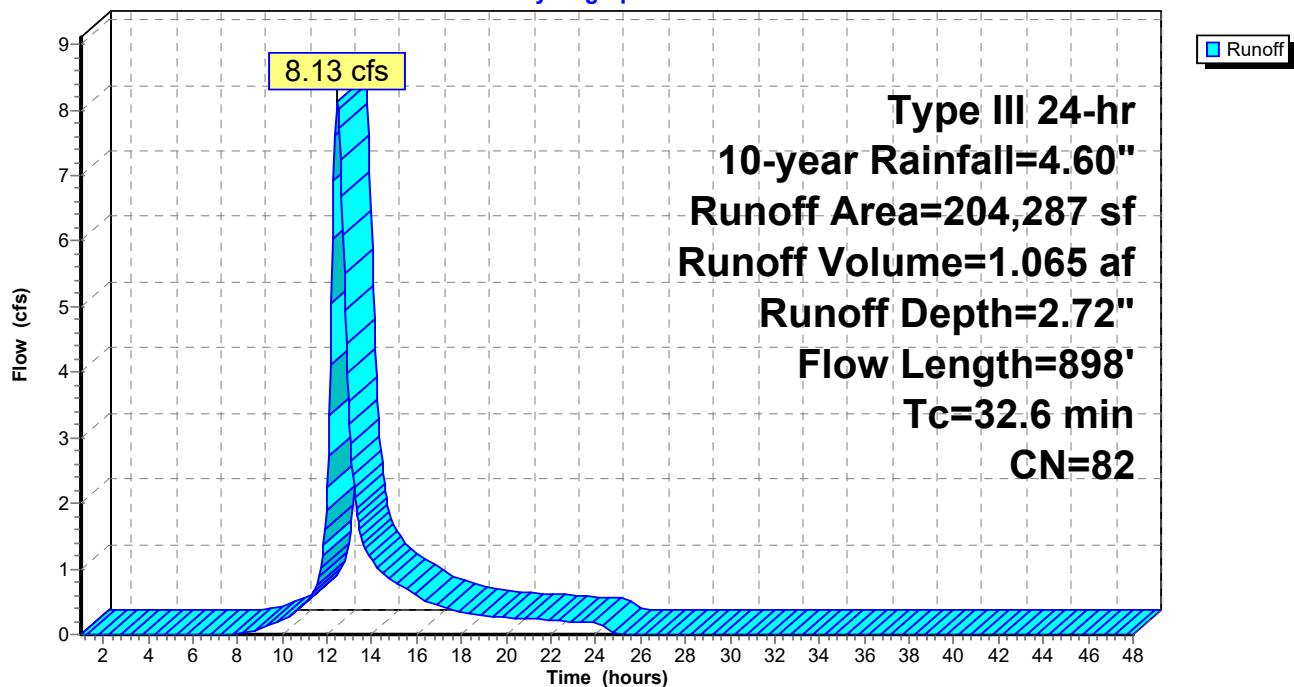
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-year Rainfall=4.60"

	Area (sf)	CN	Description
*	148,957	98	buildings/pave
	48,019	36	Woods, Fair, HSG A
	7,311	49	50-75% Grass cover, Fair, HSG A
	204,287	82	Weighted Average
	55,330		27.08% Pervious Area
	148,957		72.92% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.6	100	0.0100	1.05		Sheet Flow, A TO B Smooth surfaces n= 0.011 P2= 3.27"
1.4	237	0.0200	2.87		Shallow Concentrated Flow, B TO C Paved Kv= 20.3 fps
29.6	561	0.0160	0.32		Shallow Concentrated Flow, C TO D Forest w/Heavy Litter Kv= 2.5 fps
32.6	898	Total			

Subcatchment 2A: 2

Hydrograph

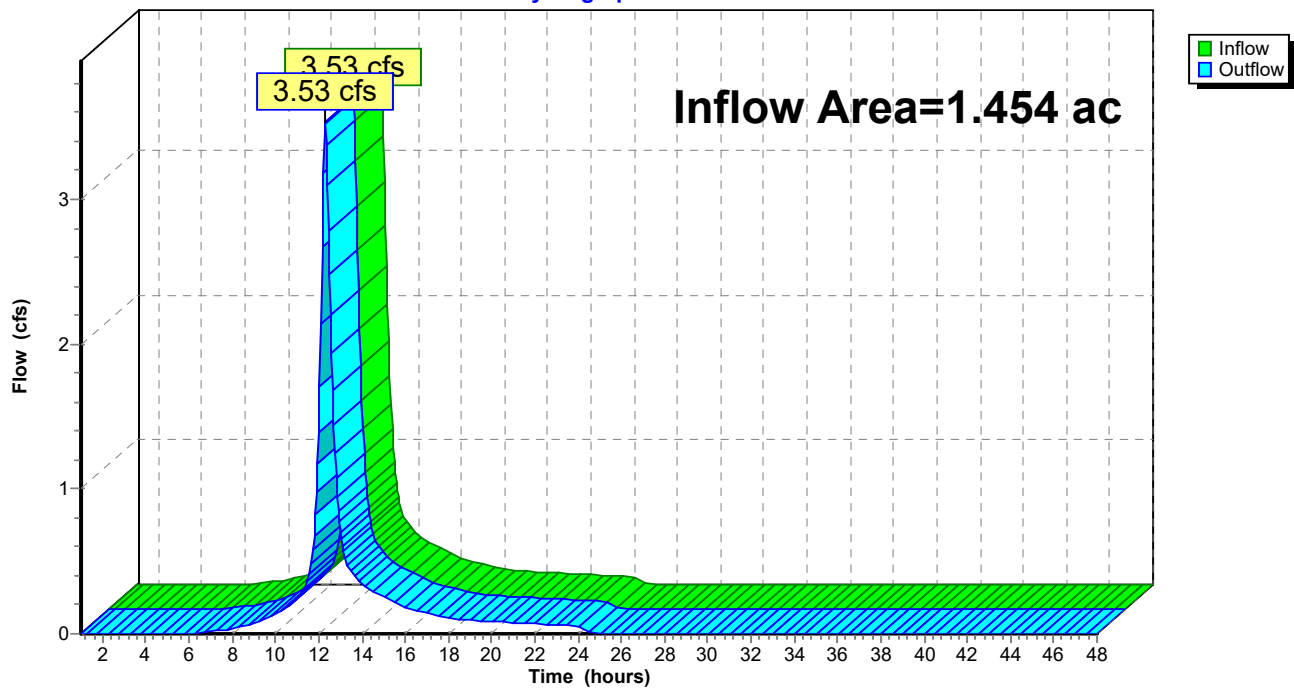


Summary for Reach POI 1: POI 1

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

Inflow Area = 1.454 ac, 77.56% Impervious, Inflow Depth = 3.19" for 10-year event
Inflow = 3.53 cfs @ 12.29 hrs, Volume= 0.387 af
Outflow = 3.53 cfs @ 12.29 hrs, Volume= 0.387 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs

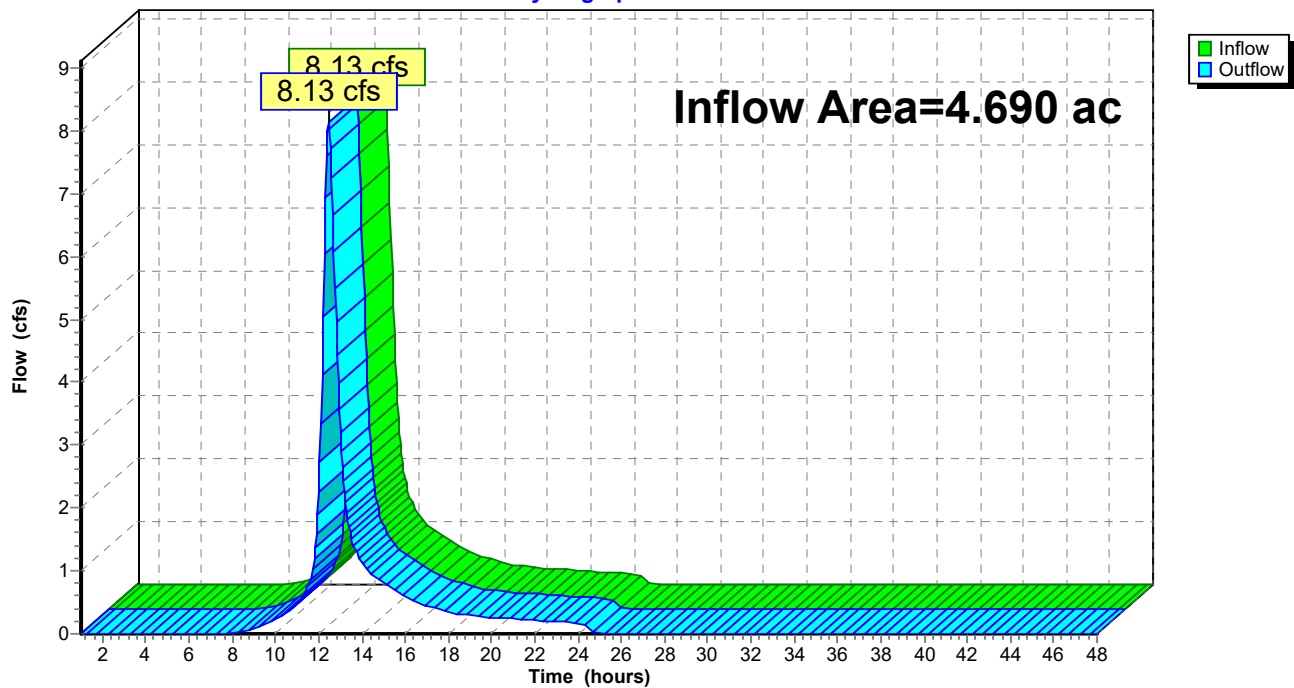
Reach POI 1: POI 1**Hydrograph**

Summary for Reach POI 2: POI 2

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

Inflow Area = 4.690 ac, 72.92% Impervious, Inflow Depth = 2.72" for 10-year event
Inflow = 8.13 cfs @ 12.45 hrs, Volume= 1.065 af
Outflow = 8.13 cfs @ 12.45 hrs, Volume= 1.065 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs

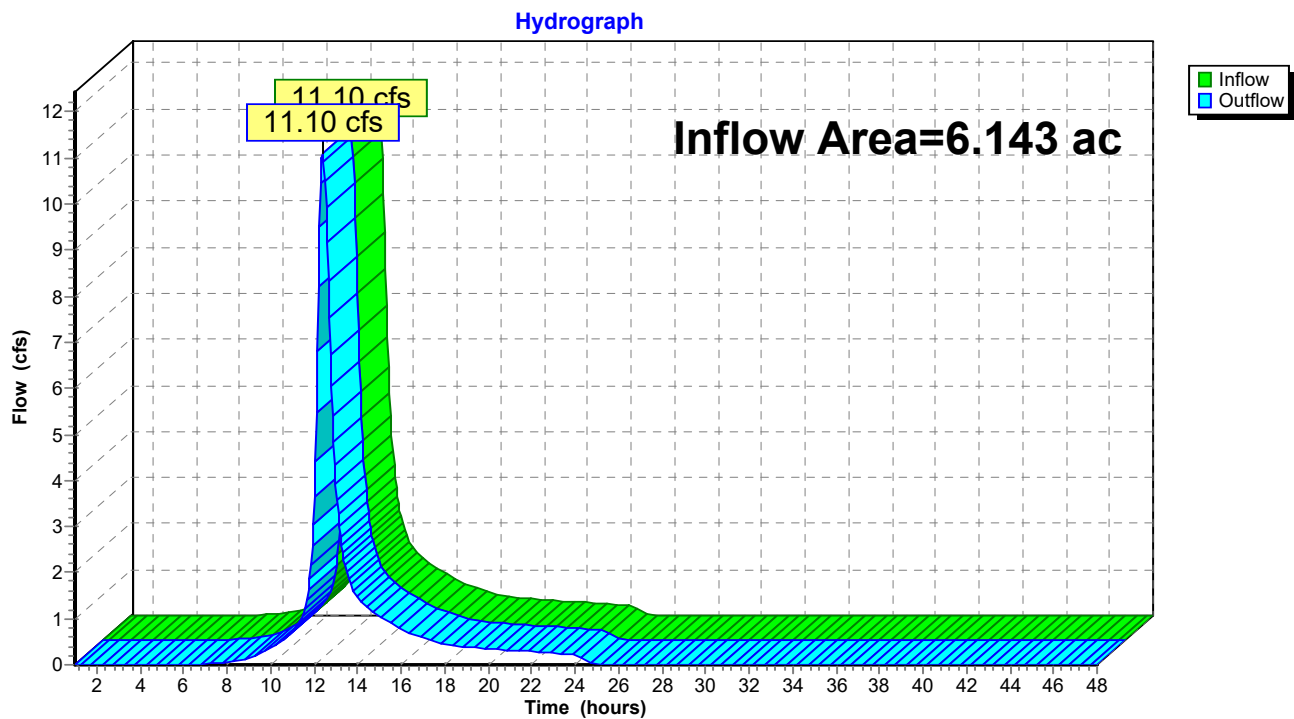
Reach POI 2: POI 2**Hydrograph**

Summary for Reach PRE: TOTAL PRE

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

Inflow Area = 6.143 ac, 74.01% Impervious, Inflow Depth = 2.83" for 10-year event
Inflow = 11.10 cfs @ 12.39 hrs, Volume= 1.451 af
Outflow = 11.10 cfs @ 12.39 hrs, Volume= 1.451 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs

Reach PRE: TOTAL PRE

1176_PRE*Type III 24-hr 25-year Rainfall=5.80"*

Prepared by HP

Printed 10/17/2022

HydroCAD® 10.00-26 s/n 00620 © 2020 HydroCAD Software Solutions LLC

Page 18

Time span=1.00-48.00 hrs, dt=0.05 hrs, 941 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment1A: 1

Runoff Area=63,319 sf 77.56% Impervious Runoff Depth=4.33"
Flow Length=340' Tc=21.2 min CN=87 Runoff=4.73 cfs 0.524 af

Subcatchment2A: 2

Runoff Area=204,287 sf 72.92% Impervious Runoff Depth=3.80"
Flow Length=898' Tc=32.6 min CN=82 Runoff=11.31 cfs 1.486 af

Reach POI 1: POI 1

Inflow=4.73 cfs 0.524 af
Outflow=4.73 cfs 0.524 af

Reach POI 2: POI 2

Inflow=11.31 cfs 1.486 af
Outflow=11.31 cfs 1.486 af

Reach PRE: TOTAL PRE

Inflow=15.30 cfs 2.011 af
Outflow=15.30 cfs 2.011 af

Total Runoff Area = 6.143 ac Runoff Volume = 2.011 af Average Runoff Depth = 3.93"
25.99% Pervious = 1.596 ac 74.01% Impervious = 4.547 ac

Summary for Subcatchment 1A: 1

Runoff = 4.73 cfs @ 12.28 hrs, Volume= 0.524 af, Depth= 4.33"

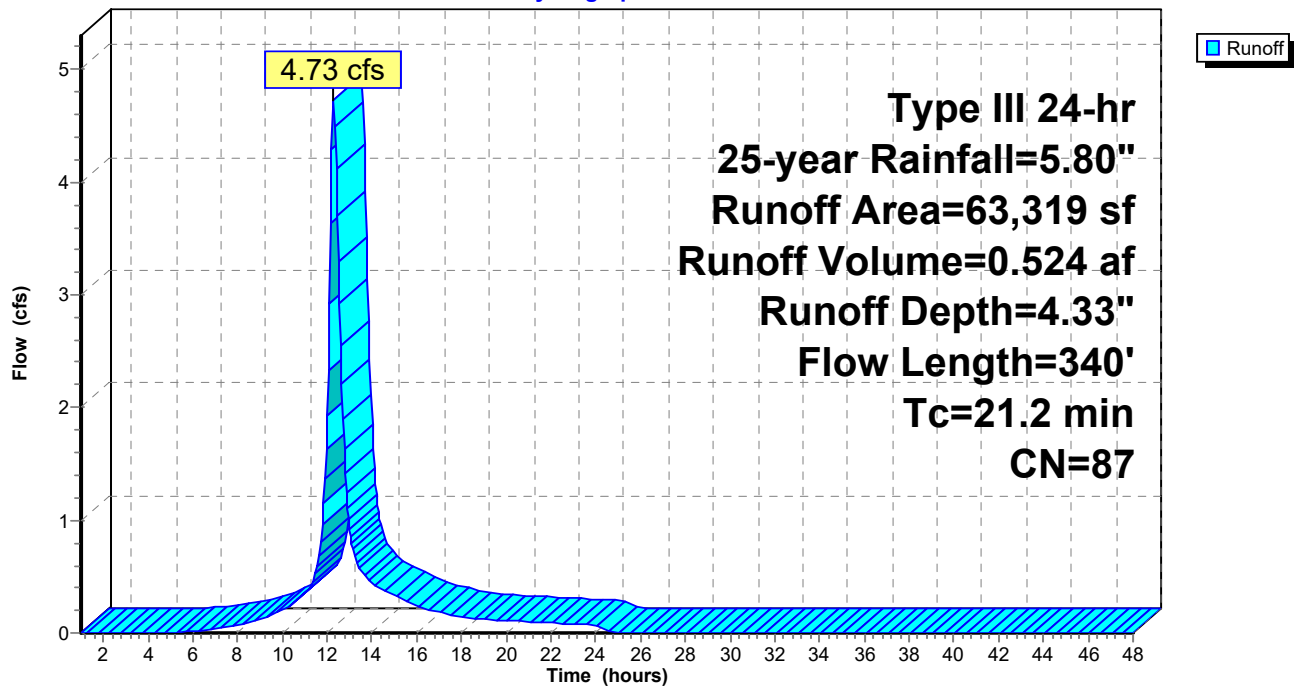
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-year Rainfall=5.80"

Area (sf)	CN	Description
14,209	49	50-75% Grass cover, Fair, HSG A
* 49,110	98	pave/roof
63,319	87	Weighted Average
14,209		22.44% Pervious Area
49,110		77.56% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
16.9	100	0.0050	0.10		Sheet Flow, A TO B Grass: Short n= 0.150 P2= 3.27"
3.6	154	0.0050	0.71		Shallow Concentrated Flow, C TO D Nearly Bare & Untilled Kv= 10.0 fps
0.7	86	0.0380	1.95		Shallow Concentrated Flow, D TO E Nearly Bare & Untilled Kv= 10.0 fps
21.2	340	Total			

Subcatchment 1A: 1

Hydrograph



Summary for Subcatchment 2A: 2

Runoff = 11.31 cfs @ 12.45 hrs, Volume= 1.486 af, Depth= 3.80"

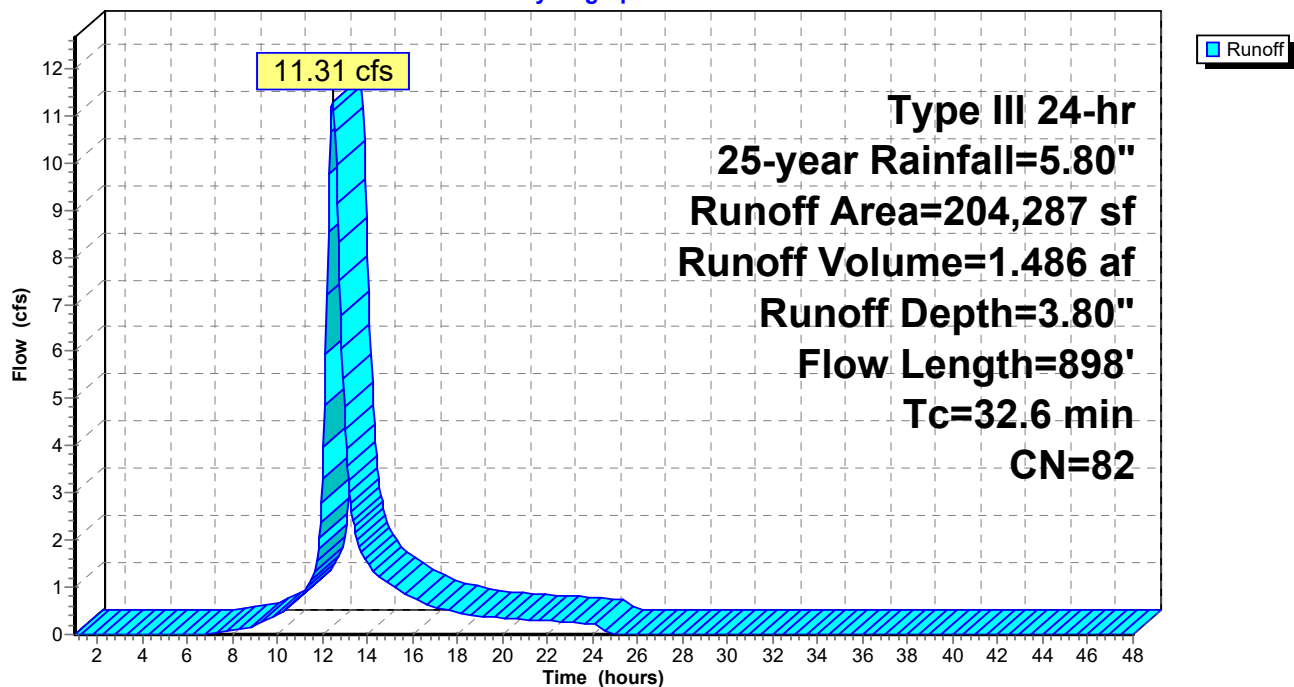
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-year Rainfall=5.80"

	Area (sf)	CN	Description
*	148,957	98	buildings/pave
	48,019	36	Woods, Fair, HSG A
	7,311	49	50-75% Grass cover, Fair, HSG A
	204,287	82	Weighted Average
	55,330		27.08% Pervious Area
	148,957		72.92% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.6	100	0.0100	1.05		Sheet Flow, A TO B Smooth surfaces n= 0.011 P2= 3.27"
1.4	237	0.0200	2.87		Shallow Concentrated Flow, B TO C Paved Kv= 20.3 fps
29.6	561	0.0160	0.32		Shallow Concentrated Flow, C TO D Forest w/Heavy Litter Kv= 2.5 fps
32.6	898	Total			

Subcatchment 2A: 2

Hydrograph



Summary for Reach POI 1: POI 1

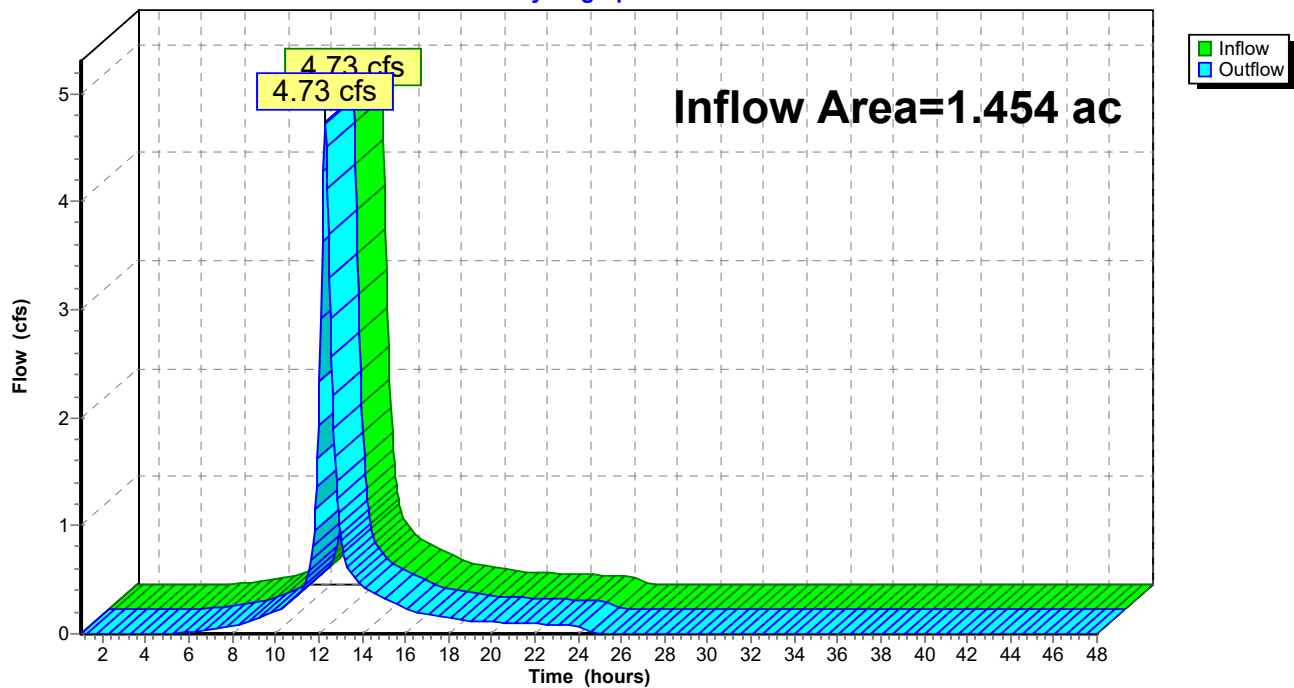
[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 1.454 ac, 77.56% Impervious, Inflow Depth = 4.33" for 25-year event
Inflow = 4.73 cfs @ 12.28 hrs, Volume= 0.524 af
Outflow = 4.73 cfs @ 12.28 hrs, Volume= 0.524 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs

Reach POI 1: POI 1

Hydrograph



Summary for Reach POI 2: POI 2

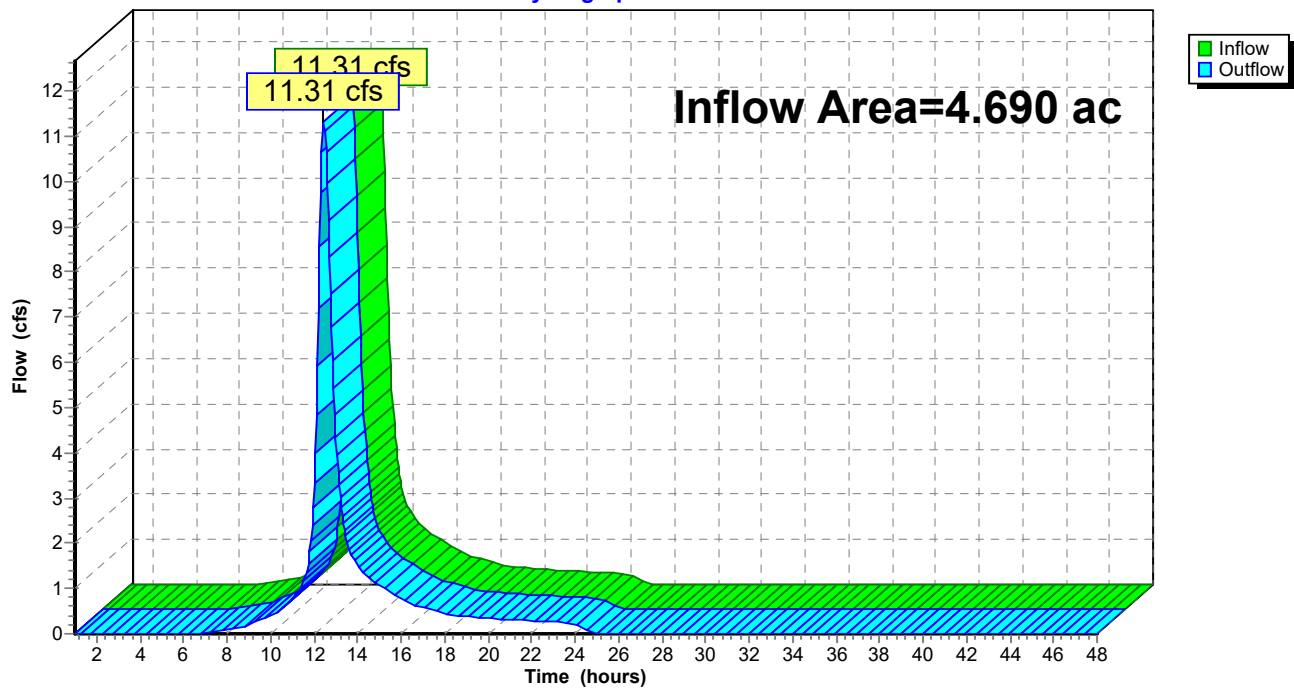
[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 4.690 ac, 72.92% Impervious, Inflow Depth = 3.80" for 25-year event
Inflow = 11.31 cfs @ 12.45 hrs, Volume= 1.486 af
Outflow = 11.31 cfs @ 12.45 hrs, Volume= 1.486 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs

Reach POI 2: POI 2

Hydrograph



Summary for Reach PRE: TOTAL PRE

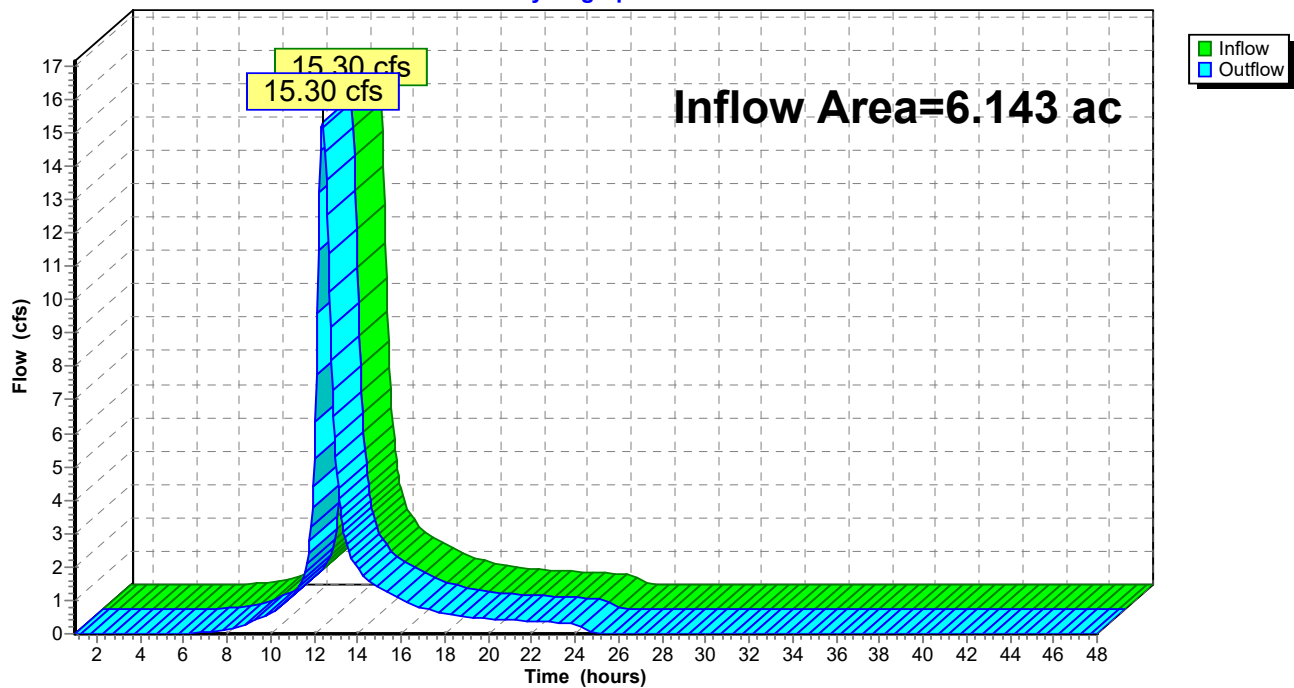
[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 6.143 ac, 74.01% Impervious, Inflow Depth = 3.93" for 25-year event
Inflow = 15.30 cfs @ 12.39 hrs, Volume= 2.011 af
Outflow = 15.30 cfs @ 12.39 hrs, Volume= 2.011 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs

Reach PRE: TOTAL PRE

Hydrograph



1176_PRE*Type III 24-hr Custom Rainfall=3.40"*

Prepared by HP

Printed 10/17/2022

HydroCAD® 10.00-26 s/n 00620 © 2020 HydroCAD Software Solutions LLC

Page 24

Time span=1.00-48.00 hrs, dt=0.05 hrs, 941 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment1A: 1

Runoff Area=63,319 sf 77.56% Impervious Runoff Depth=2.09"
Flow Length=340' Tc=21.2 min CN=87 Runoff=2.34 cfs 0.254 af

Subcatchment2A: 2

Runoff Area=204,287 sf 72.92% Impervious Runoff Depth=1.70"
Flow Length=898' Tc=32.6 min CN=82 Runoff=5.06 cfs 0.665 af

Reach POI 1: POI 1

Inflow=2.34 cfs 0.254 af
Outflow=2.34 cfs 0.254 af

Reach POI 2: POI 2

Inflow=5.06 cfs 0.665 af
Outflow=5.06 cfs 0.665 af

Reach PRE: TOTAL PRE

Inflow=7.01 cfs 0.918 af
Outflow=7.01 cfs 0.918 af

Total Runoff Area = 6.143 ac Runoff Volume = 0.918 af Average Runoff Depth = 1.79"
25.99% Pervious = 1.596 ac 74.01% Impervious = 4.547 ac

Summary for Subcatchment 1A: 1

Runoff = 2.34 cfs @ 12.29 hrs, Volume= 0.254 af, Depth= 2.09"

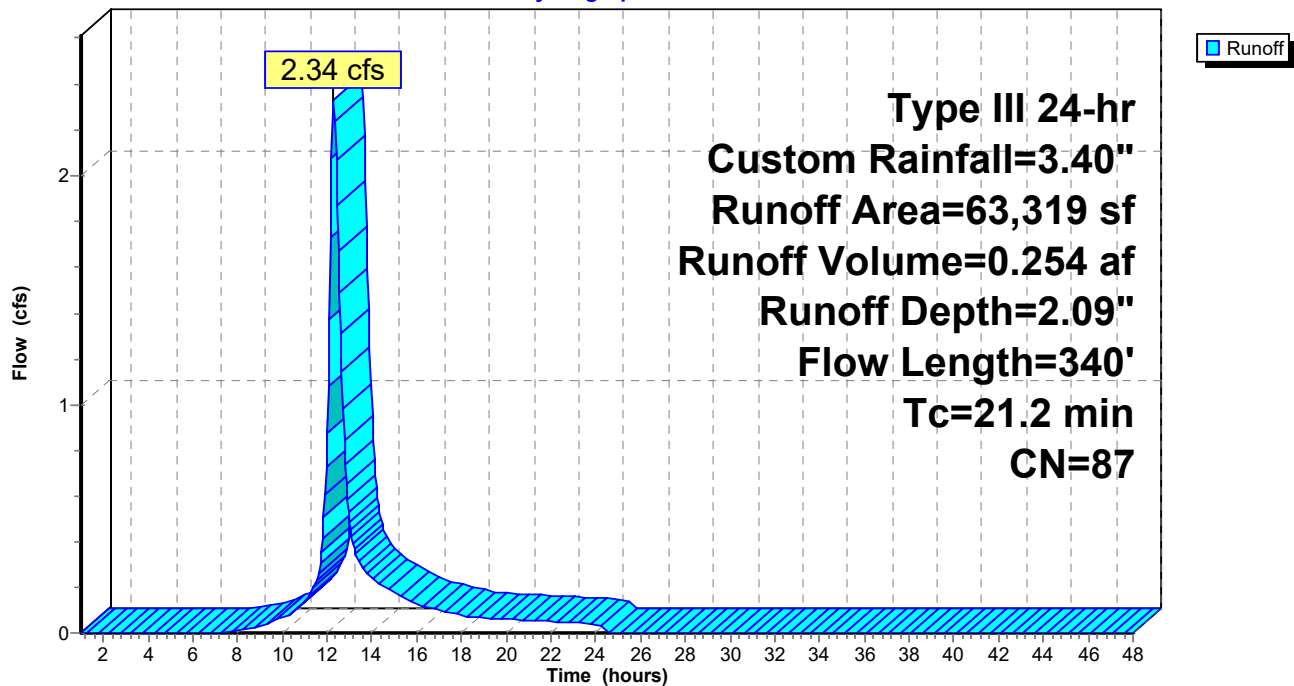
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
Type III 24-hr Custom Rainfall=3.40"

Area (sf)	CN	Description
14,209	49	50-75% Grass cover, Fair, HSG A
* 49,110	98	pave/roof
63,319	87	Weighted Average
14,209		22.44% Pervious Area
49,110		77.56% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
16.9	100	0.0050	0.10		Sheet Flow, A TO B Grass: Short n= 0.150 P2= 3.27"
3.6	154	0.0050	0.71		Shallow Concentrated Flow, C TO D Nearly Bare & Untilled Kv= 10.0 fps
0.7	86	0.0380	1.95		Shallow Concentrated Flow, D TO E Nearly Bare & Untilled Kv= 10.0 fps
21.2	340	Total			

Subcatchment 1A: 1

Hydrograph



Summary for Subcatchment 2A: 2

Runoff = 5.06 cfs @ 12.46 hrs, Volume= 0.665 af, Depth= 1.70"

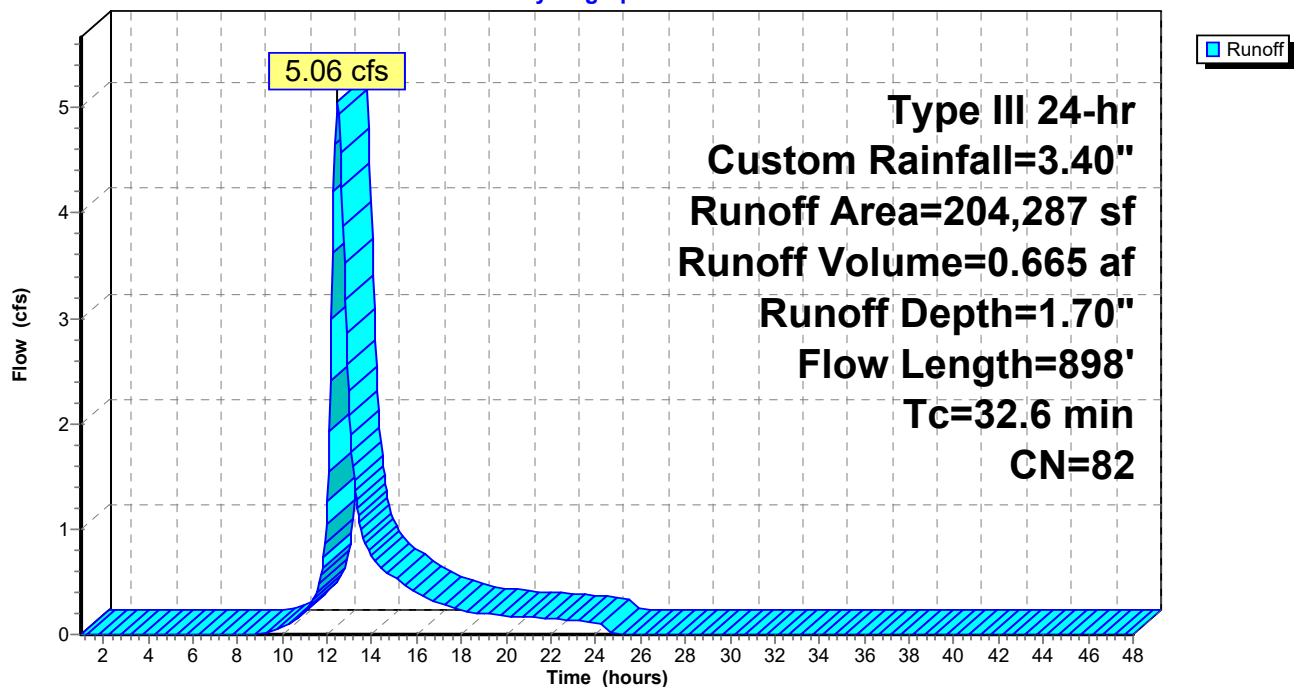
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
Type III 24-hr Custom Rainfall=3.40"

	Area (sf)	CN	Description
*	148,957	98	buildings/pave
	48,019	36	Woods, Fair, HSG A
	7,311	49	50-75% Grass cover, Fair, HSG A
	204,287	82	Weighted Average
	55,330		27.08% Pervious Area
	148,957		72.92% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.6	100	0.0100	1.05		Sheet Flow, A TO B Smooth surfaces n= 0.011 P2= 3.27"
1.4	237	0.0200	2.87		Shallow Concentrated Flow, B TO C Paved Kv= 20.3 fps
29.6	561	0.0160	0.32		Shallow Concentrated Flow, C TO D Forest w/Heavy Litter Kv= 2.5 fps
32.6	898	Total			

Subcatchment 2A: 2

Hydrograph



Summary for Reach POI 1: POI 1

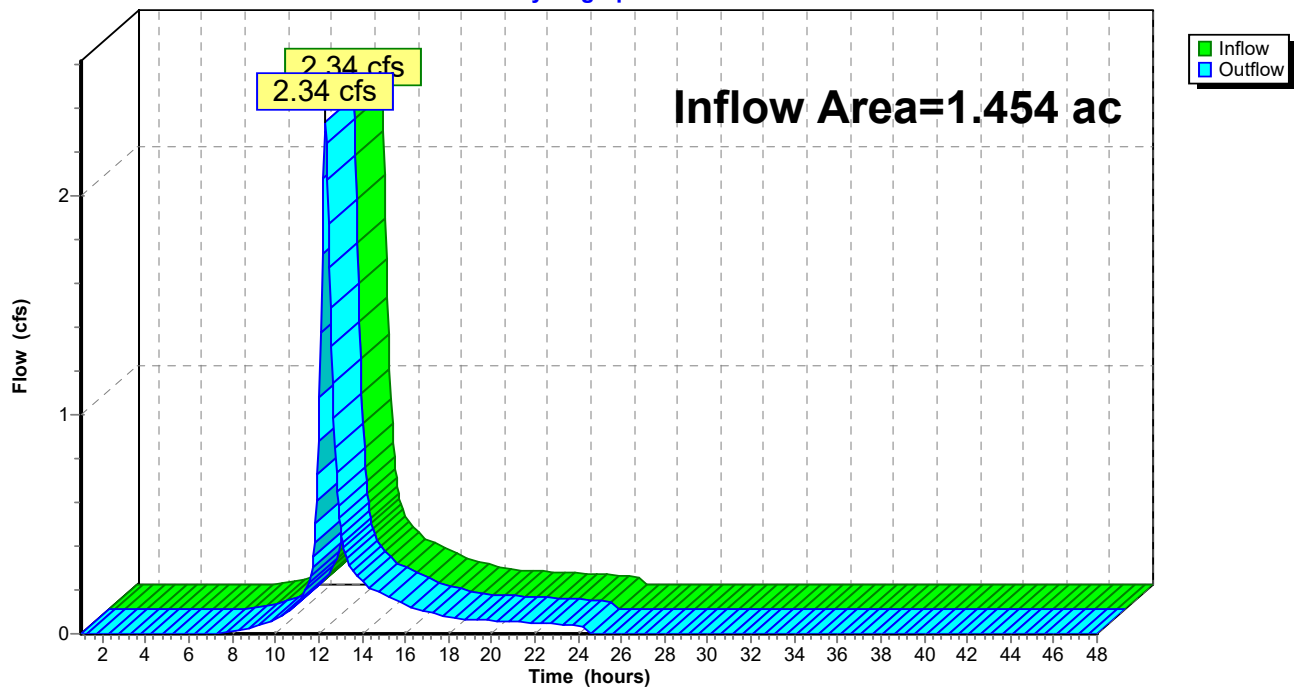
[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 1.454 ac, 77.56% Impervious, Inflow Depth = 2.09" for Custom event
Inflow = 2.34 cfs @ 12.29 hrs, Volume= 0.254 af
Outflow = 2.34 cfs @ 12.29 hrs, Volume= 0.254 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs

Reach POI 1: POI 1

Hydrograph

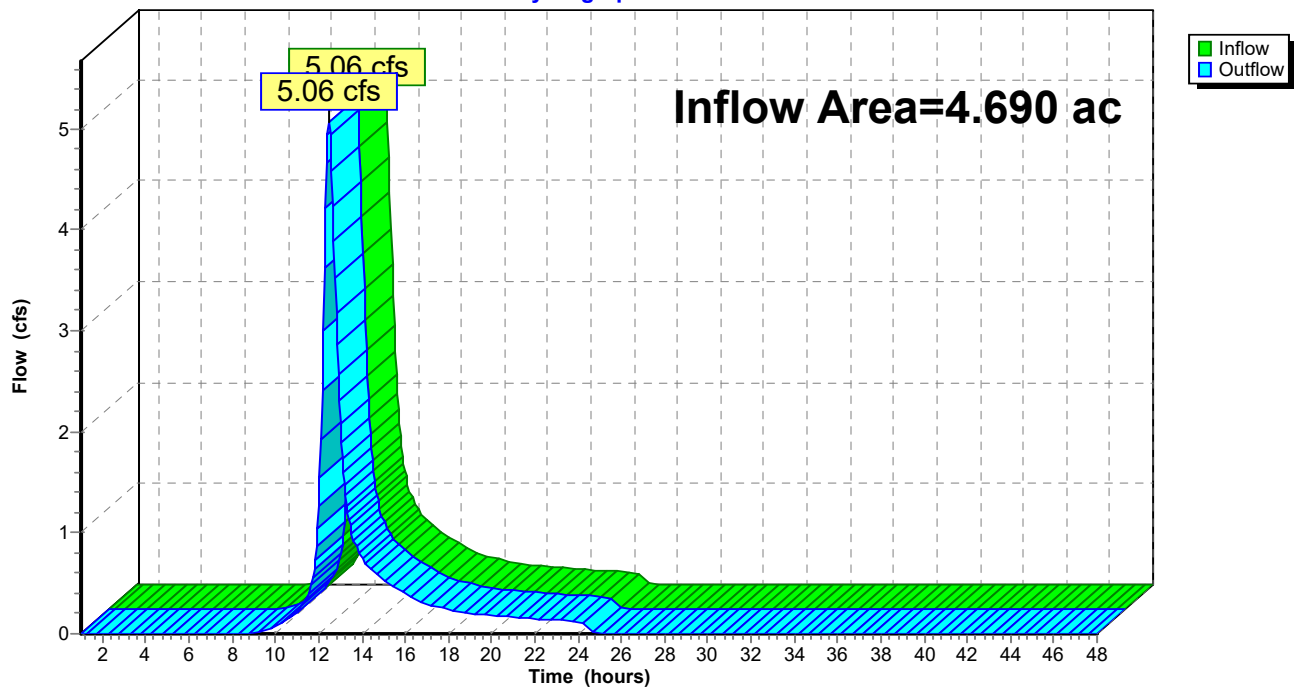


Summary for Reach POI 2: POI 2

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

Inflow Area = 4.690 ac, 72.92% Impervious, Inflow Depth = 1.70" for Custom event
Inflow = 5.06 cfs @ 12.46 hrs, Volume= 0.665 af
Outflow = 5.06 cfs @ 12.46 hrs, Volume= 0.665 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs

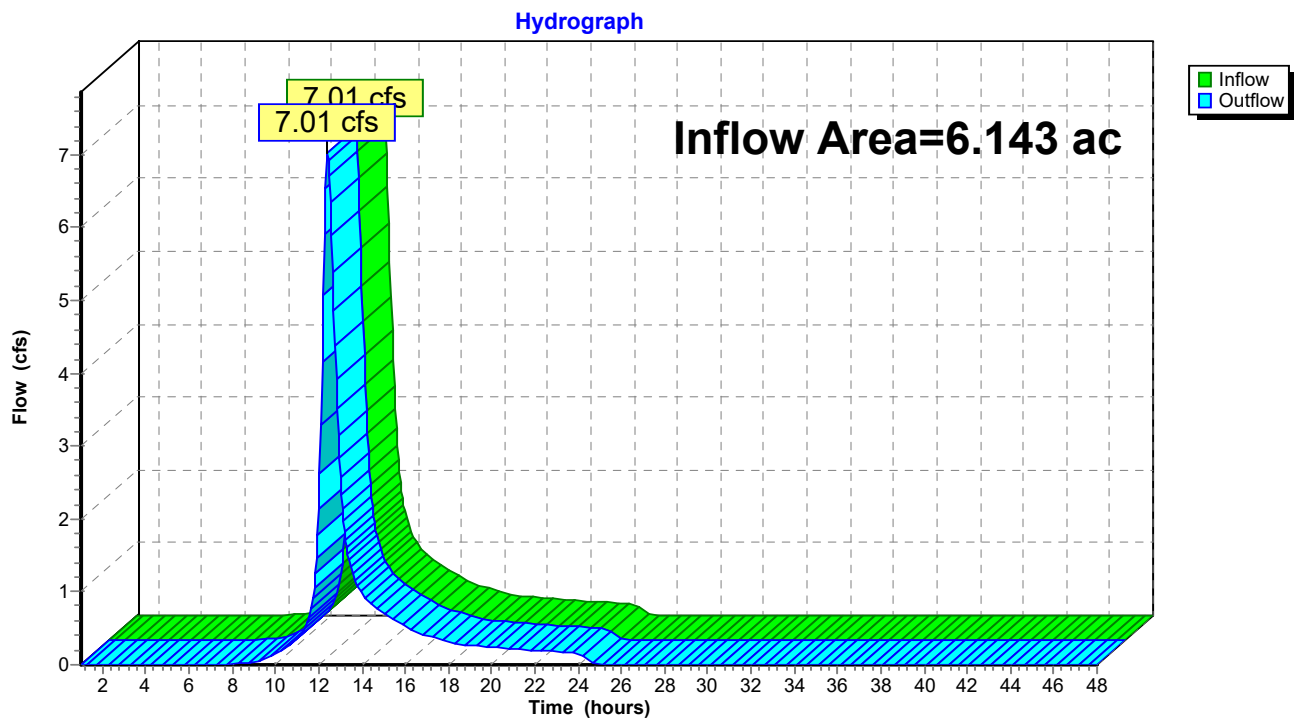
Reach POI 2: POI 2**Hydrograph**

Summary for Reach PRE: TOTAL PRE

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

Inflow Area = 6.143 ac, 74.01% Impervious, Inflow Depth = 1.79" for Custom event
Inflow = 7.01 cfs @ 12.40 hrs, Volume= 0.918 af
Outflow = 7.01 cfs @ 12.40 hrs, Volume= 0.918 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs

Reach PRE: TOTAL PRE

1176_PRE

Prepared by HP

HydroCAD® 10.00-26 s/n 00620 © 2020 HydroCAD Software Solutions LLC

Type III 24-hr WQ Rainfall=1.00"

Printed 10/17/2022

Page 30

Time span=1.00-48.00 hrs, dt=0.05 hrs, 941 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment1A: 1

Runoff Area=63,319 sf 77.56% Impervious Runoff Depth=0.22"
Flow Length=340' Tc=21.2 min CN=87 Runoff=0.21 cfs 0.027 af

Subcatchment2A: 2

Runoff Area=204,287 sf 72.92% Impervious Runoff Depth=0.11"
Flow Length=898' Tc=32.6 min CN=82 Runoff=0.21 cfs 0.045 af

Reach POI 1: POI 1

Inflow=0.21 cfs 0.027 af
Outflow=0.21 cfs 0.027 af

Reach POI 2: POI 2

Inflow=0.21 cfs 0.045 af
Outflow=0.21 cfs 0.045 af

Reach PRE: TOTAL PRE

Inflow=0.37 cfs 0.072 af
Outflow=0.37 cfs 0.072 af

Total Runoff Area = 6.143 ac Runoff Volume = 0.072 af Average Runoff Depth = 0.14"
25.99% Pervious = 1.596 ac 74.01% Impervious = 4.547 ac

Summary for Subcatchment 1A: 1

Runoff = 0.21 cfs @ 12.35 hrs, Volume= 0.027 af, Depth= 0.22"

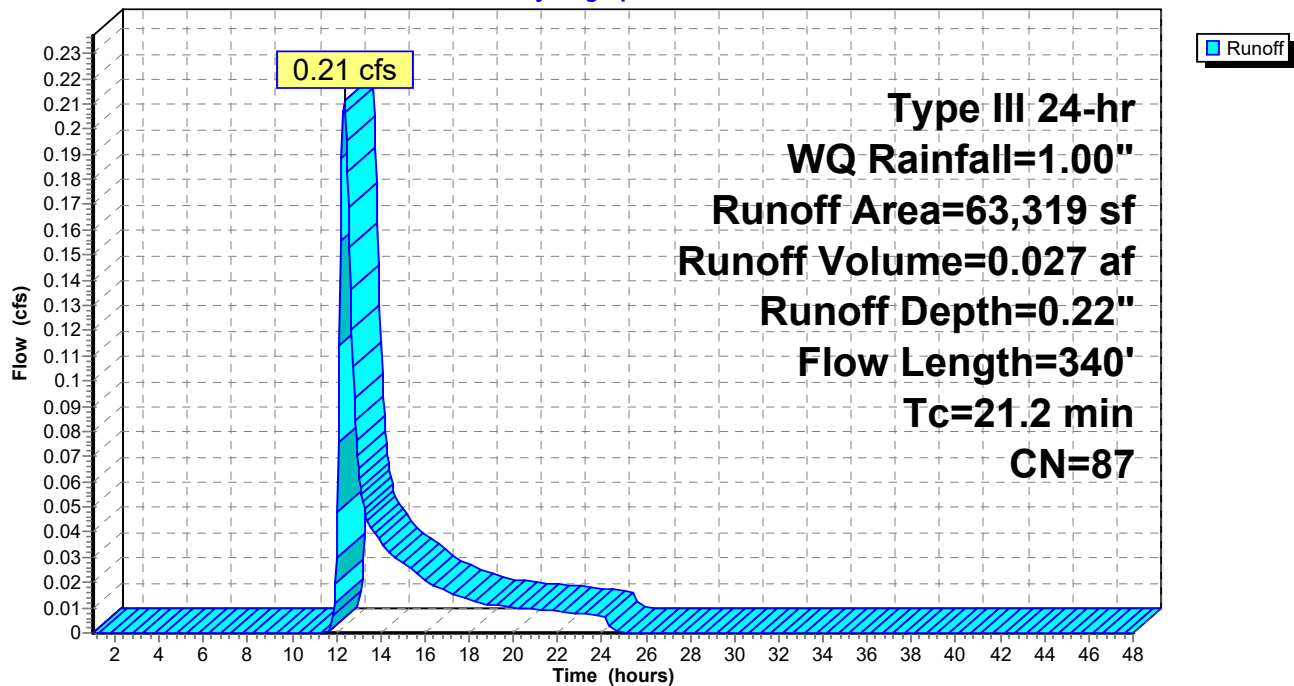
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
Type III 24-hr WQ Rainfall=1.00"

Area (sf)	CN	Description
14,209	49	50-75% Grass cover, Fair, HSG A
* 49,110	98	pave/roof
63,319	87	Weighted Average
14,209		22.44% Pervious Area
49,110		77.56% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
16.9	100	0.0050	0.10		Sheet Flow, A TO B Grass: Short n= 0.150 P2= 3.27"
3.6	154	0.0050	0.71		Shallow Concentrated Flow, C TO D Nearly Bare & Untilled Kv= 10.0 fps
0.7	86	0.0380	1.95		Shallow Concentrated Flow, D TO E Nearly Bare & Untilled Kv= 10.0 fps
21.2	340	Total			

Subcatchment 1A: 1

Hydrograph



Summary for Subcatchment 2A: 2

Runoff = 0.21 cfs @ 12.64 hrs, Volume= 0.045 af, Depth= 0.11"

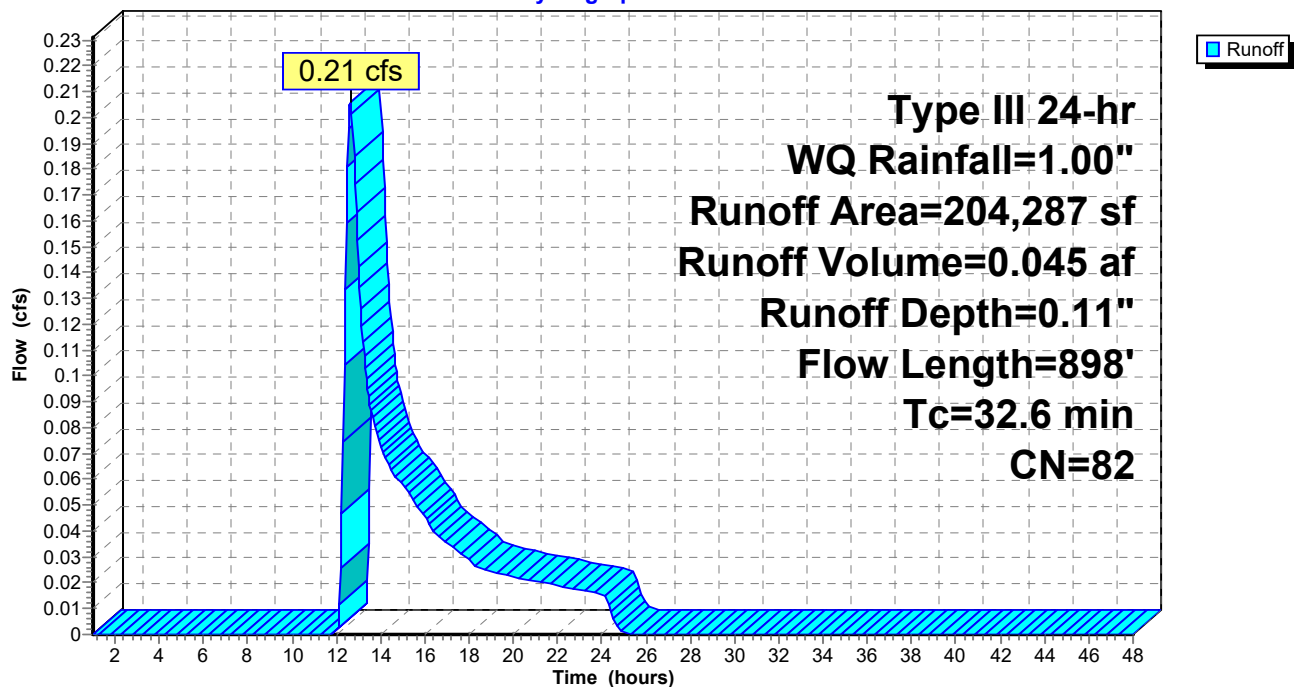
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
Type III 24-hr WQ Rainfall=1.00"

	Area (sf)	CN	Description
*	148,957	98	buildings/pave
	48,019	36	Woods, Fair, HSG A
	7,311	49	50-75% Grass cover, Fair, HSG A
	204,287	82	Weighted Average
	55,330		27.08% Pervious Area
	148,957		72.92% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.6	100	0.0100	1.05		Sheet Flow, A TO B Smooth surfaces n= 0.011 P2= 3.27"
1.4	237	0.0200	2.87		Shallow Concentrated Flow, B TO C Paved Kv= 20.3 fps
29.6	561	0.0160	0.32		Shallow Concentrated Flow, C TO D Forest w/Heavy Litter Kv= 2.5 fps
32.6	898	Total			

Subcatchment 2A: 2

Hydrograph

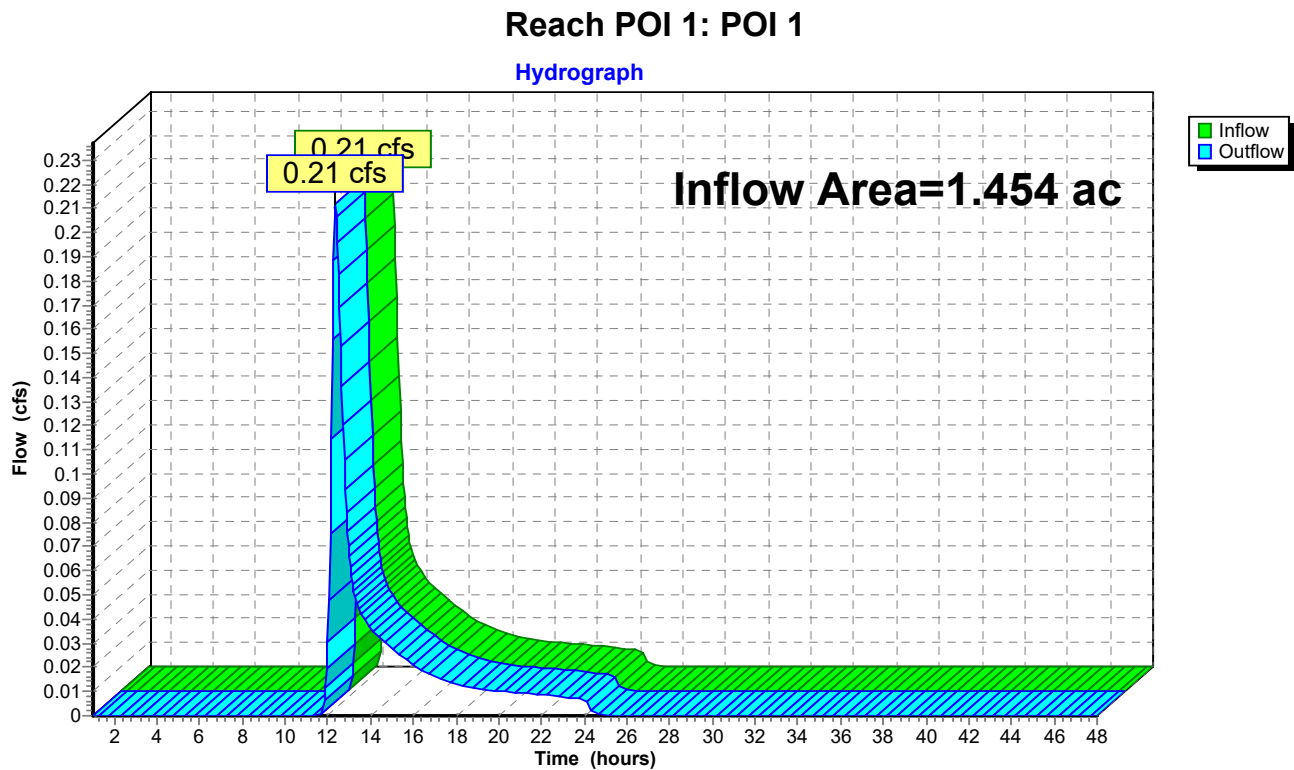


Summary for Reach POI 1: POI 1

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

Inflow Area = 1.454 ac, 77.56% Impervious, Inflow Depth = 0.22" for WQ event
Inflow = 0.21 cfs @ 12.35 hrs, Volume= 0.027 af
Outflow = 0.21 cfs @ 12.35 hrs, Volume= 0.027 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs



Summary for Reach POI 2: POI 2

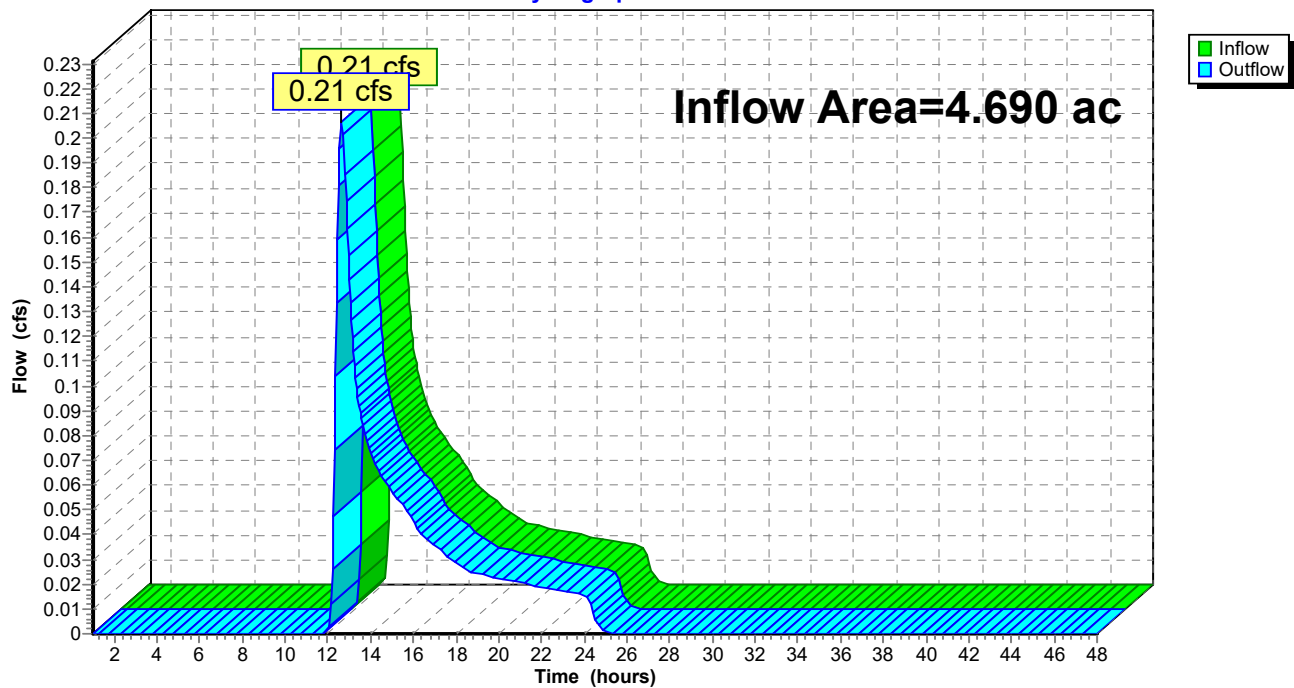
[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 4.690 ac, 72.92% Impervious, Inflow Depth = 0.11" for WQ event
Inflow = 0.21 cfs @ 12.64 hrs, Volume= 0.045 af
Outflow = 0.21 cfs @ 12.64 hrs, Volume= 0.045 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs

Reach POI 2: POI 2

Hydrograph



Summary for Reach PRE: TOTAL PRE

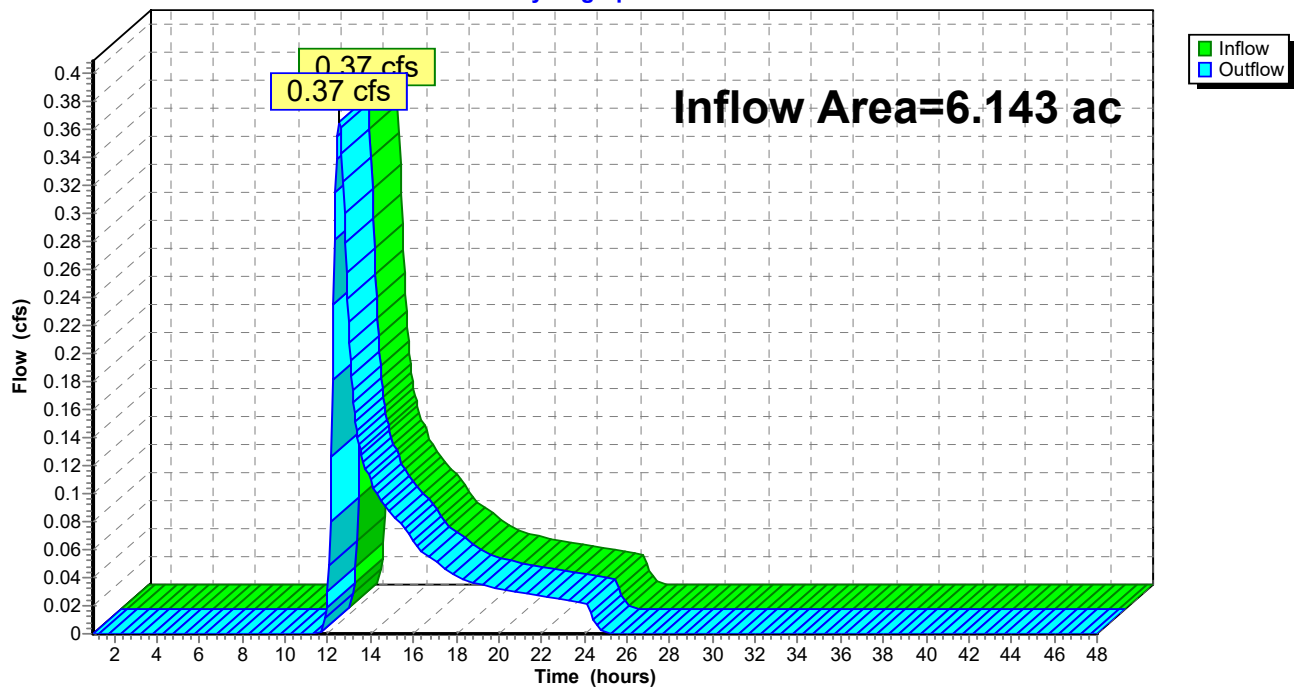
[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 6.143 ac, 74.01% Impervious, Inflow Depth = 0.14" for WQ event
Inflow = 0.37 cfs @ 12.53 hrs, Volume= 0.072 af
Outflow = 0.37 cfs @ 12.53 hrs, Volume= 0.072 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs

Reach PRE: TOTAL PRE

Hydrograph



1176_PRE*Type III 24-hr WQV USSF Rainfall=4.26"*

Prepared by HP

Printed 10/17/2022

HydroCAD® 10.00-26 s/n 00620 © 2020 HydroCAD Software Solutions LLC

Page 36

Time span=1.00-48.00 hrs, dt=0.05 hrs, 941 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment1A: 1

Runoff Area=63,319 sf 77.56% Impervious Runoff Depth=2.88"
Flow Length=340' Tc=21.2 min CN=87 Runoff=3.19 cfs 0.348 af

Subcatchment2A: 2

Runoff Area=204,287 sf 72.92% Impervious Runoff Depth=2.43"
Flow Length=898' Tc=32.6 min CN=82 Runoff=7.25 cfs 0.948 af

Reach POI 1: POI 1

Inflow=3.19 cfs 0.348 af
Outflow=3.19 cfs 0.348 af

Reach POI 2: POI 2

Inflow=7.25 cfs 0.948 af
Outflow=7.25 cfs 0.948 af

Reach PRE: TOTAL PRE

Inflow=9.93 cfs 1.297 af
Outflow=9.93 cfs 1.297 af

Total Runoff Area = 6.143 ac Runoff Volume = 1.297 af Average Runoff Depth = 2.53"
25.99% Pervious = 1.596 ac 74.01% Impervious = 4.547 ac

Summary for Subcatchment 1A: 1

Runoff = 3.19 cfs @ 12.29 hrs, Volume= 0.348 af, Depth= 2.88"

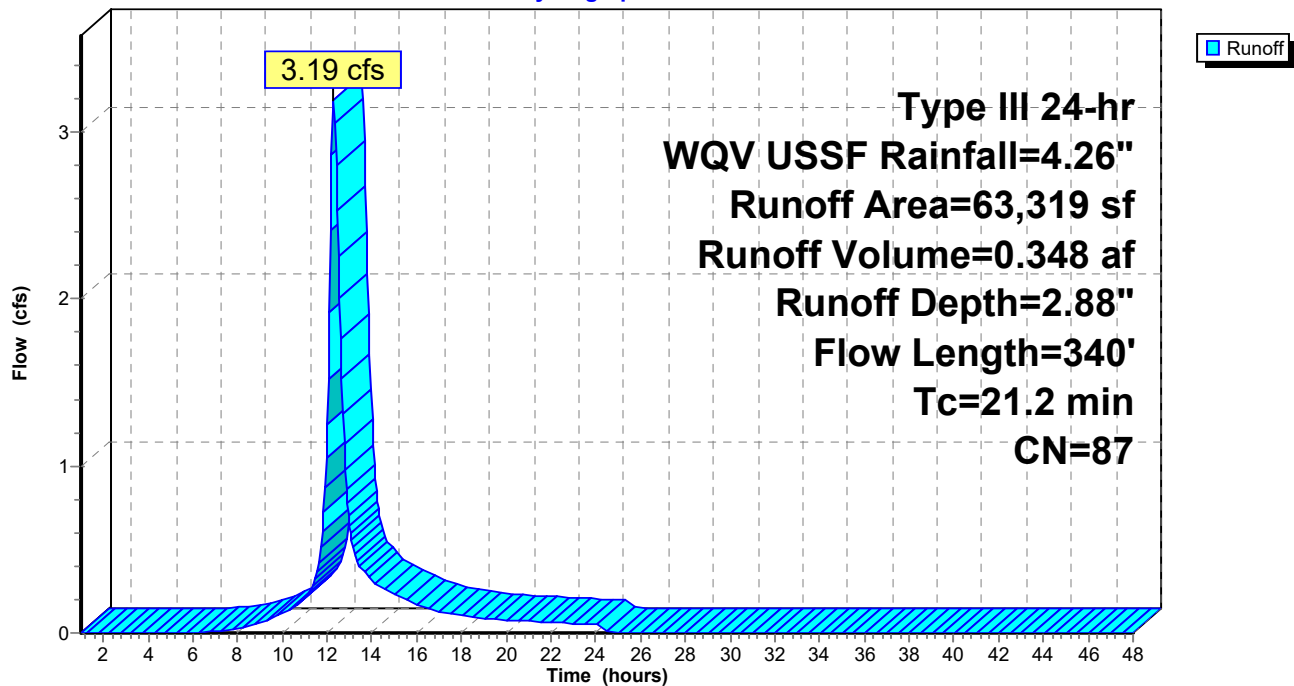
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
Type III 24-hr WQV USSF Rainfall=4.26"

Area (sf)	CN	Description
14,209	49	50-75% Grass cover, Fair, HSG A
* 49,110	98	pave/roof
63,319	87	Weighted Average
14,209		22.44% Pervious Area
49,110		77.56% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
16.9	100	0.0050	0.10		Sheet Flow, A TO B Grass: Short n= 0.150 P2= 3.27"
3.6	154	0.0050	0.71		Shallow Concentrated Flow, C TO D Nearly Bare & Untilled Kv= 10.0 fps
0.7	86	0.0380	1.95		Shallow Concentrated Flow, D TO E Nearly Bare & Untilled Kv= 10.0 fps
21.2	340	Total			

Subcatchment 1A: 1

Hydrograph



Summary for Subcatchment 2A: 2

Runoff = 7.25 cfs @ 12.45 hrs, Volume= 0.948 af, Depth= 2.43"

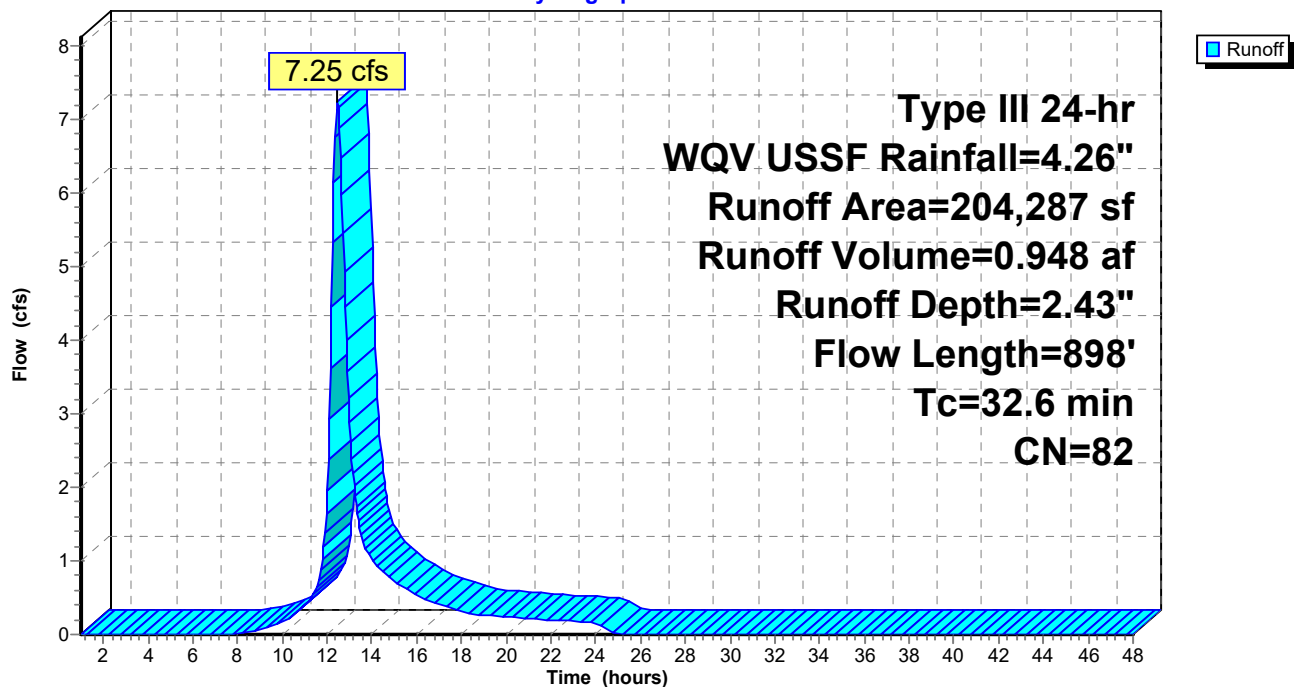
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
Type III 24-hr WQV USSF Rainfall=4.26"

	Area (sf)	CN	Description
*	148,957	98	buildings/pave
	48,019	36	Woods, Fair, HSG A
	7,311	49	50-75% Grass cover, Fair, HSG A
	204,287	82	Weighted Average
	55,330		27.08% Pervious Area
	148,957		72.92% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.6	100	0.0100	1.05		Sheet Flow, A TO B Smooth surfaces n= 0.011 P2= 3.27"
1.4	237	0.0200	2.87		Shallow Concentrated Flow, B TO C Paved Kv= 20.3 fps
29.6	561	0.0160	0.32		Shallow Concentrated Flow, C TO D Forest w/Heavy Litter Kv= 2.5 fps
32.6	898	Total			

Subcatchment 2A: 2

Hydrograph



Summary for Reach POI 1: POI 1

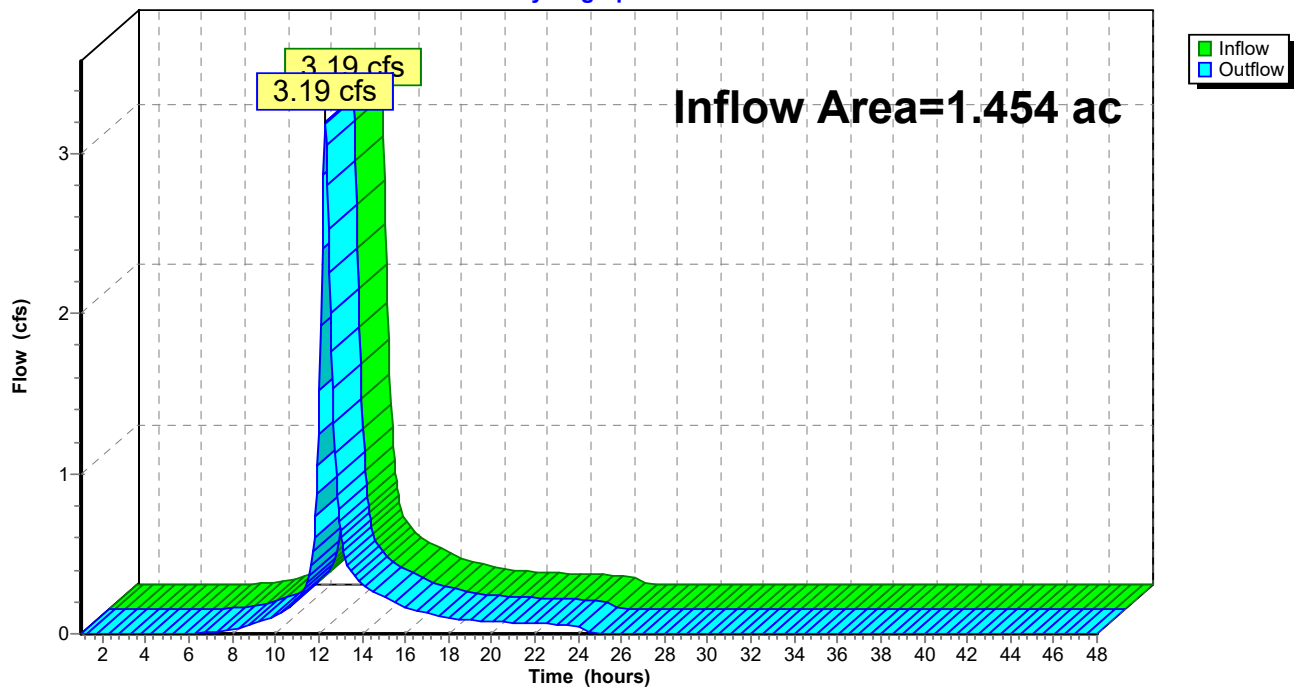
[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 1.454 ac, 77.56% Impervious, Inflow Depth = 2.88" for WQV USSF event
Inflow = 3.19 cfs @ 12.29 hrs, Volume= 0.348 af
Outflow = 3.19 cfs @ 12.29 hrs, Volume= 0.348 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs

Reach POI 1: POI 1

Hydrograph



Summary for Reach POI 2: POI 2

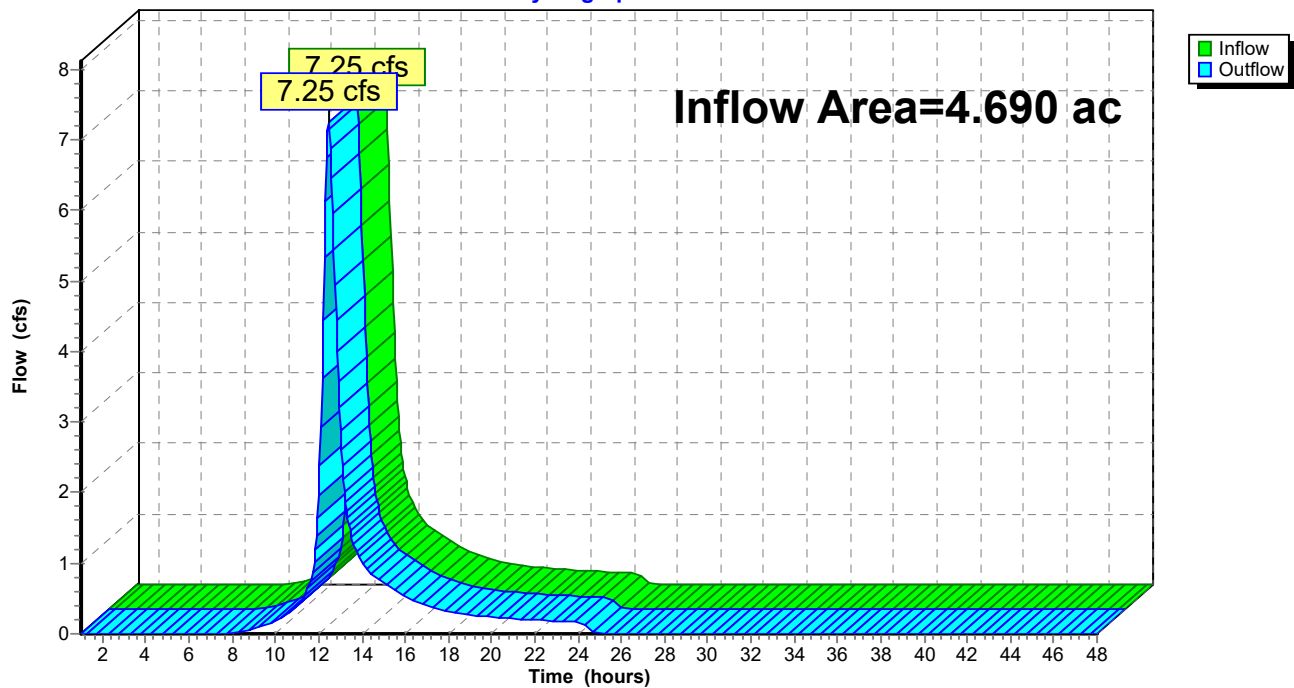
[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 4.690 ac, 72.92% Impervious, Inflow Depth = 2.43" for WQV USSF event
Inflow = 7.25 cfs @ 12.45 hrs, Volume= 0.948 af
Outflow = 7.25 cfs @ 12.45 hrs, Volume= 0.948 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs

Reach POI 2: POI 2

Hydrograph

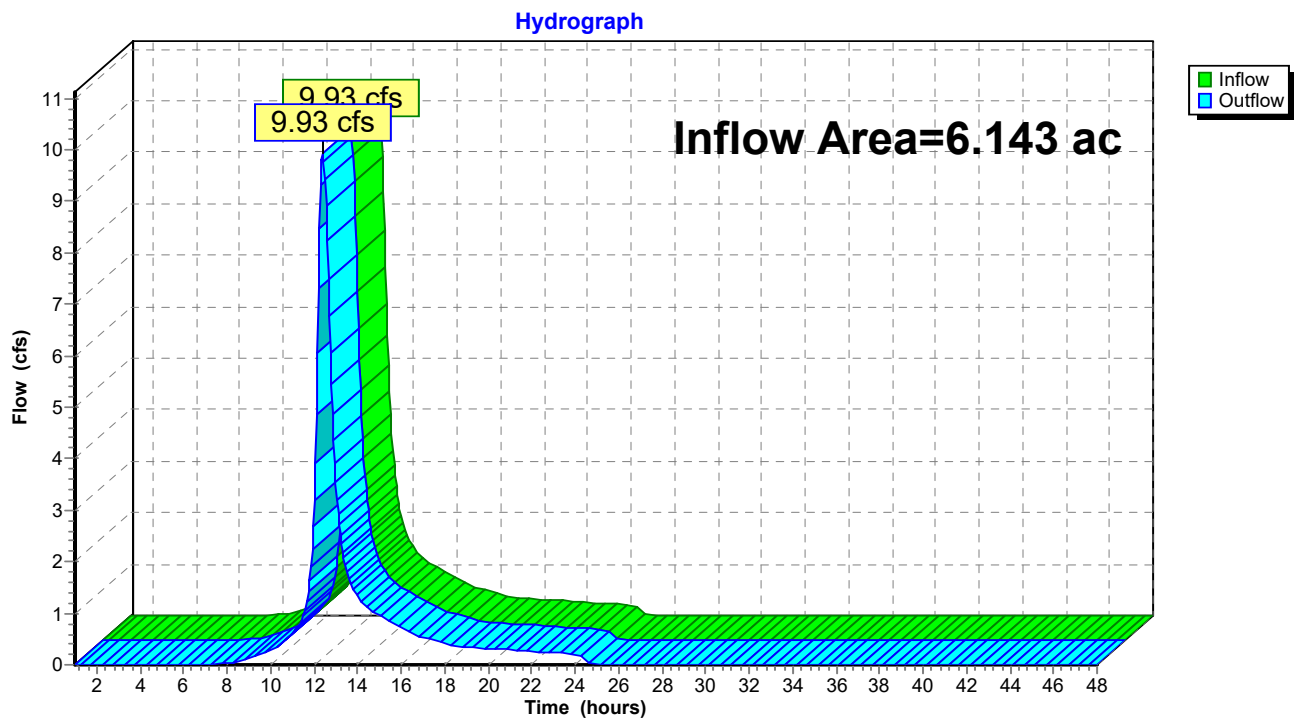


Summary for Reach PRE: TOTAL PRE

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

Inflow Area = 6.143 ac, 74.01% Impervious, Inflow Depth = 2.53" for WQV USSF event
Inflow = 9.93 cfs @ 12.40 hrs, Volume= 1.297 af
Outflow = 9.93 cfs @ 12.40 hrs, Volume= 1.297 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs

Reach PRE: TOTAL PRE

1176_PRE*Type III 24-hr WQV USSF 1 Rainfall=4.26"*

Prepared by HP

Printed 10/17/2022

HydroCAD® 10.00-26 s/n 00620 © 2020 HydroCAD Software Solutions LLC

Page 42

Time span=1.00-48.00 hrs, dt=0.05 hrs, 941 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment1A: 1

Runoff Area=63,319 sf 77.56% Impervious Runoff Depth=2.88"
Flow Length=340' Tc=21.2 min CN=87 Runoff=3.19 cfs 0.348 af

Subcatchment2A: 2

Runoff Area=204,287 sf 72.92% Impervious Runoff Depth=2.43"
Flow Length=898' Tc=32.6 min CN=82 Runoff=7.25 cfs 0.948 af

Reach POI 1: POI 1

Inflow=3.19 cfs 0.348 af
Outflow=3.19 cfs 0.348 af

Reach POI 2: POI 2

Inflow=7.25 cfs 0.948 af
Outflow=7.25 cfs 0.948 af

Reach PRE: TOTAL PRE

Inflow=9.93 cfs 1.297 af
Outflow=9.93 cfs 1.297 af

Total Runoff Area = 6.143 ac Runoff Volume = 1.297 af Average Runoff Depth = 2.53"
25.99% Pervious = 1.596 ac 74.01% Impervious = 4.547 ac

Summary for Subcatchment 1A: 1

Runoff = 3.19 cfs @ 12.29 hrs, Volume= 0.348 af, Depth= 2.88"

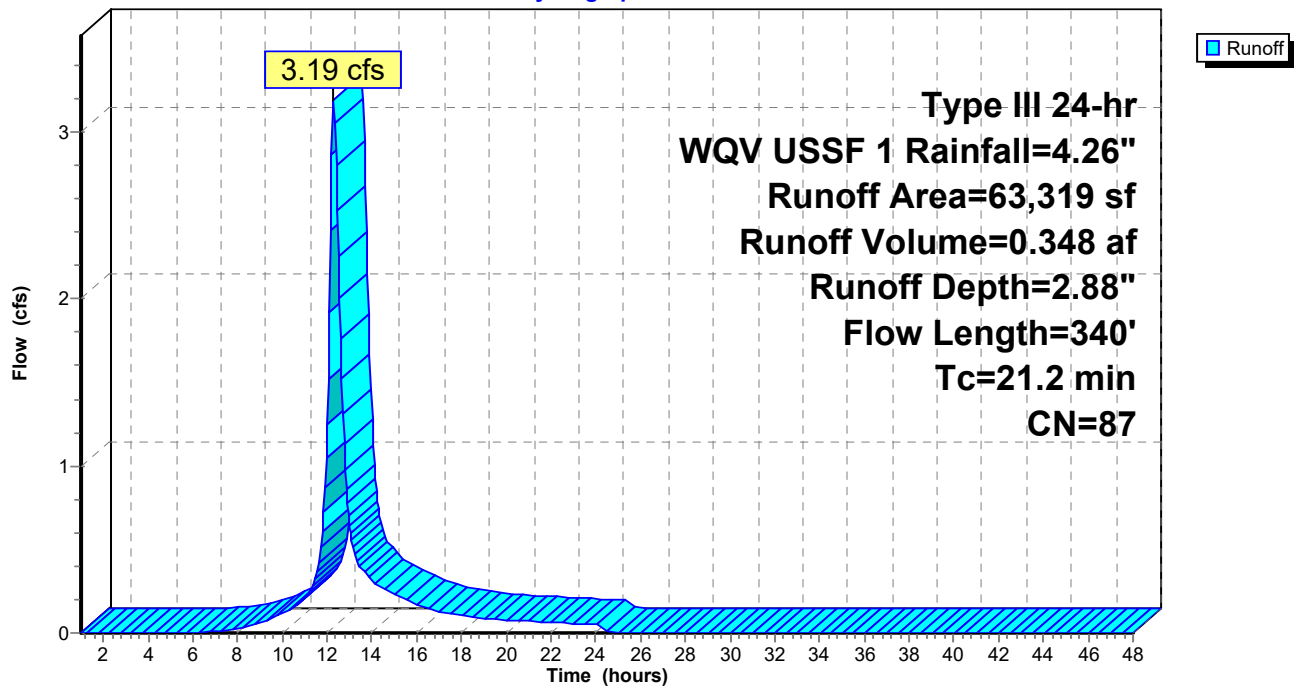
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
Type III 24-hr WQV USSF 1 Rainfall=4.26"

Area (sf)	CN	Description
14,209	49	50-75% Grass cover, Fair, HSG A
* 49,110	98	pave/roof
63,319	87	Weighted Average
14,209		22.44% Pervious Area
49,110		77.56% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
16.9	100	0.0050	0.10		Sheet Flow, A TO B Grass: Short n= 0.150 P2= 3.27"
3.6	154	0.0050	0.71		Shallow Concentrated Flow, C TO D Nearly Bare & Untilled Kv= 10.0 fps
0.7	86	0.0380	1.95		Shallow Concentrated Flow, D TO E Nearly Bare & Untilled Kv= 10.0 fps
21.2	340	Total			

Subcatchment 1A: 1

Hydrograph



Summary for Subcatchment 2A: 2

Runoff = 7.25 cfs @ 12.45 hrs, Volume= 0.948 af, Depth= 2.43"

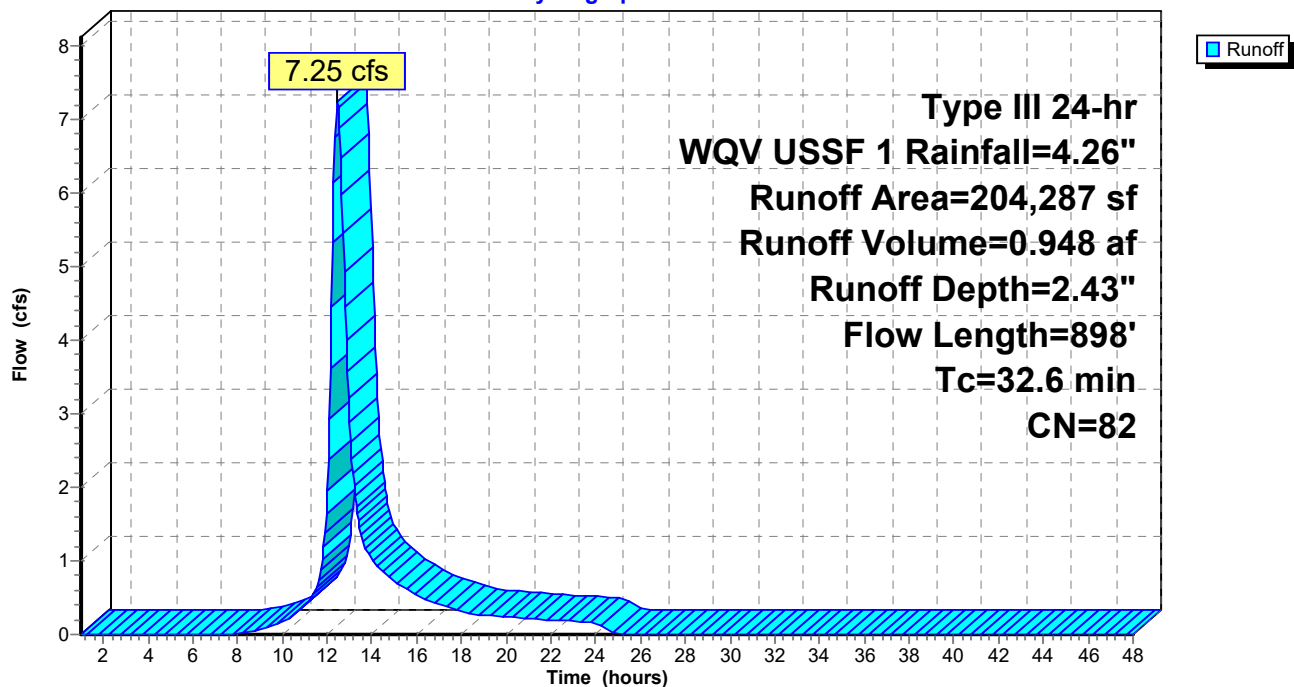
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
Type III 24-hr WQV USSF 1 Rainfall=4.26"

	Area (sf)	CN	Description
*	148,957	98	buildings/pave
	48,019	36	Woods, Fair, HSG A
	7,311	49	50-75% Grass cover, Fair, HSG A
	204,287	82	Weighted Average
	55,330		27.08% Pervious Area
	148,957		72.92% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.6	100	0.0100	1.05		Sheet Flow, A TO B Smooth surfaces n= 0.011 P2= 3.27"
1.4	237	0.0200	2.87		Shallow Concentrated Flow, B TO C Paved Kv= 20.3 fps
29.6	561	0.0160	0.32		Shallow Concentrated Flow, C TO D Forest w/Heavy Litter Kv= 2.5 fps
32.6	898	Total			

Subcatchment 2A: 2

Hydrograph



Summary for Reach POI 1: POI 1

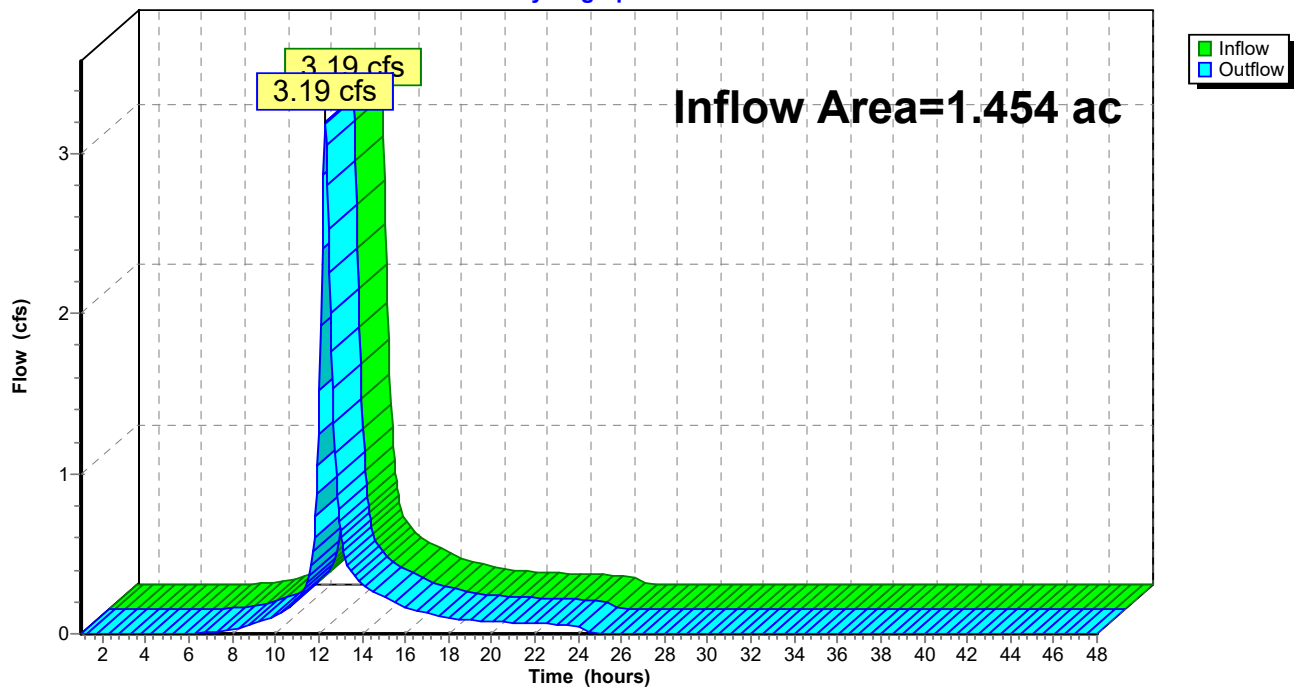
[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 1.454 ac, 77.56% Impervious, Inflow Depth = 2.88" for WQV USSF 1 event
Inflow = 3.19 cfs @ 12.29 hrs, Volume= 0.348 af
Outflow = 3.19 cfs @ 12.29 hrs, Volume= 0.348 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs

Reach POI 1: POI 1

Hydrograph



Summary for Reach POI 2: POI 2

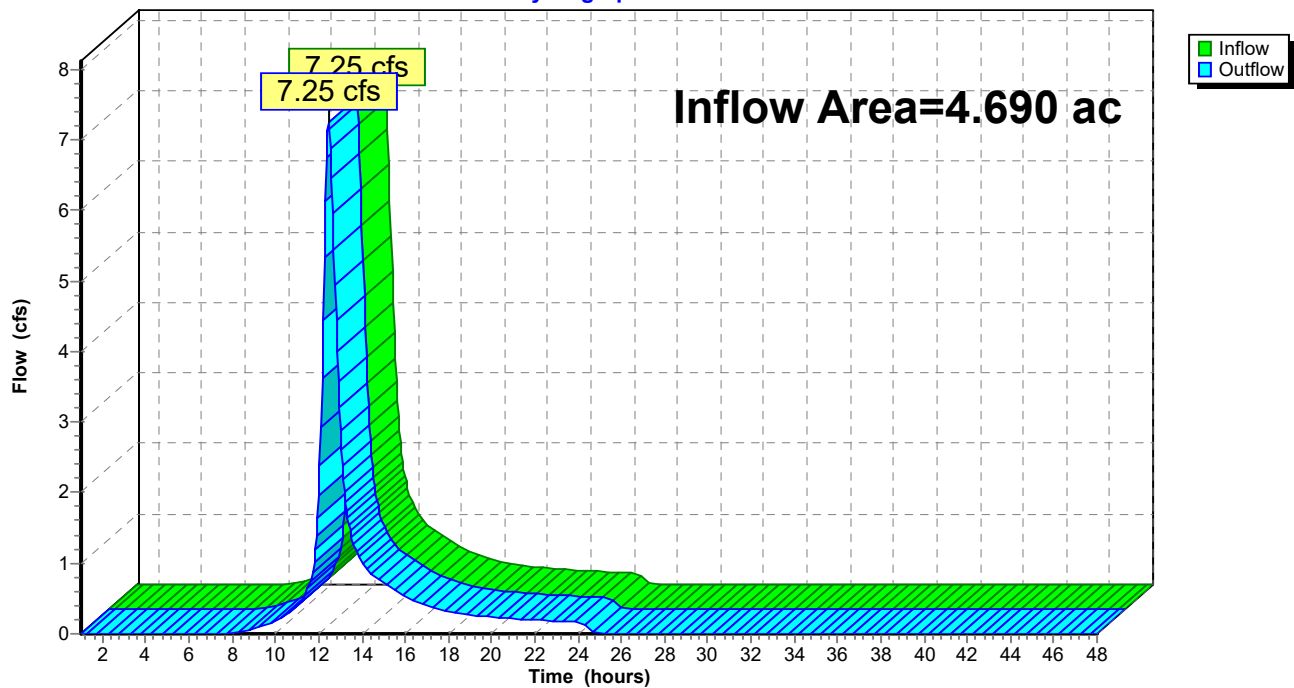
[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 4.690 ac, 72.92% Impervious, Inflow Depth = 2.43" for WQV USSF 1 event
Inflow = 7.25 cfs @ 12.45 hrs, Volume= 0.948 af
Outflow = 7.25 cfs @ 12.45 hrs, Volume= 0.948 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs

Reach POI 2: POI 2

Hydrograph

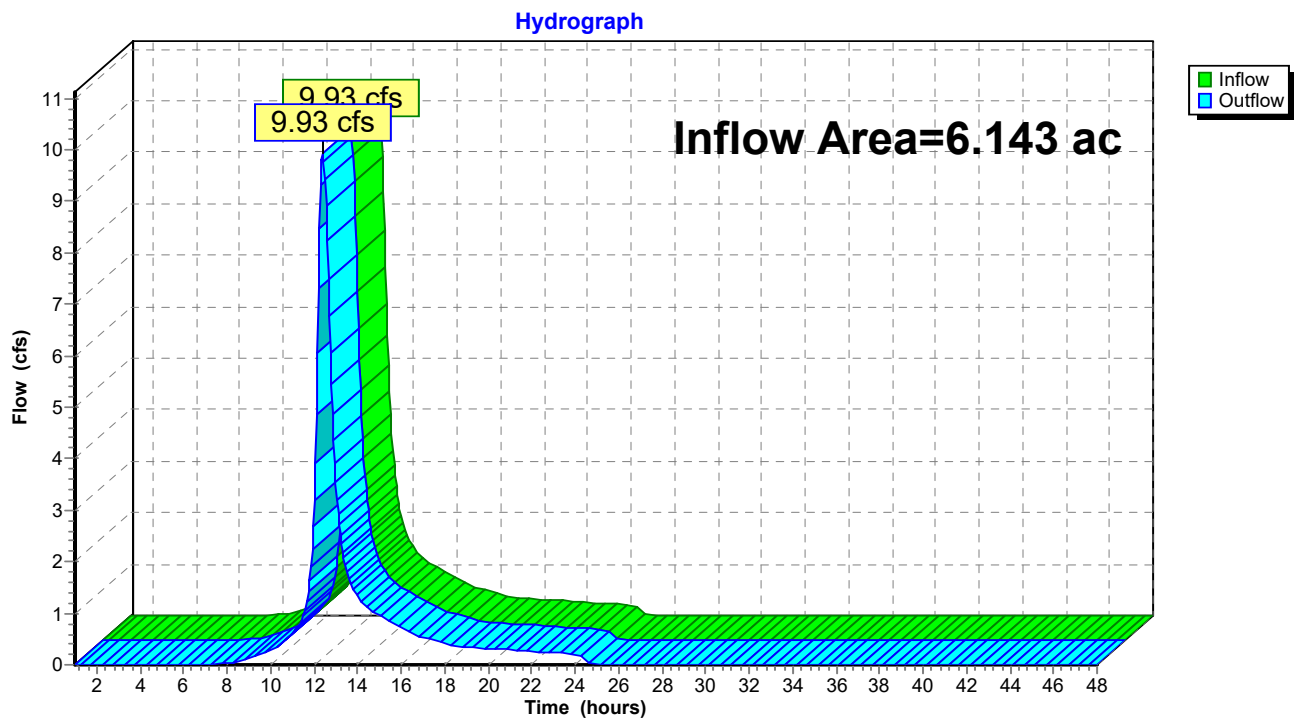


Summary for Reach PRE: TOTAL PRE

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

Inflow Area = 6.143 ac, 74.01% Impervious, Inflow Depth = 2.53" for WQV USSF 1 event
Inflow = 9.93 cfs @ 12.40 hrs, Volume= 1.297 af
Outflow = 9.93 cfs @ 12.40 hrs, Volume= 1.297 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs

Reach PRE: TOTAL PRE

1176_PRE*Type III 24-hr WQV USSF 2 Rainfall=3.24"*

Prepared by HP

Printed 10/17/2022

HydroCAD® 10.00-26 s/n 00620 © 2020 HydroCAD Software Solutions LLC

Page 48

Time span=1.00-48.00 hrs, dt=0.05 hrs, 941 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment1A: 1

Runoff Area=63,319 sf 77.56% Impervious Runoff Depth=1.95"
Flow Length=340' Tc=21.2 min CN=87 Runoff=2.18 cfs 0.236 af

Subcatchment2A: 2

Runoff Area=204,287 sf 72.92% Impervious Runoff Depth=1.57"
Flow Length=898' Tc=32.6 min CN=82 Runoff=4.67 cfs 0.614 af

Reach POI 1: POI 1

Inflow=2.18 cfs 0.236 af
Outflow=2.18 cfs 0.236 af

Reach POI 2: POI 2

Inflow=4.67 cfs 0.614 af
Outflow=4.67 cfs 0.614 af

Reach PRE: TOTAL PRE

Inflow=6.49 cfs 0.850 af
Outflow=6.49 cfs 0.850 af

Total Runoff Area = 6.143 ac Runoff Volume = 0.850 af Average Runoff Depth = 1.66"
25.99% Pervious = 1.596 ac 74.01% Impervious = 4.547 ac

Summary for Subcatchment 1A: 1

Runoff = 2.18 cfs @ 12.29 hrs, Volume= 0.236 af, Depth= 1.95"

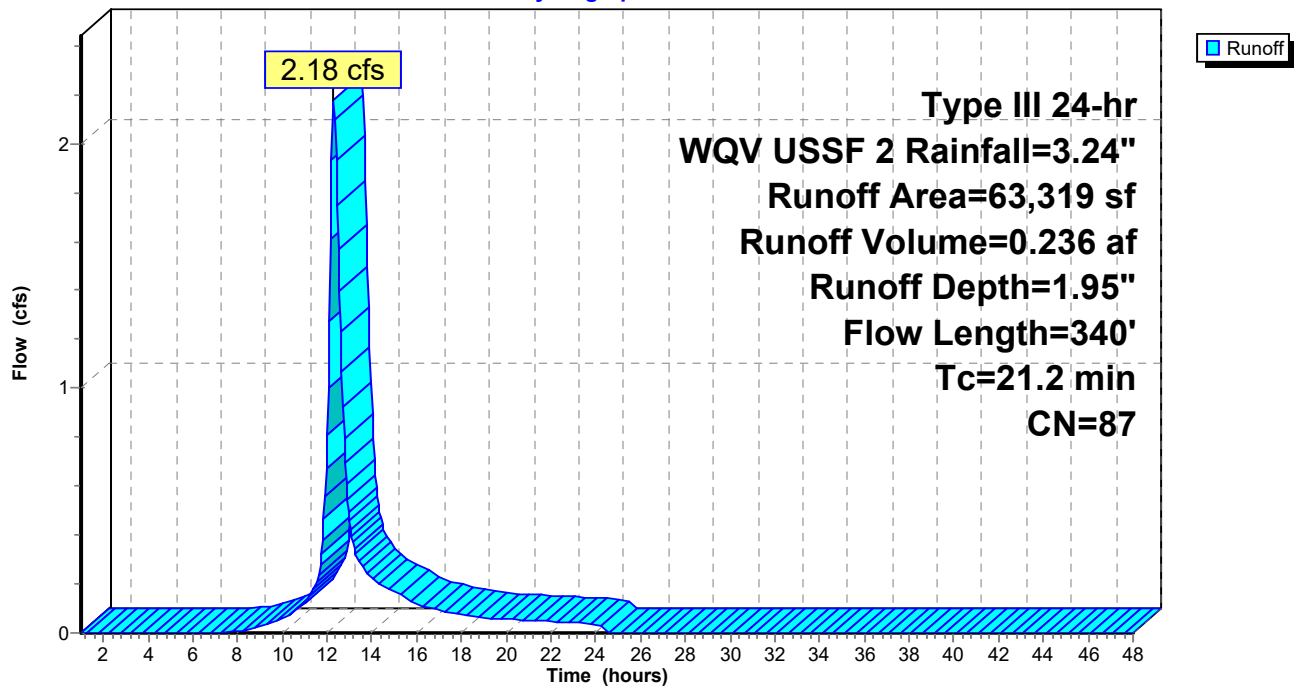
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
Type III 24-hr WQV USSF 2 Rainfall=3.24"

Area (sf)	CN	Description
14,209	49	50-75% Grass cover, Fair, HSG A
* 49,110	98	pave/roof
63,319	87	Weighted Average
14,209		22.44% Pervious Area
49,110		77.56% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
16.9	100	0.0050	0.10		Sheet Flow, A TO B Grass: Short n= 0.150 P2= 3.27"
3.6	154	0.0050	0.71		Shallow Concentrated Flow, C TO D Nearly Bare & Untilled Kv= 10.0 fps
0.7	86	0.0380	1.95		Shallow Concentrated Flow, D TO E Nearly Bare & Untilled Kv= 10.0 fps
21.2	340	Total			

Subcatchment 1A: 1

Hydrograph



Summary for Subcatchment 2A: 2

Runoff = 4.67 cfs @ 12.46 hrs, Volume= 0.614 af, Depth= 1.57"

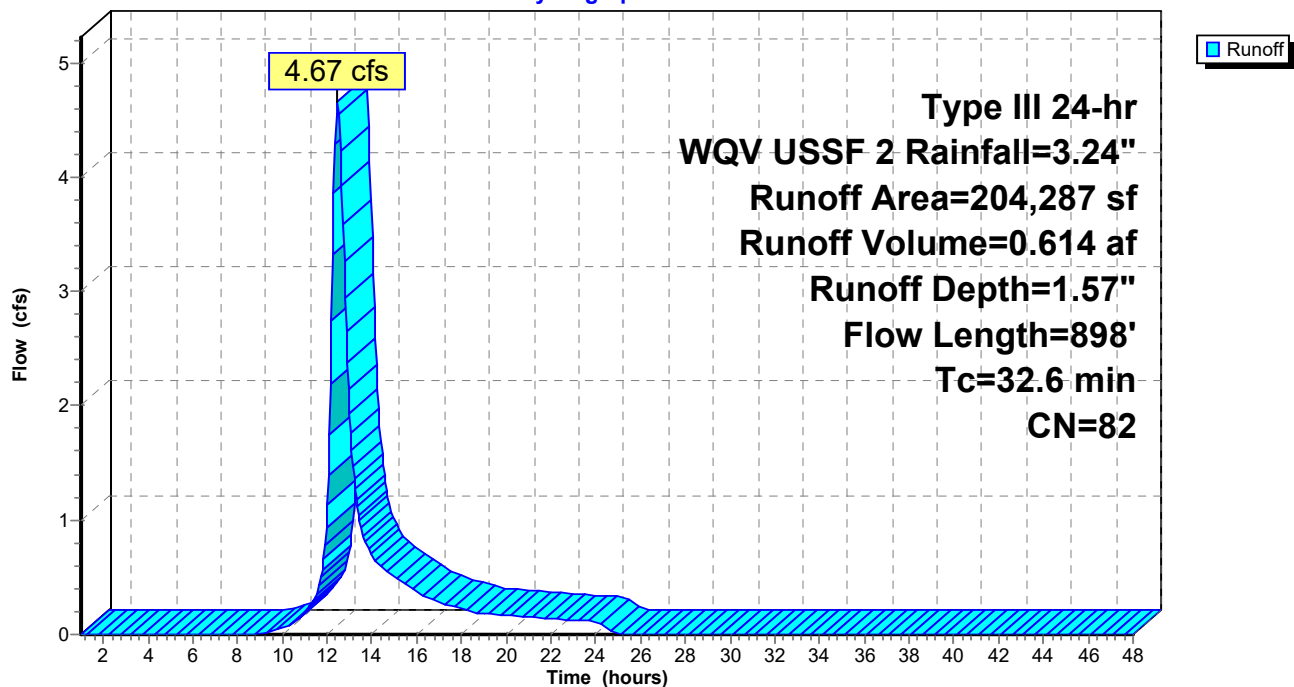
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
Type III 24-hr WQV USSF 2 Rainfall=3.24"

	Area (sf)	CN	Description
*	148,957	98	buildings/pave
	48,019	36	Woods, Fair, HSG A
	7,311	49	50-75% Grass cover, Fair, HSG A
	204,287	82	Weighted Average
	55,330		27.08% Pervious Area
	148,957		72.92% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.6	100	0.0100	1.05		Sheet Flow, A TO B Smooth surfaces n= 0.011 P2= 3.27"
1.4	237	0.0200	2.87		Shallow Concentrated Flow, B TO C Paved Kv= 20.3 fps
29.6	561	0.0160	0.32		Shallow Concentrated Flow, C TO D Forest w/Heavy Litter Kv= 2.5 fps
32.6	898	Total			

Subcatchment 2A: 2

Hydrograph

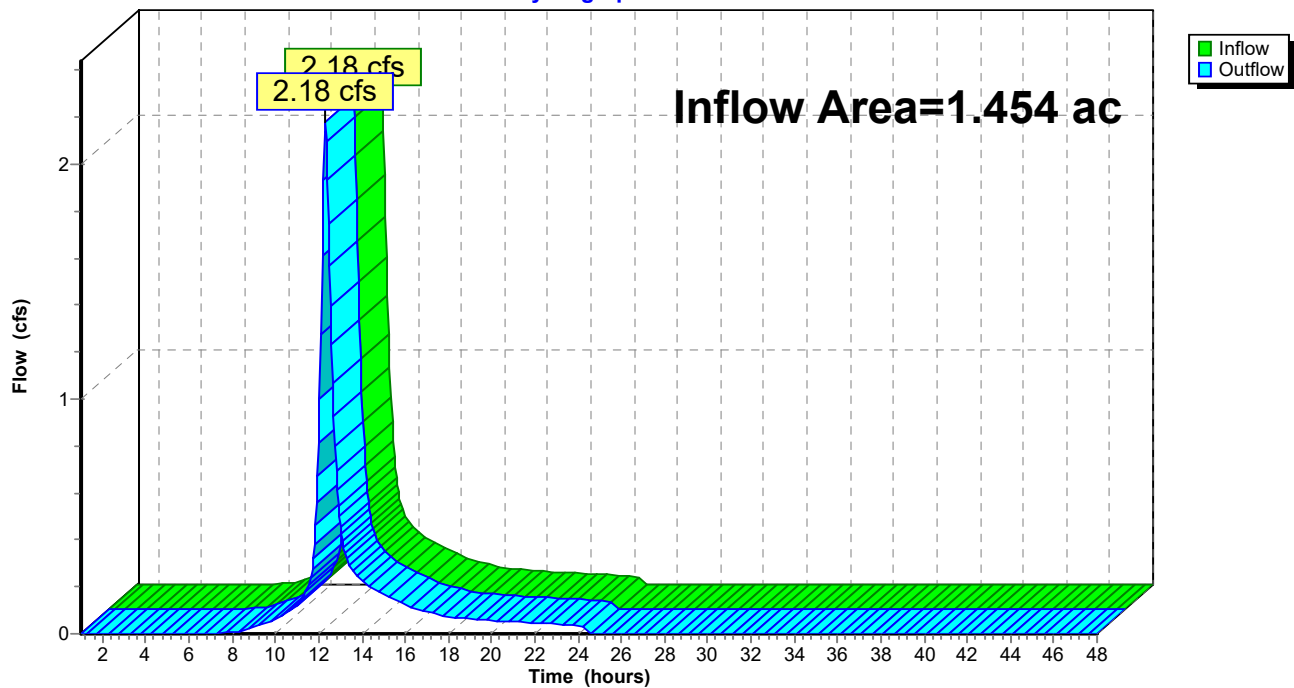


Summary for Reach POI 1: POI 1

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

Inflow Area = 1.454 ac, 77.56% Impervious, Inflow Depth = 1.95" for WQV USSF 2 event
Inflow = 2.18 cfs @ 12.29 hrs, Volume= 0.236 af
Outflow = 2.18 cfs @ 12.29 hrs, Volume= 0.236 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs

Reach POI 1: POI 1**Hydrograph**

Summary for Reach POI 2: POI 2

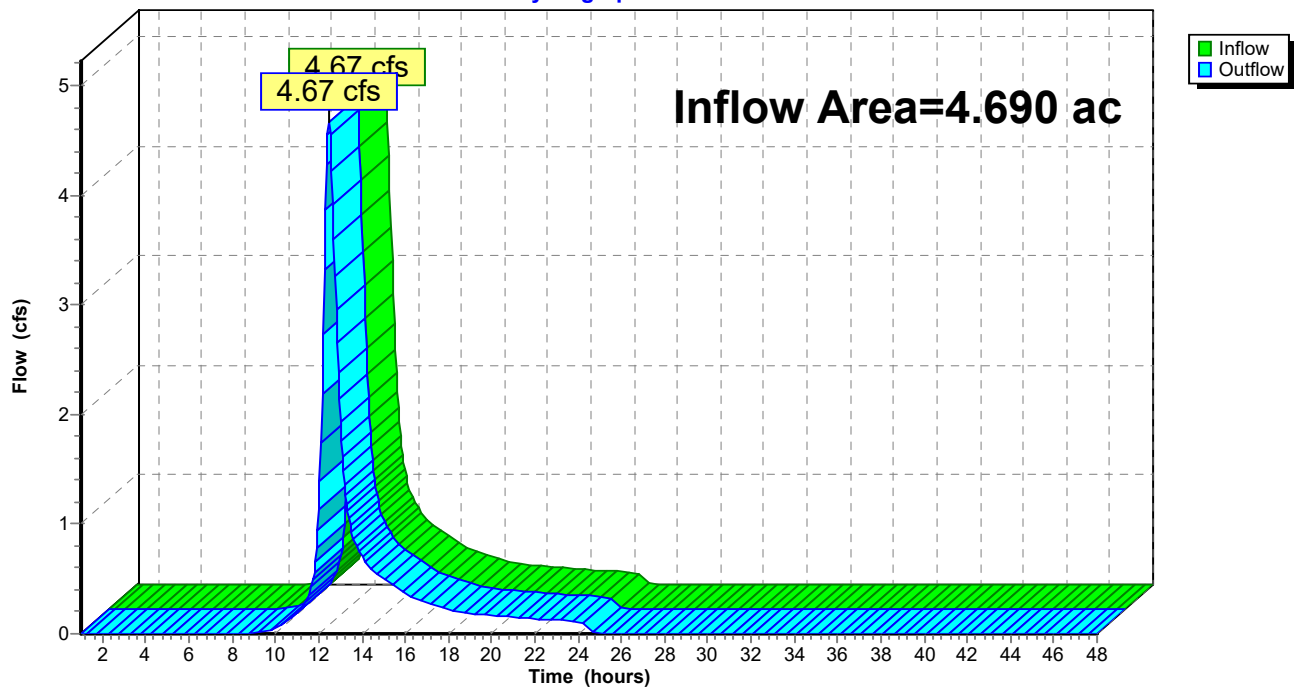
[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 4.690 ac, 72.92% Impervious, Inflow Depth = 1.57" for WQV USSF 2 event
Inflow = 4.67 cfs @ 12.46 hrs, Volume= 0.614 af
Outflow = 4.67 cfs @ 12.46 hrs, Volume= 0.614 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs

Reach POI 2: POI 2

Hydrograph



Summary for Reach PRE: TOTAL PRE

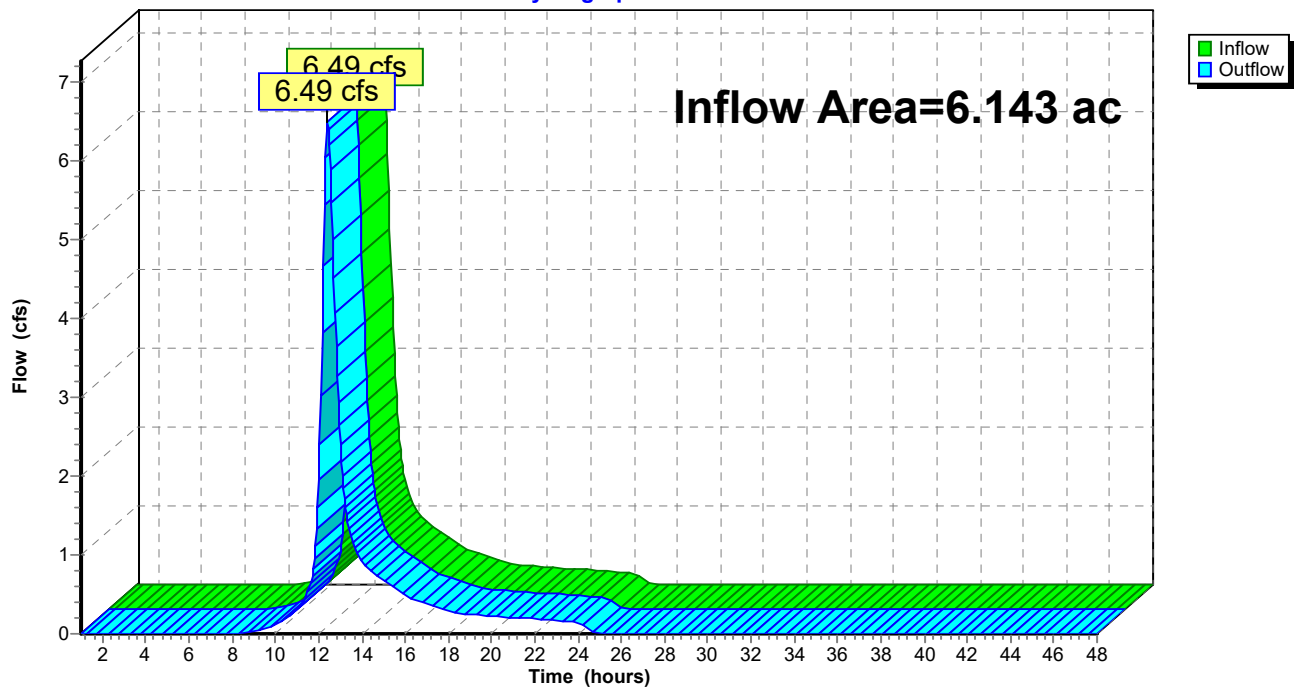
[40] Hint: Not Described (Outflow=Inflow)

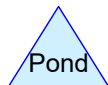
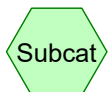
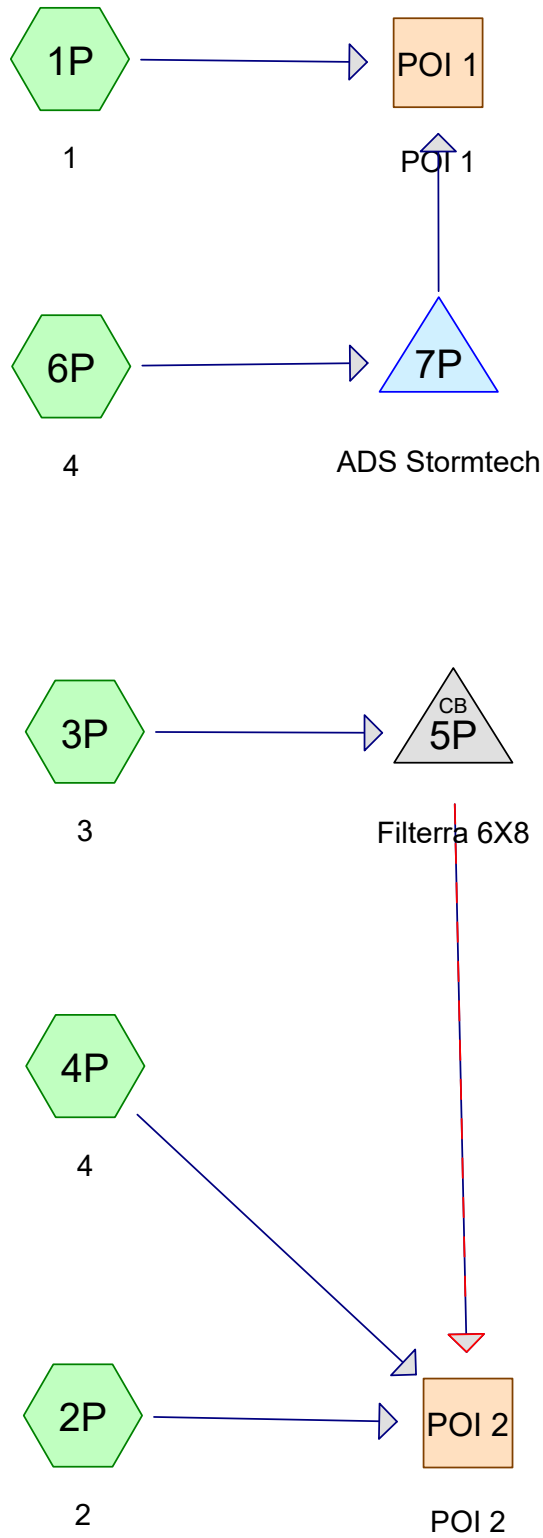
Inflow Area = 6.143 ac, 74.01% Impervious, Inflow Depth = 1.66" for WQV USSF 2 event
Inflow = 6.49 cfs @ 12.40 hrs, Volume= 0.850 af
Outflow = 6.49 cfs @ 12.40 hrs, Volume= 0.850 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs

Reach PRE: TOTAL PRE

Hydrograph





Routing Diagram for 1176_POST
 Prepared by {enter your company name here}, Printed 7/18/2023
 HydroCAD® 10.00-26 s/n 00620 © 2020 HydroCAD Software Solutions LLC

1176_POST

Prepared by {enter your company name here}

HydroCAD® 10.00-26 s/n 00620 © 2020 HydroCAD Software Solutions LLC

Printed 7/18/2023

Page 2

Project Notes

Rainfall events imported from "Post Development_4-21-21.hcp"

1176_POST

Prepared by {enter your company name here}

HydroCAD® 10.00-26 s/n 00620 © 2020 HydroCAD Software Solutions LLC

Printed 7/18/2023

Page 3

Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
1.392	98	1/2 new roof (4P, 6P)
0.494	39	>75% Grass cover, Good, HSG A (1P, 2P, 3P)
1.119	30	Woods, Good, HSG A (2P)
2.244	98	buildings/pave (2P)
0.894	98	pave/roof (1P, 3P)
6.143	81	TOTAL AREA

1176_POST

Prepared by {enter your company name here}

Printed 7/18/2023

HydroCAD® 10.00-26 s/n 00620 © 2020 HydroCAD Software Solutions LLC

Page 4

Soil Listing (all nodes)

Area (acres)	Soil Group	Subcatchment Numbers
1.613	HSG A	1P, 2P, 3P
0.000	HSG B	
0.000	HSG C	
0.000	HSG D	
4.530	Other	1P, 2P, 3P, 4P, 6P
6.143		TOTAL AREA

1176_POST

Prepared by {enter your company name here}

Printed 7/18/2023

HydroCAD® 10.00-26 s/n 00620 © 2020 HydroCAD Software Solutions LLC

Page 5

Ground Covers (all nodes)

HSG-A (acres)	HSG-B (acres)	HSG-C (acres)	HSG-D (acres)	Other (acres)	Total (acres)	Ground Cover	Subcatchment Numbers
0.000	0.000	0.000	0.000	1.392	1.392	1/2 new roof	4P, 6P
0.494	0.000	0.000	0.000	0.000	0.494	>75% Grass cover, Good	1P, 2P, 3P
1.119	0.000	0.000	0.000	0.000	1.119	Woods, Good	2P
0.000	0.000	0.000	0.000	2.244	2.244	buildings/pave	2P
0.000	0.000	0.000	0.000	0.894	0.894	pave/roof	1P, 3P
1.613	0.000	0.000	0.000	4.530	6.143	TOTAL AREA	

1176_POST

Prepared by {enter your company name here}

Printed 7/18/2023

HydroCAD® 10.00-26 s/n 00620 © 2020 HydroCAD Software Solutions LLC

Page 6

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	5P	87.00	85.50	18.0	0.0833	0.013	12.0	0.0	0.0
2	7P	84.50	84.25	20.0	0.0125	0.013	12.0	0.0	0.0
3	7P	85.90	85.80	5.0	0.0200	0.013	12.0	0.0	0.0

1176_POST

Type III 24-hr 1" Storm Rainfall=1.00"

Prepared by {enter your company name here}

Printed 7/18/2023

HydroCAD® 10.00-26 s/n 00620 © 2020 HydroCAD Software Solutions LLC

Page 7

Time span=0.00-48.00 hrs, dt=0.01 hrs, 4801 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment1P: 1	Runoff Area=38,210 sf 74.15% Impervious Runoff Depth=0.13" Tc=6.0 min CN=83 Runoff=0.1 cfs 0.010 af
Subcatchment2P: 2	Runoff Area=156,183 sf 62.58% Impervious Runoff Depth=0.02" Flow Length=918' Tc=17.9 min CN=73 Runoff=0.0 cfs 0.005 af
Subcatchment3P: 3	Runoff Area=12,575 sf 84.49% Impervious Runoff Depth=0.28" Tc=5.0 min CN=89 Runoff=0.1 cfs 0.007 af
Subcatchment4P: 4	Runoff Area=30,314 sf 100.00% Impervious Runoff Depth=0.79" Tc=6.0 min CN=98 Runoff=0.6 cfs 0.046 af
Subcatchment6P: 4	Runoff Area=30,314 sf 100.00% Impervious Runoff Depth=0.79" Tc=6.0 min CN=98 Runoff=0.6 cfs 0.046 af
Reach POI 1: POI 1	Inflow=0.3 cfs 0.056 af Outflow=0.3 cfs 0.056 af
Reach POI 2: POI 2	Inflow=0.7 cfs 0.058 af Outflow=0.7 cfs 0.058 af
Pond 5P: Filterra 6X8	Peak Elev=87.13' Inflow=0.1 cfs 0.007 af Primary=0.1 cfs 0.007 af Secondary=0.0 cfs 0.000 af Outflow=0.1 cfs 0.007 af
Pond 7P: ADS Stormtech	Peak Elev=85.69' Storage=0.005 af Inflow=0.6 cfs 0.046 af Outflow=0.3 cfs 0.046 af

Total Runoff Area = 6.143 ac Runoff Volume = 0.113 af Average Runoff Depth = 0.22"
26.26% Pervious = 1.613 ac 73.74% Impervious = 4.530 ac

Summary for Subcatchment 1P: 1

Runoff = 0.1 cfs @ 12.13 hrs, Volume= 0.010 af, Depth= 0.13"

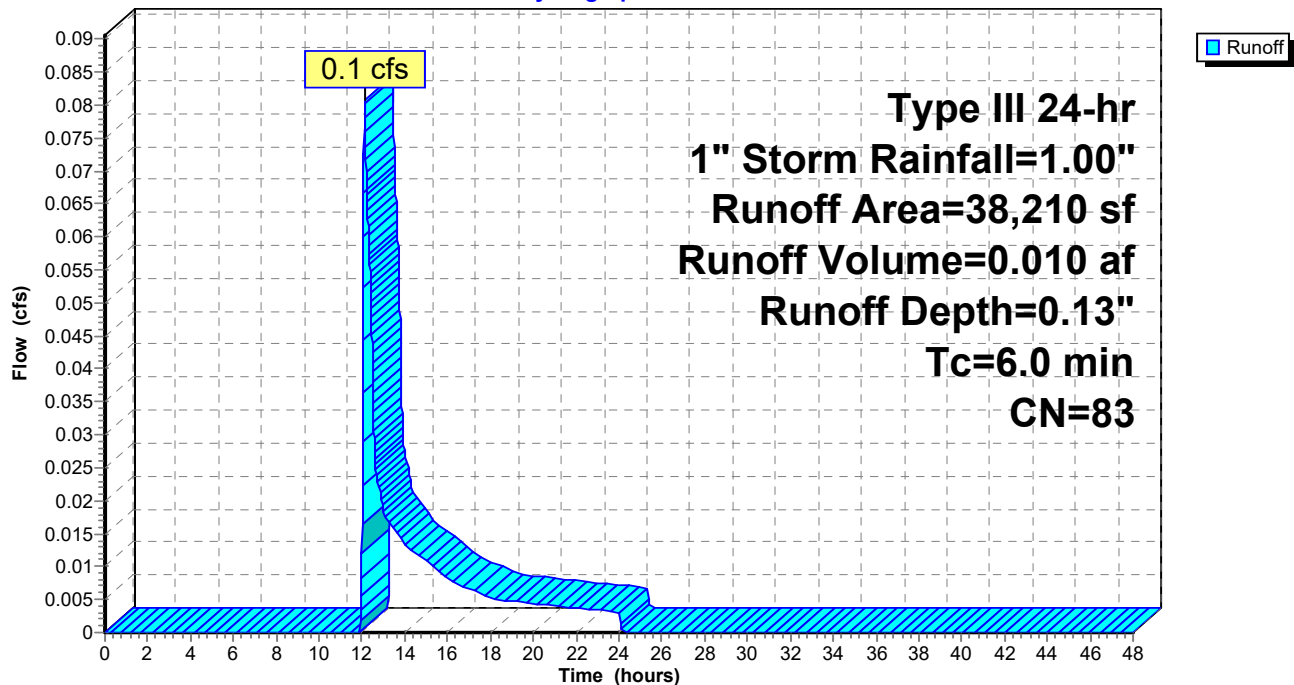
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 1" Storm Rainfall=1.00"

Area (sf)	CN	Description
9,879	39	>75% Grass cover, Good, HSG A
* 28,331	98	pave/roof
38,210	83	Weighted Average
9,879		25.85% Pervious Area
28,331		74.15% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, TC Time < 6 mins

Subcatchment 1P: 1

Hydrograph



1176_POST

Prepared by {enter your company name here}

HydroCAD® 10.00-26 s/n 00620 © 2020 HydroCAD Software Solutions LLC

Type III 24-hr 1" Storm Rainfall=1.00"

Printed 7/18/2023

Page 9

Summary for Subcatchment 2P: 2

Runoff = 0.0 cfs @ 15.29 hrs, Volume= 0.005 af, Depth= 0.02"

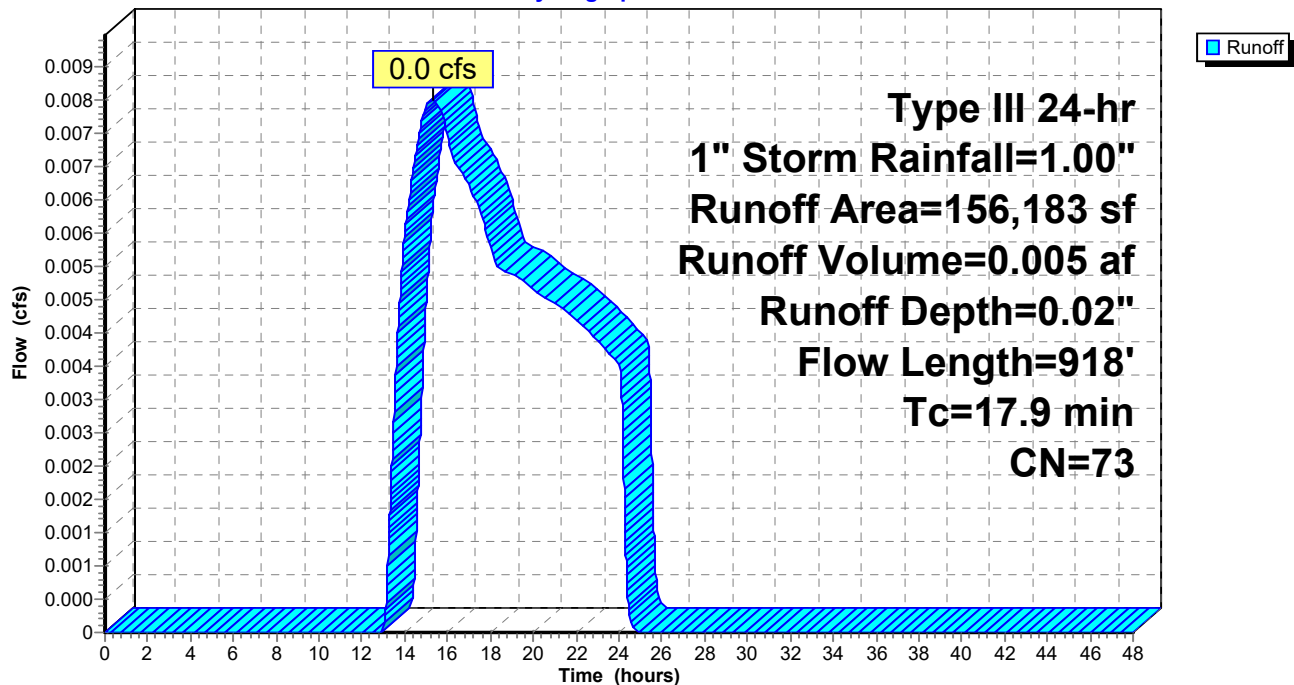
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 1" Storm Rainfall=1.00"

	Area (sf)	CN	Description
*	97,747	98	buildings/pave
	48,746	30	Woods, Good, HSG A
	9,690	39	>75% Grass cover, Good, HSG A
	156,183	73	Weighted Average
	58,436		37.42% Pervious Area
	97,747		62.58% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.6	100	0.0100	1.05		Sheet Flow, A TO B Smooth surfaces n= 0.011 P2= 3.27"
1.5	257	0.0200	2.87		Shallow Concentrated Flow, B TO C Paved Kv= 20.3 fps
14.8	561	0.0160	0.63		Shallow Concentrated Flow, C TO D Woodland Kv= 5.0 fps
17.9	918	Total			

Subcatchment 2P: 2

Hydrograph



Summary for Subcatchment 3P: 3

Runoff = 0.1 cfs @ 12.08 hrs, Volume= 0.007 af, Depth= 0.28"

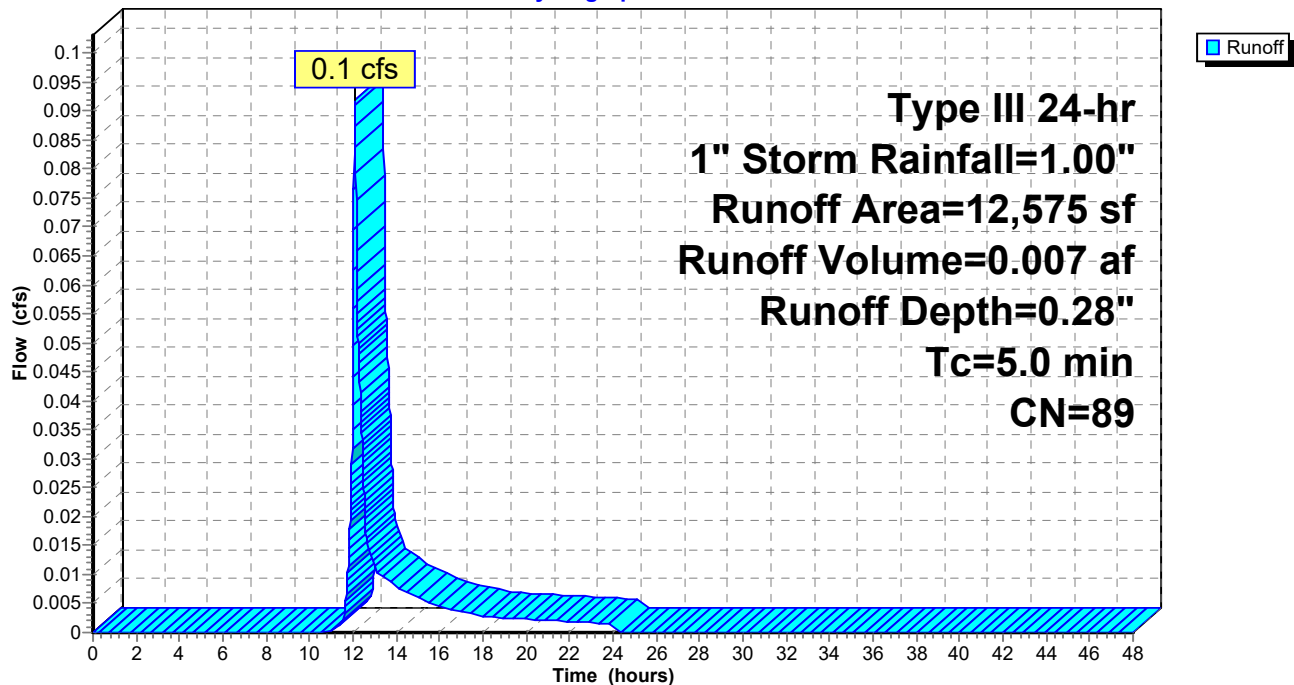
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 1" Storm Rainfall=1.00"

	Area (sf)	CN	Description
*	10,625	98	pave/roof
	1,950	39	>75% Grass cover, Good, HSG A
	12,575	89	Weighted Average
	1,950		15.51% Pervious Area
	10,625		84.49% Impervious Area

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

Subcatchment 3P: 3

Hydrograph



Summary for Subcatchment 4P: 4

Runoff = 0.6 cfs @ 12.08 hrs, Volume= 0.046 af, Depth= 0.79"

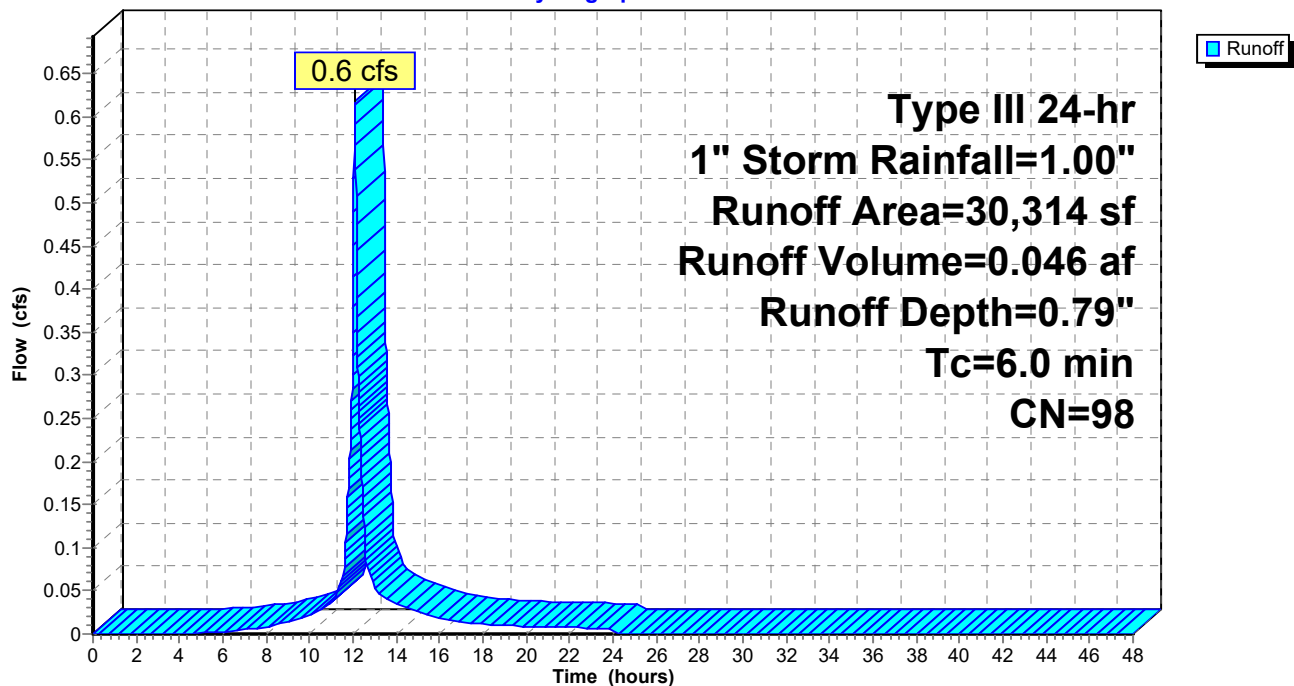
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 1" Storm Rainfall=1.00"

	Area (sf)	CN	Description
*	30,314	98	1/2 new roof
	30,314		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, TC Time < 6 mins

Subcatchment 4P: 4

Hydrograph



Summary for Subcatchment 6P: 4

Runoff = 0.6 cfs @ 12.08 hrs, Volume= 0.046 af, Depth= 0.79"

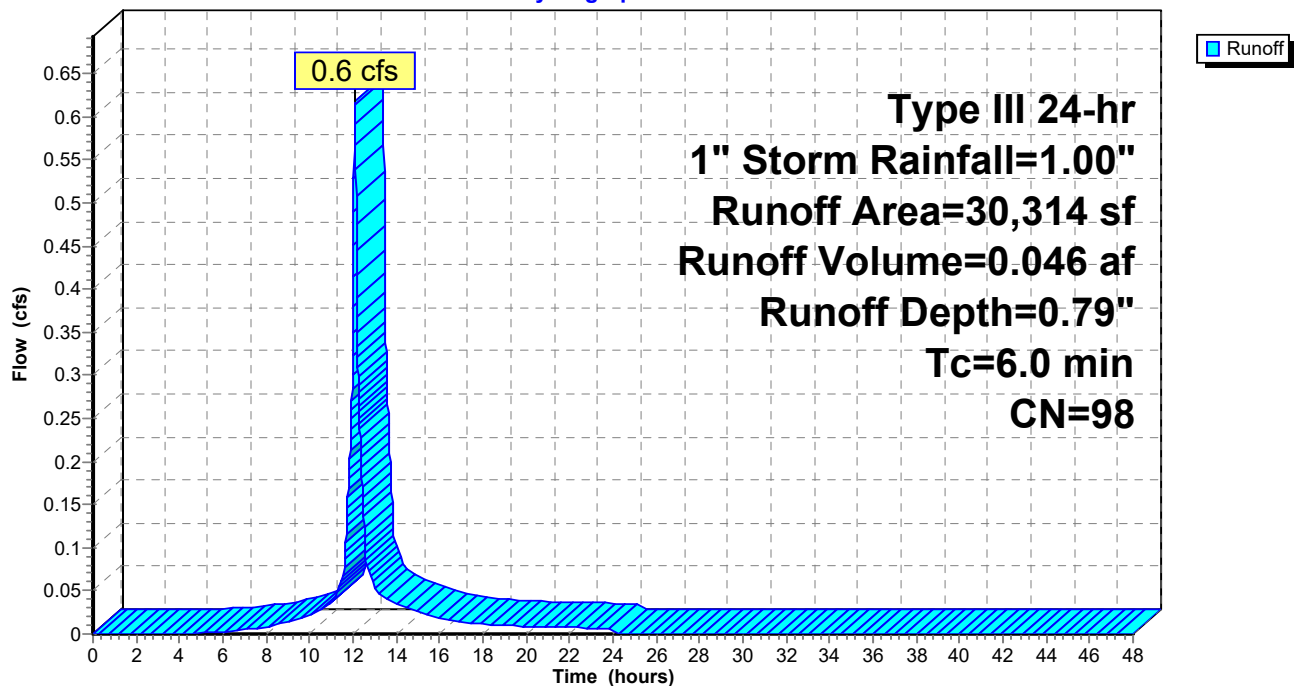
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 1" Storm Rainfall=1.00"

	Area (sf)	CN	Description
*	30,314	98	1/2 new roof
	30,314		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, TC Time < 6 mins

Subcatchment 6P: 4

Hydrograph

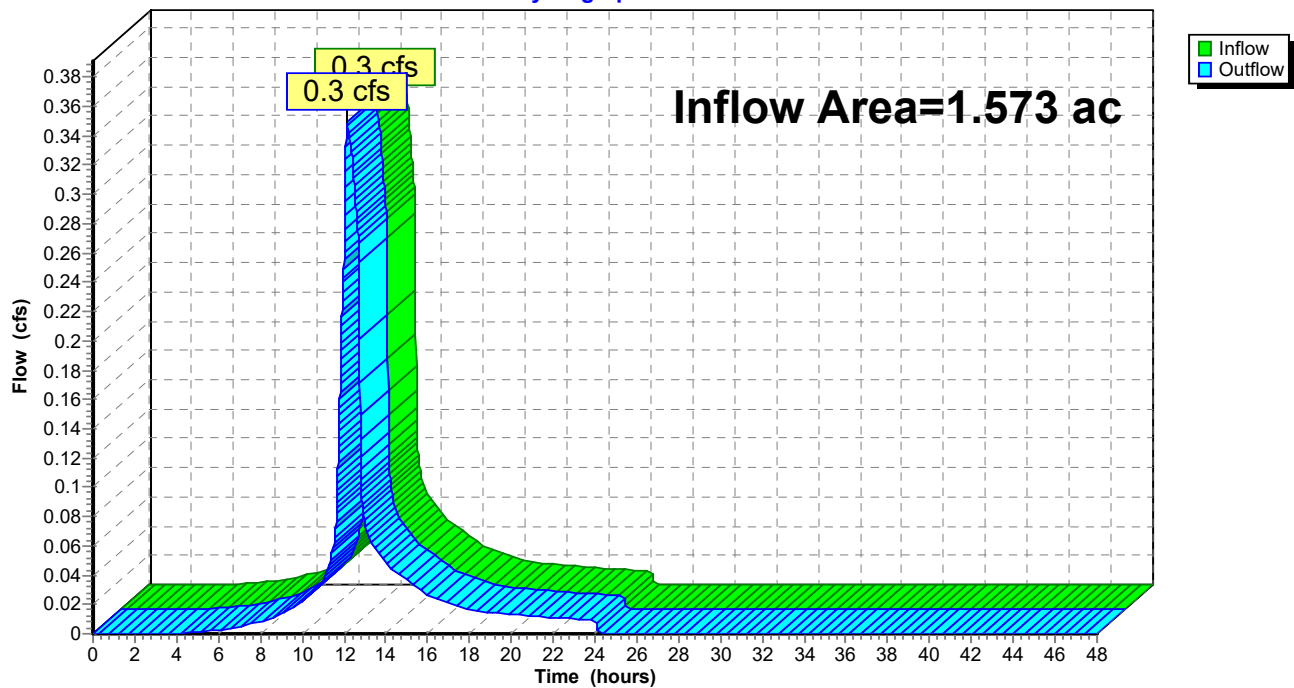


Summary for Reach POI 1: POI 1

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

Inflow Area = 1.573 ac, 85.58% Impervious, Inflow Depth = 0.42" for 1" Storm event
Inflow = 0.3 cfs @ 12.14 hrs, Volume= 0.056 af
Outflow = 0.3 cfs @ 12.14 hrs, Volume= 0.056 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

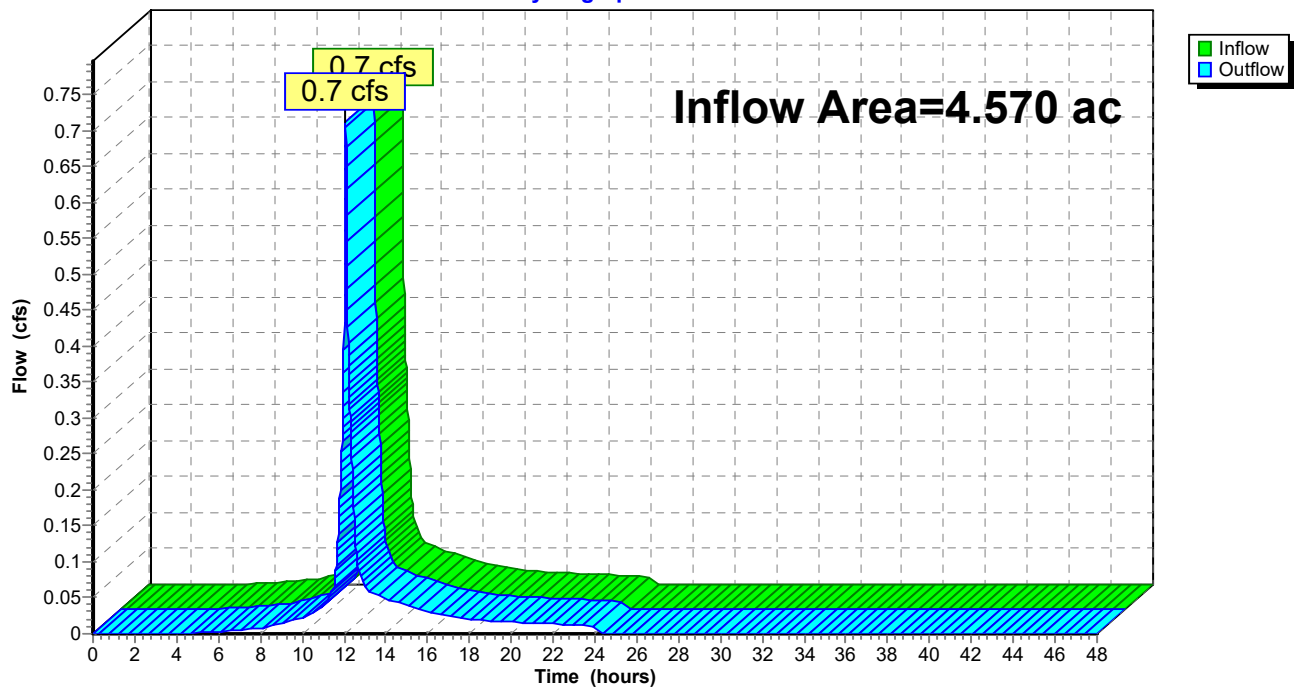
Reach POI 1: POI 1**Hydrograph**

Summary for Reach POI 2: POI 2

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

Inflow Area = 4.570 ac, 69.67% Impervious, Inflow Depth = 0.15" for 1" Storm event
Inflow = 0.7 cfs @ 12.08 hrs, Volume= 0.058 af
Outflow = 0.7 cfs @ 12.08 hrs, Volume= 0.058 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Reach POI 2: POI 2**Hydrograph**

Summary for Pond 5P: Filterra 6X8

Inflow Area = 0.289 ac, 84.49% Impervious, Inflow Depth = 0.28" for 1" Storm event
 Inflow = 0.1 cfs @ 12.08 hrs, Volume= 0.007 af
 Outflow = 0.1 cfs @ 12.08 hrs, Volume= 0.007 af, Atten= 0%, Lag= 0.0 min
 Primary = 0.1 cfs @ 12.08 hrs, Volume= 0.007 af
 Secondary = 0.0 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs / 2

Peak Elev= 87.13' @ 12.08 hrs

Flood Elev= 103.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	87.00'	12.0" Round Outlet Pipe L= 18.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 87.00' / 85.50' S= 0.0833 1' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf
#2	Secondary	103.00'	18.0" Horiz. CB C= 0.600 in 24.0" x 24.0" Grate (44% open area) Limited to weir flow at low heads

Primary OutFlow Max=0.1 cfs @ 12.08 hrs HW=87.13' (Free Discharge)

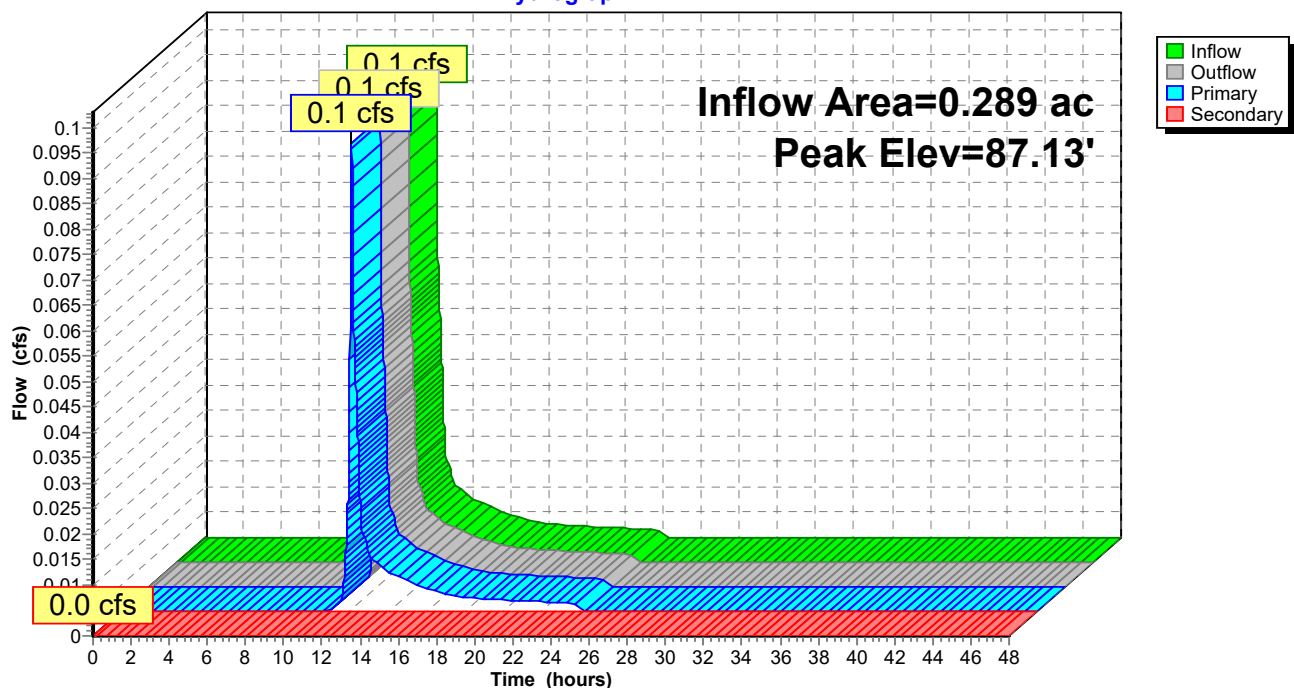
↑1=Outlet Pipe (Inlet Controls 0.1 cfs @ 1.24 fps)

Secondary OutFlow Max=0.0 cfs @ 0.00 hrs HW=87.00' (Free Discharge)

↑2=CB (Controls 0.0 cfs)

Pond 5P: Filterra 6X8

Hydrograph



Summary for Pond 7P: ADS Stormtech

[44] Hint: Outlet device #3 is below defined storage

Inflow Area = 0.696 ac, 100.00% Impervious, Inflow Depth = 0.79" for 1" Storm event
 Inflow = 0.6 cfs @ 12.08 hrs, Volume= 0.046 af
 Outflow = 0.3 cfs @ 12.27 hrs, Volume= 0.046 af, Atten= 55%, Lag= 10.8 min
 Primary = 0.3 cfs @ 12.27 hrs, Volume= 0.046 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Peak Elev= 85.69' @ 12.27 hrs Surf.Area= 0.046 ac Storage= 0.005 af

Plug-Flow detention time= 4.7 min calculated for 0.046 af (100% of inflow)
 Center-of-Mass det. time= 4.7 min (792.6 - 787.9)

Volume	Invert	Avail.Storage	Storage Description
#1A	85.40'	0.045 af	20.50'W x 96.18'L x 3.50'H Field A Z=0.3 0.168 af Overall - 0.055 af Embedded = 0.114 af x 40.0% Voids
#2A	85.90'	0.055 af	ADS_StormTech SC-740 +Cap x 52 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 52 Chambers in 4 Rows
		0.100 af	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	84.50'	12.0" Round Stormdrain L= 20.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 84.50' / 84.25' S= 0.0125 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf
#2	Device 1	88.40'	4.0' long Sharp-Crested Vee/Trap Weir Cv= 2.62 (C= 3.28)
#3	Device 1	84.50'	3.2" Vert. Orifice C= 0.600
#4	Device 1	86.90'	4.0" Vert. Orifice C= 0.600
#5	Device 4	85.90'	12.0" Round Outlet Pipe L= 5.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 85.90' / 85.80' S= 0.0200 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.3 cfs @ 12.27 hrs HW=85.69' (Free Discharge)

- 1=Stormdrain (Passes 0.3 cfs of 3.1 cfs potential flow)
- 2=Sharp-Crested Vee/Trap Weir (Controls 0.0 cfs)
- 3=Orifice (Orifice Controls 0.3 cfs @ 4.94 fps)
- 4=Orifice (Controls 0.0 cfs)
- 5=Outlet Pipe (Controls 0.0 cfs)

Pond 7P: ADS Stormtech - Chamber Wizard Field A**Chamber Model = ADS_StormTech SC-740 +Cap (ADS StormTech® SC-740 with cap length)**

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

51.0" Wide + 6.0" Spacing = 57.0" C-C Row Spacing

13 Chambers/Row x 7.12' Long +0.81' Cap Length x 2 = 94.18' Row Length +12.0" End Stone x 2 = 96.18' Base Length

4 Rows x 51.0" Wide + 6.0" Spacing x 3 + 12.0" Side Stone x 2 = 20.50' Base Width

6.0" Base + 30.0" Chamber Height + 6.0" Cover = 3.50' Field Height

0.3 ' Side-Z x Height = 12.6" Flare/Side

Base Length + Flare x 2 = 98.28' Top Length

Base Width + Flare x 2 = 22.60' Top Width

52 Chambers x 45.9 cf = 2,388.9 cf Chamber Storage

7,334.6 cf Field - 2,388.9 cf Chambers = 4,945.7 cf Stone x 40.0% Voids = 1,978.3 cf Stone Storage

Chamber Storage + Stone Storage = 4,367.2 cf = 0.100 af

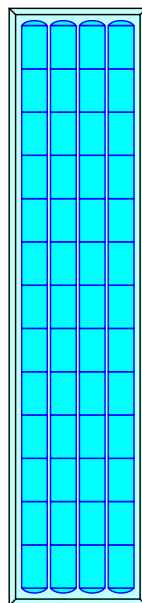
Overall Storage Efficiency = 59.5%

Overall System Size = 96.18' x 20.50' x 3.50'

52 Chambers

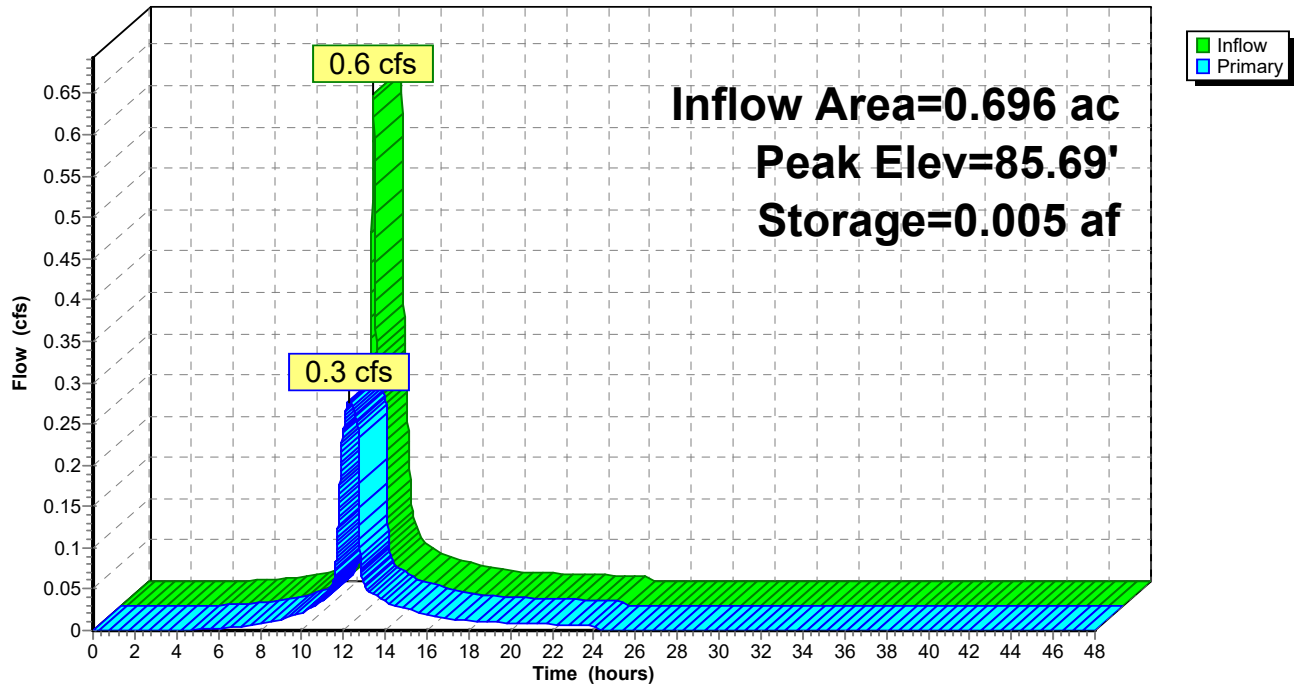
271.7 cy Field

183.2 cy Stone



Pond 7P: ADS Stormtech

Hydrograph



1176_POST

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

Prepared by {enter your company name here}

Printed 7/18/2023

HydroCAD® 10.00-26 s/n 00620 © 2020 HydroCAD Software Solutions LLC

Page 19

Time span=0.00-48.00 hrs, dt=0.01 hrs, 4801 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment1P: 1	Runoff Area=38,210 sf 74.15% Impervious Runoff Depth=1.53" Tc=6.0 min CN=83 Runoff=1.6 cfs 0.112 af
Subcatchment2P: 2	Runoff Area=156,183 sf 62.58% Impervious Runoff Depth=0.92" Flow Length=918' Tc=17.9 min CN=73 Runoff=2.5 cfs 0.275 af
Subcatchment3P: 3	Runoff Area=12,575 sf 84.49% Impervious Runoff Depth=1.99" Tc=5.0 min CN=89 Runoff=0.7 cfs 0.048 af
Subcatchment4P: 4	Runoff Area=30,314 sf 100.00% Impervious Runoff Depth=2.87" Tc=6.0 min CN=98 Runoff=2.1 cfs 0.166 af
Subcatchment6P: 4	Runoff Area=30,314 sf 100.00% Impervious Runoff Depth=2.87" Tc=6.0 min CN=98 Runoff=2.1 cfs 0.166 af
Reach POI 1: POI 1	Inflow=1.9 cfs 0.278 af Outflow=1.9 cfs 0.278 af
Reach POI 2: POI 2	Inflow=4.1 cfs 0.489 af Outflow=4.1 cfs 0.489 af
Pond 5P: Filterra 6X8	Peak Elev=87.42' Inflow=0.7 cfs 0.048 af Primary=0.7 cfs 0.048 af Secondary=0.0 cfs 0.000 af Outflow=0.7 cfs 0.048 af
Pond 7P: ADS Stormtech	Peak Elev=86.87' Storage=0.045 af Inflow=2.1 cfs 0.166 af Outflow=0.4 cfs 0.166 af

Total Runoff Area = 6.143 ac Runoff Volume = 0.767 af Average Runoff Depth = 1.50"
26.26% Pervious = 1.613 ac 73.74% Impervious = 4.530 ac

Summary for Subcatchment 1P: 1

Runoff = 1.6 cfs @ 12.09 hrs, Volume= 0.112 af, Depth= 1.53"

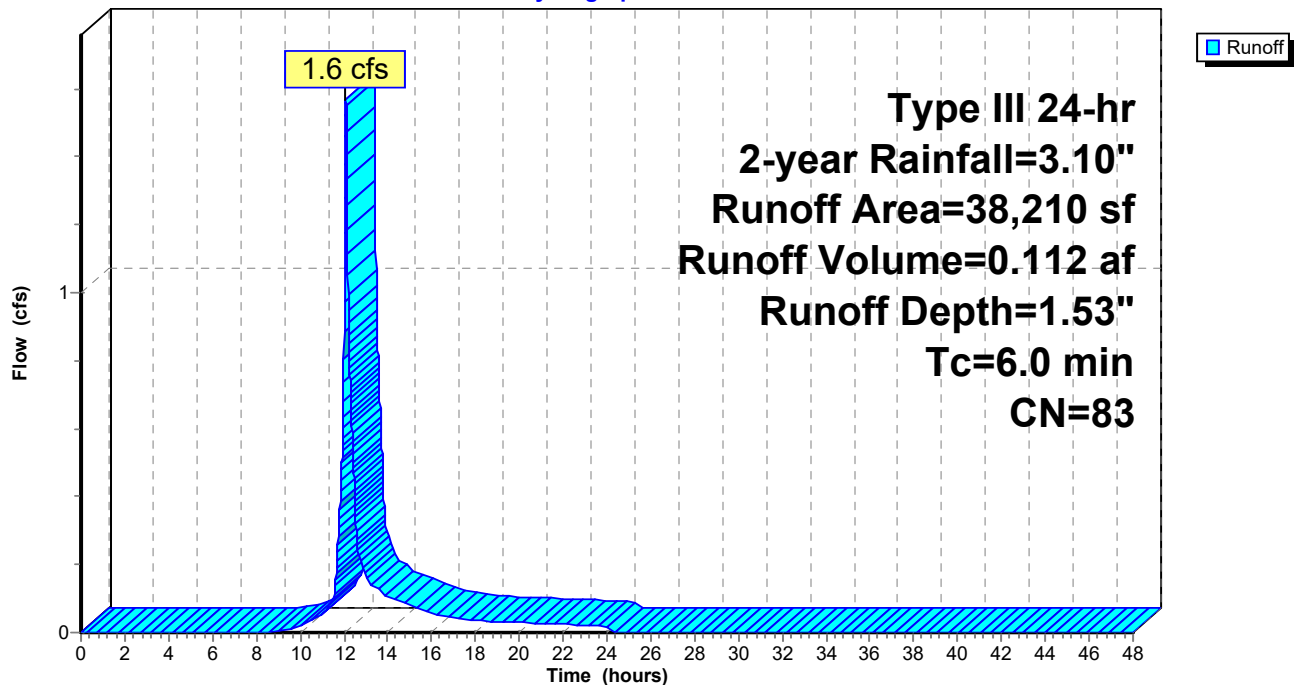
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-year Rainfall=3.10"

Area (sf)	CN	Description
9,879	39	>75% Grass cover, Good, HSG A
* 28,331	98	pave/roof
38,210	83	Weighted Average
9,879		25.85% Pervious Area
28,331		74.15% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, TC Time < 6 mins

Subcatchment 1P: 1

Hydrograph



1176_POST

Prepared by {enter your company name here}

HydroCAD® 10.00-26 s/n 00620 © 2020 HydroCAD Software Solutions LLC

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

Printed 7/18/2023

Page 21

Summary for Subcatchment 2P: 2

Runoff = 2.5 cfs @ 12.27 hrs, Volume= 0.275 af, Depth= 0.92"

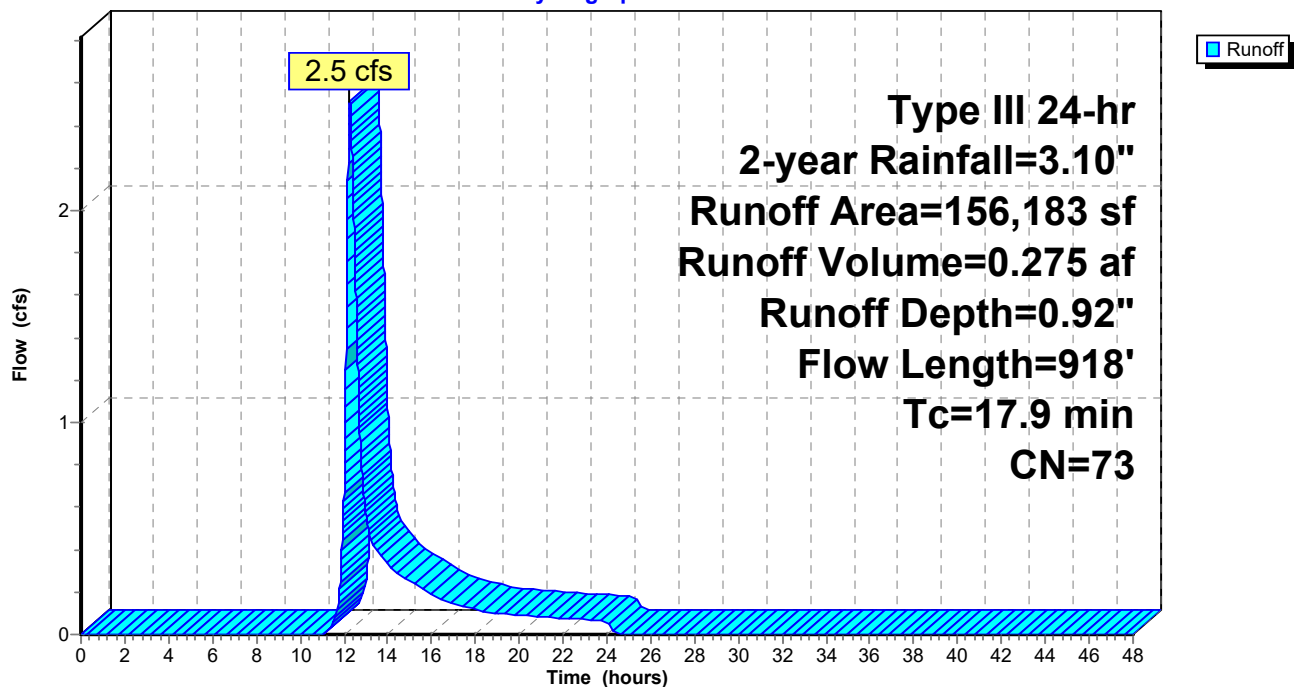
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-year Rainfall=3.10"

	Area (sf)	CN	Description
*	97,747	98	buildings/pave
	48,746	30	Woods, Good, HSG A
	9,690	39	>75% Grass cover, Good, HSG A
	156,183	73	Weighted Average
	58,436		37.42% Pervious Area
	97,747		62.58% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.6	100	0.0100	1.05		Sheet Flow, A TO B Smooth surfaces n= 0.011 P2= 3.27"
1.5	257	0.0200	2.87		Shallow Concentrated Flow, B TO C Paved Kv= 20.3 fps
14.8	561	0.0160	0.63		Shallow Concentrated Flow, C TO D Woodland Kv= 5.0 fps
17.9	918	Total			

Subcatchment 2P: 2

Hydrograph



Summary for Subcatchment 3P: 3

Runoff = 0.7 cfs @ 12.07 hrs, Volume= 0.048 af, Depth= 1.99"

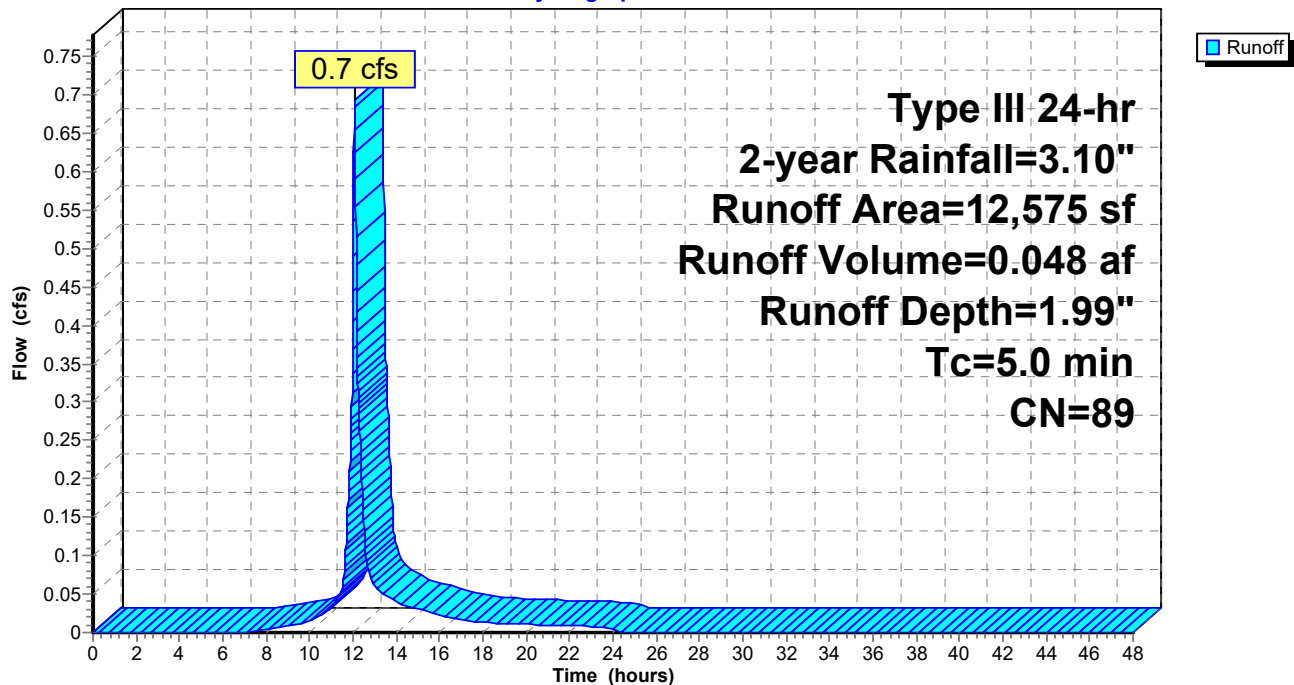
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-year Rainfall=3.10"

	Area (sf)	CN	Description
*	10,625	98	pave/roof
	1,950	39	>75% Grass cover, Good, HSG A
	12,575	89	Weighted Average
	1,950		15.51% Pervious Area
	10,625		84.49% Impervious Area

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

Subcatchment 3P: 3

Hydrograph



1176_POST

Prepared by {enter your company name here}

HydroCAD® 10.00-26 s/n 00620 © 2020 HydroCAD Software Solutions LLC

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

Printed 7/18/2023

Page 23

Summary for Subcatchment 4P: 4

Runoff = 2.1 cfs @ 12.08 hrs, Volume= 0.166 af, Depth= 2.87"

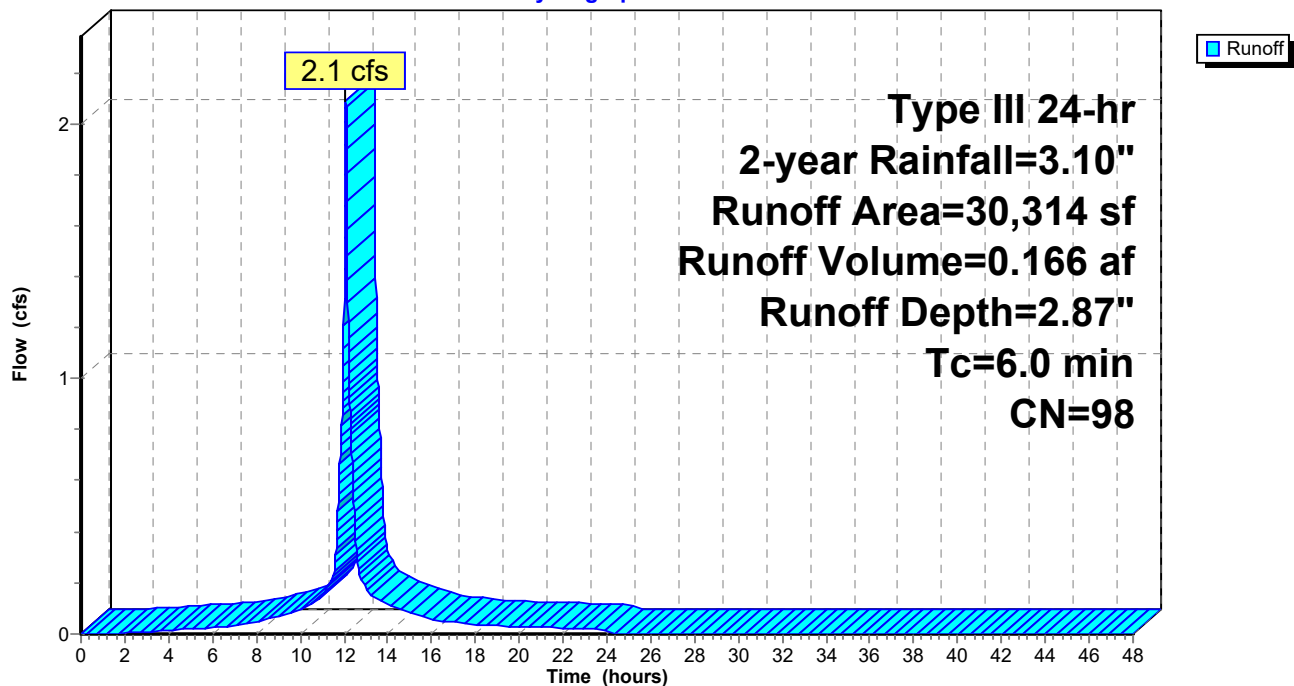
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-year Rainfall=3.10"

	Area (sf)	CN	Description
*	30,314	98	1/2 new roof
	30,314		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, TC Time < 6 mins

Subcatchment 4P: 4

Hydrograph



1176_POST

Prepared by {enter your company name here}

HydroCAD® 10.00-26 s/n 00620 © 2020 HydroCAD Software Solutions LLC

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

Printed 7/18/2023

Page 24

Summary for Subcatchment 6P: 4

Runoff = 2.1 cfs @ 12.08 hrs, Volume= 0.166 af, Depth= 2.87"

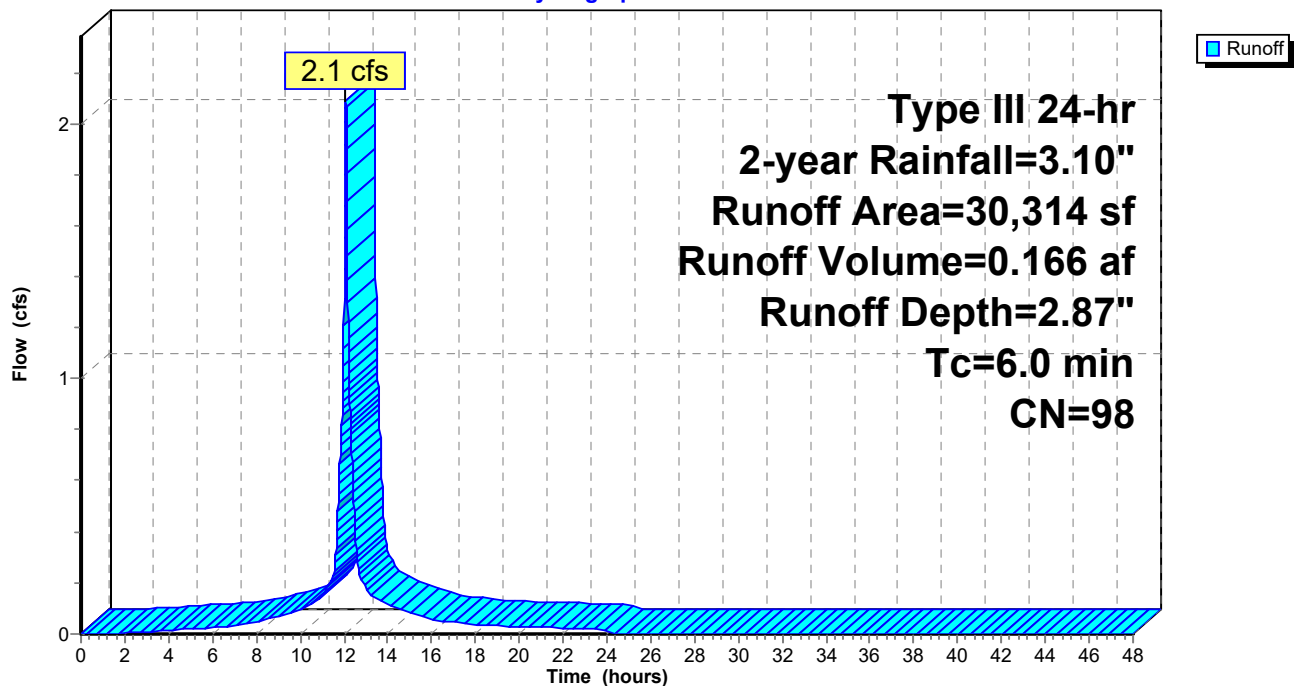
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-year Rainfall=3.10"

	Area (sf)	CN	Description
*	30,314	98	1/2 new roof
	30,314		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, TC Time < 6 mins

Subcatchment 6P: 4

Hydrograph



Summary for Reach POI 1: POI 1

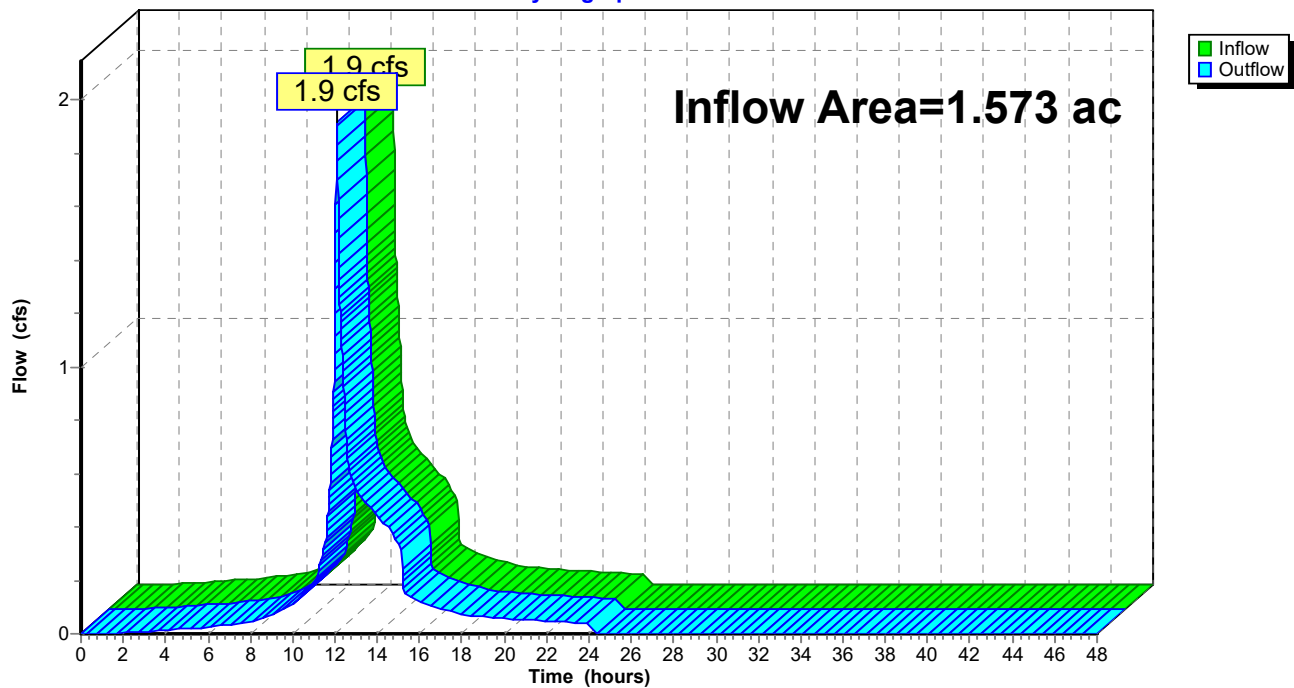
[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 1.573 ac, 85.58% Impervious, Inflow Depth = 2.12" for 2-year event
Inflow = 1.9 cfs @ 12.09 hrs, Volume= 0.278 af
Outflow = 1.9 cfs @ 12.09 hrs, Volume= 0.278 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Reach POI 1: POI 1

Hydrograph

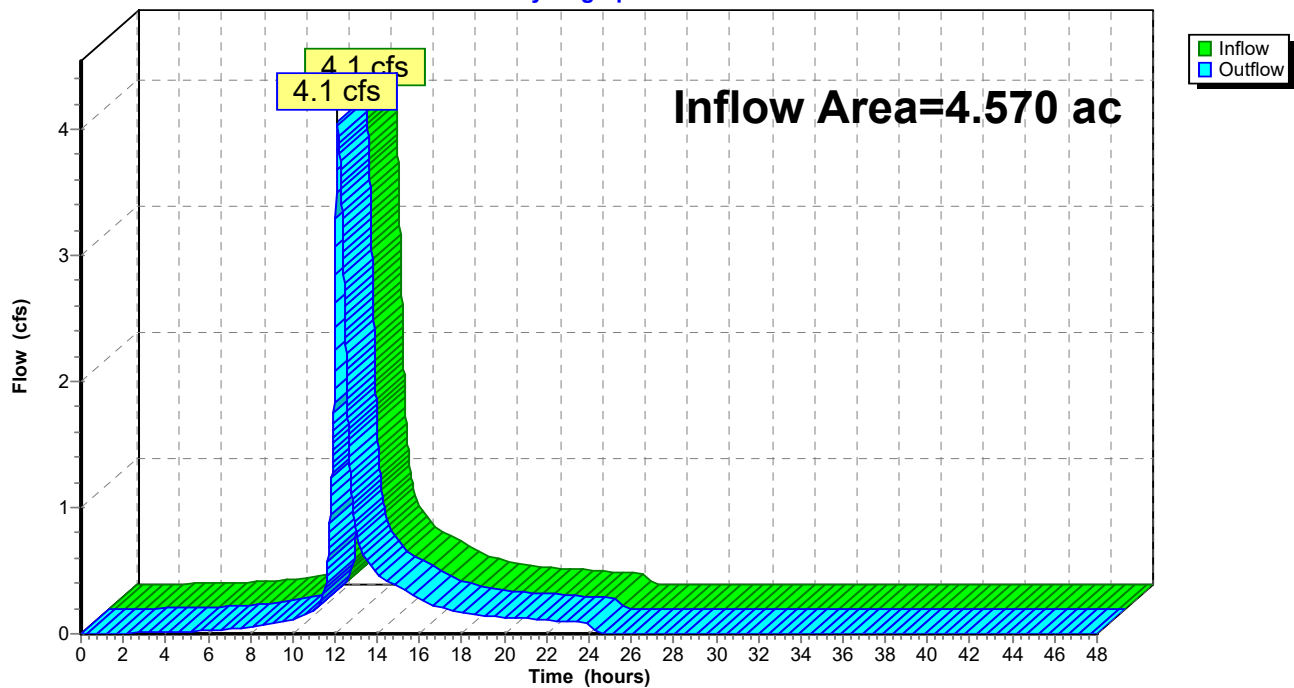


Summary for Reach POI 2: POI 2

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

Inflow Area = 4.570 ac, 69.67% Impervious, Inflow Depth = 1.28" for 2-year event
Inflow = 4.1 cfs @ 12.11 hrs, Volume= 0.489 af
Outflow = 4.1 cfs @ 12.11 hrs, Volume= 0.489 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Reach POI 2: POI 2**Hydrograph**

Summary for Pond 5P: Filterra 6X8

Inflow Area = 0.289 ac, 84.49% Impervious, Inflow Depth = 1.99" for 2-year event
 Inflow = 0.7 cfs @ 12.07 hrs, Volume= 0.048 af
 Outflow = 0.7 cfs @ 12.07 hrs, Volume= 0.048 af, Atten= 0%, Lag= 0.0 min
 Primary = 0.7 cfs @ 12.07 hrs, Volume= 0.048 af
 Secondary = 0.0 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs / 2

Peak Elev= 87.42' @ 12.07 hrs

Flood Elev= 103.00'

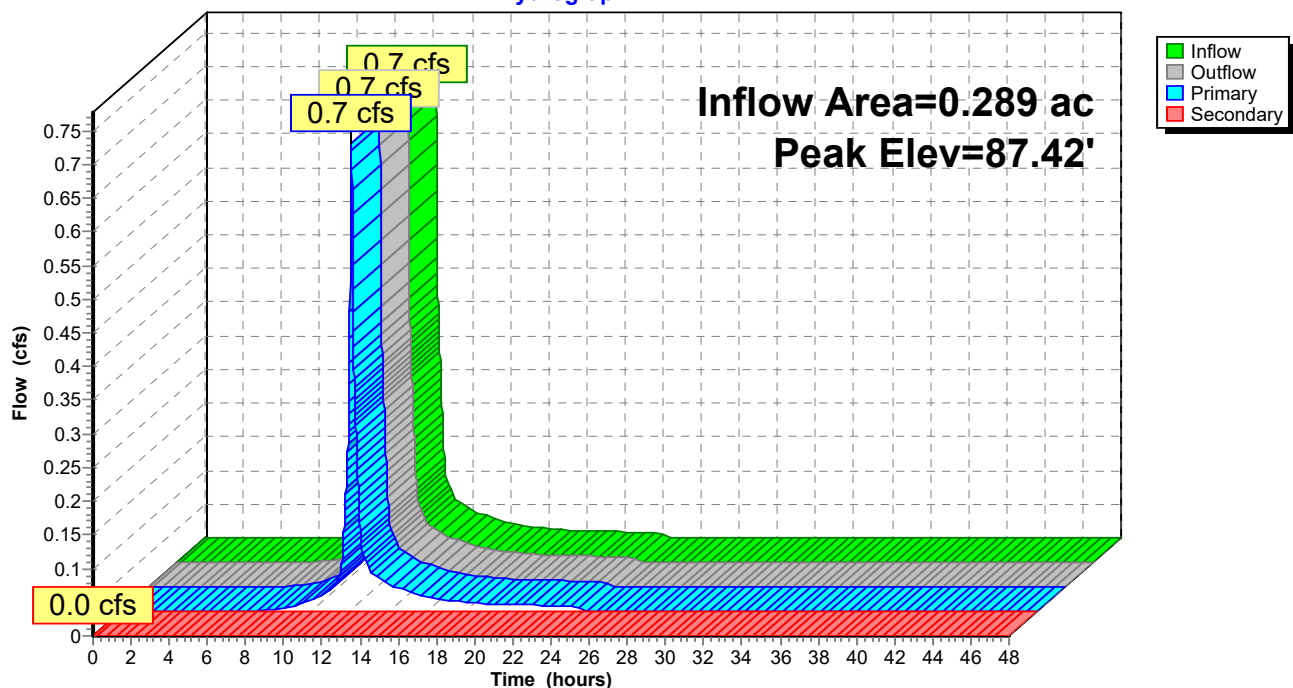
Device	Routing	Invert	Outlet Devices
#1	Primary	87.00'	12.0" Round Outlet Pipe L= 18.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 87.00' / 85.50' S= 0.0833 1' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf
#2	Secondary	103.00'	18.0" Horiz. CB C= 0.600 in 24.0" x 24.0" Grate (44% open area) Limited to weir flow at low heads

Primary OutFlow Max=0.7 cfs @ 12.07 hrs HW=87.42' (Free Discharge)

←1=Outlet Pipe (Inlet Controls 0.7 cfs @ 2.19 fps)

Secondary OutFlow Max=0.0 cfs @ 0.00 hrs HW=87.00' (Free Discharge)

←2=CB (Controls 0.0 cfs)

Pond 5P: Filterra 6X8**Hydrograph**

Summary for Pond 7P: ADS Stormtech

[44] Hint: Outlet device #3 is below defined storage

Inflow Area = 0.696 ac, 100.00% Impervious, Inflow Depth = 2.87" for 2-year event
 Inflow = 2.1 cfs @ 12.08 hrs, Volume= 0.166 af
 Outflow = 0.4 cfs @ 12.52 hrs, Volume= 0.166 af, Atten= 81%, Lag= 26.0 min
 Primary = 0.4 cfs @ 12.52 hrs, Volume= 0.166 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Peak Elev= 86.87' @ 12.52 hrs Surf.Area= 0.048 ac Storage= 0.045 af

Plug-Flow detention time= 29.9 min calculated for 0.166 af (100% of inflow)
 Center-of-Mass det. time= 29.9 min (787.0 - 757.1)

Volume	Invert	Avail.Storage	Storage Description
#1A	85.40'	0.045 af	20.50'W x 96.18'L x 3.50'H Field A Z=0.3 0.168 af Overall - 0.055 af Embedded = 0.114 af x 40.0% Voids
#2A	85.90'	0.055 af	ADS_StormTech SC-740 +Cap x 52 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 52 Chambers in 4 Rows
0.100 af			Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	84.50'	12.0" Round Stormdrain L= 20.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 84.50' / 84.25' S= 0.0125 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf
#2	Device 1	88.40'	4.0' long Sharp-Crested Vee/Trap Weir Cv= 2.62 (C= 3.28)
#3	Device 1	84.50'	3.2" Vert. Orifice C= 0.600
#4	Device 1	86.90'	4.0" Vert. Orifice C= 0.600
#5	Device 4	85.90'	12.0" Round Outlet Pipe L= 5.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 85.90' / 85.80' S= 0.0200 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.4 cfs @ 12.52 hrs HW=86.87' (Free Discharge)

- 1=Stormdrain (Passes 0.4 cfs of 5.2 cfs potential flow)
- 2=Sharp-Crested Vee/Trap Weir (Controls 0.0 cfs)
- 3=Orifice (Orifice Controls 0.4 cfs @ 7.20 fps)
- 4=Orifice (Controls 0.0 cfs)
- 5=Outlet Pipe (Controls 0.0 cfs)

Pond 7P: ADS Stormtech - Chamber Wizard Field A**Chamber Model = ADS_StormTech SC-740 +Cap (ADS StormTech® SC-740 with cap length)**

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

51.0" Wide + 6.0" Spacing = 57.0" C-C Row Spacing

13 Chambers/Row x 7.12' Long +0.81' Cap Length x 2 = 94.18' Row Length +12.0" End Stone x 2 = 96.18' Base Length

4 Rows x 51.0" Wide + 6.0" Spacing x 3 + 12.0" Side Stone x 2 = 20.50' Base Width

6.0" Base + 30.0" Chamber Height + 6.0" Cover = 3.50' Field Height

0.3 ' Side-Z x Height = 12.6" Flare/Side

Base Length + Flare x 2 = 98.28' Top Length

Base Width + Flare x 2 = 22.60' Top Width

52 Chambers x 45.9 cf = 2,388.9 cf Chamber Storage

7,334.6 cf Field - 2,388.9 cf Chambers = 4,945.7 cf Stone x 40.0% Voids = 1,978.3 cf Stone Storage

Chamber Storage + Stone Storage = 4,367.2 cf = 0.100 af

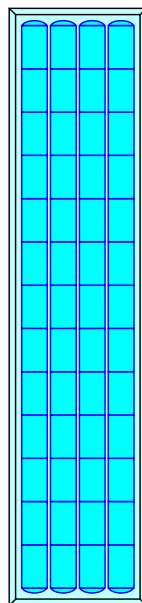
Overall Storage Efficiency = 59.5%

Overall System Size = 96.18' x 20.50' x 3.50'

52 Chambers

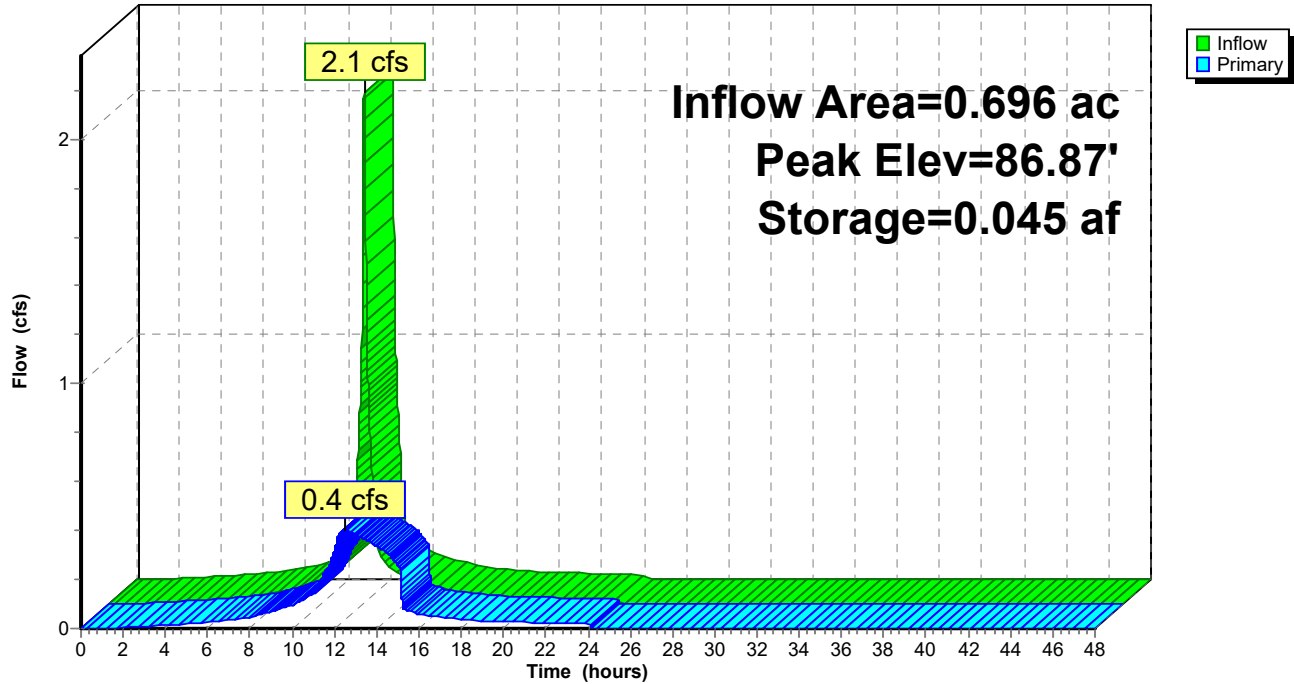
271.7 cy Field

183.2 cy Stone



Pond 7P: ADS Stormtech

Hydrograph



1176_POST

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

Prepared by {enter your company name here}

Printed 7/18/2023

HydroCAD® 10.00-26 s/n 00620 © 2020 HydroCAD Software Solutions LLC

Page 31

Time span=0.00-48.00 hrs, dt=0.01 hrs, 4801 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment1P: 1	Runoff Area=38,210 sf 74.15% Impervious Runoff Depth=2.81" Tc=6.0 min CN=83 Runoff=2.9 cfs 0.206 af
Subcatchment2P: 2	Runoff Area=156,183 sf 62.58% Impervious Runoff Depth=1.97" Flow Length=918' Tc=17.9 min CN=73 Runoff=5.7 cfs 0.589 af
Subcatchment3P: 3	Runoff Area=12,575 sf 84.49% Impervious Runoff Depth=3.39" Tc=5.0 min CN=89 Runoff=1.2 cfs 0.082 af
Subcatchment4P: 4	Runoff Area=30,314 sf 100.00% Impervious Runoff Depth=4.36" Tc=6.0 min CN=98 Runoff=3.1 cfs 0.253 af
Subcatchment6P: 4	Runoff Area=30,314 sf 100.00% Impervious Runoff Depth=4.36" Tc=6.0 min CN=98 Runoff=3.1 cfs 0.253 af
Reach POI 1: POI 1	Inflow=3.3 cfs 0.459 af Outflow=3.3 cfs 0.459 af
Reach POI 2: POI 2	Inflow=7.8 cfs 0.924 af Outflow=7.8 cfs 0.924 af
Pond 5P: Filterra 6X8	Peak Elev=87.56' Inflow=1.2 cfs 0.082 af Primary=1.2 cfs 0.082 af Secondary=0.0 cfs 0.000 af Outflow=1.2 cfs 0.082 af
Pond 7P: ADS Stormtech	Peak Elev=87.62' Storage=0.070 af Inflow=3.1 cfs 0.253 af Outflow=0.8 cfs 0.253 af

Total Runoff Area = 6.143 ac Runoff Volume = 1.382 af Average Runoff Depth = 2.70"
26.26% Pervious = 1.613 ac 73.74% Impervious = 4.530 ac

Summary for Subcatchment 1P: 1

Runoff = 2.9 cfs @ 12.09 hrs, Volume= 0.206 af, Depth= 2.81"

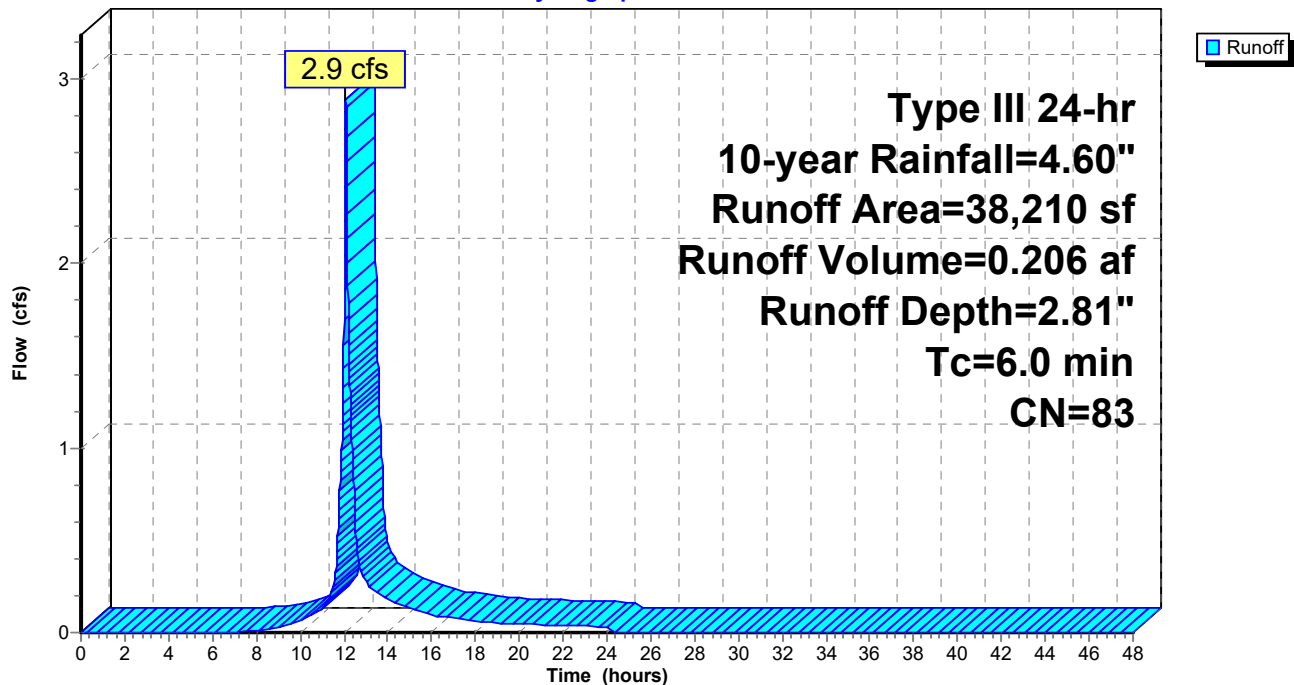
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-year Rainfall=4.60"

Area (sf)	CN	Description
9,879	39	>75% Grass cover, Good, HSG A
* 28,331	98	pave/roof
38,210	83	Weighted Average
9,879		25.85% Pervious Area
28,331		74.15% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, TC Time < 6 mins

Subcatchment 1P: 1

Hydrograph



1176_POST

Prepared by {enter your company name here}

HydroCAD® 10.00-26 s/n 00620 © 2020 HydroCAD Software Solutions LLC

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

Printed 7/18/2023

Page 33

Summary for Subcatchment 2P: 2

Runoff = 5.7 cfs @ 12.25 hrs, Volume= 0.589 af, Depth= 1.97"

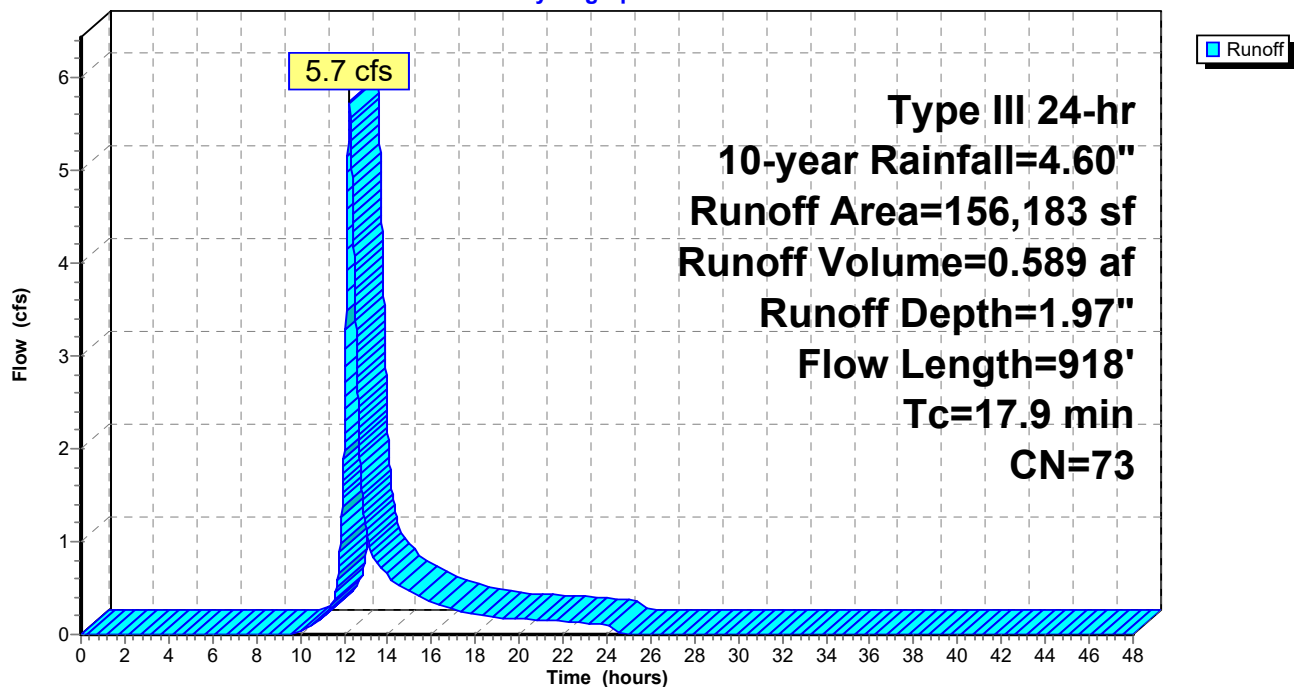
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-year Rainfall=4.60"

	Area (sf)	CN	Description
*	97,747	98	buildings/pave
	48,746	30	Woods, Good, HSG A
	9,690	39	>75% Grass cover, Good, HSG A
	156,183	73	Weighted Average
	58,436		37.42% Pervious Area
	97,747		62.58% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.6	100	0.0100	1.05		Sheet Flow, A TO B
					Smooth surfaces n= 0.011 P2= 3.27"
1.5	257	0.0200	2.87		Shallow Concentrated Flow, B TO C
					Paved Kv= 20.3 fps
14.8	561	0.0160	0.63		Shallow Concentrated Flow, C TO D
					Woodland Kv= 5.0 fps
17.9	918	Total			

Subcatchment 2P: 2

Hydrograph



Summary for Subcatchment 3P: 3

Runoff = 1.2 cfs @ 12.07 hrs, Volume= 0.082 af, Depth= 3.39"

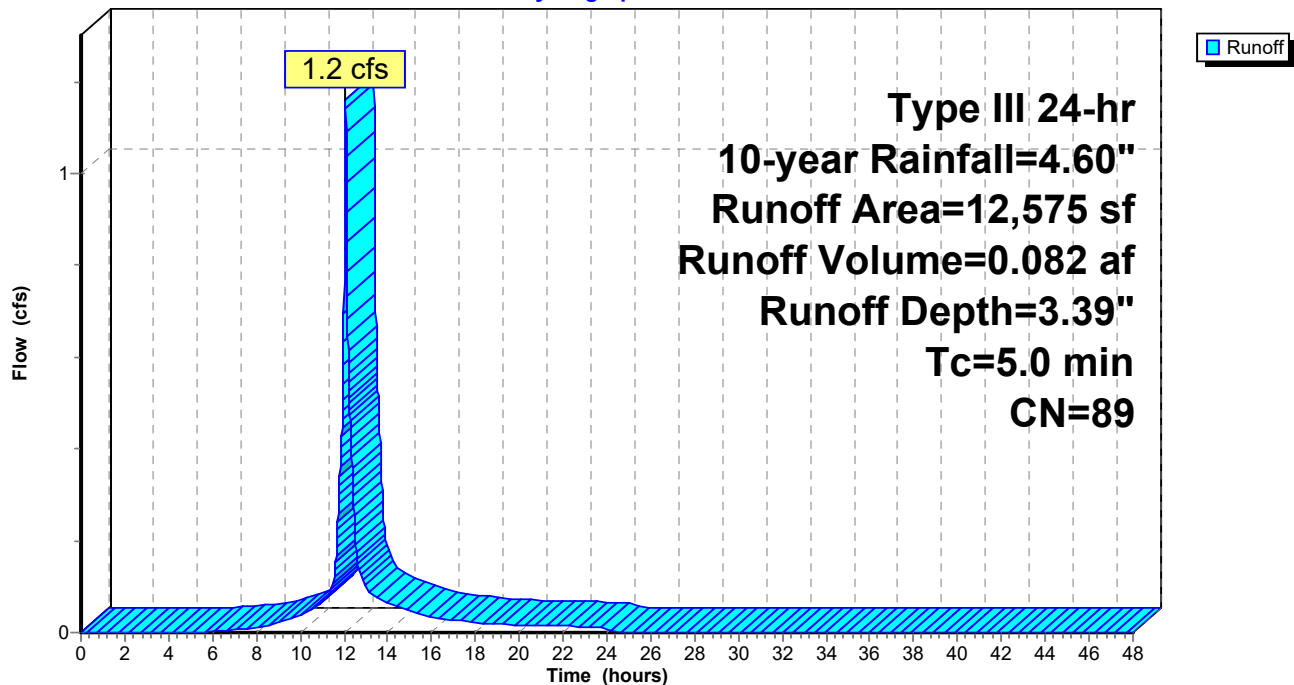
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-year Rainfall=4.60"

	Area (sf)	CN	Description
*	10,625	98	pave/roof
	1,950	39	>75% Grass cover, Good, HSG A
	12,575	89	Weighted Average
	1,950		15.51% Pervious Area
	10,625		84.49% Impervious Area

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

Subcatchment 3P: 3

Hydrograph



Summary for Subcatchment 4P: 4

Runoff = 3.1 cfs @ 12.08 hrs, Volume= 0.253 af, Depth= 4.36"

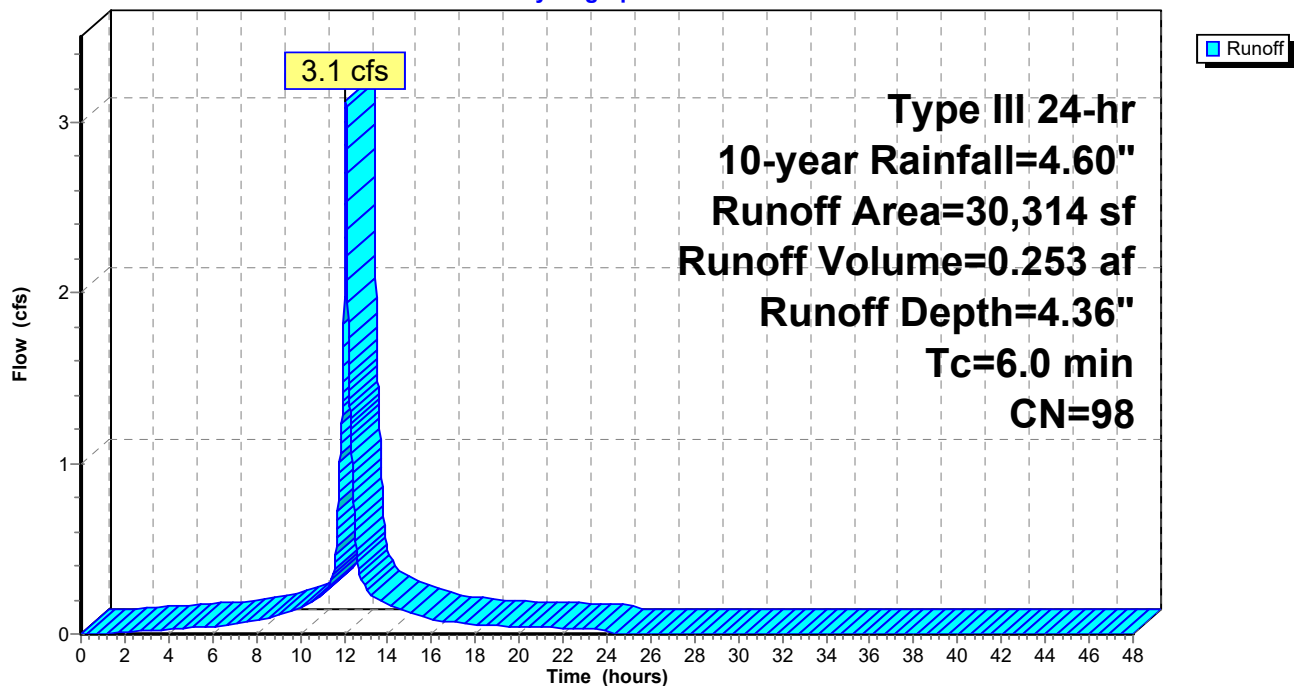
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-year Rainfall=4.60"

	Area (sf)	CN	Description
*	30,314	98	1/2 new roof
	30,314		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, TC Time < 6 mins

Subcatchment 4P: 4

Hydrograph



Summary for Subcatchment 6P: 4

Runoff = 3.1 cfs @ 12.08 hrs, Volume= 0.253 af, Depth= 4.36"

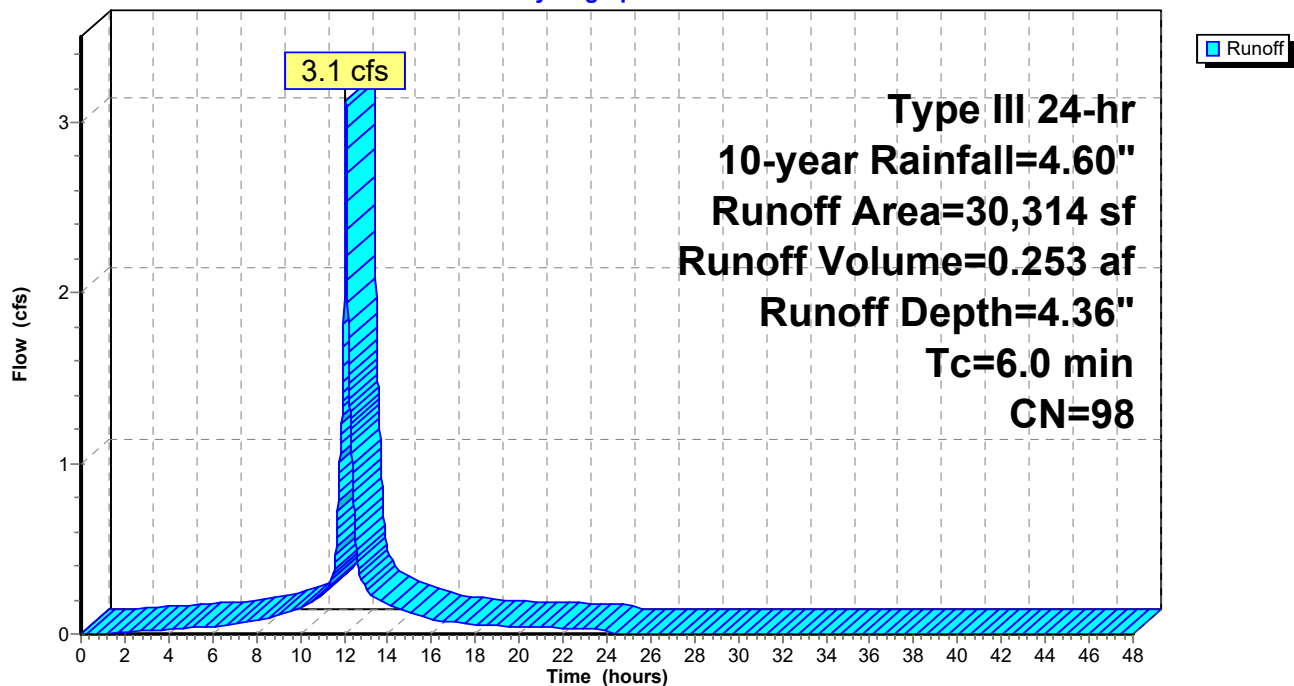
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-year Rainfall=4.60"

	Area (sf)	CN	Description
*	30,314	98	1/2 new roof
	30,314		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, TC Time < 6 mins

Subcatchment 6P: 4

Hydrograph



Summary for Reach POI 1: POI 1

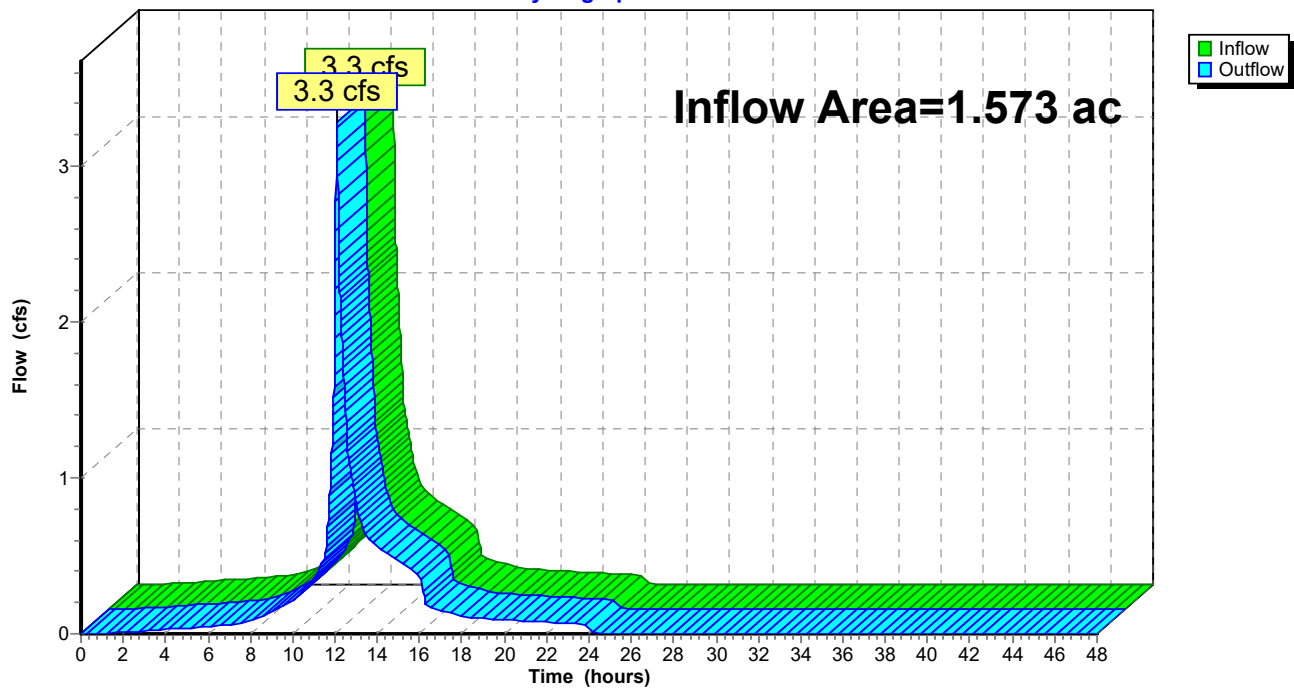
[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 1.573 ac, 85.58% Impervious, Inflow Depth = 3.50" for 10-year event
Inflow = 3.3 cfs @ 12.09 hrs, Volume= 0.459 af
Outflow = 3.3 cfs @ 12.09 hrs, Volume= 0.459 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Reach POI 1: POI 1

Hydrograph



Summary for Reach POI 2: POI 2

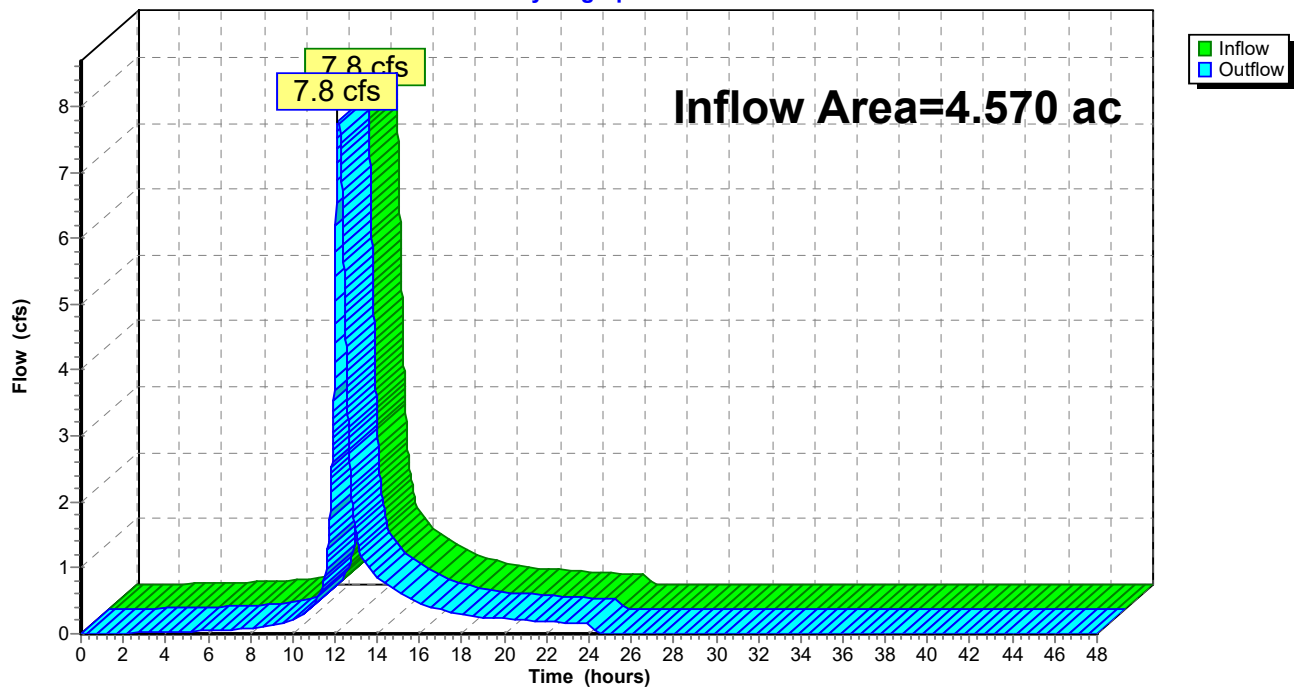
[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 4.570 ac, 69.67% Impervious, Inflow Depth = 2.43" for 10-year event
Inflow = 7.8 cfs @ 12.13 hrs, Volume= 0.924 af
Outflow = 7.8 cfs @ 12.13 hrs, Volume= 0.924 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Reach POI 2: POI 2

Hydrograph



Summary for Pond 5P: Filterra 6X8

Inflow Area = 0.289 ac, 84.49% Impervious, Inflow Depth = 3.39" for 10-year event
 Inflow = 1.2 cfs @ 12.07 hrs, Volume= 0.082 af
 Outflow = 1.2 cfs @ 12.07 hrs, Volume= 0.082 af, Atten= 0%, Lag= 0.0 min
 Primary = 1.2 cfs @ 12.07 hrs, Volume= 0.082 af
 Secondary = 0.0 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs / 2

Peak Elev= 87.56' @ 12.07 hrs

Flood Elev= 103.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	87.00'	12.0" Round Outlet Pipe L= 18.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 87.00' / 85.50' S= 0.0833 ' S= 0.0833 ' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf
#2	Secondary	103.00'	18.0" Horiz. CB C= 0.600 in 24.0" x 24.0" Grate (44% open area) Limited to weir flow at low heads

Primary OutFlow Max=1.1 cfs @ 12.07 hrs HW=87.56' (Free Discharge)

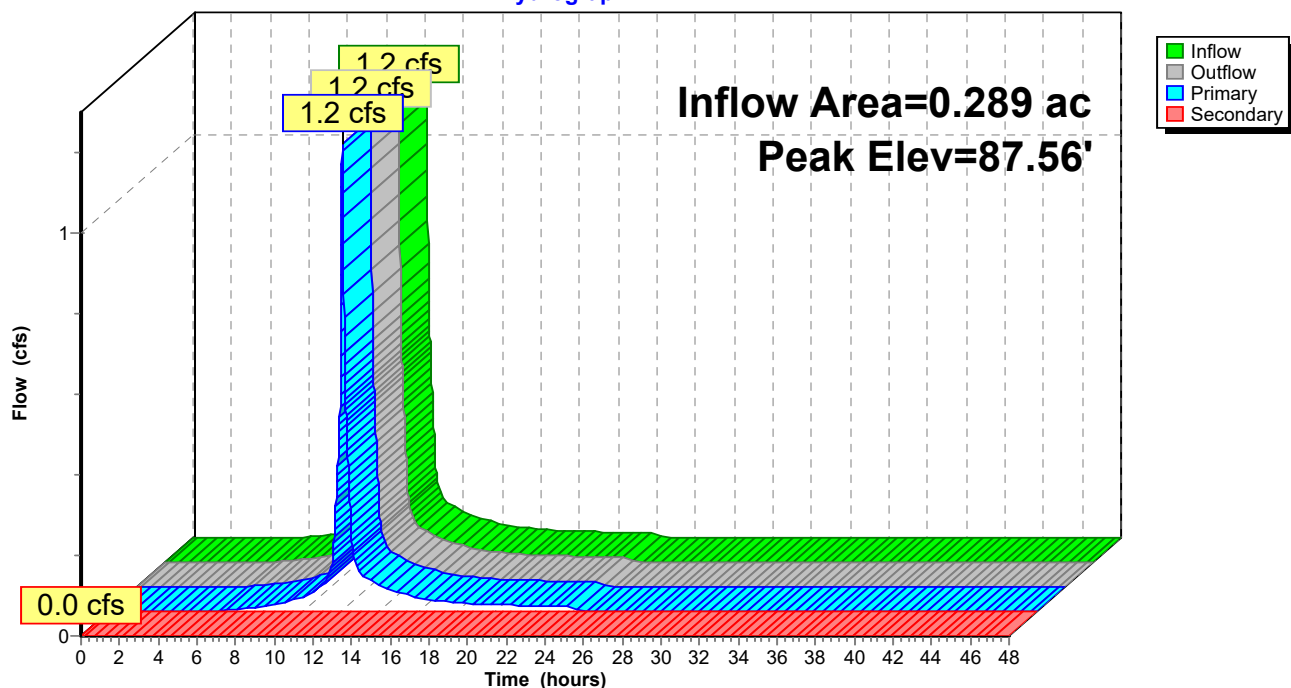
↑1=Outlet Pipe (Inlet Controls 1.1 cfs @ 2.55 fps)

Secondary OutFlow Max=0.0 cfs @ 0.00 hrs HW=87.00' (Free Discharge)

↑2=CB (Controls 0.0 cfs)

Pond 5P: Filterra 6X8

Hydrograph



Summary for Pond 7P: ADS Stormtech

[44] Hint: Outlet device #3 is below defined storage

Inflow Area = 0.696 ac, 100.00% Impervious, Inflow Depth = 4.36" for 10-year event
 Inflow = 3.1 cfs @ 12.08 hrs, Volume= 0.253 af
 Outflow = 0.8 cfs @ 12.45 hrs, Volume= 0.253 af, Atten= 75%, Lag= 22.2 min
 Primary = 0.8 cfs @ 12.45 hrs, Volume= 0.253 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Peak Elev= 87.62' @ 12.45 hrs Surf.Area= 0.049 ac Storage= 0.070 af

Plug-Flow detention time= 36.5 min calculated for 0.253 af (100% of inflow)
 Center-of-Mass det. time= 36.5 min (785.9 - 749.4)

Volume	Invert	Avail.Storage	Storage Description
#1A	85.40'	0.045 af	20.50'W x 96.18'L x 3.50'H Field A Z=0.3 0.168 af Overall - 0.055 af Embedded = 0.114 af x 40.0% Voids
#2A	85.90'	0.055 af	ADS_StormTech SC-740 +Cap x 52 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 52 Chambers in 4 Rows
		0.100 af	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	84.50'	12.0" Round Stormdrain L= 20.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 84.50' / 84.25' S= 0.0125 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf
#2	Device 1	88.40'	4.0' long Sharp-Crested Vee/Trap Weir Cv= 2.62 (C= 3.28)
#3	Device 1	84.50'	3.2" Vert. Orifice C= 0.600
#4	Device 1	86.90'	4.0" Vert. Orifice C= 0.600
#5	Device 4	85.90'	12.0" Round Outlet Pipe L= 5.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 85.90' / 85.80' S= 0.0200 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.8 cfs @ 12.45 hrs HW=87.62' (Free Discharge)

- 1=Stormdrain (Passes 0.8 cfs of 6.1 cfs potential flow)
- 2=Sharp-Crested Vee/Trap Weir (Controls 0.0 cfs)
- 3=Orifice (Orifice Controls 0.5 cfs @ 8.32 fps)
- 4=Orifice (Orifice Controls 0.3 cfs @ 3.57 fps)
- 5=Outlet Pipe (Passes 0.3 cfs of 3.2 cfs potential flow)

Pond 7P: ADS Stormtech - Chamber Wizard Field A**Chamber Model = ADS_StormTech SC-740 +Cap (ADS StormTech® SC-740 with cap length)**

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

51.0" Wide + 6.0" Spacing = 57.0" C-C Row Spacing

13 Chambers/Row x 7.12' Long +0.81' Cap Length x 2 = 94.18' Row Length +12.0" End Stone x 2 = 96.18' Base Length

4 Rows x 51.0" Wide + 6.0" Spacing x 3 + 12.0" Side Stone x 2 = 20.50' Base Width

6.0" Base + 30.0" Chamber Height + 6.0" Cover = 3.50' Field Height

0.3 ' Side-Z x Height = 12.6" Flare/Side

Base Length + Flare x 2 = 98.28' Top Length

Base Width + Flare x 2 = 22.60' Top Width

52 Chambers x 45.9 cf = 2,388.9 cf Chamber Storage

7,334.6 cf Field - 2,388.9 cf Chambers = 4,945.7 cf Stone x 40.0% Voids = 1,978.3 cf Stone Storage

Chamber Storage + Stone Storage = 4,367.2 cf = 0.100 af

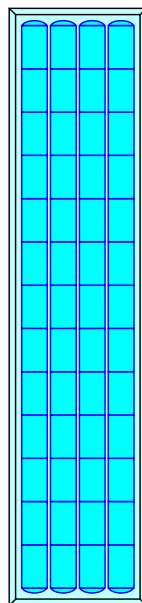
Overall Storage Efficiency = 59.5%

Overall System Size = 96.18' x 20.50' x 3.50'

52 Chambers

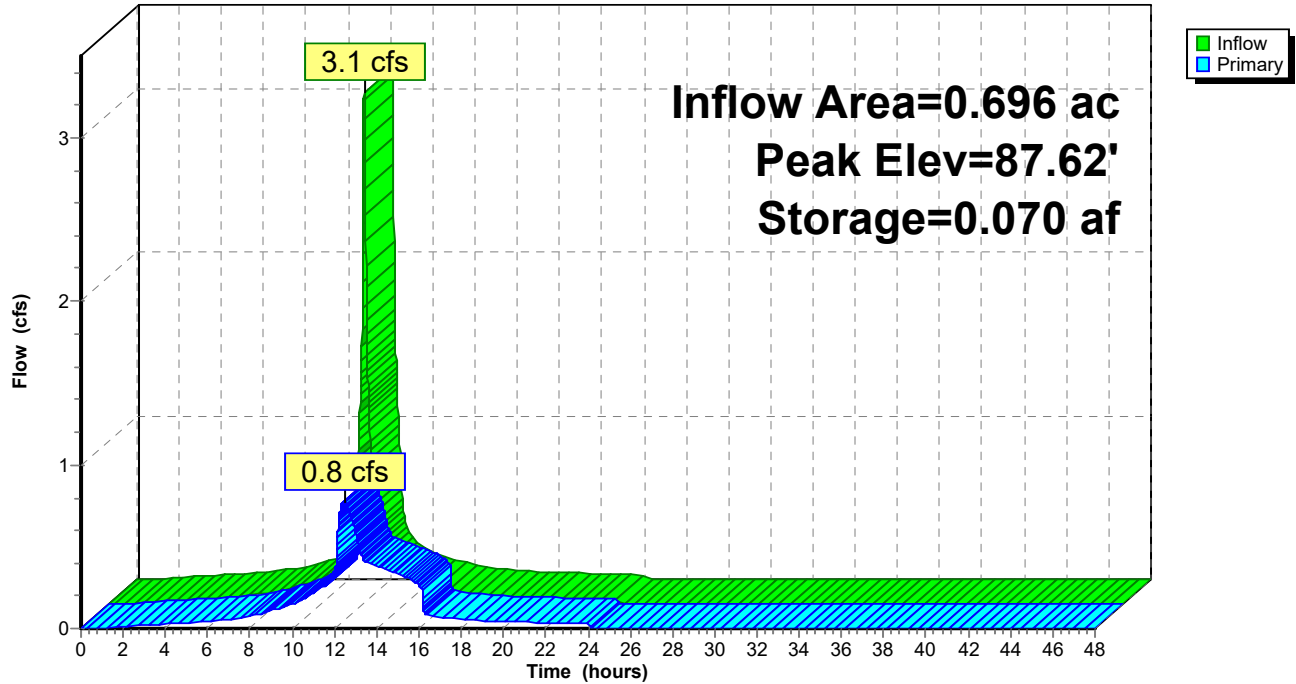
271.7 cy Field

183.2 cy Stone



Pond 7P: ADS Stormtech

Hydrograph



1176_POST

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

Prepared by {enter your company name here}

Printed 7/18/2023

HydroCAD® 10.00-26 s/n 00620 © 2020 HydroCAD Software Solutions LLC

Page 43

Time span=0.00-48.00 hrs, dt=0.01 hrs, 4801 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment1P: 1	Runoff Area=38,210 sf 74.15% Impervious Runoff Depth=3.91" Tc=6.0 min CN=83 Runoff=4.0 cfs 0.286 af
Subcatchment2P: 2	Runoff Area=156,183 sf 62.58% Impervious Runoff Depth=2.92" Flow Length=918' Tc=17.9 min CN=73 Runoff=8.6 cfs 0.874 af
Subcatchment3P: 3	Runoff Area=12,575 sf 84.49% Impervious Runoff Depth=4.54" Tc=5.0 min CN=89 Runoff=1.5 cfs 0.109 af
Subcatchment4P: 4	Runoff Area=30,314 sf 100.00% Impervious Runoff Depth=5.56" Tc=6.0 min CN=98 Runoff=4.0 cfs 0.323 af
Subcatchment6P: 4	Runoff Area=30,314 sf 100.00% Impervious Runoff Depth=5.56" Tc=6.0 min CN=98 Runoff=4.0 cfs 0.323 af
Reach POI 1: POI 1	Inflow=4.6 cfs 0.608 af Outflow=4.6 cfs 0.608 af
Reach POI 2: POI 2	Inflow=11.2 cfs 1.305 af Outflow=11.2 cfs 1.305 af
Pond 5P: Filterra 6X8	Peak Elev=87.66' Inflow=1.5 cfs 0.109 af Primary=1.5 cfs 0.109 af Secondary=0.0 cfs 0.000 af Outflow=1.5 cfs 0.109 af
Pond 7P: ADS Stormtech	Peak Elev=88.43' Storage=0.091 af Inflow=4.0 cfs 0.323 af Outflow=1.1 cfs 0.323 af

Total Runoff Area = 6.143 ac Runoff Volume = 1.913 af Average Runoff Depth = 3.74"
26.26% Pervious = 1.613 ac 73.74% Impervious = 4.530 ac

Summary for Subcatchment 1P: 1

Runoff = 4.0 cfs @ 12.09 hrs, Volume= 0.286 af, Depth= 3.91"

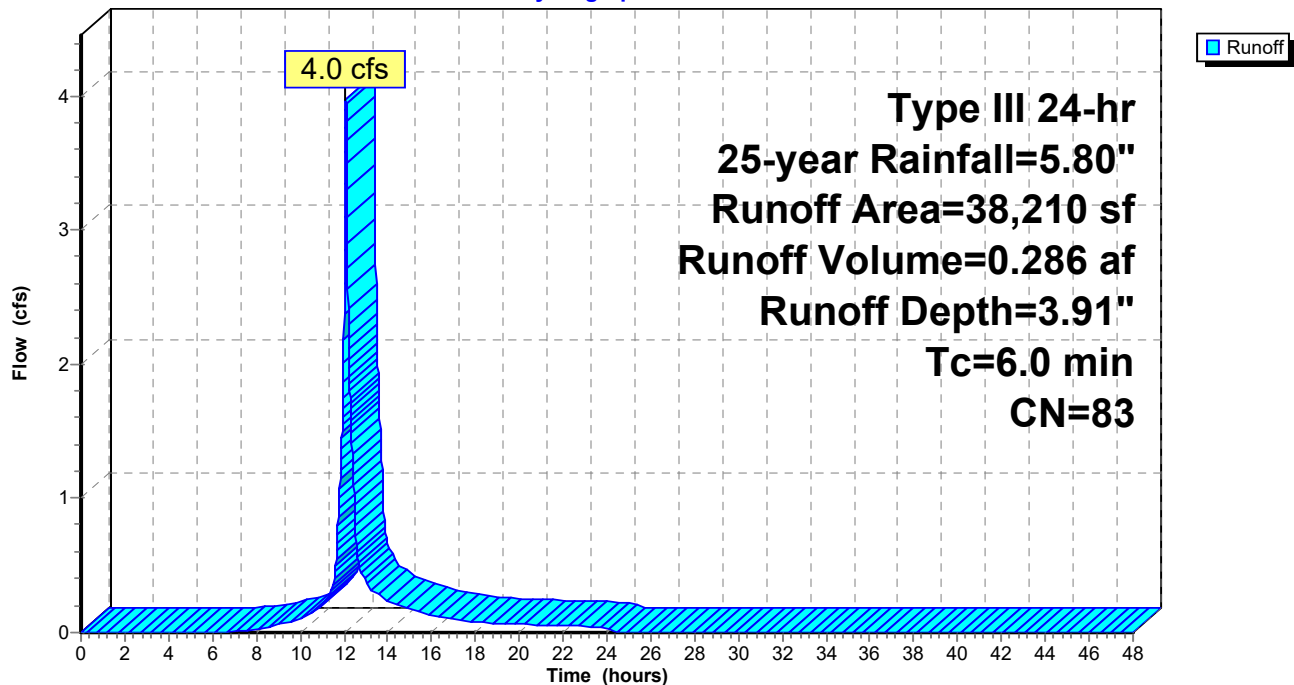
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-year Rainfall=5.80"

Area (sf)	CN	Description
9,879	39	>75% Grass cover, Good, HSG A
* 28,331	98	pave/roof
38,210	83	Weighted Average
9,879		25.85% Pervious Area
28,331		74.15% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, TC Time < 6 mins

Subcatchment 1P: 1

Hydrograph



1176_POST

Prepared by {enter your company name here}

HydroCAD® 10.00-26 s/n 00620 © 2020 HydroCAD Software Solutions LLC

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

Printed 7/18/2023

Page 45

Summary for Subcatchment 2P: 2

Runoff = 8.6 cfs @ 12.25 hrs, Volume= 0.874 af, Depth= 2.92"

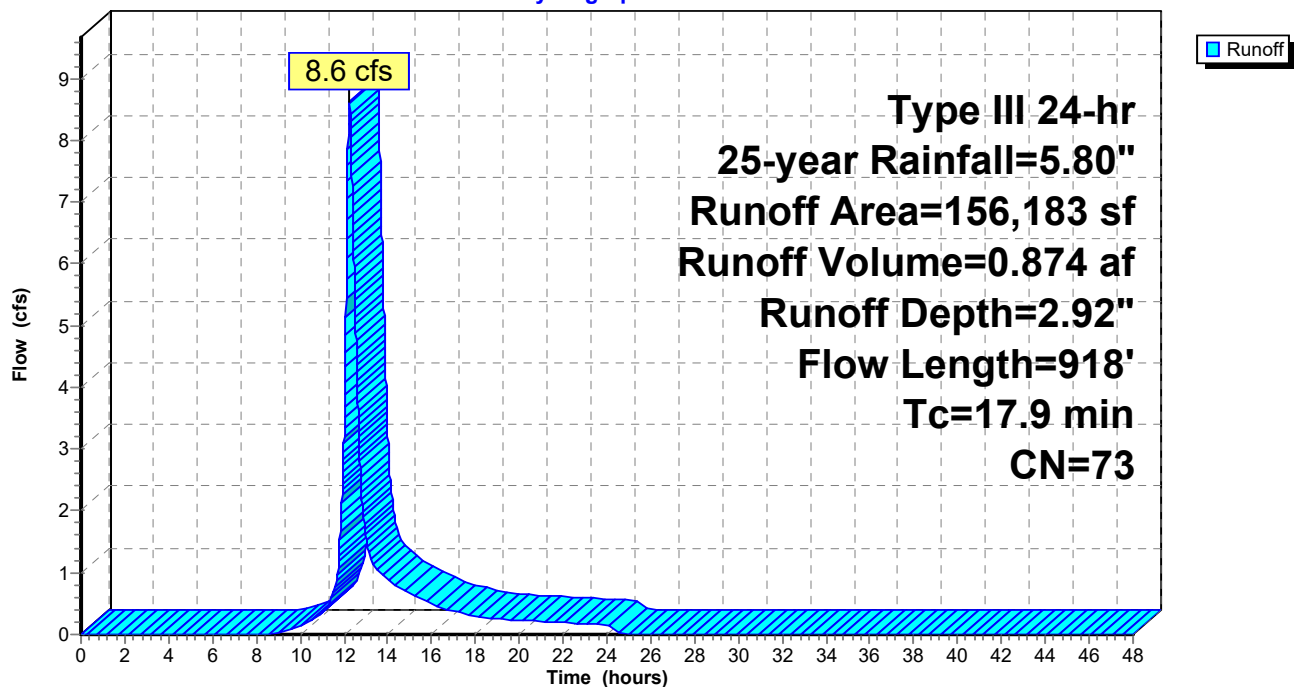
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-year Rainfall=5.80"

	Area (sf)	CN	Description
*	97,747	98	buildings/pave
	48,746	30	Woods, Good, HSG A
	9,690	39	>75% Grass cover, Good, HSG A
	156,183	73	Weighted Average
	58,436		37.42% Pervious Area
	97,747		62.58% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.6	100	0.0100	1.05		Sheet Flow, A TO B Smooth surfaces n= 0.011 P2= 3.27"
1.5	257	0.0200	2.87		Shallow Concentrated Flow, B TO C Paved Kv= 20.3 fps
14.8	561	0.0160	0.63		Shallow Concentrated Flow, C TO D Woodland Kv= 5.0 fps
17.9	918	Total			

Subcatchment 2P: 2

Hydrograph



Summary for Subcatchment 3P: 3

Runoff = 1.5 cfs @ 12.07 hrs, Volume= 0.109 af, Depth= 4.54"

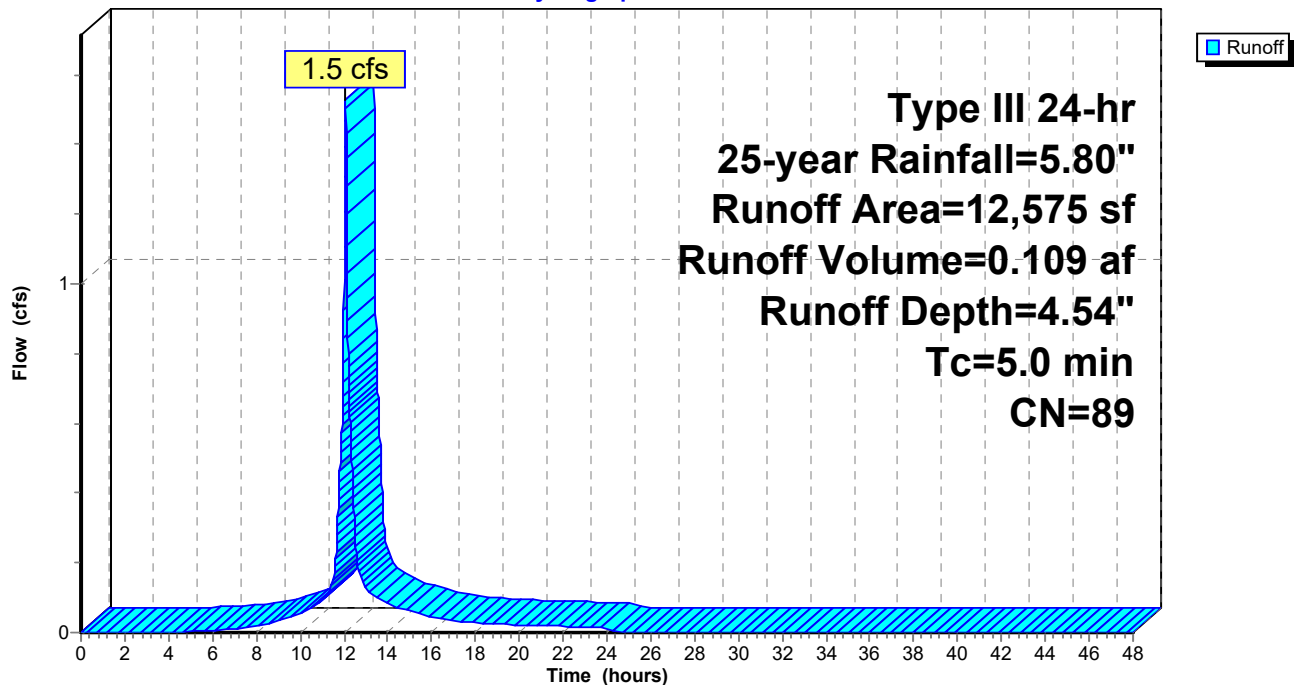
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-year Rainfall=5.80"

	Area (sf)	CN	Description
*	10,625	98	pave/roof
	1,950	39	>75% Grass cover, Good, HSG A
	12,575	89	Weighted Average
	1,950		15.51% Pervious Area
	10,625		84.49% Impervious Area

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

Subcatchment 3P: 3

Hydrograph



Summary for Subcatchment 4P: 4

Runoff = 4.0 cfs @ 12.08 hrs, Volume= 0.323 af, Depth= 5.56"

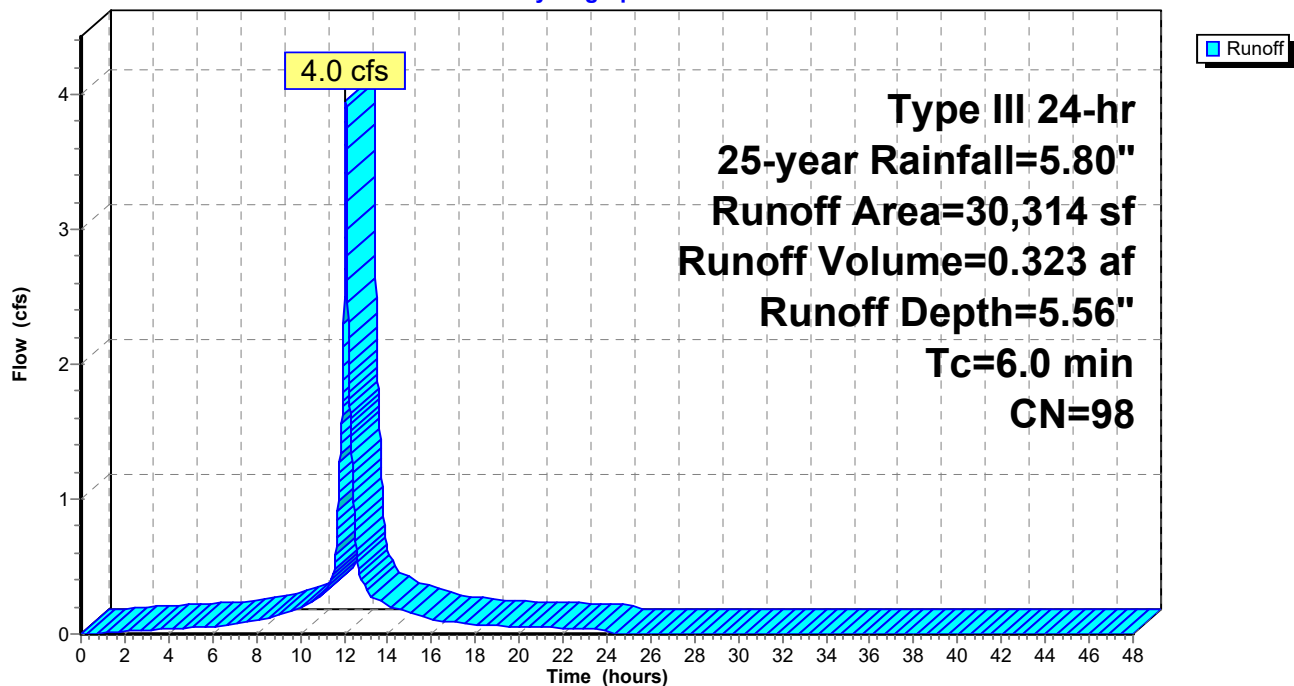
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-year Rainfall=5.80"

	Area (sf)	CN	Description
*	30,314	98	1/2 new roof
	30,314		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, TC Time < 6 mins

Subcatchment 4P: 4

Hydrograph



Summary for Subcatchment 6P: 4

Runoff = 4.0 cfs @ 12.08 hrs, Volume= 0.323 af, Depth= 5.56"

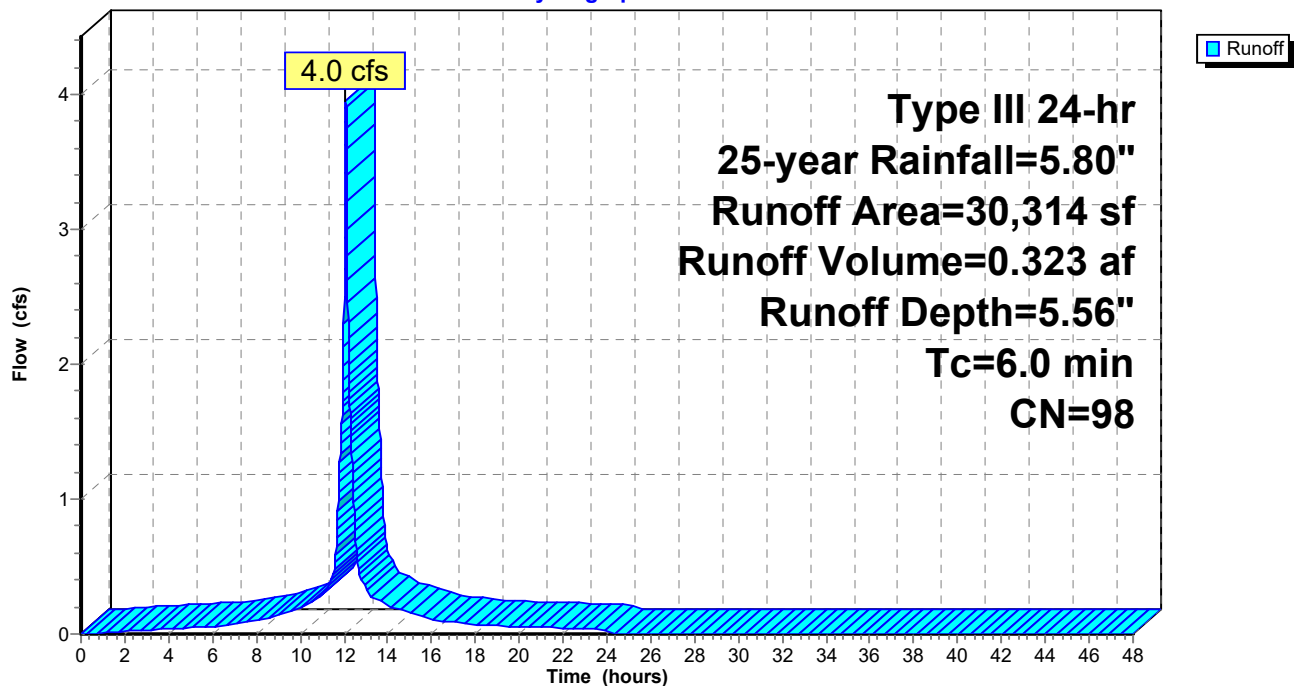
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-year Rainfall=5.80"

	Area (sf)	CN	Description
*	30,314	98	1/2 new roof
	30,314		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, TC Time < 6 mins

Subcatchment 6P: 4

Hydrograph



Summary for Reach POI 1: POI 1

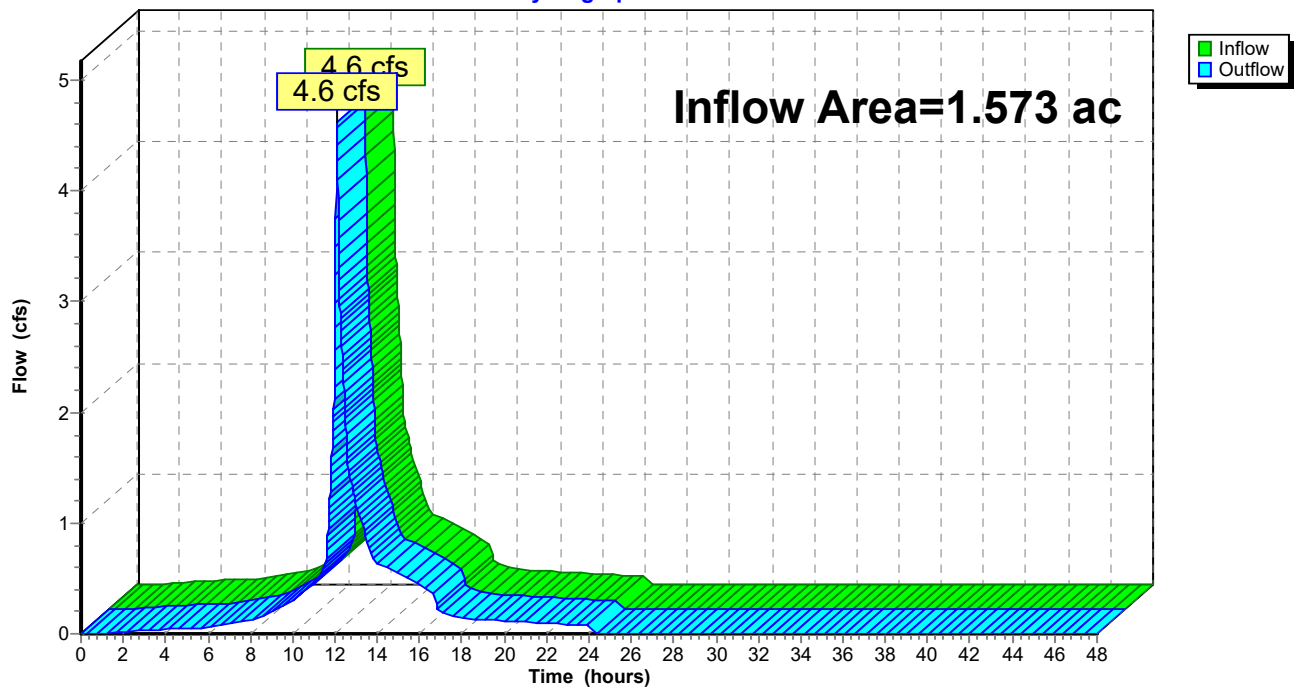
[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 1.573 ac, 85.58% Impervious, Inflow Depth = 4.64" for 25-year event
Inflow = 4.6 cfs @ 12.09 hrs, Volume= 0.608 af
Outflow = 4.6 cfs @ 12.09 hrs, Volume= 0.608 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Reach POI 1: POI 1

Hydrograph



Summary for Reach POI 2: POI 2

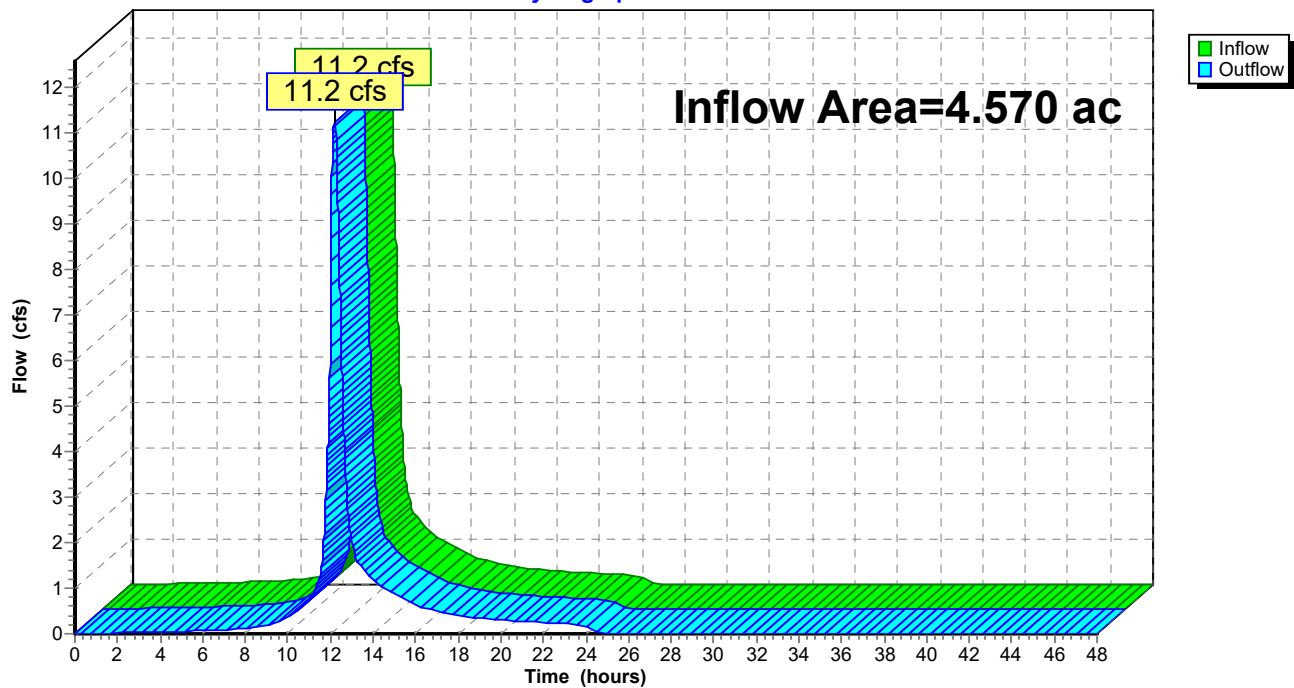
[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 4.570 ac, 69.67% Impervious, Inflow Depth = 3.43" for 25-year event
Inflow = 11.2 cfs @ 12.21 hrs, Volume= 1.305 af
Outflow = 11.2 cfs @ 12.21 hrs, Volume= 1.305 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Reach POI 2: POI 2

Hydrograph



Summary for Pond 5P: Filterra 6X8

Inflow Area = 0.289 ac, 84.49% Impervious, Inflow Depth = 4.54" for 25-year event
 Inflow = 1.5 cfs @ 12.07 hrs, Volume= 0.109 af
 Outflow = 1.5 cfs @ 12.07 hrs, Volume= 0.109 af, Atten= 0%, Lag= 0.0 min
 Primary = 1.5 cfs @ 12.07 hrs, Volume= 0.109 af
 Secondary = 0.0 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs / 2

Peak Elev= 87.66' @ 12.07 hrs

Flood Elev= 103.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	87.00'	12.0" Round Outlet Pipe L= 18.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 87.00' / 85.50' S= 0.0833 ' / ' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf
#2	Secondary	103.00'	18.0" Horiz. CB C= 0.600 in 24.0" x 24.0" Grate (44% open area) Limited to weir flow at low heads

Primary OutFlow Max=1.5 cfs @ 12.07 hrs HW=87.66' (Free Discharge)

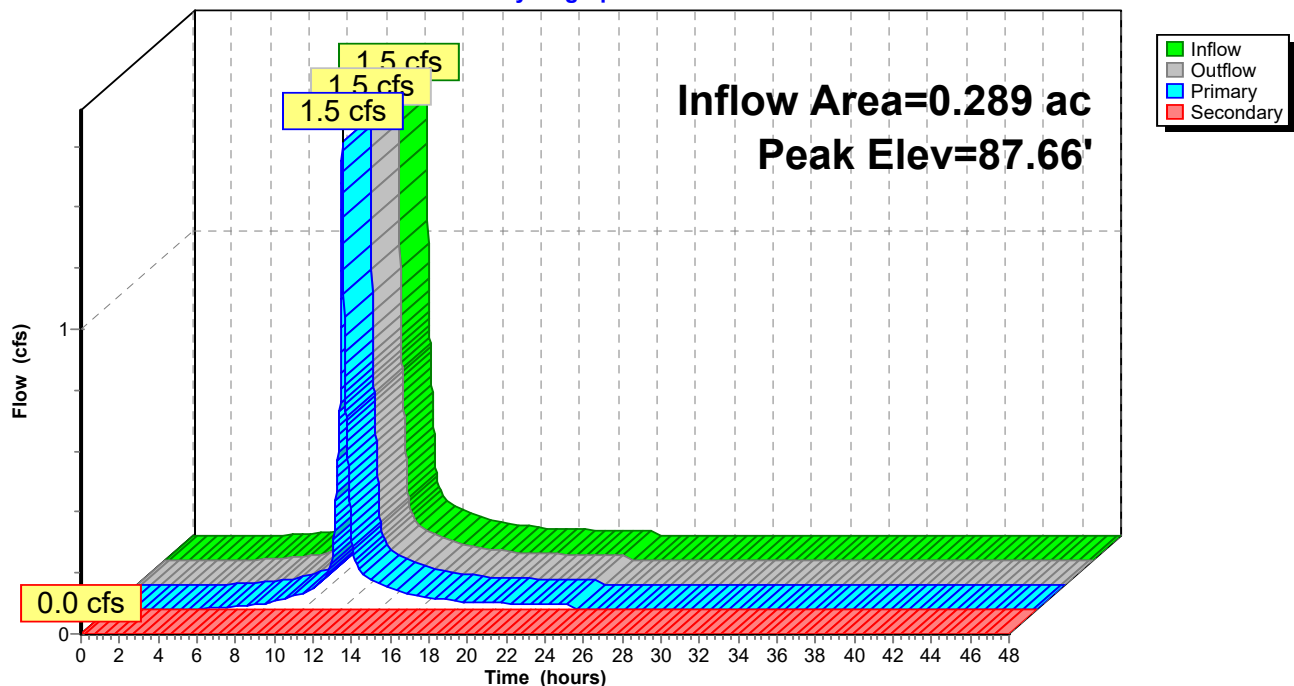
↑1=Outlet Pipe (Inlet Controls 1.5 cfs @ 2.77 fps)

Secondary OutFlow Max=0.0 cfs @ 0.00 hrs HW=87.00' (Free Discharge)

↑2=CB (Controls 0.0 cfs)

Pond 5P: Filterra 6X8

Hydrograph



Summary for Pond 7P: ADS Stormtech

[44] Hint: Outlet device #3 is below defined storage

Inflow Area = 0.696 ac, 100.00% Impervious, Inflow Depth = 5.56" for 25-year event
 Inflow = 4.0 cfs @ 12.08 hrs, Volume= 0.323 af
 Outflow = 1.1 cfs @ 12.42 hrs, Volume= 0.323 af, Atten= 73%, Lag= 20.5 min
 Primary = 1.1 cfs @ 12.42 hrs, Volume= 0.323 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Peak Elev= 88.43' @ 12.42 hrs Surf.Area= 0.050 ac Storage= 0.091 af

Plug-Flow detention time= 39.2 min calculated for 0.323 af (100% of inflow)
 Center-of-Mass det. time= 39.2 min (784.8 - 745.7)

Volume	Invert	Avail.Storage	Storage Description
#1A	85.40'	0.045 af	20.50'W x 96.18'L x 3.50'H Field A Z=0.3 0.168 af Overall - 0.055 af Embedded = 0.114 af x 40.0% Voids
#2A	85.90'	0.055 af	ADS_StormTech SC-740 +Cap x 52 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 52 Chambers in 4 Rows
		0.100 af	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	84.50'	12.0" Round Stormdrain L= 20.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 84.50' / 84.25' S= 0.0125 ' /' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf
#2	Device 1	88.40'	4.0' long Sharp-Crested Vee/Trap Weir Cv= 2.62 (C= 3.28)
#3	Device 1	84.50'	3.2" Vert. Orifice C= 0.600
#4	Device 1	86.90'	4.0" Vert. Orifice C= 0.600
#5	Device 4	85.90'	12.0" Round Outlet Pipe L= 5.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 85.90' / 85.80' S= 0.0200 ' /' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=1.1 cfs @ 12.42 hrs HW=88.43' (Free Discharge)

- 1=Stormdrain (Passes 1.1 cfs of 7.0 cfs potential flow)
- 2=Sharp-Crested Vee/Trap Weir (Weir Controls 0.1 cfs @ 0.54 fps)
- 3=Orifice (Orifice Controls 0.5 cfs @ 9.38 fps)
- 4=Orifice (Orifice Controls 0.5 cfs @ 5.62 fps)
- 5=Outlet Pipe (Passes 0.5 cfs of 4.7 cfs potential flow)

Pond 7P: ADS Stormtech - Chamber Wizard Field A**Chamber Model = ADS_StormTech SC-740 +Cap (ADS StormTech® SC-740 with cap length)**

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

51.0" Wide + 6.0" Spacing = 57.0" C-C Row Spacing

13 Chambers/Row x 7.12' Long +0.81' Cap Length x 2 = 94.18' Row Length +12.0" End Stone x 2 = 96.18' Base Length

4 Rows x 51.0" Wide + 6.0" Spacing x 3 + 12.0" Side Stone x 2 = 20.50' Base Width

6.0" Base + 30.0" Chamber Height + 6.0" Cover = 3.50' Field Height

0.3 ' Side-Z x Height = 12.6" Flare/Side

Base Length + Flare x 2 = 98.28' Top Length

Base Width + Flare x 2 = 22.60' Top Width

52 Chambers x 45.9 cf = 2,388.9 cf Chamber Storage

7,334.6 cf Field - 2,388.9 cf Chambers = 4,945.7 cf Stone x 40.0% Voids = 1,978.3 cf Stone Storage

Chamber Storage + Stone Storage = 4,367.2 cf = 0.100 af

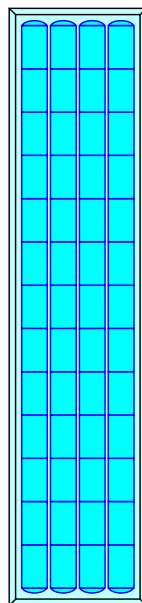
Overall Storage Efficiency = 59.5%

Overall System Size = 96.18' x 20.50' x 3.50'

52 Chambers

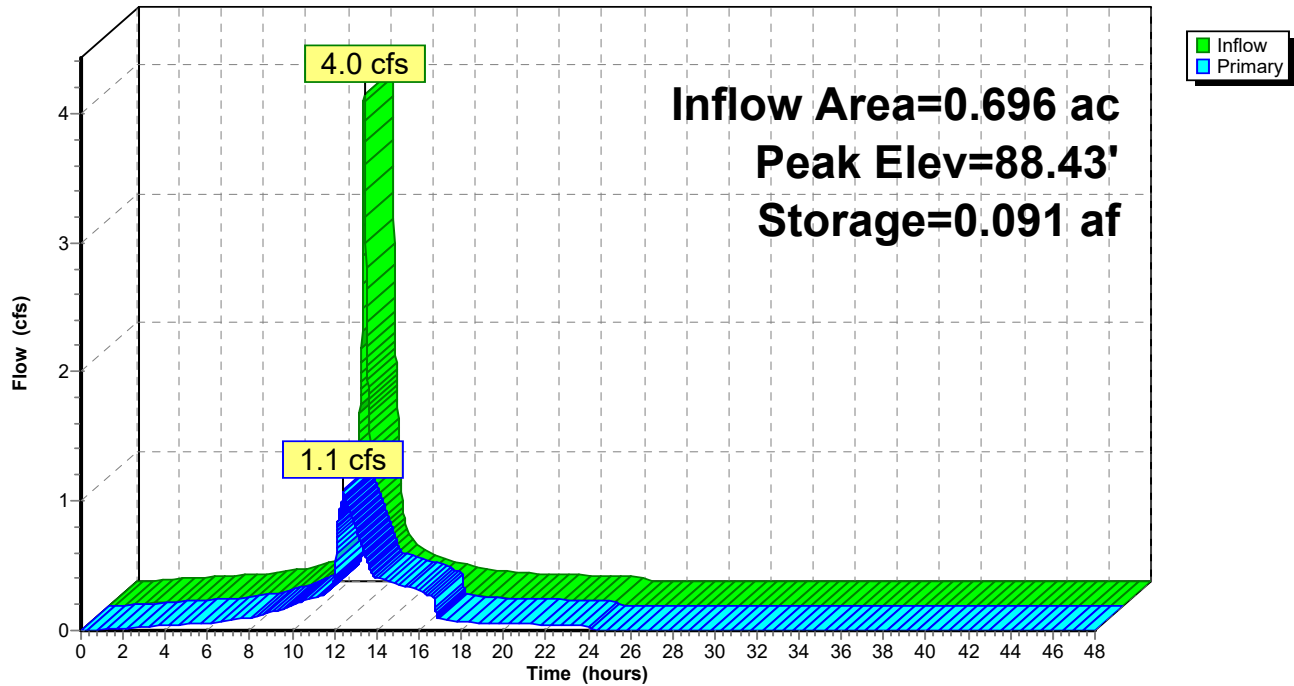
271.7 cy Field

183.2 cy Stone



Pond 7P: ADS Stormtech

Hydrograph





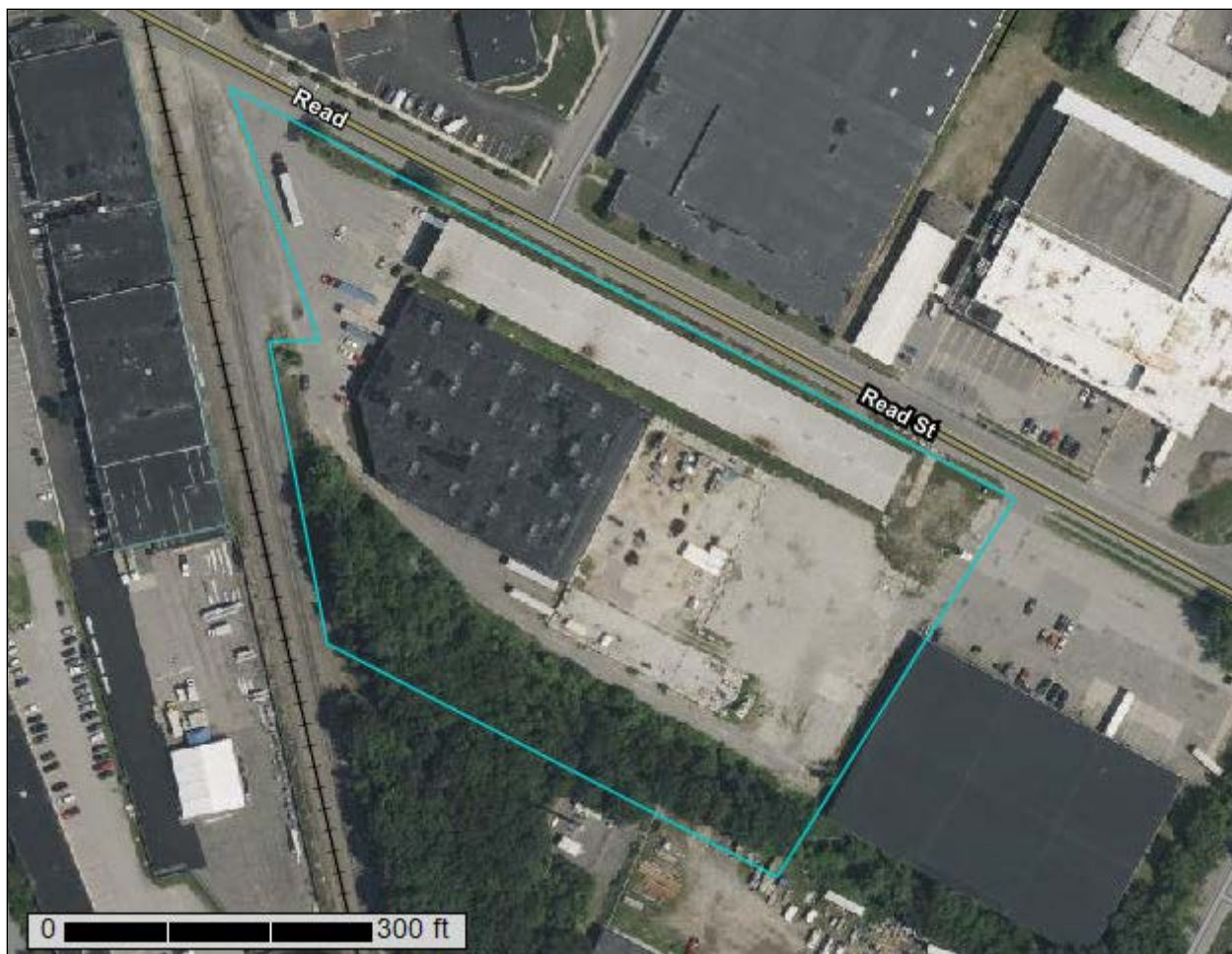
United States
Department of
Agriculture

NRCS

Natural
Resources
Conservation
Service

A product of the National
Cooperative Soil Survey,
a joint effort of the United
States Department of
Agriculture and other
Federal agencies, State
agencies including the
Agricultural Experiment
Stations, and local
participants

Custom Soil Resource Report for Cumberland County and Part of Oxford County, Maine



June 15, 2022

Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (<http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/>) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (<https://offices.sc.egov.usda.gov/locator/app?agency=nrcs>) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, age, disability, and where applicable, sex, marital status, familial status, parental status, religion, sexual orientation, genetic information, political beliefs, reprisal, or because all or a part of an individual's income is derived from any public assistance program. (Not all prohibited bases apply to all programs.) Persons with disabilities who require

alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at (202) 720-2600 (voice and TDD). To file a complaint of discrimination, write to USDA, Director, Office of Civil Rights, 1400 Independence Avenue, S.W., Washington, D.C. 20250-9410 or call (800) 795-3272 (voice) or (202) 720-6382 (TDD). USDA is an equal opportunity provider and employer.

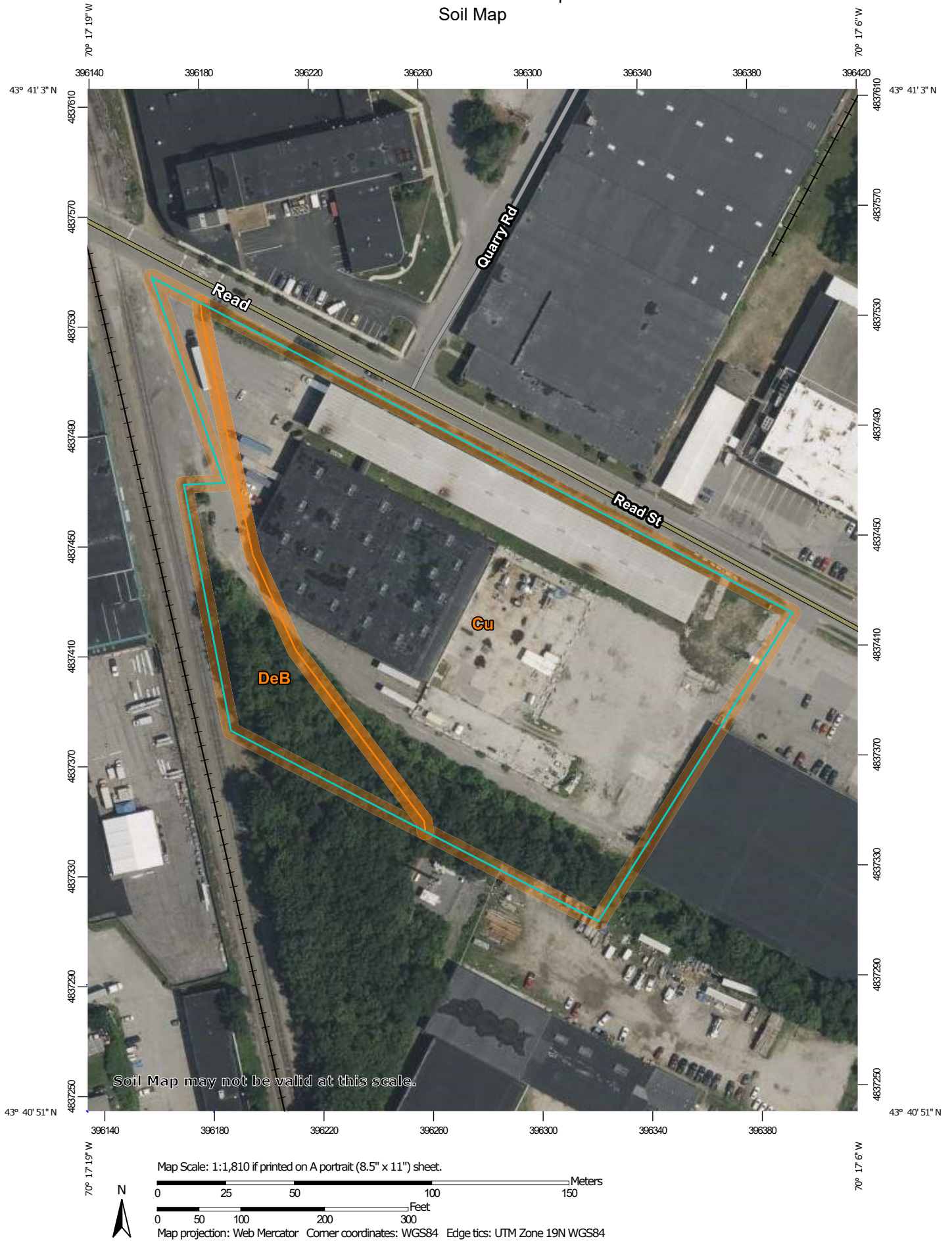
Contents

Preface	2
How Soil Surveys Are Made	5
Soil Map	8
Soil Map.....	9
Legend.....	10
Map Unit Legend.....	12
Map Unit Descriptions.....	12
Cumberland County and Part of Oxford County, Maine.....	14
Cu—Cut and fill land.....	14
DeB—Deerfield loamy fine sand, 3 to 8 percent slopes.....	14
References	16

Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Custom Soil Resource Report
Soil Map



MAP LEGEND

Area of Interest (AOI)

 Area of Interest (AOI)

Soils

 Soil Map Unit Polygons

 Soil Map Unit Lines

 Soil Map Unit Points

Special Point Features

 Blowout

 Borrow Pit

 Clay Spot

 Closed Depression

 Gravel Pit

 Gravelly Spot

 Landfill

 Lava Flow

 Marsh or swamp

 Mine or Quarry

 Miscellaneous Water

 Perennial Water

 Rock Outcrop

 Saline Spot

 Sandy Spot

 Severely Eroded Spot

 Sinkhole

 Slide or Slip

 Sodic Spot

 Spoil Area

 Stony Spot

 Very Stony Spot

 Wet Spot

 Other

 Special Line Features

Water Features

 Streams and Canals

Transportation

 Rails

 Interstate Highways

 US Routes

 Major Roads

 Local Roads

Background

 Aerial Photography

MAP INFORMATION

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

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

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

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

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

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

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

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

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jul 22, 2021—Oct 7, 2021

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background

MAP LEGEND

MAP INFORMATION

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	5.7	85.1%
DeB	Deerfield loamy fine sand, 3 to 8 percent slopes	1.0	14.9%
Totals for Area of Interest		6.7	100.0%

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however,

onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Cumberland County and Part of Oxford County, Maine

Cu—Cut and fill land

Map Unit 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

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 supply, 0 to 60 inches: Moderate (about 6.6 inches)

DeB—Deerfield loamy fine sand, 3 to 8 percent slopes

Map Unit Setting

National map unit symbol: 2xfg9

Elevation: 0 to 1,190 feet

Mean annual precipitation: 36 to 71 inches

Mean annual air temperature: 39 to 55 degrees F

Frost-free period: 145 to 240 days

Farmland classification: Farmland of statewide importance

Map Unit Composition

Deerfield and similar soils: 85 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Deerfield

Setting

Landform: Kame terraces, outwash plains, outwash terraces, outwash deltas

Landform position (three-dimensional): Tread

Down-slope shape: Concave, convex, linear

Across-slope shape: Convex, linear, concave

Parent material: Sandy outwash derived from granite, gneiss, and/or quartzite

Typical profile

Ap - 0 to 9 inches: loamy fine sand

Bw - 9 to 25 inches: loamy fine sand

BC - 25 to 33 inches: fine sand

Cg - 33 to 60 inches: sand

Properties and qualities

Slope: 3 to 8 percent

Depth to restrictive feature: More than 80 inches

Custom Soil Resource Report

Drainage class: Moderately well drained

Runoff class: Very low

Capacity of the most limiting layer to transmit water (Ksat): Moderately high to very high (1.42 to 99.90 in/hr)

Depth to water table: About 15 to 37 inches

Frequency of flooding: None

Frequency of ponding: None

Maximum salinity: Nonsaline (0.0 to 1.9 mmhos/cm)

Sodium adsorption ratio, maximum: 11.0

Available water supply, 0 to 60 inches: Moderate (about 6.5 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 2w

Hydrologic Soil Group: A

Ecological site: F144AY027MA - Moist Sandy Outwash

Hydric soil rating: No

References

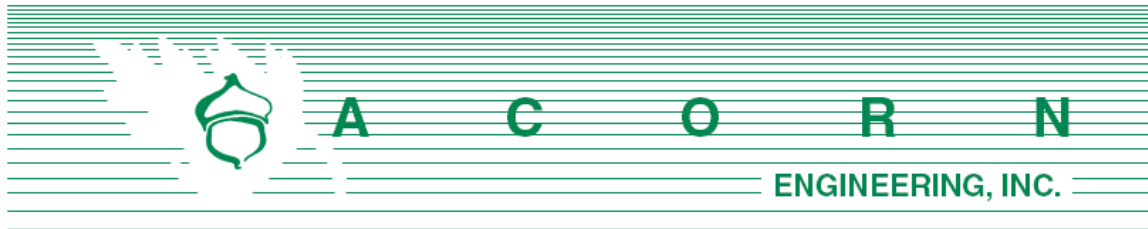
- American Association of State Highway and Transportation Officials (AASHTO). 2004. Standard specifications for transportation materials and methods of sampling and testing. 24th edition.
- American Society for Testing and Materials (ASTM). 2005. Standard classification of soils for engineering purposes. ASTM Standard D2487-00.
- Cowardin, L.M., V. Carter, F.C. Golet, and E.T. LaRoe. 1979. Classification of wetlands and deep-water habitats of the United States. U.S. Fish and Wildlife Service FWS/OBS-79/31.
- Federal Register. July 13, 1994. Changes in hydric soils of the United States.
- Federal Register. September 18, 2002. Hydric soils of the United States.
- Hurt, G.W., and L.M. Vasilas, editors. Version 6.0, 2006. Field indicators of hydric soils in the United States.
- National Research Council. 1995. Wetlands: Characteristics and boundaries.
- Soil Survey Division Staff. 1993. Soil survey manual. Soil Conservation Service. U.S. Department of Agriculture Handbook 18. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_054262
- Soil Survey Staff. 1999. Soil taxonomy: A basic system of soil classification for making and interpreting soil surveys. 2nd edition. Natural Resources Conservation Service, U.S. Department of Agriculture Handbook 436. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_053577
- Soil Survey Staff. 2010. Keys to soil taxonomy. 11th edition. U.S. Department of Agriculture, Natural Resources Conservation Service. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_053580
- Tiner, R.W., Jr. 1985. Wetlands of Delaware. U.S. Fish and Wildlife Service and Delaware Department of Natural Resources and Environmental Control, Wetlands Section.
- United States Army Corps of Engineers, Environmental Laboratory. 1987. Corps of Engineers wetlands delineation manual. Waterways Experiment Station Technical Report Y-87-1.
- United States Department of Agriculture, Natural Resources Conservation Service. National forestry manual. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/home/?cid=nrcs142p2_053374
- United States Department of Agriculture, Natural Resources Conservation Service. National range and pasture handbook. <http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/landuse/rangepasture/?cid=stelprdb1043084>

Custom Soil Resource Report

United States Department of Agriculture, Natural Resources Conservation Service. National soil survey handbook, title 430-VI. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/scientists/?cid=nrcs142p2_054242

United States Department of Agriculture, Natural Resources Conservation Service. 2006. Land resource regions and major land resource areas of the United States, the Caribbean, and the Pacific Basin. U.S. Department of Agriculture Handbook 296. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_053624

United States Department of Agriculture, Soil Conservation Service. 1961. Land capability classification. U.S. Department of Agriculture Handbook 210. http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_052290.pdf



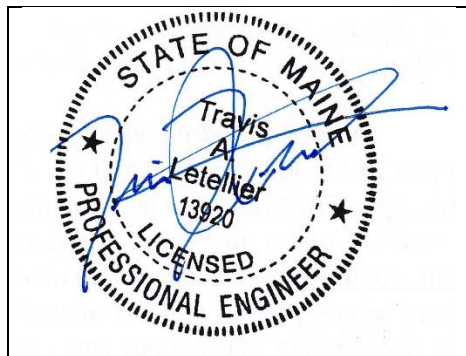
K. EROSION & SEDIMENTATION **CONTROL REPORT**

Prepared For:

**NEPW Logistics
182 Read Street
Portland, Maine 04103**

Prepared By:

**Acorn Engineering, Inc.
500 Washington Avenue
Portland, Maine 04103**



October 2022

INTRODUCTION

Acorn Engineering, Inc. has been retained by NEPW Logistics to provide civil engineering services for the proposed redevelopment of the 6.15-acre parcel (147-B-1) at 182 Read Street located within the I-M Zoning District in Portland, Maine.

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 off Read Street and abuts a railroad bed to the west. A Boundary & Topographic Survey has been prepared by Owen Haskell, Inc., dated August 12, 2022.

The property is in the I-M Residential Zone. Abutting Uses include:

- North Read Street
- West/South Springfield Terminal Railroad Tracks
- East Industrial Use

The property is currently the site of NEPW Logistics warehouse operations. The project intends to construct a 60,630 square foot warehouse building adjacent to the existing buildings. The building will be in the footprint of a warehouse in existence until 2012. The site in its existing condition drains water in roughly two directions, to the north and south. Please see the Stormwater Report for more detailed information on the existing and proposed subcatchments.

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
Cut and Fill Land	.15	.15
Deerfield Loamy Fine Sand	.20	.20

The soil "K" value for the soil, listed above, shows a lower susceptibility to erosion, as derived from the Soil Conservation Service Medium Intensity Soil Survey for Cumberland County. Although the soil "K" value shows a low susceptibility to erosion, implementation of the proposed Erosion & Sedimentation Measures by the contractor will be important to limit erosion during large storm events.

1.2 Existing Erosion Problems

There are no signs of erosion.

1.3 Critical Areas

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

1.4 Protected Natural Resource

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

1.5 Previous Construction Activity (5 years)

Acorn Engineering, Inc. is not aware of any construction related activities within the project limits within the past 5 years. Historical imagery shows the existence of a warehouse in the proposed footprint until around 2012.

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 Read 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 DETAILS AND SPECIFICATIONS

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

4.0 STABILIZATION PLAN FOR WINTER CONSTRUCTION

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

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

The following measures shall be implemented during winter construction periods:

4.1 Sediment Barriers

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

4.2 Mulching

All areas shall be considered to be denuded until seeded and mulched. Hay and straw mulch shall be applied at a rate of 150 lb. per 1,000 square feet or 3 tons/acre (twice the normal accepted rate of 75-lbs./1,000 s.f. or 1.5 tons/acre) and shall be properly



anchored. Erosion control mix must be applied with a minimum 4-inch thickness. Mulch shall not be spread on top of snow. The snow shall be removed down to a one-inch depth or less prior to application. After each day of final grading, the area shall be properly stabilized with anchored hay or straw or erosion control matting. An area shall be considered to have been stabilized when exposed surfaces have been either mulched or adequately anchored so that ground surface is not visible through the mulch. Between the dates of November 1 and April 15, all mulch shall be anchored by either mulch netting, tracking or wood cellulose fiber. The cover will be considered sufficient when the ground surface is not visible through the mulch. After November 1st, mulch and anchoring of all exposed soil shall occur at the end of each final grading workday.

4.3 Soil Stockpiling

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

4.4 Seeding

Between the dates of October 15th and April 1st, loam or seed shall not be required. During periods of above freezing temperatures finished areas shall be fine graded and either protected with mulch or temporarily seeded 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.



4.5 Over winter stabilization of disturbed soils

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

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

4.6 Over winter stabilization of disturbed slopes

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

- Stabilize the soil with temporary vegetation and erosion control mats – By October 1st the disturbed slope shall be seeded with winter rye at a seeding rate of 3 lbs per 1,000 s.f. and then install erosion control mats or anchored mulch over the seeding. If the rye fails to grow at least three inches or fails to cover at least 75% of the slope by November 1st, then the contractor shall cover the slope with a layer of erosion control mix or with stone riprap.
- Stabilize the soil with sod – The disturbed slope shall be stabilized with properly installed sod by October 1st. Proper installation includes the contractor 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 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.

5.1 Sediment Barriers

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

5.2 Stabilized Stone Construction Entrances

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

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.



6.0 IMPLEMENTATION SCHEDULE

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

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

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

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

7.0 CONCLUSION

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



8.0 ATTACHMENTS

- Temporary 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

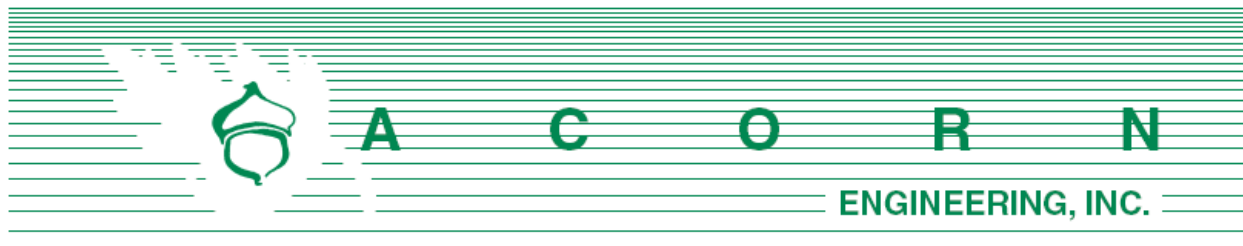
Mulching

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.





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

October 17, 2022

Subject: 182-184 Read St Redevelopment – Fire Department Checklist
 Section L of Application

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

1. Name, address, telephone number of applicant

NEPW Logistics
 70 Quarry Road
 Portland, Maine 04103
 (207) 805-3578

2. Name, address, telephone number of architect

Ryan Senatore Architecture
 500 Congress Street #2
 Portland, Maine 04101
 (207) 650-6414

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

NFPA: Storage IBC: Storage (S-2)

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

Existing Buildings		
Ground	78,023	sf
Total	78,023	sf

Proposed Building		
Ground	60,630	sf
Total	60,630	sf



The proposed building heights are consistent with the R5 Zoning maximum allowance of 55': 41.5'

5. Proposed fire protection of all structures

The proposed building will be serviced by a 6" sprinkler system. Fire flows and requirements for system storage or booster pumping are subject to the fire professional design which will be performed prior the request for a building permit.

6. Hydrant locations

An existing hydrant is located along Read Street that is proposed to be relocated to make way for the new entrance to the site access road. Hydrant flow data from the Portland Water District once received may be made available to the Fire Department upon request.

7. Water main size and location

The redevelopment will be serviced by the existing 12" Ductile Iron water main within Read Street.

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

Access to the structures is provided through an access driveway and corridor with ample room for maneuvering through the site.

9. Code summaries will be provided by the Architects upon request.

NFPA 1 – Chapter 18 Fire Department Access and Water Supply

18.2 Fire Department Access:

The project site is located in a densely developed area with open areas on three other sides, and is accessed by a driveway. The following pavement street width is currently available:

- Read Street: 60 feet
- Access Driveway: 24 feet

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 access points to all of the structures.

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 a one-way circuitous route through the site for emergency vehicles.

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

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

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

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

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

Response: Not applicable



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

Response: Assigned street numbers on the buildings will be provided.

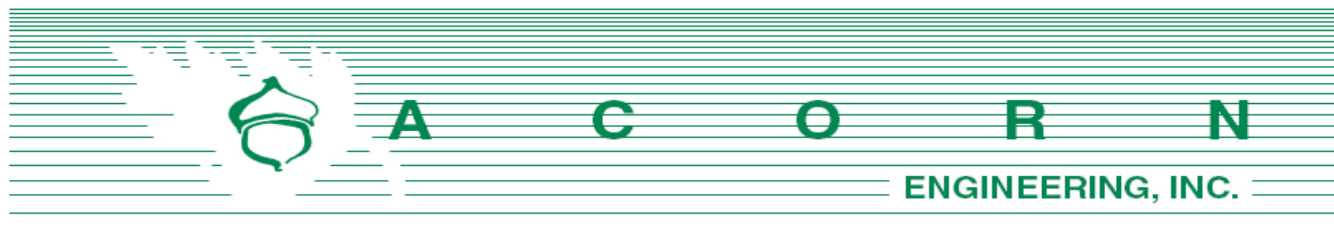
Thank you for your review. Please let me know if you have any additional questions or comments.

Sincerely,

A handwritten signature in black ink, appearing to read 'Travis Letellier', with a stylized flourish at the end.

Travis Letellier, P.E.
Project Manager
Acorn Engineering, Inc.





M. Calculation of Wastewater Flowrate for 182-184 Read Street Warehouse Development

The proposed project is a 60,630 square foot warehouse building in the footprint of a previous warehouse. It is not currently known what the usage of the building will be, but most likely used as storage. Two bathrooms will be part of the development. Based upon Section 4 of the Maine Subsurface Wastewater Disposal Rules, the project anticipates the following design flows:

Development	Unit Size	Number of Units	Gallons per Day per Unit	Total Gallons per Day
Existing Flow				
Warehouse	N/A	2	100 GPD per unit	200 GPD
Total Gallons per Day (Existing)				200 GPD

Estimate of Anticipated Daily Flows				
Development	Unit Size	Number of Units	Gallons per Day per Unit	Total Gallons per Day
Proposed Flow				
Warehouse	N/A	3	100 GPD per unit	300 GPD
Total Gallons per Day (Proposed)				300 GPD
Net Change				+100 GPD
*Values based on conversion factors for employment from www.mwcog.org .				

The proposed project is anticipated to increase the net flow by approximately 100 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.

CITY OF PORTLAND WASTEWATER CAPACITY APPLICATION

Portland Dept. of Public Works -
Water Resources
212 Canco Road
Portland, Maine 04103



Bradley Roland, P.E.
Water Resources Division
Department of Public Works
212 Canco Road
Portland, ME 04103

Date: 10/21/22

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

Site Address: 182-184 Read Street

Chart Block Lot Number: 147--B-1

Proposed Use: Industrial
Previous Use: Industrial
Existing Sanitary Flows: 200 GPD
Existing Process Flows: 300 GPD
Description and location of City sewer that is to
receive the proposed building sewer lateral.

Read Street

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

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

2. Please, Submit Contact Information.

City Planner's Name: _____ Phone: _____

Owner/Developer Name: NEPW Logistics, LLC

Owner/Developer Address: 70 Quarry Road Portland, ME 04103

Phone: (207) 772-4653

Fax: _____ E-mail: rob@nepw.com

Engineering Consultant Name: Acorn Engineering

Engineering Consultant Address: 500 Washington Avenue Portland, Maine 04103

Phone: 207-775-2655

Fax: _____ E-mail: tletellier@acorn-engineering.com

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

3. Please, Submit Domestic Wastewater Design Flow Calculations.

Estimated Domestic Wastewater Flow Generated: +100 GPD

Peaking Factor/ Peak Times: Diurnal

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

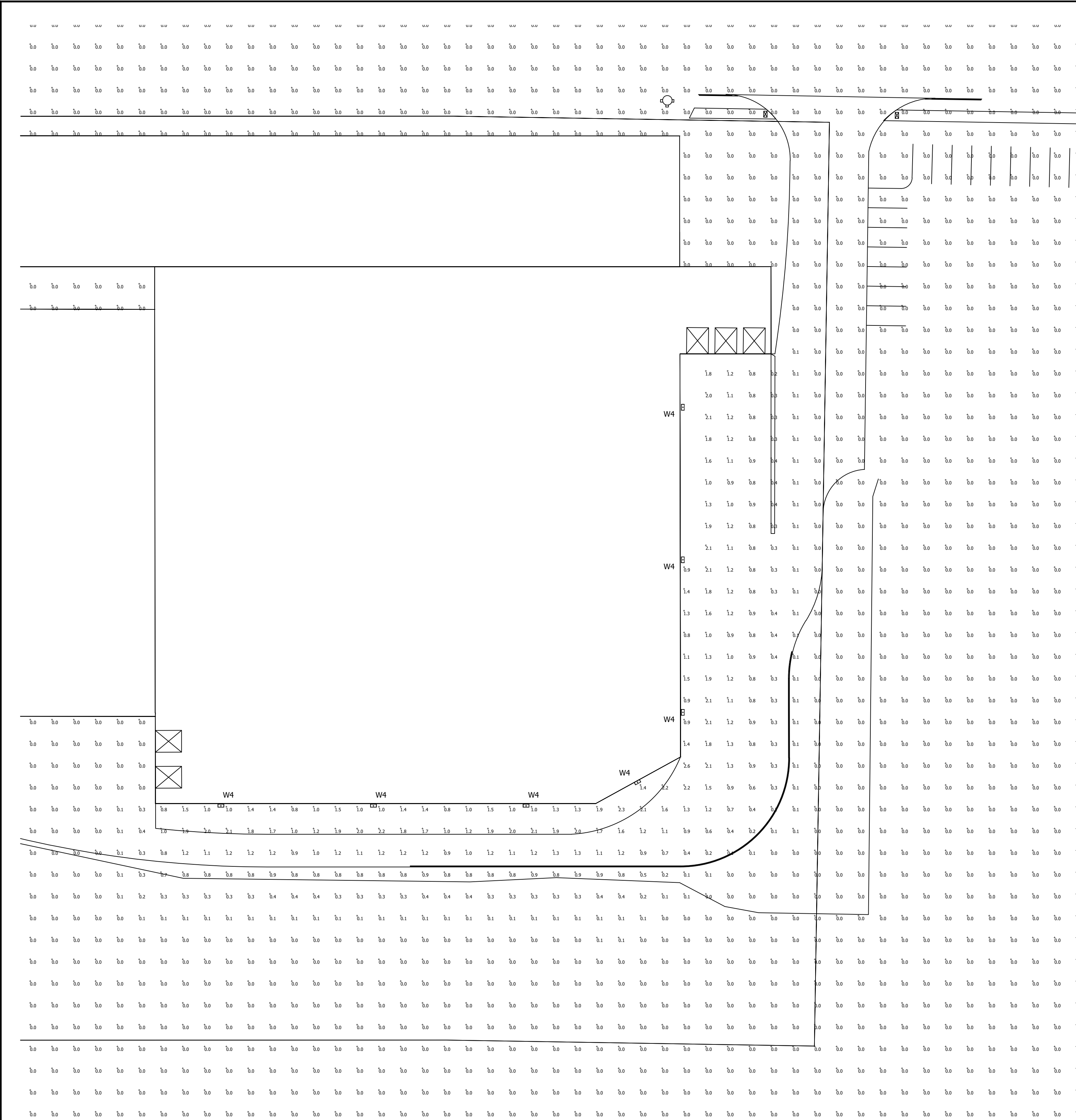
Handbook of Subsurface Wastewater Disposal in Maine

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

Total Drainage Fixture Unit (DFU) Values:	N/A
Size of External Grease Interceptor:	
Retention Time:	
Peaking Factor/ Peak Times:	

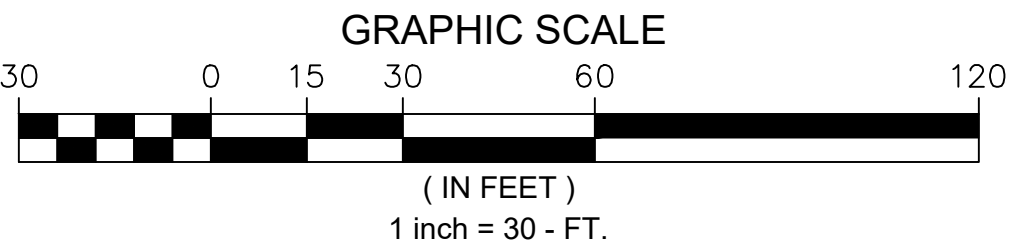
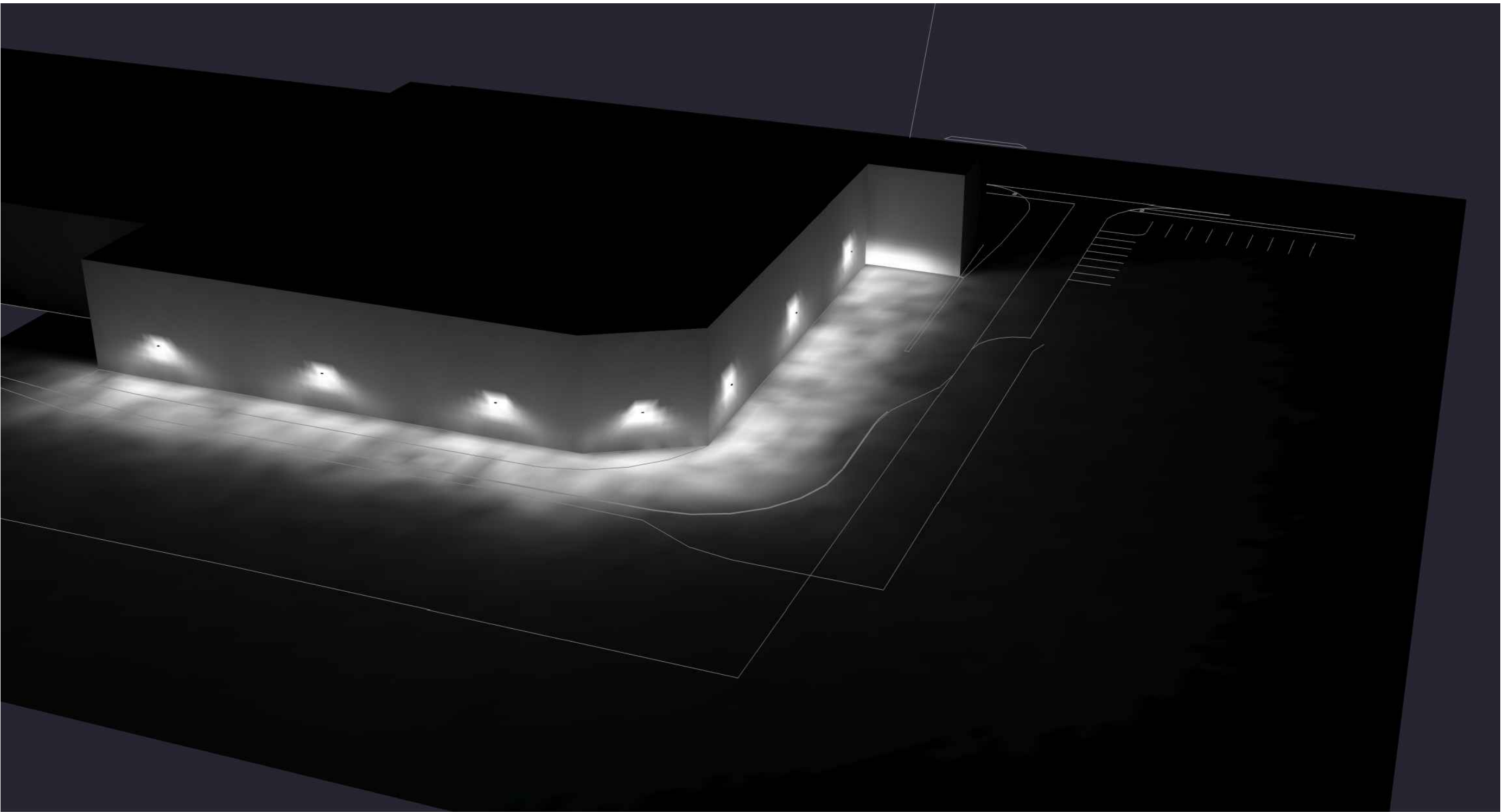
N. Lighting

Lighting on site will be provided by wall packs. Cut sheets and photometric plans for the proposed site lighting will be forthcoming.



Luminaire Schedule							
Symbol	Qty	Label	Mounting Height	LLF	Lum. Lumens	Lum. Watts	Description
⌞	7	W4	15' - 0" AFG	0.900	4483	37	RWL1-48L-35-3K7-4W-U

Calculation Summary							
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
Overall Area	Illuminance	Fc	0.05	2.6	0.0	N.A.	N.A.
Paved Area	Illuminance	Fc	0.98	2.6	0.0	N.A.	N.A.
Property Line	Illuminance	Fc	0.00	0.0	0.0	N.A.	N.A.



1. THIS LIGHTING DESIGN IS BASED ON LIMITED INFORMATION SUPPLIED BY OTHERS TO CURRENT. 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			REVISED FROM DRAWING NUMBER(S)		Current
182 - 184 READ STREET PORTLAND, ME SITE PHOTOMETRIC PLAN					
			ON BY: DHK	DATE: 10/19/22	CHK BY: N/A
			REV. BY:	DATE:	SCALE: AS NOTED
			QUOTE: N/A	DRAWING / DESIGN NO.: A221197	



Date: Oct 20, 2022

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

Job Name
184 READ STREET
SLA22-53559
PORTLAND ME

Bid Date
Oct 20, 2022

Submittal Date
Oct 20, 2022

Designer & Consultants:
Swaney Application Design
applications



Transmittal

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

From: Therese "TC" Freeman X-103

Project 184 READ STREET
Quote# SLA22-53559
Location PORTLAND ME
Contact:

ATTACHED WE ARE SENDING YOU 1 COPY OF THE FOLLOWING ITEM:

- | | | |
|-----------------------------------|--|--------|
| ☐ Drawings | ☐ Specifications | Other: |
| ☐ Prints | ☐ Information | |
| ☐ Plans | ☒ Submittals | |

THESE ARE TRANSMITTED FOR:

- | | | |
|--|---|---------------------------------|
| ☐ Prior Approval | ☐ Resubmittal for Approval | ☐ Record |
| ☒ Approval | ☐ Corrections | Bids due on: |
| ☐ Approval as Submitted | ☐ Your Use | Other: |
| ☐ Approval as Noted | ☐ Review and Comment | |

Type

W4

MFG

BEACON PRODUCTS

Part

[RWL1-48L-35-3K7-4W-UNV-***](#)

Item Note: SPECIFY FINISH

**Job Name:**184 READ STREET
Designer & Consultants: Swaney Application Design**Catalog Number:**

RWL1-48L-35-3K7-4W-UNV-***

Type:**W4**

Notes: SPECIFY FINISH

SLA22-53559



RATIO Wall

RWL1/RWL2 LED WALLPACK

FEATURES

- Low profile LED wall luminaire with a variety of IES distributions for lighting applications such as retail, commercial and industrial building mount
- Featuring Micro Strike Optics which maximizes target zone illumination with minimal losses at the house-side, reducing light trespass issues
- Visual comfort standard
- Control options including photo control, occupancy sensing, NX Distributed Intelligence™, Wiscap and 7-Pin with networked controls
- Battery Backup options available for emergency code compliance
- Quick-mount adapter allows easy installation/maintenance
- 347V and 480V versions for industrial applications and Canada
- Stock versions available in 3500lm and 5500lm configurations at 4000K

**CONTROL TECHNOLOGY****SPECIFICATIONS****CONSTRUCTION**

- Die-cast housing with hidden vertical heat fins that are optimal for heat dissipation while keeping a clean smooth outer surface
- Corrosion resistant, die-cast aluminum housing with powder coat paint finish
- Powder paint finish provides durability in outdoor environments. Tested to meet 1000 hour salt spray rating.

OPTICS

- Entire optical aperture illuminates to create a larger luminous surface area resulting in a low glare appearance without sacrificing optical performance
- 48 or 160 midpower LEDs
- 3000K, 4000K or 5000K (70 CRI/80 CRI) CCT
- Zero uplight distributions
- LED optics provide IES type II, III and IV distributions. Type II only available in RWL2 configurations.

INSTALLATION

- Quick-mount adapter provides easy installation to wall or to recessed junction boxes (4" square junction box)
- Designed for direct j-box mount.
- Integral back box contains 1/2" conduit hubs
- Integral back box standard with Dual Driver, Dual Power Feed, NX, Wiscap and battery versions (battery versions for RWL1 only)

ELECTRICAL

- 120V-277V universal voltage 50/60Hz 0-10V dimming drivers
- 347V and 480V dimmable driver option for all wattages above 35W.

ELECTRICAL (CONTINUED)

- Ambient operating temperature -40°C to 40°C
- Drivers have greater than .90 power factor and less than 20% Total Harmonic Distortion
- Driver RoHS and IP66
- Field replaceable surge protection device provides 20kA protection meeting ANSI/IEEE C62.41.2 Category C High and Surge Location Category C3; Automatically takes fixture off-line for protection when device is compromised
- Dimming drivers are standard and dimming leads are extended out of the luminaire unless control options require connection to the dimming leads. Must specify if wiring leads are to be greater than 6" standard.

CONTROLS

- Photo control, occupancy sensor and wireless available for complete on/off and dimming control
- Button photocontrol is suitable for 120-277V operation
- 7-pin ANSI C136.41-2013 photocontrol receptacle option available for twist lock photocontrols or wireless control modules (control accessories sold separately)
- NX Distributed Intelligence™ available with in fixture wireless control module, features dimming and occupancy sensor
- wISCAPE® available with in fixture wireless control module, features dimming and occupancy sensor
- Integral Battery Backup provides emergency lighting for the required 90 minute path of egress
- Battery Backup suitable for operating temperatures -25°C to 40°C. RWL1 battery is 12.5W RWL2 battery is 18W

CONTROLS (CONTINUED)

- Dual Driver and Dual Power Feed options creates product configuration with 2 internal drivers for code compliance
- Please consult brand or sales representative when combining control and electrical options as some combinations may not operate as anticipated depending on your application.

CERTIFICATIONS

- Listed to UL1598 and CSAC22.2#250.0-24 for wet locations
- IP65 rated housing
- This product qualifies as a "designated country construction material" per FAR 52.225-11 Buy American-Construction Materials under Trade Agreements effective 04/23/2020. See Buy American Solutions
- DLC® (DesignLights Consortium Qualified), with some Premium Qualified configurations. Please refer to the DLC website for specific product qualifications at www.designlights.org

WARRANTY

- 5 year limited warranty



KEY DATA	
Lumen Range	1,300–18,800
Wattage Range	10–155
Efficacy Range (LPW)	119–148
Weights lbs. (kg)	6.5/16.5 (2.9/7.5)

Submitted by Swaney Lighting	Job Name: 184 READ STREET Designer & Consultants: Swaney Application Design	Catalog Number: RWL1-48L-35-3K7-4W-UNV-*** Notes: SPECIFY FINISH	Type: W4 SLA22-53559
------------------------------	--	--	--



DATE:	LOCATION:
TYPE:	PROJECT:
CATALOG #:	

ORDERING GUIDE

Example: RWL1-48L-10-3K7-2-UNV-BLS-E

CATALOG #

ORDERING INFORMATION

Series		# LEDs - Wattage	CCT/CRI	Distribution	Voltage	Specify Std. finish
RWL1 Ratio Wall 1	48L-10	1,000 Lumens ⁴	3K7 3000K, 70 CRI	2 IES TYPE II ¹	UNV 120-277V	BLT Black Matte Textured
	48L-15	2,000 Lumens ⁴	4K7 4000K, 70 CRI	3 IES TYPE III	120 120V	BLS Black Gloss Smooth
	48L-20	2,500 Lumens ⁴	5K7 5000K, 70 CRI	4F IES TYPE IV Forward	208 208V	DBT Dark Bronze Matte Textured
	48L-25	3,500 Lumens		4W IES TYPE IV	240 240V	DBS Dark Bronze Gloss Smooth
	48L-35	4,500 Lumens			277 277V	GTT Graphite Matte Textured
	48L-45	5,500 Lumens ⁴			347 347V	LGS Light Grey Gloss Smooth
RWL2 Ratio Wall 2	160L-45	6,500 Lumens			480 480V	LGT Light Grey Matte Textured
	160L-50	7,500 Lumens				PSS Platinum Silver Smooth
	160L-65	9,500 Lumens				WHT White Matte Textured
	160L-80	11,000 Lumens				WHS White Gloss Smooth
	160L-95	13,000 Lumens				VGT Verde Green Textured
	160L-115	15,000 Lumens				Color Option
	160L-135	17,500 Lumens				CC Custom Color
	160L-155	19,500 Lumens				

Control Options Network	
NXWE	NX Wireless Enabled (module + radio) ^{1,7}
NXSPW_F	NX Wireless, PIR Occ. Sensor, Daylight Harvesting ^{4,5,7}
NXSP_F	NX, PIR Occ. Sensor, Daylight Harvesting ^{4,5,7}
WIR	Wireless Controls, wISCAPE™ 2.6
Stand Alone Sensors	
SCP-8F	Remote control programmable line voltage sensor ^{3,4}
SCP-20F	Remote control programmable line voltage sensor ^{3,4}
BTS-14F	Bluetooth® Programmable, PIR Occupancy/Daylight Sensor ¹⁰
BTS-40F	Bluetooth® Programmable, PIR Occupancy/Daylight Sensor ¹⁰
BTSO-12F	Bluetooth® Programmable, PIR Occupancy/Daylight Sensor, up to 12' mounting height ¹⁰
Control Options	
7PR_	7-Pin Receptacle ⁶

Options*	
F	Fusing ³
E	Emergency Battery Backup ^{7,9}
EH	Emergency Battery w/ Heater Option ^{7,8}
2DR	Dual Driver ^{4,6,11}
2PF	Dual Power Feed ^{4,6,11}
PC	Button Photocontrol ⁸

- Notes:
- Only available with RWL2
 - wISCAPE Gateway required for system programming
 - Specific voltage selection is required
 - Not available with 347/480V
 - Replace " _ " with "14" for up to 14' mounting height, "40" for up to 40' mounting height.
 - This item is located in the integral backbox which will be automatically added onto the fixture if chosen.
 - This item is located in the integral backbox for RWL1 configurations only.
 - Option only available at 120 or 277V
 - 2DR and 2PF can't be combined with E and EH due to space limitations
 - Not available in RWL1 or 2 PF
 - Available only in UNV in 25, 35 and 45 Watt in RWL1; Not available in RWL1 10, 15 and 20 Watt.
 - Based on space limitations, some options may not be able to be combined

STOCK ORDERING INFORMATION

Catalog Number	Lumens	Wattage	LED Count	CCT/CRI	Voltage	Distribution	Finish
RWL1-48L-25-4K-3	3500lm	25	48L	4000K/70CRI	120-277V	Type III	Dark Bronze Textured
RWL1-48L-25-4K-4W	3500lm	25	48L	4000K/70CRI	120-277V	Type IV Wide	Dark Bronze Textured
RWL1-48L-45-4K-3	5500lm	45	48L	4000K/70CRI	120-277V	Type III	Dark Bronze Textured
RWL1-48L-45-4K-4W	5500lm	45	48L	4000K/70CRI	120-277V	Type IV Wide	Dark Bronze Textured

CONTROLS

Control Options

Standalone

SCPREMOTE Order at least one per project location to program and control

ACCESSORIES AND REPLACEMENT PARTS - MADE TO ORDER

Catalog Number	Description
☐ WP-BB-XXX	Accessory for conduit entry ¹

Notes:
1 replace "xxx" with color option



currentlighting.com/beacon

© 2022 HLI Solutions, Inc. All rights reserved. Information and specifications subject to change without notice. All values are design or typical values when measured under laboratory conditions.

Page 2 of 7
Rev 06/28/22
Ratio_Wall_Spec_Sheet

Submitted by Swaney Lighting		Catalog Number: RWL1-48L-35-3K7-4W-UNV-***	Type: W4
	Job Name: 184 READ STREET Designer & Consultants: Swaney Application Design	Notes: SPECIFY FINISH	SLA22-53559



RATIO WALL

RWL1/RWL2 LED WALLPACK

DATE:	LOCATION:
TYPE:	PROJECT:
CATALOG #:	

PERFORMANCE DATA

Description	Nominal Wattage	System Watts	Dist. Type	5K (5000K NOMINAL 70 CRI)					4K (4000K NOMINAL 70 CRI)					3K (3000K NOMINAL 70 CRI)				
				Lumens	LPW	B	U	G	Lumens	LPW	B	U	G	Lumens	LPW	B	U	G
RWL1	10	10.1	3	1362	135	0	0	1	1355	134	0	0	1	1303	129	0	0	1
			4W	1343	133	0	0	1	1336	132	0	0	1	1285	127	0	0	1
	15	14.5	3	1972	136	1	0	1	1962	135	1	0	1	1887	130	1	0	1
			4W	1945	134	0	0	1	1935	133	0	0	1	1861	128	0	0	1
	20	19.9	3	2722	137	1	0	1	2709	136	1	0	1	2605	131	1	0	1
			4W	2685	135	1	0	1	2672	134	1	0	1	2569	129	1	0	1
	25	28.0	3	3749	134	1	0	1	3732	133	1	0	1	3588	128	1	0	1
			4W	3698	132	1	0	1	3680	131	1	0	1	3538	126	1	0	1
	35	36.9	3	4751	129	1	0	2	4728	128	1	0	2	4546	123	1	0	1
			4W	4685	127	1	0	2	4663	126	1	0	2	4483	121	1	0	2
	45	46.5	3	5812	125	1	0	2	5784	124	1	0	2	5562	120	1	0	2
			4W	5731	123	1	0	2	5704	123	1	0	2	5485	118	1	0	2
RWL2	45	46.1	2	6701	145	1	0	2	6668	145	1	0	2	6412	139	1	0	2
			3	6812	148	1	0	2	6780	147	1	0	2	6519	141	1	0	2
			4W	6678	145	1	0	2	6646	144	1	0	2	6390	139	1	0	2
	50	54.0	2	7747	143	1	0	2	7710	143	1	0	2	7413	137	1	0	2
			3	7876	146	1	0	2	7838	145	1	0	2	7537	140	1	0	2
			4W	7720	143	1	0	2	7683	142	1	0	2	7388	137	1	0	2
	65	67.2	2	9539	142	1	0	2	9494	141	1	0	2	9129	136	1	0	2
			3	9699	144	2	0	2	9652	144	2	0	2	9281	138	2	0	2
			4W	9507	141	2	0	2	9461	141	2	0	2	9097	135	2	0	2
	80	80.8	2	11228	139	2	0	2	11174	138	2	0	2	10745	133	2	0	2
			3	11416	141	2	0	2	11361	141	2	0	2	10924	135	2	0	2
			4W	11190	138	2	0	2	11136	138	2	0	2	10708	133	2	0	2
	95	93.2	2	13148	141	2	0	2	13085	140	2	0	2	12582	135	2	0	2
			3	13368	143	2	0	2	13304	143	2	0	2	12792	137	2	0	2
			4W	13103	141	2	0	2	13040	140	2	0	2	12539	135	2	0	2
	115	109.8	2	15102	138	2	0	3	15030	137	2	0	3	14452	132	2	0	3
			3	15354	140	2	0	3	15281	139	2	0	3	14693	134	2	0	3
			4W	15050	137	2	0	3	14978	136	2	0	3	14402	131	2	0	3
	135	137.1	2	17533	128	2	0	3	17449	127	2	0	3	16778	122	2	0	3
			3	17826	130	2	0	3	17740	129	2	0	3	17058	124	2	0	3
			4W	17473	127	2	0	3	17389	127	2	0	3	16720	122	2	0	3
	155	156.8	2	19495	124	2	0	3	19402	124	2	0	3	18656	119	2	0	3
			3	19821	126	2	0	3	19726	126	2	0	3	18967	121	2	0	3
			4W	19542	125	2	0	3	19448	124	2	0	3	18700	119	2	0	3

Submitted by Swaney Lighting		Catalog Number: RWL1-48L-35-3K7-4W-UNV-***	Type: W4
 Job Name: 184 READ STREET Designer & Consultants: Swaney Application Design		Notes: SPECIFY FINISH SLA22-53559	



DATE:	LOCATION:
TYPE:	PROJECT:
CATALOG #:	

LUMINAIRE AMBIENT TEMPERATURE FACTOR (LATF)

Ambient Temperature		Lumen Multiplier
0°C	32°F	1.03
10°C	50°F	1.01
20°C	68°F	1.00
25°C	77°F	1.00
30°C	86°F	0.99
40°C	104°F	0.98
50°C	122°F	0.97

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

PROJECTED LUMEN MAINTENANCE

Ambient Temperature	OPERATING HOURS					
	0	25,000	TM-21-11 L90 36,000	50,000	100,000	L70 (Hours)
25°C / 77°F	1.00	0.97	0.96	0.95	0.91	408,000
40°C / 104°F	0.99	0.96	0.95	0.94	0.89	356,000

ELECTRICAL DATA

# OF LEDS	Nominal Wattage	Input Voltage	Oper. Current (Amps)	System Power (Watts)
RWL1	10	120	0.08	10.1
		208	0.05	
		240	0.04	
		277	0.04	
		347	0.03	
		480	0.02	
	15	120	0.12	14.5
		208	0.07	
		240	0.06	
		277	0.05	
		347	0.04	
		480	0.03	
	20	120	0.17	19.9
		208	0.10	
		240	0.08	
		277	0.07	
		347	0.06	
		480	0.04	
	25	120	0.23	28.0
		208	0.13	
		240	0.12	
		277	0.10	
		347	0.08	
		480	0.06	
	35	120	0.31	36.9
		208	0.18	
		240	0.15	
		277	0.13	
		347	0.11	
		480	0.08	
	45	120	0.39	46.5
		208	0.22	
		240	0.19	
		277	0.17	
		347	0.13	
		480	0.10	

# OF LEDS	Nominal Wattage	Input Voltage	Oper. Current (Amps)	System Power (Watts)
RWL2	45	120	0.38	46.1
		208	0.22	
		240	0.19	
		277	0.17	
		347	0.13	
		480	0.10	
	50	120	0.45	54.0
		208	0.26	
		240	0.23	
		277	0.19	
		347	0.16	
		480	0.11	
	65	120	0.56	67.2
		208	0.32	
		240	0.28	
		277	0.24	
		347	0.19	
		480	0.14	
	80	120	0.67	80.8
		208	0.39	
		240	0.34	
		277	0.29	
		347	0.23	
		480	0.17	
	95	120	0.78	93.2
		208	0.45	
		240	0.39	
		277	0.34	
		347	0.27	
		480	0.19	
	115	120	0.92	109.8
		208	0.53	
		240	0.46	
		277	0.40	
		347	0.32	
		480	0.23	
	135	120	1.14	137.1
		208	0.66	
		240	0.57	
		277	0.49	
		347	0.40	
		480	0.29	
	155	120	1.31	156.8
		208	0.75	
		240	0.65	
		277	0.57	
		347	0.45	
		480	0.33	

**Job Name:**184 READ STREET
Designer & Consultants: Swaney Application
Design**Catalog Number:**

RWL1-48L-35-3K7-4W-UNV-***

Type:**W4**

Notes: SPECIFY FINISH

SLA22-53559

**RATIO WALL**

RWL1/RWL2 LED WALLPACK

DATE: _____ LOCATION: _____

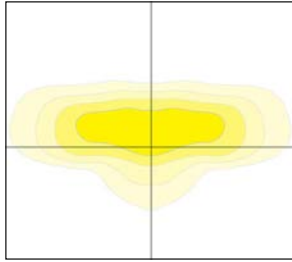
TYPE: _____ PROJECT: _____

CATALOG #: _____

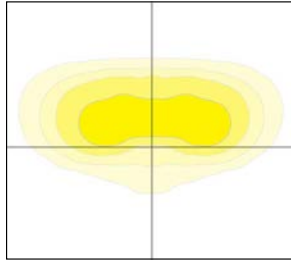
PHOTOMETRY

Mounting Height: 30ft

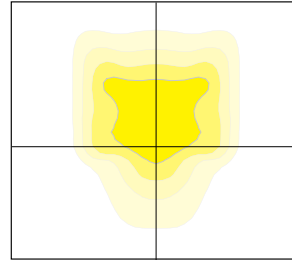
Type 2



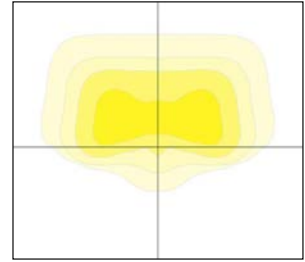
Type 3



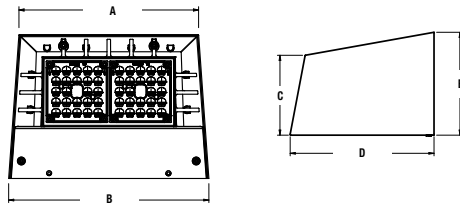
Type 4F



Type 4W

**DIMENSIONS**

RWL1

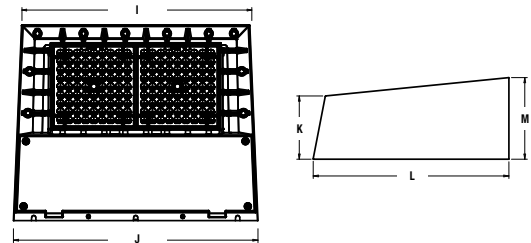


A	B	C	D	E
8.7"	9.7"	3.9"	7.0"	5.0"
221mm	246mm	99mm	178mm	127mm

Weight

6.5 lbs (2.95 kgs)

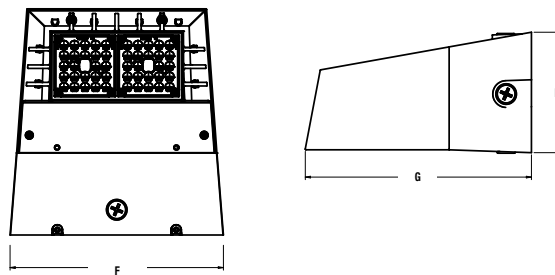
RWL2



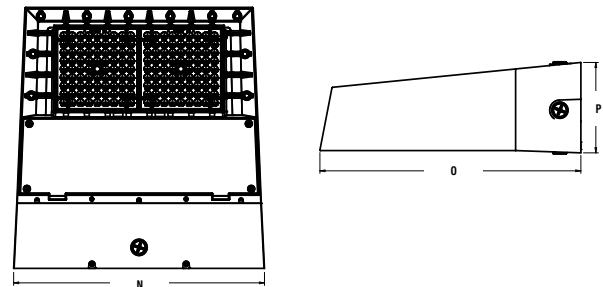
I	J	K	L	M
14.0"	15.0"	3.9"	12.0"	5.0"
356mm	381mm	99mm	305mm	127mm

Weight

16.5 lbs (7.48 kgs)

RWL1 with
Integral Back Box

F	G	H
10.4"	11.0"	5.9"
264mm	279mm	150mm

RWL2 with
Integral Back Box

N	O	P
15.4"	16.0"	5.5"
391mm	406mm	140mm

**Job Name:**184 READ STREET
Designer & Consultants: Swaney Application
Design**Catalog Number:**

RWL1-48L-35-3K7-4W-UNV-***

Type:**W4**

Notes: SPECIFY FINISH

SLA22-53559

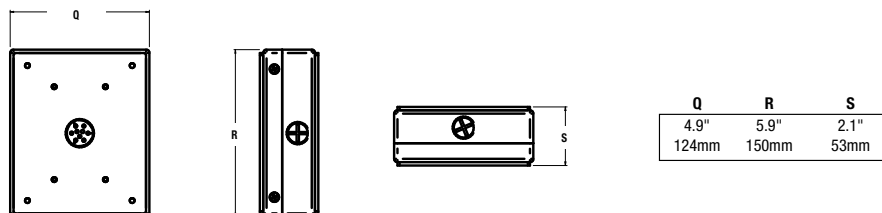
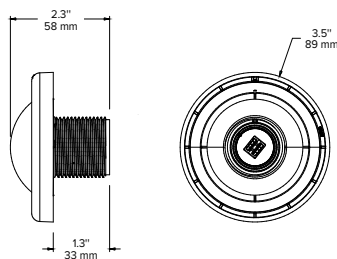
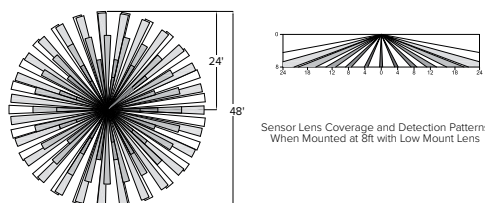
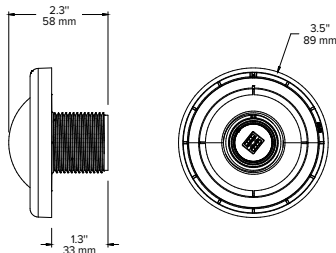
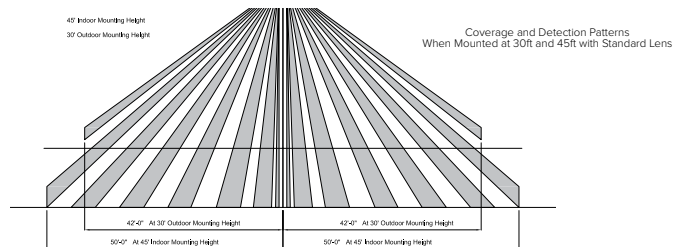
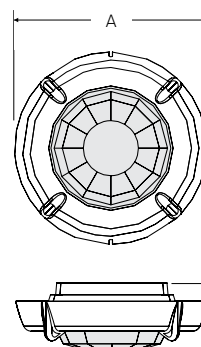
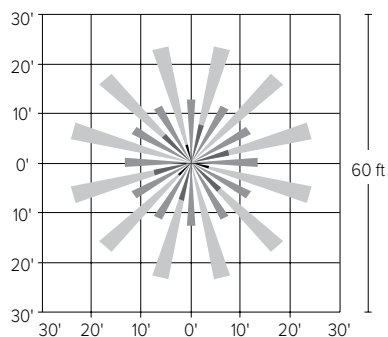
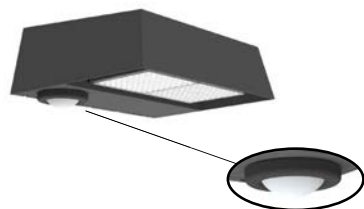
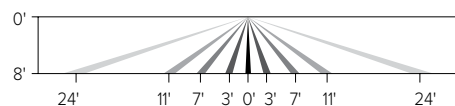
**RATIO WALL**

RWL1/RWL2 LED WALLPACK

DATE: _____ LOCATION: _____

TYPE: _____ PROJECT: _____

CATALOG #: _____

DIMENSIONS (CONTINUED)**Back Box Accessory****ADDITIONAL INFORMATION****NXSP-14F****NXSP-40F****SCP-8F**

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

**Job Name:**

184 READ STREET
Designer & Consultants: Swaney Application
Design

Catalog Number:

RWL1-48L-35-3K7-4W-UNV-***

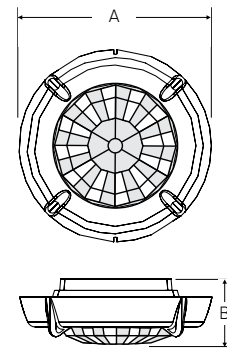
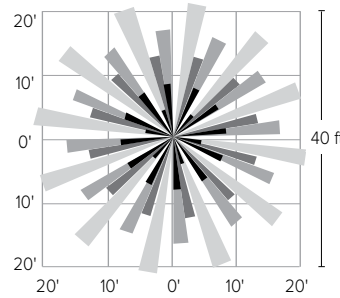
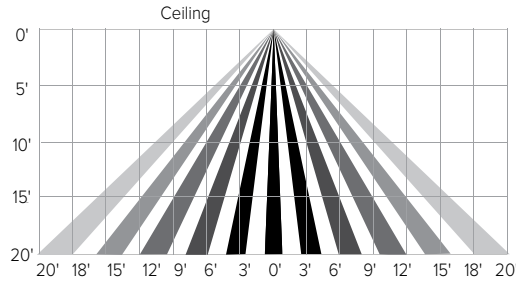
Notes: SPECIFY FINISH

Type:**W4**

SLA22-53559

**RATIO WALL**

RWL1/RWL2 LED WALLPACK

SCP-20F

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

Submitted by Swaney Lighting		Catalog Number: RWL1-48L-35-3K7-4W-UNV-***	Type: W4
	Job Name: 184 READ STREET Designer & Consultants: Swaney Application Design	Notes: SPECIFY FINISH	SLA22-53559

This page intentionally left blank for printing purposes

P. Utilities

The project will include installation of utility services to the proposed building.

Water:

Domestic water service will be provided internally from the existing connections of the existing two buildings. A new 6" fire service sprinkler line will be tapped within the 12" DI main within Read Street to serve the new building. In addition, the fire hydrant adjacent to the property will be relocated to make way for the proposed access driveway.

Sewer:

A new 4" PVC lateral will be installed from an existing manhole on the eastern part of the site. It is likely this manhole served the warehouse in existence until 2012, and the new line may be connected in the same location as the line to be retired.

Stormwater:

Runoff from the roof of the proposed building will be directed to new internal drains and two catch basins that will collect the majority of runoff from repaved and regraded sections and will convey it to the separated storm drain within Read Street. Please refer to the Grading & Drainage plans as well as the Stormwater Management Report for more information.

Electric:

It is proposed to remove and replace an existing pole on site to make way for the new entrance driveway. The relocated pole will provide over-head electricity to the new building and the abutting property at 150 Read Street. See the Sheet C-20, Utility Plan, for more information.

Gas:

Gas service to 184 Read Street currently runs under the footprint of the proposed building. This service will be relocated next to the service on the outside of 182 Read Street. Gas meters will be provided at this location. The new building will then be served with gas internally from this new connection. See Sheet C-20, Utility Plan, for more information.

Ability to serve letters have been sent out to the respective utility companies in accordance with the City of Portland Code of Ordinances Chapter 14 Land Use, Section 14-527(g)(7). Responses have been obtained for water and gas services and provided within the submission. The electric ability to serve confirmation is forthcoming.



Q. Construction Management Plan

Project Address: 182-184 Read Street

Project Description:

The redevelopment is proposed to include the construction of a new 60,630 SF warehouse building adjacent and attached to two existing structures on the property along with associated site circulation improvements.

Project Team Summary:

Owner:	NEPW Logistics, LLC.
Owner's Representative:	TBD
General Contractor:	TBD
Civil & Environmental Engineer:	Acorn Engineering, Inc.
Architect:	Ryan Senatore Architecture
Geotechnical Engineer:	Summit Geoengineering Services

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, 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 and Subcontractor contact information shall be posted somewhere along the project's street frontage. Additional signage necessary for communication shall be provided but will be temporary and removed upon completion of the project.

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. 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 2023
<u>Project End Date:</u>	Summer 2024

A more detailed work schedule shall be provided by the GC at or before the pre-construction meeting with the City.

F. Security

1. Construction 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.

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 Read 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 Read 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 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 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 on site 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 – 3,200 CY. Earthwork subcontractor(s) pit to project site.
 - Hot Mix Asphalt – 500 Tons. Paving subcontractor pit to project site.



L. Dewatering Plans

1. A basic dewatering plan for any construction work is required and shall be submitted by the Contractor. The plan must cover construction sites where groundwater is not expected but the impact of rainwater may require dewatering. The plan must include operating procedures, equipment to be used, including filters, erosion and sediment control measures, or other methods of removing sediment from approved discharges.
2. For construction work that will require frequent dewatering of groundwater from site, a dewatering plan must be prepared by the Contractor and approved by the Department of Public Works. Groundwater and/or soil testing may be required to determine course of action if treatment is necessary. Approval for all discharges to City infrastructure is required. The proposed plan must address the following:
 - Project duration, discharge location, storage equipment on-site, dewatering schematic, and emergency contact.
 - General requirements include trained staff on-site for all approve discharges and required site log for documentation of all discharges.
 - Storage and/or treatment process should include proper settling time and maintain proper use of filtering medium as required.
 - Contingency/maintenance plan for all dewatering equipment devices and filtration mediums.

Any water that is removed from an excavation must be pumped from a perforated device buried in crush stone prior discharge and/or prior to storage and treatment. There will be no discharge allowed during precipitation events.

M. Special Measures as Necessary

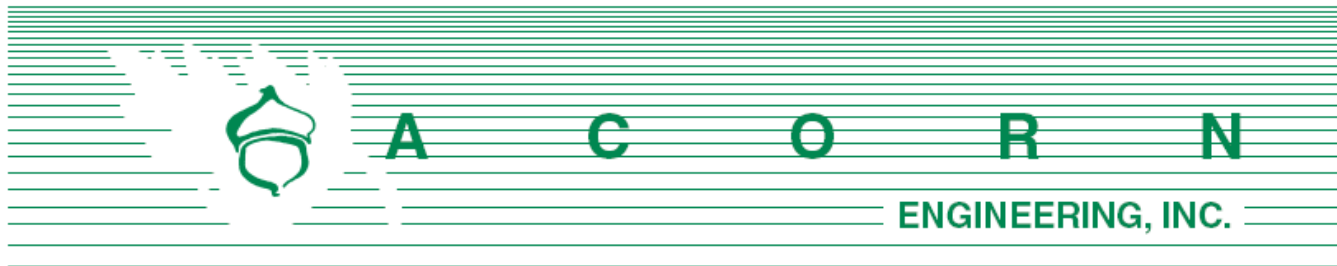
No special measures are necessary for the proposed reconstruction.



R. Solid Waste Disposal

The solid waste and recyclable material storage is located on the portion of the property opposite of where development is proposed and will remain in that location.





Maine Department of Environmental Protection
City of Portland, Maine

October 31, 2022

Subject: Delegated Review: Stormwater Management Permit
182 Read Street Redevelopment – Portland, Maine

To Whom It May Concern:

Acorn Engineering, Inc. has been retained by NEPW Logistics to provide civil engineering services for the proposed redevelopment of 182 Read Street located within the R-6 Zoning District in Portland, Maine. The 6.15-acre parcel is currently the site of NEPW's warehouse and storage operations. The redevelopment will include the construction of a new 60,950 SF warehouse building adjacent and attached to two existing structures on the property along with associated site circulation improvements. On behalf of our client, we are pleased to submit a Stormwater Management Permit application for this redevelopment subject to Delegated Review by the City of Portland. Concurrently, the project is anticipated to undergo a Major Site Plan review subject to approval from the Portland Planning Board.

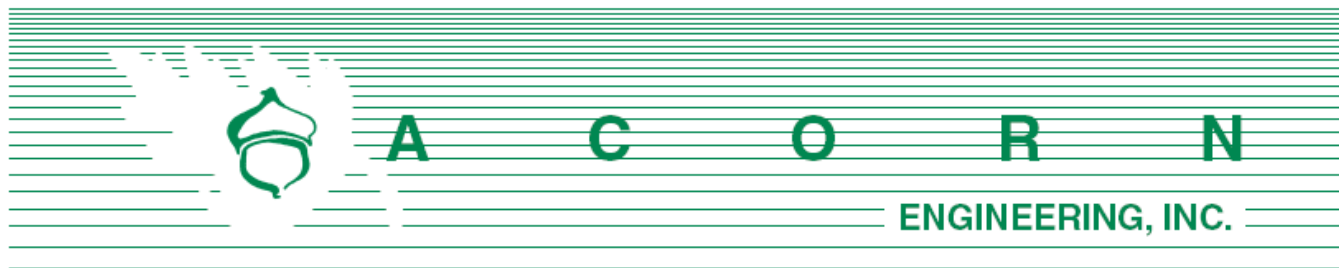
The existing property is covered by approximately 74% or 4.55 acres of impervious surfaces, whereupon a similar sized warehouse and its associated infrastructure was formerly located. The proposed redevelopment includes increasing the overall impervious by approximately 1,289 square feet (+0.6%). There will be the routing of all storm water from the site to the separated storm drain system within Read Street.

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

Sincerely,

A handwritten signature in black ink, appearing to read "Travis Letellier", is positioned above the printed name.

Travis Letellier, P.E.
Project Manager
Acorn Engineering, Inc.



The following documents are included as part of this application.

Documents:

1. Stormwater Management Law Permit Application
2. Fee Worksheet
3. Notice of Intent to File
4. Certificate of Good Standing
5. Title, Right, or Interest
6. Photos of the Project Site
7. Erosion & Sedimentation Control Report
8. Stormwater Management Report

**DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF LAND RESOURCES**

Stormwater Application Form

FOR DEP USE

L- _____

ATS# _____

FEES PAID _____

DATE RECEIVED _____

PLEASE TYPE OR PRINT IN INK

This application is for (Check the one that applies):		☒ New application		☐ Amendment	
1. Name of Applicant:	NEPW Logistics		5. Name of Agent:	Travis Letellier	
2. Applicant's Mailing Address:	70 Quarry Road Portland, ME 04103		6. Agent's Mailing Address:	PO Box 3372 Portland, ME 04101	
3. Applicant's Phone #:	(207) 772-4653		7. Agent's Phone #:	207-775-2655	
4. Email address (REQUIRED-license will be sent via email:	rob@nepw.com		8. E-mail address (REQUIRED-license will be sent via email	tletellier@acorn-engineering.com	
9. Location of Project: (Road, Street, Rt.#)	182-184 Read Street, Portland, ME 04103		10. Town:	Portland	
			11. County:	Cumberland	
12. Type of Direct Watershed: (Check all that apply)	☐ Lake not most at risk ☐ Lake most at risk ☐ Lake most at risk, severely blooming ☐ River, stream or brook ☐ Urban impaired stream ☐ Freshwater wetland ☐ Coastal wetland ☐ Wellhead of public water supply		13. Amount of Disturbed Area:	Total Amt.= 2.11 acres	
			14. Amount of Developed Area:	☒ 1 or more acres, but less than 5 acres ☐ 5 acres or more Total Amt.= 2.11 acres	
			15. Amount of Impervious Area:	☐ less than 20,000 sq. ft. ☐ 20,000 sq. ft. to 1 acre ☒ 1 to 3 acres EX: 4.55 AC ☐ 3 or more acres PR: 4.58 AC Total Amount of Impervious Acres =	
16. Applicable Standards: (Check all that apply)	☐ Stormwater PBR ☒ Basic standards ☐ General standards: BMP ☐ General standards: phosphorus ☐ Flooding standard ☐ Urban impaired stream standards ☐ Other: _____		17. Type of Stormwater Control:	☐ Vegetative (e.g. buffers) ☐ Structural (e.g. underdrained filters, ponds, infiltration structures)	
18. Exceptions &/or Waivers Requested:	BMP Standards ▼		Urban impaired stream standard ▼		Flooding Standard ▼
	☐ Pretreatment measures ☐ Discharge to ocean/major river segment ☐ Linear portion of project ☐ Utility corridor ☐ Redevelopment		☐ Developed area not landscaped or impervious ☐ Redevelopment		☐ Discharge to ocean/major river segment ☐ Insignificant increase in peak flow
19. Proposed Start Date and Brief Project Description:	The proposed project includes the redevelopment of a 60,630 square foot warehouse on the footprint of a former warehouse and foundation, and associated infrastructure.				
20. Size of Lot or Parcel:	☐ _____ sq. ft., or	☒ 6.14 acres	UTM Easting:	396303	UTM Northing: 4837449
21. Title, Right or Interest:	☒ own ☐ lease ☐ purchase option ☐ written agreement				
22. Deed Reference Numbers:	Book#: 38021	Page: 294	24. Map and Lot Numbers:		Map #: 147 Lot #: B-1
23. DEP Staff Previously Contacted:		25. Project started prior to application?	☐ Yes ☒ No	Completed?	☐ Yes ☐ No

SIGNATURES / CERTIFICATIONS ON PAGE 2

26. Resubmission of Application?	☐ Yes → ☒ No	If yes, previous application #		Previous project manager:	
27. Written Notice of Violation?	☐ Yes → ☒ No	If yes, name of DEP enforcement staff involved:			
28. Detailed Directions to the Project Site:		Route 302 south, take a left on Read Street, 182-184 Read Street is 0.4 miles on the right containing two existing warehouses			
29. Stormwater Permit by Rule Submissions ▼		30. Stormwater Application Submissions ▼			
☐ This form (including signature page) ☐ Fee ☐ Topographic Map ☐ Plan or Drawing ☐ Photos of Area		☒ This form (including signature page) ☒ Fee ☒ Proof of title, right or interest ☒ Certificate of good standing (if applicable) ☒ Photos of Area ☐ Copy of Public Notice		☐ Professional & Notice Certification ☒ Basic standards submissions ☐ General standards submissions ☐ Flooding standard submissions ☐ Other standard submissions ☐ Compensation Fee (if required)	
31. FEES, Amount Enclosed:		DELEGATED REVIEW - FEE THROUGH CSS PORTAL			
Does the agent have an interest in the project? If yes, what is the interest?: ☐ Yes → ☒ No					

IMPORTANT: IF THE SIGNATURE BELOW IS NOT THE APPLICANT'S SIGNATURE, ATTACH LETTER OF AGENT AUTHORIZATION SIGNED BY THE APPLICANT.

By signing below the applicant (or authorized agent), certifies that he or she has read and understood the following:

CERTIFICATIONS/ SIGNATURES

"I certify under penalty of law that I have personally examined the information submitted in this document and all attachments thereto and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe the information is true, accurate, and complete. I am aware there are significant penalties for submitting false information, including the possibility of fine and imprisonment. I authorize the Department to enter the property that is the subject of this application, at reasonable hours, including buildings, structures or conveyances on the property, to determine the accuracy of any information provided herein.	
Further, I hereby authorize the DEP to send me an electronically signed decision on the license I am applying for with this application by E-mailing the decision to the electronic address located on the front page of this application (see #4 for the applicant and #9 for the agent."	
Signed: 	Title <u>Project Manager</u> Date: <u>10.17.2022</u>
Notice of Intent to Comply with Maine Construction General Permit	With this Stormwater Law application form and my signature below, I am filing notice of my intent to carry out work which meets the requirements of the Maine Construction General Permit (MCGP). I have read and will comply with all of the MCGP standards. Signed  Date: <u>10.17.2022</u>

NOTE: If a Notice of Intent is required, you must file a Notice of Termination (attached as Form G) within 20 days of completing permanent stabilization of the project site.

ADDITIONAL SIGNATURES/CERTIFICATIONS

The person responsible for preparing this application and/or attaching pertinent site and design information hereto, by signing below, certifies that the application for stormwater approval is complete and accurate to the best of his/her knowledge.

Signature:  _____

Name (print): Travis Letellier, PE _____

Date: 10.17.2022 _____

Re/Cert/Lic No: _____

Engineer ☒ _____

Geologist _____

Soil Scientist _____

Land Surveyor _____

Site Evaluator _____

Active Member of the Maine Bar _____

Professional Landscape Architect _____

Fee Worksheet

Use this form to help determine the permit fee. The fee is based upon the amount of disturbed area associated with the project. **THE EXAMPLE BELOW IS NOT BASED ON CURRENT FEES.** To determine current stormwater licensing fees, please visit the Department's website at: <http://www.maine.gov/dep/permits/>

NOTE: Ditches, swales, ditch turn-outs, level spreaders, and similar Best Management Practices (BMPs) used solely to convey or discharge water to a vegetated buffer are not considered, by themselves, to constitute structural BMPs, provided that the applicant assumes that all water quality treatment takes place in the buffer. If any treatment is assumed within the BMPs used to convey water to the buffer, they are treated as structural BMPs for the purposes of determining the applicable fee (and review period). "Disturbed area" and "impervious area" are defined in Chapter 500, Section 2(F) and (L).

Example (a): If solely vegetative control measures are used (e.g. buffers), using an example fee of \$250.00* for up to one acre of disturbed area, plus \$125.00† for each additional whole acre of disturbed area, the total fee is calculated as shown below.

Project will create 2.34 acres of disturbed area.

$$\text{Fee} = \$250.00 + [\$125.00 \times (1)] = \$375.00$$

Your fee:

Current fee from fee schedule plus [1/2 current fee times # additional whole acres] equals application fee
 \$ 250 + [\$ 125 X (1)] = \$ 375

Example (b): If any structural control measures are used (e.g. underdrained filters, ponds, infiltration systems), using an example fee of \$500.00 for up to one acre of disturbed area, plus \$250.00 for each additional whole acre of disturbed area, the total fee is calculated as shown below.

Project will create 2.34 acres of disturbed area.

$$\text{Fee} = \$500.00 + [\$250.00 \times (1)]. \text{ Fee} = \$750.00.$$

Your fee:

Current fee from fee schedule plus [1/2 current fee times # additional whole acres] equals application fee
 \$ 500 + [\$ 250 X (1)] = \$ 750

* The total fee for the first acre of disturbed area is obtained by combining the processing and licensing fees contained in the current fee schedule.

† The fee for each additional whole acre of disturbed area is one-half the combined processing and licensing fee.

Public Notice: Notice of Intent to File

Please take notice that

NEPW Logistics, LLC

70 Quarry Road, Portland ME, 04103

(Name, Address and Phone # of Applicant)

phone: (207) 805-3578

is intending to file a Stormwater Law permit application with the Maine Department of Environmental Protection pursuant to the provisions of 38 M.R.S.A. § 420-D on or about October 15, 2022

(anticipated filing date)

This application is for

The proposed development of a 60,630 SF warehouse and associated infrastructure.

(description of the project)

182 Read Street, Portland, ME 04103

(project location)

A request for a public hearing or a request that the Board of Environmental Protection assume jurisdiction over this application must be received by the Department in writing, no later than 20 days after the application is found by the Department to be complete and is accepted for processing. A public hearing may or may not be held at the discretion of the Commissioner or Board of Environmental Protection. Public comment on the application will be accepted throughout the processing of the application.

The application will be filed for public inspection at the Department of Environmental Protection's office in Portland, Augusta or Bangor) (circle one) during normal working hours. A copy of the application may also be seen at the municipal

offices in Portland, Maine.
(town)

Written public comments may be sent to the regional office in Portland, Augusta, or Bangor where the application is filed for public inspection.

MDEP, Central Maine Regional Office, 17 State House Station, Augusta, Maine 04333

MDEP, Southern Maine Regional Office, 312 Canco Road, Portland, Maine 04103

MDEP, Eastern Maine Regional Office, 106 Hogan Road, Bangor, Maine 04401



MAINE

Department of the Secretary of State
Bureau of Corporations, Elections and Commissions

Corporate Name Search

Information Summary

[Subscriber activity report](#)

This record contains information from the CEC database and is accurate as of: Thu Jun 30 2022 08:05:18. Please print or save for your records.

Legal Name	Charter Number	Filing Type	Status
NEPW LOGISTICS, INC.	20022386 D	BUSINESS CORPORATION	GOOD STANDING

Filing Date	Expiration Date	Jurisdiction
06/13/2002	N/A	MAINE

Other Names (A=Assumed ; F=Former)

FORE RIVER DISTRIBUTION A

NEPW TRANSPORT A

NEW ENGLAND PUBLIC WAREHOUSE A

CROSSROADS LOGISTICS CORPORATION F

Clerk/Registered Agent

EZEKIEL L. CALLANAN
75 YORK STREET

PORTLAND, ME 04101

[Back to previous screen](#)

[New Search](#)

Click on a link to obtain additional information.

List of Filings

[View list of filings](#)

Obtain additional information:

Additional Addresses

[Plain Copy](#)

[Certified copy](#)

Certificate of Existence [\(more info\)](#)

[Short Form without
amendments
\(\\$30.00\)](#)

[Long Form with
amendments
\(\\$30.00\)](#)

DLN: 1002140138275

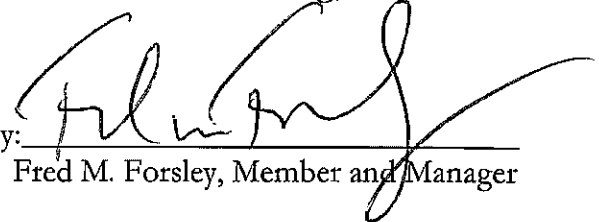
Warranty Deed

MAINE REAL ESTATE TAX-Paid

Read Street Warehousing, LLC, a Maine Limited Liability Company with an address of 8 Western Avenue, County of York, State of Maine, for consideration paid, grants an undivided 69% interest to **Read Warehouse, LLC**, a Delaware Limited Liability Company, and an undivided 31% interest to **NEPW Read Warehouse, LLC**, a Delaware Limited Liability Company, as tenants in common, both with an address of 70 Quarry Road, Portland, Maine 04103, with **Warranty Covenants**, the land and buildings located in Portland, County of Cumberland, State of Maine, described on Exhibit A attached hereto.

In Witness Whereof, **Fred M. Forsley**, in his capacity as Manager and Member of **Read Street Warehousing, LLC**, has hereunto set his hand and seal this 1st day of ~~March~~, 2021.
April

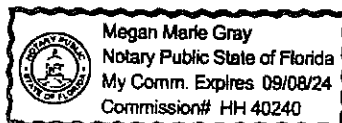
Read Street Warehousing, LLC

By: 
Fred M. Forsley, Member and Manager

State of Florida
County of Pinellas, ss.

March 30th, 2021

Personally appeared the above-named **Fred M. Forsley** in his capacity as Member and Manager of **Read Street Warehousing, LLC** and acknowledged the foregoing instrument to be his free act and deed in said capacity and the free act and deed of **Read Street Warehousing, LLC**. Before me,




Notary Public/Attorney-at-Law
Print Name: Megan Gray
My Commission Expires: 09/08/24

Exhibit A

A certain lot or parcel of land with the building thereon situated on the southerly side of Read Street in the City of Portland, County of Cumberland and State of Maine, bounded and described as follows:

Commencing at the northeasterly corner of land now or formerly of Gilbert F. Congdon III, et al recorded in the Cumberland County Registry of Deeds in Book 31249, Page 305 as shown on a plan entitled "ALTA/ACSM Land Title Survey 150-184 Read Street Portland, Cumberland County, Maine made for J. B. Brown & Sons, 36 Danforth Street, Portland, Maine" dated March 2, 2016 by Owen Haskell, Inc. and recorded in the Cumberland County Registry of Deeds in Plan Book 216, Page 82 (the "Plan");

Thence, N 44° 45' 00" W along the northerly line of land of said Congdon 373.46 feet to southeasterly corner of the lot herein described labeled as "Proposed Lot #182 - #184 Read St." and the southwesterly corner of the lot labeled as "Remaining Lot #150 Read St." as shown on said plan, also being the point of beginning;

Thence, from the point of beginning N 44° 45' 00" W continuing along the northerly line of land of Congdon 168.84 feet to an angle point;

Thence, N 45° 42' 00" W continuing along the northerly line of land of Congdon 282.30 feet to the easterly line of land now or formerly of Portland Terminal Company;

Thence, N 04° 29' 00" E along the easterly line of land of said Portland Terminal Company 522.02 feet to the southerly sideline of said Read St.;

Thence, S 44° 45' 00" E along the easterly sideline of Read Street 639.23 feet to an angle point in said sideline;

Thence, S 44° 45' 00" E continuing along the easterly sideline of Read Street 172.42 feet to the northeasterly corner of the lot herein described and the northwesterly corner of land of said "Remaining Lot #150 Read St.;"

Thence, S 45° 15' 00" W along the westerly line of the "Remaining Lot #150 Read St." 424.00 feet to the point of beginning.

Together with the exclusive right to use, occupy and cross said fifty (50) foot wide strip of land with switch railroad tracks located on the Premises hereby conveyed.

Further, the above-described Premises are conveyed together with a certain perpetual non-exclusive right and easement for vehicular and pedestrian access and utilities access to and from Read Street in common with J. B. Brown & Sons, its successors and assigns, appurtenant to the Premises hereby conveyed, over and across the curb cut off Read Street

located on the westerly side of land now or formerly of J. B. Brown & Sons and near the easterly boundary of the said Premises, for purposes of ingress and egress to and from the Premises, and depicted on the Plan as the "Proposed Access Easement for #182 & #184." Neither Grantor nor J. B. Brown & Sons, their successors and assigns shall have any obligation to maintain the foregoing access easement, including, without limitation, snow-plowing, ice removal or sanding; provided, however, Grantee is hereby authorized, at Grantee's sole expense and discretion, to maintain the foregoing access easement with its own snow-plowing, ice removal or sanding. Grantee, its successors and assigns, agrees to indemnify and hold Grantor and J. B. Brown & Sons, their successors and assigns, harmless from and against any and all liability, loss, cost, damage or expense, including court costs or fees related to litigation or alternative dispute resolution and attorneys' fees, incurred by Grantor or J. B. Brown & Sons, and their successors and assigns, as a result of or in connection with the use of the aforesaid access easement on land now or formerly of J. B. Brown & Sons by Grantee or Grantee's employees, agents, or contractors, except to the extent attributable to the misconduct or gross negligence of J. B. Brown & Sons or its employees, agents or contractors. J. B. Brown & Sons, its successors and assigns, shall have the right to relocate said easement from time to time at the sole cost and expense of J. B. Brown & Sons. Said easement shall run with the land and be for the benefit of the Grantee, its successors and assigns, their tenants, agents, and business invitees, in common with J. B. Brown & Sons, its successors and assigns.

Being the same premises conveyed to Read Street Warehousing, LLC by Quitclaim Deed with Covenant given by J.B. Brown & Sons dated April 12, 2016 and recorded in the Cumberland County Registry of Deeds on April 12, 2016 at Book 33033, Page 310.

6. Photos of the Existing Site – 182/184 Read Street



Figure 1. Existing 182 Read Street and site of new warehouse, facing north



Figure 2. Site of proposed warehouse, 150 Read Street in view, facing south





Figure 3. Facing west, looking at old foundation and site of new warehouse.



Figure 4. Existing paved drive, not in use, facing northwest.



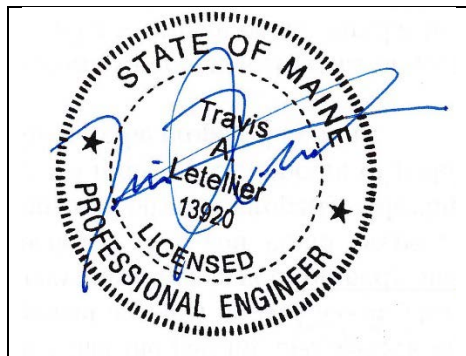
7. EROSION & SEDIMENTATION **CONTROL REPORT**

Prepared For:

**NEPW Logistics
182 Read Street
Portland, Maine 04103**

Prepared By:

**Acorn Engineering, Inc.
500 Washington Avenue
Portland, Maine 04103**



October 2022

INTRODUCTION

Acorn Engineering, Inc. has been retained by NEPW Logistics to provide civil engineering services for the proposed redevelopment of the 6.15-acre parcel (147-B-1) at 182 Read Street located within the I-M Zoning District in Portland, Maine.

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 off Read Street and abuts a railroad bed to the west. A Boundary & Topographic Survey has been prepared by Owen Haskell, Inc., dated August 12, 2022.

The property is in the I-M Residential Zone. Abutting Uses include:

- North Read Street
- West/South Springfield Terminal Railroad Tracks
- East Industrial Use

The property is currently the site of NEPW Logistics warehouse operations. The project intends to construct a 60,630 square foot warehouse building adjacent to the existing buildings. The building will be in the footprint of a warehouse in existence until 2012. The site in its existing condition drains water in roughly two directions, to the north and south. Please see the Stormwater Report for more detailed information on the existing and proposed subcatchments.

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
Cut and Fill Land	.15	.15
Deerfield Loamy Fine Sand	.20	.20

The soil "K" value for the soil, listed above, shows a lower susceptibility to erosion, as derived from the Soil Conservation Service Medium Intensity Soil Survey for Cumberland County. Although the soil "K" value shows a low susceptibility to erosion, implementation of the proposed Erosion & Sedimentation Measures by the contractor will be important to limit erosion during large storm events.

1.2 Existing Erosion Problems

There are no signs of erosion.

1.3 Critical Areas

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

1.4 Protected Natural Resource

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

1.5 Previous Construction Activity (5 years)

Acorn Engineering, Inc. is not aware of any construction related activities within the project limits within the past 5 years. Historical imagery shows the existence of a warehouse in the proposed footprint until around 2012.

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 Read 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 DETAILS AND SPECIFICATIONS

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

4.0 STABILIZATION PLAN FOR WINTER CONSTRUCTION

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

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

The following measures shall be implemented during winter construction periods:

4.1 Sediment Barriers

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

4.2 Mulching

All areas shall be considered to be denuded until seeded and mulched. Hay and straw mulch shall be applied at a rate of 150 lb. per 1,000 square feet or 3 tons/acre (twice the normal accepted rate of 75-lbs./1,000 s.f. or 1.5 tons/acre) and shall be properly



anchored. Erosion control mix must be applied with a minimum 4-inch thickness. Mulch shall not be spread on top of snow. The snow shall be removed down to a one-inch depth or less prior to application. After each day of final grading, the area shall be properly stabilized with anchored hay or straw or erosion control matting. An area shall be considered to have been stabilized when exposed surfaces have been either mulched or adequately anchored so that ground surface is not visible through the mulch. Between the dates of November 1 and April 15, all mulch shall be anchored by either mulch netting, tracking or wood cellulose fiber. The cover will be considered sufficient when the ground surface is not visible through the mulch. After November 1st, mulch and anchoring of all exposed soil shall occur at the end of each final grading workday.

4.3 Soil Stockpiling

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

4.4 Seeding

Between the dates of October 15th and April 1st, loam or seed shall not be required. During periods of above freezing temperatures finished areas shall be fine graded and either protected with mulch or temporarily seeded 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.



4.5 Over winter stabilization of disturbed soils

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

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

4.6 Over winter stabilization of disturbed slopes

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

- Stabilize the soil with temporary vegetation and erosion control mats – By October 1st the disturbed slope shall be seeded with winter rye at a seeding rate of 3 lbs per 1,000 s.f. and then install erosion control mats or anchored mulch over the seeding. If the rye fails to grow at least three inches or fails to cover at least 75% of the slope by November 1st, then the contractor shall cover the slope with a layer of erosion control mix or with stone riprap.
- Stabilize the soil with sod – The disturbed slope shall be stabilized with properly installed sod by October 1st. Proper installation includes the contractor 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 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.

5.1 Sediment Barriers

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

5.2 Stabilized Stone Construction Entrances

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

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.



6.0 IMPLEMENTATION SCHEDULE

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

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

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

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

7.0 CONCLUSION

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



8.0 ATTACHMENTS

- Temporary 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.



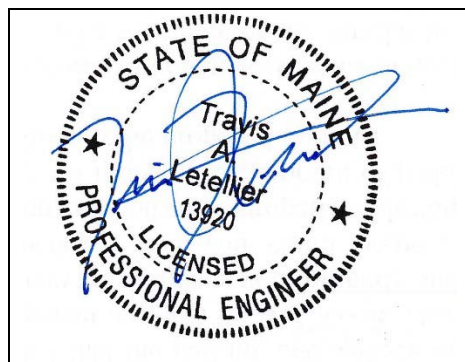
J. STORMWATER MANAGEMENT **REPORT**

Prepared For:

NEPW Logistics
Portland, Maine 04103

Prepared By:

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



October 2022



INTRODUCTION

Acorn Engineering, Inc. has been retained by NEPW Logistics to provide civil engineering services for the proposed development at 180 Read Road. The property consists of approximately 6.15 acres of land and contains the following parcels (147-B-1).

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

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

EXISTING CONDITIONS

The project site is bordered by Read Street and abuts the Springfield Terminal railroad bed to the west. A boundary plan has been prepared by Owen Haskell Inc., dated August 12th, 2022. The site is not in the watershed of an urban impaired stream.

The site is currently the location of NEPW Logistics warehouse operations. The site in its existing condition drains water in roughly two directions, to the north and south. Half of the building closest to Read Street and a portion of the eastern half of the site drain to the separated storm system within Read Street. The rest drains to the south along the existing railroad tracks and behind the building at 150 Read Street. It then flows into the separated stormwater system within Canco Road through a culvert. The flows off the site are combined within the storm drain system and discharge at a location off Ocean Ave that drains to the Bay.

PROPOSED DEVELOPMENT

The redevelopment will include the construction of a new 60,650 SF warehouse building adjacent and attached to two existing structures on the property along with associated site circulation improvements. The proposed building will be in the footprint of a warehouse in existence until 2012. Some areas on site that were previously impervious area are being converted to landscaped area. Overall, the project proposes to increase the impervious area on site by 1,289 SF.

Existing Impervious Area (SF)	Proposed Impervious Area (SF)
198,067	199,356 (+0.6%)



The redeveloped portion of the site has been graded to match with the existing topography of the site while providing for appropriate slopes in the parking and tractor trailer access areas. Catch basins and piping are provided to convey stormwater from the site to the separated storm system within Read Street. Due to the minor increase in impervious area and modeling constraints there is a small increase in peak stormwater flows off the site in the post-development condition (0.2 CFS in 25-year storm event). This increase is insignificant compared to the overall development.

All the paved areas associated with this re-development project are in areas where pavement exists in its current condition and has been used previously for site access, and loading area. This project aims to regrade and repave this area around the proposed building in a way that meets the definition of Maintenance within the Maine Department of Environmental Protection's Chapter 500 rules. The small increase in impervious area on the site is due to the roof area, not from an increase in pavement on the site.

The development will be served by the Portland Water District, CMP, and municipal sewer and storm systems. Utility mains and services have been coordinated with each respective utility company.

BASIC STANDARDS – EROSION & SEDIMENTATION CONTROL

The development shall provide erosion and sedimentation control, inspection and maintenance, and housekeeping standards as specified in the attached Exhibit K: Erosion and Sedimentation Control Report. Grading and construction activity will not impede or otherwise alter drainageways to have an unreasonable adverse impact on adjacent downgradient parcels.

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 (Tc)

The times of concentration for subcatchments in both the pre and post conditions were calculated by entering the flow path with the associated ground cover and slopes. HydroCAD then calculated the Tc's and incorporated the total Tc for each subcatchment into the model.



When the calculated T_c was less than six minutes (0.1 hours), a direct entry of six minutes was used as advised by the TR-55 model. Consistent with previous submissions and best practices, the sheet flow length for any T_c path was capped at 100 feet.

Curve Number (CN)

Within the pre-development model, the vegetated areas were considered grass or woods cover in fair condition as demonstrated by aerial images and site visits or . The post development landscaped areas were given a good rating all within the A hydrologic soil group.

Pre-development Calculations

The site consists of a predominately industrial lot in the predevelopment condition. For the purpose of this analysis the land has been divided into two (2) separate subcatchments.

- SC 1A – Half of Building 1 and eastern portion of site draining towards Read Street. It is assumed that these flows eventually convey to the separated storm system within Read Street.
- SC 2A – Building 2 and the remainder of property draining south to brush and trees

Peak combined flow rates for the pre-development storm events are as follows:

Table 6 – Pre-Development Peak Stormwater Flows			
Drainage Area	2-Year Storm Event (cfs)	10-Year Storm Event (cfs)	25-Year Storm Event (cfs)
Whole Site	6.0	11.1	15.3

Post-development Calculations

The post condition features the same two (2) point of interests that exist in the pre-development condition. The delineations are slightly changed to account for the new building and parts of the access road draining to catch basins and the separated storm system within Read Street. The sub catchments are as follows:

- SC 1P – Half of Building 1, the proposed building and eastern portion of site draining to Read Street including half of the access drive, drained by catch basins. This flow eventually conveys to the separated storm system within Read Street.
- SC 2P – Building 2 and the remainder of property draining south to brush and trees

The post-development calculations include changes to the land use and watershed delineations. The following table represents comparison of pre-development and post-development condition peak runoff rates for the proposed development and tributary area. It also includes the rate of flow of run-off that will be conveyed to the separated storm system.



Table 8 – 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
Whole Site	6.0	6.9	11.1	11.6	15.3	15.5
Increase in Flows to City System	0.9		0.5		0.2	

As shown in Table 7 and 8, the total post development peak flows leaving the site will be slightly higher than pre-development levels, by around 0.2 - 0.9 cubic feet per second, storm dependent. It is anticipated that this drainage pattern will improve the conditions of the watershed by conveying more of the runoff to the separated stormwater system immediately instead of the through neighboring properties, which have documented flooding issues.

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.

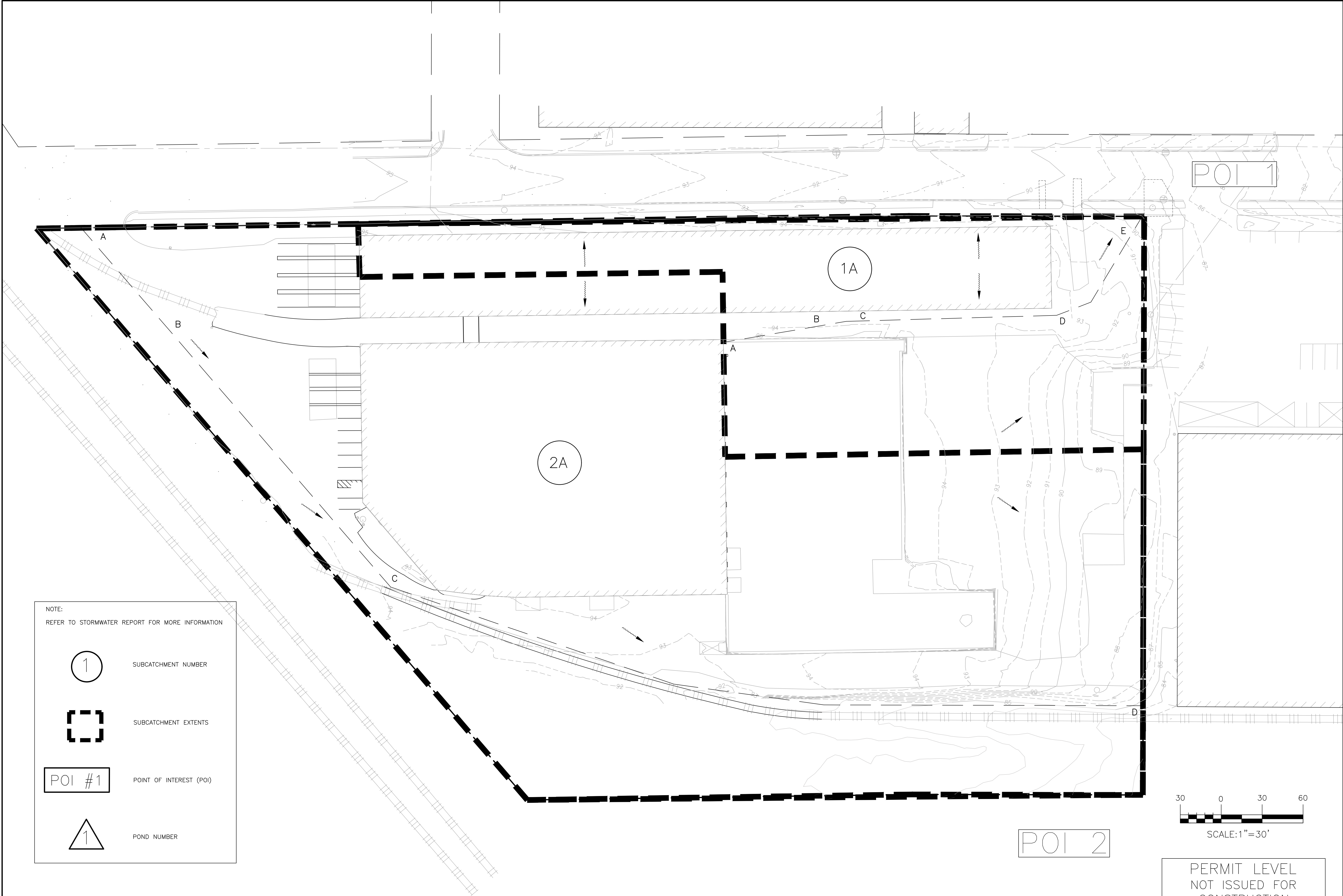
CONCLUSION

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

ATTACHMENTS

Attachment A: Pre-Development Watershed Map
Attachment B: Post-Development Watershed Map
Attachment C: HydroCAD Calculations
Attachment D: Soil Survey





ISSUED FOR		BY
MAJOR SITE PLAN		DATE
		10/17/22
PRE-DEVELOPMENT WATERSHED MAP		
PROJECT NAME/ADDRESS: READ STREET PORTLAND, MAINE 04103		
CLIENT/OWNER OF RECORD: NEPW LOGISTICS, LLC 118 QUARRY ROAD, PORTLAND, MAINE 04103		
DRAWING NO. PRE		

ACORN ENGINEERING, INC.
PO BOX 3372, PORTLAND MAINE 04101
(207) 775-2885

FILE: 1176_CIVIL

JN: 1176

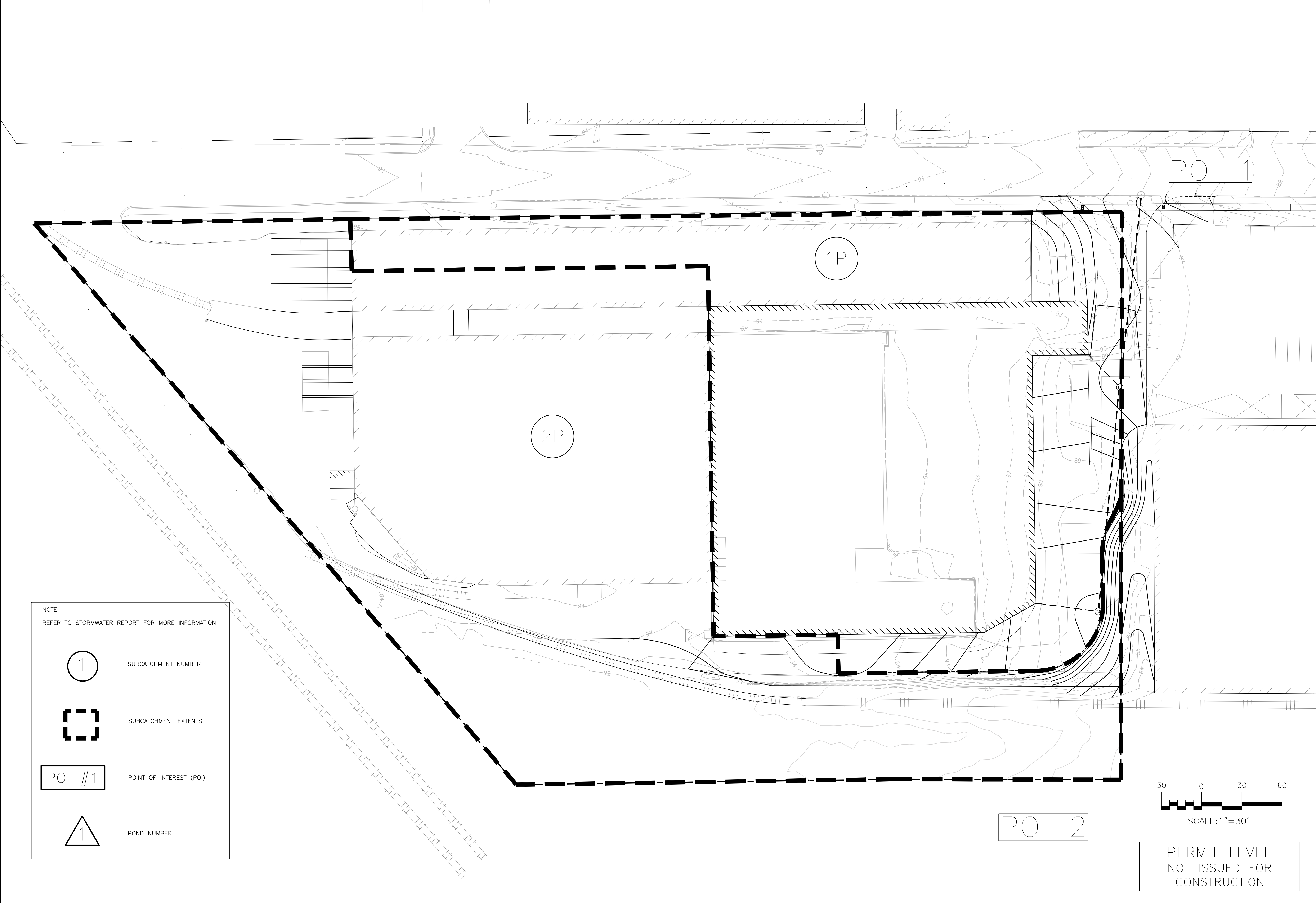
SCALE: AS NOTED

DESIGNED BY: TJL

DRAWN BY: AWG

CHECKED BY: WHS

PERMIT LEVEL
NOT ISSUED FOR
CONSTRUCTION



NOTE:
REFER TO STORMWATER REPORT FOR MORE INFORMATION

1

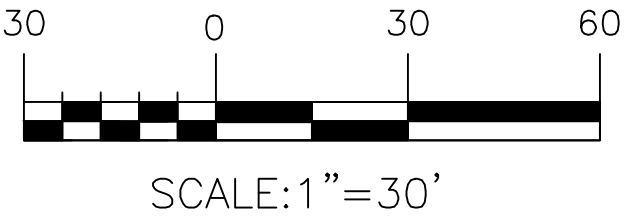
SUBCATCHMENT NUMBER

SUBCATCHMENT EXTENTS

POI #1

POINT OF INTEREST (POI)

POND NUMBER



PERMIT LEVEL
NOT ISSUED FOR
CONSTRUCTION

ISSUED FOR
MAJOR SITE PLAN

BY
DATE
10/17/22

PROJECT NAME/ADDRESS:
READ STREET
PORTLAND, MAINE 04103

CLIENT/OWNER OF RECORD:
NEPW LOGISTICS, LLC
118 QUARRY ROAD, PORTLAND, MAINE 04103

ACORN ENGINEERING, INC.
PO BOX 3372, PORTLAND MAINE 04101
(207) 775-2885

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

FILE: 1176_CIVIL

JN: 1176

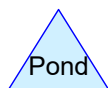
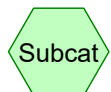
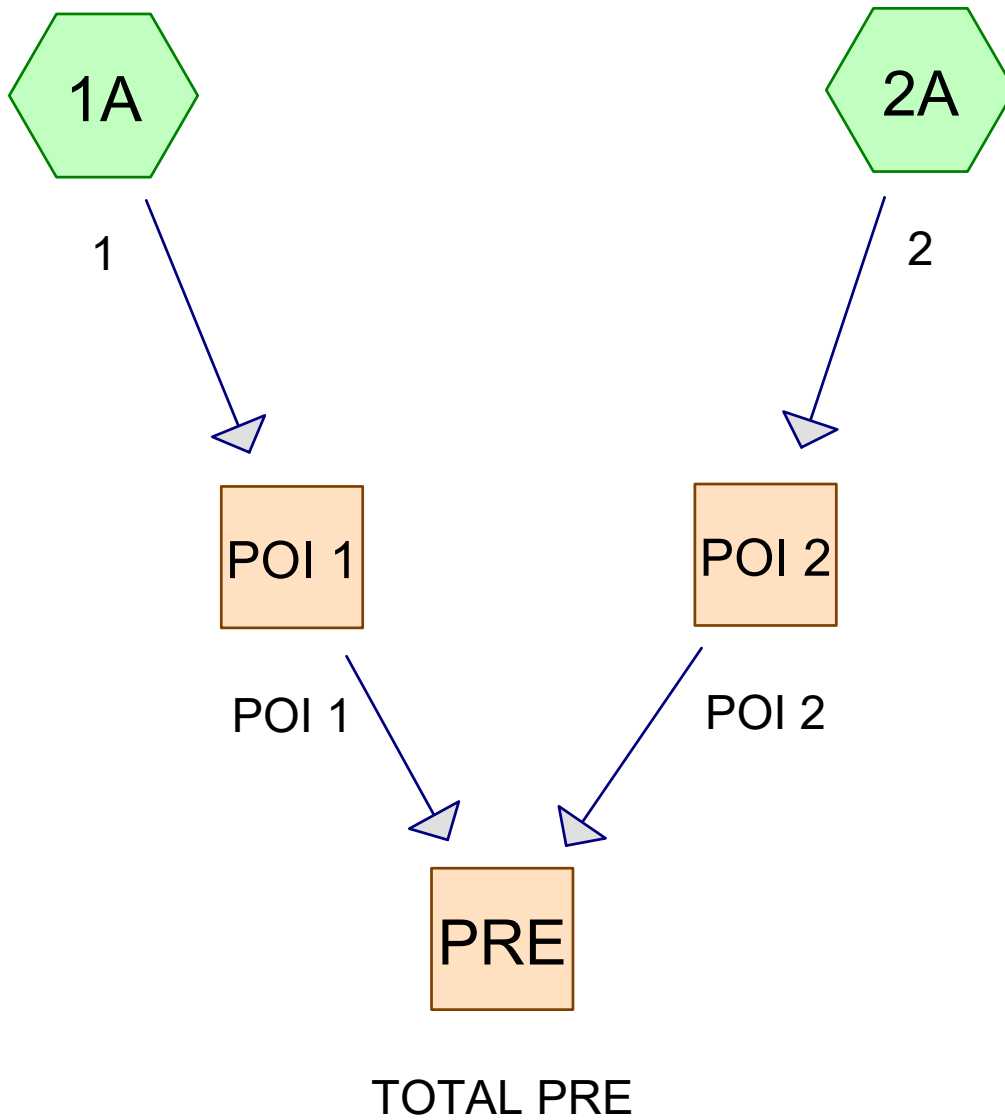
SCALE: AS NOTED

DESIGNED BY: TJL

DRAWN BY: AWG

CHECKED BY: WHS

DRAWING NO.
POST



Project Notes

Rainfall events imported from "Post Development_4-21-21.hcp"

Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.494	49	50-75% Grass cover, Fair, HSG A (1A, 2A)
1.102	36	Woods, Fair, HSG A (2A)
3.420	98	buildings/pave (2A)
1.127	98	pave/roof (1A)
6.143	83	TOTAL AREA

Soil Listing (all nodes)

Area (acres)	Soil Group	Subcatchment Numbers
1.596	HSG A	1A, 2A
0.000	HSG B	
0.000	HSG C	
0.000	HSG D	
4.547	Other	1A, 2A
6.143		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
0.494	0.000	0.000	0.000	0.000	0.494	50-75% Grass cover, Fair	1A, 2A
1.102	0.000	0.000	0.000	0.000	1.102	Woods, Fair	2A
0.000	0.000	0.000	0.000	3.420	3.420	buildings/pave	2A
0.000	0.000	0.000	0.000	1.127	1.127	pave/roof	1A
1.596	0.000	0.000	0.000	4.547	6.143	TOTAL AREA	

1176_PRE

Prepared by HP

HydroCAD® 10.00-26 s/n 00620 © 2020 HydroCAD Software Solutions LLC

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

Printed 10/17/2022

Page 6

Time span=1.00-48.00 hrs, dt=0.05 hrs, 941 points

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

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

Subcatchment1A: 1Runoff Area=63,319 sf 77.56% Impervious Runoff Depth=1.83"
Flow Length=340' Tc=21.2 min CN=87 Runoff=2.04 cfs 0.221 af**Subcatchment2A: 2**Runoff Area=204,287 sf 72.92% Impervious Runoff Depth=1.46"
Flow Length=898' Tc=32.6 min CN=82 Runoff=4.32 cfs 0.570 af**Reach POI 1: POI 1**Inflow=2.04 cfs 0.221 af
Outflow=2.04 cfs 0.221 af**Reach POI 2: POI 2**Inflow=4.32 cfs 0.570 af
Outflow=4.32 cfs 0.570 af**Reach PRE: TOTAL PRE**Inflow=6.03 cfs 0.791 af
Outflow=6.03 cfs 0.791 af**Total Runoff Area = 6.143 ac Runoff Volume = 0.791 af Average Runoff Depth = 1.55"**
25.99% Pervious = 1.596 ac 74.01% Impervious = 4.547 ac

Summary for Subcatchment 1A: 1

Runoff = 2.04 cfs @ 12.29 hrs, Volume= 0.221 af, Depth= 1.83"

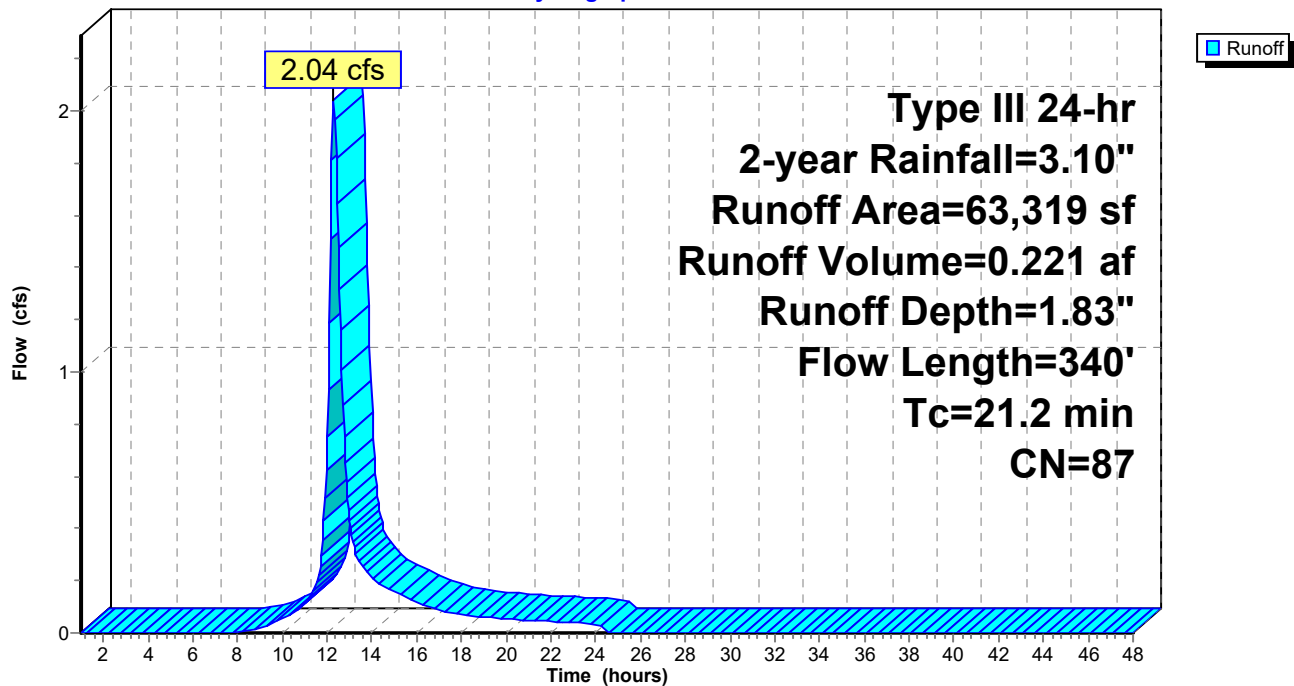
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-year Rainfall=3.10"

Area (sf)	CN	Description
14,209	49	50-75% Grass cover, Fair, HSG A
* 49,110	98	pave/roof
63,319	87	Weighted Average
14,209		22.44% Pervious Area
49,110		77.56% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
16.9	100	0.0050	0.10		Sheet Flow, A TO B Grass: Short n= 0.150 P2= 3.27"
3.6	154	0.0050	0.71		Shallow Concentrated Flow, C TO D Nearly Bare & Untilled Kv= 10.0 fps
0.7	86	0.0380	1.95		Shallow Concentrated Flow, D TO E Nearly Bare & Untilled Kv= 10.0 fps
21.2	340	Total			

Subcatchment 1A: 1

Hydrograph



Summary for Subcatchment 2A: 2

Runoff = 4.32 cfs @ 12.47 hrs, Volume= 0.570 af, Depth= 1.46"

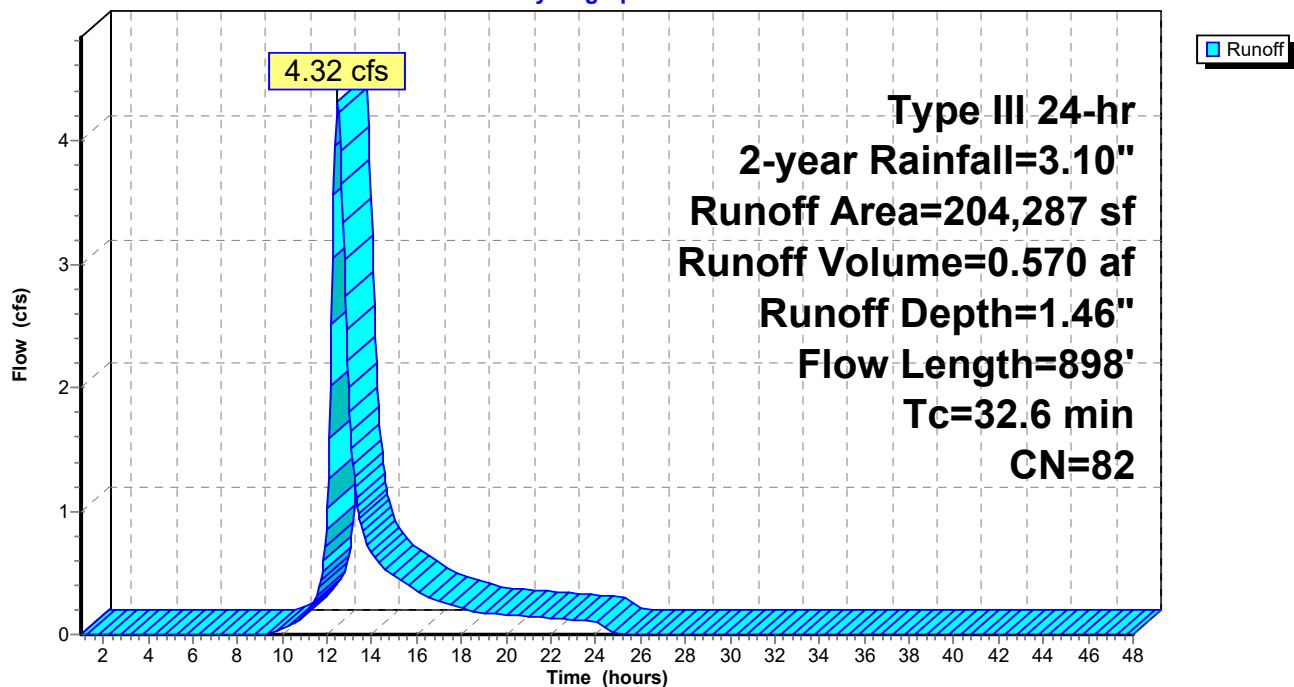
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-year Rainfall=3.10"

	Area (sf)	CN	Description
*	148,957	98	buildings/pave
	48,019	36	Woods, Fair, HSG A
	7,311	49	50-75% Grass cover, Fair, HSG A
	204,287	82	Weighted Average
	55,330		27.08% Pervious Area
	148,957		72.92% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.6	100	0.0100	1.05		Sheet Flow, A TO B Smooth surfaces n= 0.011 P2= 3.27"
1.4	237	0.0200	2.87		Shallow Concentrated Flow, B TO C Paved Kv= 20.3 fps
29.6	561	0.0160	0.32		Shallow Concentrated Flow, C TO D Forest w/Heavy Litter Kv= 2.5 fps
32.6	898	Total			

Subcatchment 2A: 2

Hydrograph



Summary for Reach POI 1: POI 1

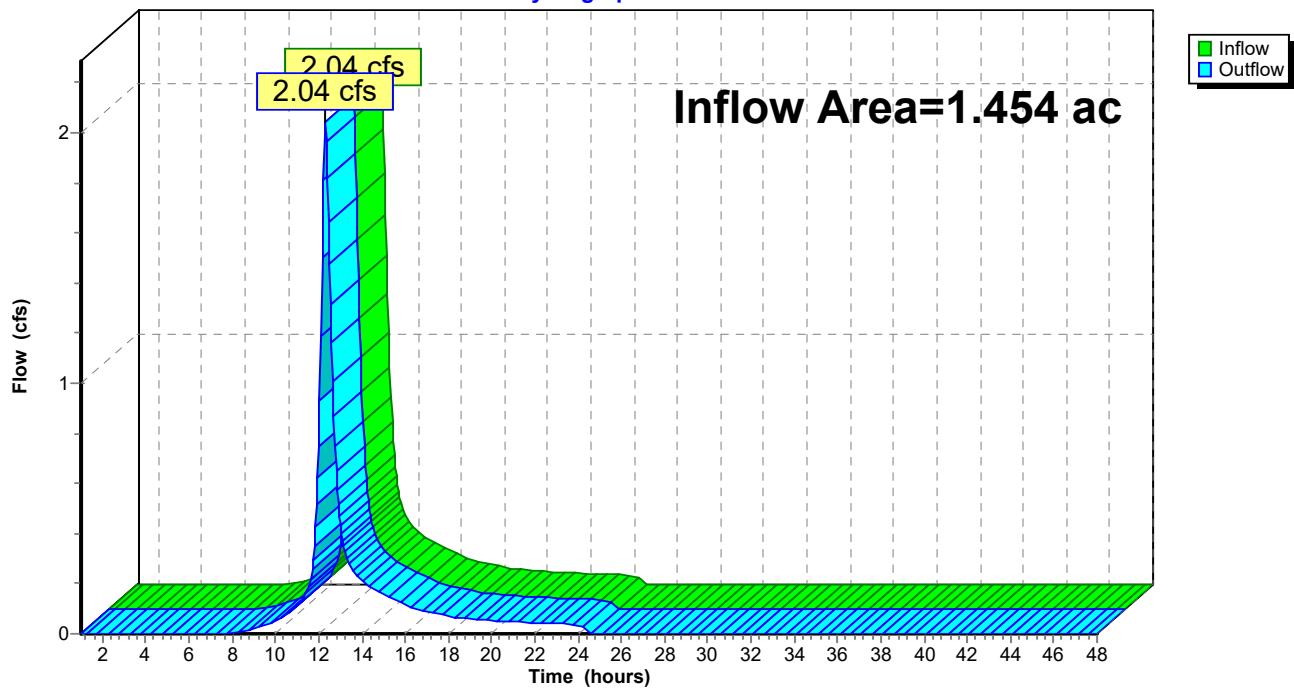
[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 1.454 ac, 77.56% Impervious, Inflow Depth = 1.83" for 2-year event
Inflow = 2.04 cfs @ 12.29 hrs, Volume= 0.221 af
Outflow = 2.04 cfs @ 12.29 hrs, Volume= 0.221 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs

Reach POI 1: POI 1

Hydrograph



Summary for Reach POI 2: POI 2

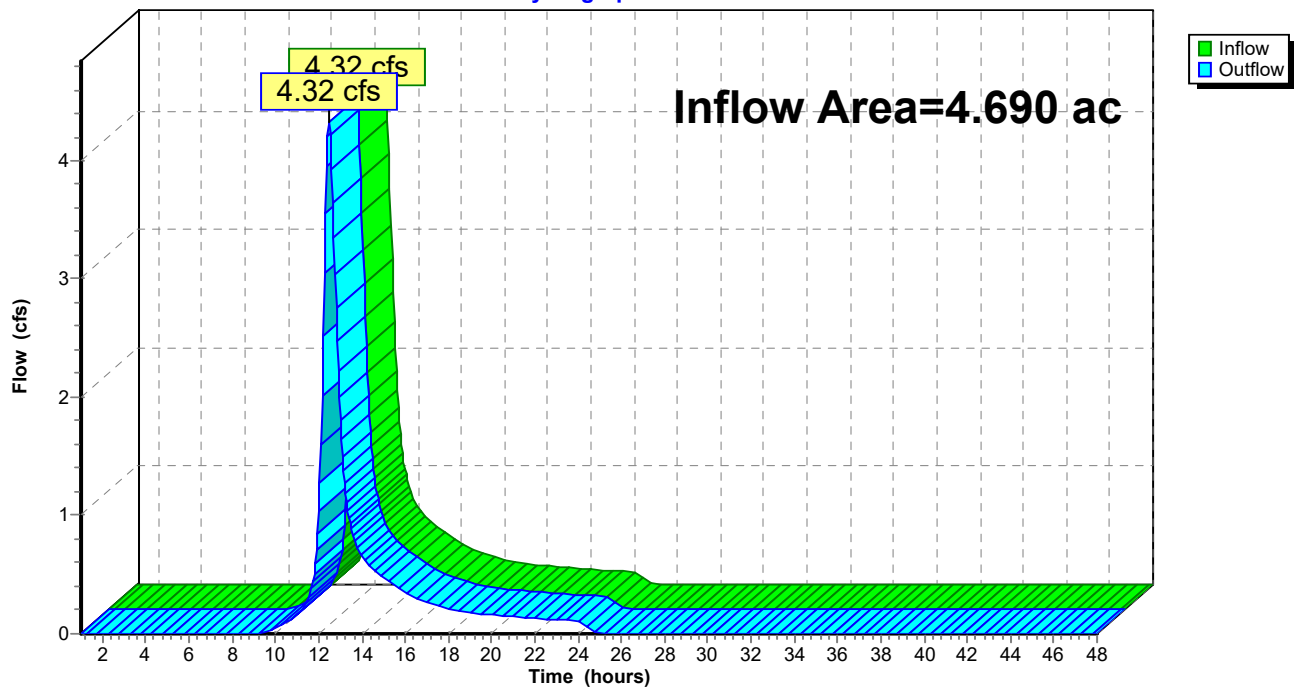
[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 4.690 ac, 72.92% Impervious, Inflow Depth = 1.46" for 2-year event
Inflow = 4.32 cfs @ 12.47 hrs, Volume= 0.570 af
Outflow = 4.32 cfs @ 12.47 hrs, Volume= 0.570 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs

Reach POI 2: POI 2

Hydrograph



Summary for Reach PRE: TOTAL PRE

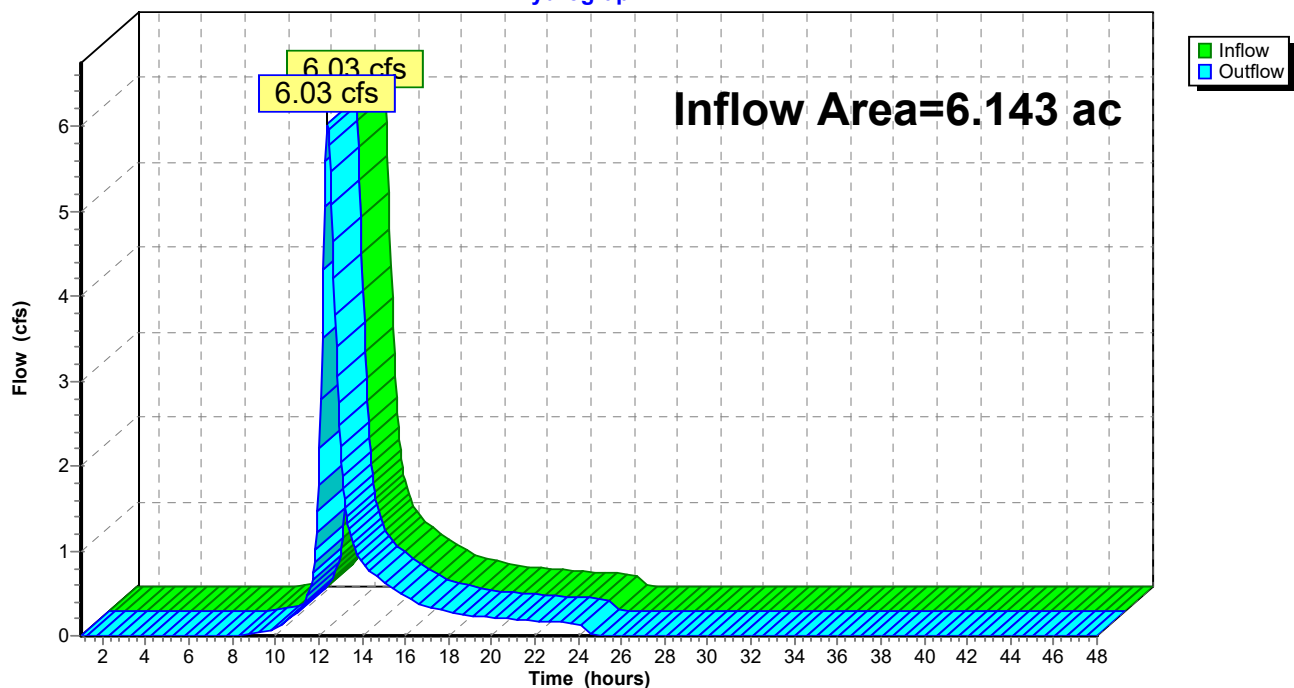
[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 6.143 ac, 74.01% Impervious, Inflow Depth = 1.55" for 2-year event
Inflow = 6.03 cfs @ 12.41 hrs, Volume= 0.791 af
Outflow = 6.03 cfs @ 12.41 hrs, Volume= 0.791 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs

Reach PRE: TOTAL PRE

Hydrograph



1176_PRE

Prepared by HP

HydroCAD® 10.00-26 s/n 00620 © 2020 HydroCAD Software Solutions LLC

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

Printed 10/17/2022

Page 12

Time span=1.00-48.00 hrs, dt=0.05 hrs, 941 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment1A: 1

Runoff Area=63,319 sf 77.56% Impervious Runoff Depth=3.19"
Flow Length=340' Tc=21.2 min CN=87 Runoff=3.53 cfs 0.387 af

Subcatchment2A: 2

Runoff Area=204,287 sf 72.92% Impervious Runoff Depth=2.72"
Flow Length=898' Tc=32.6 min CN=82 Runoff=8.13 cfs 1.065 af

Reach POI 1: POI 1

Inflow=3.53 cfs 0.387 af
Outflow=3.53 cfs 0.387 af

Reach POI 2: POI 2

Inflow=8.13 cfs 1.065 af
Outflow=8.13 cfs 1.065 af

Reach PRE: TOTAL PRE

Inflow=11.10 cfs 1.451 af
Outflow=11.10 cfs 1.451 af

Total Runoff Area = 6.143 ac Runoff Volume = 1.451 af Average Runoff Depth = 2.83"
25.99% Pervious = 1.596 ac 74.01% Impervious = 4.547 ac

Summary for Subcatchment 1A: 1

Runoff = 3.53 cfs @ 12.29 hrs, Volume= 0.387 af, Depth= 3.19"

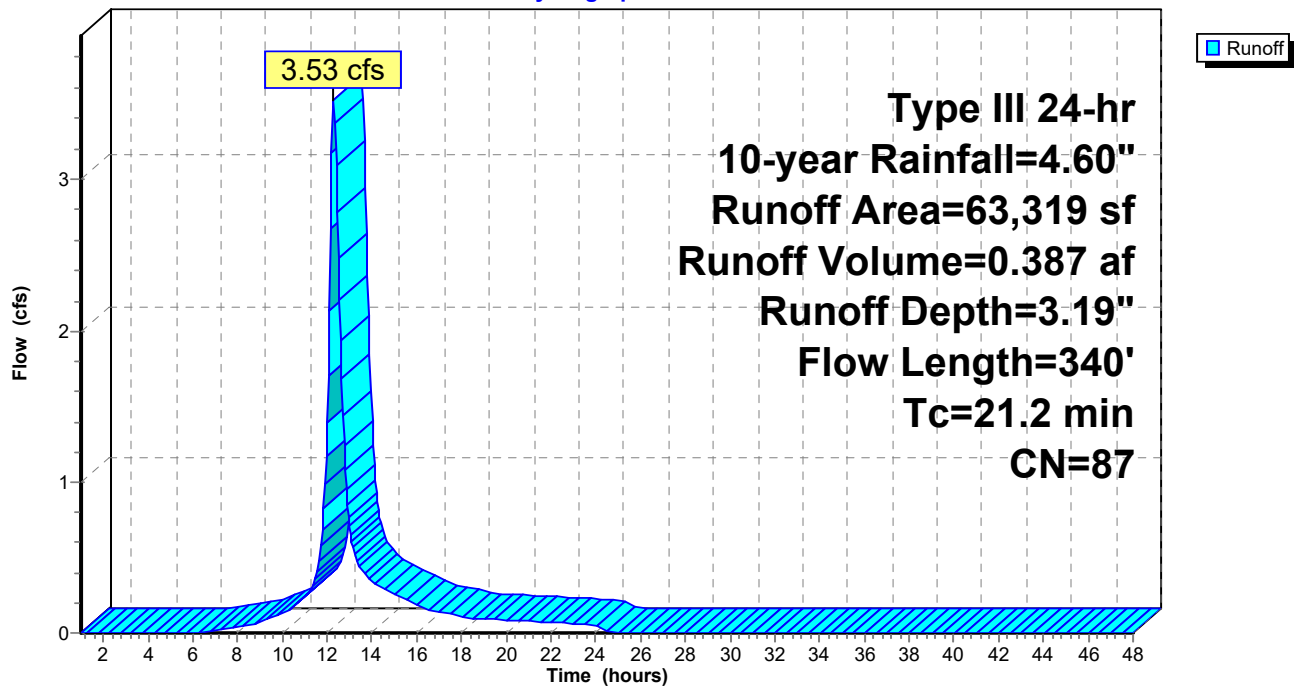
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-year Rainfall=4.60"

Area (sf)	CN	Description
14,209	49	50-75% Grass cover, Fair, HSG A
* 49,110	98	pave/roof
63,319	87	Weighted Average
14,209		22.44% Pervious Area
49,110		77.56% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
16.9	100	0.0050	0.10		Sheet Flow, A TO B Grass: Short n= 0.150 P2= 3.27"
3.6	154	0.0050	0.71		Shallow Concentrated Flow, C TO D Nearly Bare & Untilled Kv= 10.0 fps
0.7	86	0.0380	1.95		Shallow Concentrated Flow, D TO E Nearly Bare & Untilled Kv= 10.0 fps
21.2	340	Total			

Subcatchment 1A: 1

Hydrograph



Summary for Subcatchment 2A: 2

Runoff = 8.13 cfs @ 12.45 hrs, Volume= 1.065 af, Depth= 2.72"

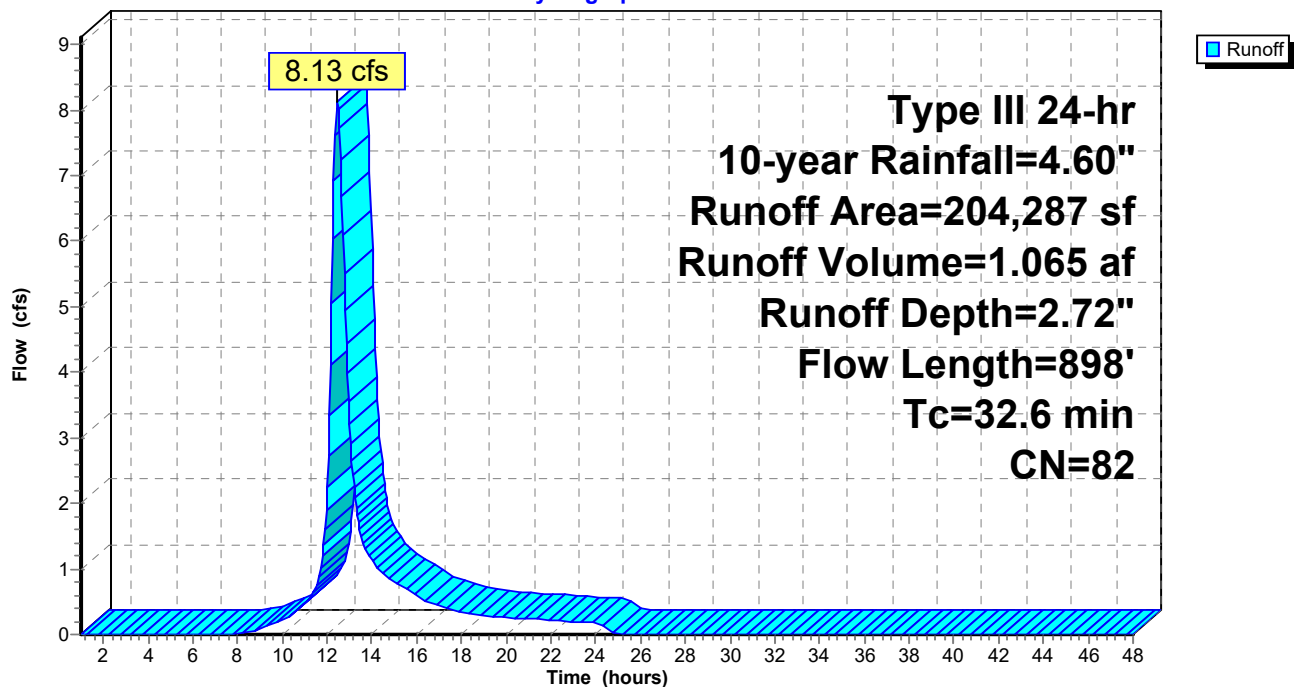
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-year Rainfall=4.60"

	Area (sf)	CN	Description
*	148,957	98	buildings/pave
	48,019	36	Woods, Fair, HSG A
	7,311	49	50-75% Grass cover, Fair, HSG A
	204,287	82	Weighted Average
	55,330		27.08% Pervious Area
	148,957		72.92% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.6	100	0.0100	1.05		Sheet Flow, A TO B Smooth surfaces n= 0.011 P2= 3.27"
1.4	237	0.0200	2.87		Shallow Concentrated Flow, B TO C Paved Kv= 20.3 fps
29.6	561	0.0160	0.32		Shallow Concentrated Flow, C TO D Forest w/Heavy Litter Kv= 2.5 fps
32.6	898	Total			

Subcatchment 2A: 2

Hydrograph



Summary for Reach POI 1: POI 1

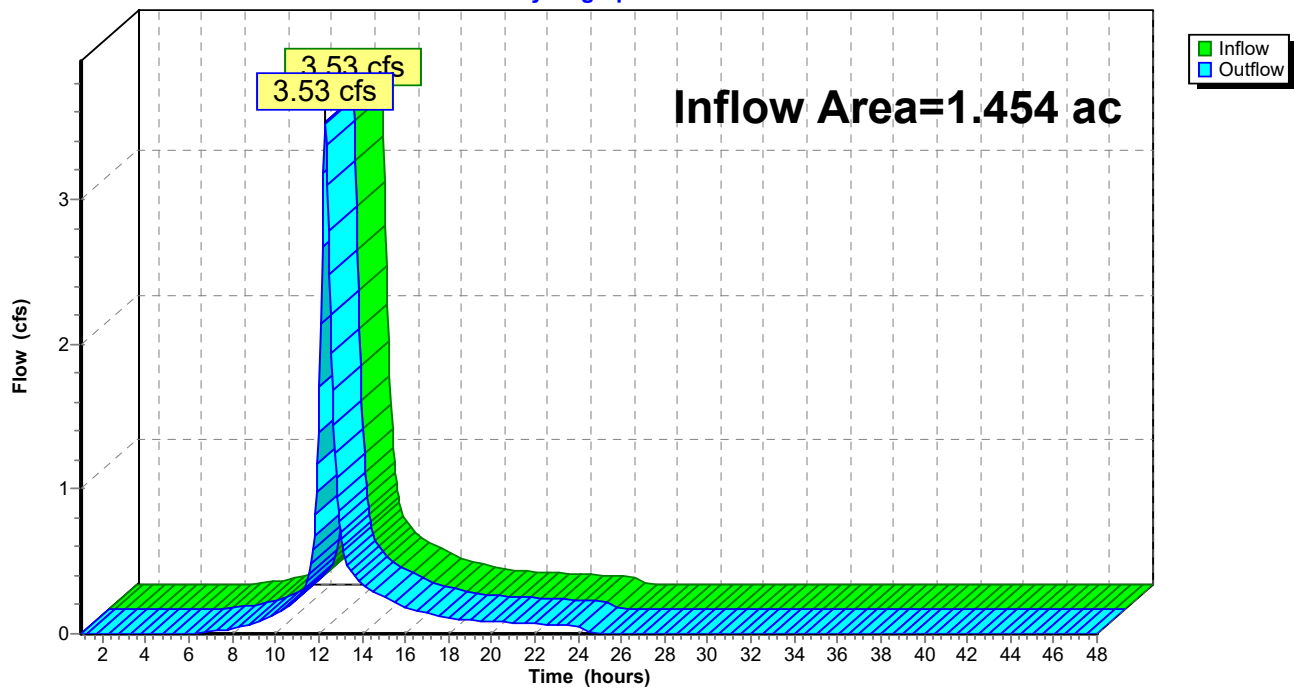
[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 1.454 ac, 77.56% Impervious, Inflow Depth = 3.19" for 10-year event
Inflow = 3.53 cfs @ 12.29 hrs, Volume= 0.387 af
Outflow = 3.53 cfs @ 12.29 hrs, Volume= 0.387 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs

Reach POI 1: POI 1

Hydrograph

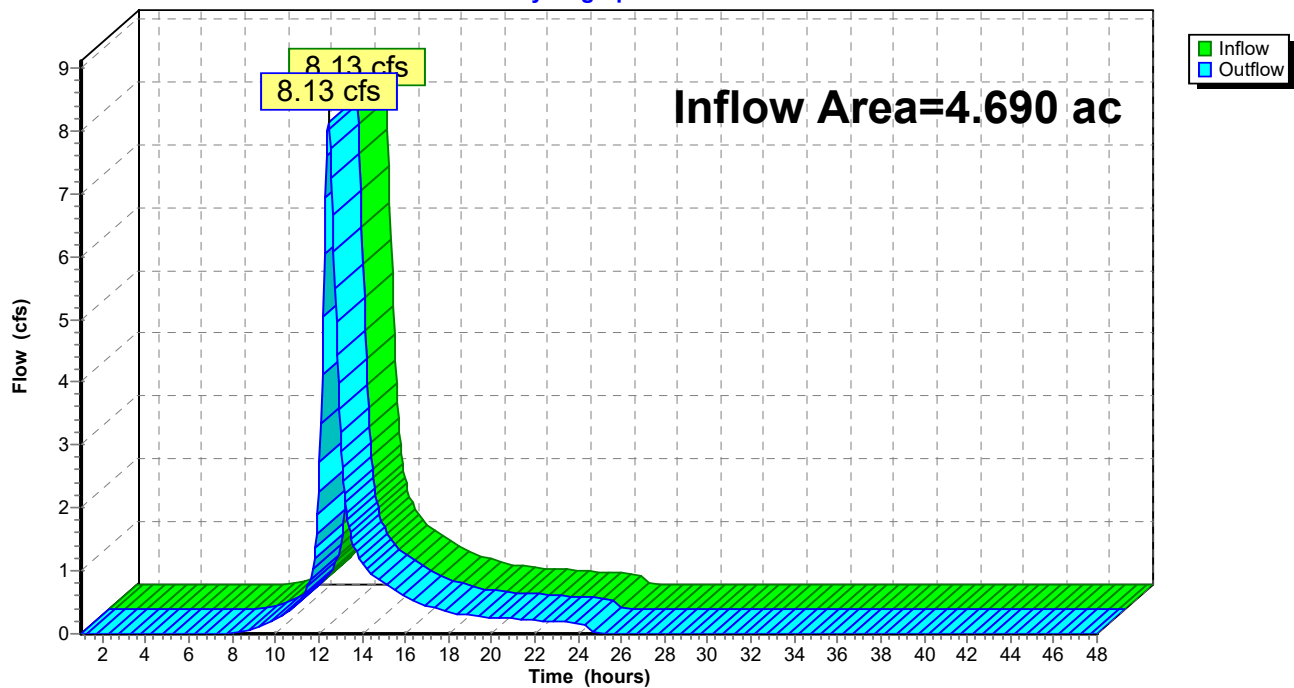


Summary for Reach POI 2: POI 2

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

Inflow Area = 4.690 ac, 72.92% Impervious, Inflow Depth = 2.72" for 10-year event
Inflow = 8.13 cfs @ 12.45 hrs, Volume= 1.065 af
Outflow = 8.13 cfs @ 12.45 hrs, Volume= 1.065 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs

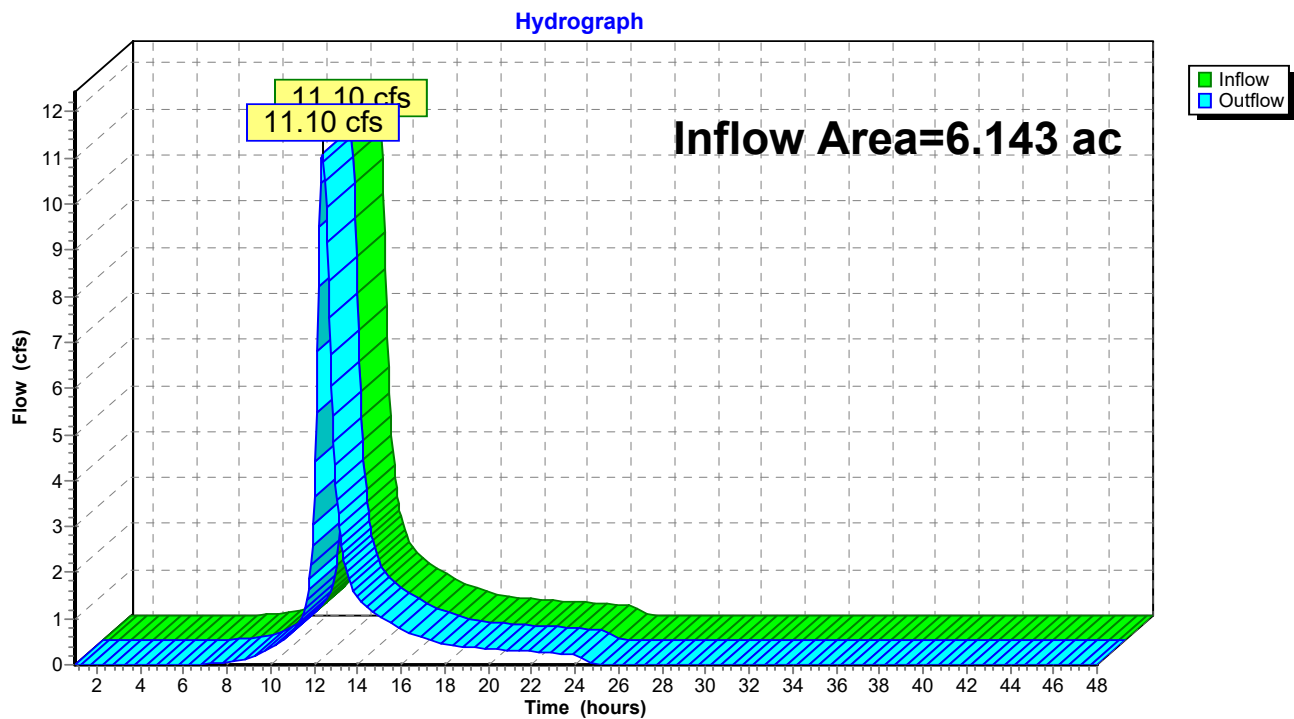
Reach POI 2: POI 2**Hydrograph**

Summary for Reach PRE: TOTAL PRE

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

Inflow Area = 6.143 ac, 74.01% Impervious, Inflow Depth = 2.83" for 10-year event
Inflow = 11.10 cfs @ 12.39 hrs, Volume= 1.451 af
Outflow = 11.10 cfs @ 12.39 hrs, Volume= 1.451 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs

Reach PRE: TOTAL PRE

1176_PRE*Type III 24-hr 25-year Rainfall=5.80"*

Prepared by HP

Printed 10/17/2022

HydroCAD® 10.00-26 s/n 00620 © 2020 HydroCAD Software Solutions LLC

Page 18

Time span=1.00-48.00 hrs, dt=0.05 hrs, 941 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment1A: 1

Runoff Area=63,319 sf 77.56% Impervious Runoff Depth=4.33"
Flow Length=340' Tc=21.2 min CN=87 Runoff=4.73 cfs 0.524 af

Subcatchment2A: 2

Runoff Area=204,287 sf 72.92% Impervious Runoff Depth=3.80"
Flow Length=898' Tc=32.6 min CN=82 Runoff=11.31 cfs 1.486 af

Reach POI 1: POI 1

Inflow=4.73 cfs 0.524 af
Outflow=4.73 cfs 0.524 af

Reach POI 2: POI 2

Inflow=11.31 cfs 1.486 af
Outflow=11.31 cfs 1.486 af

Reach PRE: TOTAL PRE

Inflow=15.30 cfs 2.011 af
Outflow=15.30 cfs 2.011 af

Total Runoff Area = 6.143 ac Runoff Volume = 2.011 af Average Runoff Depth = 3.93"
25.99% Pervious = 1.596 ac 74.01% Impervious = 4.547 ac

Summary for Subcatchment 1A: 1

Runoff = 4.73 cfs @ 12.28 hrs, Volume= 0.524 af, Depth= 4.33"

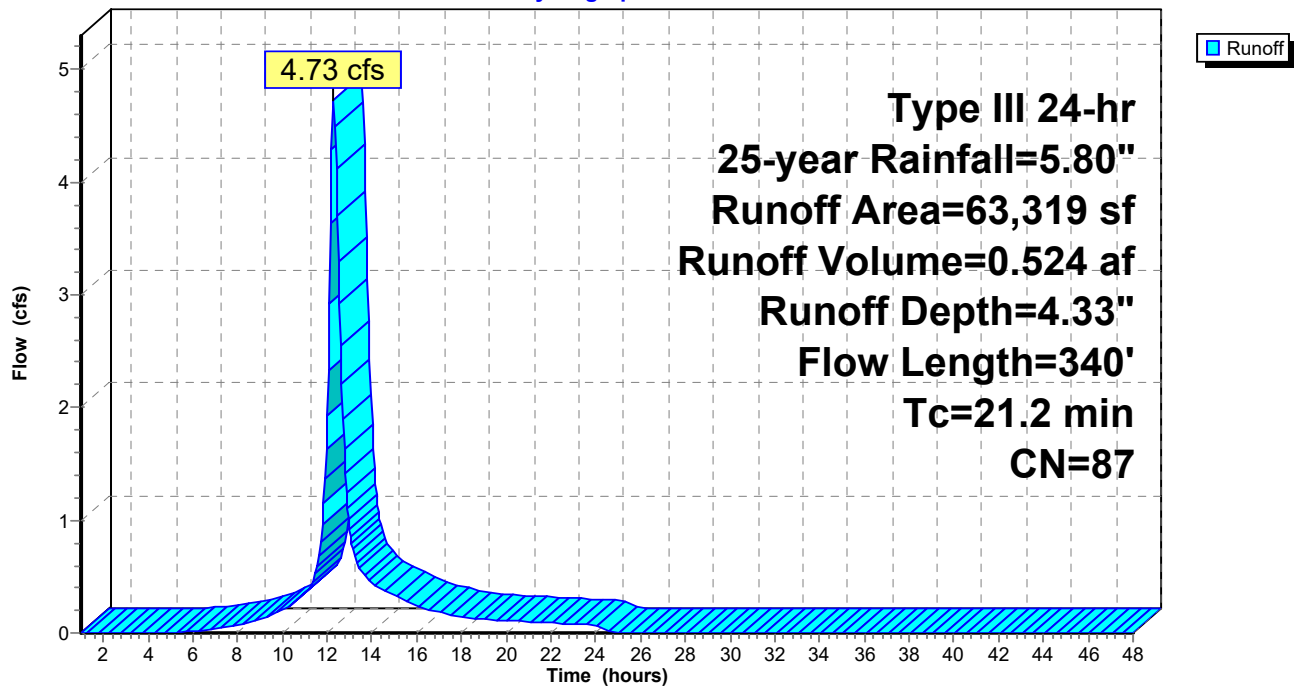
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-year Rainfall=5.80"

Area (sf)	CN	Description
14,209	49	50-75% Grass cover, Fair, HSG A
* 49,110	98	pave/roof
63,319	87	Weighted Average
14,209		22.44% Pervious Area
49,110		77.56% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
16.9	100	0.0050	0.10		Sheet Flow, A TO B Grass: Short n= 0.150 P2= 3.27"
3.6	154	0.0050	0.71		Shallow Concentrated Flow, C TO D Nearly Bare & Untilled Kv= 10.0 fps
0.7	86	0.0380	1.95		Shallow Concentrated Flow, D TO E Nearly Bare & Untilled Kv= 10.0 fps
21.2	340	Total			

Subcatchment 1A: 1

Hydrograph



Summary for Subcatchment 2A: 2

Runoff = 11.31 cfs @ 12.45 hrs, Volume= 1.486 af, Depth= 3.80"

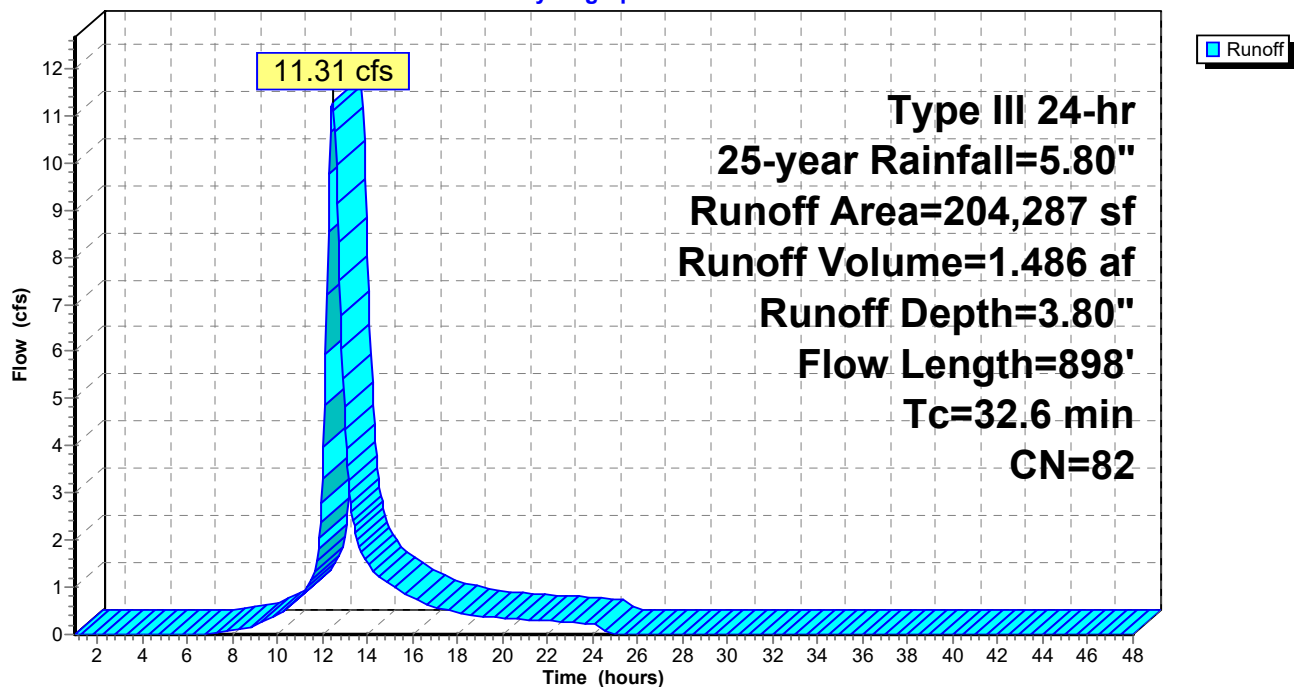
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-year Rainfall=5.80"

Area (sf)	CN	Description
* 148,957	98	buildings/pave
48,019	36	Woods, Fair, HSG A
7,311	49	50-75% Grass cover, Fair, HSG A
204,287	82	Weighted Average
55,330		27.08% Pervious Area
148,957		72.92% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.6	100	0.0100	1.05		Sheet Flow, A TO B Smooth surfaces n= 0.011 P2= 3.27"
1.4	237	0.0200	2.87		Shallow Concentrated Flow, B TO C Paved Kv= 20.3 fps
29.6	561	0.0160	0.32		Shallow Concentrated Flow, C TO D Forest w/Heavy Litter Kv= 2.5 fps
32.6	898	Total			

Subcatchment 2A: 2

Hydrograph



Summary for Reach POI 1: POI 1

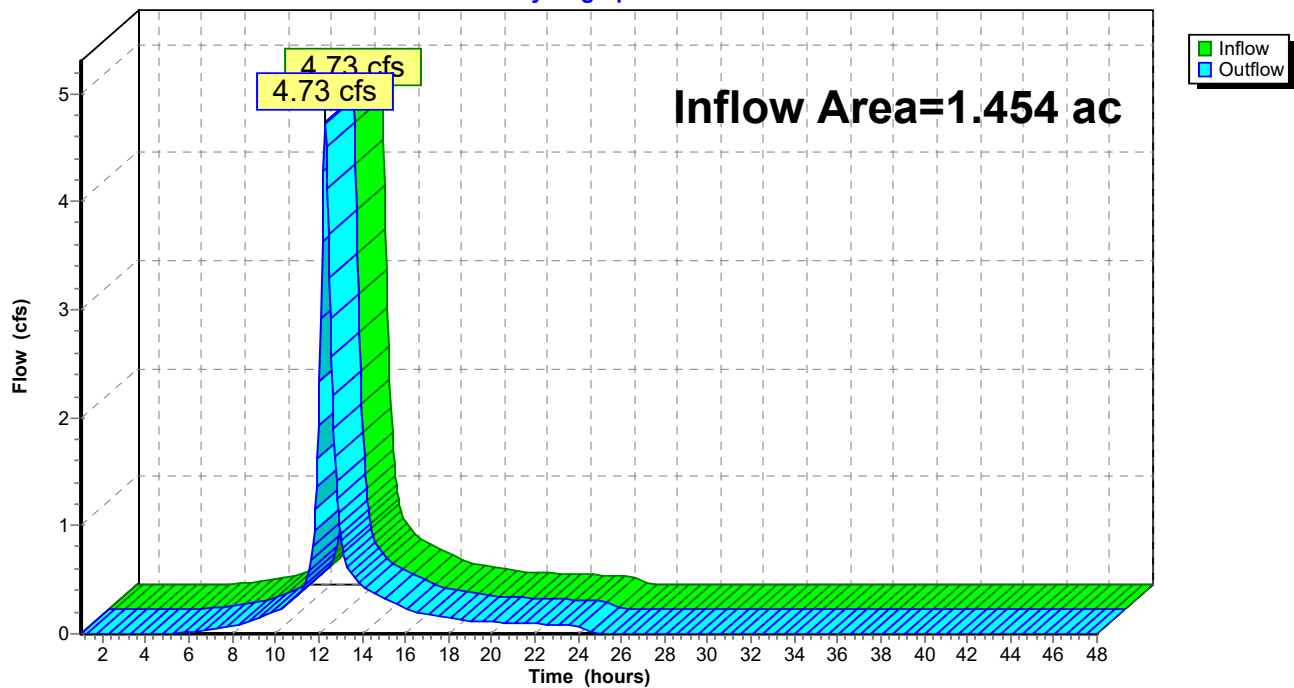
[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 1.454 ac, 77.56% Impervious, Inflow Depth = 4.33" for 25-year event
Inflow = 4.73 cfs @ 12.28 hrs, Volume= 0.524 af
Outflow = 4.73 cfs @ 12.28 hrs, Volume= 0.524 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs

Reach POI 1: POI 1

Hydrograph



Summary for Reach POI 2: POI 2

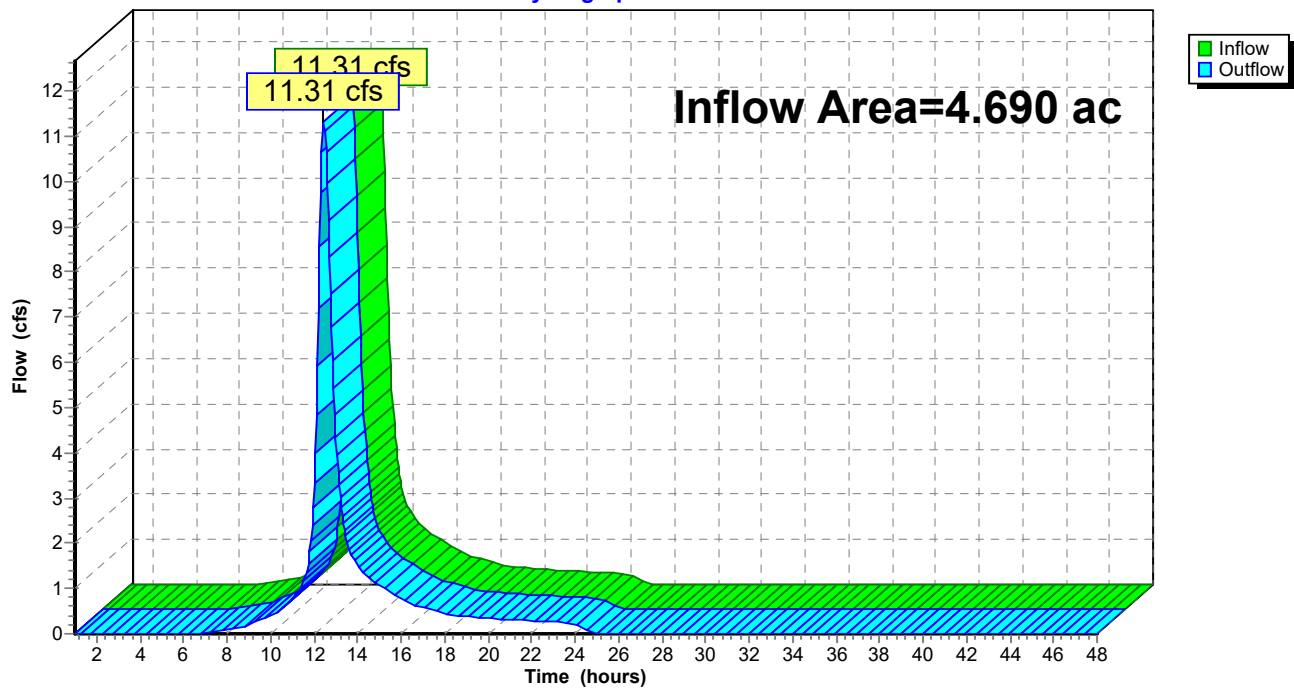
[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 4.690 ac, 72.92% Impervious, Inflow Depth = 3.80" for 25-year event
Inflow = 11.31 cfs @ 12.45 hrs, Volume= 1.486 af
Outflow = 11.31 cfs @ 12.45 hrs, Volume= 1.486 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs

Reach POI 2: POI 2

Hydrograph



Summary for Reach PRE: TOTAL PRE

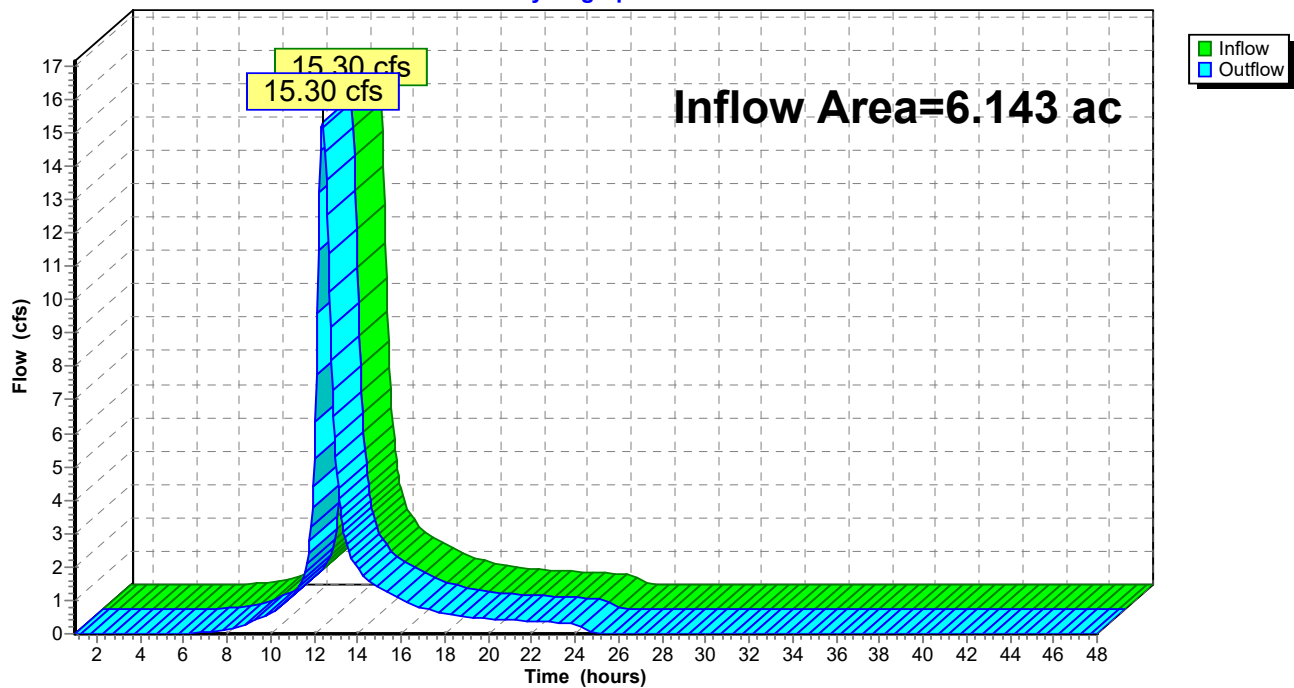
[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 6.143 ac, 74.01% Impervious, Inflow Depth = 3.93" for 25-year event
Inflow = 15.30 cfs @ 12.39 hrs, Volume= 2.011 af
Outflow = 15.30 cfs @ 12.39 hrs, Volume= 2.011 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs

Reach PRE: TOTAL PRE

Hydrograph



1176_PRE*Type III 24-hr Custom Rainfall=3.40"*

Prepared by HP

Printed 10/17/2022

HydroCAD® 10.00-26 s/n 00620 © 2020 HydroCAD Software Solutions LLC

Page 24

Time span=1.00-48.00 hrs, dt=0.05 hrs, 941 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment1A: 1

Runoff Area=63,319 sf 77.56% Impervious Runoff Depth=2.09"
Flow Length=340' Tc=21.2 min CN=87 Runoff=2.34 cfs 0.254 af

Subcatchment2A: 2

Runoff Area=204,287 sf 72.92% Impervious Runoff Depth=1.70"
Flow Length=898' Tc=32.6 min CN=82 Runoff=5.06 cfs 0.665 af

Reach POI 1: POI 1

Inflow=2.34 cfs 0.254 af
Outflow=2.34 cfs 0.254 af

Reach POI 2: POI 2

Inflow=5.06 cfs 0.665 af
Outflow=5.06 cfs 0.665 af

Reach PRE: TOTAL PRE

Inflow=7.01 cfs 0.918 af
Outflow=7.01 cfs 0.918 af

Total Runoff Area = 6.143 ac Runoff Volume = 0.918 af Average Runoff Depth = 1.79"
25.99% Pervious = 1.596 ac 74.01% Impervious = 4.547 ac

Summary for Subcatchment 1A: 1

Runoff = 2.34 cfs @ 12.29 hrs, Volume= 0.254 af, Depth= 2.09"

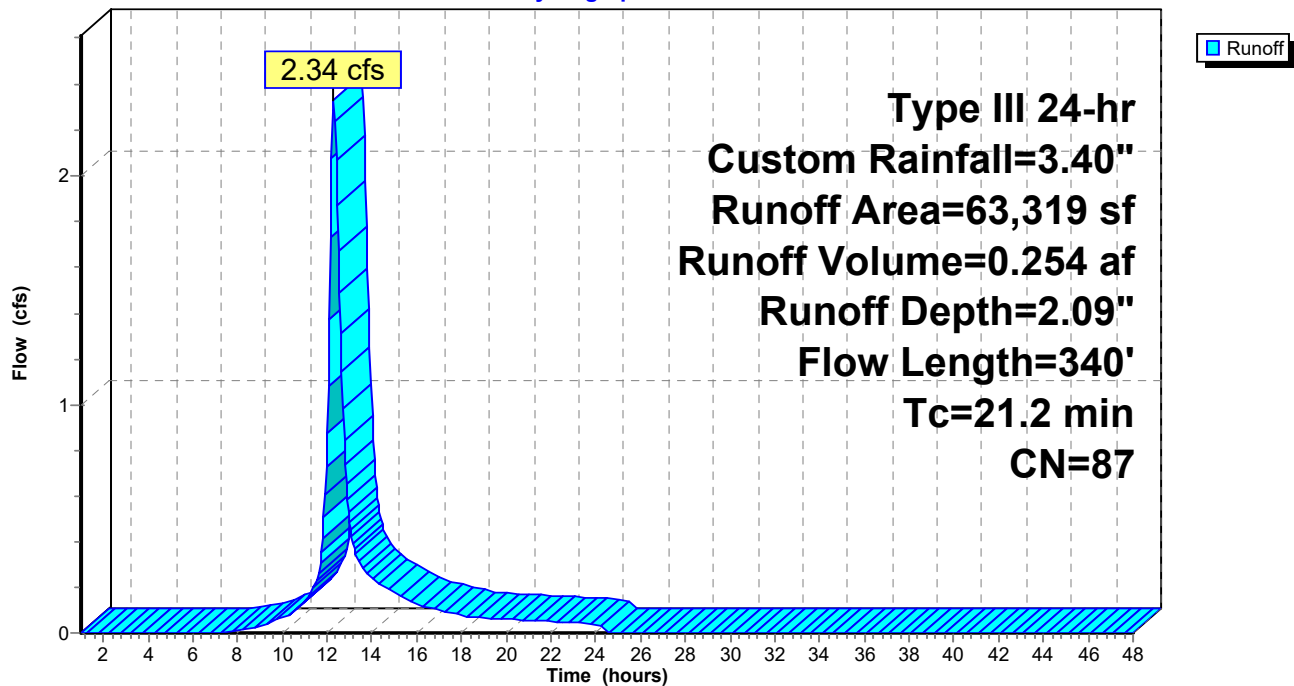
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
Type III 24-hr Custom Rainfall=3.40"

Area (sf)	CN	Description
14,209	49	50-75% Grass cover, Fair, HSG A
* 49,110	98	pave/roof
63,319	87	Weighted Average
14,209		22.44% Pervious Area
49,110		77.56% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
16.9	100	0.0050	0.10		Sheet Flow, A TO B Grass: Short n= 0.150 P2= 3.27"
3.6	154	0.0050	0.71		Shallow Concentrated Flow, C TO D Nearly Bare & Untilled Kv= 10.0 fps
0.7	86	0.0380	1.95		Shallow Concentrated Flow, D TO E Nearly Bare & Untilled Kv= 10.0 fps
21.2	340	Total			

Subcatchment 1A: 1

Hydrograph



Summary for Subcatchment 2A: 2

Runoff = 5.06 cfs @ 12.46 hrs, Volume= 0.665 af, Depth= 1.70"

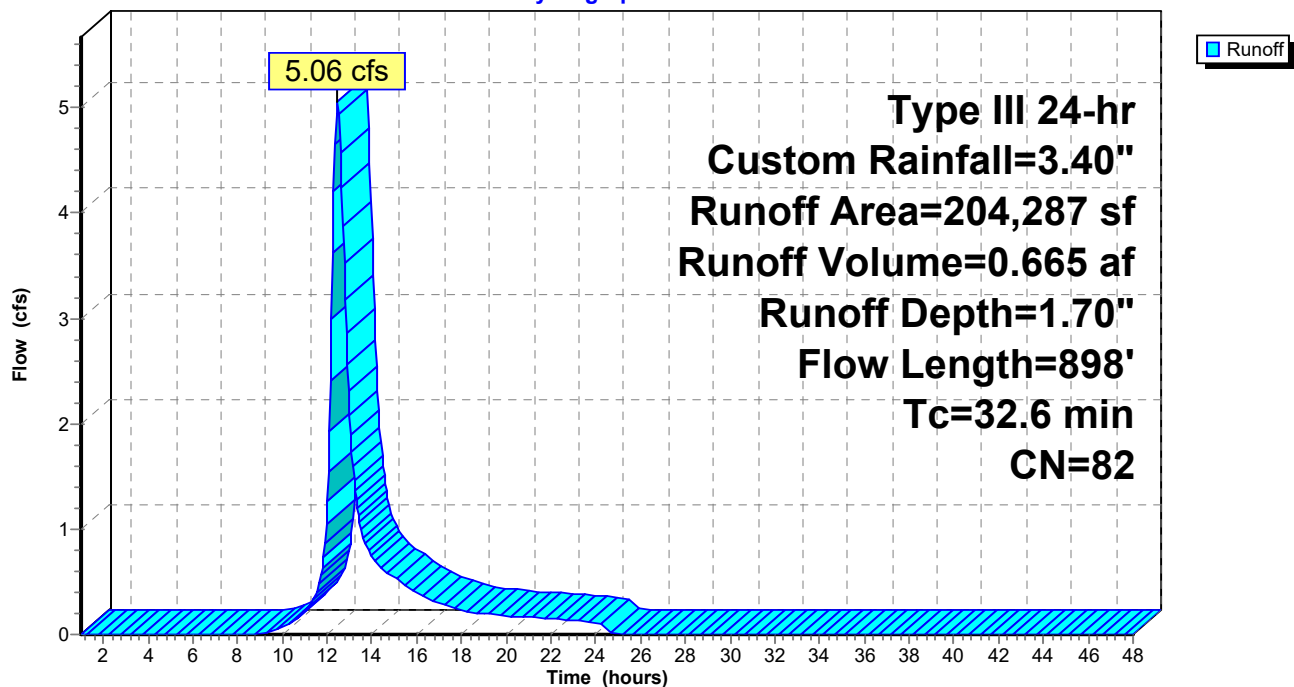
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
Type III 24-hr Custom Rainfall=3.40"

	Area (sf)	CN	Description
*	148,957	98	buildings/pave
	48,019	36	Woods, Fair, HSG A
	7,311	49	50-75% Grass cover, Fair, HSG A
	204,287	82	Weighted Average
	55,330		27.08% Pervious Area
	148,957		72.92% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.6	100	0.0100	1.05		Sheet Flow, A TO B Smooth surfaces n= 0.011 P2= 3.27"
1.4	237	0.0200	2.87		Shallow Concentrated Flow, B TO C Paved Kv= 20.3 fps
29.6	561	0.0160	0.32		Shallow Concentrated Flow, C TO D Forest w/Heavy Litter Kv= 2.5 fps
32.6	898	Total			

Subcatchment 2A: 2

Hydrograph



Summary for Reach POI 1: POI 1

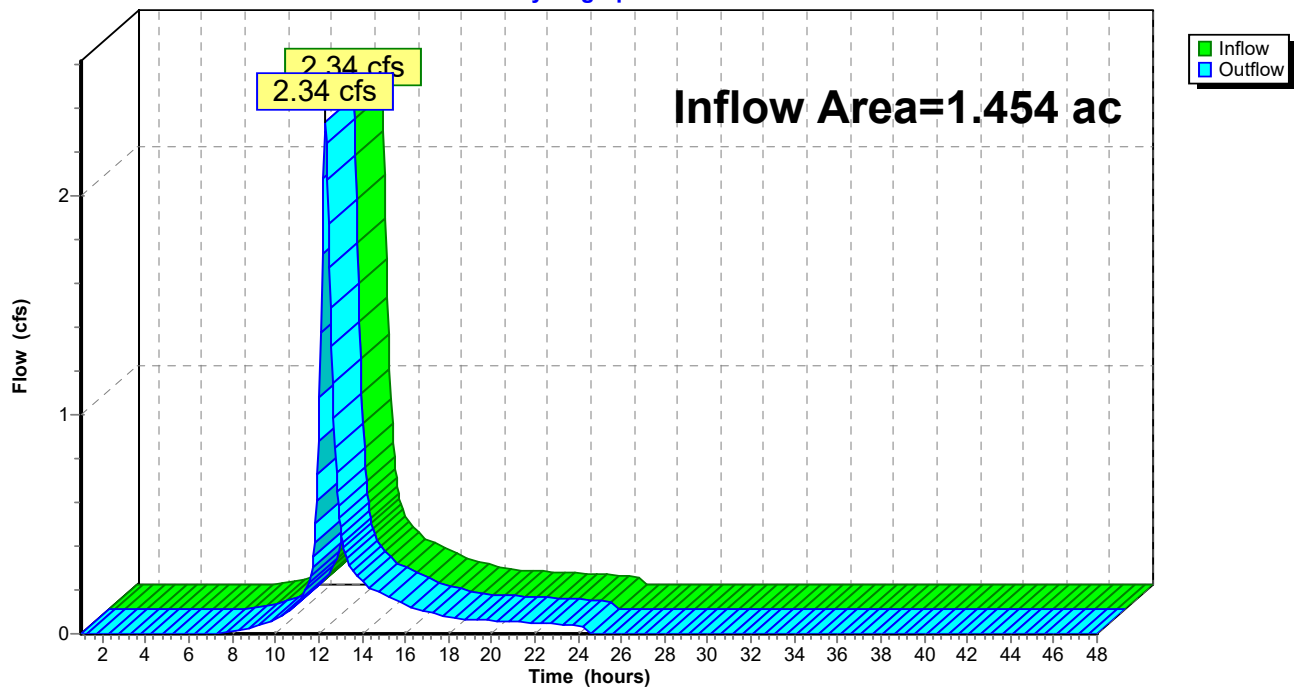
[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 1.454 ac, 77.56% Impervious, Inflow Depth = 2.09" for Custom event
Inflow = 2.34 cfs @ 12.29 hrs, Volume= 0.254 af
Outflow = 2.34 cfs @ 12.29 hrs, Volume= 0.254 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs

Reach POI 1: POI 1

Hydrograph



Summary for Reach POI 2: POI 2

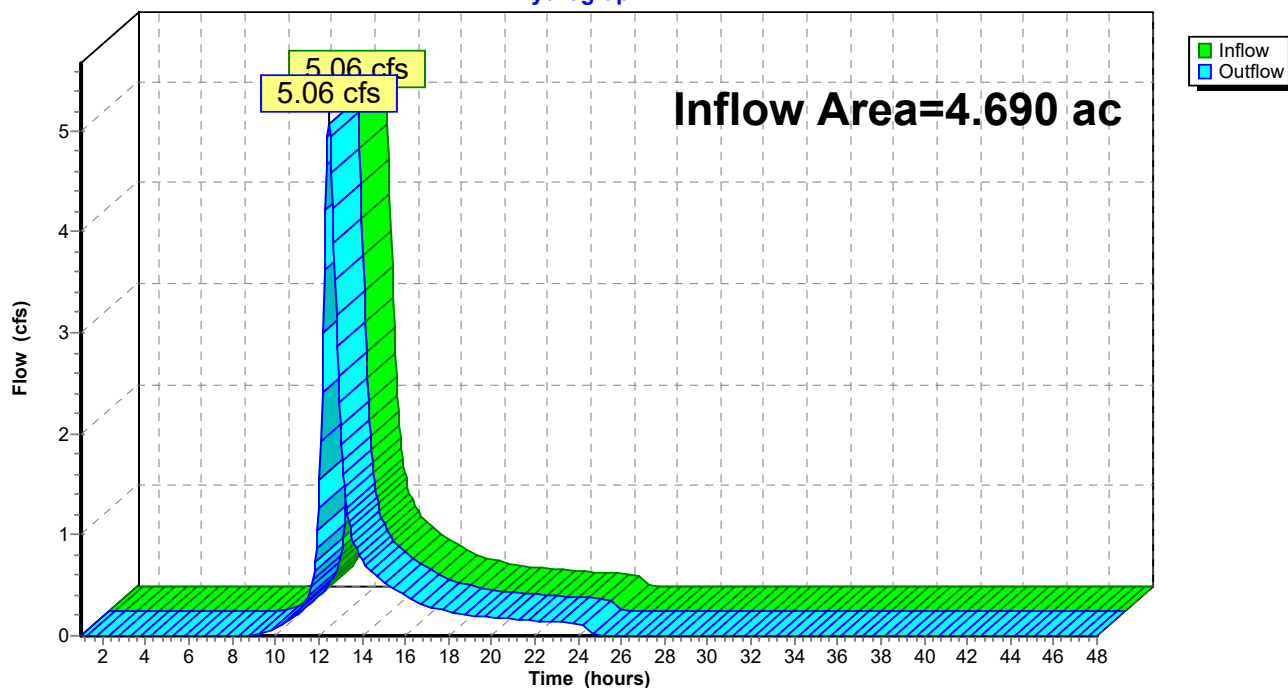
[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 4.690 ac, 72.92% Impervious, Inflow Depth = 1.70" for Custom event
Inflow = 5.06 cfs @ 12.46 hrs, Volume= 0.665 af
Outflow = 5.06 cfs @ 12.46 hrs, Volume= 0.665 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs

Reach POI 2: POI 2

Hydrograph

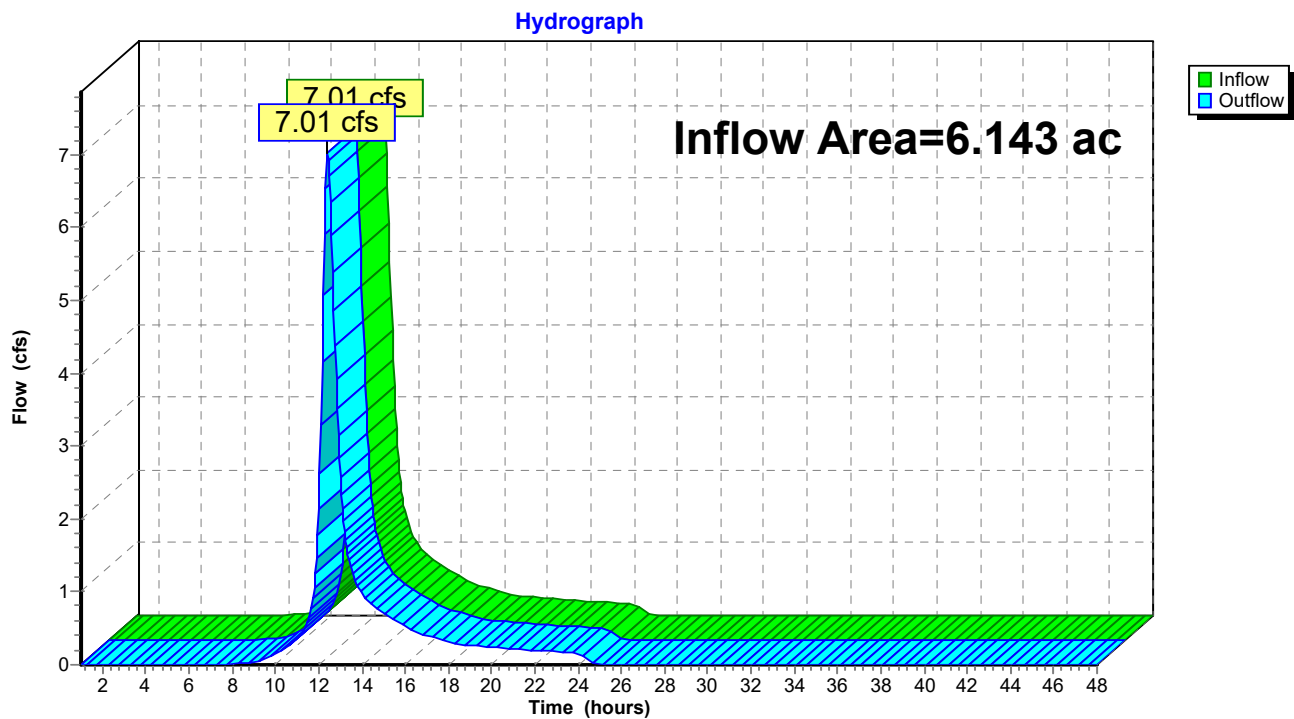


Summary for Reach PRE: TOTAL PRE

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

Inflow Area = 6.143 ac, 74.01% Impervious, Inflow Depth = 1.79" for Custom event
Inflow = 7.01 cfs @ 12.40 hrs, Volume= 0.918 af
Outflow = 7.01 cfs @ 12.40 hrs, Volume= 0.918 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs

Reach PRE: TOTAL PRE

1176_PRE

Prepared by HP

HydroCAD® 10.00-26 s/n 00620 © 2020 HydroCAD Software Solutions LLC

Type III 24-hr WQ Rainfall=1.00"

Printed 10/17/2022

Page 30

Time span=1.00-48.00 hrs, dt=0.05 hrs, 941 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment1A: 1

Runoff Area=63,319 sf 77.56% Impervious Runoff Depth=0.22"
Flow Length=340' Tc=21.2 min CN=87 Runoff=0.21 cfs 0.027 af

Subcatchment2A: 2

Runoff Area=204,287 sf 72.92% Impervious Runoff Depth=0.11"
Flow Length=898' Tc=32.6 min CN=82 Runoff=0.21 cfs 0.045 af

Reach POI 1: POI 1

Inflow=0.21 cfs 0.027 af
Outflow=0.21 cfs 0.027 af

Reach POI 2: POI 2

Inflow=0.21 cfs 0.045 af
Outflow=0.21 cfs 0.045 af

Reach PRE: TOTAL PRE

Inflow=0.37 cfs 0.072 af
Outflow=0.37 cfs 0.072 af

Total Runoff Area = 6.143 ac Runoff Volume = 0.072 af Average Runoff Depth = 0.14"
25.99% Pervious = 1.596 ac 74.01% Impervious = 4.547 ac

Summary for Subcatchment 1A: 1

Runoff = 0.21 cfs @ 12.35 hrs, Volume= 0.027 af, Depth= 0.22"

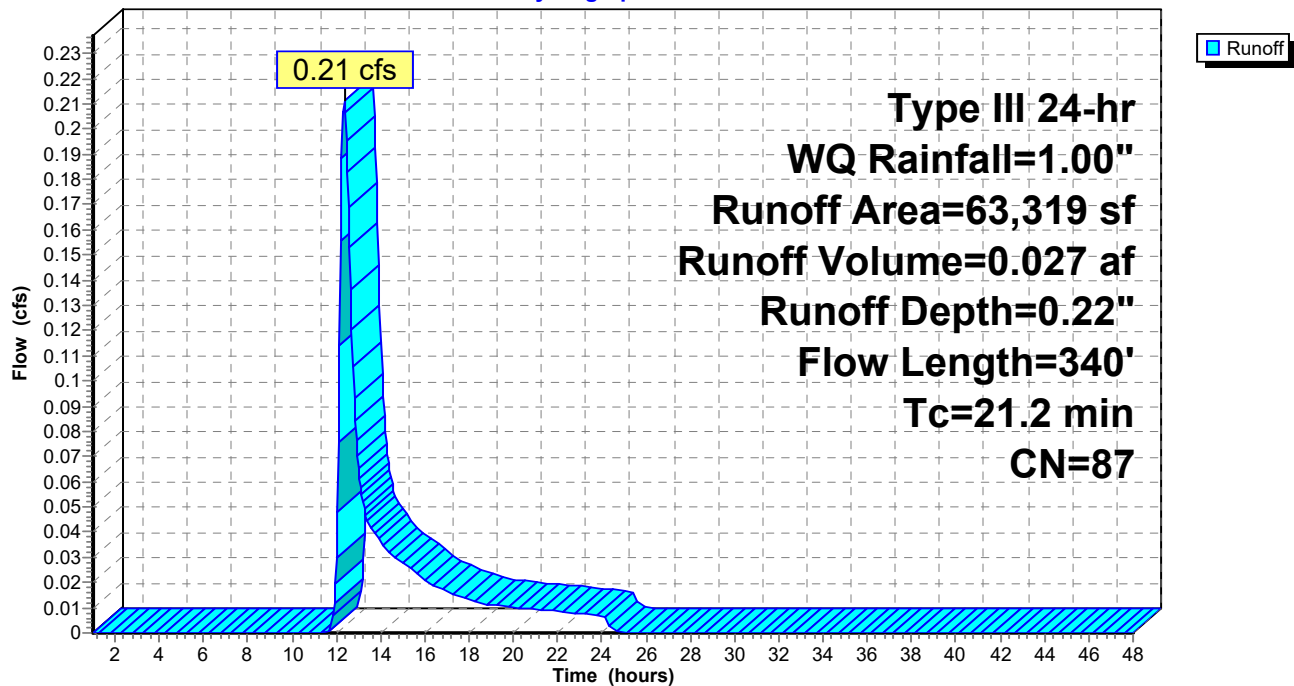
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
Type III 24-hr WQ Rainfall=1.00"

Area (sf)	CN	Description
14,209	49	50-75% Grass cover, Fair, HSG A
* 49,110	98	pave/roof
63,319	87	Weighted Average
14,209		22.44% Pervious Area
49,110		77.56% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
16.9	100	0.0050	0.10		Sheet Flow, A TO B Grass: Short n= 0.150 P2= 3.27"
3.6	154	0.0050	0.71		Shallow Concentrated Flow, C TO D Nearly Bare & Untilled Kv= 10.0 fps
0.7	86	0.0380	1.95		Shallow Concentrated Flow, D TO E Nearly Bare & Untilled Kv= 10.0 fps
21.2	340	Total			

Subcatchment 1A: 1

Hydrograph



Summary for Subcatchment 2A: 2

Runoff = 0.21 cfs @ 12.64 hrs, Volume= 0.045 af, Depth= 0.11"

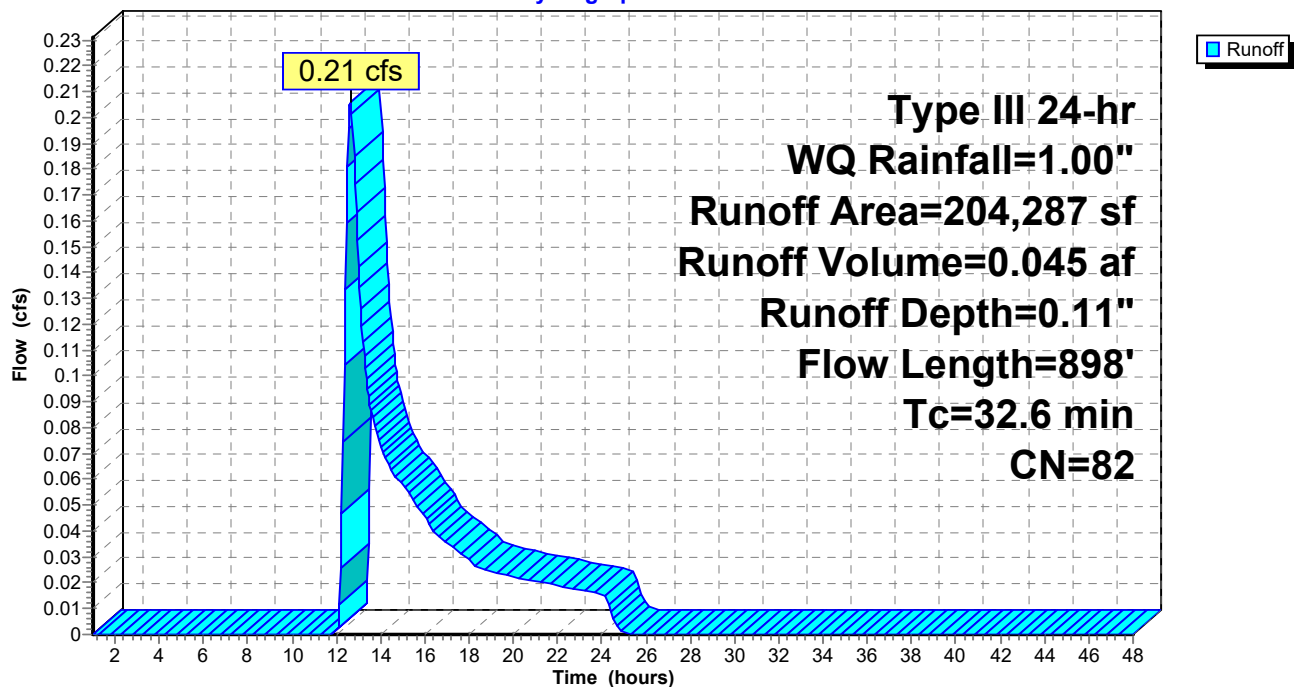
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
Type III 24-hr WQ Rainfall=1.00"

	Area (sf)	CN	Description
*	148,957	98	buildings/pave
	48,019	36	Woods, Fair, HSG A
	7,311	49	50-75% Grass cover, Fair, HSG A
	204,287	82	Weighted Average
	55,330		27.08% Pervious Area
	148,957		72.92% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.6	100	0.0100	1.05		Sheet Flow, A TO B Smooth surfaces n= 0.011 P2= 3.27"
1.4	237	0.0200	2.87		Shallow Concentrated Flow, B TO C Paved Kv= 20.3 fps
29.6	561	0.0160	0.32		Shallow Concentrated Flow, C TO D Forest w/Heavy Litter Kv= 2.5 fps
32.6	898	Total			

Subcatchment 2A: 2

Hydrograph

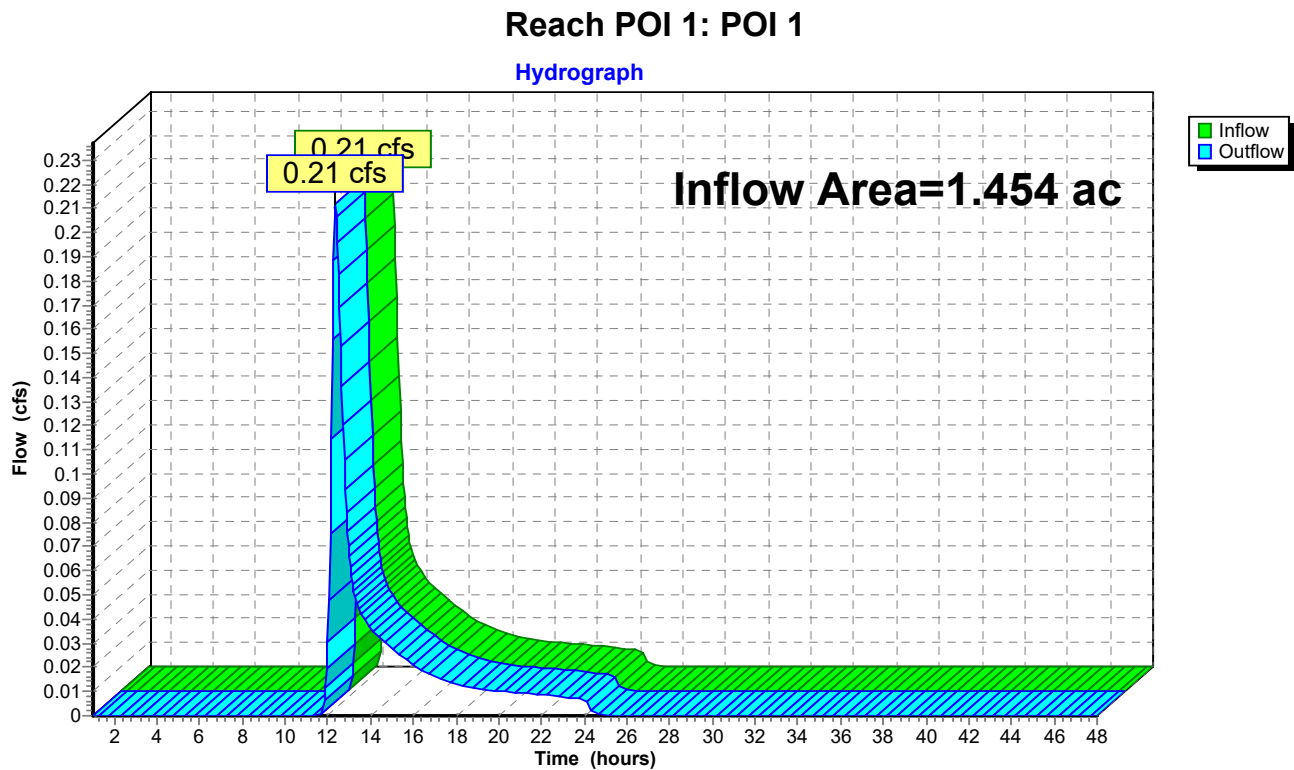


Summary for Reach POI 1: POI 1

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

Inflow Area = 1.454 ac, 77.56% Impervious, Inflow Depth = 0.22" for WQ event
Inflow = 0.21 cfs @ 12.35 hrs, Volume= 0.027 af
Outflow = 0.21 cfs @ 12.35 hrs, Volume= 0.027 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs

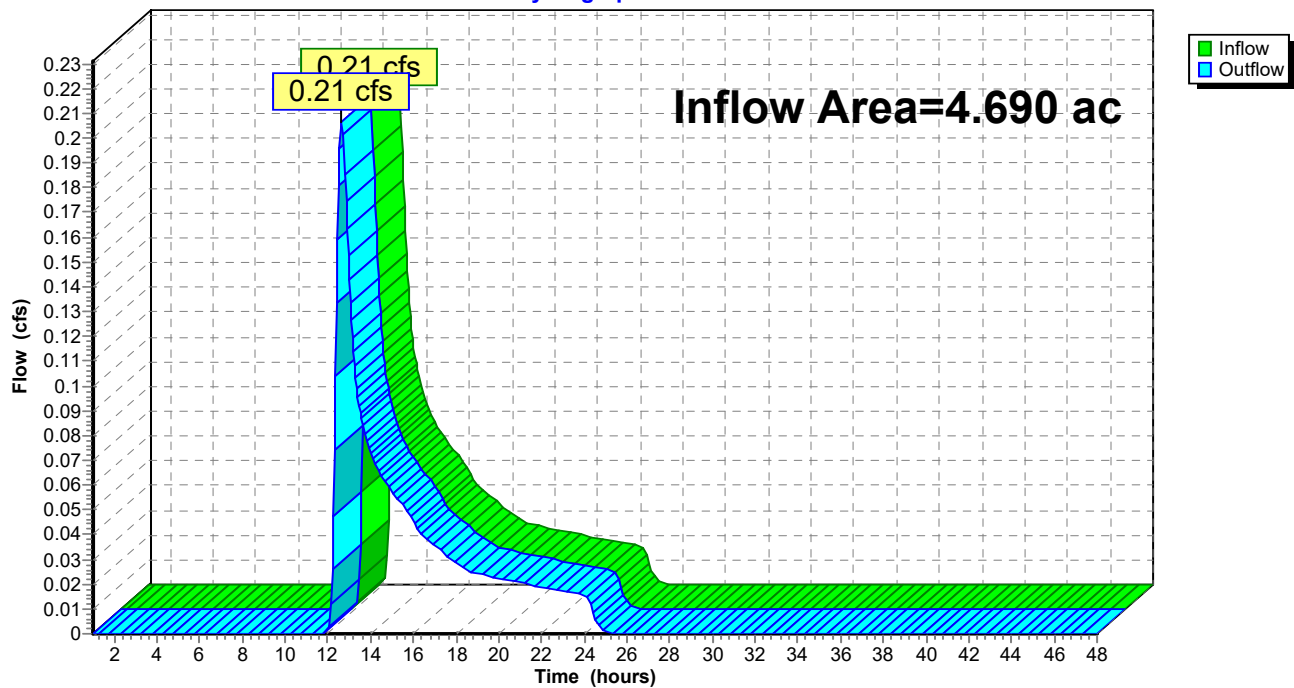


Summary for Reach POI 2: POI 2

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

Inflow Area = 4.690 ac, 72.92% Impervious, Inflow Depth = 0.11" for WQ event
Inflow = 0.21 cfs @ 12.64 hrs, Volume= 0.045 af
Outflow = 0.21 cfs @ 12.64 hrs, Volume= 0.045 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs

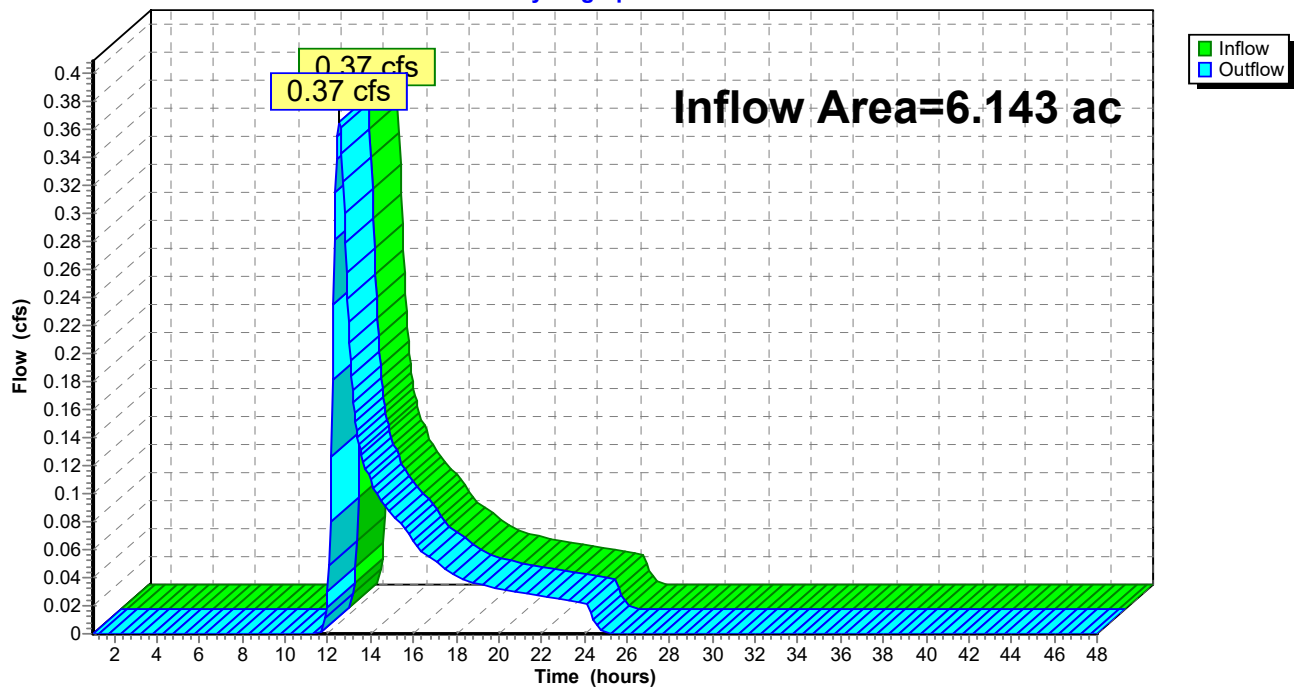
Reach POI 2: POI 2**Hydrograph**

Summary for Reach PRE: TOTAL PRE

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

Inflow Area = 6.143 ac, 74.01% Impervious, Inflow Depth = 0.14" for WQ event
Inflow = 0.37 cfs @ 12.53 hrs, Volume= 0.072 af
Outflow = 0.37 cfs @ 12.53 hrs, Volume= 0.072 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs

Reach PRE: TOTAL PRE**Hydrograph**

1176_PRE*Type III 24-hr WQV USSF Rainfall=4.26"*

Prepared by HP

Printed 10/17/2022

HydroCAD® 10.00-26 s/n 00620 © 2020 HydroCAD Software Solutions LLC

Page 36

Time span=1.00-48.00 hrs, dt=0.05 hrs, 941 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment1A: 1

Runoff Area=63,319 sf 77.56% Impervious Runoff Depth=2.88"
Flow Length=340' Tc=21.2 min CN=87 Runoff=3.19 cfs 0.348 af

Subcatchment2A: 2

Runoff Area=204,287 sf 72.92% Impervious Runoff Depth=2.43"
Flow Length=898' Tc=32.6 min CN=82 Runoff=7.25 cfs 0.948 af

Reach POI 1: POI 1

Inflow=3.19 cfs 0.348 af
Outflow=3.19 cfs 0.348 af

Reach POI 2: POI 2

Inflow=7.25 cfs 0.948 af
Outflow=7.25 cfs 0.948 af

Reach PRE: TOTAL PRE

Inflow=9.93 cfs 1.297 af
Outflow=9.93 cfs 1.297 af

Total Runoff Area = 6.143 ac Runoff Volume = 1.297 af Average Runoff Depth = 2.53"
25.99% Pervious = 1.596 ac 74.01% Impervious = 4.547 ac

Summary for Subcatchment 1A: 1

Runoff = 3.19 cfs @ 12.29 hrs, Volume= 0.348 af, Depth= 2.88"

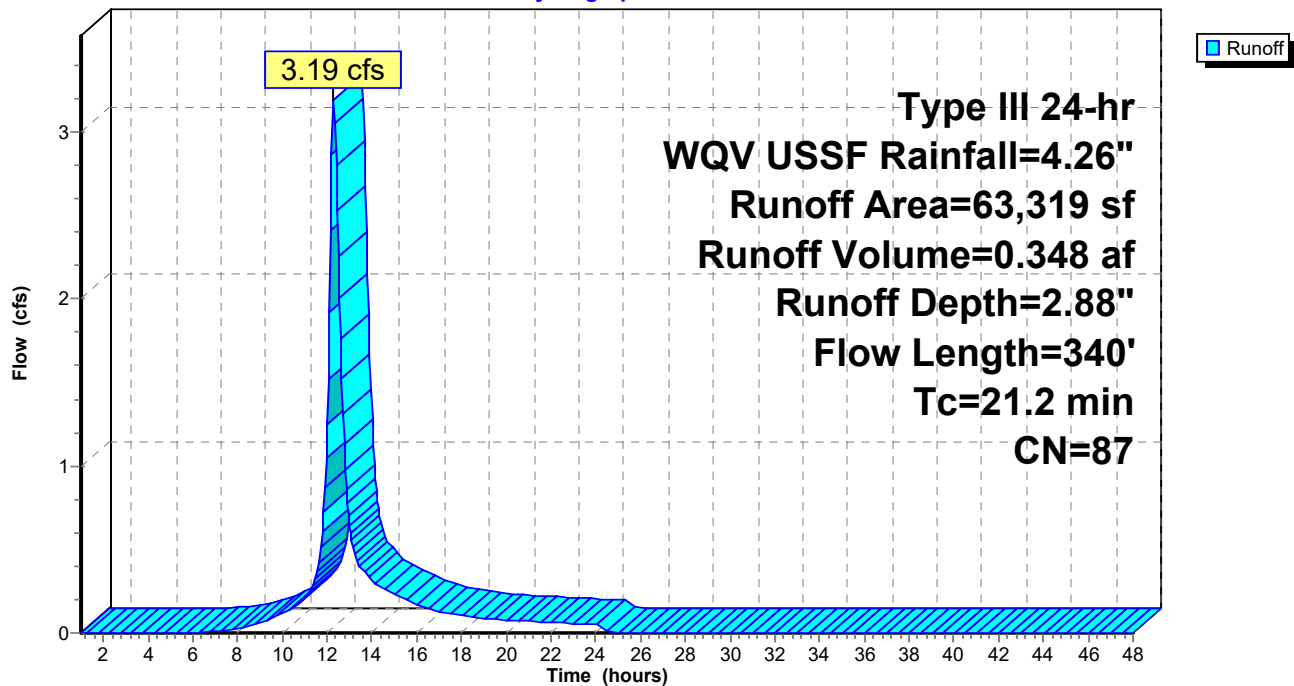
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
Type III 24-hr WQV USSF Rainfall=4.26"

Area (sf)	CN	Description
14,209	49	50-75% Grass cover, Fair, HSG A
* 49,110	98	pave/roof
63,319	87	Weighted Average
14,209		22.44% Pervious Area
49,110		77.56% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
16.9	100	0.0050	0.10		Sheet Flow, A TO B Grass: Short n= 0.150 P2= 3.27"
3.6	154	0.0050	0.71		Shallow Concentrated Flow, C TO D Nearly Bare & Untilled Kv= 10.0 fps
0.7	86	0.0380	1.95		Shallow Concentrated Flow, D TO E Nearly Bare & Untilled Kv= 10.0 fps
21.2	340	Total			

Subcatchment 1A: 1

Hydrograph



Summary for Subcatchment 2A: 2

Runoff = 7.25 cfs @ 12.45 hrs, Volume= 0.948 af, Depth= 2.43"

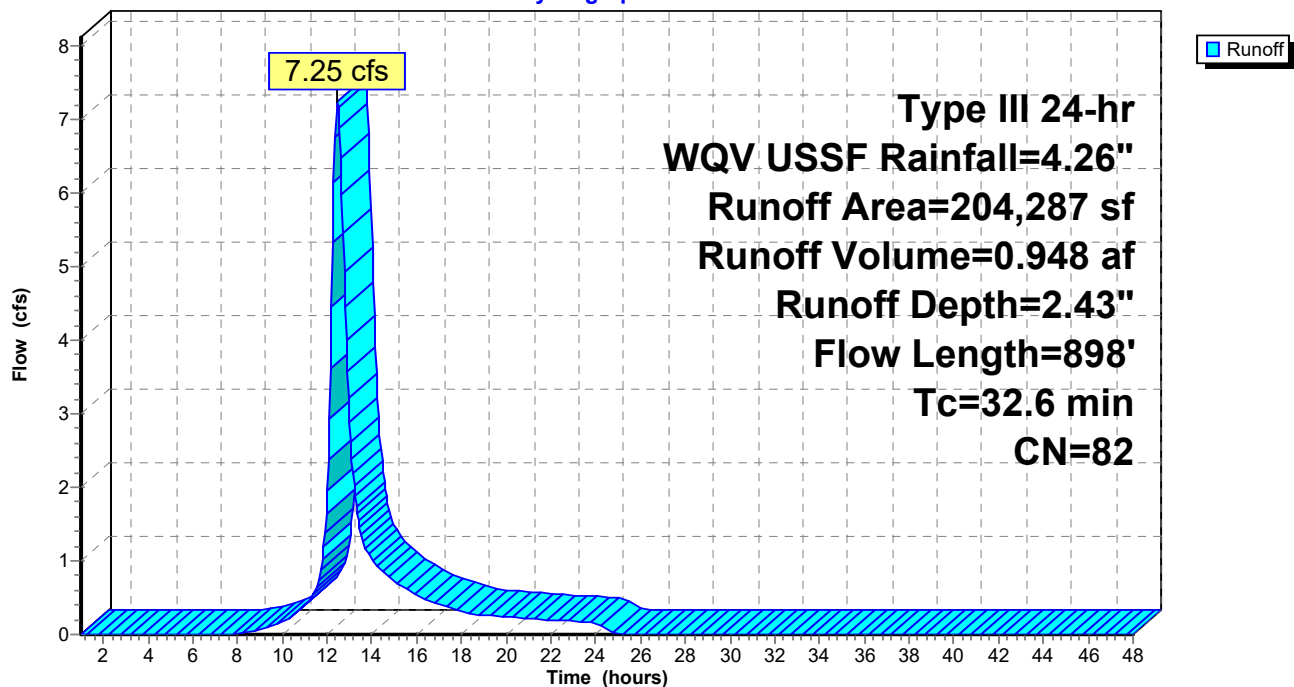
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
Type III 24-hr WQV USSF Rainfall=4.26"

	Area (sf)	CN	Description
*	148,957	98	buildings/pave
	48,019	36	Woods, Fair, HSG A
	7,311	49	50-75% Grass cover, Fair, HSG A
	204,287	82	Weighted Average
	55,330		27.08% Pervious Area
	148,957		72.92% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.6	100	0.0100	1.05		Sheet Flow, A TO B Smooth surfaces n= 0.011 P2= 3.27"
1.4	237	0.0200	2.87		Shallow Concentrated Flow, B TO C Paved Kv= 20.3 fps
29.6	561	0.0160	0.32		Shallow Concentrated Flow, C TO D Forest w/Heavy Litter Kv= 2.5 fps
32.6	898	Total			

Subcatchment 2A: 2

Hydrograph



Summary for Reach POI 1: POI 1

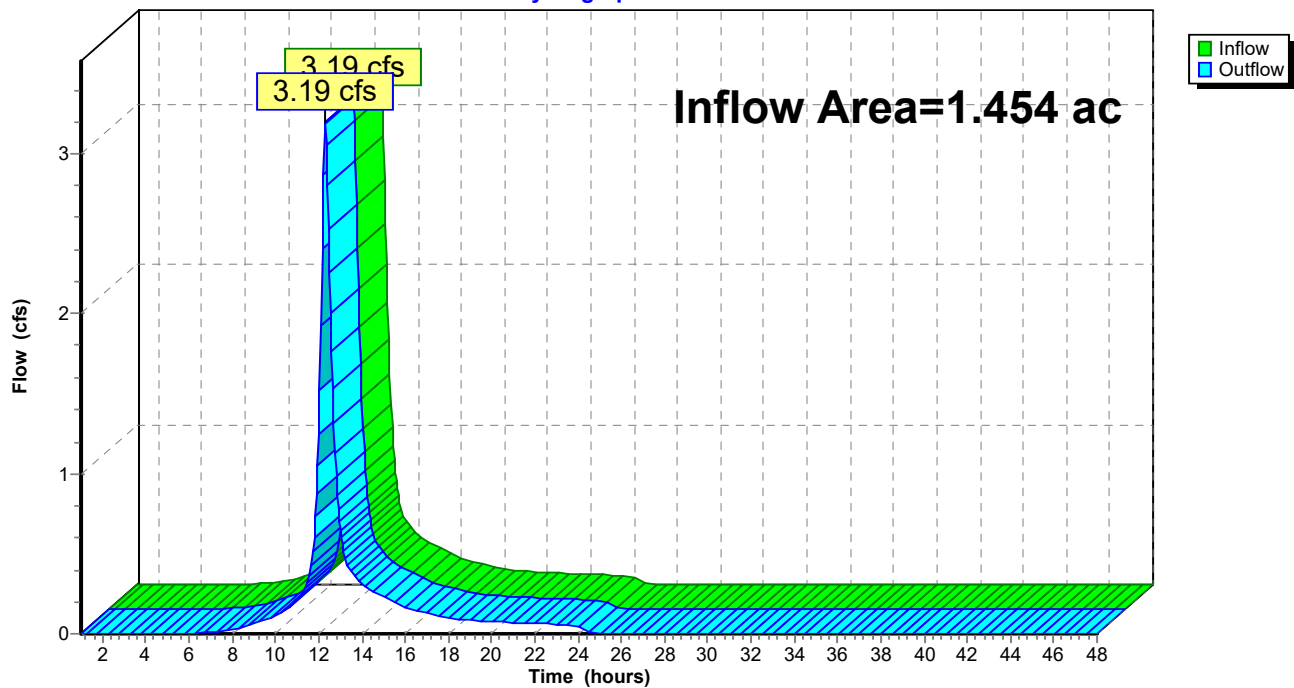
[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 1.454 ac, 77.56% Impervious, Inflow Depth = 2.88" for WQV USSF event
Inflow = 3.19 cfs @ 12.29 hrs, Volume= 0.348 af
Outflow = 3.19 cfs @ 12.29 hrs, Volume= 0.348 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs

Reach POI 1: POI 1

Hydrograph



Summary for Reach POI 2: POI 2

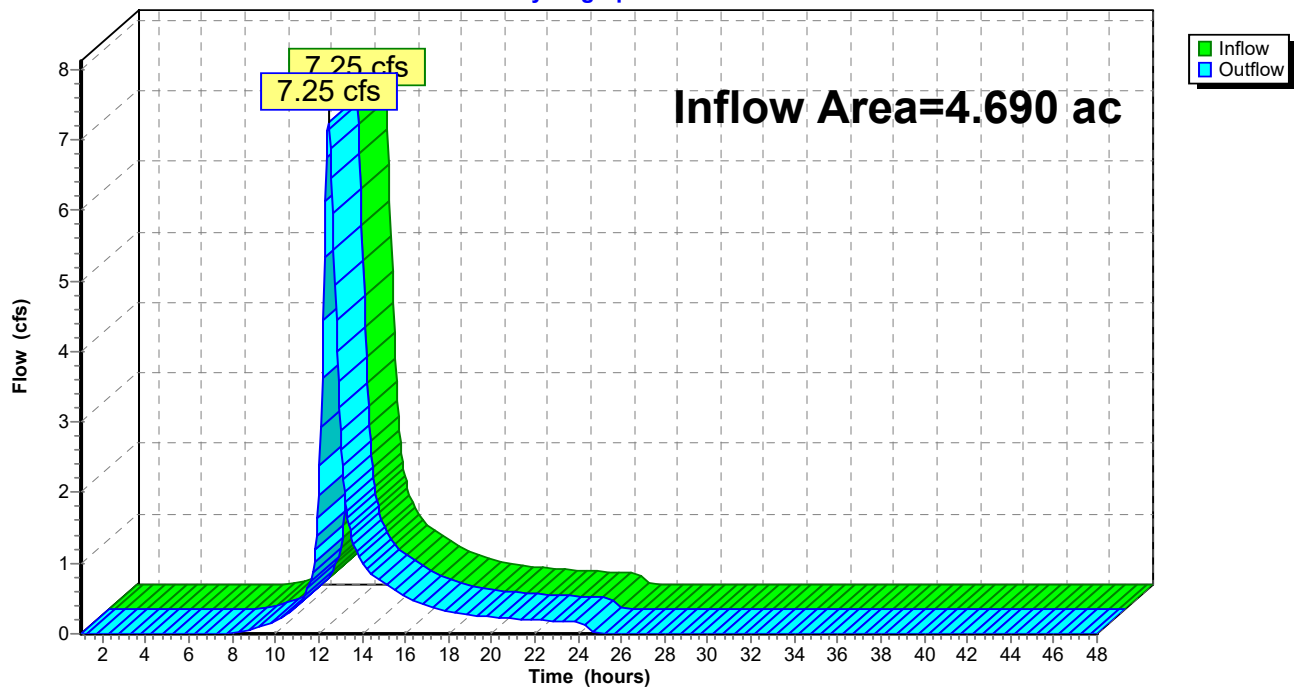
[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 4.690 ac, 72.92% Impervious, Inflow Depth = 2.43" for WQV USSF event
Inflow = 7.25 cfs @ 12.45 hrs, Volume= 0.948 af
Outflow = 7.25 cfs @ 12.45 hrs, Volume= 0.948 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs

Reach POI 2: POI 2

Hydrograph

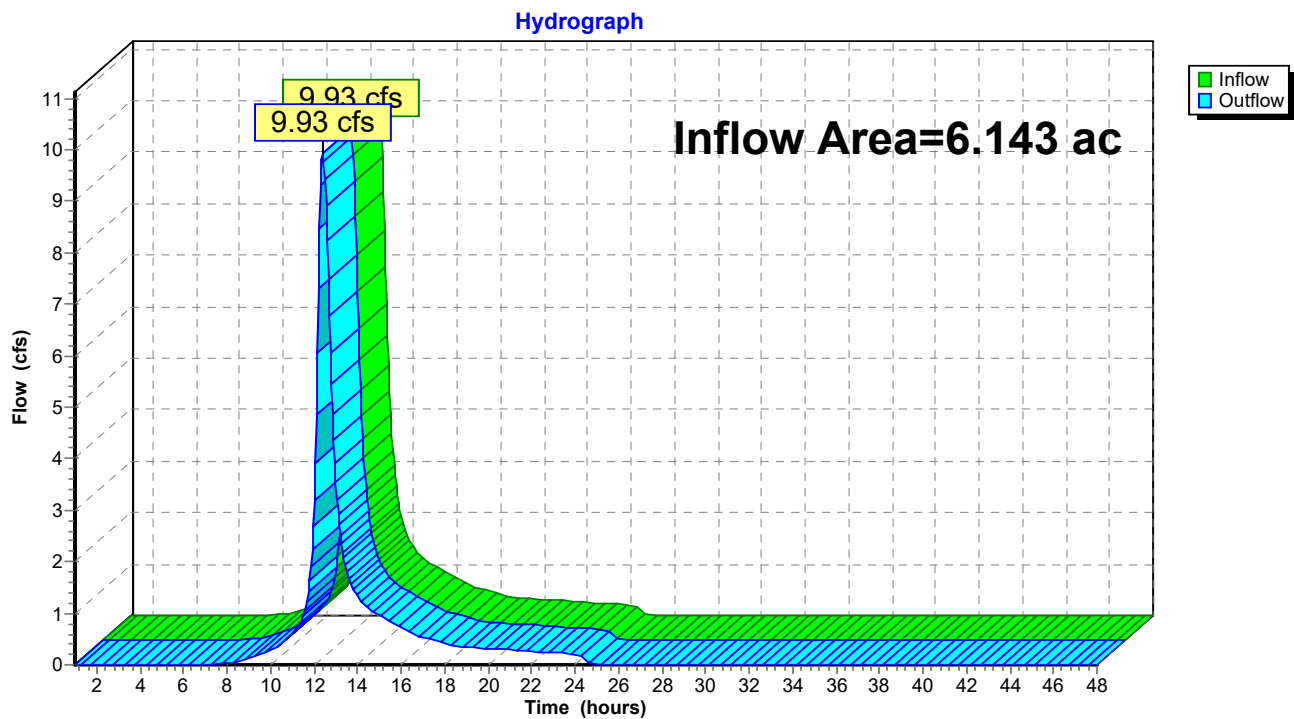


Summary for Reach PRE: TOTAL PRE

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

Inflow Area = 6.143 ac, 74.01% Impervious, Inflow Depth = 2.53" for WQV USSF event
Inflow = 9.93 cfs @ 12.40 hrs, Volume= 1.297 af
Outflow = 9.93 cfs @ 12.40 hrs, Volume= 1.297 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs

Reach PRE: TOTAL PRE

1176_PRE

Prepared by HP

HydroCAD® 10.00-26 s/n 00620 © 2020 HydroCAD Software Solutions LLC

Type III 24-hr WQV USSF 1 Rainfall=4.26"

Printed 10/17/2022

Page 42

Time span=1.00-48.00 hrs, dt=0.05 hrs, 941 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment1A: 1

Runoff Area=63,319 sf 77.56% Impervious Runoff Depth=2.88"
Flow Length=340' Tc=21.2 min CN=87 Runoff=3.19 cfs 0.348 af

Subcatchment2A: 2

Runoff Area=204,287 sf 72.92% Impervious Runoff Depth=2.43"
Flow Length=898' Tc=32.6 min CN=82 Runoff=7.25 cfs 0.948 af

Reach POI 1: POI 1

Inflow=3.19 cfs 0.348 af
Outflow=3.19 cfs 0.348 af

Reach POI 2: POI 2

Inflow=7.25 cfs 0.948 af
Outflow=7.25 cfs 0.948 af

Reach PRE: TOTAL PRE

Inflow=9.93 cfs 1.297 af
Outflow=9.93 cfs 1.297 af

Total Runoff Area = 6.143 ac Runoff Volume = 1.297 af Average Runoff Depth = 2.53"
25.99% Pervious = 1.596 ac 74.01% Impervious = 4.547 ac

Summary for Subcatchment 1A: 1

Runoff = 3.19 cfs @ 12.29 hrs, Volume= 0.348 af, Depth= 2.88"

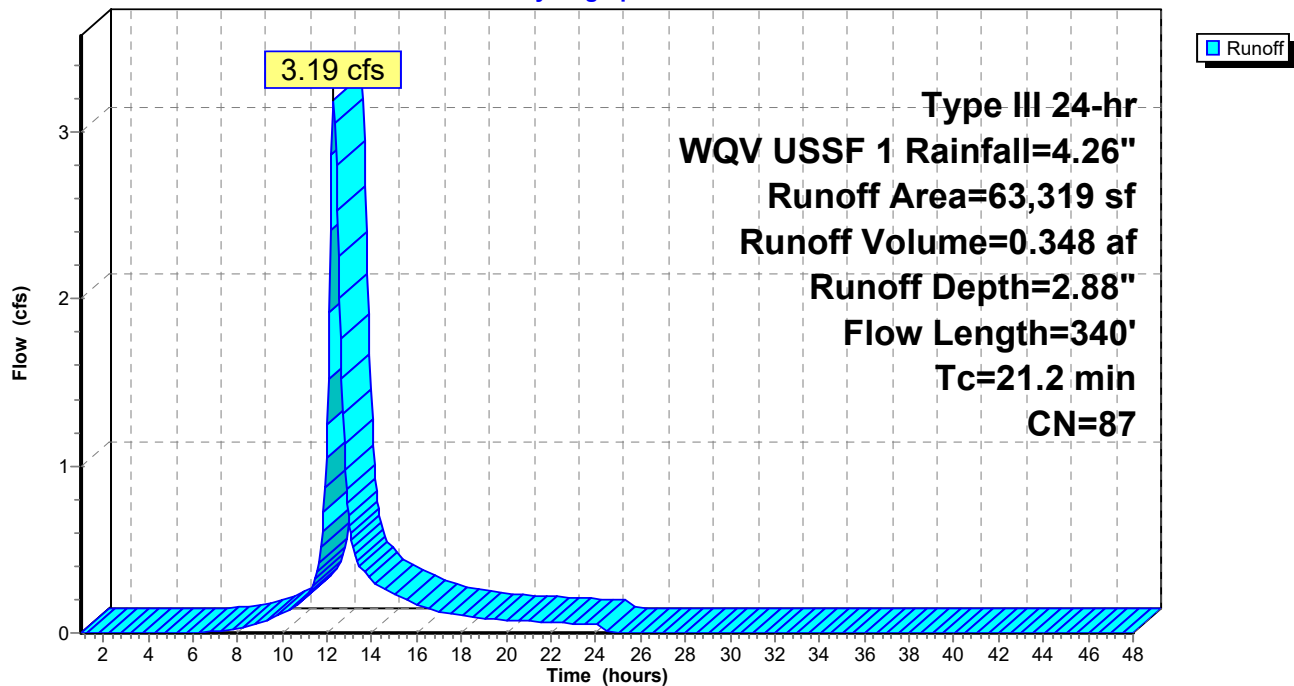
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
Type III 24-hr WQV USSF 1 Rainfall=4.26"

Area (sf)	CN	Description
14,209	49	50-75% Grass cover, Fair, HSG A
* 49,110	98	pave/roof
63,319	87	Weighted Average
14,209		22.44% Pervious Area
49,110		77.56% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
16.9	100	0.0050	0.10		Sheet Flow, A TO B Grass: Short n= 0.150 P2= 3.27"
3.6	154	0.0050	0.71		Shallow Concentrated Flow, C TO D Nearly Bare & Untilled Kv= 10.0 fps
0.7	86	0.0380	1.95		Shallow Concentrated Flow, D TO E Nearly Bare & Untilled Kv= 10.0 fps
21.2	340	Total			

Subcatchment 1A: 1

Hydrograph



Summary for Subcatchment 2A: 2

Runoff = 7.25 cfs @ 12.45 hrs, Volume= 0.948 af, Depth= 2.43"

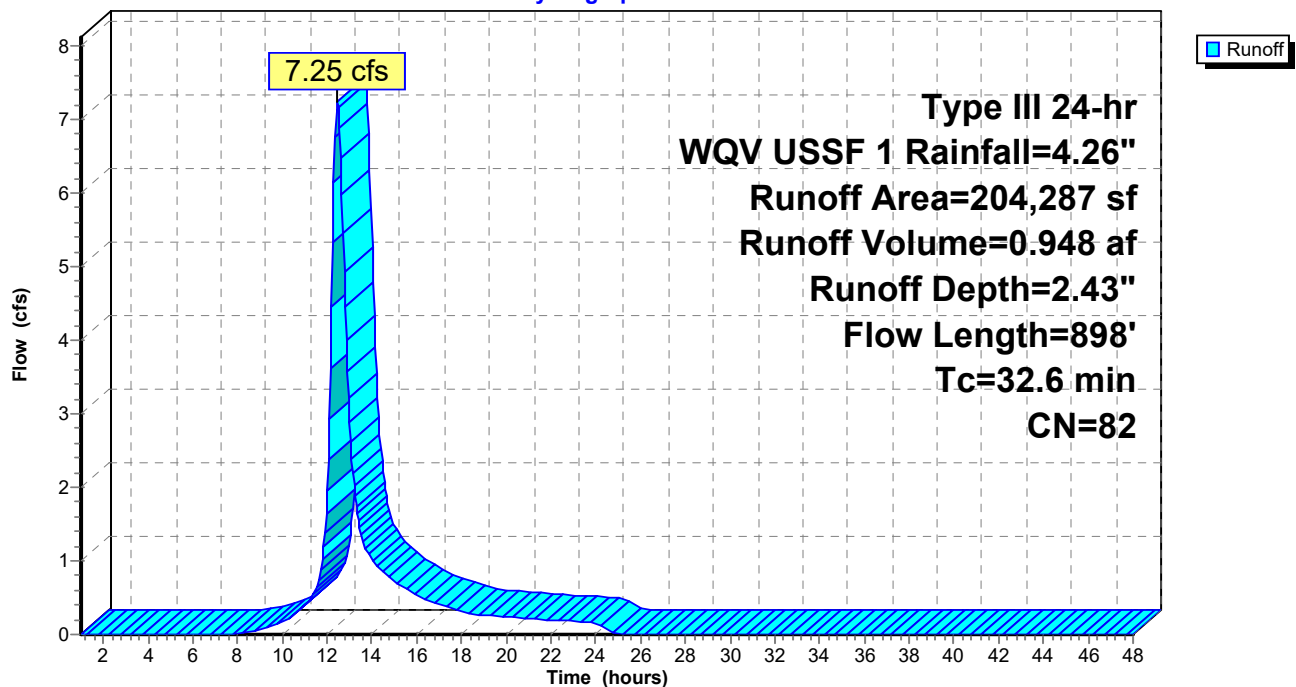
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
Type III 24-hr WQV USSF 1 Rainfall=4.26"

	Area (sf)	CN	Description
*	148,957	98	buildings/pave
	48,019	36	Woods, Fair, HSG A
	7,311	49	50-75% Grass cover, Fair, HSG A
	204,287	82	Weighted Average
	55,330		27.08% Pervious Area
	148,957		72.92% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.6	100	0.0100	1.05		Sheet Flow, A TO B Smooth surfaces n= 0.011 P2= 3.27"
1.4	237	0.0200	2.87		Shallow Concentrated Flow, B TO C Paved Kv= 20.3 fps
29.6	561	0.0160	0.32		Shallow Concentrated Flow, C TO D Forest w/Heavy Litter Kv= 2.5 fps
32.6	898	Total			

Subcatchment 2A: 2

Hydrograph



Summary for Reach POI 1: POI 1

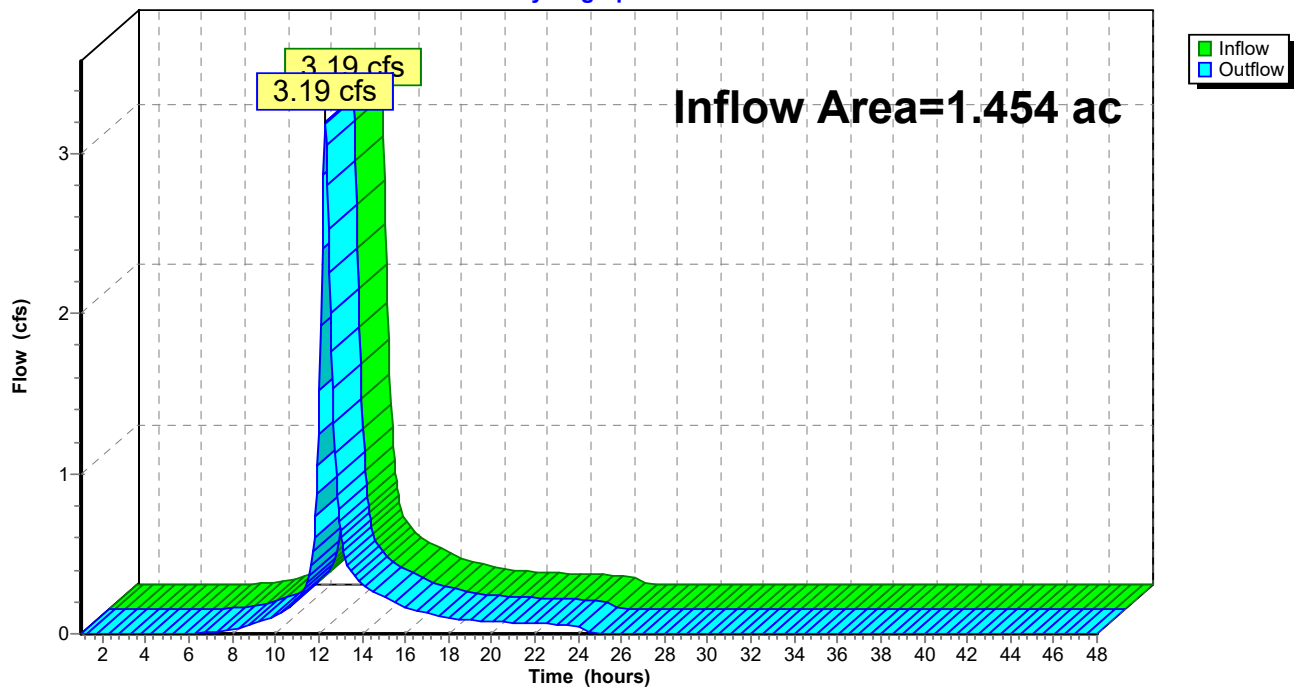
[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 1.454 ac, 77.56% Impervious, Inflow Depth = 2.88" for WQV USSF 1 event
Inflow = 3.19 cfs @ 12.29 hrs, Volume= 0.348 af
Outflow = 3.19 cfs @ 12.29 hrs, Volume= 0.348 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs

Reach POI 1: POI 1

Hydrograph



Summary for Reach POI 2: POI 2

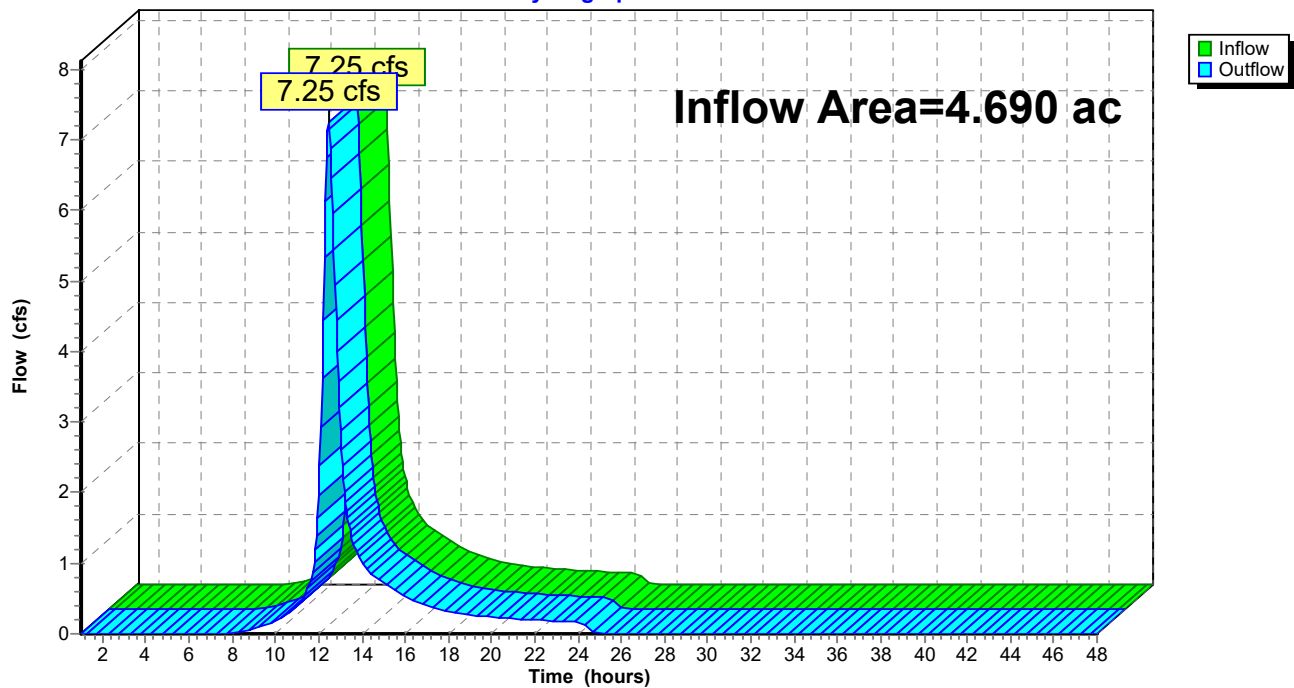
[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 4.690 ac, 72.92% Impervious, Inflow Depth = 2.43" for WQV USSF 1 event
Inflow = 7.25 cfs @ 12.45 hrs, Volume= 0.948 af
Outflow = 7.25 cfs @ 12.45 hrs, Volume= 0.948 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs

Reach POI 2: POI 2

Hydrograph

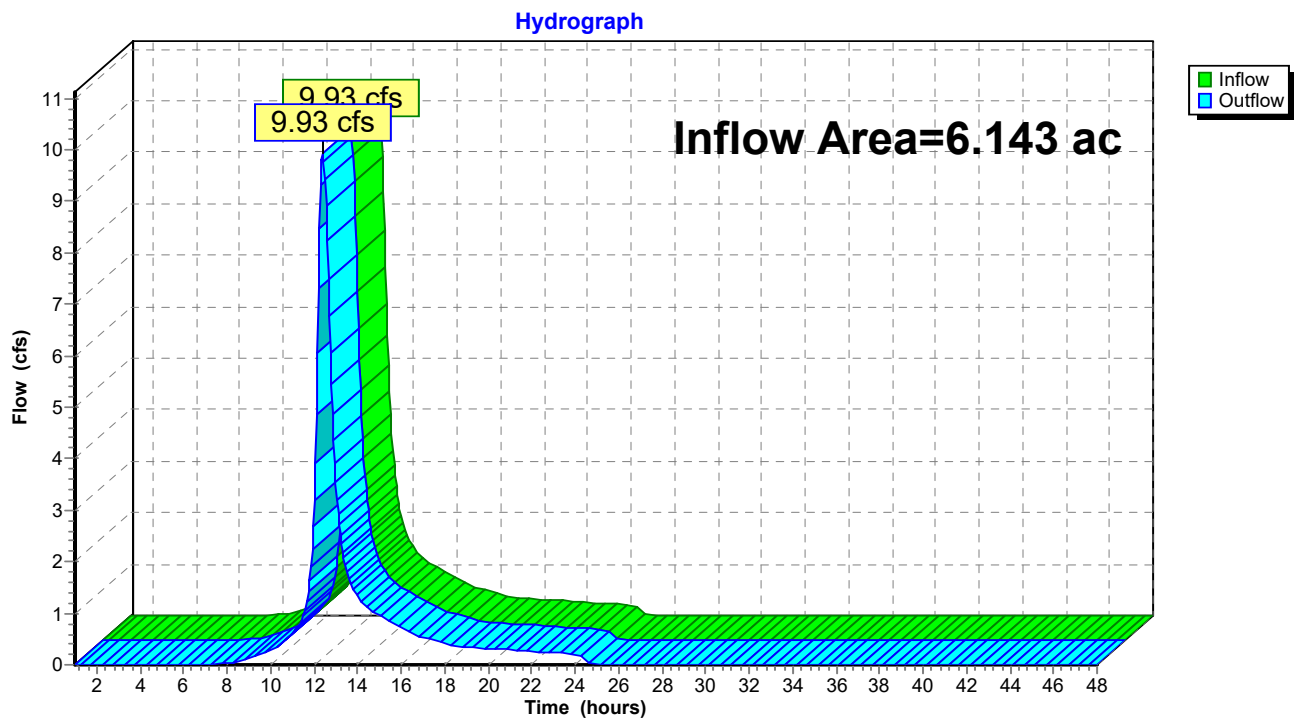


Summary for Reach PRE: TOTAL PRE

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

Inflow Area = 6.143 ac, 74.01% Impervious, Inflow Depth = 2.53" for WQV USSF 1 event
Inflow = 9.93 cfs @ 12.40 hrs, Volume= 1.297 af
Outflow = 9.93 cfs @ 12.40 hrs, Volume= 1.297 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs

Reach PRE: TOTAL PRE

1176_PRE*Type III 24-hr WQV USSF 2 Rainfall=3.24"*

Prepared by HP

Printed 10/17/2022

HydroCAD® 10.00-26 s/n 00620 © 2020 HydroCAD Software Solutions LLC

Page 48

Time span=1.00-48.00 hrs, dt=0.05 hrs, 941 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment1A: 1

Runoff Area=63,319 sf 77.56% Impervious Runoff Depth=1.95"
Flow Length=340' Tc=21.2 min CN=87 Runoff=2.18 cfs 0.236 af

Subcatchment2A: 2

Runoff Area=204,287 sf 72.92% Impervious Runoff Depth=1.57"
Flow Length=898' Tc=32.6 min CN=82 Runoff=4.67 cfs 0.614 af

Reach POI 1: POI 1

Inflow=2.18 cfs 0.236 af
Outflow=2.18 cfs 0.236 af

Reach POI 2: POI 2

Inflow=4.67 cfs 0.614 af
Outflow=4.67 cfs 0.614 af

Reach PRE: TOTAL PRE

Inflow=6.49 cfs 0.850 af
Outflow=6.49 cfs 0.850 af

Total Runoff Area = 6.143 ac Runoff Volume = 0.850 af Average Runoff Depth = 1.66"
25.99% Pervious = 1.596 ac 74.01% Impervious = 4.547 ac

Summary for Subcatchment 1A: 1

Runoff = 2.18 cfs @ 12.29 hrs, Volume= 0.236 af, Depth= 1.95"

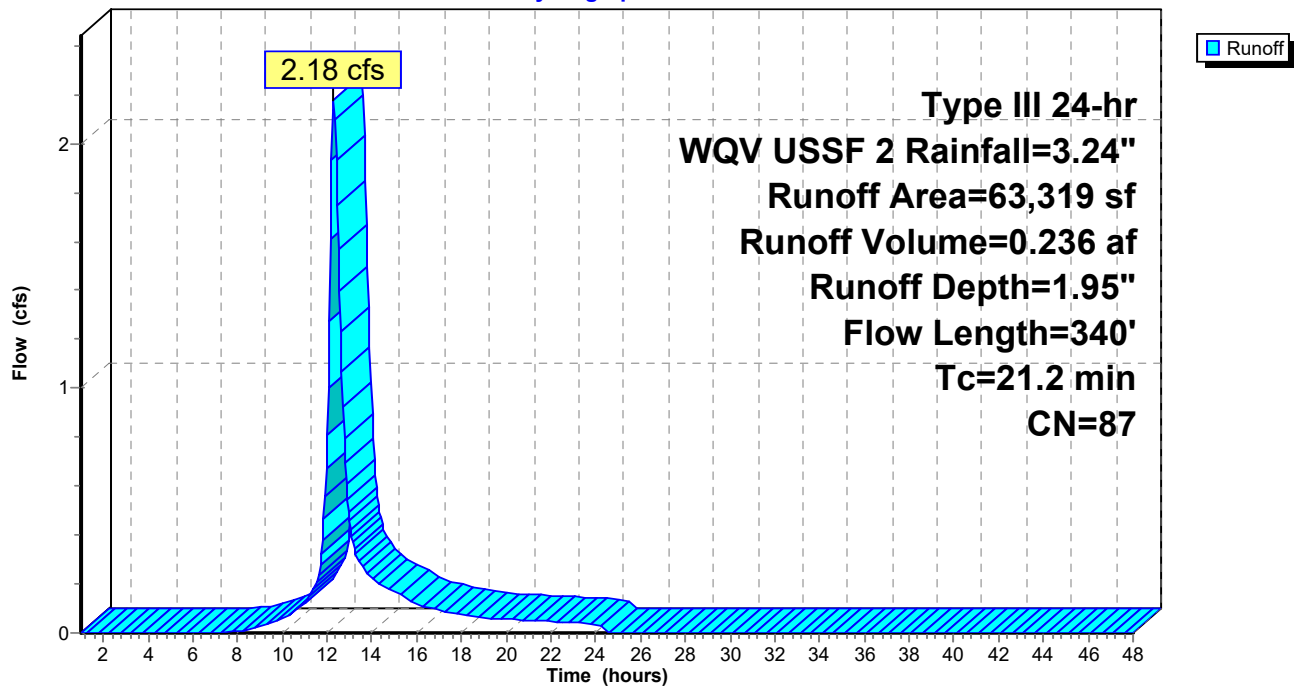
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
Type III 24-hr WQV USSF 2 Rainfall=3.24"

Area (sf)	CN	Description
14,209	49	50-75% Grass cover, Fair, HSG A
* 49,110	98	pave/roof
63,319	87	Weighted Average
14,209		22.44% Pervious Area
49,110		77.56% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
16.9	100	0.0050	0.10		Sheet Flow, A TO B Grass: Short n= 0.150 P2= 3.27"
3.6	154	0.0050	0.71		Shallow Concentrated Flow, C TO D Nearly Bare & Untilled Kv= 10.0 fps
0.7	86	0.0380	1.95		Shallow Concentrated Flow, D TO E Nearly Bare & Untilled Kv= 10.0 fps
21.2	340	Total			

Subcatchment 1A: 1

Hydrograph



Summary for Subcatchment 2A: 2

Runoff = 4.67 cfs @ 12.46 hrs, Volume= 0.614 af, Depth= 1.57"

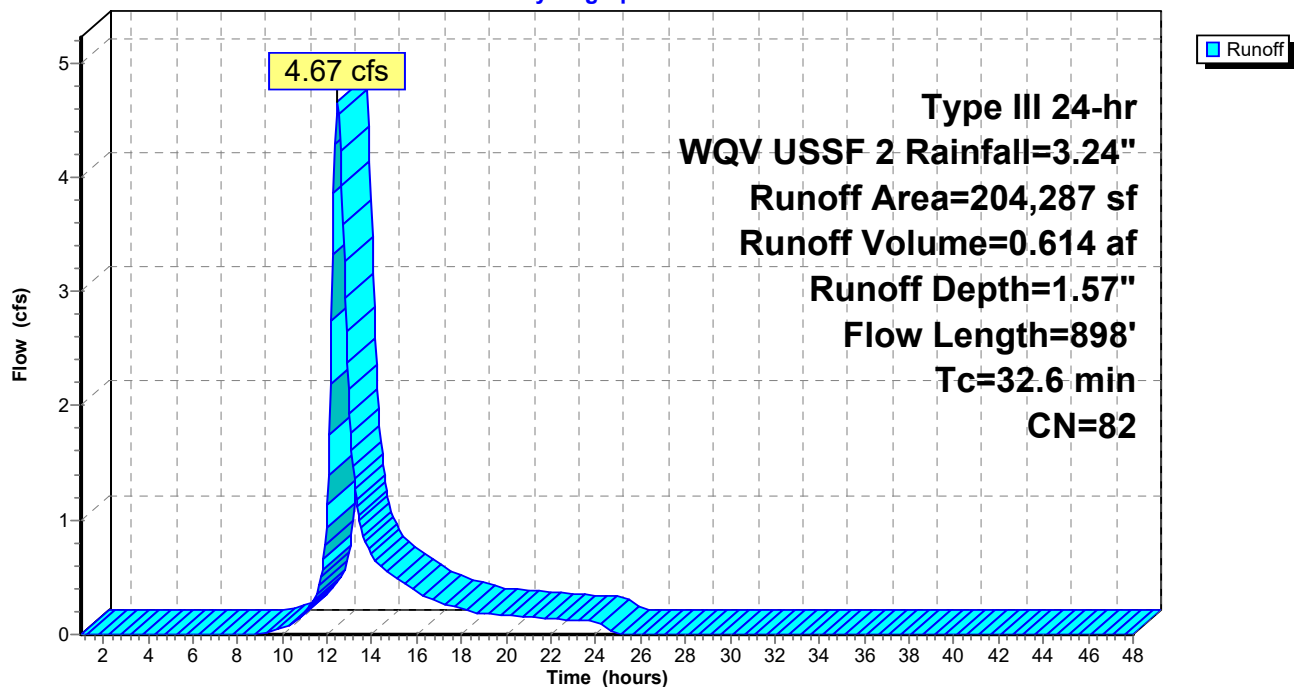
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
Type III 24-hr WQV USSF 2 Rainfall=3.24"

	Area (sf)	CN	Description
*	148,957	98	buildings/pave
	48,019	36	Woods, Fair, HSG A
	7,311	49	50-75% Grass cover, Fair, HSG A
	204,287	82	Weighted Average
	55,330		27.08% Pervious Area
	148,957		72.92% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.6	100	0.0100	1.05		Sheet Flow, A TO B Smooth surfaces n= 0.011 P2= 3.27"
1.4	237	0.0200	2.87		Shallow Concentrated Flow, B TO C Paved Kv= 20.3 fps
29.6	561	0.0160	0.32		Shallow Concentrated Flow, C TO D Forest w/Heavy Litter Kv= 2.5 fps
32.6	898	Total			

Subcatchment 2A: 2

Hydrograph



Summary for Reach POI 1: POI 1

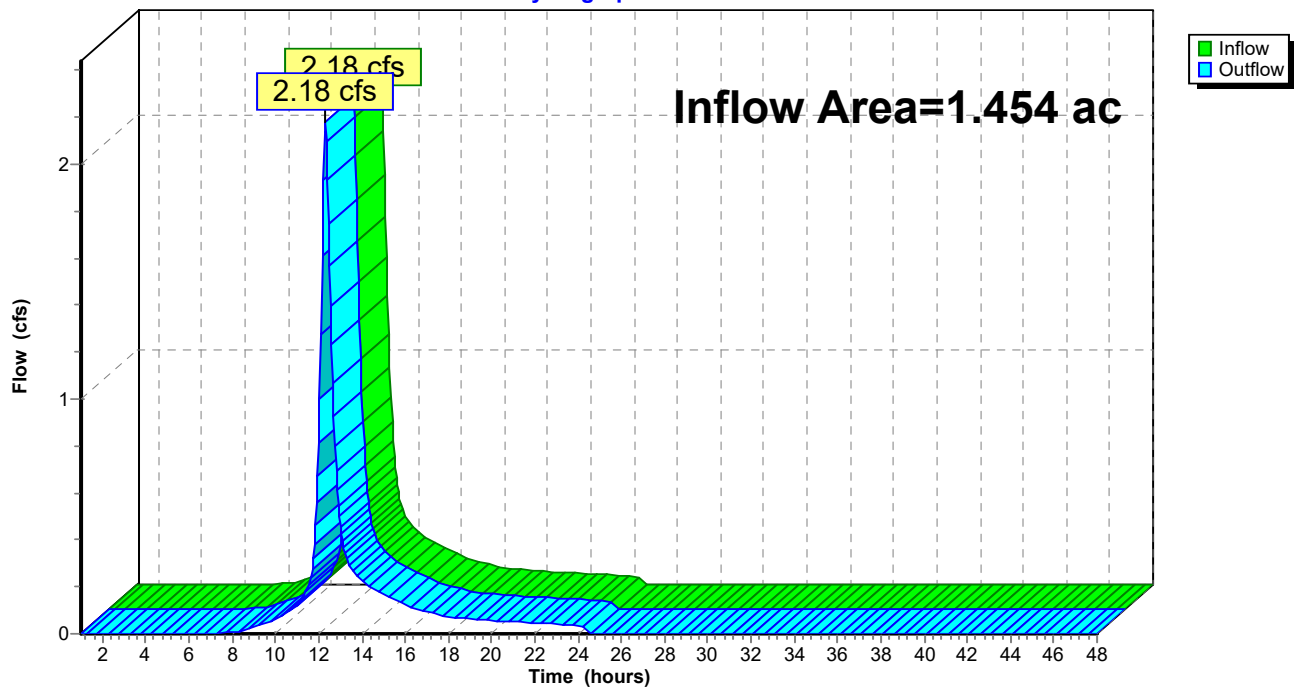
[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 1.454 ac, 77.56% Impervious, Inflow Depth = 1.95" for WQV USSF 2 event
Inflow = 2.18 cfs @ 12.29 hrs, Volume= 0.236 af
Outflow = 2.18 cfs @ 12.29 hrs, Volume= 0.236 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs

Reach POI 1: POI 1

Hydrograph



Summary for Reach POI 2: POI 2

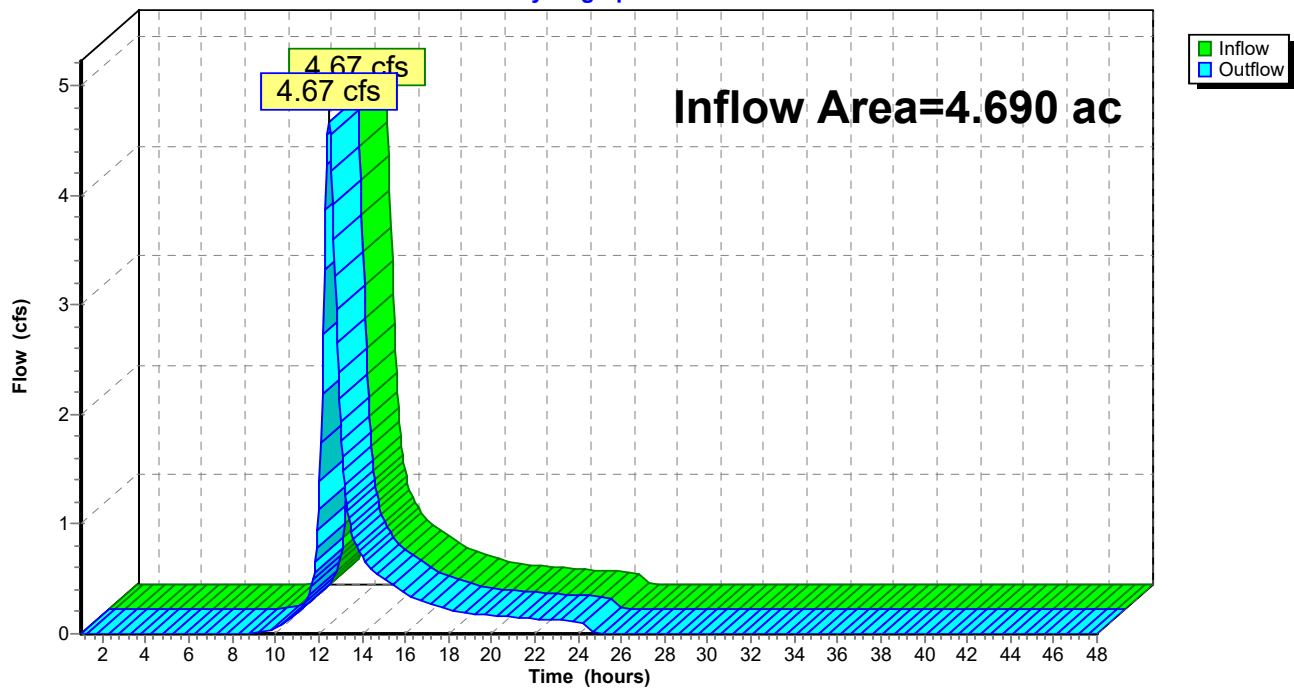
[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 4.690 ac, 72.92% Impervious, Inflow Depth = 1.57" for WQV USSF 2 event
Inflow = 4.67 cfs @ 12.46 hrs, Volume= 0.614 af
Outflow = 4.67 cfs @ 12.46 hrs, Volume= 0.614 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs

Reach POI 2: POI 2

Hydrograph



Summary for Reach PRE: TOTAL PRE

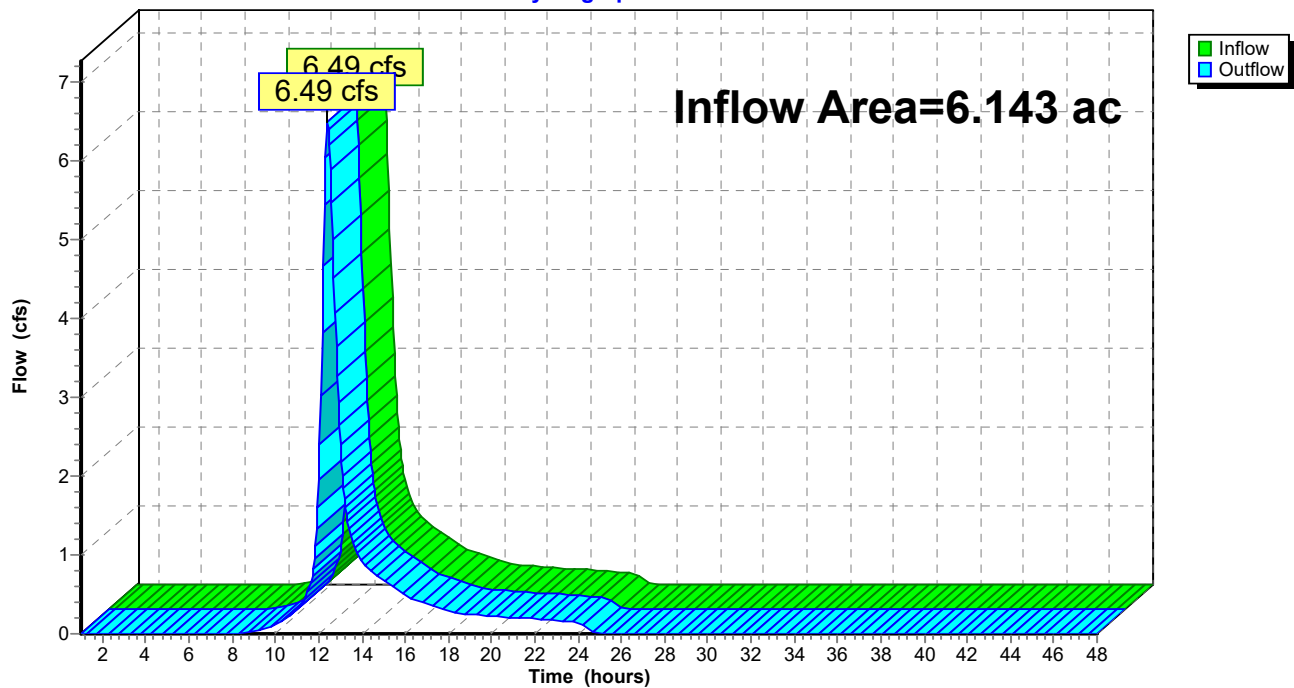
[40] Hint: Not Described (Outflow=Inflow)

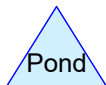
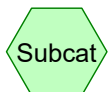
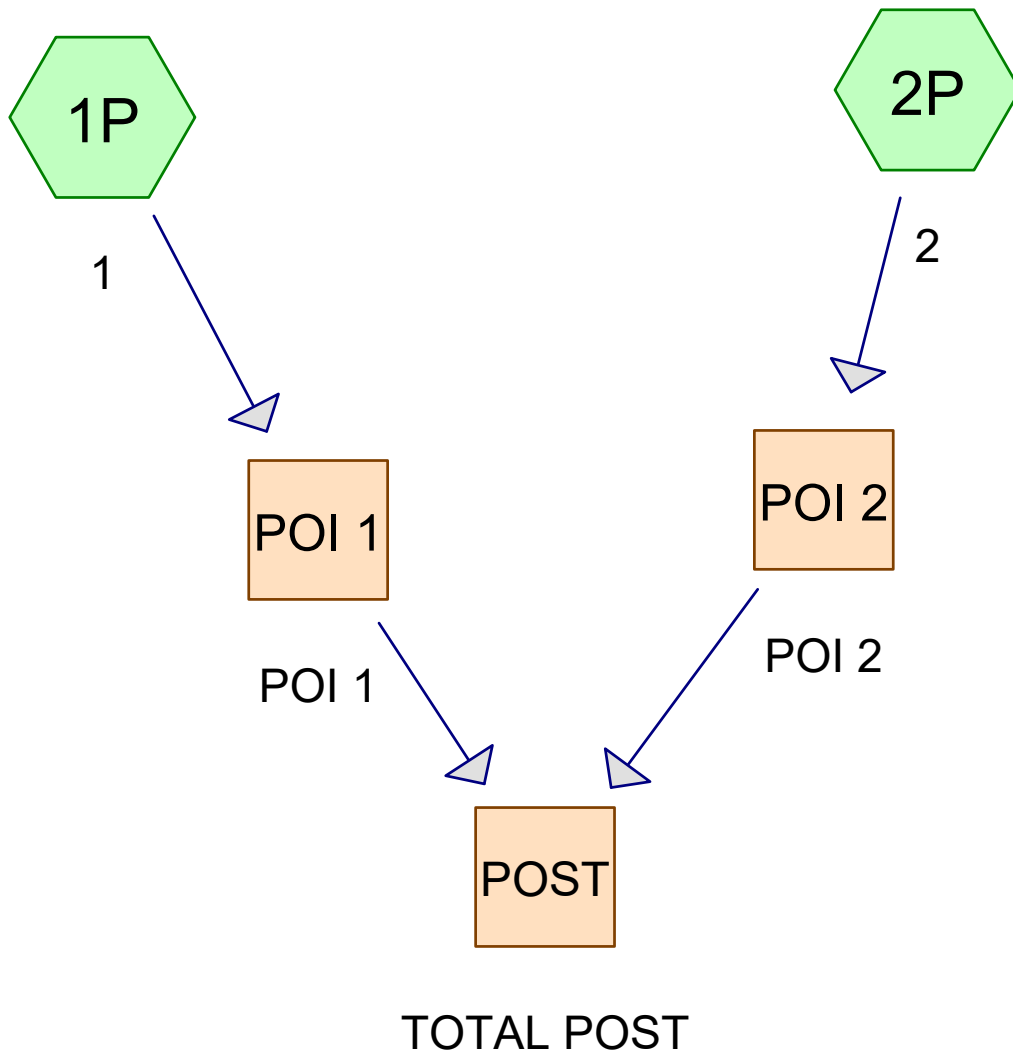
Inflow Area = 6.143 ac, 74.01% Impervious, Inflow Depth = 1.66" for WQV USSF 2 event
Inflow = 6.49 cfs @ 12.40 hrs, Volume= 0.850 af
Outflow = 6.49 cfs @ 12.40 hrs, Volume= 0.850 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs

Reach PRE: TOTAL PRE

Hydrograph





Project Notes

Rainfall events imported from "Post Development_4-21-21.hcp"

1176_POST

Prepared by HP

HydroCAD® 10.00-26 s/n 00620 © 2020 HydroCAD Software Solutions LLC

Printed 10/17/2022

Page 3

Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.227	49	50-75% Grass cover, Fair, HSG A (1P)
0.221	39	>75% Grass cover, Good, HSG A (2P)
1.119	36	Woods, Fair, HSG A (2P)
2.259	98	buildings/pave (2P)
2.318	98	pave/roof (1P)
6.143	83	TOTAL AREA

1176_POST

Prepared by HP

HydroCAD® 10.00-26 s/n 00620 © 2020 HydroCAD Software Solutions LLC

Printed 10/17/2022

Page 4

Soil Listing (all nodes)

Area (acres)	Soil Group	Subcatchment Numbers
1.566	HSG A	1P, 2P
0.000	HSG B	
0.000	HSG C	
0.000	HSG D	
4.577	Other	1P, 2P
6.143		TOTAL AREA

1176_POST

Prepared by HP

Printed 10/17/2022

HydroCAD® 10.00-26 s/n 00620 © 2020 HydroCAD Software Solutions LLC

Page 5

Ground Covers (all nodes)

HSG-A (acres)	HSG-B (acres)	HSG-C (acres)	HSG-D (acres)	Other (acres)	Total (acres)	Ground Cover	Subcatchment Numbers
0.227	0.000	0.000	0.000	0.000	0.227	50-75% Grass cover, Fair	1P
0.221	0.000	0.000	0.000	0.000	0.221	>75% Grass cover, Good	2P
1.119	0.000	0.000	0.000	0.000	1.119	Woods, Fair	2P
0.000	0.000	0.000	0.000	2.259	2.259	buildings/pave	2P
0.000	0.000	0.000	0.000	2.318	2.318	pave/roof	1P
1.566	0.000	0.000	0.000	4.577	6.143	TOTAL AREA	

1176_POST

Prepared by HP

HydroCAD® 10.00-26 s/n 00620 © 2020 HydroCAD Software Solutions LLC

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

Printed 10/17/2022

Page 6

Time span=1.00-48.00 hrs, dt=0.05 hrs, 941 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment1P: 1

Runoff Area=110,838 sf 91.09% Impervious Runoff Depth=2.45"
Tc=10.0 min CN=94 Runoff=6.06 cfs 0.519 af

Subcatchment2P: 2

Runoff Area=156,749 sf 62.77% Impervious Runoff Depth=1.03"
Flow Length=918' Tc=32.7 min CN=75 Runoff=2.23 cfs 0.308 af

Reach POI 1: POI 1

Inflow=6.06 cfs 0.519 af
Outflow=6.06 cfs 0.519 af

Reach POI 2: POI 2

Inflow=2.23 cfs 0.308 af
Outflow=2.23 cfs 0.308 af

Reach POST: TOTAL POST

Inflow=6.89 cfs 0.827 af
Outflow=6.89 cfs 0.827 af

Total Runoff Area = 6.143 ac Runoff Volume = 0.827 af Average Runoff Depth = 1.62"
25.50% Pervious = 1.566 ac 74.50% Impervious = 4.577 ac

Summary for Subcatchment 1P: 1

Runoff = 6.06 cfs @ 12.14 hrs, Volume= 0.519 af, Depth= 2.45"

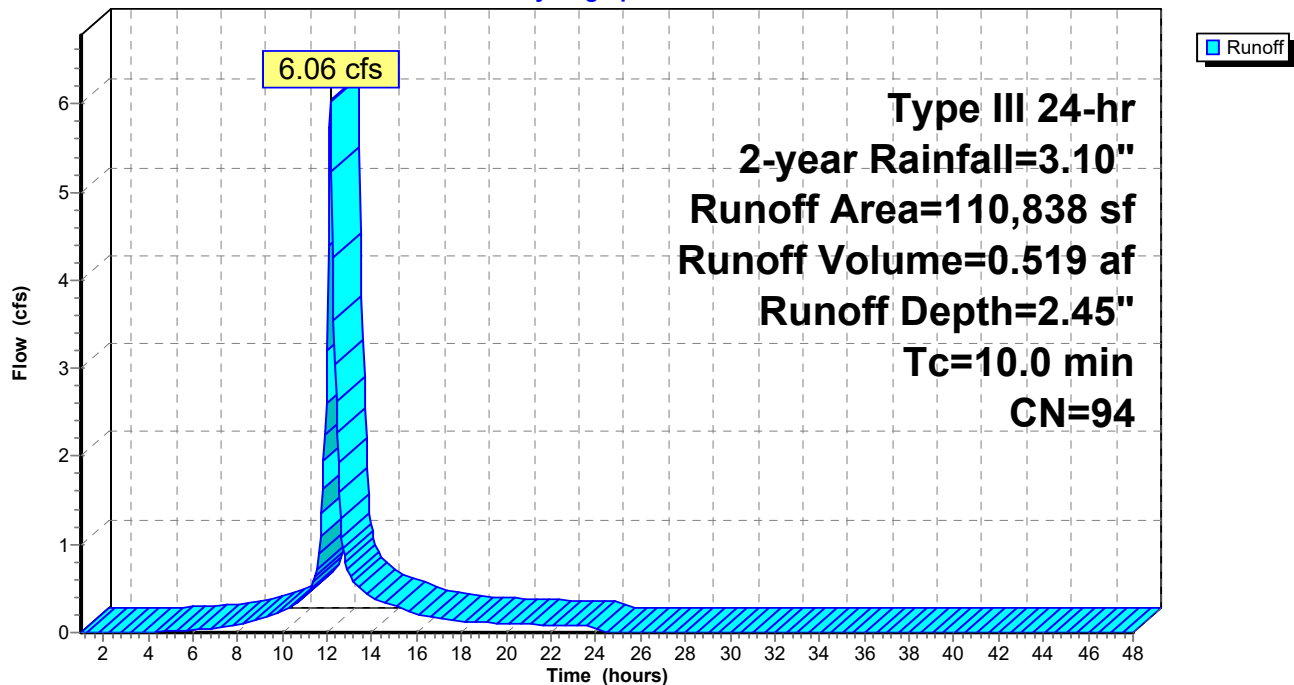
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-year Rainfall=3.10"

Area (sf)	CN	Description
9,879	49	50-75% Grass cover, Fair, HSG A
* 100,959	98	pave/roof
110,838	94	Weighted Average
9,879		8.91% Pervious Area
100,959		91.09% Impervious Area

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

Subcatchment 1P: 1

Hydrograph



1176_POST

Prepared by HP

HydroCAD® 10.00-26 s/n 00620 © 2020 HydroCAD Software Solutions LLC

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

Printed 10/17/2022

Page 8

Summary for Subcatchment 2P: 2

Runoff = 2.23 cfs @ 12.49 hrs, Volume= 0.308 af, Depth= 1.03"

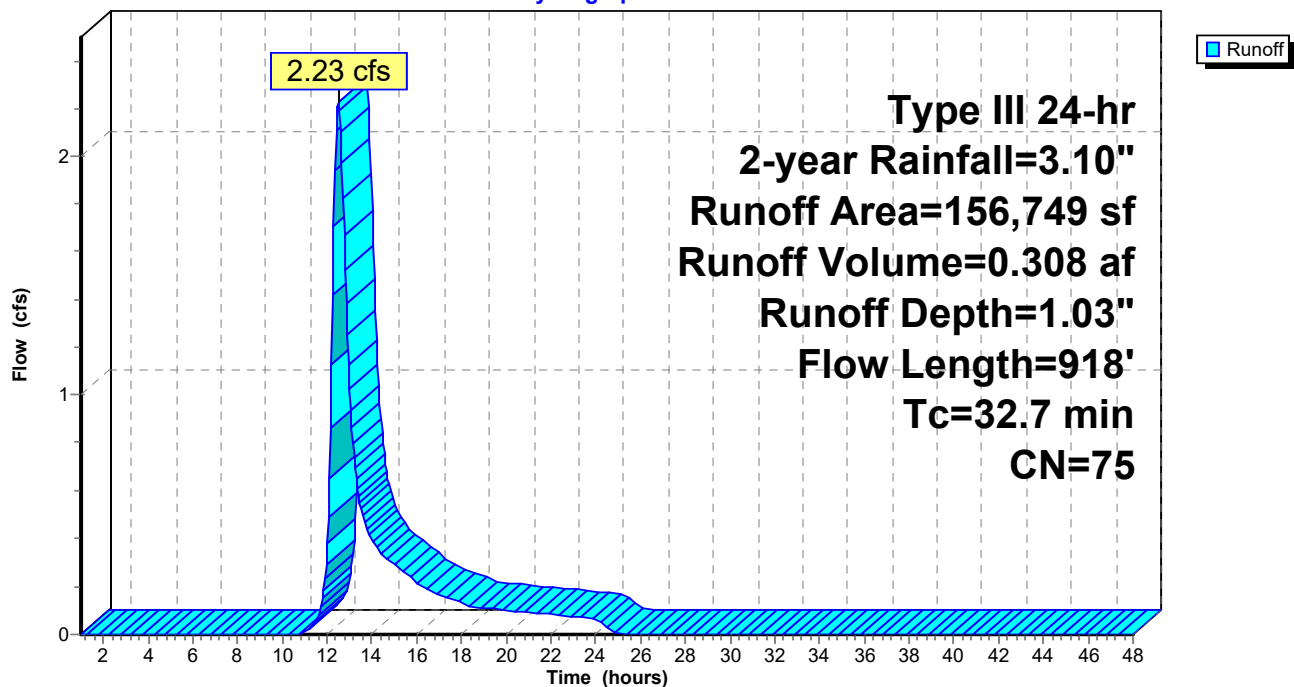
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-year Rainfall=3.10"

	Area (sf)	CN	Description
*	98,397	98	buildings/pave
	48,746	36	Woods, Fair, HSG A
	9,606	39	>75% Grass cover, Good, HSG A
	156,749	75	Weighted Average
	58,352		37.23% Pervious Area
	98,397		62.77% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.6	100	0.0100	1.05		Sheet Flow, A TO B Smooth surfaces n= 0.011 P2= 3.27"
1.5	257	0.0200	2.87		Shallow Concentrated Flow, B TO C Paved Kv= 20.3 fps
29.6	561	0.0160	0.32		Shallow Concentrated Flow, C TO D Forest w/Heavy Litter Kv= 2.5 fps
32.7	918	Total			

Subcatchment 2P: 2

Hydrograph



Summary for Reach POI 1: POI 1

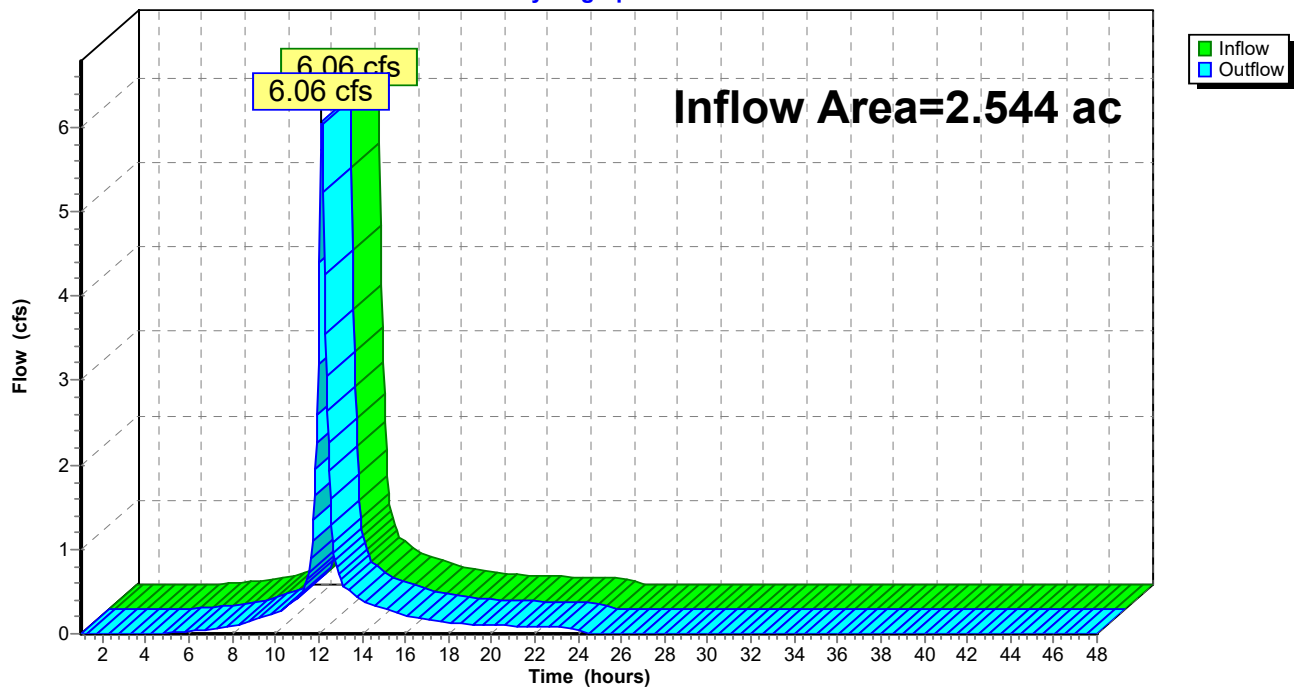
[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 2.544 ac, 91.09% Impervious, Inflow Depth = 2.45" for 2-year event
Inflow = 6.06 cfs @ 12.14 hrs, Volume= 0.519 af
Outflow = 6.06 cfs @ 12.14 hrs, Volume= 0.519 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs

Reach POI 1: POI 1

Hydrograph



Summary for Reach POI 2: POI 2

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

Inflow Area = 3.598 ac, 62.77% Impervious, Inflow Depth = 1.03" for 2-year event

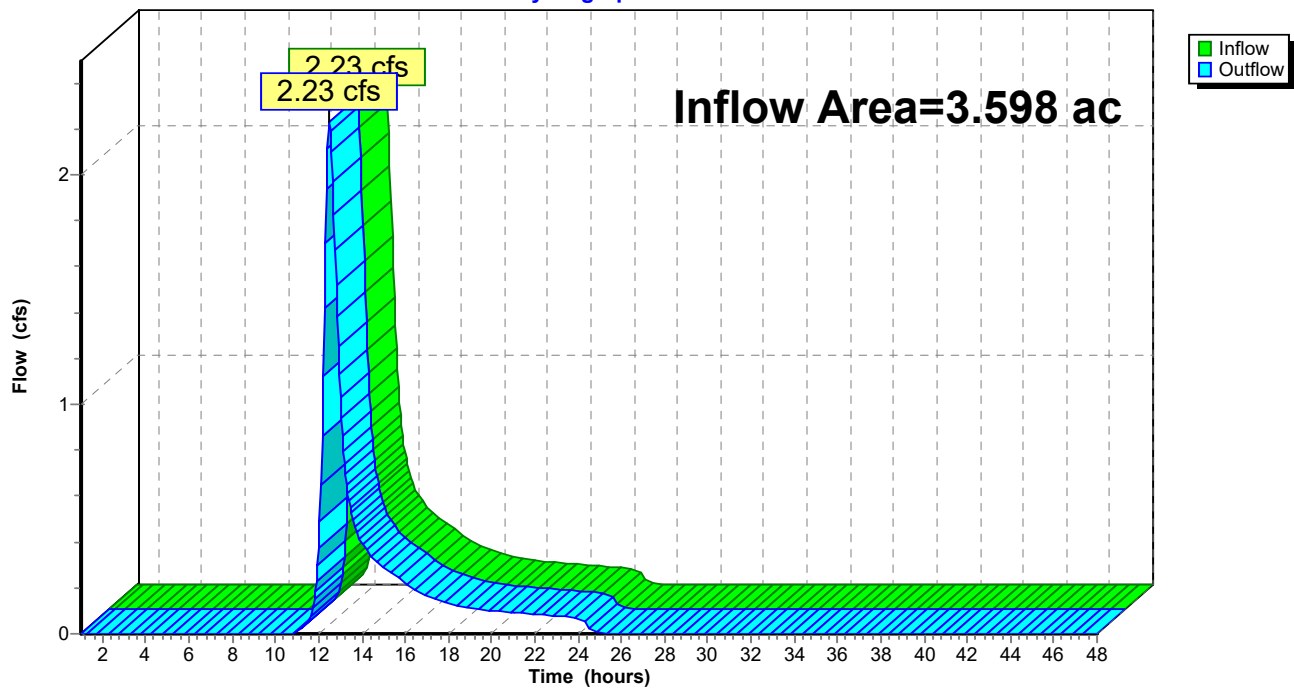
Inflow = 2.23 cfs @ 12.49 hrs, Volume= 0.308 af

Outflow = 2.23 cfs @ 12.49 hrs, Volume= 0.308 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs

Reach POI 2: POI 2

Hydrograph

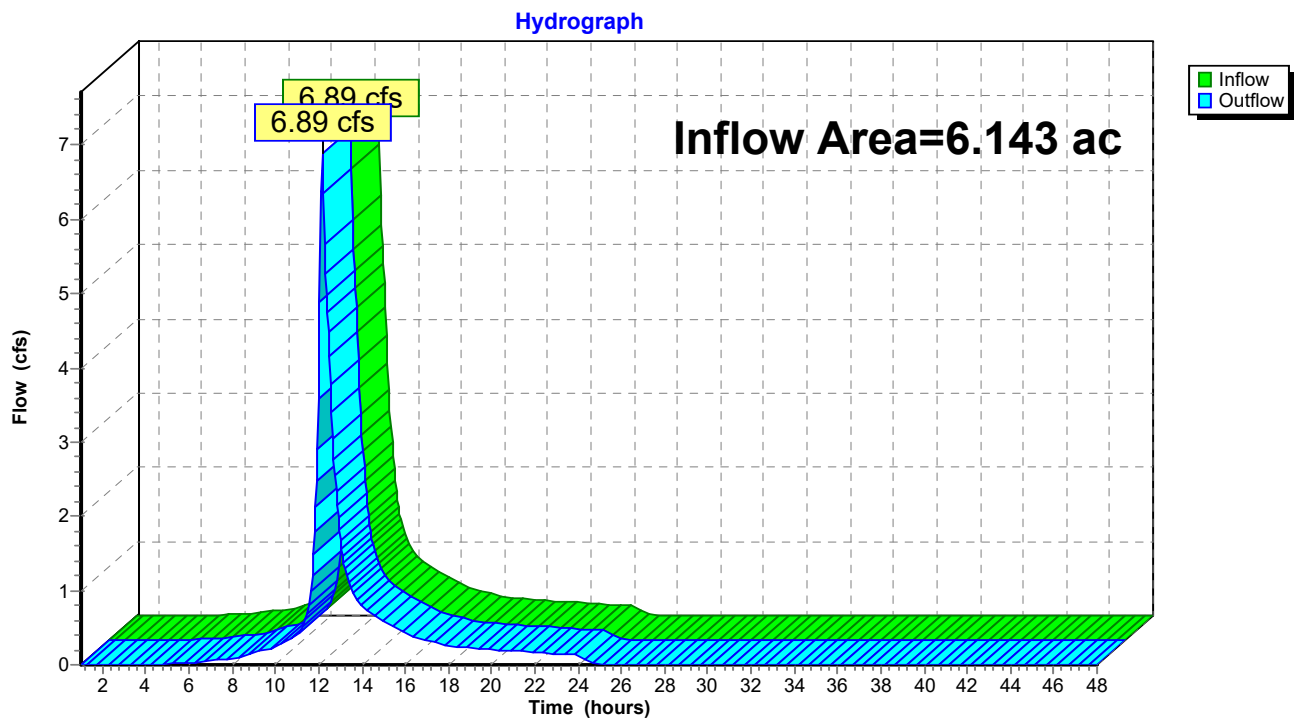


Summary for Reach POST: TOTAL POST

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

Inflow Area = 6.143 ac, 74.50% Impervious, Inflow Depth = 1.62" for 2-year event
Inflow = 6.89 cfs @ 12.15 hrs, Volume= 0.827 af
Outflow = 6.89 cfs @ 12.15 hrs, Volume= 0.827 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs

Reach POST: TOTAL POST

1176_POST

Prepared by HP

HydroCAD® 10.00-26 s/n 00620 © 2020 HydroCAD Software Solutions LLC

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

Printed 10/17/2022

Page 12

Time span=1.00-48.00 hrs, dt=0.05 hrs, 941 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment1P: 1

Runoff Area=110,838 sf 91.09% Impervious Runoff Depth=3.91"
Tc=10.0 min CN=94 Runoff=9.44 cfs 0.830 af

Subcatchment2P: 2

Runoff Area=156,749 sf 62.77% Impervious Runoff Depth=2.13"
Flow Length=918' Tc=32.7 min CN=75 Runoff=4.84 cfs 0.638 af

Reach POI 1: POI 1

Inflow=9.44 cfs 0.830 af
Outflow=9.44 cfs 0.830 af

Reach POI 2: POI 2

Inflow=4.84 cfs 0.638 af
Outflow=4.84 cfs 0.638 af

Reach POST: TOTAL POST

Inflow=11.61 cfs 1.468 af
Outflow=11.61 cfs 1.468 af

Total Runoff Area = 6.143 ac Runoff Volume = 1.468 af Average Runoff Depth = 2.87"
25.50% Pervious = 1.566 ac 74.50% Impervious = 4.577 ac

1176_POST

Prepared by HP

HydroCAD® 10.00-26 s/n 00620 © 2020 HydroCAD Software Solutions LLC

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

Printed 10/17/2022

Page 13

Summary for Subcatchment 1P: 1

Runoff = 9.44 cfs @ 12.14 hrs, Volume= 0.830 af, Depth= 3.91"

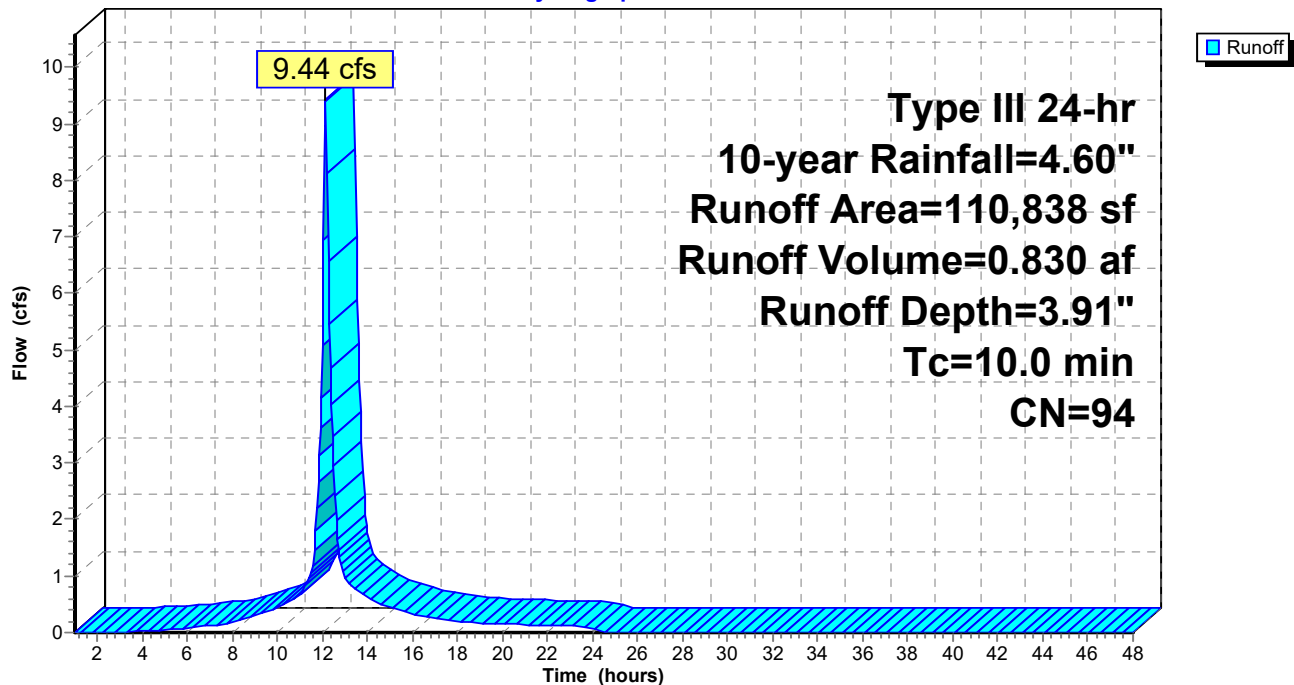
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-year Rainfall=4.60"

Area (sf)	CN	Description
9,879	49	50-75% Grass cover, Fair, HSG A
* 100,959	98	pave/roof
110,838	94	Weighted Average
9,879		8.91% Pervious Area
100,959		91.09% Impervious Area

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

Subcatchment 1P: 1

Hydrograph



1176_POST

Prepared by HP

HydroCAD® 10.00-26 s/n 00620 © 2020 HydroCAD Software Solutions LLC

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

Printed 10/17/2022

Page 14

Summary for Subcatchment 2P: 2

Runoff = 4.84 cfs @ 12.47 hrs, Volume= 0.638 af, Depth= 2.13"

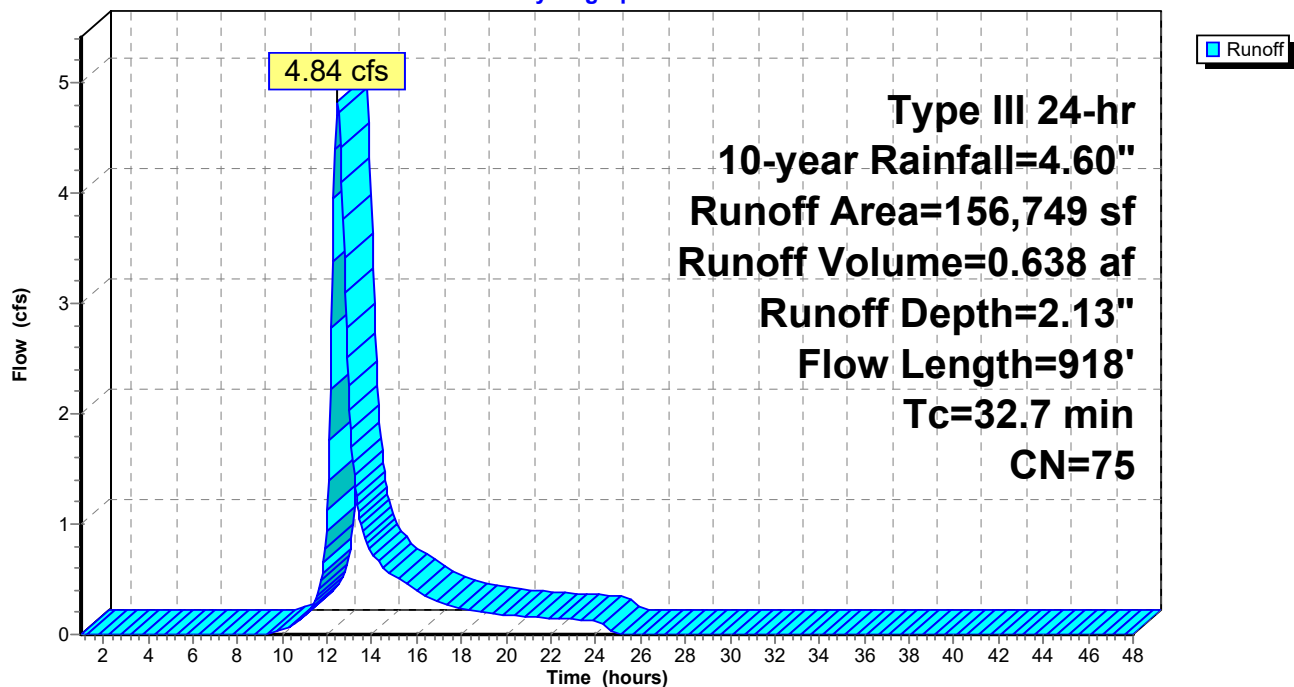
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-year Rainfall=4.60"

	Area (sf)	CN	Description
*	98,397	98	buildings/pave
	48,746	36	Woods, Fair, HSG A
	9,606	39	>75% Grass cover, Good, HSG A
	156,749	75	Weighted Average
	58,352		37.23% Pervious Area
	98,397		62.77% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.6	100	0.0100	1.05		Sheet Flow, A TO B Smooth surfaces n= 0.011 P2= 3.27"
1.5	257	0.0200	2.87		Shallow Concentrated Flow, B TO C Paved Kv= 20.3 fps
29.6	561	0.0160	0.32		Shallow Concentrated Flow, C TO D Forest w/Heavy Litter Kv= 2.5 fps
32.7	918	Total			

Subcatchment 2P: 2

Hydrograph



Summary for Reach POI 1: POI 1

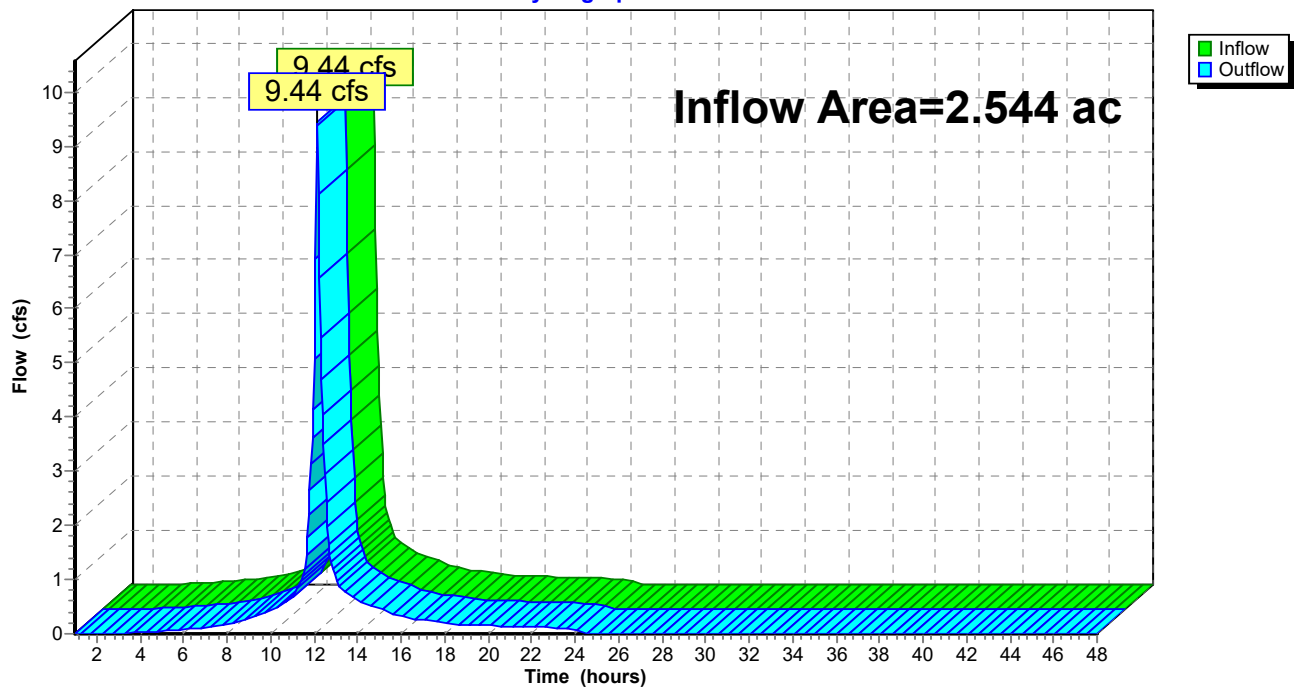
[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 2.544 ac, 91.09% Impervious, Inflow Depth = 3.91" for 10-year event
Inflow = 9.44 cfs @ 12.14 hrs, Volume= 0.830 af
Outflow = 9.44 cfs @ 12.14 hrs, Volume= 0.830 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs

Reach POI 1: POI 1

Hydrograph



Summary for Reach POI 2: POI 2

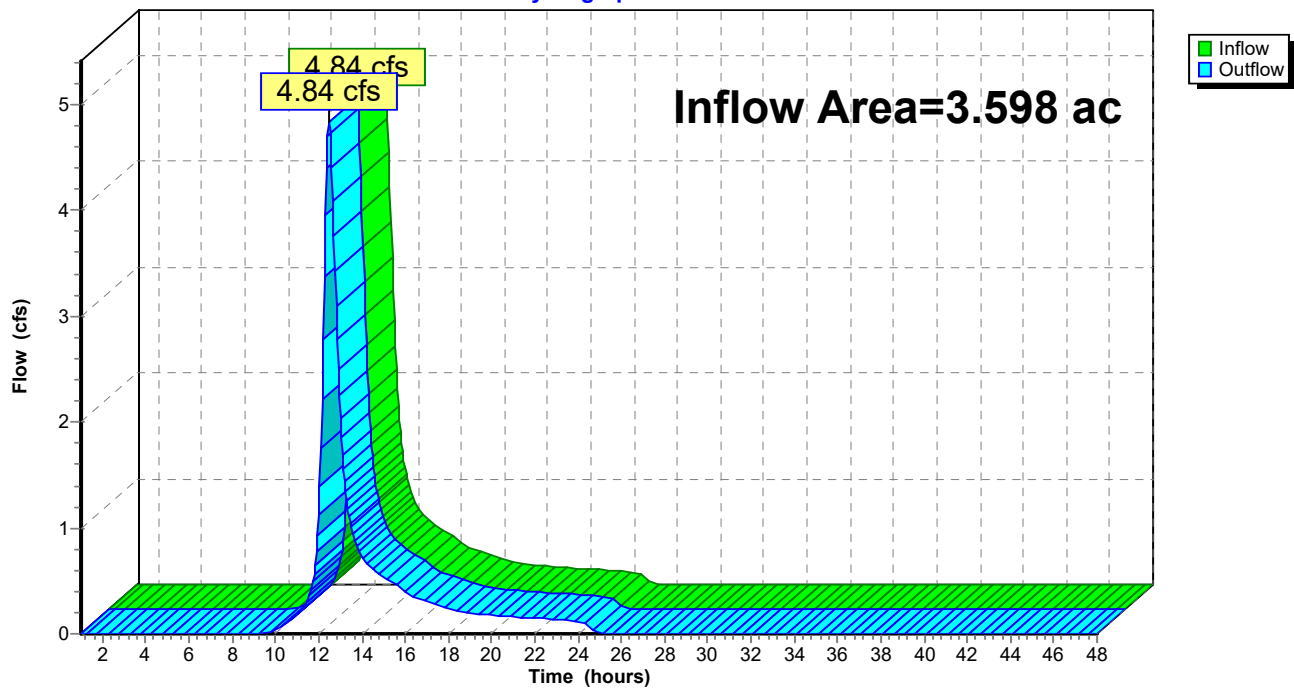
[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 3.598 ac, 62.77% Impervious, Inflow Depth = 2.13" for 10-year event
Inflow = 4.84 cfs @ 12.47 hrs, Volume= 0.638 af
Outflow = 4.84 cfs @ 12.47 hrs, Volume= 0.638 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs

Reach POI 2: POI 2

Hydrograph

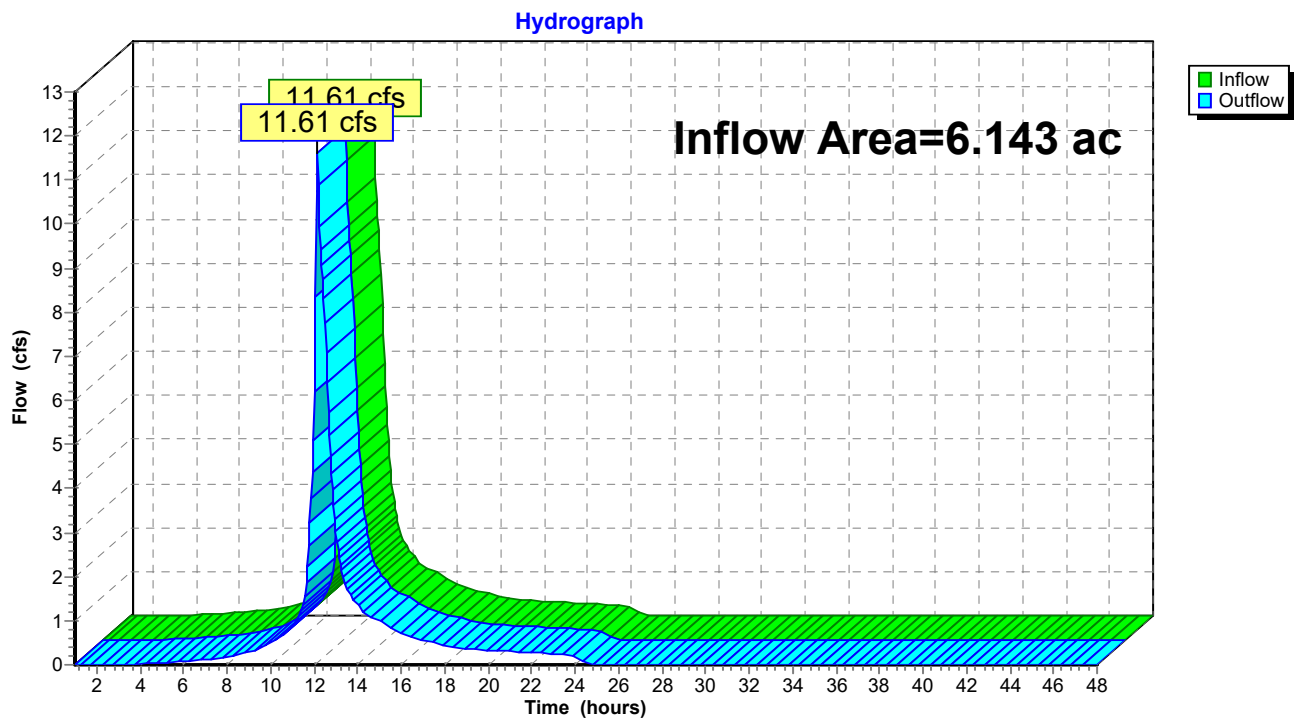


Summary for Reach POST: TOTAL POST

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

Inflow Area = 6.143 ac, 74.50% Impervious, Inflow Depth = 2.87" for 10-year event
Inflow = 11.61 cfs @ 12.15 hrs, Volume= 1.468 af
Outflow = 11.61 cfs @ 12.15 hrs, Volume= 1.468 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs

Reach POST: TOTAL POST

1176_POST

Prepared by HP

HydroCAD® 10.00-26 s/n 00620 © 2020 HydroCAD Software Solutions LLC

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

Printed 10/17/2022

Page 18

Time span=1.00-48.00 hrs, dt=0.05 hrs, 941 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment1P: 1

Runoff Area=110,838 sf 91.09% Impervious Runoff Depth=5.10"
Tc=10.0 min CN=94 Runoff=12.12 cfs 1.081 af

Subcatchment2P: 2

Runoff Area=156,749 sf 62.77% Impervious Runoff Depth=3.11"
Flow Length=918' Tc=32.7 min CN=75 Runoff=7.12 cfs 0.933 af

Reach POI 1: POI 1

Inflow=12.12 cfs 1.081 af
Outflow=12.12 cfs 1.081 af

Reach POI 2: POI 2

Inflow=7.12 cfs 0.933 af
Outflow=7.12 cfs 0.933 af

Reach POST: TOTAL POST

Inflow=15.52 cfs 2.014 af
Outflow=15.52 cfs 2.014 af

Total Runoff Area = 6.143 ac Runoff Volume = 2.014 af Average Runoff Depth = 3.94"
25.50% Pervious = 1.566 ac 74.50% Impervious = 4.577 ac

Summary for Subcatchment 1P: 1

Runoff = 12.12 cfs @ 12.14 hrs, Volume= 1.081 af, Depth= 5.10"

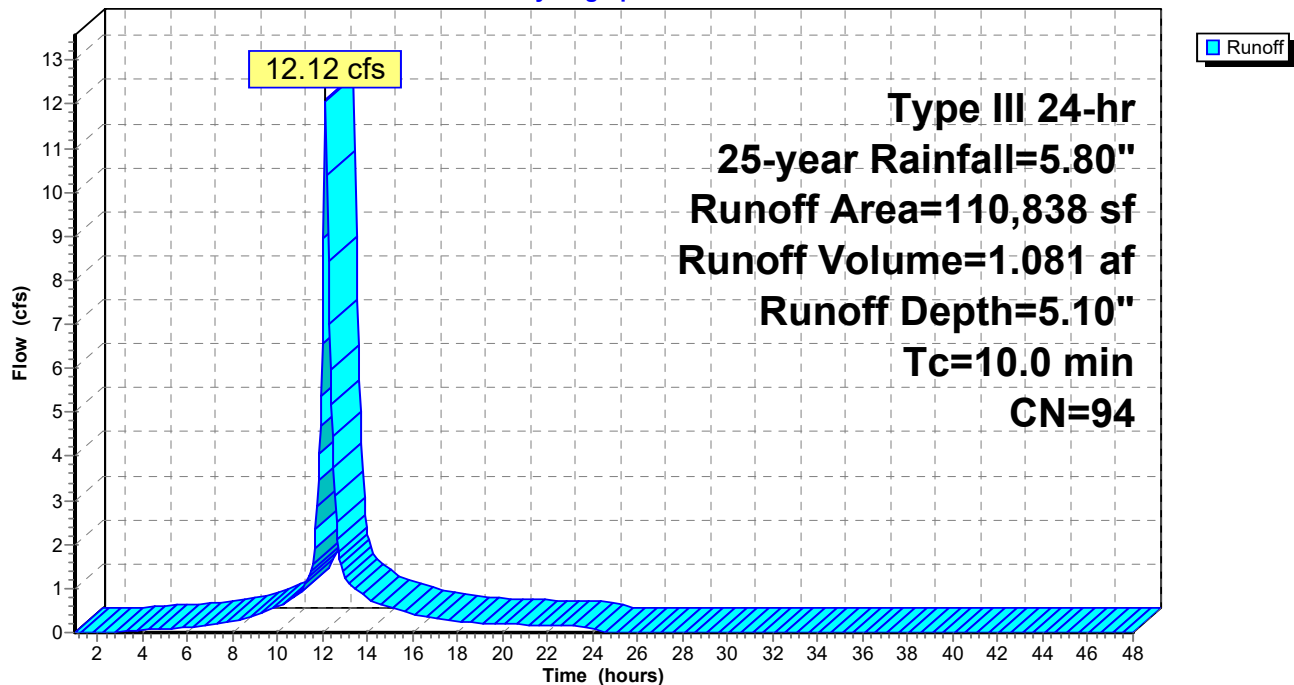
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-year Rainfall=5.80"

Area (sf)	CN	Description
9,879	49	50-75% Grass cover, Fair, HSG A
* 100,959	98	pave/roof
110,838	94	Weighted Average
9,879		8.91% Pervious Area
100,959		91.09% Impervious Area

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

Subcatchment 1P: 1

Hydrograph



Summary for Subcatchment 2P: 2

Runoff = 7.12 cfs @ 12.46 hrs, Volume= 0.933 af, Depth= 3.11"

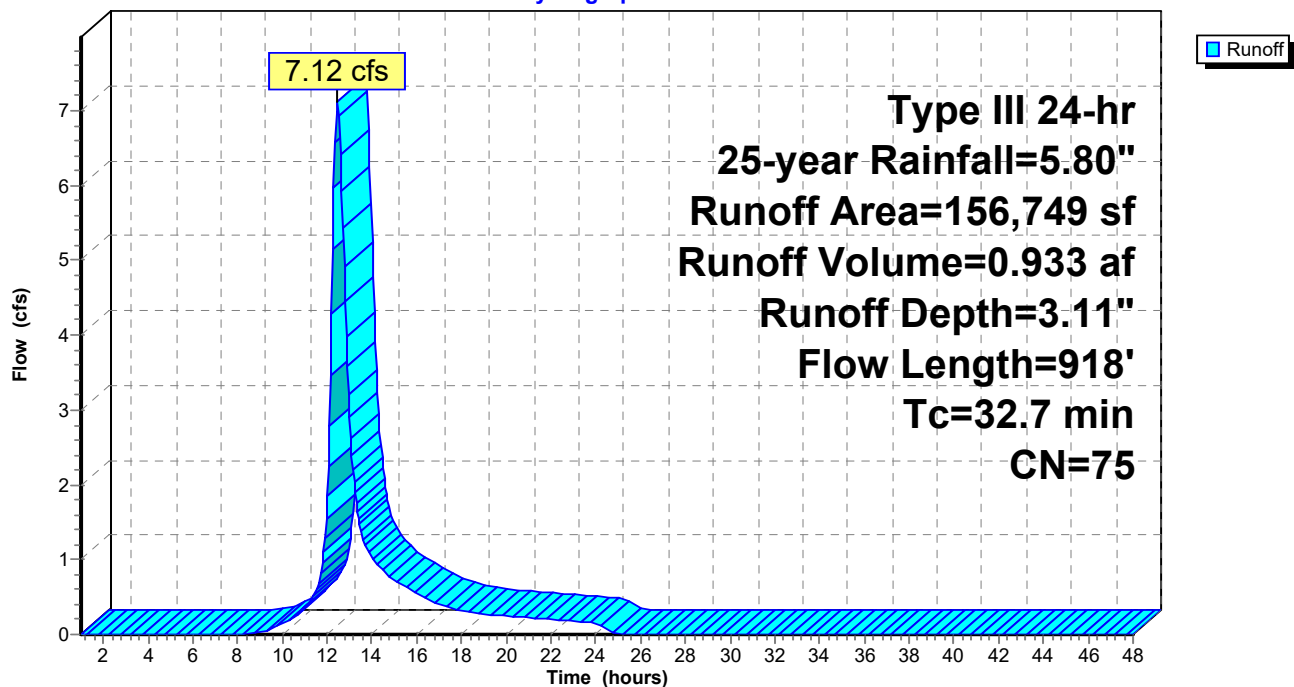
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-year Rainfall=5.80"

	Area (sf)	CN	Description
*	98,397	98	buildings/pave
	48,746	36	Woods, Fair, HSG A
	9,606	39	>75% Grass cover, Good, HSG A
	156,749	75	Weighted Average
	58,352		37.23% Pervious Area
	98,397		62.77% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.6	100	0.0100	1.05		Sheet Flow, A TO B Smooth surfaces n= 0.011 P2= 3.27"
1.5	257	0.0200	2.87		Shallow Concentrated Flow, B TO C Paved Kv= 20.3 fps
29.6	561	0.0160	0.32		Shallow Concentrated Flow, C TO D Forest w/Heavy Litter Kv= 2.5 fps
32.7	918	Total			

Subcatchment 2P: 2

Hydrograph

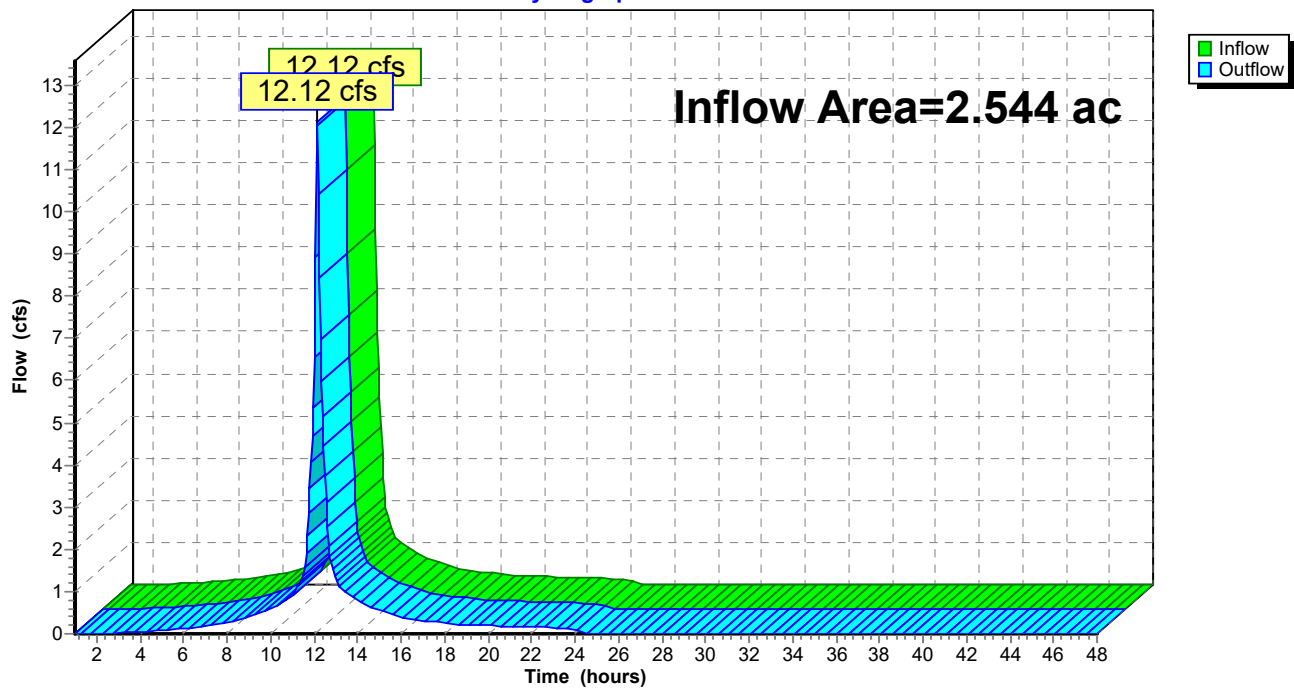


Summary for Reach POI 1: POI 1

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

Inflow Area = 2.544 ac, 91.09% Impervious, Inflow Depth = 5.10" for 25-year event
Inflow = 12.12 cfs @ 12.14 hrs, Volume= 1.081 af
Outflow = 12.12 cfs @ 12.14 hrs, Volume= 1.081 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs

Reach POI 1: POI 1**Hydrograph**

Summary for Reach POI 2: POI 2

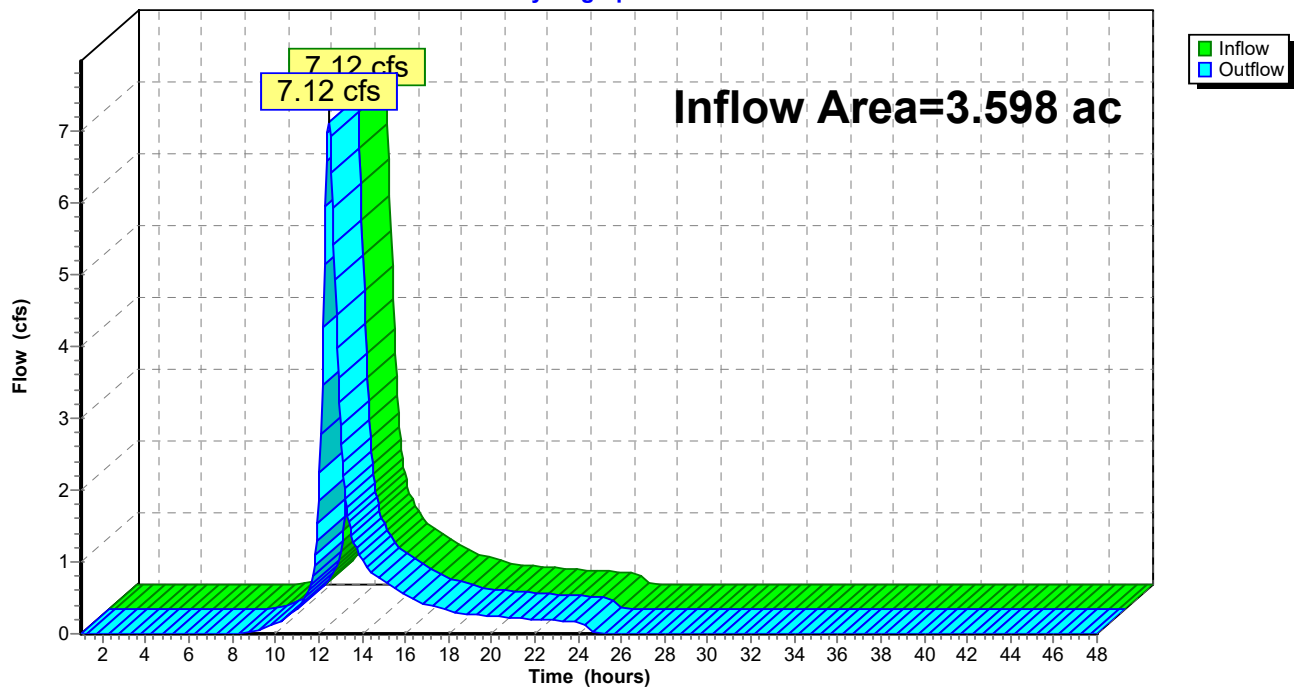
[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 3.598 ac, 62.77% Impervious, Inflow Depth = 3.11" for 25-year event
Inflow = 7.12 cfs @ 12.46 hrs, Volume= 0.933 af
Outflow = 7.12 cfs @ 12.46 hrs, Volume= 0.933 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs

Reach POI 2: POI 2

Hydrograph

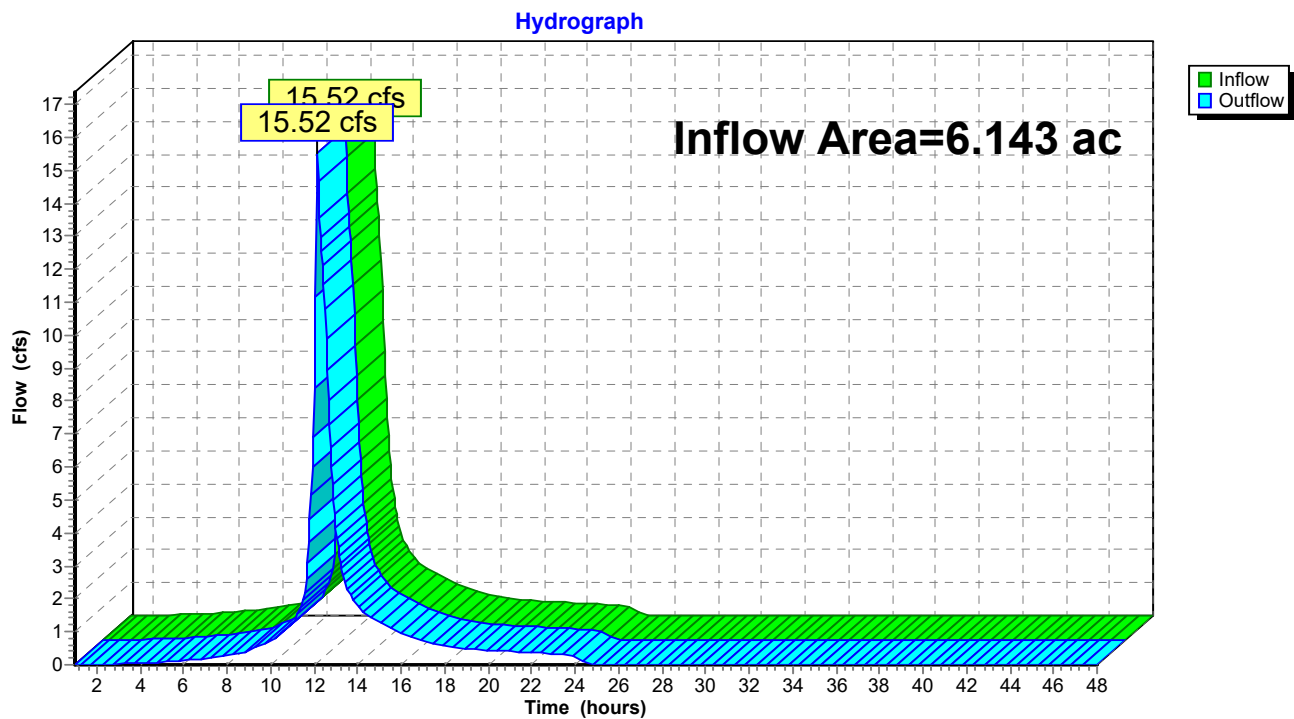


Summary for Reach POST: TOTAL POST

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

Inflow Area = 6.143 ac, 74.50% Impervious, Inflow Depth = 3.94" for 25-year event
Inflow = 15.52 cfs @ 12.15 hrs, Volume= 2.014 af
Outflow = 15.52 cfs @ 12.15 hrs, Volume= 2.014 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs

Reach POST: TOTAL POST



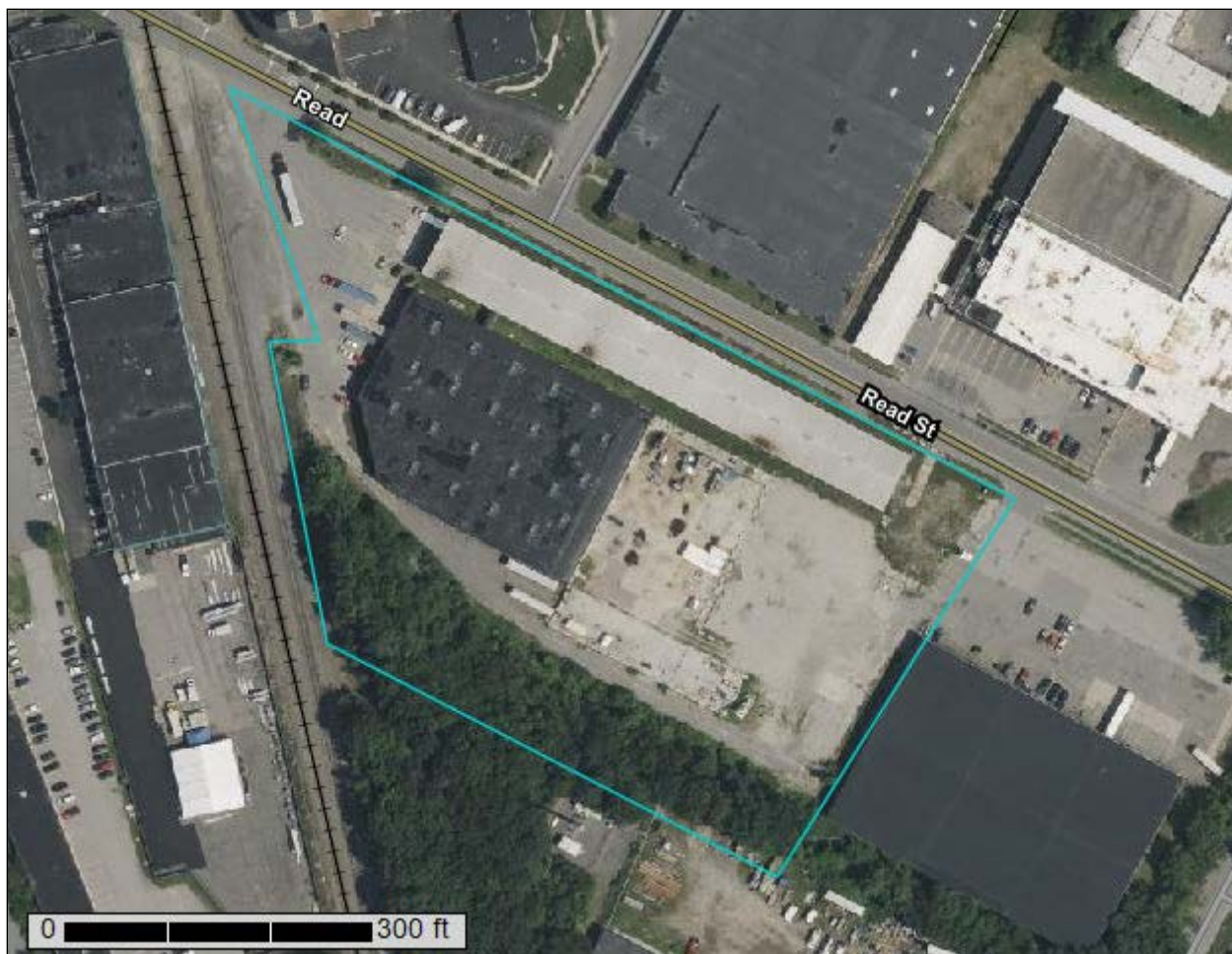
United States
Department of
Agriculture

NRCS

Natural
Resources
Conservation
Service

A product of the National
Cooperative Soil Survey,
a joint effort of the United
States Department of
Agriculture and other
Federal agencies, State
agencies including the
Agricultural Experiment
Stations, and local
participants

Custom Soil Resource Report for Cumberland County and Part of Oxford County, Maine



June 15, 2022

Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (<http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/>) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (<https://offices.sc.egov.usda.gov/locator/app?agency=nrcs>) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, age, disability, and where applicable, sex, marital status, familial status, parental status, religion, sexual orientation, genetic information, political beliefs, reprisal, or because all or a part of an individual's income is derived from any public assistance program. (Not all prohibited bases apply to all programs.) Persons with disabilities who require

alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at (202) 720-2600 (voice and TDD). To file a complaint of discrimination, write to USDA, Director, Office of Civil Rights, 1400 Independence Avenue, S.W., Washington, D.C. 20250-9410 or call (800) 795-3272 (voice) or (202) 720-6382 (TDD). USDA is an equal opportunity provider and employer.

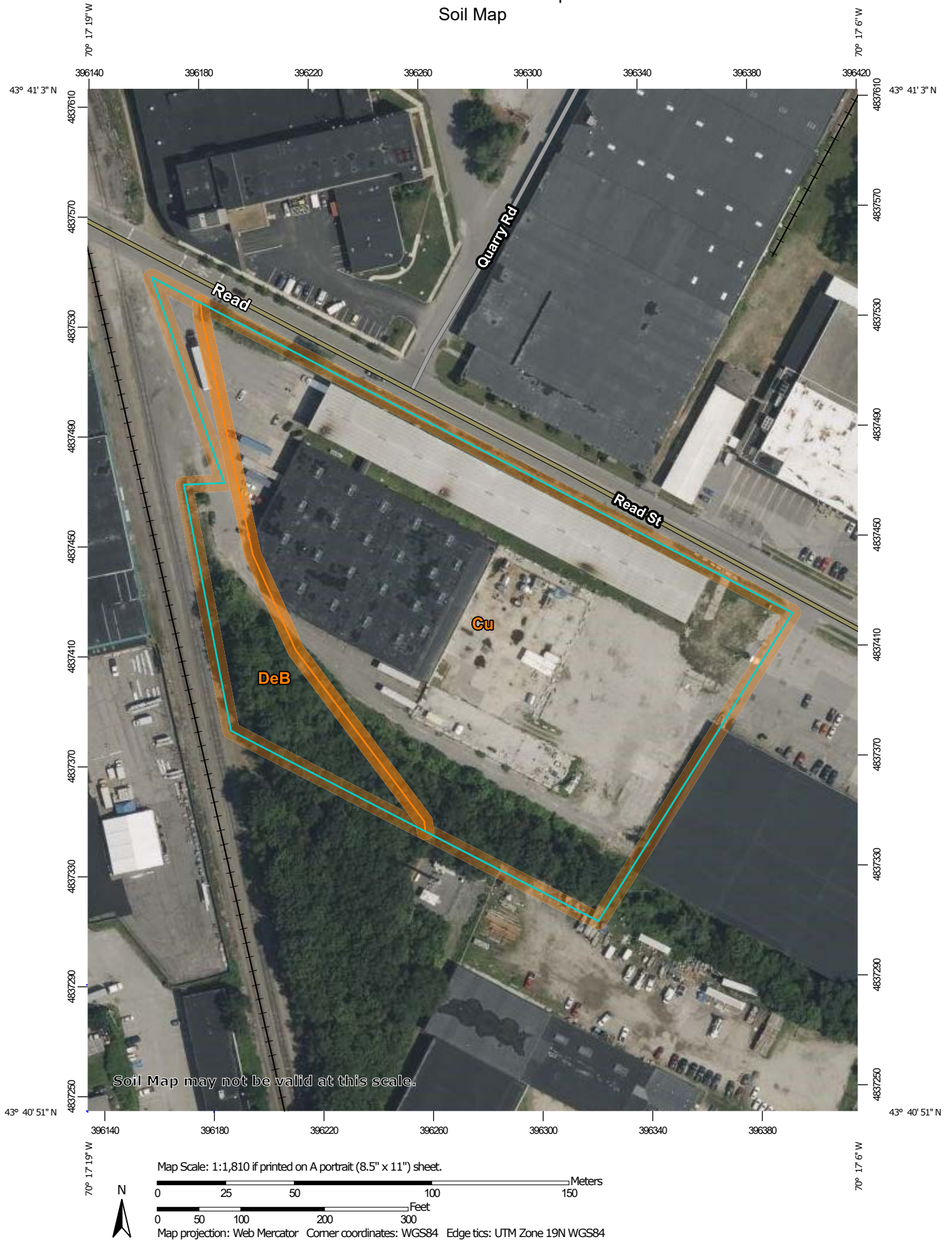
Contents

Preface	2
How Soil Surveys Are Made	5
Soil Map	8
Soil Map.....	9
Legend.....	10
Map Unit Legend.....	12
Map Unit Descriptions.....	12
Cumberland County and Part of Oxford County, Maine.....	14
Cu—Cut and fill land.....	14
DeB—Deerfield loamy fine sand, 3 to 8 percent slopes.....	14
References	16

Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Custom Soil Resource Report Soil Map



MAP LEGEND

Area of Interest (AOI)

 Area of Interest (AOI)

Soils

 Soil Map Unit Polygons

 Soil Map Unit Lines

 Soil Map Unit Points

Special Point Features

 Blowout

 Borrow Pit

 Clay Spot

 Closed Depression

 Gravel Pit

 Gravelly Spot

 Landfill

 Lava Flow

 Marsh or swamp

 Mine or Quarry

 Miscellaneous Water

 Perennial Water

 Rock Outcrop

 Saline Spot

 Sandy Spot

 Severely Eroded Spot

 Sinkhole

 Slide or Slip

 Sodic Spot

 Spoil Area

 Stony Spot

 Very Stony Spot

 Wet Spot

 Other

 Special Line Features

Water Features

 Streams and Canals

Transportation

 Rails

 Interstate Highways

 US Routes

 Major Roads

 Local Roads

Background

 Aerial Photography

MAP INFORMATION

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

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

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

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

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

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

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

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

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jul 22, 2021—Oct 7, 2021

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background

MAP LEGEND

MAP INFORMATION

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	5.7	85.1%
DeB	Deerfield loamy fine sand, 3 to 8 percent slopes	1.0	14.9%
Totals for Area of Interest		6.7	100.0%

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however,

onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Cumberland County and Part of Oxford County, Maine

Cu—Cut and fill land

Map Unit 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

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 supply, 0 to 60 inches: Moderate (about 6.6 inches)

DeB—Deerfield loamy fine sand, 3 to 8 percent slopes

Map Unit Setting

National map unit symbol: 2xfg9

Elevation: 0 to 1,190 feet

Mean annual precipitation: 36 to 71 inches

Mean annual air temperature: 39 to 55 degrees F

Frost-free period: 145 to 240 days

Farmland classification: Farmland of statewide importance

Map Unit Composition

Deerfield and similar soils: 85 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Deerfield

Setting

Landform: Kame terraces, outwash plains, outwash terraces, outwash deltas

Landform position (three-dimensional): Tread

Down-slope shape: Concave, convex, linear

Across-slope shape: Convex, linear, concave

Parent material: Sandy outwash derived from granite, gneiss, and/or quartzite

Typical profile

Ap - 0 to 9 inches: loamy fine sand

Bw - 9 to 25 inches: loamy fine sand

BC - 25 to 33 inches: fine sand

Cg - 33 to 60 inches: sand

Properties and qualities

Slope: 3 to 8 percent

Depth to restrictive feature: More than 80 inches

Custom Soil Resource Report

Drainage class: Moderately well drained

Runoff class: Very low

Capacity of the most limiting layer to transmit water (Ksat): Moderately high to very high (1.42 to 99.90 in/hr)

Depth to water table: About 15 to 37 inches

Frequency of flooding: None

Frequency of ponding: None

Maximum salinity: Nonsaline (0.0 to 1.9 mmhos/cm)

Sodium adsorption ratio, maximum: 11.0

Available water supply, 0 to 60 inches: Moderate (about 6.5 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 2w

Hydrologic Soil Group: A

Ecological site: F144AY027MA - Moist Sandy Outwash

Hydric soil rating: No

References

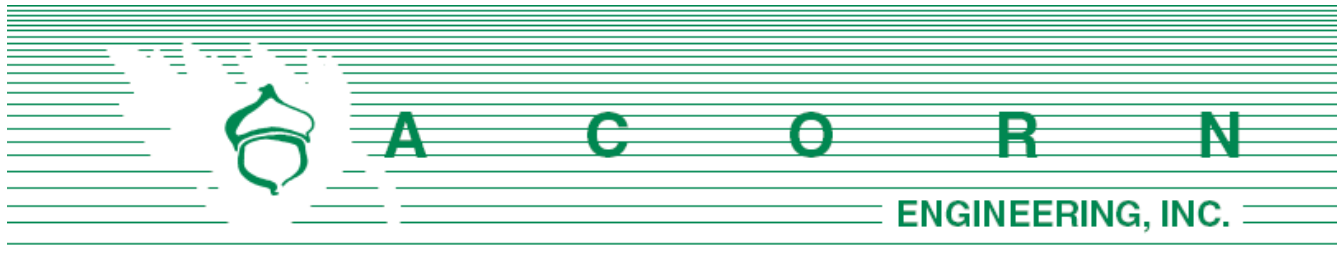
- American Association of State Highway and Transportation Officials (AASHTO). 2004. Standard specifications for transportation materials and methods of sampling and testing. 24th edition.
- American Society for Testing and Materials (ASTM). 2005. Standard classification of soils for engineering purposes. ASTM Standard D2487-00.
- Cowardin, L.M., V. Carter, F.C. Golet, and E.T. LaRoe. 1979. Classification of wetlands and deep-water habitats of the United States. U.S. Fish and Wildlife Service FWS/OBS-79/31.
- Federal Register. July 13, 1994. Changes in hydric soils of the United States.
- Federal Register. September 18, 2002. Hydric soils of the United States.
- Hurt, G.W., and L.M. Vasilas, editors. Version 6.0, 2006. Field indicators of hydric soils in the United States.
- National Research Council. 1995. Wetlands: Characteristics and boundaries.
- Soil Survey Division Staff. 1993. Soil survey manual. Soil Conservation Service. U.S. Department of Agriculture Handbook 18. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_054262
- Soil Survey Staff. 1999. Soil taxonomy: A basic system of soil classification for making and interpreting soil surveys. 2nd edition. Natural Resources Conservation Service, U.S. Department of Agriculture Handbook 436. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_053577
- Soil Survey Staff. 2010. Keys to soil taxonomy. 11th edition. U.S. Department of Agriculture, Natural Resources Conservation Service. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_053580
- Tiner, R.W., Jr. 1985. Wetlands of Delaware. U.S. Fish and Wildlife Service and Delaware Department of Natural Resources and Environmental Control, Wetlands Section.
- United States Army Corps of Engineers, Environmental Laboratory. 1987. Corps of Engineers wetlands delineation manual. Waterways Experiment Station Technical Report Y-87-1.
- United States Department of Agriculture, Natural Resources Conservation Service. National forestry manual. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/home/?cid=nrcs142p2_053374
- United States Department of Agriculture, Natural Resources Conservation Service. National range and pasture handbook. <http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/landuse/rangepasture/?cid=stelprdb1043084>

Custom Soil Resource Report

United States Department of Agriculture, Natural Resources Conservation Service. National soil survey handbook, title 430-VI. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/scientists/?cid=nrcs142p2_054242

United States Department of Agriculture, Natural Resources Conservation Service. 2006. Land resource regions and major land resource areas of the United States, the Caribbean, and the Pacific Basin. U.S. Department of Agriculture Handbook 296. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_053624

United States Department of Agriculture, Soil Conservation Service. 1961. Land capability classification. U.S. Department of Agriculture Handbook 210. http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_052290.pdf



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

December 12, 2022

Subject: 180 Read Street Neighborhood Meeting

I, **Travis Letellier**, hereby certify that a neighborhood meeting was held on **December 7, 2022** at **182 Read Street at 5:30 pm.**

I also certify that on **November 22, 2022**, invitations were mailed to the following:

1. All addresses on the mailing list provided by the Planning Division which includes property owners within 500 feet of the proposed development.
2. Residents on the “interested parties” list.

Sincerely,

A handwritten signature in black ink, appearing to read 'Travis Letellier', is written over a faint, larger signature.

Travis Letellier, P.E.
Project Manager Acorn
Engineering, Inc.

Date: 12/8/2022

Included with this certification are:

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

Sign In Sheet

12/7/2022

NEPW Logistics - 182 / 184 Read St.

Warehouse Addition

Members of the Public in Attendance:

NAME

1. Jacki Cohen
2. Jonathon Sullivan
3. Deborah Johnson
4. Gilbert Congdon
5. JIM PIEZCE
- 6.
- 7.
- 8.
- 9.
- 10.
- 11.
- 12.
- 13.
- 14.
- 15.
- 16.
- 17.
- 18.
- 19.
- 20.
- 21.
- 22.
- 23.
- 24.
- 25.

E-MAIL

Jackicohen316@gmail.com
 jon.sullivan94@yahoo.com
 Debjs13@aol.com
 fgcl41@gmail.com
 REALST.SELFSTORAGE
 INFO@REALSTSELFSTORAGE.COM

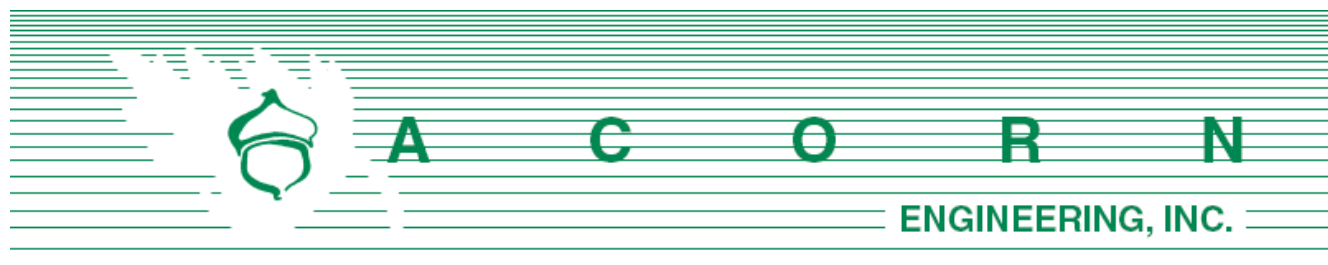
Developer and Consultant Team in Attendance:

NAME

1. Rob Cowans
2. Travis Letellier
3. Andrew Godfrey
- 4.

E-MAIL

Rob@NEPW.COM
 tletellier@acorn-engineering.com
 agodfrey@acorn-engineering.com



Dear Neighbor:

November 22, 2022

On behalf of NEPW Logistics, LLC, we are pleased to invite you to a neighborhood meeting to discuss our plans for a proposed project behind the existing buildings at 182-184 Read Street within the I-M zoning district. The project includes the construction of a 60,630 square foot warehouse in the footprint of a former building that existed on-site until 2014. An entrance to the property is proposed to be shared with 50 Read Street.

Meeting Location: 184 Read Street, Portland, ME 04101
Meeting Date: Wednesday, December 7, 2022
Meeting Time: 5:30 p.m.

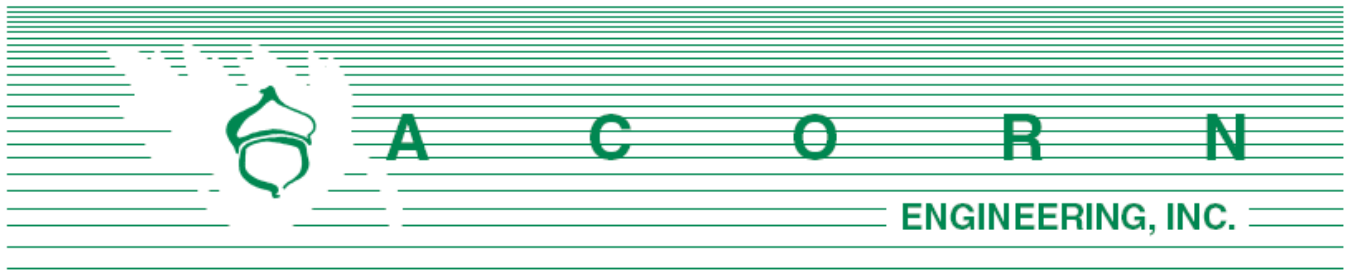
The City code requires that property owners within 1,000 feet of the proposed development be invited to participate in a neighborhood meeting. A sign-in sheet will be circulated, and minutes of the meeting will be taken. Both the sign-in sheet and minutes will be submitted to the Planning Board.

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 'Travis Letellier', is written over a faint, larger signature.

Travis Letellier, P.E.
Project Manager
Acorn Engineering



180 Read St. Redevelopment Major Site Plan Application

Neighborhood Meeting Minutes
Wednesday, December 7th, 2022 / 5:30 pm
184 Read Street

Project Team Attendees:

Travis Letellier (TL): Civil Engineer/Presenter (Acorn Engineering)

Andrew Godfrey(AG): Design Engineer (Acorn Engineering)

Rob Cowans (RC): Developer / Applicant (NEPW Logistics)

Meeting started at approximately 5:35 pm.

Presentation:

Travis Letellier:

- Introduced project team
- Neighborhood Meeting is a City requirement for a Major Site Plan Application.
- Held a pre-app meeting with the City on August 17, 2022
- Sign In sheet is available for everyone which will become public record along with the meeting minutes.
- Gave a presentation on the project proposal.

Rob Cowans:

- Developer and Applicant, CEO of NEPW Logistics
- Based out of Portland. Have had a successful 10+ year business in the Back Cove neighborhood, looking to expand operations.

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: Where exactly is building located? How tall will it be?

TL: (Holding site plan) The new warehouse will be connected to the building we are in, 184 Read Street, and will be on the foundation of the warehouse previously in existence until the mid-2010's. The height of the new building will be 41', taller than the two buildings currently on-site.

Q: What will the access be for the new building? How many new trucks are anticipated?

TL: There will be a new shared access driveway with 150 Read Street, and the circulation of trucks through the site will be one-way around the back of the buildings.

RC: Based on the current operations, if similar clients lease the new building, there will be 8-10 new trucks per day. A maximum of 18-20 new trucks if it ends up being a high volume client.

Q: Will there be any improvements to the signage in the surrounding neighborhoods directly truck traffic? There are quite a few trucks that end up going down residential streets in the area.

TL: No plans for new signage, but it could be a discussion point with the city.

RC: Acknowledges that truck traffic signage could be improved in the surrounding neighborhood.

Q: When is the warehouse anticipated to be built?

RC: There are no solid plans, looking to get permit approval and then would likely be a year or two away from construction.

Q: (Directly abutting neighbor) Over the years stormwater runoff has been a problem in the back of my property. Are there any plans for stormwater for the new development?

TL: The roof of the new building and almost all of the new access driveway will be directed to the city stormwater system after construction is complete, so the condition of stormwater runoff to surrounding properties should be greatly improved.

Q: The area north of the site at the railroad tracks is currently a hazard to pedestrians, as the sidewalk is discontinued for the crossing of the tracks, and pedestrians must walk out into the street. Are there any plans to improve this condition?

TL: There are no plans for improvements there, but could be a discussion point with the city.

Q: Will there be an increase in the amount of trucks parking and backing out onto Read Street? This is currently an issue in the area.

TL: This will not be an issue with this proposal, since the traffic circulation within the site is one-way and there is adequate room on the site for trucks to park and wait if they are waiting for a bay to open.

Q: Is the turning radius adequate for the largest trucks within the site?

TL: Yes, the site has been designed with large enough turning radiuses for the largest trucks.



Q: What is the non-colored in portion shown on the plans behind the new building?

TL: A landscaped area of grass, this was a necessary feature to get under the maximum lot impervious area of 75%.

Q: Are there plans to re-pave the area on the north side of the property?

RC: There are no plans to do this.

Q: What will the new building be used for? Possibly a marijuana growing operation? Hazardous materials?

RC: Definitely not a marijuana growing operation or hazardous materials. We will be looking to have a similar client to the ones that use the current buildings on site, which mostly consists of the temporary storage of dry food goods. A client has not been found yet though.

Meeting concluded at approximately 5:55 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,

Andrew Godfrey

Andrew Godfrey, E.I.

Design Engineer

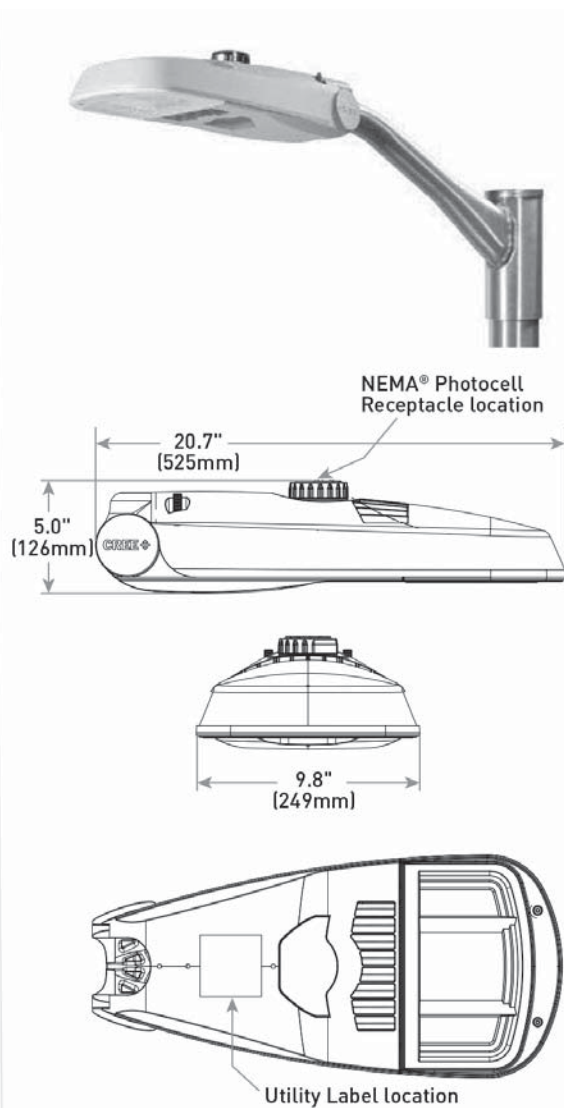
Acorn Engineering, Inc.

agodfrey@acorn-engineering.com




PORTLAND | me

Street & Sidewalk Lighting STANDARD - COBRAHEAD B


Weight*

8.45 lbs (3.8kg)

*RSW-BLSS Accessory: add 0.4 lbs. (0.2kg)

LUMINAIRE

Cree RSW series LED streetlight
Model: RSWS-A-HT-3ME-5L-30K7-UL-GY-N-X1

Small, horizontal tenon
Optics IES Type III Medium, 3,617 lumens
30 watts
Universal voltage (120-277V)
7-pin photocell receptacle
LED 3000K color temperature

LIGHTING POLE

Mount to existing pole or according to Section 10.2.1

DIMENSIONS

Pole Height = 20' or 30'

FINISH

Grey: GY (standard)

APPLICATION

Standard street lighting for streets not specified for decorative lighting.

Fixture placed in furnishing zone unless space is limited. Placement on back of sidewalk or private property overhanging sidewalk may be accommodated where space is a constraint.

Date:
March, 2019

CITY OF PORTLAND, MAINE
TECHNICAL MANUAL

**MUNICIPAL STREET
LIGHTING STANDARDS**
SECTION 10

Figure:

X-2B

Revised Date:

COBRAHEAD B

1/10/2023

Filterra Sizing Summary

180 Read Street, Portland, ME

Design Parameters:

- MEDEP WQ Design Storm = 0.95" of Rainfall
- Filterra Media Flow Rate = 140 in/hr
- Allowable Ponding in Filterra = 9 inches

Design Summary:

Utilizing HydroCAD software, a hydrograph can be derived to represent the MEDEP's WQ design storm by modelling a 0.95" Type III – 24 hour rain event (Figure 1 for each system). This storm can then be routed through an appropriately sized Filterra unit. Because the Filterra system can provide up to 9 inches of ponding, some flow attenuation is possible, and the Filterra system is able to accommodate a portion of the water quality volume in the head space above the media and release it at the system's design flow rate. The hydrograph in Figure 2 for each system illustrates this concept.

Unit	Area Impervious (sf)	CN	Area Pervious (sf)	CN	MEDEP Treatment Flow (cfs)	Filterra Media Bed (ft x ft)	Vault Size (ft x ft)	Filterra Model	Ponding Depth (inches)
F-1	12,000	98	0	74	0.23	6x8	6x8	FT0806	6.12

The following are the hydrographs for the unit:

Unit F-1:

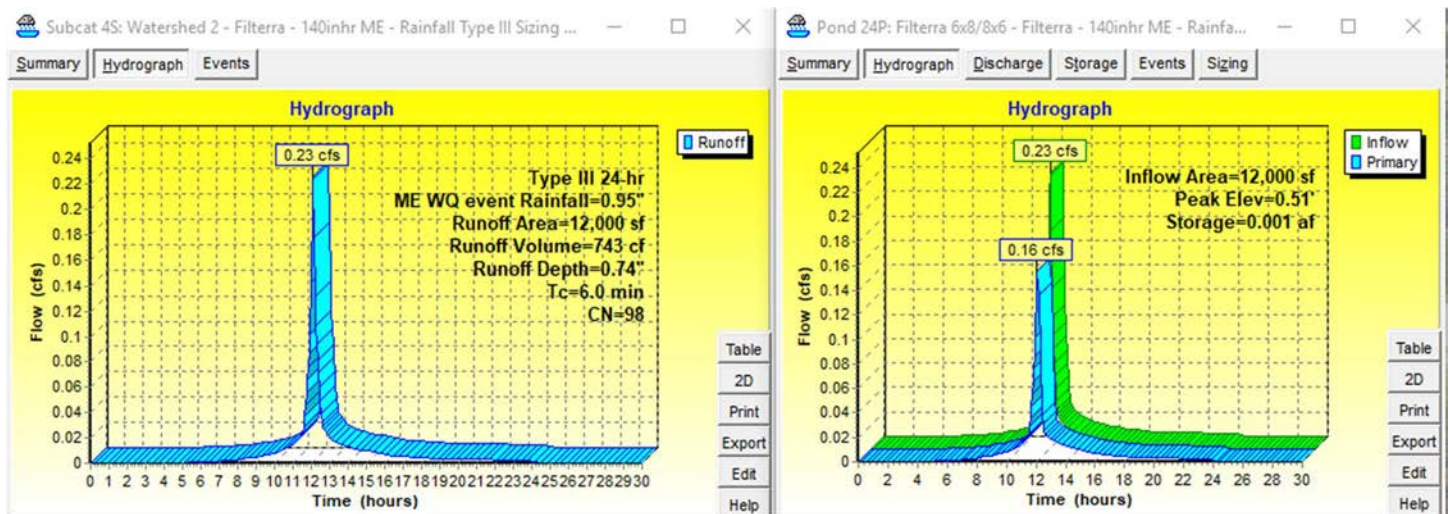


Figure 1. Inflow rate during the WQ Event.

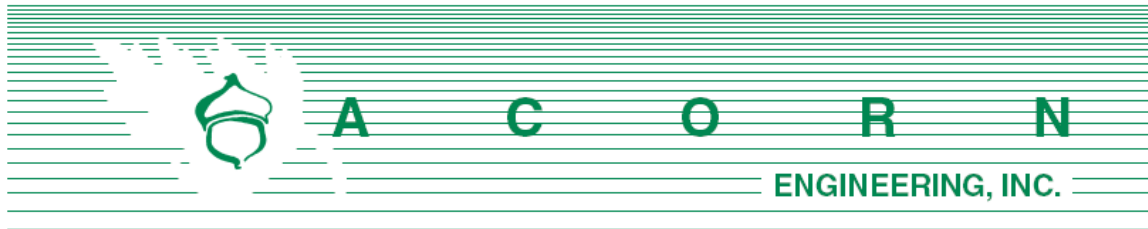
Figure 2. Inflow rate during WQ storm event compared with the Filterra outflow rate, accounting for 9" maximum ponding depth within the unit.

Thank you for the opportunity to present this to you and your client. This letter provides confirmation that each Filterra system is appropriately sized to comply with the Filterra approval letter issued by Maine Department of Environmental Protection. Please do not hesitate to contact me should you have any additional questions.

Sincerely,

A handwritten signature in black ink, appearing to read "Joshua Stackhouse".

Joshua Stackhouse
Contech Engineered Solutions, LLC.
(207) 219-9110
jstackhouse@conteches.com



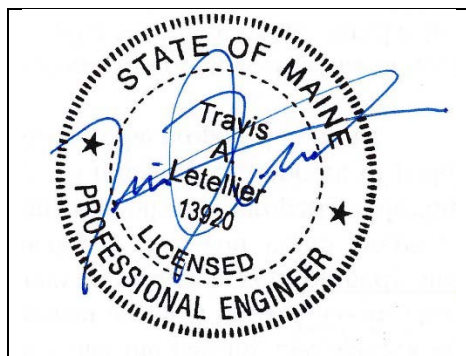
POST CONSTRUCTION - STORMWATER INSPECTION & MAINTENANCE PLAN

Prepared For:

**NEPW Logistics
Portland, Maine 04103**

Prepared By:

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



January 2023

RESPONSIBLE PARTY

The owner, NEPW Logistics, 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 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

Sweeping:

Annual sweeping of the driveways and parking areas following the snow melt for accumulated winter sand, if necessary. Appropriately dispose of all collected material.

Vegetated Areas and Embankments:

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 by Aceto Landscape Architects.

Catch Basins:

Catch basins shall be inspected to confirm that 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.
- If the basin outlet is designed with a hood to trap floatable materials (e.g. Snout), check to ensure watertight seal is working.
- Appropriately dispose of all collected material.

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.

Filtrerra:

The maintenance for the Filterra shall be in accordance with the attached “Filtrerra Maintenance Steps”. Additionally, the downstream catch basins and drainage manholes shall be inspected to confirm the structures are operation 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.
- If the basin outlet is designed with a hood to trap floatable materials (e.g. Snout), check to ensure watertight seal is working.



INSPECTION AND MAINTENANCE TABLE

Inspection and Maintenance Frequency	Spring or Yearly	Summer	Fall	As Necessary
Sweeping/Sand Removal	X			
Catch Basins	X		X	X
Filterras	X			X
Storm Drains		X		X
Vegetated Areas & Embankments	X	X		



STORMWATER MAINTENANCE AND INSPECTION AGREEMENT: INSPECTION LOG

Filterra Systems:							
Location: 180 Read Street, Portland, ME 04103				Latitude: 43.658294°N			
				Longitude: -70.32915° W			
Description of Located Point: Recorded Construction Documents - Filterra				Inspector:			
				Date of Inspection:			
				Weather Conditions:			
Days since last precipitation:				MEDEP Permit # N/A			
Quantity of last precipitation (in):				Design Drawings: YES			
Maintenance Items	Inspect In Spring	Inspect In Fall	Inspect As Necessary		Maintenance Requested (Date)	Maintenance Completed (Date)	Summary of Maintenance Required
Inlets, Outlets, Culverts & Storm Drains							
Inspection and cleaning of Filterra and surrounding area	☒	☐	☐	☐ Yes ☐ No ☐ N/A			
Removal of debris and trash	☒	☐	☐	☐ Yes ☐ No ☐ N/A			
Replace mulch	☒	☐	☐	☐ Yes ☐ No ☐ N/A			
General							
Access to facility is adequate	☒	☐	☐	☐ Yes ☐ No ☐ N/A			
Photographs of most recent site inspection are included	☒	☐	☐	☐ Yes ☐ No ☐ N/A			Photographs are attached.
Additional Comments:							

Filterra® Maintenance Steps



1. Inspection of Filterra and surrounding area



2. Removal of tree grate and erosion control stones



3. Removal of debris, trash and mulch



4. Mulch replacement



5. Clean area around Filterra



6. Complete paperwork and record plant height and width

Contech has created a network of Certified Maintenance Providers (CCMP's) to provide maintenance on Filterra systems. To find a CCMP in your area please visit www.conteches.com/maintenance



August 22, 2023

Att. Z

Craig Burgess, PE
Acorn Engineering, Inc.
PO Box 3372
Portland, ME 04104

**RE: Read Street Warehouse Expansion – Portland, ME
StormTech System**

Mr. Burgess,

The intent of this letter is to provide commentary as the 'Manufacturer's Representative' on the StormTech System that has been designed for the above referenced Project. Items provided for review were as follows:

- Read Street Warehouse Expansion Plan Set (provided via email on 8-21-2023; last revised 6-30-2023)
- Design-Storm Flow Rates (provided via email on 8-21-2023)

Specifically, this letter shall focus on comments needed to be addressed by a 'Manufacturer's Representative' within the MaineDEP StormTech Isolator Row Approval, which are as follow:

- (6) The first year of system maintenance must be provided by the manufacturer to ensure that the system is operating according to the established specifications.
- (9) Each Project must be reviewed and approved by the manufacturer for proposed use, layout and sizing of the pre-treatment row and for conformance with their design specifications.
- (10) The pre-treatment row must be installed under the manufacturer's representative supervision.

In response to the first comment, StormTech can provide the first year of inspection and maintenance for the System according to the established specifications. This typically includes visual inspection of the Isolator Row, as well as any inlet/outlet control structures associated with the System. Any additional maintenance measures that may be required shall be coordinated at this time. My contact information is at the bottom of this letter; please contact me a few weeks prior to coordinate the inspection.

In response to the second comment/upon review of said items documented above, the proposed use, layout and sizing of the pre-treatment row (Isolator Row) conform to StormTech Design Specifications. The quantity of Chambers provided for the Isolator Row exceeds the required number based on the flow that was provided. Likewise, the overall length of the row allocated for the proposed Isolator Row is adequate for maintenance access.

In response to the third comment, a Manufacturer's Representative can be present to observe the installation of the pre-treatment row (Isolator Row). Similar to the response to the first comment, my contact information is at the bottom of this letter; please contact me a few weeks prior to coordinate the inspection.

Our reason is water.™



If there are any questions in regard to the contents of this letter or review of the provided information, please do not hesitate to contact me.

Best Regards,

Aaron Cheever

Aaron Cheever, P.E.
Engineered Product Manager
Advanced Drainage Systems, Inc.
978-302-0650
aaron.cheever@adspipe.com

Our reason is water.™

From: [Dumont, Katherine](#)
To: [Craig Burgess](#)
Cc: [William Savage](#)
Subject: CMP Three Phase Service Process and Ability to Serve Letter - 182 Read St Portland Me
Date: Thursday, September 7, 2023 2:03:45 PM
Attachments: [image001.png](#)
[Easement Information Worksheet.doc](#)
[Standard Easement Sample.pdf](#)
[blank W9.pdf](#)
[August 2022 EDET.xlsx](#)

Craig Burgess, PE
Acorn Engineering, INC
PO BOX 3372
Portland, ME 04104

RE: 182 & 184 Read St Portland, ME.

SAP **TBD**

Project Description:

The development area is approximately 6.15+/-acres in size for a warehouse expansion located at 182 & 184 Read Street .

CMP has the ability to serve the proposed project in accordance with our CMP Handbook (web link below). We can provide you the desired pad or pole mounted transformers per your request and city approval, in accordance with our CMP Handbook of Standard Requirements. If you have any questions on the process, or need help in completion of the documents, please contact CMP at 800-565-3181.

Here is our typical process for getting your three phase or CT rated single phase service installed. If you have any questions, please let us know. The underlined links will redirect you to the appropriate site for additional information.

Service Milestones for Three Phase Services and CT Rated Single Phase Services. There are additional requirements for primary metered Solar Service Installations listed in the Chapter 324 Interconnections section below. Please refer to [CMP Installation Checklists](#) for other installations.

- Call 800-750-4000 option 4 to establish a new account (if needed) and an SAP work order. Please provide both of these to me.
- Submit Load information. Please complete the attached EDET (excel file) using load information. Please complete this and email back to me. If the loads are over 500 kw, more in depth load studies may be required with our Distribution Planning and Transmission Planning Departments. Be advised that these will involve more detailed load information, a load study agreement (signed contract), as well as other items. This additional study process may add up to two additional months to completion of the job.
- Submit the easement information worksheet, including where any CMP structures may be on

ANY private property (Poles, Wires, Anchors). You are responsible for obtaining all information for all required easements. Please complete this form and either email or fax back to me.

- Submit any electronic drawings (PDF (preferred) or DWG files) of the site layout and proposed electrical connections.
- For Primary Metered installations (including PV), please have the access road in for pole staking.
- Preliminary meetings with CMP Advisor and Engineer to determine details of job (I will need to schedule with your electrician/contractor-please let me know who this is)
- Field planner design appointment scheduled once the preliminary information is complete. This will allow us to cost out the job and develop a CMP Invoice. The invoice is typically generated 5-6 weeks after the design appointment. This expires after 90 days from the invoice date.
- Submit completed W9 so that your bill can be properly processed. This is a new CMP process.
- CMP submits invoice to the customer for payment (typically via email). Payment received from customer.
- Easements (based on easement information worksheet) sent out, signed and originals returned to CMP.
- Job scheduled for completion after the electrical inspection has been received.

This process can take several months, depending upon several factors including transformer or materials delivery, return of completed paperwork, and other jobs in the system that may be ahead of yours. In addition, contact with the other utilities, including telephone and cable, should be commenced as soon as practical. They may have additional work or charges in addition to the CMP work required to bring your project on line.

As you may be aware, there are global supply chain issues impacting the utility industry. CMP is closely monitoring and managing their inventory in order to serve our customers. Larger padmount transformers may not be readily available for the date that you will need to be energized. Please consider this as part of your construction plan. The energy service advisor will continue to work closely with you and let you know as soon as the transformer becomes available. Should you have any questions or concerns throughout this process, please do not hesitate to contact your ESA directly at the number or email provided.

Please complete the attached forms (the specific instructions are on each form) and email them back to me at your earliest convenience.

For your convenience, here is a link to the CMP Website which contains our Handbook with details on most service requirements: [CMP Handbook of Standard Requirements](#) An additional resource is our Distribution Construction Standards: CMP Distribution Construction Standards [CMP Distribution Construction Standards](#).

You will be responsible for installing the customer connections, conduits, and metering in accordance with the [CMP Handbook of Standard Requirements](#) The transformer will be sized based on your submitted load sheets.

Your deposit amount will be typically based on an estimated two month bill, calculated from your completed load sheet unless otherwise determined by CMP.

In addition, we have recently added on an online map that shows single phase and three phase power locations within CMP. Here is that link: [CMP ArcGIS Information](#)

Metering:

All metering (including locations) must be preapproved by CMP. If you have any questions, please consult the [CMP Handbook of Standard Requirements](#)

Chapter 324 Interconnections:

Please be advised that if you plan to install solar/wind/hydro generation, you must complete an application under the MPUC mandated Chapter 324 Interconnection Standards. If you go to [Chapter 324 Interconnection Standards](#) and follow the instructions for the Small Generator Interconnection Procedures, CMP can do this work in parallel to your service request that will be handled by me. If your project is under 660 KW you will be able to have a Customer Net Energy Billing contract. Information concerning Customer Net Energy Billing can be accessed thru the Chapter 324 website or by clicking here: [Net Energy Billing](#)

Reallocation/Line Extensions:

Recently, changes were made to the three-phase construction policy, which require CMP to reallocate construction costs paid by customers. If applicable, those projects identified as “developments” do not qualify for reallocation of funds. Please see this document at our website for details about the reallocation conditions. Any reallocation charges will be specifically denoted on your invoice. The website address for this is: [PolyphaseLineExtension](#).

This line extension will be part of Central Maine Power’s distribution system. In the event the property served under this Agreement is sold or otherwise conveyed, all rights and obligations of the Agreement shall stay with the property. Please note that if you rent or lease this property to another and you want to receive the reimbursement payments, you must make special arrangements with the Central Maine Power Company. Otherwise, any reimbursement payments will be sent to the “Customer” taking service at the service location.

Electricity Supplier Information:

Central Maine Power Company (CMP) will provide your facility with electric delivery service. If you don’t already have a provider, you will need to make arrangements with a competitive electricity provider in order to receive electricity supply for your facility. In the event you fail to choose a competitive electricity provider, you will receive Standard Offer service arranged by the Maine Public Utilities Commission. If you wish to be served by a competitive electricity provider immediately upon establishment of delivery service, you must arrange for this service directly through your chosen competitive electricity provider, who must enroll your account no later than 5 PM on the business

day prior initiation of delivery service by CMP. An up-to-date list of competitive suppliers can be found at the:

1. Maine Public Utilities Commission (MPUC) web site- [Maine PUC](#)
2. By calling the MPUC at (207) 287-3831

Attachments:

Excel Load Sheet (EDET)
Easement Worksheet and Sample Standard Easement
W9

Please do not hesitate to reach out to me with any questions.

Kind Regards,

Kathy



Katherine Dumont
Energy Service Specialist
162 Canco Rd
Portland, ME 04103

207-242-5744
katherine.dumont@cmpco.com

Please consider the environment before printing this email.

If you have received this message in error, please notify the sender and immediately delete this message and any attachment hereto and/or copy hereof, as such message contains confidential information intended solely for the individual or entity to whom it is addressed. The use or disclosure of such information to third parties is prohibited by law and may give rise to civil or criminal liability. The views presented in this message are solely those of the author(s) and do not necessarily represent the opinion of Avangrid Networks, Inc. or any company of its group. Neither Avangrid Networks, Inc. nor any company of its group guarantees the integrity, security or proper receipt of this message. Likewise, neither Avangrid Networks, Inc. nor any company of its group accepts any liability whatsoever for any possible damages arising from, or in connection with, data interception, software viruses or manipulation by third parties.

8/22/2023

Filterra Sizing Summary

180 Read Street, Portland, ME

Design Parameters:

- MEDEP WQ Design Storm = 0.95" of Rainfall
- Filterra Media Flow Rate = 140 in/hr
- Allowable Ponding in Filterra = 9 inches

Design Summary:

Utilizing HydroCAD software, a hydrograph can be derived to represent the MEDEP's WQ design storm by modelling a 0.95" Type III – 24 hour rain event (Figure 1 for each system). This storm can then be routed through an appropriately sized Filterra unit. Because the Filterra system can provide up to 9 inches of ponding, some flow attenuation is possible, and the Filterra system is able to accommodate a portion of the water quality volume in the head space above the media and release it at the system's design flow rate. The hydrograph in Figure 2 for each system illustrates this concept.

Unit	Area Impervious (sf)	CN	Area Pervious (sf)	CN	MEDEP Treatment Inflow (cfs)	Filterra Media Bed (ft x ft)	Vault Size (ft x ft)	Filterra Model	Ponding Depth (inches)
F-1	10,625	98	1,950	39	0.20	6x8	6x8	FT0806	3"

The following are the hydrographs for the unit:

Unit F-1:

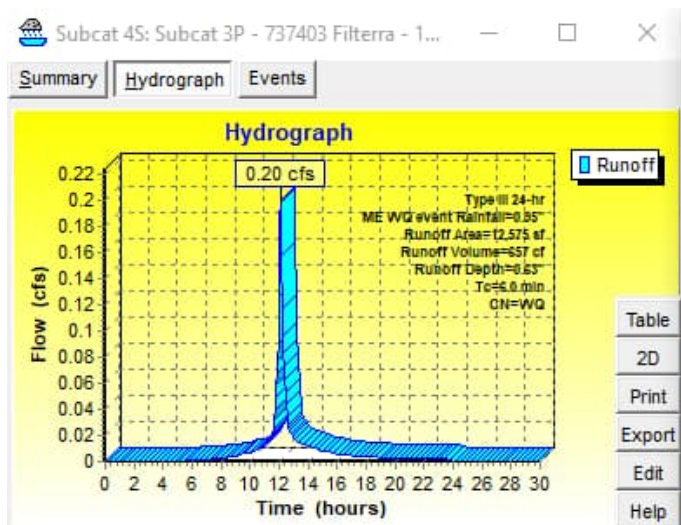


Figure 1. Inflow rate during the WQ Event.

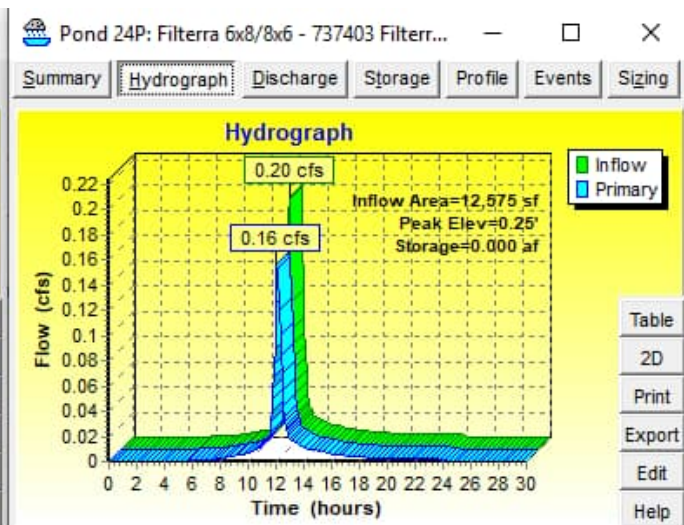


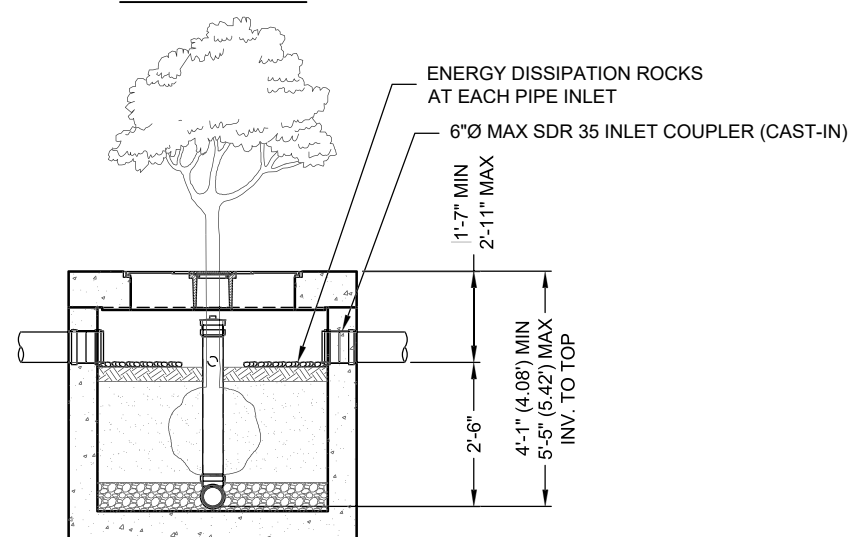
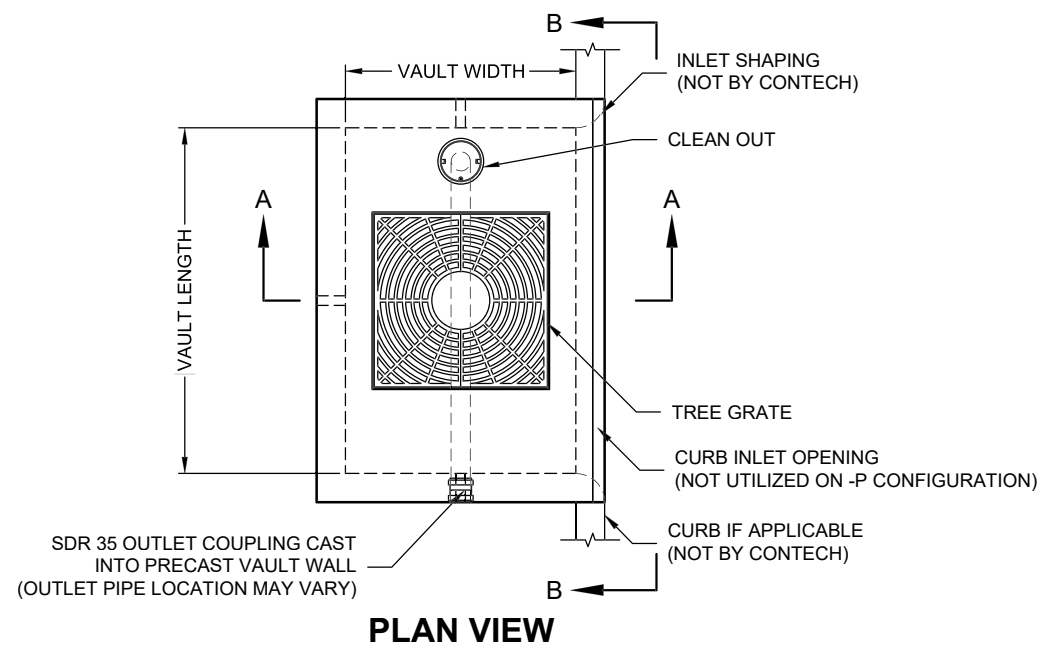
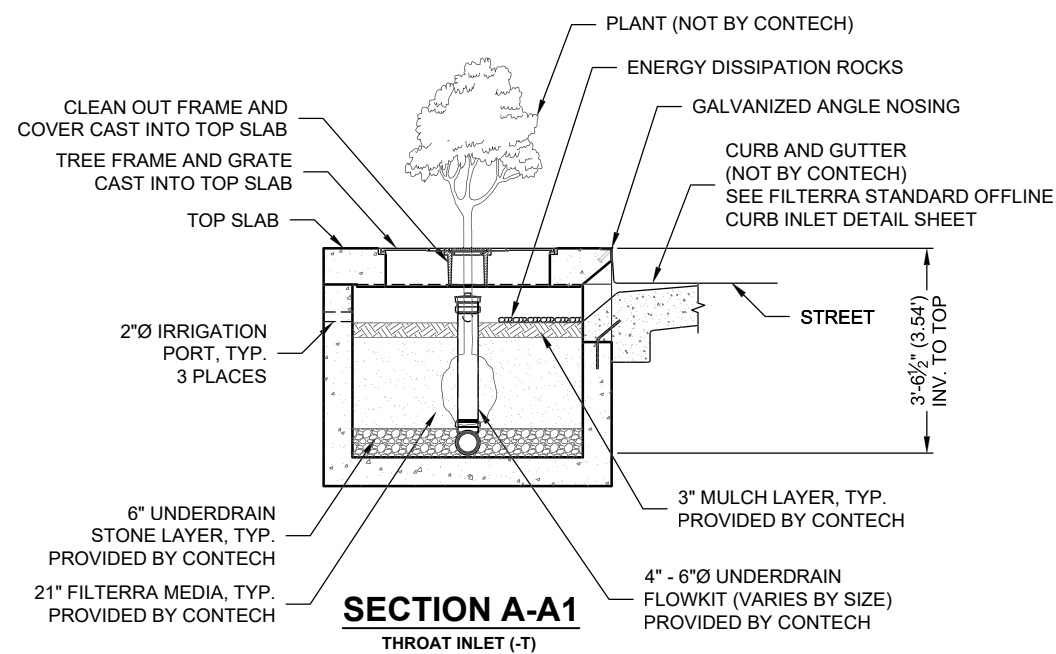
Figure 2. Inflow rate during WQ storm event compared with the Filterra outflow rate, accounting for 9" maximum ponding depth within the unit.

Thank you for the opportunity to present this to you and your client. This letter provides confirmation that each Filterra system is appropriately sized to comply with the Filterra approval letter issued by Maine Department of Environmental Protection. Please do not hesitate to contact me should you have any additional questions.

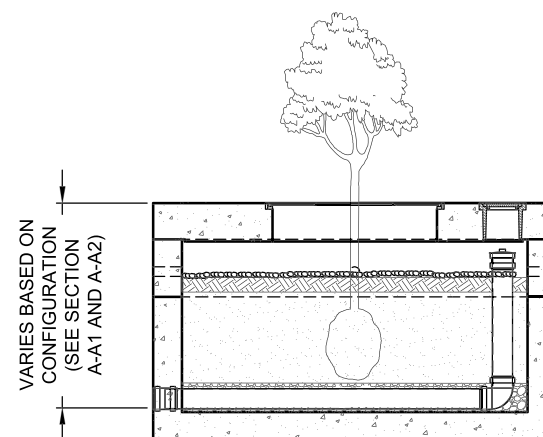
Sincerely,

A handwritten signature in black ink that reads "David Adams".

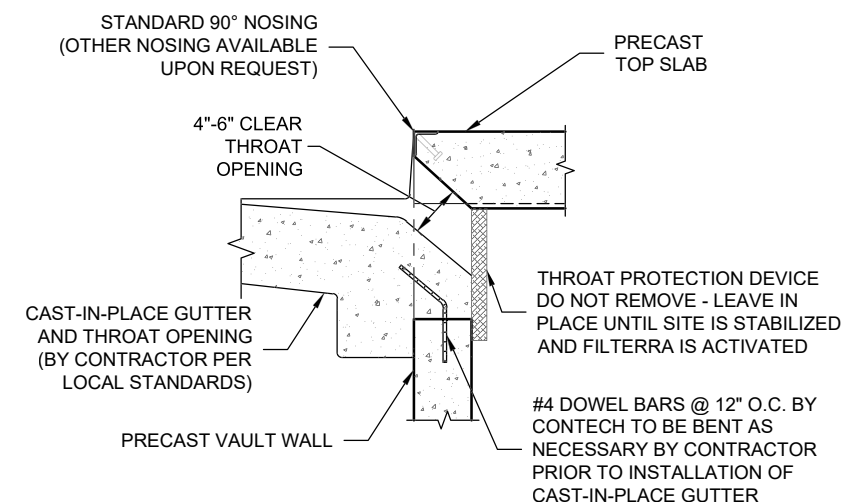
David Adams
Project Engineer
Contech Engineered Solutions, LLC.
(207) 885-6191
dave.adams@conteches.com



SECTION A-A2
PIPE INLET (-P)



SECTION B-B



STANDARD CURB INLET DETAIL

FT CONFIGURATION (OPTIONS: THROAT INLET "-T", PIPE INLET "-P")						
VAULT SIZE (L x W)	MEDIA AREA (SF)	LONG SIDE INLET DESIG. / PART NO.	SHORT SIDE INLET DESIG. / PART NO.	AVAILABILITY	OUTLET PIPE DIA	MIN. NO. OF INLET PIPES (-P ONLY)
4 x 4	16	FT0404	FT0404	ALL	4" SDR 35	1
6 x 4	24	FT0604	FT0406	ALL	4" SDR 35	1
8 x 4	32	FT0804	FT0408	ALL (EXCEPT DE,MD,NJ,PA,VA,WV)	4" SDR 35	1
7.83 x 4.5	35	FT078045	FT045078	DE,MD,NJ,PA,VA,WV ONLY	4" SDR 35	1
6 x 6	36	FT0606	FT0606	ALL (EXCEPT CA, TX)	4" SDR 35	1
8 x 6	48	FT0806	FT0608	ALL	4" SDR 35	1
10 x 6	60	FT1006	FT0610	ALL (EXCEPT CA, TX)	6" SDR 35	2
8 x 8	64	FT0808	FT0808	CA, TX ONLY	6" SDR 35	2
12 x 6	72	FT1206	FT0612	ALL (EXCEPT TX)	6" SDR 35	2
10 x 8	80	FT1008	FT0810	CA, TX ONLY	6" SDR 35	2
13 x 7	91	FT1307	FT0713	ALL (EXCEPT CA, TX)	6" SDR 35	2
12 x 8	96	FT1208	FT0812	CA, TX ONLY	6" SDR 35	2
14 x 8	112	FT1408†	N/A	ALL	6" SDR 35	3
16 x 8	128	FT1608†	N/A	ALL (EXCEPT OR,WA)	6" SDR 35	3
15 x 9	135	FT1509†	N/A	OR,WA ONLY	6" SDR 35	3
18 x 8	144	FT1808†	N/A	CALL CONTECH	6" SDR 35	3
20 x 8	160	FT2008†	N/A	CALL CONTECH	6" SDR 35	4
22 x 8	176	FT2208†	N/A	CALL CONTECH	6" SDR 35	4

†UTILIZES (2) CURB OPENINGS WITH MIN 6" SPACING

INTERNAL PIPE CONFIGURATION MAY VARY DEPENDING ON VAULT SIZE

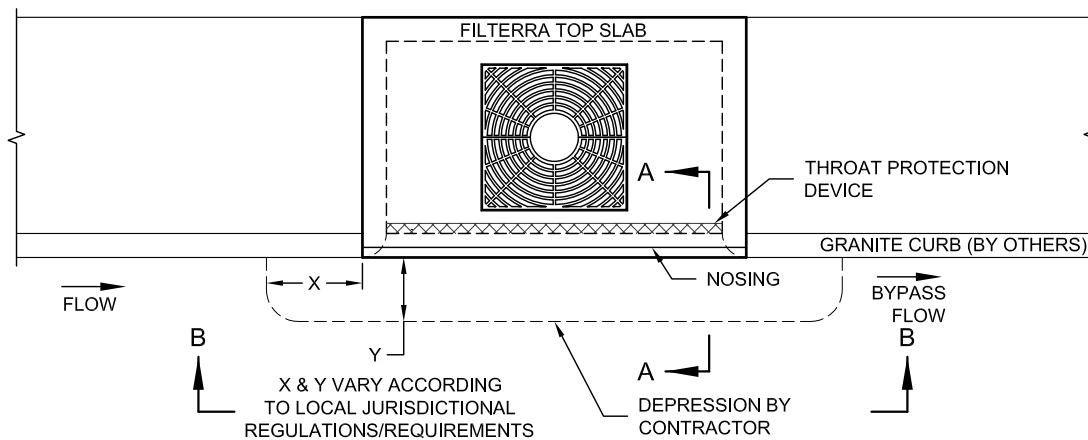
The design and information shown on this drawing is provided as a service to the project owner, engineer and contractor by Contech Engineered Solutions LLC or one of its affiliated companies ("Contech"). Neither this drawing, nor any part thereof, may be used, reproduced or modified in any manner without the prior written consent of Contech. Failure to comply is done at the user's own risk and Contech expressly disclaims any liability or responsibility for such use. If discrepancies between the supplied information upon which the drawing is based and actual field conditions are encountered as site work progresses, these discrepancies must be reported to Contech immediately for re-evaluation of the design. Contech accepts no liability for designs based on missing, incomplete or inaccurate information supplied by others.



9100 Centre Pointe Dr., Suite 400, West Chester, OH 45069
800-338-1122 513-645-7000 513-645-7993 FAX

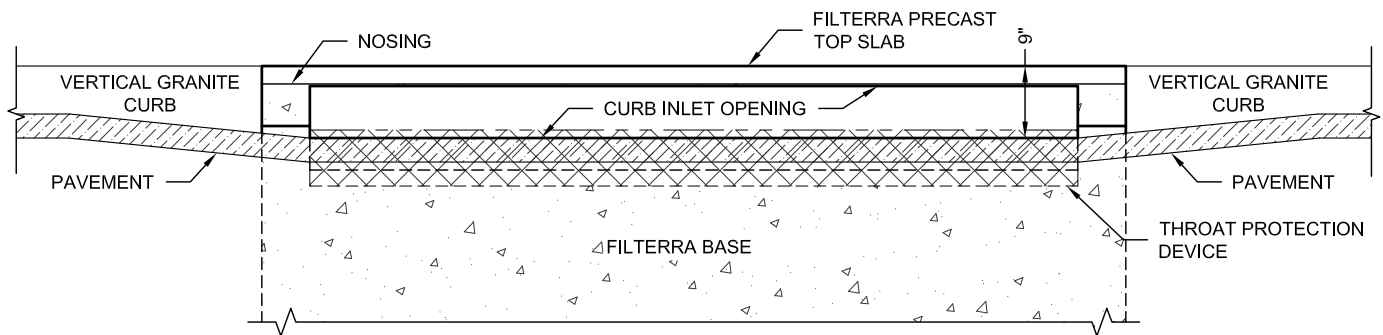
FILTERRA OFFLINE (FT) CONFIGURATION DETAIL

I:\COMMONCADD\TREATMENT\54 FILTERRA\40 STANDARD DRAWINGS\51 - OFFLINE\DETAILS\FILTERRA CURB INLET OPENING GRANITE MOD NE DETAIL.DWG 12/23/2015 1:10 PM



PLAN VIEW

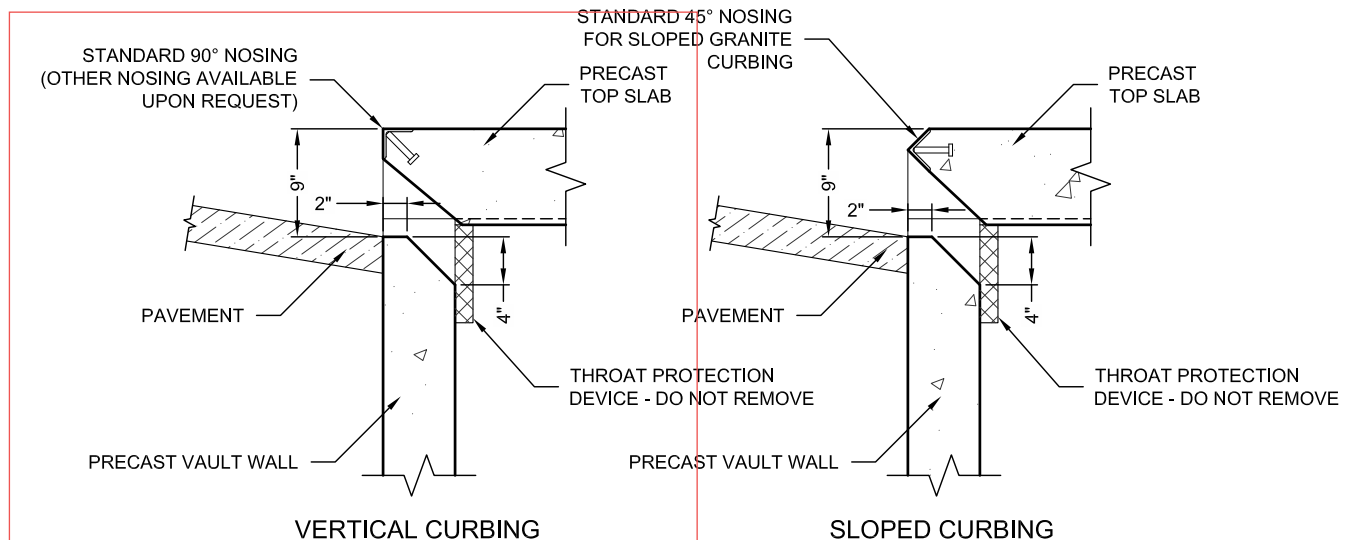
SCALE: $\frac{1}{4}" = 1'-0"$



NOTE: CONTRACTOR RESPONSIBLE FOR PROVIDING EROSION & SEDIMENT INLET PROTECTION. THE MEDIA SURFACE MUST NOT RECEIVE ANY CONSTRUCTION SEDIMENT OR DEBRIS.

SECTION VIEW B-B

SCALE: $\frac{1}{2}" = 1'-0"$



SECTION VIEW A-A

SCALE: $\frac{3}{4}" = 1'-0"$

filterra
THIS PRODUCT MAY BE PROTECTED BY ONE OR MORE OF THE FOLLOWING U.S. PATENTS: 6,277,274; 6,569,321; 7,626,485; 7,452,961; 7,833,412. RELATED FOREIGN PATENTS.

The design and information shown on this drawing is provided as a service to the project owner, engineer and contractor by Contech Engineered Solutions LLC or one of its affiliated companies ("Contech"). Neither this drawing, nor any part thereof, may be used, reproduced or modified in any manner without the prior written consent of Contech. Failure to comply is done at the user's own risk and Contech expressly disclaims any liability or responsibility for such use. If discrepancies between the supplied information upon which the drawing is based and actual field conditions are encountered as site work progresses, these discrepancies must be reported to Contech immediately for re-evaluation of the design. Contech accepts no liability for designs based on missing, incomplete or inaccurate information supplied by others.

CONTECH
ENGINEERED SOLUTIONS LLC
www.ContechES.com

9025 Centre Pointe Dr., Suite 400, West Chester, OH 45069
800-338-1122 513-645-7000 513-645-7993 FAX

FILTERRA MODIFIED CURB INLET OPENING FOR GRANITE CURBING - NORTHEAST DETAIL

DATE: 12/23/15

FILE NAME: FILTERRA CURB INLET OPENING GRANITE MOD NE DETAIL

DRAWN: SCK

CHECKED:



Portland Water District

FROM SEBAGO LAKE TO CASCO BAY

October 6, 2022

Travis Letellier, P.E.
Acorn Engineering, Inc

Re: 184 Read Street, PO
Ability to Serve with PWD Water

Dear Mr. Letellier:

The Portland Water District has received your request for an Ability to Serve Determination for the noted site submitted on September 21, 2022. Based on the information provided per plans dated October 6, 2022, we can confirm that the District will be able to serve the proposed project as further described in this letter. **Please note that this letter constitutes approval of the water system as currently designed and is valid for eighteen (18) months after the date of issue. Any changes affecting the approved water system will require further review and approval by PWD.**

Conditions of Service

The following conditions of service apply:

- A new 8-inch service may be installed from the water main in Read Street. The service should enter through the property's frontage on Read Street at least 10-feet from any side property lines.
- An approved backflow prevention device (testable double check valve assembly) must be installed on the service line before the sprinkler riser prior to service activation. Please refer to the PWD website for more information on cross-connection control policies.
- The existing public hydrant (POD-HYD11873) will be replaced with a new hydrant in a new location as part of the scope of work of this project.
- Our records indicate that 184 Read Street is currently served with a 4-inch ductile iron water service. The service can continue to be used for the existing building and the new building expansion. Should the customer experience any loss in pressure or volume they may elect to install a new domestic water service or increase the size of the existing service at their expense.
- The Portland Water District does not manage sewer collection in this area.

Prior to construction, the owner or contractor will need to complete a Service Application and pay all necessary fees for each proposed service. When the project is ready for construction, an Application for each service can be requested by contacting the MEANS Group at MEANS@pwd.org or 207-774-5961 ext. 3199. Once a completed Application has been submitted with payment, please allow seven (7) days for processing.

Existing Site Service

According to District records, the project site does currently have existing water service. A 4-inch diameter ductile iron domestic service line provides water service to the site. Please refer to the “Conditions of Service” section of this letter for requirements related to the use of this service.

Water System Characteristics

According to District records, there is an 12-inch diameter ductile iron water main in Read Street and a public fire hydrant located adjacent to the site. The estimated static pressure in the area is 78 psi.

Public Fire Protection

The installation of new public hydrants to be accepted into the District water system will most likely not be required. It is your responsibility to contact the City of Portland Fire Department to ensure that this project is adequately served by existing and/or proposed hydrants.

Domestic Water Needs

The data noted above indicates there should be adequate pressure and volume of water to serve the domestic water needs of your proposed project.

Private Fire Protection Water Needs

You have indicated that this project will require water service to provide private fire protection to the site. Please note that the District does not guarantee any quantity of water or pressure through a fire protection service. Please share these results with your sprinkler system designer so that they can design the fire protection system to best fit the noted conditions. If the data is out of date or insufficient for their needs, please contact MEANS to request a hydrant flow test and we will work with you to get more complete data.

Should you disagree with this determination, you may request a review by the District’s Internal Review Team. Your request for review must be in writing and state the reason for your disagreement with the determination. The request must be sent to MEANS@PWD.org or mailed to 225 Douglass Street, Portland Maine, 04104 c/o MEANS. The Internal Review Team will undertake review as requested within 2 weeks of receipt of a request for review.

If the District can be of further assistance in this matter, please let us know.

Sincerely,
Portland Water District

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

ATT. ZDD

[illegible]

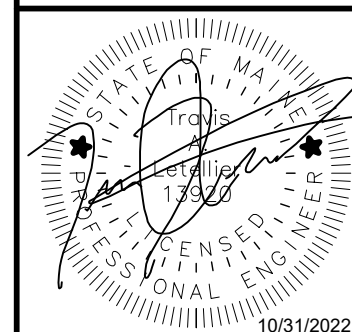
DRAWING NAME: **REDEVELOPED IMPERVIOUS AREA EXHIBIT**

PROJECT NAME/ADDRESS: **180 READ STREET
PORTLAND, MAINE 04103**

CLIENT/OWNER OF RECORD: **NEPW LOGISTICS, LLC
118 QUARRY ROAD, PORTLAND, MAINE 04103**

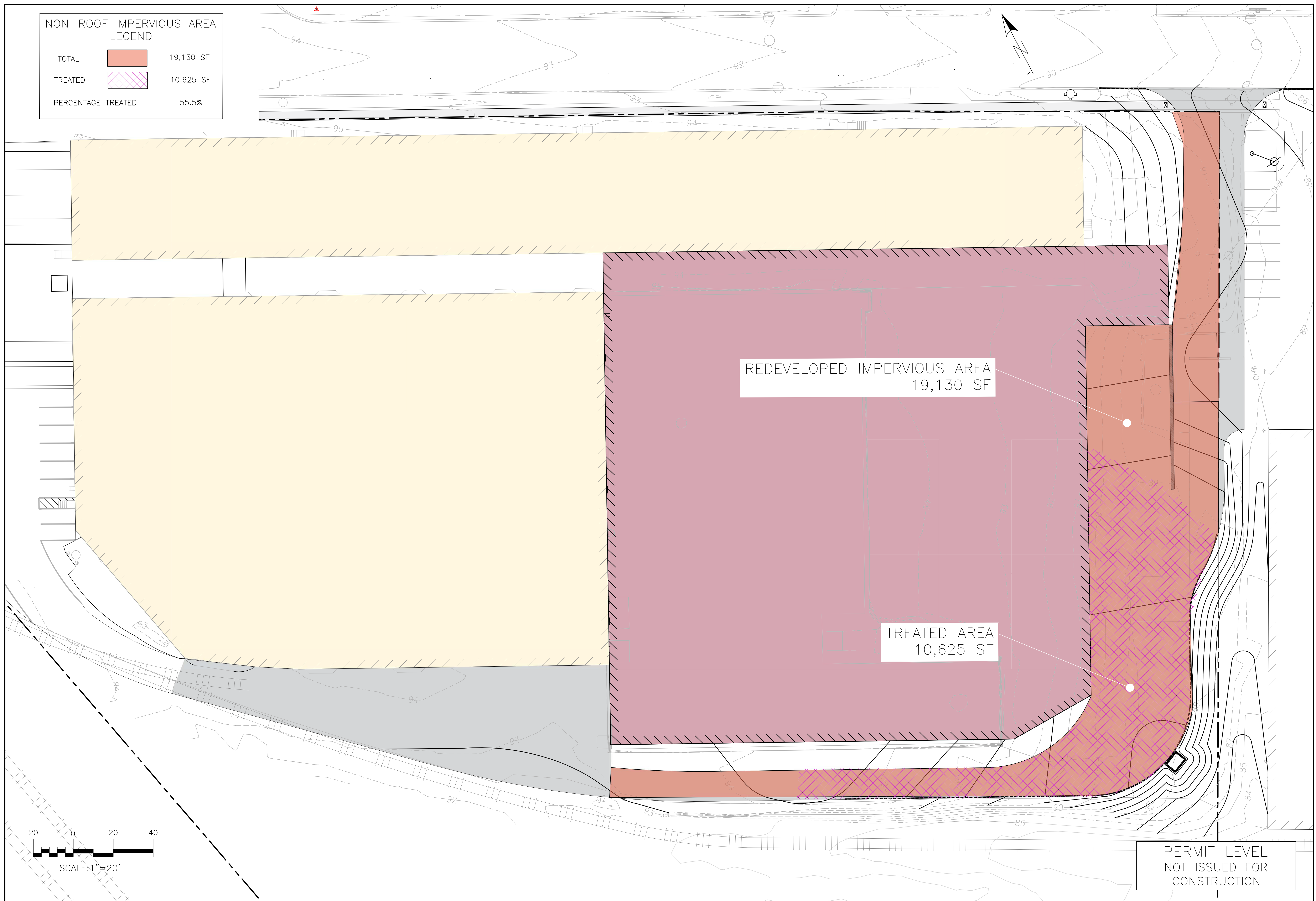

A C O R N **ENGINEERING, INC.**
 ACORN ENGINEERING, INC.
 PO BOX 33772, PORTLAND, MAINE 04101
THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM ACORN ENGINEERING, INC. ANY CHANGES, ADDITIONS OR OTHERWISE, SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO ACORN ENGINEERING, INC.

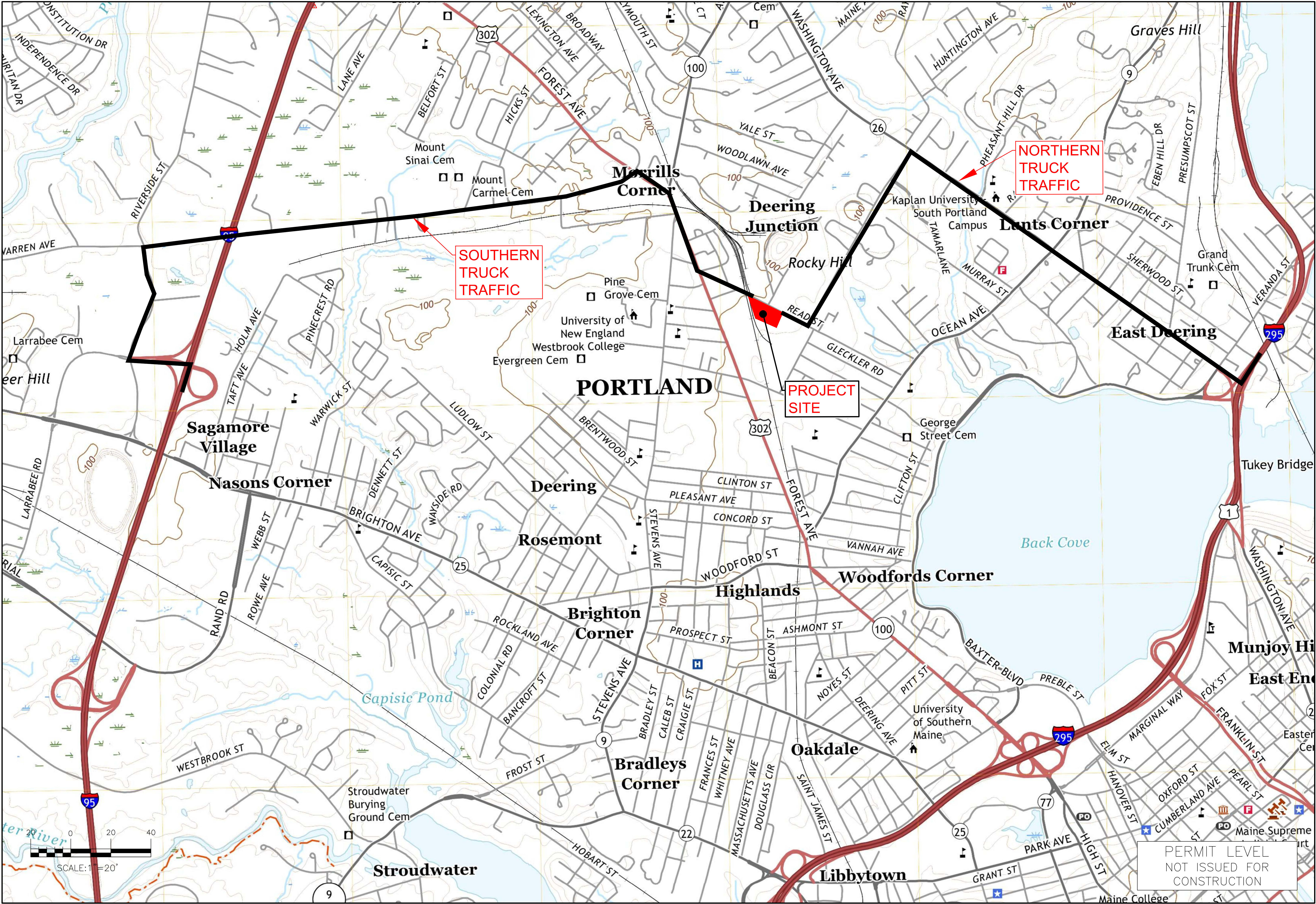
FILE:	1176_CIVIL
JN:	1176
SCALE:	AS NOTED
DESIGNED BY:	TJH
DRAWN BY:	AWG
CHECKED BY:	WHS



DRAWING NO.

EXH



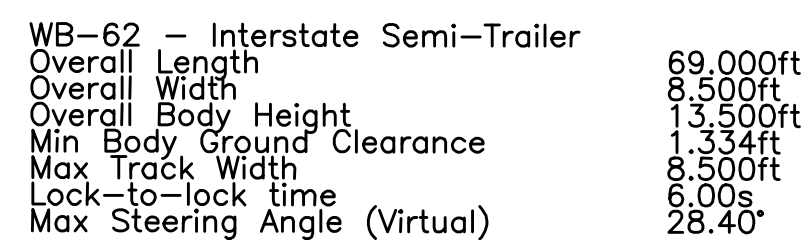


ISSUED FOR		BY
MAJOR SITE PLAN		DATE
		TAL
		10/31/22
TRUCK ROUTING		
180 READ STREET		
PORTLAND, MAINE 04103		
CLIENT/OWNER OF RECORD:		
NEPW LOGISTICS, LLC		
118 QUARRY ROAD, PORTLAND, MAINE 04103		
DRAWING NO.		
EXH		
PERMIT LEVEL NOT ISSUED FOR CONSTRUCTION		

ACCORN ENGINEERING, INC.
1176 CIVIL
UN: 1176
SCALE: AS NOTED
DESIGNED BY: TJL
DRAWN BY: AWW
CHECKED BY: WHS

THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM ACCORN ENGINEERING, INC. OR ITS AGENTS. ANY CHANGES OR OTHERS SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO ACCORN ENGINEERING, INC.

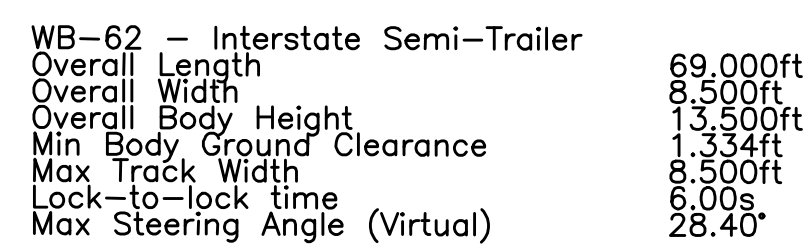
ACCORN ENGINEERING, INC.
PO BOX 3372, PORTLAND MAINE 04101
(207) 775-2855



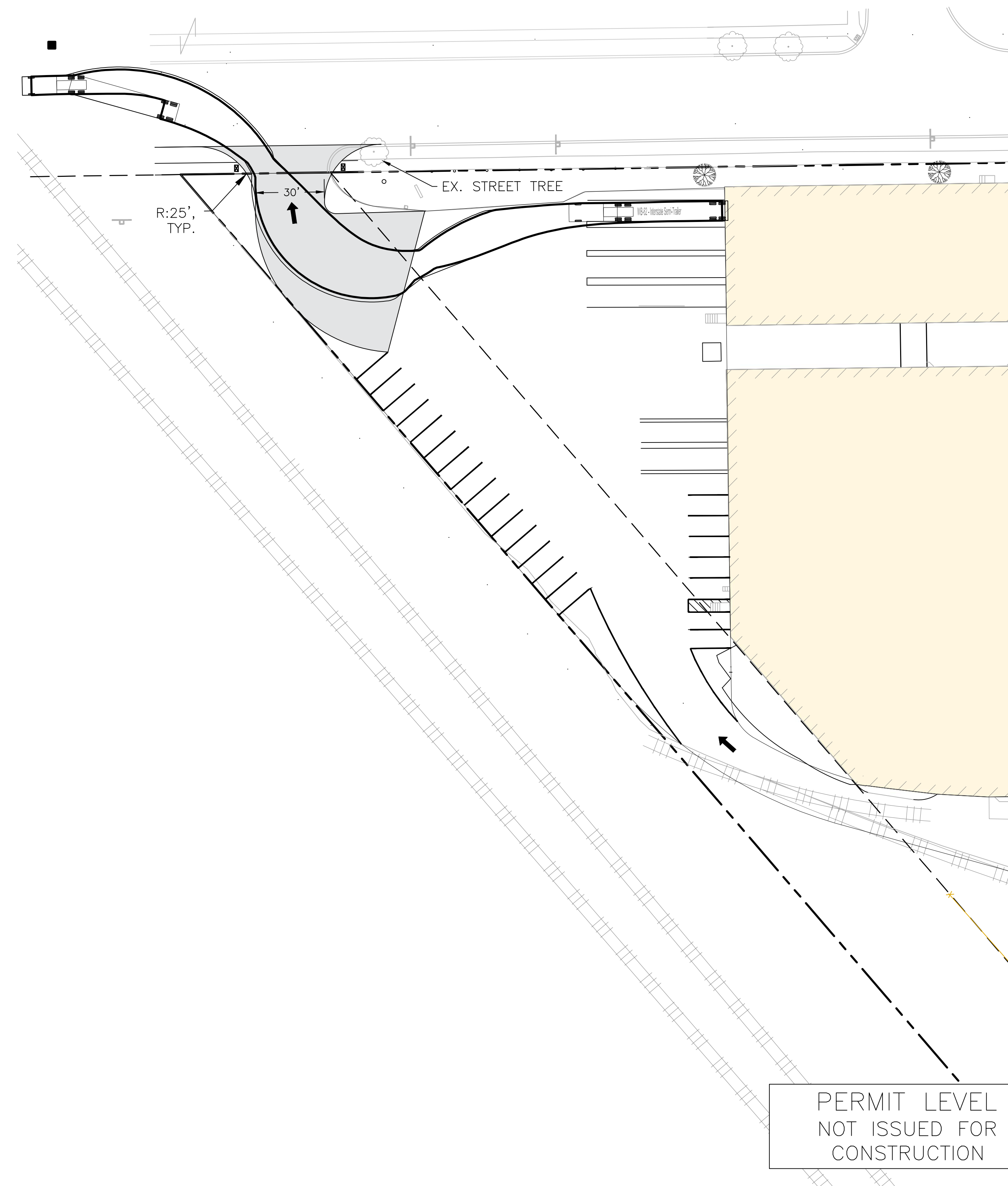
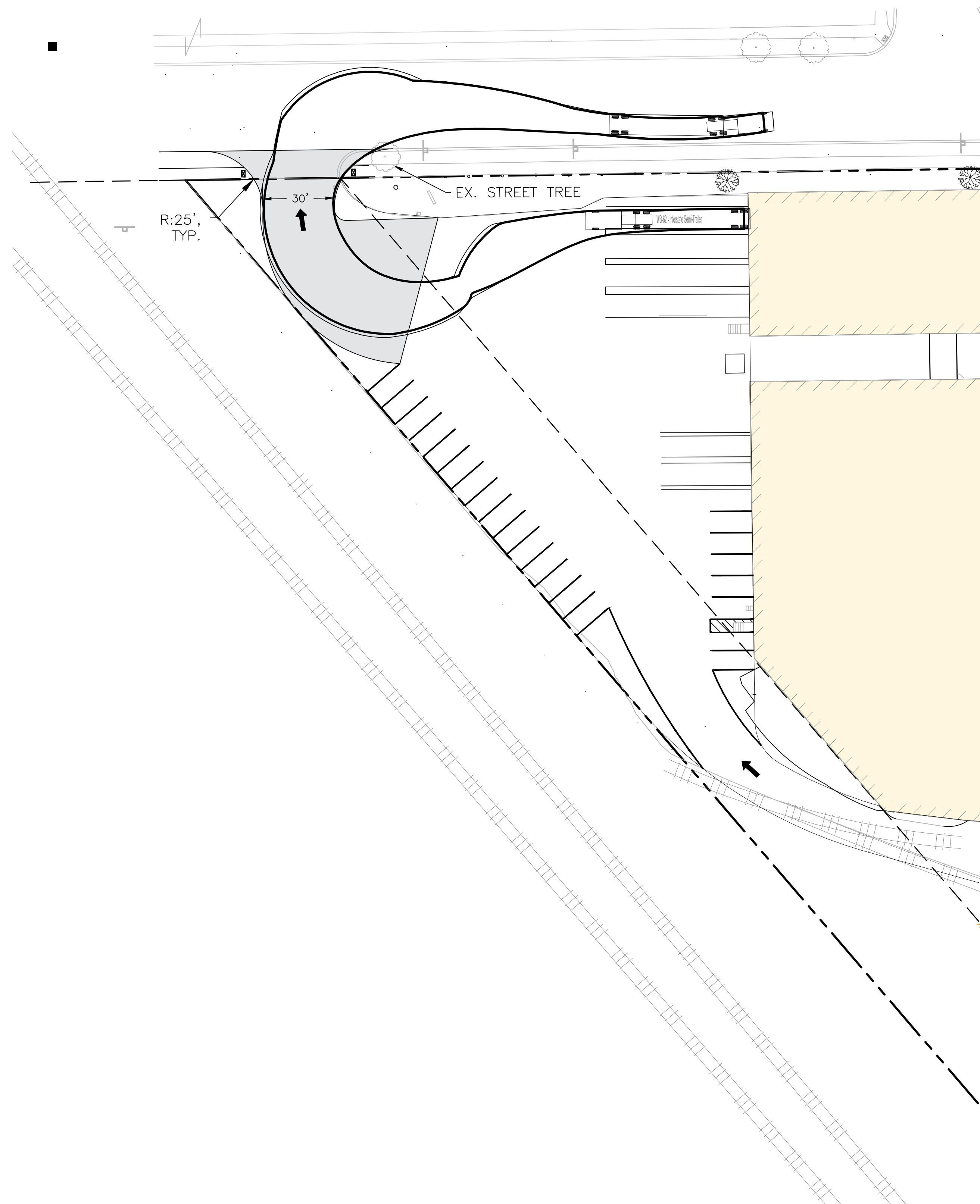
PERMIT LEVEL
NOT ISSUED FOR
CONSTRUCTION

DRAWING NO.

**TURN
TEMPLATE**



LEFT TURN



PERMIT LEVEL
NOT ISSUED FOR
CONSTRUCTION

[illegible]

Att. ZGG

September 29, 2022

Acorn Engineering
Attn: Andrew Godfrey
P.O. Box 3372
Portland, Maine 04104

Subject: 182 & 184 Read St., Portland
Re: Ability to Serve

Dear Andrew,

Thank you for your interest in using natural gas for the above referenced project.

This is to confirm that Unitil has natural gas on Read St. and is able to service the proposed redevelopment. Once we know the gas load information and how you wish to run the gas in order to keep gas flowing to 184 Read St. building during construction, we can have it engineered and cost estimated. With that information we can determine if the customer will need to contribute financially in order to have gas installed and rerouted to accommodate the redevelopment or not. Please see below rough sketch of the existing gas infrastructure as requested.



If you have any further questions or require additional information, please contact me at 207-541-2543 or email at carpenters@unitil.com.

Sincerely,

Scott Carpenter

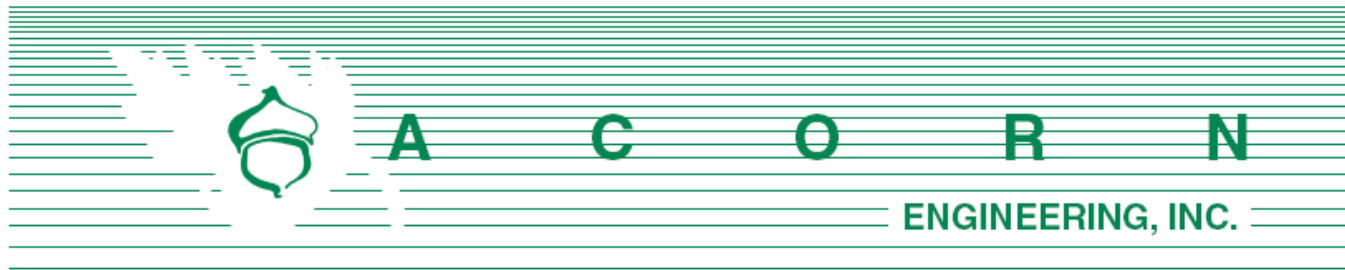
Scott Carpenter

Senior Business Development Representative

Unitil Corporation



(O) 207-541-2543



Department of Planning & Development
Attn: Maya Balassa
City of Portland, Maine
389 Congress Street, 4th Floor
Portland, ME 04101

January 19, 2023

Subject: Comment Response Letter
180 Read Street Warehouse Development – PL-002223-2022

On behalf of NEPW Logistics, LLC. the following are our responses to the comment response letter received December 19th, 2022. To facilitate the review, comments are provided below in italics followed by our response.

Zoning:

Comment – *The maximum impervious surface ratio is 75%. The Zoning Analysis Table states that it will be 74.9%. Since that is so close to the maximum allowed, please submit information on how it was calculated.*

Response – The size of the lot is 6.15 acres (267,771 S.F.) The existing buildings on site are 77,925 square feet and the new building will be 60,630 S.F. This is a correction from original submission of 60,950 S.F. that was made in order to meet the side setback. The total footprint of buildings total 138,555 S.F. Proposed pavement is 60,812 S.F. for a total of 199,367 S.F. of impervious area. 199,367 S.F. divided by the 267,771 S.F. equals a 74.5% ratio.

Comment – *Section 19.2 outlines the criteria for off-street loading. The number of bays required is listed in Table 19-C.. The addition would require 2 new loading bays. The application appear to be adding 5 loading bays. The Zoning Analysis Table states there will be 12. Is that for all the loading bays in all three buildings?*

Response – Yes, the 12 loading bays are for all 3 buildings with 5 new bays proposed.

Comment – *There is some existing pavement within 10' of the property line. Is the proposal adding any more pavement within 10' of the property line?*

Response – There will be pavement overlapping the property line within the proposed grading and drainage easement at 150 Read Street.

Comment – *The addition is 60,950 sf. Table 19-A requires 1 parking space per 1,000 sf in excess of 3,000 sf. $57900 \text{ sf} / 1000 = 57.95$ spaces rounded up to 60 spaces. The proposal appear to be adding 7 new spaces to the 8 existing spaces. How is this being justified?*

Response – The existing warehouse is used predominately for dry goods storage, with employees only needed to periodically operate forklifts to load trucks. The proposed warehouse is planned to be of a similar usage. The 8 existing spaces are currently enough to support the business activities on the site and the additional 15 spaces will be sufficient for the additional employees necessary to run the proposed warehouse.

Transportation:

Comment – *The existing entrance at the north end of the site does not appear to meet City standards (defined width/angle). Additionally, the driveway configuration makes it difficult to enter and exit the site to and from the south. Truck turning templates shall be provided.*

Response – The north/west entrance has been modified to meet City standards. The driveway configuration now accommodates a semi-truck exiting in both directions at this entrance, turning templates have been provided in this submission.

Comment – *Truck turning templates shall be provided for vehicles entering and exiting 150 Read Street via the proposed shared driveway.*

Response – Please see the attached semi-truck turning templates for entry and exit to 150 Read Street via the proposed shared driveway.

Comment – *The applicant has provided vehicle turning templates for a truck circulating behind the building from the loading docks to the northern driveway. The access roadway is very tight at the corner of the building, and it is unclear if improvements are proposed. While the turning template indicates this movement is feasible, field observations noted constrained conditions.*

Response – At this corner, the pavement is currently 12 feet wide. Proposed improvements and re-paving will begin at this corner, please see the updated hatching on Site Plan C-10. The access driveway at the corner will be widened to a 20 foot one-way lane.

Comment – *Sight distance measurements shall be provided at both proposed and existing driveways.*

Response – The standards established by the Maine DOT in Chapter 299, Highway Driveway and Entrances Rules stipulate a required 200 foot sight distance for 25 MPH streets. Sight distance measurements are over 500 feet at both driveway entrances. A note has been added to the Site Plan C-10.

Comment – *The sidewalk along the Read Street frontage shall be reconstructed in Portland Cement Concrete in accordance with the City's Sidewalk and Driveway Apron Material Policy. The sidewalk material shall be continued through the driveway aprons at grade with the proposed sidewalk and not in excess of 2% cross-slope.*

Response –

Comment – *The applicant shall provide information as to how the project will comply with the City's street lighting standards in Section 10 of the Technical Manual.*



Response – Since the current lighting along Read Street frontage does not comply with the maximum light pole spacing per Section 10.2.1 Lighting Design, the plan now calls the addition of cobrahead lighting on existing poles along the frontage. The existing poles are within the required 130 feet, four (4) new cobraheads will be required.

Comment – *The applicant shall design both driveways along the property per City of Portland Standards in Section 1 of the Technical Manual.*

Response – Both driveways have been redesigned to a width of 30 feet and otherwise conforming to the standards in Section 1 of the Technical Manual. Please see the Site Plan, Sheet C-10.

Comment – *The City does not allow catch basin inlets to be located in driveways per technical manual standard 2.9.6. The applicant shall relocate any drainage inlet outside the limits of the proposed driveway.*

Response – The existing City catch basin inlet within Read Street that now falls within the limits of the proposed driveway will be removed and replaced offset to the east and outside of the limits of the driveway.

Comment – *Private connections to City catch basins are not permitted per technical manual standard 2.9.7. The application shall tie stormwater flows from the development site directly into the existing drain manhole in Read Street.*

Response – The stormwater flows from the development will be tied directly to the existing drain manhole within Read Street instead of through the catch basin. Please see Sheet C-30.

Comment – *Any floor drains installed within the new warehouse space shall be connected to the sanitary sewer line and shall run through an oil/grit separator per detail II-20 in the recently approved technical manual update.*

Response – Floor drains will be connected to the sanitary sewer line and run through an oil/grit separator. Please see updates on Sheet C-20 Utility Plan and Sheet C-42 Utility Details.

Water Quality, Stormwater, & Infrastructure

Comment – *The application notes that ability to serve confirmation from water and gas utilities are included, but these materials are not present. Please include.*

Response – The ability to serve letter confirmations from water and gas utilities are included in this submission.

Comment – *The plans should show the extent of impact and repaving in Read Street due to the proposed utility work and driveway entrance construction.*

Response – Please see the Construction Management Plan C-03, Utility Plan C-20, and Grading Plan C-30 for delineations of the sawcut lines for utility work within Read Street.



Comment – *The application is proposing relatively steep grading along the eastern edge of the property, and onto the adjacent property in an area identified for a grading and drainage easement. This area of the site is also identified for snow storage, so there could be a fairly significant amount of flow in the area due to snowmelt. The proposal should ensure that this will not impact the adjacent property, and the building that will be close to this location. The proposed surface treatment should be identified for the area both on and off the property at this location as well.*

Response – This area will be grassed and snowmelt flow is not anticipated to cause any downstream detrimental effects. Flow from this area will travel along the existing railroad tracks, and will not be directed to any developed areas

Comment – *Please double check clearances at the crossing between the 15” roof drain to the proposed catch basin 3 and the nearby proposed 6” sewer lateral. Based on the structure inverts provided, these pipes will be close in elevation.*

Response – This crossing of pipes was in error, thank you. The invert of the roof drain at the building has been raised to give clearance over the top of the sewer lateral. The sewer manhole and lateral have also been added to Sheet C-30 for clarity.

Comment – *Considering the size and angles of the proposed drainage pipes at CB #3, a larger structure will likely be required for this location.*

Response – Thank you for pointing this out. Using calculations from the National Precast Concrete Association’s “Manhole Sizing Recommendations” it has been determined that a 5 foot diameter catch basin will be necessary to accommodate the pipes entering it.

Comment – *General Standards: The Applicant should address the General Standards relative to the City of Portland’s Section 5 of the Technical Manual. The project will exceed the threshold of 1,000 square feet of new impervious surface on the site, requiring compliance with the General Standards.*

Response – Please see the updated Stormwater Report for a narrative addressing compliance with the General Standards. Since the project is creating more than 5,000 SF (19,130 SF) of redeveloped non-roof impervious area, it will comply with the 50% treatment standard. A proprietary precast Filterra system will gather and treat 12,000 SF of impervious area from the back of the site.

Comment – *This flow increase will be into the City’s storm drain system, and is relatively insignificant, but the Applicant should confirm that the stormwater system has adequate capacity to serve this increase, and a waiver of the flooding standard will be required.*

Response – Please see Document F. Waivers for the waiver request of the flooding standard per Section 5.II.F of Chapter 500. The storm main within Read Street is 30 inch diameter, the increase in flows from the site pose little potential for capacity overload or detrimental effect.



Landscaping & Environmental Quality

Comment – *The applicant shall show how the existing trees will impact the installation of new sidewalk along the Read Street frontage.*

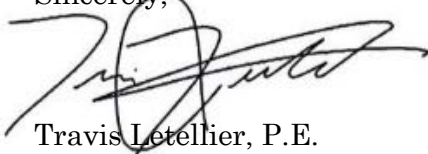
Response –

Comment – *Please show that the proposal conforms to Tech Manual Landscaping and Landscape Preservation Standards, specifically 4.6.3, 4.5.3, 4.5.5.*

Response – The applicant will add 12 street trees along the frontage at intervals of 35 feet and appropriately spaced from the existing 4 trees along the frontage. Landscaped shrubs and ornamental trees have been provided along the frontage of the building, see Site Plan C-10.

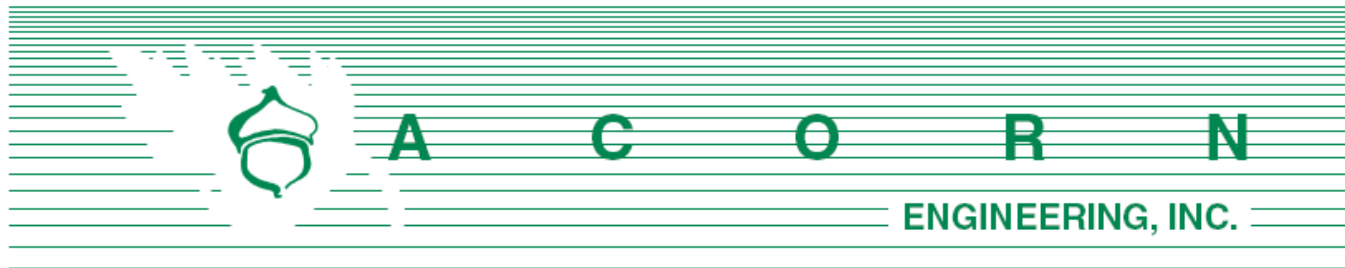
We appreciate the review of this project by the city staff and look forward to presenting this project at the next available Planning Board hearing.

Sincerely,



Travis Letellier, P.E.
Project Manager
Acorn Engineering, Inc.





Department of Planning & Development
 Attn: Maya Balassa
 City of Portland, Maine
 389 Congress Street, 4th Floor
 Portland, ME 04101

February 1, 2023

Subject: Comment Response Letter
 180 Read Street Warehouse Development – PL-002223-2022

On behalf of NEPW Logistics, LLC. the following are our responses to the comment response letter received December 19th, 2022. To facilitate the review, comments are provided below in italics followed by our response.

Zoning:

Comment – *The maximum impervious surface ratio is 75%. The Zoning Analysis Table states that it will be 74.9%. Since that is so close to the maximum allowed, please submit information on how it was calculated.*

Response – The size of the lot is 6.15 acres (267,771 S.F.) The existing buildings on site total 77,925 square feet and the new building will be 60,630 S.F. This is a correction from original submission of 60,950 S.F. that was made in order to meet the side setback. The total footprint of buildings total 138,555 S.F. The total existing and proposed pavement is 60,812 S.F. for a total of 199,367 S.F. of impervious area. 199,367 S.F. divided by the 267,771 S.F. equals a 74.5% ratio.

Comment – *Section 19.2 outlines the criteria for off-street loading. The number of bays required is listed in Table 19-C.. The addition would require 2 new loading bays. The application appear to be adding 5 loading bays. The Zoning Analysis Table states there will be 12. Is that for all the loading bays in all three buildings?*

Response – Yes, the 12 loading bays are for all 3 buildings with 5 new bays proposed.

Comment – *There is some existing pavement within 10' of the property line. Is the proposal adding any more pavement within 10' of the property line?*

Response – There will be pavement overlapping the property line within the proposed grading and drainage easement at 150 Read Street. Other than the shared access there is no additional areas of pavement proposed closer than 10 feet to the property line.

Comment – *The addition is 60,950 sf. Table 19-A requires 1 parking space per 1,000 sf in excess of 3,000 sf. $57900 \text{ sf} / 1000 = 57.95$ spaces rounded up to 60 spaces. The proposal appear to be adding 7 new spaces to the 8 existing spaces. How is this being justified?*

Response – The existing warehouse is used predominately for dry goods storage, with employees only needed to periodically operate forklifts to load trucks. The proposed warehouse is planned to be of a similar usage. The 8 existing spaces are currently enough to support the business activities on the site and the additional 15 spaces will be sufficient for the additional employees necessary to run the proposed warehouse.

Transportation:

Comment – *The existing entrance at the north end of the site does not appear to meet City standards (defined width/angle). Additionally, the driveway configuration makes it difficult to enter and exit the site to and from the south. Truck turning templates shall be provided.*

Response – The north/west entrance has been modified to meet City standards. The driveway configuration now accommodates a semi-truck exiting in both directions at this entrance, turning templates have been provided in this submission.

Comment – *Truck turning templates shall be provided for vehicles entering and exiting 150 Read Street via the proposed shared driveway.*

Response – Please see the attached semi-truck turning templates for entry and exit to 150 Read Street via the proposed shared driveway.

Comment – *The applicant has provided vehicle turning templates for a truck circulating behind the building from the loading docks to the northern driveway. The access roadway is very tight at the corner of the building, and it is unclear if improvements are proposed. While the turning template indicates this movement is feasible, field observations noted constrained conditions.*

Response – At this corner, the pavement is currently 12 feet wide. Proposed improvements and re-paving will begin at this corner, please see the updated hatching on Site Plan C-10. The access driveway at the corner will be widened to a 20 foot one-way lane.

Comment – *Sight distance measurements shall be provided at both proposed and existing driveways.*

Response – The standards established by the Maine DOT in Chapter 299, Highway Driveway and Entrances Rules stipulate a required 200 foot sight distance for 25 MPH streets. Sight distance measurements are over 500 feet at both driveway entrances. A note has been added to the Site Plan C-10.

Comment – *The sidewalk along the Read Street frontage shall be reconstructed in Portland Cement Concrete in accordance with the City's Sidewalk and Driveway Apron Material Policy. The sidewalk material shall be continued through the driveway aprons at grade with the proposed sidewalk and not in excess of 2% cross-slope.*

Response – The existing sidewalk in both the eastern and western directions from the property frontage have recently been replaced in bituminous pavement, therefore we propose to replace the sidewalk along our frontage with the same bituminous pavement. Although specified in the Material Policy, we believe concrete will not fit into the overall scheme of the existing streetscape.



Further, concrete installation will make the protection of the street trees more difficult during construction. Please see the attached waiver request for the bituminous pavement

Comment – *The applicant shall provide information as to how the project will comply with the City's street lighting standards in Section 10 of the Technical Manual.*

Response – Since the current lighting along Read Street frontage does not comply with the maximum light pole spacing per Section 10.2.1 Lighting Design, the plan now calls the addition of cobrahead lighting on existing poles along the frontage. The existing poles are within the required spacing of 130 feet and four (4) new Cobrahead B's will be installed, please see the specification sheet provided in this submission and Sheet C-10.

Comment – *The applicant shall design both driveways along the property per City of Portland Standards in Section 1 of the Technical Manual.*

Response – Both driveways have been redesigned to a width of 30 feet and otherwise conforming to the standards in Section 1 of the Technical Manual. Please see the Site Plan, Sheet C-10.

Comment – *The City does not allow catch basin inlets to be located in driveways per technical manual standard 2.9.6. The applicant shall relocate any drainage inlet outside the limits of the proposed driveway.*

Response – The existing City catch basin inlet within Read Street that now falls within the limits of the proposed driveway will be removed and replaced offset to the east and outside of the limits of the driveway.

Comment – *Private connections to City catch basins are not permitted per technical manual standard 2.9.7. The application shall tie stormwater flows from the development site directly into the existing drain manhole in Read Street.*

Response – The stormwater flows from the development will be tied directly to the existing drain manhole within Read Street instead of through the catch basin. Please see Sheet C-30.

Comment – *Any floor drains installed within the new warehouse space shall be connected to the sanitary sewer line and shall run through an oil/grit separator per detail II-20 in the recently approved technical manual update.*

Response – Floor drains will be connected to the sanitary sewer line and run through an oil/grit separator. Please see updates on Sheet C-20 Utility Plan and Sheet C-42 Utility Details.

Water Quality, Stormwater, & Infrastructure

Comment – *The application notes that ability to serve confirmation from water and gas utilities are included, but these materials are not present. Please include.*

Response – The ability to serve letter confirmations from water and gas utilities are included in this submission.



Comment – *The plans should show the extent of impact and repaving in Read Street due to the proposed utility work and driveway entrance construction.*

Response – Please see the Construction Management Plan C-03, Utility Plan C-20, and Grading Plan C-30 for delineations of the sawcut lines for utility work within Read Street.

Comment – *The application is proposing relatively steep grading along the eastern edge of the property, and onto the adjacent property in an area identified for a grading and drainage easement. This area of the site is also identified for snow storage, so there could be a fairly significant amount of flow in the area due to snowmelt. The proposal should ensure that this will not impact the adjacent property, and the building that will be close to this location. The proposed surface treatment should be identified for the area both on and off the property at this location as well.*

Response – This area will be grassed and snowmelt flow is not anticipated to cause any downstream detrimental effects. Flow from this area will travel along the existing railroad tracks, and will not be directed to any developed areas

Comment – *Please double check clearances at the crossing between the 15" roof drain to the proposed catch basin 3 and the nearby proposed 6" sewer lateral. Based on the structure inverts provided, these pipes will be close in elevation.*

Response – This crossing of pipes was in error, thank you. The invert of the roof drain at the building has been raised to give clearance over the top of the sewer lateral. The sewer manhole and lateral have also been added to Sheet C-30 for clarity.

Comment – *Considering the size and angles of the proposed drainage pipes at CB #3, a larger structure will likely be required for this location.*

Response – Thank you for pointing this out. Using calculations from the National Precast Concrete Association's "Manhole Sizing Recommendations" it has been determined that a 5 foot diameter catch basin will be necessary to accommodate the pipes entering it.

Comment – *General Standards: The Applicant should address the General Standards relative to the City of Portland's Section 5 of the Technical Manual. The project will exceed the threshold of 1,000 square feet of new impervious surface on the site, requiring compliance with the General Standards.*

Response – Please see the updated Stormwater Report for a narrative addressing compliance with the General Standards. Since the project is creating more than 5,000 SF (19,130 SF) of redeveloped non-roof impervious area, it will comply with the 50% treatment standard. A proprietary precast Filtterra system will gather and treat 10,625 SF (55%) of the redeveloped impervious area from the back of the site. Please see the attached Redeveloped Impervious Area Exhibit.

Comment – *This flow increase will be into the City's storm drain system, and is relatively insignificant, but the Applicant should confirm that the stormwater system has adequate capacity to serve this increase, and a waiver of the flooding standard will be required.*



Response – Please see Document F. Waivers for the waiver request of the flooding standard for the 2 and 10-year storm per Section 5.II.F of Chapter 500. The storm main within Read Street is 30 inch diameter, the increase in flows from the site pose little potential for capacity overload or detrimental effect.

Landscaping & Environmental Quality

Comment – *The applicant shall show how the existing trees will impact the installation of new sidewalk along the Read Street frontage.*

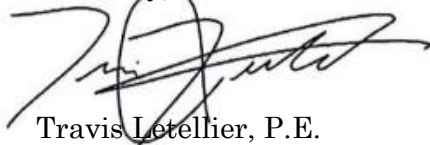
Response – Along the Read Street frontage there is currently 1 mature tree and 2 newly planted trees. The proposed bituminous sidewalk will not excavate below the existing sidewalks subgrade and is not anticipated to harm the trees. The width of the new sidewalk will be pushed towards the buildings instead of the street to further protect the root balls. Construction fencing will also be placed around the extents of the trees during installation.

Comment – *Please show that the proposal conforms to Tech Manual Landscaping and Landscape Preservation Standards, specifically 4.6.3, 4.5.3, 4.5.5.*

Response – The applicant will add 15 street trees along the frontage at intervals of 35 feet and appropriately spaced from the existing 3 trees along the frontage. Landscaped shrubs and ornamental trees have been provided along the frontage of the building, see Site Plan C-10.

We appreciate the review of this project by the city staff and look forward to presenting this project at the next available Planning Board hearing.

Sincerely,



Travis Letellier, P.E.
Project Manager
Acorn Engineering, Inc.





A C O R N

ENGINEERING, INC.

Department of Planning & Development
 Attn: Maya Balassa
 City of Portland, Maine
 389 Congress Street, 4th Floor
 Portland, ME 04101

June 30, 2023

Subject: Comment Response Letter #2
 180 Read Street Warehouse Development – PL-002223-2022

On behalf of NEPW Logistics, LLC. the following are our responses to the second comment response letter received March 1st, 2023. To facilitate the review, comments are provided below in italics followed by our response.

General:

Comment – *The current submission for the street lights is not adequate. The applicant shall revise the plans to meet the following street light submission requirement.*

A lighting plan shall be provided which shall show the quantity and location of all existing and proposed street lights. This shall be incorporated into the site plan or presented on an individual lighting plan. Descriptive information including engineering detail drawings depicting the entire proposed fixture (luminaire, bracket arm, slip fitter) along with the proposed finish shall be included on the individual lighting plan.

The symbols for the proposed street lights are the same as the existing street lights. Please revise the plans to show a distinction between proposed and existing.

Response – See the provided photometric plan and Site Plan C-10 showing the quantity and location of existing and proposed street lights along Read Street. The symbols for the proposed lights have been changed on the plan to differentiate them from the existing lights. The specifications are included in document N. Lighting. The contractor specified lights (R-3) are the closest replica to the Portland “Cobrahead B” street light that our contractor can provide. Also included in the cut sheets are the “Cobrahead B” specification.is

Transportation:

Comment – *Provide spot grades and slope for the proposed driveway to ensure they will meet ADA compliance.*

Response – Please see the insets on Grading Plan C-30 for spot grades and slopes along the driveway entrances to ensure ADA compliance.

Comment – *The proposed DMH needs to be relocated outside of the proposed driveway.*

Response – The manhole (DMH-1) has been relocated to the far edge of the turning radius of the driveway. Due to site restraints with the drainage system, it will need to be located in this vicinity. The Technical Manual specifies only catch basins may not be located in the driveway entrance.

Comment – *Please provide evidence that 180 has permission to do work at 150 Read St*

Response – Please find a promissory note attached.

Comment – *Please also provide a site plan of 150 Read showing any site changes, including any parking changes and subsequent narrative as to how those changes are meeting site plan standards.*

Response – Please see the provided exhibit showing the rearrangement of parking spaces and closure of the curb cut at 150 Read Street. We have also updated the shared driveway to show the entrance to be closer to Read Street. There were 33 parking spaces in the existing condition and there will remain 33 spaces.

Water Quality, Stormwater, & Infrastructure

Comment – *The applicant is proposing to make a new connection into the City's storm drain system in Read Street and shift a significant amount of watershed area into this system from the predevelopment.*

DPW will not provide permission for any increase of Peak flows into the City's storm drain system in Read Street unless a complete H&H study of the system is completed and the applicant can prove that the increase in peak flows won't cause capacity issues in the City's drainage system downstream, to the outfall. I would strongly suggest that the applicant provide on-site detention to manage flows so peak flows entering the City's system are not increased.

Response – A subsurface chamber system was added to the project for detention of runoff from roughly half of the new roof area. With this onsite drainage system in place, peak rates of runoff discharged into the City's closed drainage system at Read Street (POI 1) will generally remain the same as pre-development levels. The subsurface chamber system is designed to detain flows from the 2-, 10-, and 25-year rainfall events. Peak rates of runoff along the southerly property line (POI 2) will be slightly decreased as compared to pre-development levels.

Comment – *Any impervious surface proposed to be restored as a permeable surface will need to meet the DEP recommended tilling depth and revegetation standard. Any impervious surface that is proposed to be reestablished to a vegetated area requires a tilling depth of 9".*

Response – Callout notes have been added to the Construction Management Plan C-03 and Site Plan C-10 to reflect this standard. A note has also been added to the General Notes C-02 (#1) under the Grading and Drainage section.



Additional Comment Received 3/21/23:

Comment – *DPW has determined that the parking lot is in substandard condition, does not meet the number of ADA parking spots required, and poses sediment and erosion control issues in its current state (specifically with the unpaved section). Please update the site plan to include renovating the parking area to meet tech manual standards. Please also create clear delineation on the western edge against the railroad tracks to prevent parking encroachment.*

Response – Please see Site Plan C-10. The central unpaved gravel area of the west parking lot where a railroad track used to enter the property will be graded and paved. An ADA parking space and aisle have been added at the southern end of the existing building. A slipform bituminous curb will be added to the western property line to prevent parking encroachment.

An additional 3 parking spaces have been added against the building along the turn of the truck access route bringing the total parking spaces to 15.

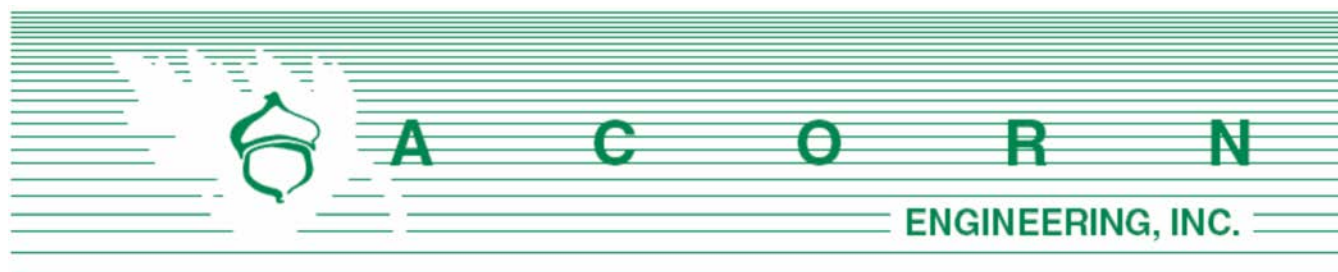
We appreciate the review of this project by the city staff and look forward to presenting this project at the next available Planning Board hearing.

Sincerely,



Will Savage, P.E.
Principal
Acorn Engineering, Inc.





Department of Planning & Development
Attn: Maya Balassa
City of Portland, Maine
389 Congress Street, 4th Floor
Portland, ME 04101

September 5, 2023

Subject: Comment Response Letter #3
180 Read Street Warehouse Development – PL-002223-2022

On behalf of NEPW Logistics, LLC. the following are our responses to the third comment response letter received August 18, 2023. To facilitate the review, comments are provided below in italics followed by our response.

Transportation Standards:

- Comment: The bituminous driveway apron detail in the plan set does not meet the current standards. Update the plans using Figure I-10 Bituminous Driveway Apron.

Response: The driveway apron detail was adjusted as recommended.

- Comment: Sidewalk ramps and granite curb tip-downs are not required at driveways. Remove the notes and symbols from the plans. Add the following note to the plans. Driveway to be constructed per the City Technical Manual Standard for COMMERCIAL/INDUSTRIAL DRIVEWAY APRON I-9B The sidewalk crossing the driveway shall be at least 4 inches above the flowline elevation.

Response: Ramp and tipdown notes and details were adjusted for conformance with the Commerical/ Industrial Apron standard. The recommended note was added at the two locations on the Site Plan (Sheet C-10).

- Comment: The sidewalk longitudinal slope shall be continued through the driveway aprons and not in excess of 2% cross-slope. Remove the Detectable Pad and Tipdown notes and replace the details.

Response: Notes and details were adjusted on the Site Plan (Sheet C-10) and details (Sheet C-40).

- Comment: Utility plan shows new connections in the ROW but does not show the trench repair. The proposed trenches shall be repaired per the Minor Excavation Pavement Repair Details (prior to paving the finished surface) found in the Rules and Regulations for Excavation Activity. Update the plans to show these repairs.

Response: Trench repair locations were added to the Site Plan (Sheet C-10) and a detail was added (Sheet C-40) for the Minor Excavation Pavement Repair found in the Rules and Regulations for Excavation Activity.

Parking:

- Comment: Staff do not support the five parking spaces for 150 Road Street located along the driveway unless physical separation is provided or documentation on constraints that prevent it from being implemented is provided.

Response: A physical barrier between the shared access drive and the parking spaces would present constraints relative to maintenance and plowing during the winter. The shared entry will be infrequently used by 180 Read Street for access to the loading areas. The owner of 150 Read Street has reviewed and approved the current design.

- Comment: The site plan is currently not meeting the EV charging standard. The addition of 16 parking spaces to the site requires conformance with the City's Electric Vehicle (EV) Standards as outlined in the City's Technical Manual Section 1.14. New surface parking lots of five or more spaces shall include energized electrical outlets or installed chargers capable of providing Level 2 EV charging or higher to 20% of parking spaces. 20% of 16 parking spaces = 3.

Response: The City's Technical Manual Section 1.14 requires EV charging stations for "new structured and surface parking lots of five or more spaces". The majority of site parking as depicted on the Site Plan (Sheet C-10) involves restriping of the existing paved area, whereas additional pavement area will be constructed for three new parking spaces on the southwest side of the existing building. Given that less than five new parking spaces are being created for this project, we do not believe that EV charging stations are required per Section 1.14.

- Comment: Please request a waiver of the bike parking standard or add bike parking spaces to the site plan in conjunction with the number of new proposed parking spaces per Land Use Code.

Response: Table 19-A of the Land Use Code requires 2 bicycle spaces/ 10 vehicle parking spaces for an industrial use. With the addition of pavement for three new parking spaces, a bike rack with the capacity for two bikes is required. A bike rack was added on the southwest side of the building as depicted on the Site Plan (Sheet C-10) and a rack detail was added to Sheet C-40.

Environmental Quality Standards

- Comment: CM / Site survey plan: Note that existing tree species and sizes are not indicated on plans, site visit indicated that trees are a mixture of elm and maple species. Would recommend new street trees in the esplanade match the alternating grouping of species patterns that exist along the street esplanade, unless compelling safety issues would necessitate alternate species. Applicants are welcome to also include some of the proposed



prunus species within the new street tree planting pattern.

Response: The Site Plan (Sheet C-10) was updated to identify existing species that exist within the esplanade. There are currently one red maple, one silver maple, and six Princeton elm trees. Proposed are four additional red maple and four additional silver maple as street trees, replacing hawthorn, to complement existing species.

- Comment: General comment - elm species selections - Please ensure for any elm plantings that the *Ulmus Americana* 'Jefferson' cultivar is specifically used. This species has a much better crown growth habit, disease resistance and structure that will require less maintenance and structural issues over time.

Response: Proposed are four *Ulmus Americana* 'Jefferson' to complement the existing six *Ulmus Americana* 'Princeton' trees, which have a similar appearance.

- Comment: Site plan - tree adjacencies- Ensure street trees along roadside esplanade and any trees planted alongside the building are staggered to the best extent possible to ensure healthy crown clearance and growth. In compact areas, having immediately adjacent tree spacing in circumstances narrower than mature crown spread, can negatively impact tree performance, growth, and health.

Response: Plantings locations were updated for staggering in coordination with existing street trees.

- Comment: Site plan - crataegus and juniperus disease concern - crataegus and other apple species can be exposed to elevated risk / occurrences of fire blight and cedar rust when eastern red cedar species are present / nearby. Consider a non-cedar species or a non-malus / crataegus / amelanchier species that meets designer / applicant's original intent.

Response: Crataegus (hawthorn) and juniperus (cedar) species were replaced with non-cedar/ non-malus plantings.

- Comment: Site plan - prunus species appear too close to building for adequate growth. Consider an alternate shrub species with narrower growth habit (width) compact specimens or cultivars encouraged. Prunus species might be an acceptable alternative to crataegus species to avoid blight and cedar rust disease mentioned above.

Response: The four proposed Accolade cherry trees were relocated to the esplanade to serve as street trees, as suggested. Plantings along the northern building face were replaced with Mugo pines, which are compact and suitable for planting against the foundation/ building. Proposed are four additional Accolade cherry trees as street trees, instead of Hawthorn.

Water Quality, Stormwater, & Infrastructure

- Comment: The outlet storm drain pipe for the relocated city catch basin adjacent to the proposed driveway shall be routed directly to the City's DMH in Read Street. This may



eliminate the need for PR. DMH-1.

Response: The recommended change would result in a conflict between the new 12-inch and existing 30-inch stormdrains provided the minimum angle between pipes and similar invert elevations. No changes were made. The current design allows for the new 12-inch pipe to enter the existing structure 90 degrees from the pipe. An alternate design would involve connecting the 12-inch pipe directly into the 15-inch outlet stormdrain with a tee/ wye connection and eliminate the need for the drain manhole. Please advise if this approach is acceptable to the City,

- Comment: The proposed storm drain outlet pipe connecting into the City's Read Street sewer line is shown as a 24" pipe. The size of this pipe doesn't seem warranted based on the proposed anticipated 25-YEAR, 24 Hour flow rate of 4.6 CFS. The applicant should provide further justification for the 24" connection, or revise the outlet pipe size to better reflect the proposed design flow rates.

Response: The pipe size was decreased to 15-inches for proper conveyance of flow from a 25-year rainfall event. See the attached stormwater calculations from the HydroCAD model.

- Comment: Coordinate the invert information on the drainage structures associated with the storage system with the proposed piping, and with the details associated with the system. I believe there are some pipes missing and some pipe sizes that should be confirmed within the invert information on the grading and drainage plan.

Response: Minor changes were made relative to invert information and pipe labeling on the Grading Plan (Sheet C-30) and the details (Sheet C-45). Please note the intent of the Underdrained Subsurface Chamber Typical Cross Section detail is to show one chamber profile of the entire system.

- Comment: The post-construction maintenance plan and agreement should be updated to include this subsurface storage system.

Response: The post-construction maintenance plan and agreement were updated to include the subsurface storage system.

- Comment: Confirmation of appropriate design should be provided by the manufacturer for their proposed systems – I believe both the treatment and storage systems are the same manufacturer in this case.

Response: Attached is confirmation that both the Contech Filterra and ADS Subsurface Chamber System are generally designed to manufacturer standards.

Public Infrastructure + Community Safety Standards

- Comment: Confirmation of ability to serve have been received for water and gas services and provided within the submission. The applicant is waiting on electric.



Response: We are still waiting for electrical capacity to serve from Central Maine Power (CMP). We respectfully request a condition of approval to provide the electric capacity to serve letter prior to issuance of a building permit.

Site Design Standards

- Comment: Concerns persist regarding snow storage locations on eastern edge of property near the abutting building. Please consider alternate location or snow storage approach.

Response: The snow storage area was removed along the existing building, and the snow storage area immediately south of the building was enlarged for additional capacity.

We appreciate the review of this project by the city staff and look forward to presenting this project at the next available Planning Board hearing.

Sincerely,



Will Savage, P.E.
Principal
Acorn Engineering, Inc.



1176_POST

Prepared by HP Inc.

HydroCAD® 10.00-26 s/n 00620 © 2020 HydroCAD Software Solutions LLC

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

Printed 8/23/2023

Summary for Pond 9P: CB

[81] Warning: Exceeded Pond 8P by 0.09' @ 12.09 hrs

Inflow Area = 1.573 ac, 85.58% Impervious, Inflow Depth = 4.64" for 25-year event
 Inflow = 4.6 cfs @ 12.09 hrs, Volume= 0.608 af
 Outflow = 4.6 cfs @ 12.09 hrs, Volume= 0.608 af, Atten= 0%, Lag= 0.0 min
 Primary = 4.6 cfs @ 12.09 hrs, Volume= 0.608 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Peak Elev= 84.68' @ 12.09 hrs

Flood Elev= 86.90'

Device	Routing	Invert	Outlet Devices
#1	Primary	83.25'	15.0" Round Stormdrain L= 128.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 83.25' / 82.60' S= 0.0051 ' / ' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf

Primary OutFlow Max=4.6 cfs @ 12.09 hrs HW=84.68' (Free Discharge)

↑1=Stormdrain (Barrel Controls 4.6 cfs @ 4.12 fps)

Redstone

100 Bank Street | Suite 200
Burlington, VT 05401

Att. ZLL

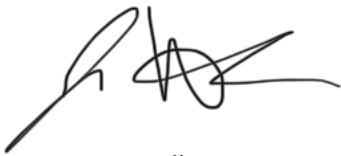
May 31, 2023

Rob Cowans
NEPW Logistics
70 Quarry Road
Portland, ME 04103
Rob@nepw.com

Dear Rob,

I have reviewed the proposed plans for the revised shared entrance for 180 Read Street and my property at 150 Read Street. I am in agreement with the proposed new location of the entrance easement as shown on the drawings titled "150 Read Street Turning Templates, 180 Read Street, Portland, Maine 04103, NEPW Logistics, LLC, 70 Quarry Road, Portland, Maine 04103" dated January 15, 2023 by Acorn Engineering, Inc. and I am willing to formalize and record an easement in substantially the same location as proposed after the site plan has been approved by the City and upon review and approval from me and my lender.

Sincerely,



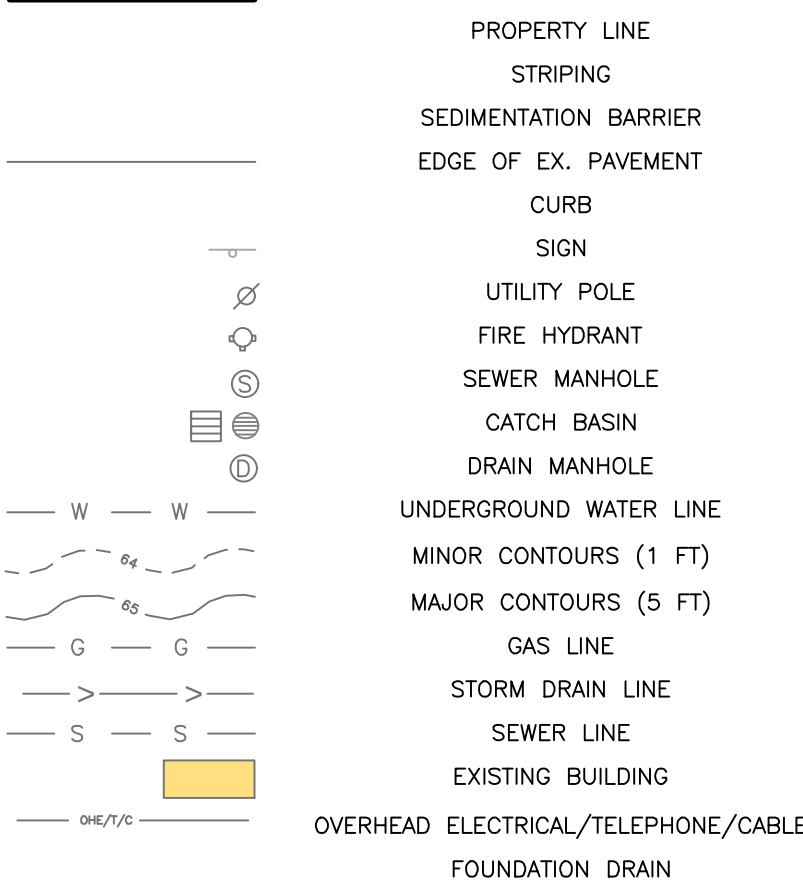
Joe Engelken
Manager
187-209 Read Street LLC

READ STREET WAREHOUSE EXPANSION

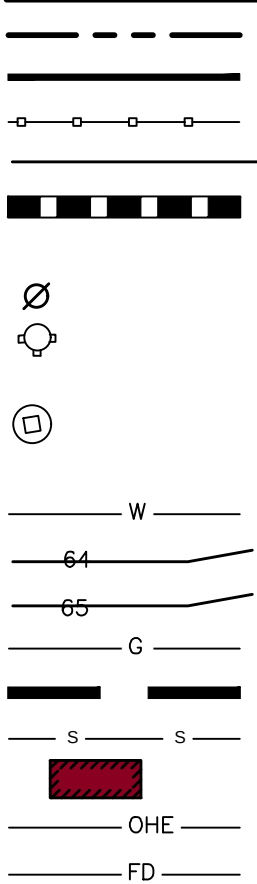
NEPW LOGISTICS, INC.
PORTLAND, MAINE

LEGEND

EXISTING



PROPOSED



INDEX

- C-01 COVER SHEET & LEGEND
- C-02 GENERAL NOTES
- EX EXISTING CONDITIONS PLAN – BY OWEN HASKELL, DATED 8/12/22
- C-03 CONSTRUCTION MANAGEMENT PLAN
- C-10 SITE PLAN
- READ STREET LIGHTING PLAN – BY CURRENT
- C-20 UTILITY PLAN
- C-30 GRADING & DRAINAGE PLAN
- C-40 SITE DETAILS – 1
- C-41 SITE DETAILS – 2
- C-42 UTILITY DETAILS – 1
- C-43 DRAINAGE DETAILS – 1
- C-44 FILTERRA DETAILS
- C-45 UNDERDRAINED SUBSURFACE FILTER DETAILS
- C-46 EROSION CONTROL DETAILS & NOTES

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

UTILITIES

SEWER

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



WATER

PORTLAND WATER DISTRICT
225 DOUGLASS STREET
PO BOX 3553
PORTLAND, MAINE 04104
ATTN: MEANS DIVISION
(207) 774-5961



ELECTRIC

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



NATURAL GAS

UNITIL SERVICE CORP
1075 FOREST AVENUE
PORTLAND, ME 04103
CONTACT: SCOTT CARPENTER
(207) 541-2543



PROJECT TEAM

DEVELOPER

NEPW LOGISTICS, INC.
CONTACT: ROB COWANS
(207)772-4653



CIVIL ENGINEER:

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



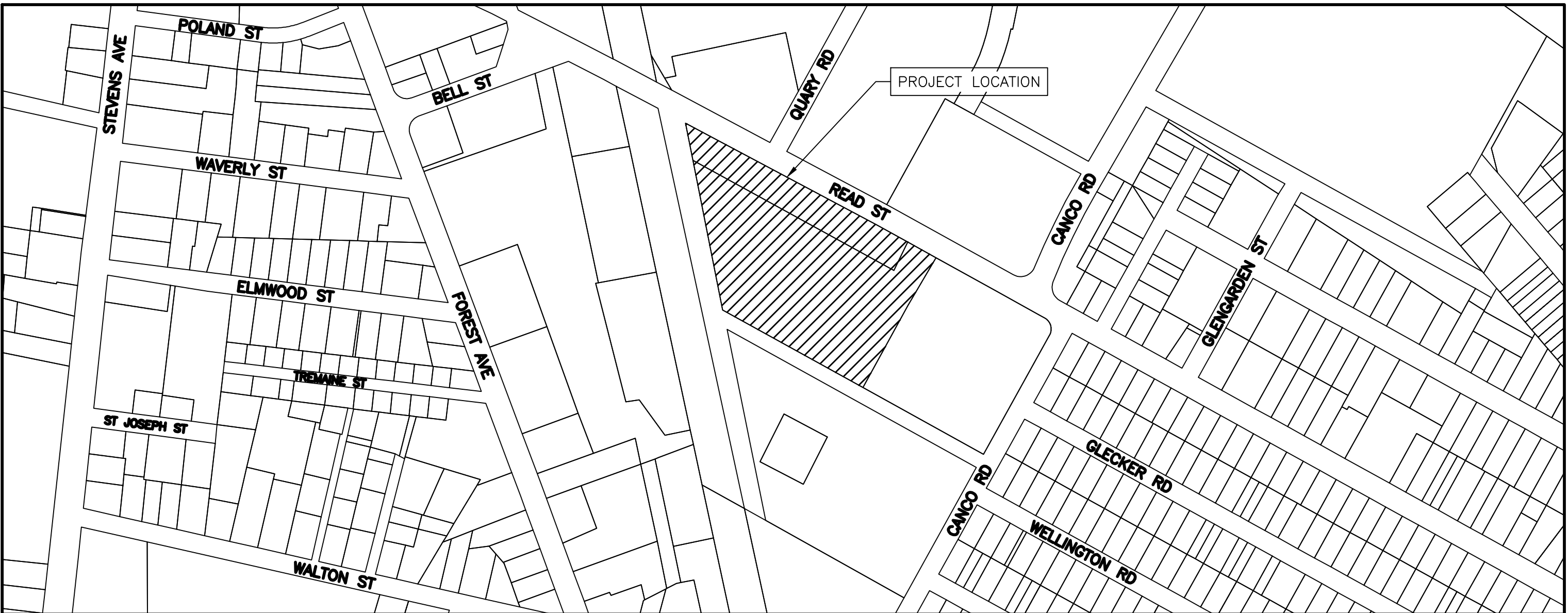
SURVEYOR

OWEN HASKELL, INC
FALMOUTH, MAINE
CONTACT: RANDY LOUBIER P.L.S.
(207) 774-0424



ARCHITECT

RYAN SENATORE ARCHITECTURE
PORTLAND, MAINE
CONTACT: RYAN SENATORE
(207) 650-6414



VICINITY MAP

SCALE: 1:80

ABBREVIATIONS

PARTIAL LIST OF ABBREVIATIONS AND THEIR CORRESPONDING MEANING. PLEASE CONTACT THE ENGINEER FOR ANY CLARIFICATION	
APPROX.	APPROXIMATE
BC	BOTTOM OF CURB
BMP	BEST MANAGEMENT PRACTICE
BOT.	BOTTOM
CB	CATCH BASIN
CF	CUBIC FOOT
CIP	CAST IN PLACE
CL	CENTERLINE
CM	CONSTRUCTION MANAGER
CMP	CENTRAL MAINE POWER
CONC.	CONCRETE
CPP	CORRUGATED PLASTIC PIPE
CY	CUBIC YARD
DI	DUCTILE IRON PIPE
DIA.	DIAMETER
DIM.	DIMENSION
EA.	EACH
ELEC.	ELECTRICAL
ELEV.	ELEVATION
EQUIV.	EQUIVALENT
EST.	ESTIMATE
EX.	EXISTING
FFE	FINISH FLOOR ELEVATION
FT.	FEET
HDPE	HIGH DENSITY POLY ETHYLENE
ID	INNER DIAMETER
IN.	INCH
INV.	INVERT
L	LENGTH
MAX.	MAXIMUM
MDEP	MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION
MDOT	MAINE DEPARTMENT OF TRANSPORTATION
M.E.P	MECHANICAL, ELECTRICAL, PLUMBING DESIGNER
MFG.	MANUFACTURED
MH	MANHOLE
MIN.	MINIMUM
O.C.	ON CENTER
OD	OUTSIDE DIAMETER
OHE/T/C	OVERHEAD ELECTRIC/TELEPHONE/CABLE
PC	PRECAST
PE	PROFESSIONAL ENGINEER
PL	PROPERTY LINE
PLS	PROFESSIONAL LAND SURVEYOR
PROP.	PROPOSED
PSI	POUNDS PER SQUARE INCH
PVC	POLYVINYL CHLORIDE
PWD	PORTLAND WATER DISTRICT
R	RADIUS
RD	ROOF DRAIN
RET.	RETAINING
ROW	RIGHT OF WAY
S	SLOPE
SD	STORM DRAIN
SDR	STANDARD DIMENSION RATIO
SF	SQUARE FEET
SMH	SEWER MANHOLE
SPEC.	SPECIFICATION
TC	TOP OF CURB
TW	TOP OF WALL
TYP.	TYPICAL
UD	UNDERDRAIN
UGE	UNDERGROUND ELECTRIC
VIF	VERIFY IN FIELD

PERMIT LEVEL
NOT ISSUED FOR
CONSTRUCTION

ISSUED FOR
MAJOR SITE PLAN
COMMENT RESPONSE #1
COMMENT RESPONSE #2
COMMENT RESPONSE #3

BY
DATE
10/21/22
7/5/23
8/30/23
9/9/23

COVER SHEET & LEGEND

PROJECT NAME:
182 READ STREET WAREHOUSE EXPANSION
PORTLAND, MAINE 04103

CLIENT:
NEPW LOGISTICS
70 QUARRY ROAD PORTLAND, MAINE 04103

ACORN ENGINEERING, INC.

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

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

FILE: 1176_DETAILS

JN: 1176

SCALE: AS NOTED

DESIGNED BY: CAB

DRAWN BY: BJL

CHECKED BY: WHS

STATE OF MAINE
WILLIAM H. SAVAGE
11418
PROFESSIONAL ENGINEER
9/5/2023

DRAWING NO.
C-01

1. THE CONTRACTOR SHALL CALL THE APPROPRIATE UTILITY COMPANIES AND DIG SAFE AT LEAST 72 HOURS PRIOR TO ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION FOR UTILITIES. OTHERWISE IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE LOCATION OF UNDERGROUND UTILITIES AND LOCATE ANY POTENTIAL CONFLICTS WITH THE APPROVED PLANS PRIOR TO CONSTRUCTION.
2. THE CONTRACTOR IS RESPONSIBLE FOR MAINTENANCE OF ALL EROSION CONTROL MEASURES SHOWN ON THE PLAN. IF DEEMED NECESSARY BY THE OWNER OR OWNER'S REPRESENTATIVE (IF APPLICABLE), ADDITIONAL EROSION CONTROL MEASURES SHALL BE INSTALLED AT NO ADDITIONAL COST TO THE OWNER.
3. THE CONTRACTOR SHALL PREPARE THEIR OWN MATERIAL SCHEDULE BASED ON THE PLANS AND FIELD VERIFICATION BY THE CONTRACTOR. ALL MATERIAL SCHEDULES SHOWN WITHIN THE PLAN SET ARE FOR GENERAL INFORMATION ONLY.
4. ALL CONSTRUCTION METHODS, TESTING AND MATERIALS SHALL CONFORM TO THE MAINE DEPARTMENT OF TRANSPORTATION SPECIFICATIONS, THE CITY OF PORTLAND AND SERVICING UTILITY REQUIREMENTS, IF ANY. IN CASES WHERE THESE CONFLICT THE MOST STRINGENT SPECIFICATION SHALL APPLY AT NO ADDITIONAL COST TO THE OWNER.
5. THE SITE CONTRACTOR SHALL MAINTAIN A SET OF PAPER AND CAD DRAWINGS WHICH SHALL RECORD THE ACTUAL LOCATION, DIMENSIONS, ELEVATIONS, MATERIALS OF THEIR WORK, INDICATING THEREON ALL VARIATIONS FROM THE CONTRACT DRAWINGS. THE CONTRACTOR SHALL PROVIDE THE OWNER WITH ONE COMPLETE SET OF REPRODUCIBLE RECORD DRAWINGS, IN .DWG FORMAT AND PAPER, STAMPED "AS-BUILT". IF AUTOCAD CAPABILITY IS NOT AVAILABLE, EXCLUDE FROM BID IN WRITING.
6. THE CONTRACTOR WILL REMAIN SOLELY AND COMPLETELY RESPONSIBLE FOR ENFORCEMENT OF AND COMPLIANCE WITH 1) ALL CONTRACT PLANS AND SPECIFICATIONS, 2) APPLICABLE INTERNATIONAL BUILDING CODE REQUIREMENTS, AND 3) ALL SITE WORKING CONDITIONS AND SAFETY REQUIREMENTS, DAY AND NIGHT, FOR BOTH PERSONS AND PROPERTY, IN EACH CASE BOTH BY THE CONTRACTOR AND ITS SUBCONTRACTORS. THESE INCLUDE ALL OSHA, NIOSH, U.S. EPA AND ANY OTHER APPLICABLE GOVERNMENTAL REGULATIONS.
7. EXISTING CONDITIONS, BOUNDARY SURVEY, AND TOPOGRAPHY FROM THE PLAN TITLED EXISTING CONDITIONS SURVEY BY OWEN HASKELL, INC. FOR NEPW LOGISTICS, INC, DATED 8/12/22.
8. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING ACCESS TO THE SITE AT ALL TIMES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TEMPORARY MARKINGS, SIGNAGE AND INCIDENTALS TO MAINTAIN A SAFE VEHICLE AND PEDESTRIAN ACCESS THROUGH THE LIFE OF THE PROJECT. THE CONTRACTOR SHALL NOTIFY THE PORTLAND PUBLIC SAFETY DIVISION ROUTINELY REGARDING TEMPORARY IMPACTS OR CHANGES TO SITE ACCESS CONDITIONS.
9. CONTRACTOR TO DETERMINE SOIL CLASSIFICATION INDEPENDENTLY FOR TRENCH, SHORING, AND OTHER SIMILAR CONSTRUCTION MEANS AND METHODS APPLICATIONS.
10. NO HOLES, TRENCHES, OR STRUCTURES SHALL BE LEFT OPEN OR UNATTENDED OVERNIGHT IN ANY AREA ACCESSIBLE TO THE PUBLIC OR WITHIN THE PUBLIC RIGHT-OF-WAY.
11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PRESERVATION OF ALL TREES AND SHRUBS ON THE PROJECT WHICH ARE NOT TO BE REMOVED.
12. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING ANY TRENCH PAVEMENT THAT HAS EXPERIENCED EXCESSIVE SETTLEMENT, CRACKING, OR OPENING OF JOINTS. REPAIRS MAY INCLUDE OVERLAY. REMOVAL OF WORK MAY BE NECESSARY AFTER THE FINAL ACCEPTANCE OF WORK OR PRIOR TO THE END OF THE WARRANTY PERIOD. THIS WORK SHALL BE DONE AT THE CONTRACTOR'S EXPENSE.

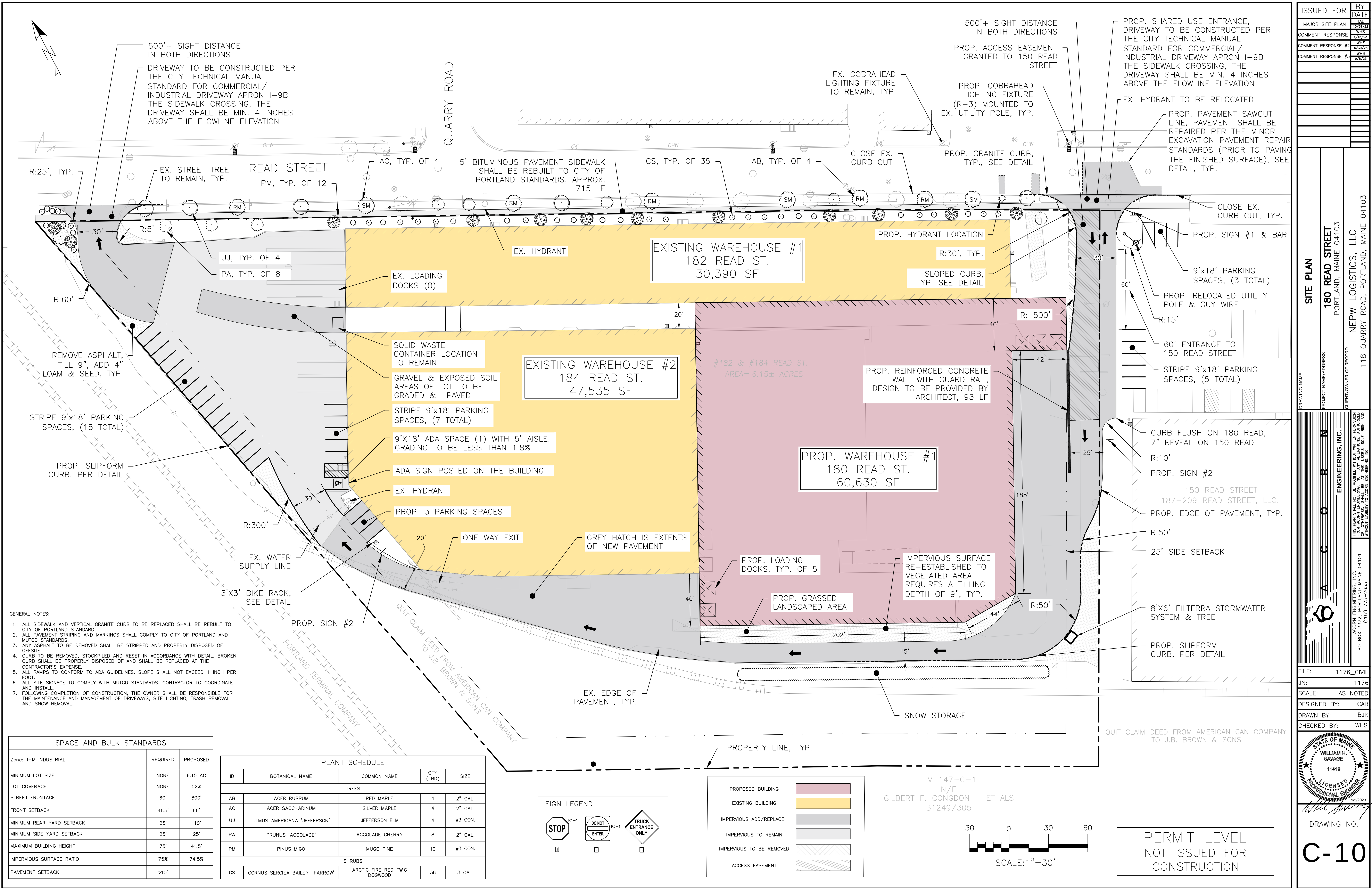
1. THE CONTRACTOR SHALL SUBMIT IN WRITING ANY REQUESTS TO ACORN TO MODIFY THE CONTRACT DOCUMENTS.
2. ALL SHOP, ERECTION, AND CONSTRUCTION DRAWINGS SHALL BE CHECKED AND STAMPED BY THE CONTRACTOR PRIOR TO SUBMISSION FOR ACORN'S REVIEW. ANY UNCHECKED OR NON-STAMPED SUBMITTALS WILL BE RETURNED WITHOUT REVIEW.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

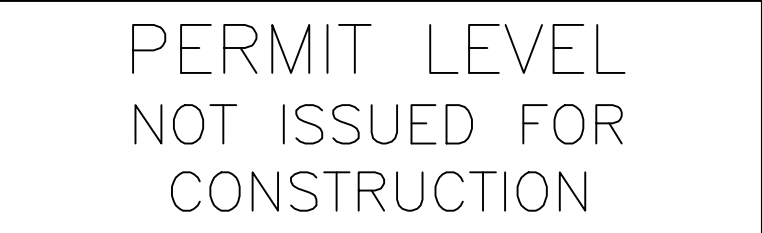
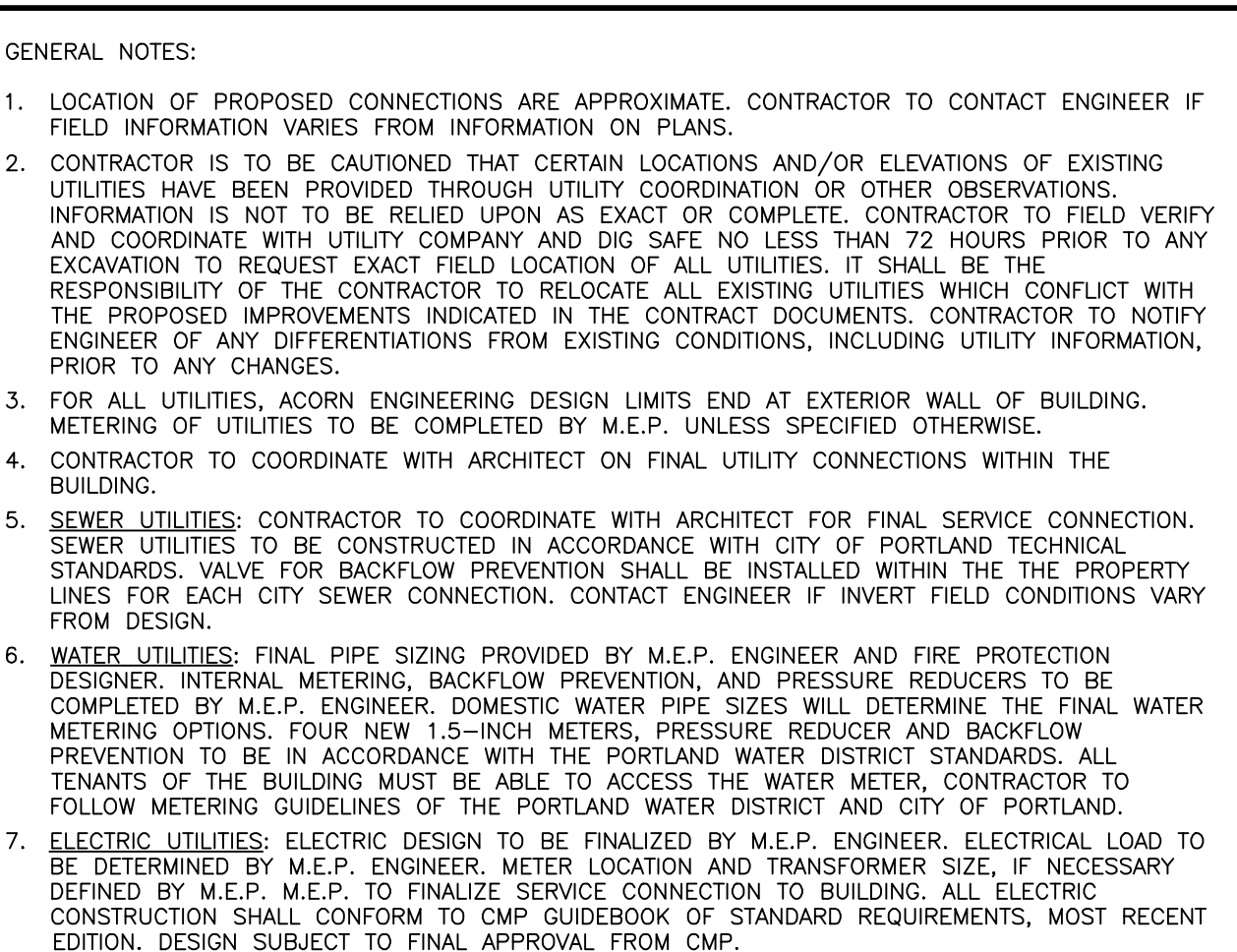
1. ALL SITE SOILS-RELATED WORK AND FOOTING EXCAVATIONS PRIOR TO PLACING FORMS SHALL BE REVIEWED BY THE PROJECT GEOTECHNICAL ENGINEER.
2. ALL SITE DRAINAGE-RELATED WORK SHALL BE REVIEWED BY ACORN ENGINEERING.
3. NORMAL REVIEWS BY LOCAL BUILDING DEPARTMENT. NOTIFY 48 HOURS PRIOR TO REQUIRED REVIEW.
4. REQUIRED SPECIAL INSPECTIONS PER I.B.C. SECTION 1705.6 BY AN APPROVED SPECIAL INSPECTOR RETAINED BY OWNER. CONTRACTOR TO COORDINATE SPECIAL INSPECTIONS.
5. SPECIAL INSPECTOR SHALL BE A QUALIFIED PERSON WHO SHALL DEMONSTRATE COMPETENCE, TO THE SATISFACTION OF THE BUILDING OFFICIAL, FOR INSPECTION OF THE PARTICULAR TYPE OF CONSTRUCTION OR OPERATION REQUIRING SPECIAL INSPECTION.
 - 5.1. DUTIES AND RESPONSIBILITIES OF THE SPECIAL INSPECTOR SHALL BE TO OBSERVE AND/OR TEST THE WORK ASSIGNED AND OUTLINE ABOVE FOR CONFORMANCE WITH THE CONTRACT DOCUMENTS, ALL DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR FOR CORRECTION.
 - 5.2. THE SPECIAL INSPECTOR SHALL FURNISH REGULAR REPORTS TO THE BUILDING OFFICIAL, THE ARCHITECT AND ENGINEER OF RECORD, AND OTHER DESIGNATED PERSONS. PROGRESS REPORTS FOR CONTINUOUS INSPECTION SHALL BE FURNISHED WEEKLY. INDIVIDUAL REPORTS OF PERIODIC INSPECTIONS SHALL BE FURNISHED WITHIN ONE WEEK OF INSPECTION DATES. THE REPORTS SHALL NOTE UNCORRECTED DEFICIENCIES, AND NET CHANGES TO THE APPROVED CONSTRUCTION DOCUMENTS AUTHORIZED BY THE ENGINEER OF RECORD.

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

1. THE FOLLOWING ITEMS ARE TYPICAL OF MATERIAL WHICH MAY BE ON SITE:
 - ROCK AND CONCRETE FOUNDATIONS
 - CONCRETE SLABS
 - BITUMINOUS ASPHALT PAVEMENT
 - CONCRETE PADS AND BLOCKS
 - FENCE POST AND FENCING
 - UNDERGROUND UTILITY LINES
 - ABOVE AND OR BELOW FUEL OIL AND PROPANE GAS TANKS
 - STORM DRAIN PIPES AND APPURTENANCE STRUCTURES
 - OTHER TRASH & MISCELLANEOUS SOLID WASTES
2. THE CONTRACTOR IS ADVISED TO VISIT THE SITE TO CONFIRM DEMOLITION ITEMS SINCE THE LIST IS NOT INCLUSIVE OF THE SITE CONDITIONS WHICH MAY BE ENCOUNTERED
3. ALL DISPOSAL OF DEMOLITION DEBRIS OR WASTE SHALL BE IN ACCORDANCE WITH ALL LOCAL, STATE, & FEDERAL REGULATIONS. CONTRACTORS SHALL PROVIDE OWNER WITH APPROPRIATE "BILLS OF LADING" DEMONSTRATING PROPER DISPOSAL OF ALL MATERIALS.
4. THE CLIENT HAS NOT REQUESTED NOR HAS ACORN COMPLETED A PHASE I – ENVIRONMENTAL SITE ASSESSMENT FOR THE PROPERTY.

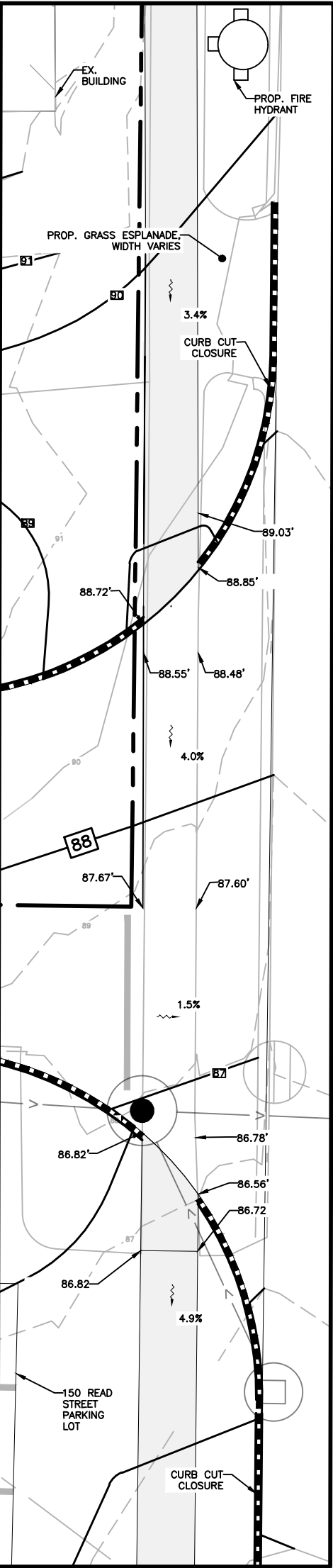
DRAWING NO.
C-02



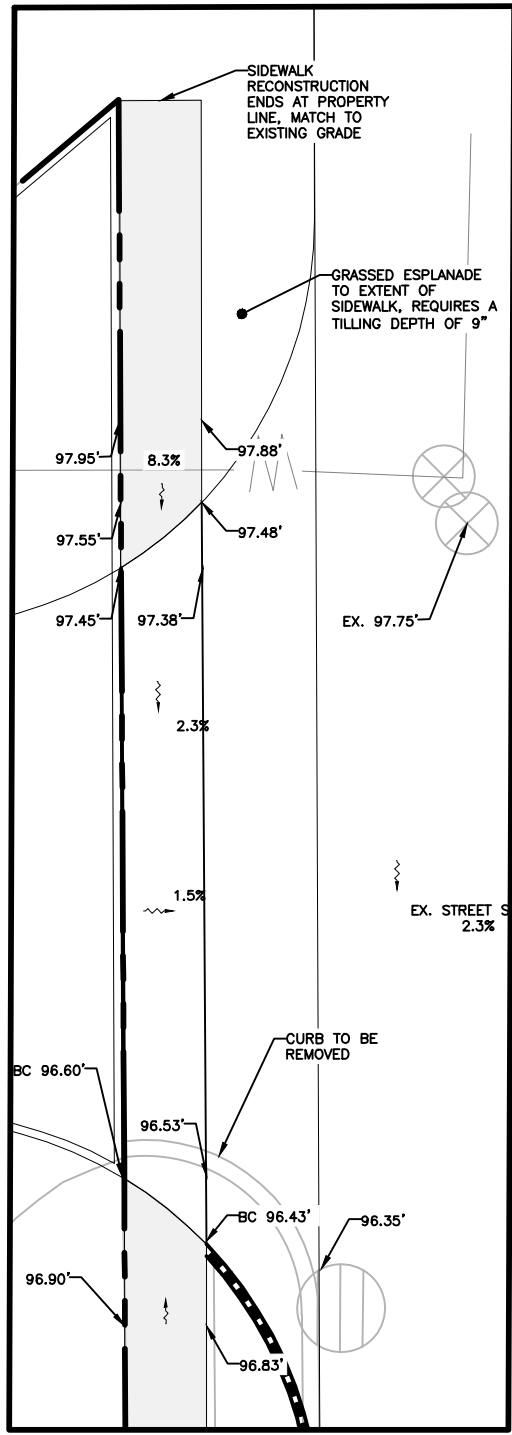


STATE OF MAINE
WILLIAM H. SAVAGE
11419
LICENSED PROFESSIONAL ENGINEER
9/5/2023

- GENERAL NOTES:
1. ALL WORK WITHIN THE CITY STREET RIGHT OF WAY SHALL MEET CITY OF PORTLAND TECHNICAL MANUAL STANDARDS.
 2. DESIGN OF TEMPORARY SOIL RESTRAINT MEASURES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR IF NECESSARY FOR CONSTRUCTION.
 3. CONTRACTOR SHALL ENSURE THAT UNDERDRAINS ARE CONSTRUCTED WITH POSITIVE OUTLET TO PROPOSED CONNECTIONS.
 4. CATCH BASIN INLET PROTECTION TO BE INSTALLED WITHIN ANY STRUCTURES DOWNGRADIENT OF ACTIVE CONSTRUCTION.
 5. SEDIMENTATION BARRIERS ARE TO BE INSTALLED DOWNGRADIENT OF ALL ACTIVE CONSTRUCTION WORK PER DETAIL. BARRIERS TO NOT EXTEND PAST PROPERTY LINES; BARRIERS SHOWN OFFSET FROM PROPERTY LINES ON PLANS FOR VISUAL PURPOSES ONLY.
 6. ANY SLOPE BETWEEN AND INCLUDING, 2:1 TO 3:1 SHALL BE STABILIZED WITH ECB. SLOPES STEEPER THAN 2:1 SHALL BE REINFORCED WITH RIPRAP, SEE DETAILS.
 7. ALL UNDERDRAINS SHALL HAVE A MINIMUM SLOPE OF 0.20%.
 8. ALL CATCH BASINS SHALL HAVE A 3' SUMP AT A MINIMUM AND BE EQUIPPED WITH "CASCADE-TYPE" 24"x24" SQUARE GRATES AS SHOWN IN THE MAINE DOT STANDARD DETAILS. MOST RECENT EDITION WHEN ON GUTTER LINE. OTHERWISE, CIRCULAR CATCH BASIN FRAME AND GRATE TO BE UTILIZED.
 9. ALL STORM DRAIN SHALL BE EITHER PVC SDR 35, OR ADS N-12 DUAL WALL, OR APPROVED EQUIVALENT.
 10. ALL STRUCTURES 4' INSIDE DIA. UNLESS OTHERWISE NOTED.
 11. COORDINATE DOWNSPOUT INSTALLATION WITH ARCHITECT.
 12. CONTRACTOR IS RESPONSIBLE FOR ENSURING PIPE MATERIAL IS RATED FOR PROPOSED DEPTHS.

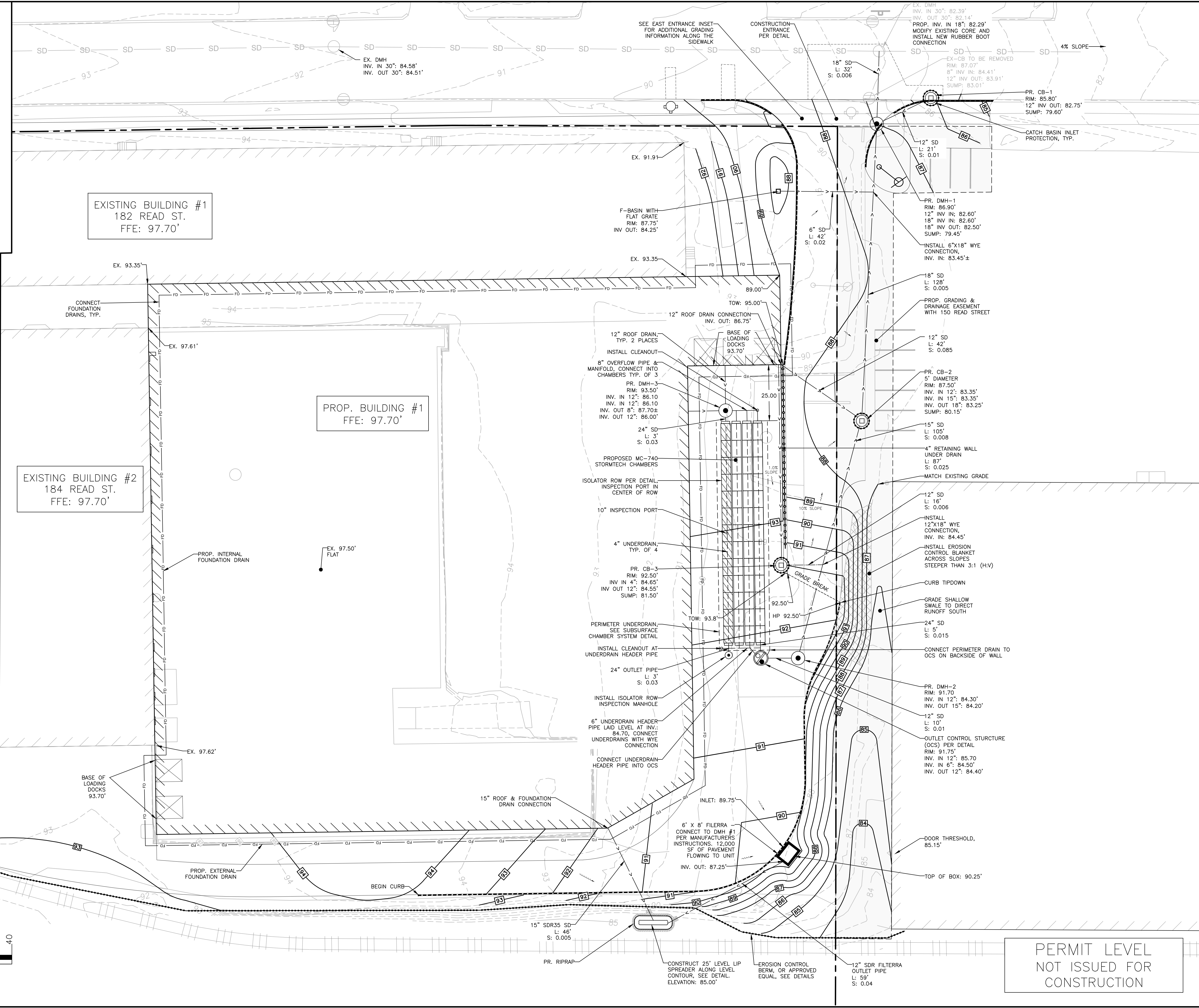
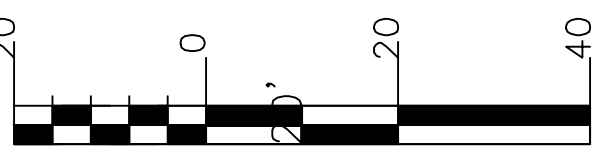


ADA DRIVEWAY APRON EXHIBIT
EAST ENTRANCE - READ STREET



ADA DRIVEWAY APRON EXHIBIT
WEST ENTRANCE - READ STREET

SCALE: 1" = 20'



PERMIT LEVEL
NOT ISSUED FOR
CONSTRUCTION

ISSUED FOR		BY
DATE		DATE
MAJOR SITE PLAN	10/31/22	TAL
COMMENT RESPONSE #1	1/15/23	WHS
COMMENT RESPONSE #2	4/26/23	WHS
COMMENT RESPONSE #3	8/2/23	WHS

DRAWING NAME	
PROJECT NAME/ADDRESS:	
CLIENT/TOWNER OF RECORD:	
GRADING PLAN	180 READ STREET PORTLAND, MAINE 04103
NEPW LOGISTICS, LLC 118 QUARRY ROAD, PORTLAND, MAINE 04103	

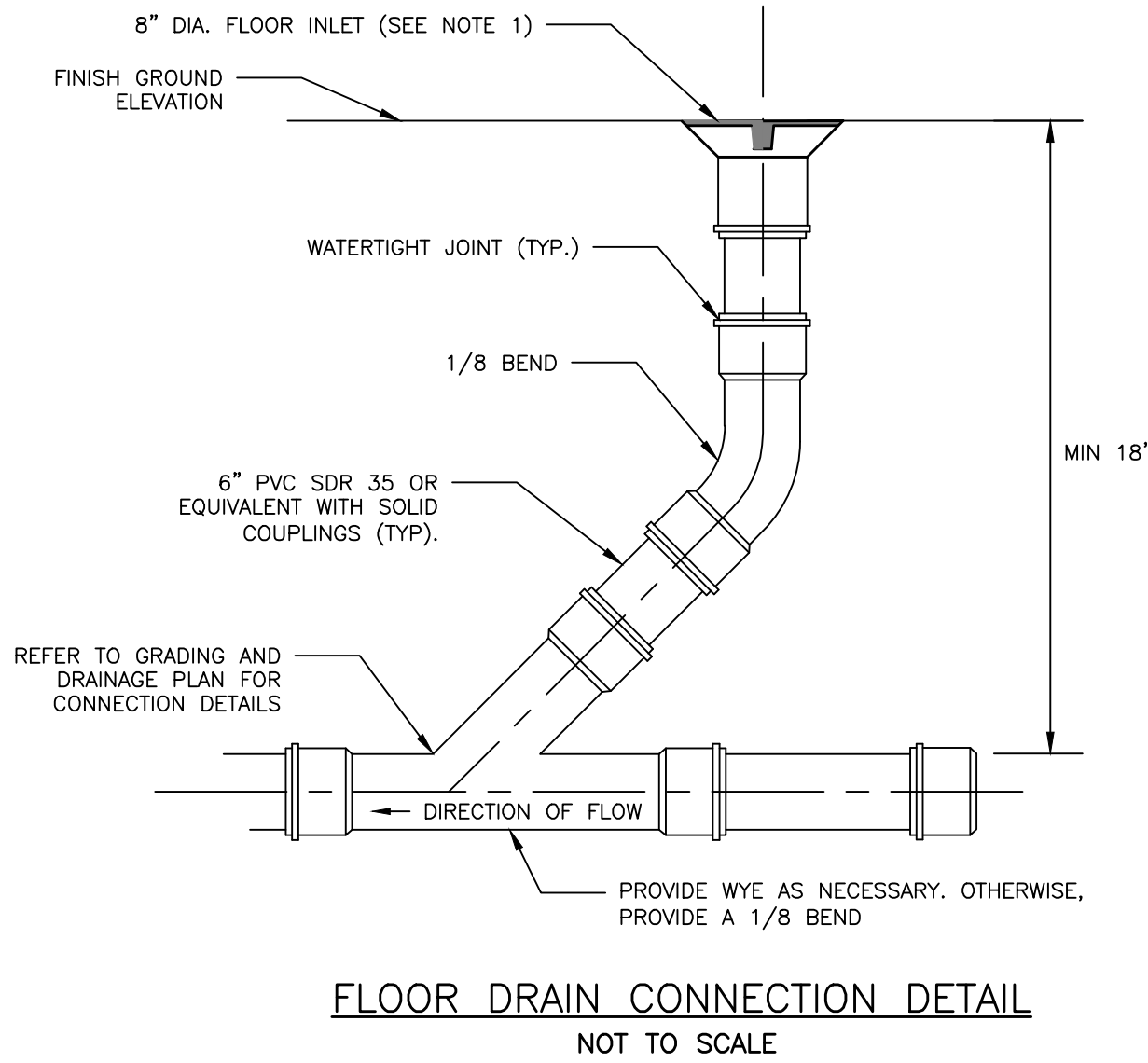
ACORN ENGINEERING, INC.	
FO BOX 3372, PORTLAND MAINE 04101 (207) 775-2855	
THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM ACORN ENGINEERING, INC. ANY CHANGES SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO ACORN ENGINEERING, INC.	

FILE:	1176_CIVL
JN:	1176
SCALE:	AS NOTED
DESIGNED BY:	CAB
DRAWN BY:	BJK
CHECKED BY:	WHS

STATE OF MAINE WILLIAM H. SAVAGE 11419 LICENSED PROFESSIONAL ENGINEER 09/2022	
DRAWING NO. C-30	

NOTES:

1. REFER TO ARCHITECTURAL AND MEP PLANS FOR GUTTER AND DOWNSPOUT LOCATIONS.
2. ALL PIPES SHALL BE OF UNIFORM SIZE.
3. CONTRACTOR TO ENSURE NO CONFLICT WITH OTHER FLOOR DRAINS OR PIPING SYSTEMS.



FLOOR DRAIN CONNECTION DETAIL
NOT TO SCALE

HYDRANT TO CONFORM WITH PORTLAND
WATER DISTRICT SPECIFICATIONS AND
CITY OF PORTLAND FIRE DEPARTMENT
SPECIFICATIONS

WALL OF TRENCH (UNDISTURBED)
2-18"x12"x4"x3" CONC.
WEDGES OR AS DIRECTED BY
THE ENGINEER

HORIZONTAL AND VERTICAL
BLOCKING PLANES SHALL BE
MANUFACTURED INTO HYDRANT
BASE

TYPICAL HYDRANT
INSTALLATION DETAIL
NOT TO SCALE

FOR STATE ROADS
SETBACK SHALL CONFORM TO M.D.O.T. POLICY
FOR ABOVE GROUND UTILITY LOCATIONS. FOR
SPEED LIMITS >35MPH 6 1/2' FROM EDGE OF
SHOULDER OR FACE OF CURB. FOR SPEED
LIMITS <35MPH 3' FROM EDGE OF SHOULDER
OR 1' FROM FACE OF CURB.

FOR CITY OR TOWN ROADS CHECK WITH
MUNICIPALITY FOR REQUIREMENTS

FLANGE TO FINISH GRADE
DISTANCE IS CRITICAL FOR
TRAFFIC BREAKAWAY FEATURE
TO WORK PROPERLY

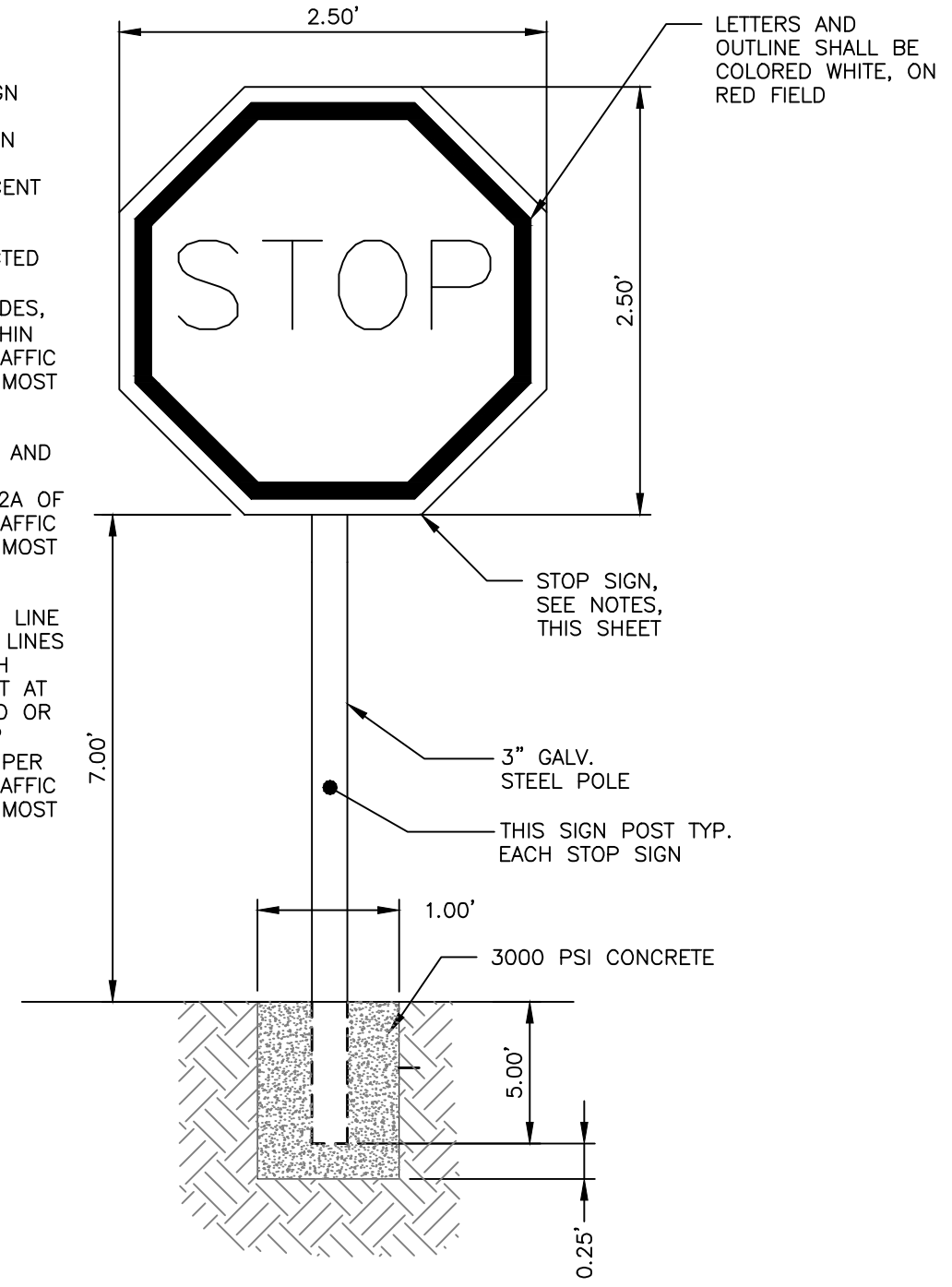
HYDRANT BRANCH (NOTE:
ALL GLANDS ON HYDRANT
BRANCH SHALL BE RETAINER
GLANDS)

6' OR 6'-6" BURY

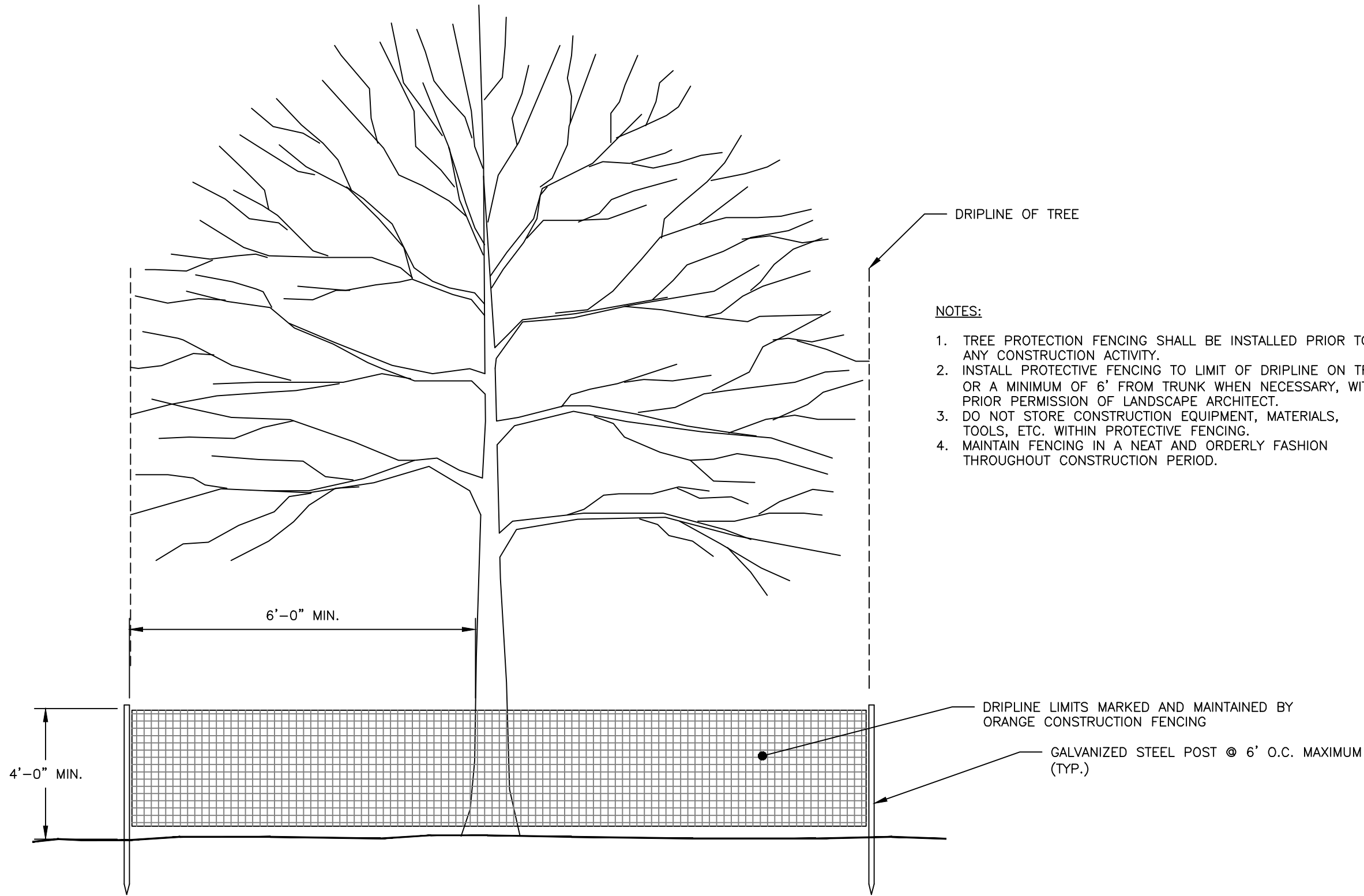
4" 3" 24"x18"x6" CONC.
BLOCK

NOTES:

1. ALL ASPECTS OF STOP 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 R1-1 UNDER THE
"REGULATORY SIGNS, BARRICADES,
AND GATES" (R1 SERIES) WITHIN
THE MANUAL ON UNIFORM TRAFFIC
CONTROL DEVICES, 2009 OR MOST
RECENT EDITION.
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.
4. IF STOP LINE IS PRESENT, LINE
TO CONSIST OF SOLID WHITE LINES
EXTENDING ACROSS APPROACH
LANES TO INDICATE THE POINT AT
WHICH THE STOP IS INTENDED OR
REQUIRED TO BE MADE. STOP
LINES TO BE 12"-24" WIDE, PER
THE MANUAL ON UNIFORM TRAFFIC
CONTROL DEVICES, 2009 OR MOST
RECENT EDITION.



STOP SIGN DETAIL
NOT TO SCALE

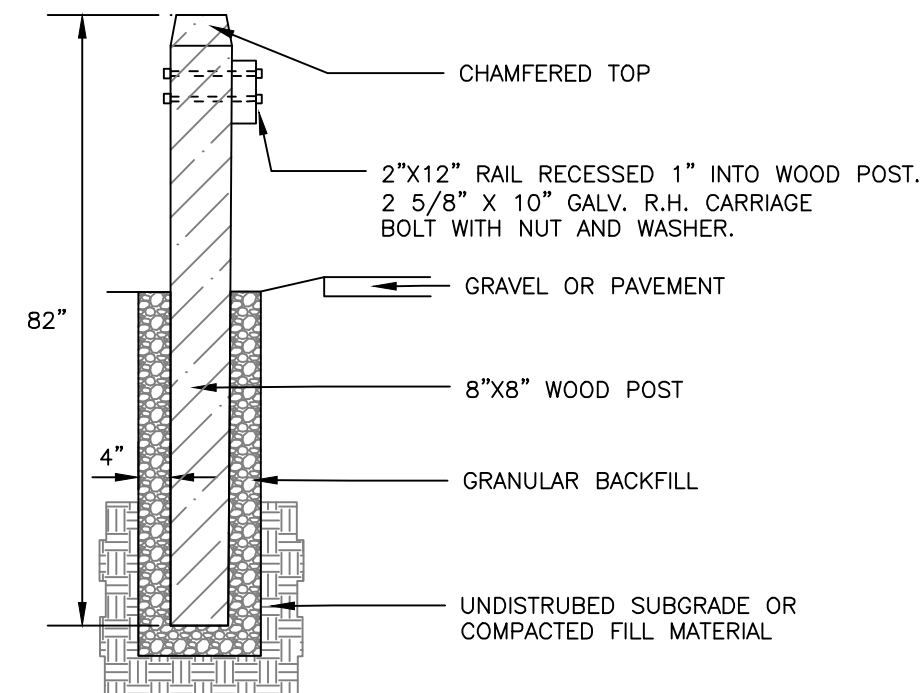


TREE PROTECTION DETAIL
NOT TO SCALE

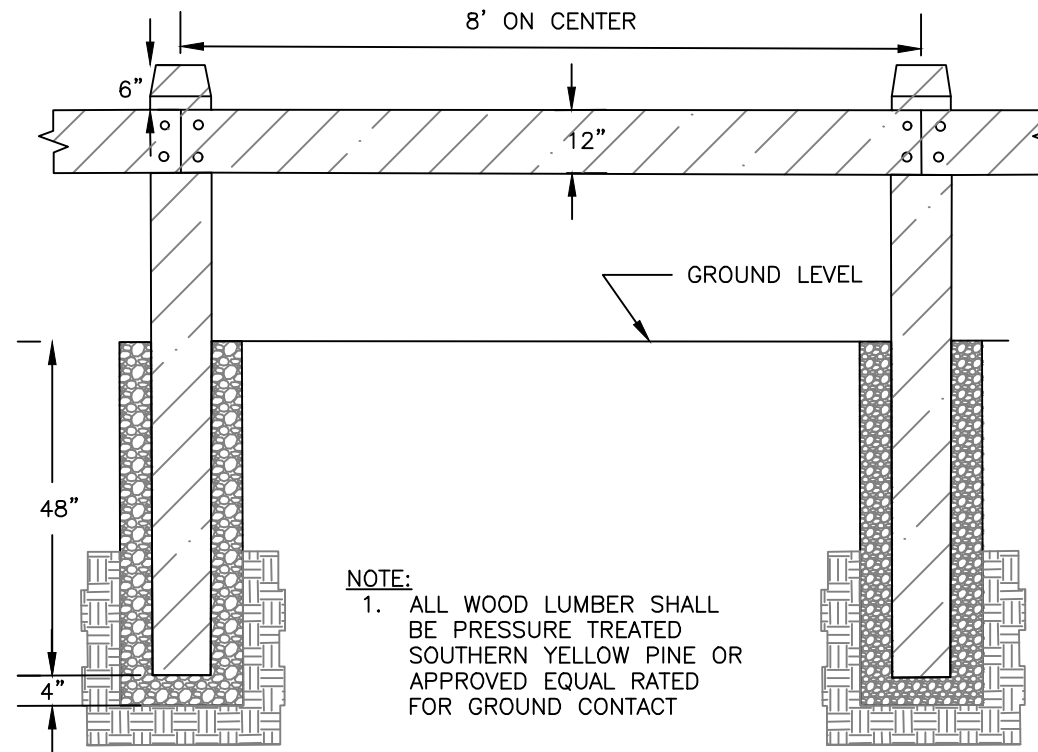
NOTES:

1. TREE PROTECTION FENCING SHALL BE INSTALLED PRIOR TO
ANY CONSTRUCTION ACTIVITY.
2. INSTALL PROTECTIVE FENCING TO LIMIT OF DRIPLINE ON TREE
OR A MINIMUM OF 6' FROM TRUNK WHEN NECESSARY, WITH
PRIOR PERMISSION OF LANDSCAPE ARCHITECT.
3. DO NOT STORE CONSTRUCTION EQUIPMENT, MATERIALS,
TOOLS, ETC. WITHIN PROTECTIVE FENCING.
4. MAINTAIN FENCING IN A NEAT AND ORDERLY FASHION
THROUGHOUT CONSTRUCTION PERIOD.

DRIPLINE LIMITS MARKED AND MAINTAINED BY
ORANGE CONSTRUCTION FENCING
GALVANIZED STEEL POST @ 6' O.C. MAXIMUM
(TYP.)



SIDE ELEVATION



FRONT ELEVATION

NOTE:
1. ALL WOOD LUMBER SHALL
BE PRESSURE TREATED
SOUTHERN YELLOW PINE OR
APPROVED EQUAL RATED
FOR GROUND CONTACT

WOODEN GUARDRAIL DETAIL
NOT TO SCALE

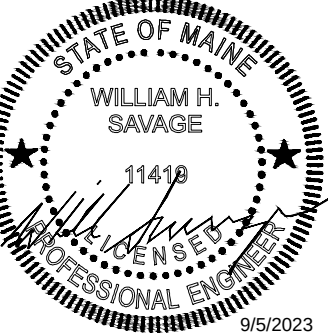
PERMIT LEVEL
NOT ISSUED FOR
CONSTRUCTION

ISSUED FOR	BY
MAJOR SITE PLAN	TA
COMMENT RESPONSE #1	WHS
COMMENT RESPONSE #2	WHS
COMMENT RESPONSE #3	WHS

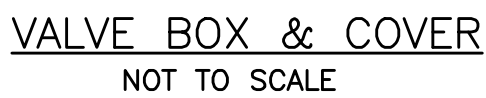
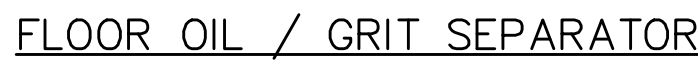
SITE DETAILS - 2	182 READ STREET WAREHOUSE EXPANSION PORTLAND, MAINE 04103	NEW LOGISTICS 70 QUARRY ROAD PORTLAND, MAINE 04103
------------------	--	---

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

FILE:	1176_DETAILS
JN:	1176
SCALE:	AS NOTED
DESIGNED BY:	CAB
DRAWN BY:	BJK
CHECKED BY:	WHS

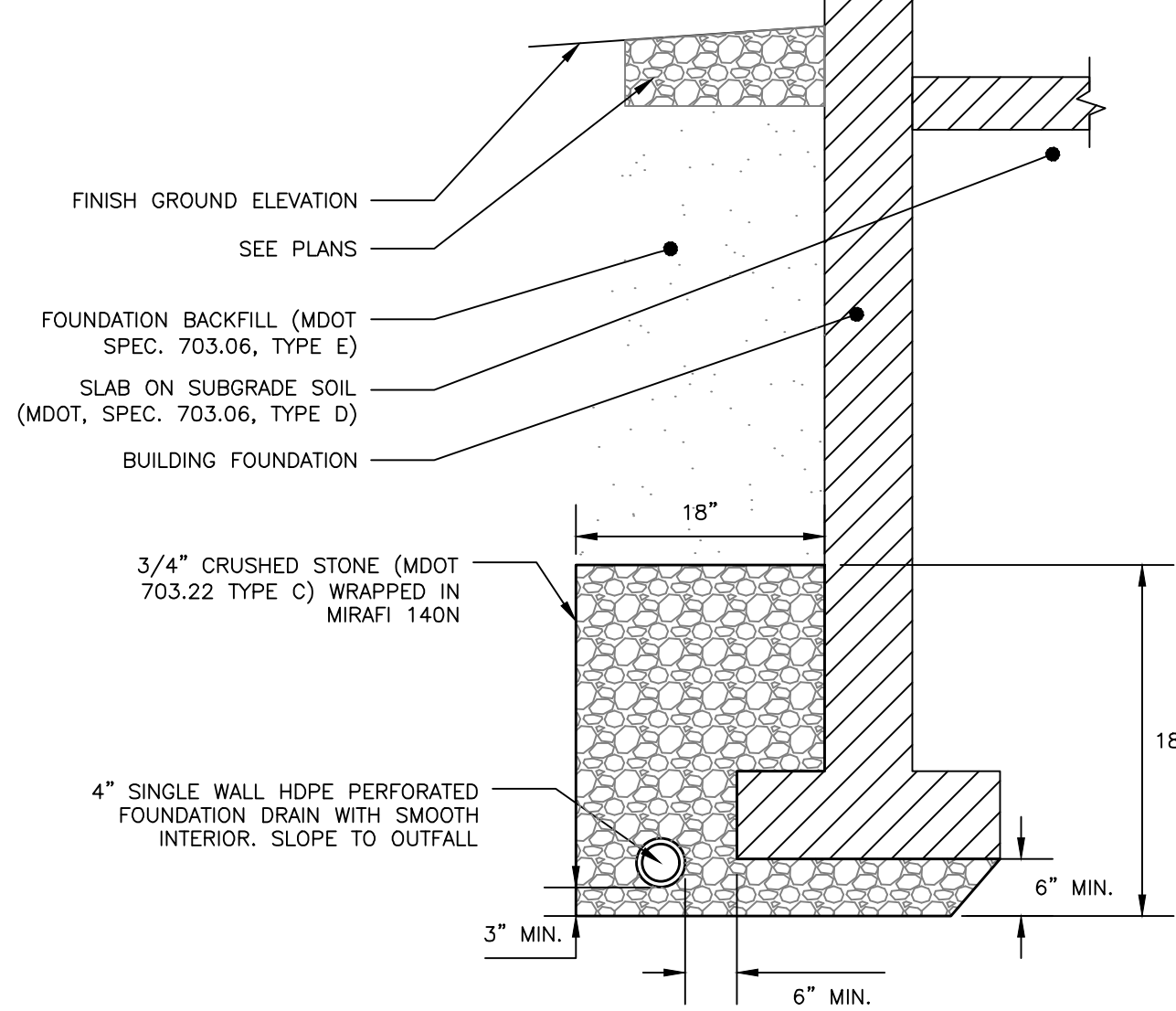


DRAWING NO.	C-41
-------------	------



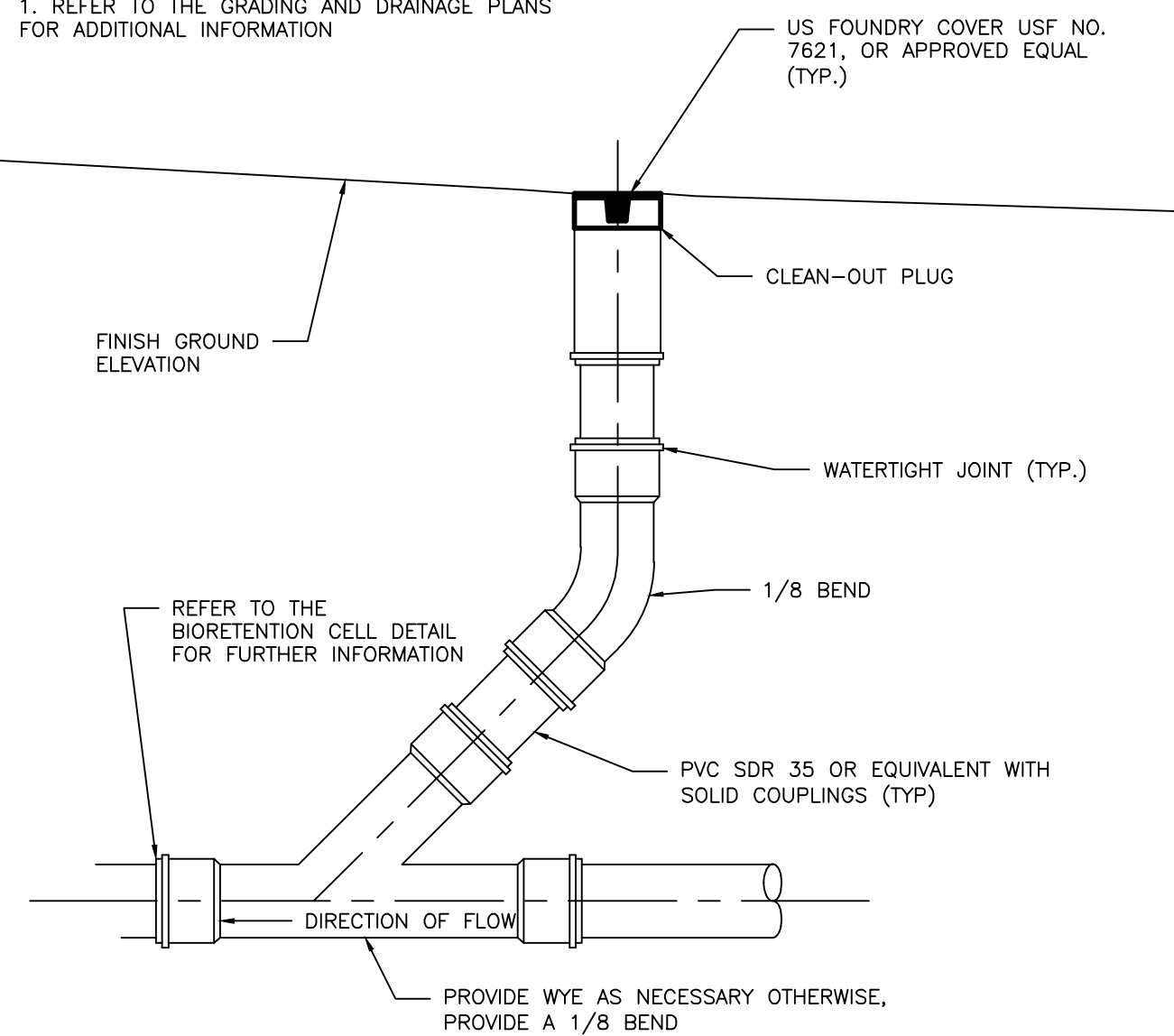
NOTES:

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 PROJECTION OF THE ROOF EYE.
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.
5. IF FOUNDATION DRAIN DAYLIGHTS, INSTALL DRAINAGE SOLUTIONS ANIMAL GUARD 4" EXTERNAL PVC OR CORRUGATED PLASTIC PIPE, OR INDUSTRY APPROVED EQUAL.



FOUNDATION DRAIN DETAIL
NOT TO SCALE

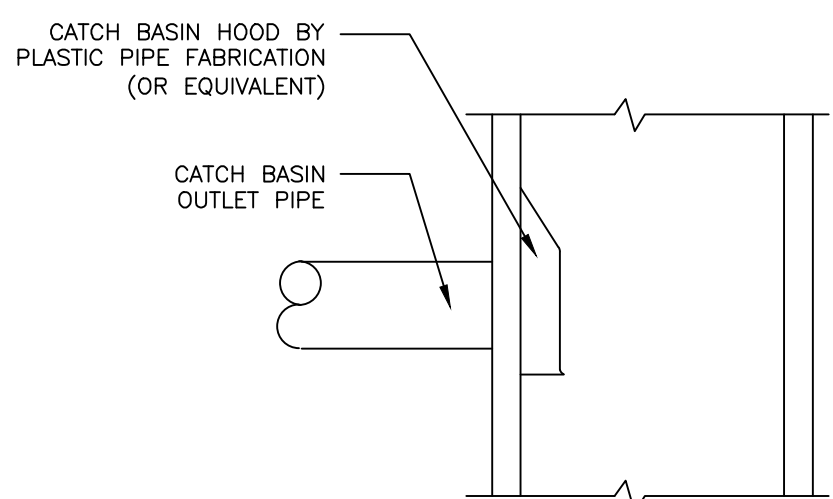
- NOTES:
1. REFER TO THE GRADING AND DRAINAGE PLANS FOR ADDITIONAL INFORMATION



CLEANOUT DETAIL
NOT TO SCALE

NOTES:

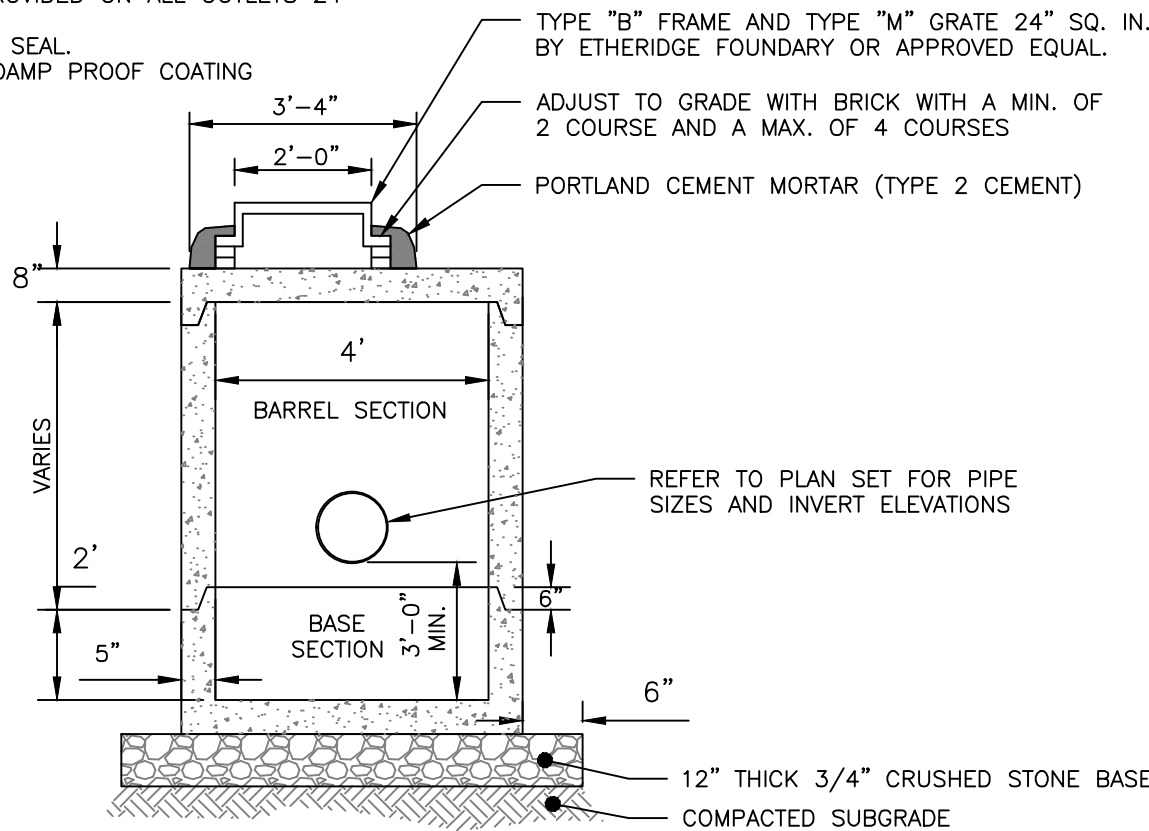
1. INSTALL CATCH BASIN HOODS IN ALL CATCH BASINS
2. PREFERRED STYLE DESIGNED TO ELIMINATE CEMENTING OF THE TRAP.
3. REFER TO MANUFACTURER'S RECOMMENDATIONS FOR INSTALLATION REQUIREMENTS



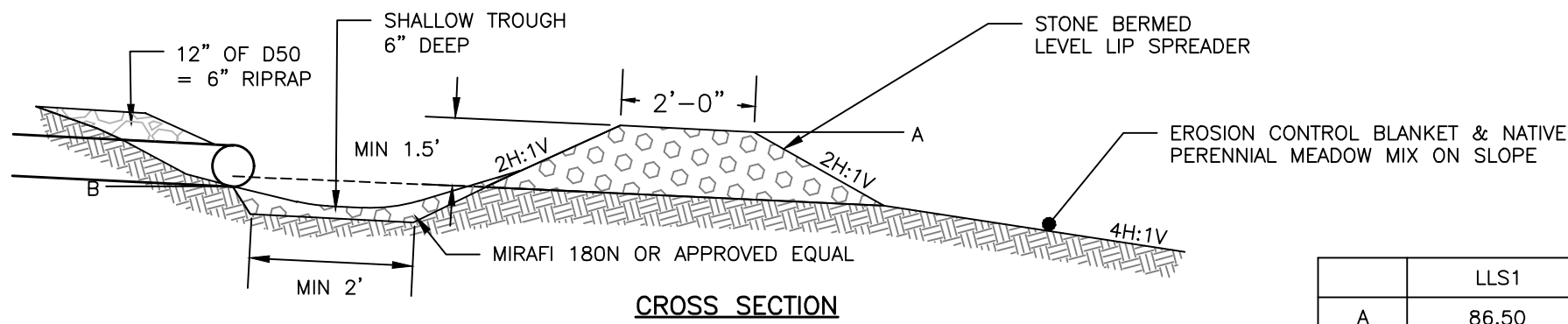
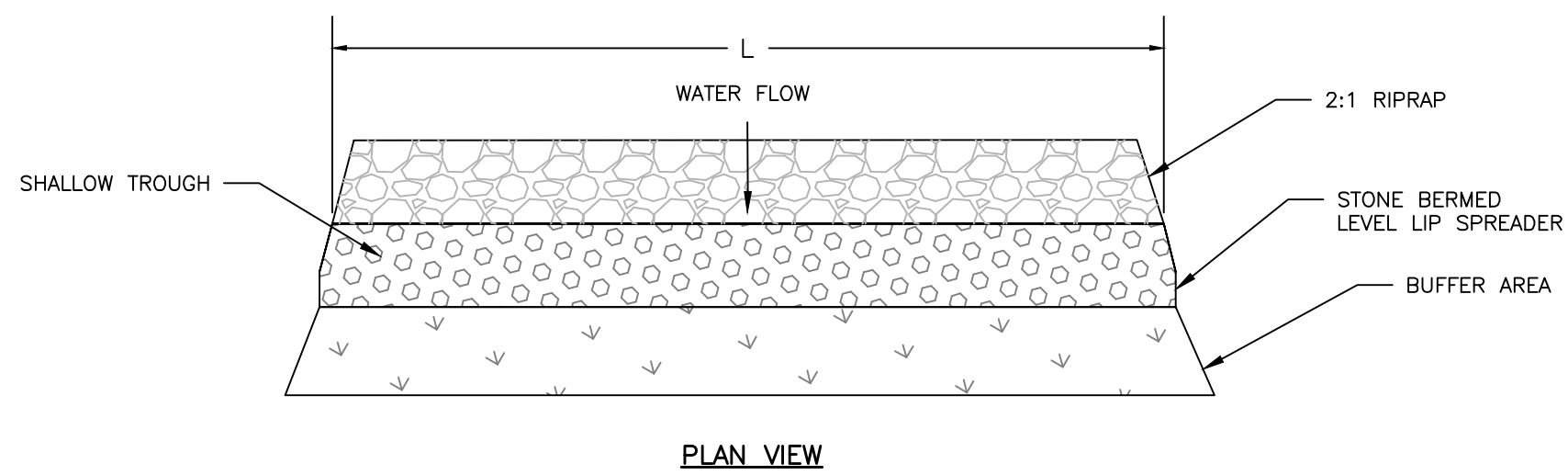
CATCH BASIN HOOD DETAIL
NOT TO SCALE

NOTES:

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.
7. CATCH BASIN HOODS SHALL BE PROVIDED ON ALL OUTLETS 24" OR LESS.
8. ALL PIPES TO HAVE A WATERTIGHT SEAL.
9. STRUCTURE TO BE APPLIED WITH DAMP PROOF COATING



4'-0" PRECAST CATCH BASIN WITH FLATTOP
NOT TO SCALE

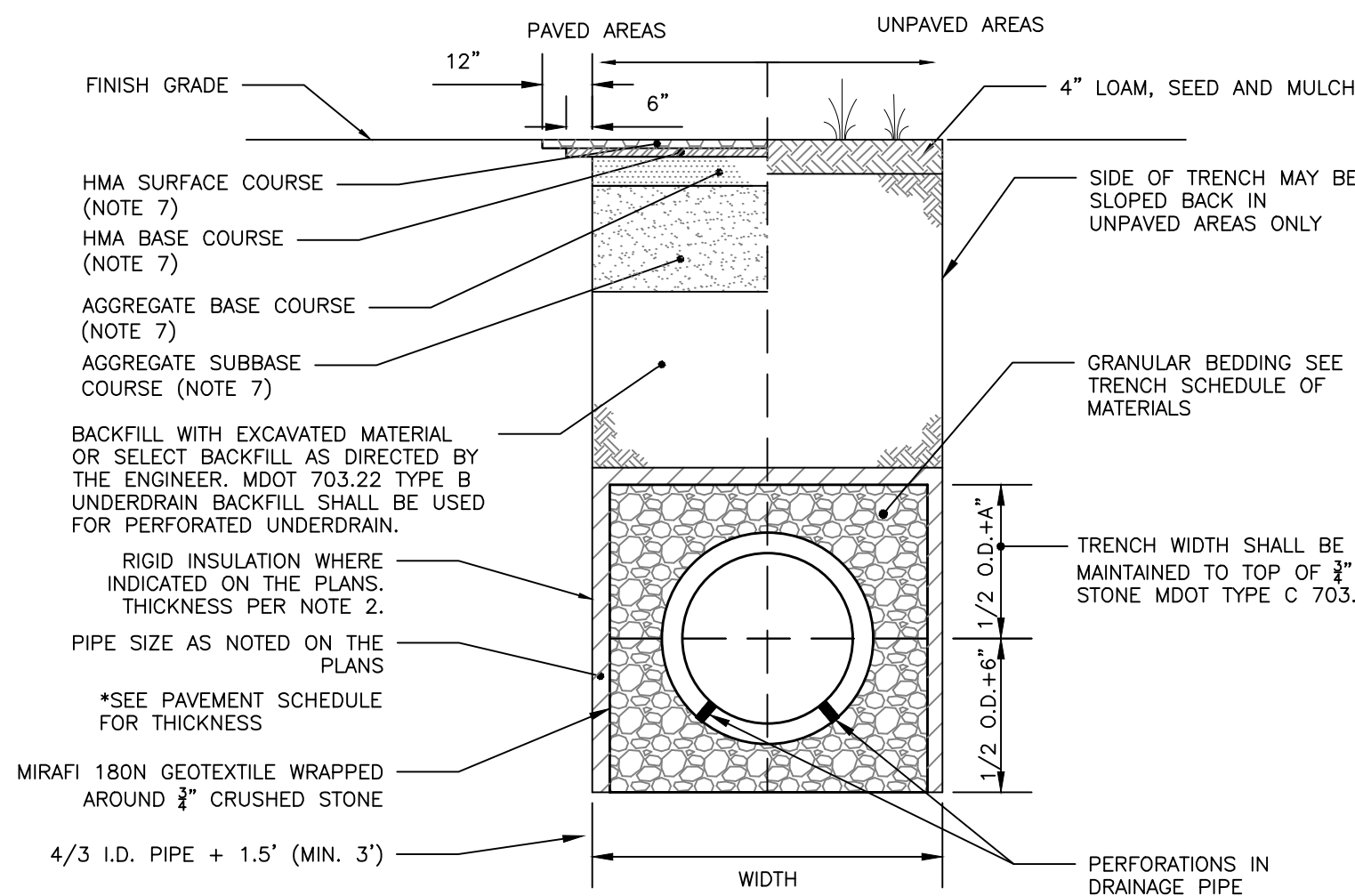


BERM STONE SIZE		
SIEVE SIZE	% PASSING BY WEIGHT	
12"	100	
6"	84-100	
3"	63-83	
1"	42-55	
#4	8-12	

NOTES:

1. FIELDSTONE, ROUGH QUARRIED STONE, BLASTED LEDGE ROCK OR TAILINGS ARE ACCEPTABLE BERM MATERIALS.
2. MEDIAN STONE SIZE TO BE APPROX 3 INCHES AT A MAXIMUM SIZE OF 6 INCHES. SEE TABLE.

LEVEL LIP SPREADER DETAIL
NOT TO SCALE

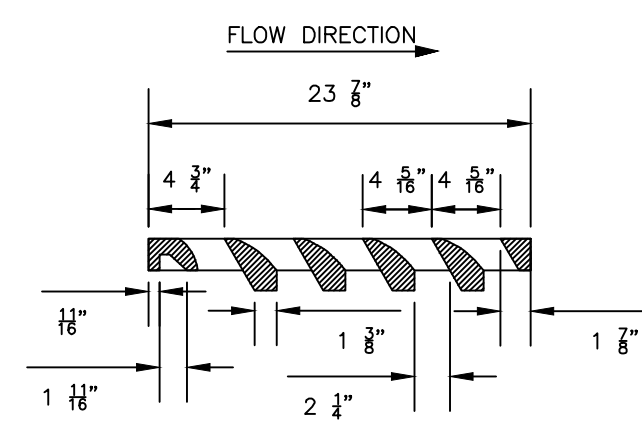


- ALLOWABLE PIPE MATERIALS:
- PVC RING TYPE SEWER (SDR 35) OR EQUIVALENT, MIN PS-46 RATING
 - ADS N-12 HP TRIPLE-WALL MIN PS-46 RATING
 - ADS SANITITE HP MIN. PS-46

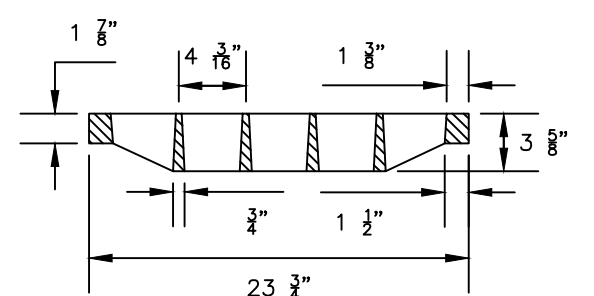
PERFORATED STORM DRAINAGE PIPE TRENCH SECTION DETAIL
NOT TO SCALE

NOTES:

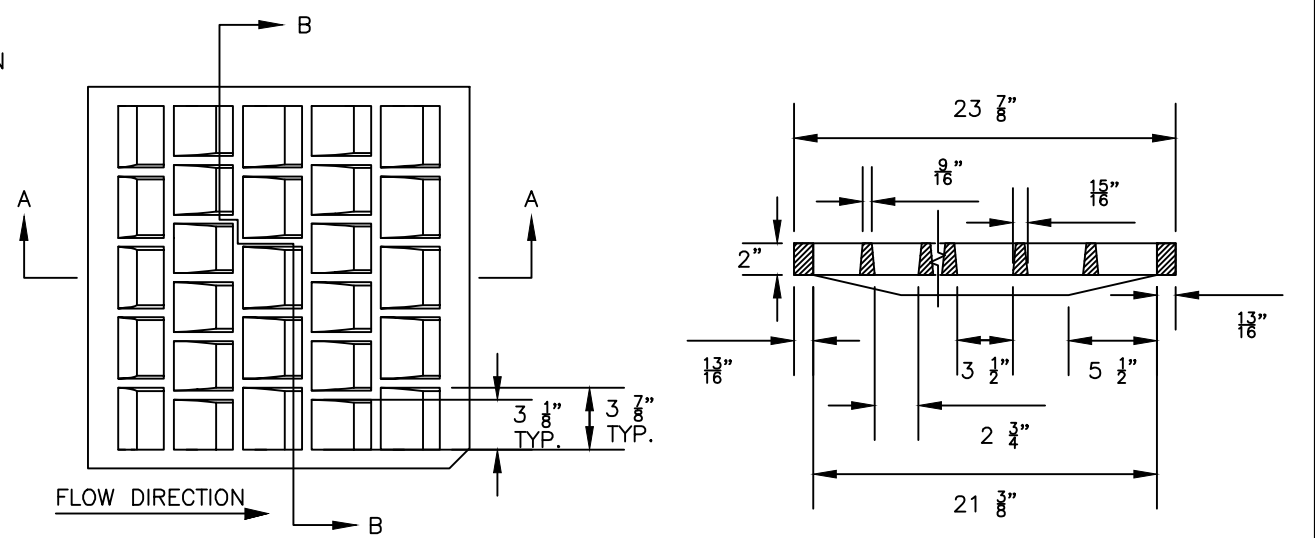
1. TYPE "A" FRAMES ARE TO HAVE 3 FLANGES.
2. TYPE "B" FRAMES ARE TO HAVE 4 FLANGES.
3. THE WORD "GUTTER" IS TO BE MOLDED INTO THE BACK FLANGE - TYPE "B" ONLY.
4. FRAMES AND GRATES ARE TO BE GRAY CAST IRON OR DUCTILE IRON CONFORMING TO AASHTO M306.
5. DIMENSIONS ARE NOMINAL.



SECTION A-A

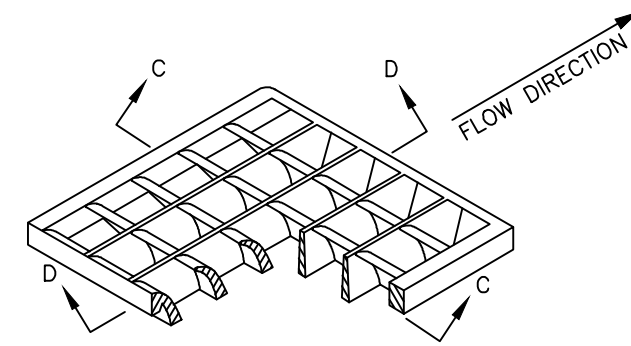


SECTION C-C

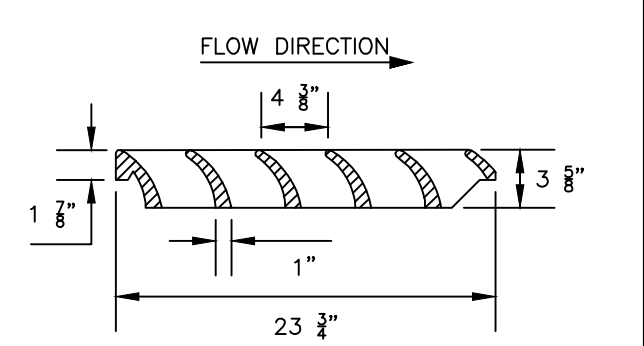


PLAN VIEW

SECTION B-B

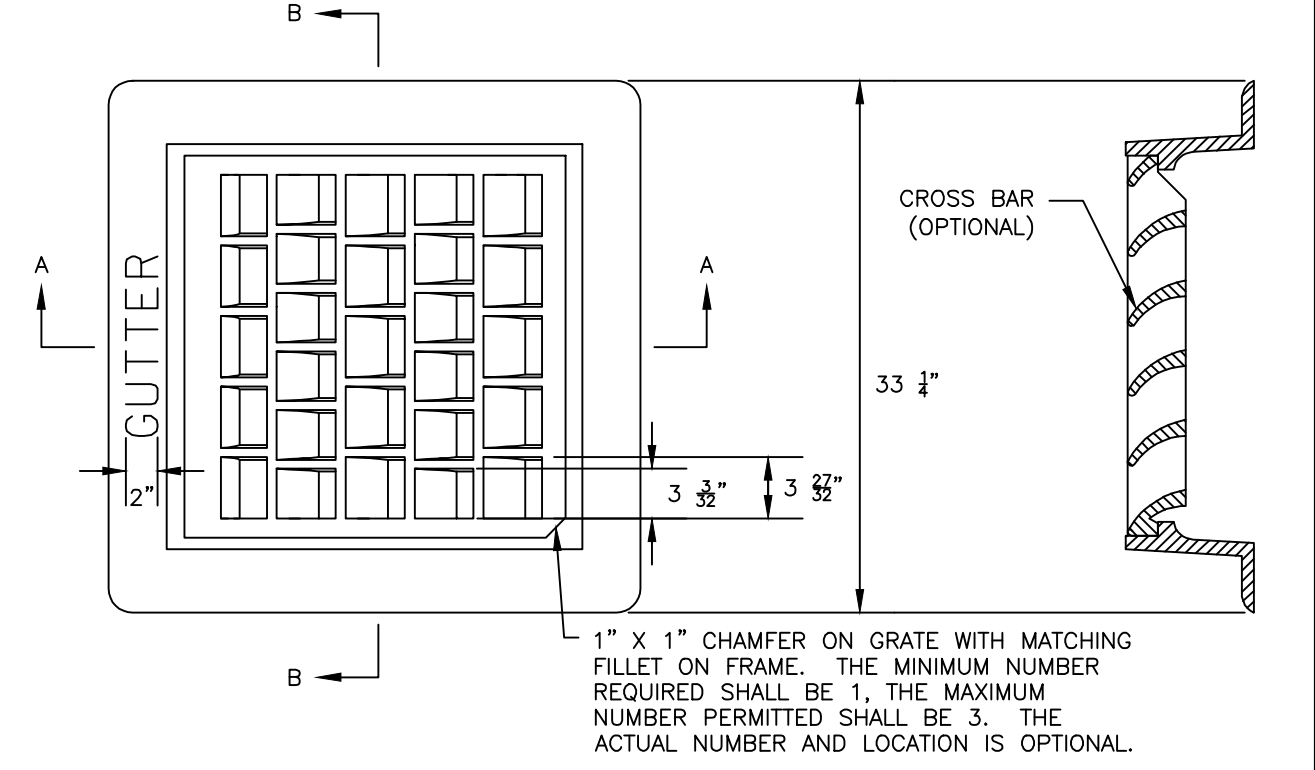


ISOMETRIC VIEW



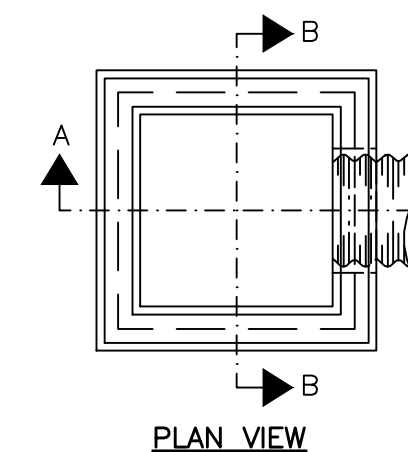
SECTION D-D

GRATE DETAIL



FRAME DETAIL

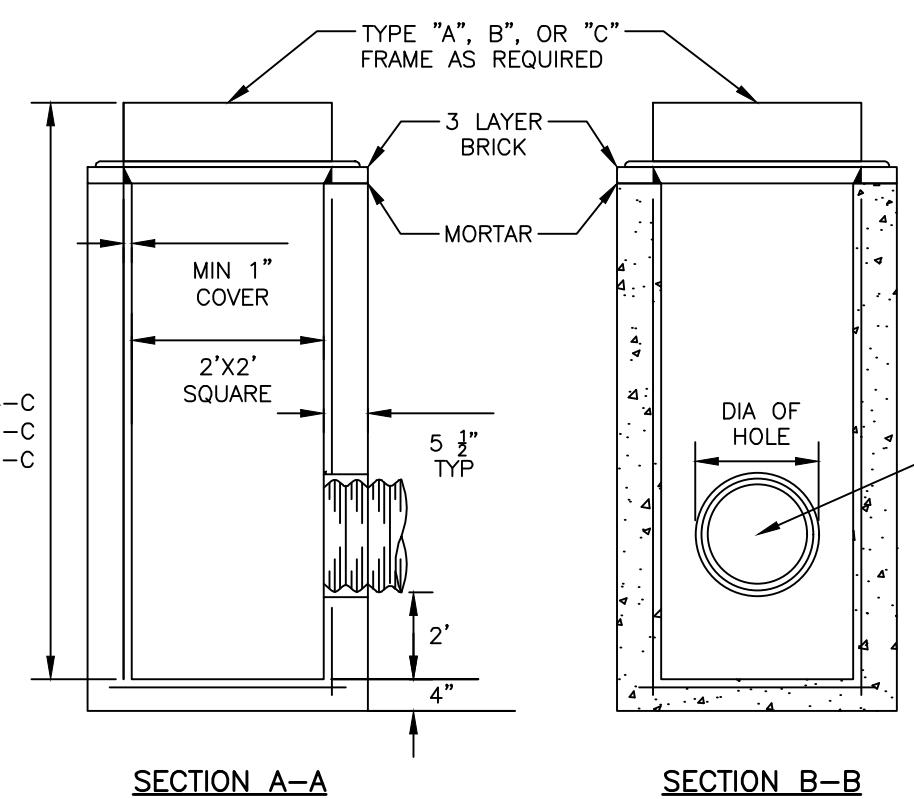
CATCH BASIN FRAME & GRATE - SQUARE
NOT TO SCALE



PLAN VIEW

NOTES:

1. ENTIRE CATCH BASIN WITH EXCEPTION OF LEVELING BRICK FRAME AND GRATE TO BE PRECAST AS A SINGLE PORTLAND CEMENT CONCRETE UNIT, #4 REBAR MINIMUM 8" O.C. OR EQUIVALENT WITH ENGINEER OF RECORD'S APPROVAL.
2. FIBER-REINFORCED CONCRETE TO HAVE A MIN. OF 4,000 PSI COMPRESSIVE STRENGTH AT 28 DAYS.
3. DESIGN LOAD FOR H-20 WHEEL LOAD.
4. CATCH BASIN TO CONFORM TO ASTM-C478 SPECIFICATIONS.
5. REINFORCE TO 0.15 IN SQ./LF. JOINTS SEALED WITH RAM-NEK GASKET OR EQUAL.
6. POLYPROPYLENE STEPS 12" O.C.
- 6.1. STEPS SHALL BE OFFSET AT NO MORE THAN 12" ON CENTER, STARTING FROM THE TOP OF THE MANHOLE FRAME AND SHALL BE FORGED ALUMINUM OR COPOLYMER POLYPROPYLENE STEPS.
7. EXTERIOR WATERPROOFING.
8. FLEXIBLE WATERTIGHT PIPE BOOTS TO CONFORM TO ASTM C-923.
9. SHALL MEET THE APPLICABLE TOWN OF SCARBOROUGH STANDARDS.
10. CATCH BASIN SHALL BE AS MANUFACTURED BY PRECAST OF MAINE OR APPROVED EQUAL.



24" SQUARE CATCH BASIN "TYPE F"
NOT TO SCALE

PERMIT LEVEL
NOT ISSUED FOR
CONSTRUCTION

ISSUED FOR	BY
MAJOR SITE PLAN	TA
COMMENT RESPONSE #1	WHS
COMMENT RESPONSE #2	WHS
COMMENT RESPONSE #3	WHS

DRAWING NAME:	DRAINAGE DETAILS	
	182 READ STREET WAREHOUSE EXPANSION PORTLAND, MAINE 04103	
PROJECT NAME:	NEPW LOGISTICS	
CLIENT:	70 QUARRY ROAD PORTLAND, MAINE 04103	

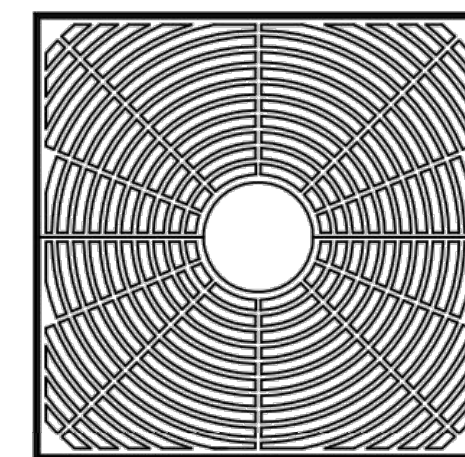
ACORN ENGINEERING, INC.	1176_DETAILS	JN: 1176	SCALE: AS NOTED	DESIGNED BY: CAB	DRAWN BY: BJK	CHECKED BY: WHS

FILE: 1176_DETAILS	
JN: 1176	SCALE: AS NOTED
DESIGNED BY: CAB	DRAWN BY: BJK
CHECKED BY: WHS	

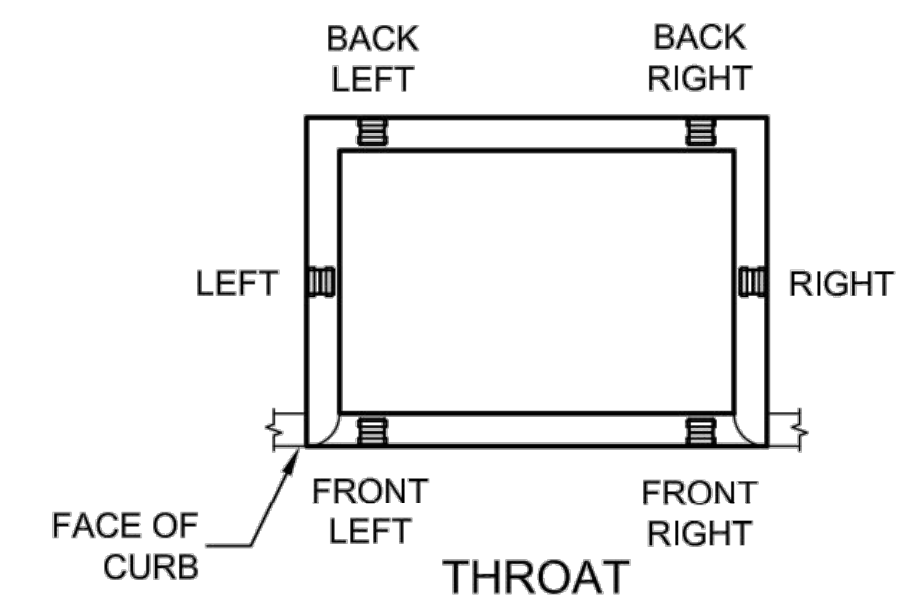
DRAWING NO. C-43	
------------------	--



THE FILTERRA TREATMENT CAPACITY IS DETERMINED BY THE TREATMENT RATE OF THE FILTERRA MEDIA. A SEPARATE INLET STRUCTURE MUST BE INSTALLED DOWNSTREAM OF THE OFFLINE FILTERRA TO CONVEY FLOWS IN EXCESS OF THE SYSTEM DESIGN CAPACITY. SEE THE FILTERRA DESIGN, OPERATION, AND PERFORMANCE GUIDE FOR MORE INFORMATION.



48" x 48" [1219 x 1219]
TREE GRATE
 (ACTUAL PRODUCT MAY VARY)
 N.T.S.



ORIENTATION REFERENCE IS INLET THROAT

STRUCTURE ID		*
SYSTEM TREATMENT CAPACITY (CFS / l/s)		*
WATER QUALITY FLOW RATE (CFS / l/s)		*
PEAK FLOW RATE (CFS / l/s)		*
RETURN PERIOD OF PEAK FLOW (YRS)		*
REQUIRED MEDIA INFILTRATION RATE		*
PIPE DATA:	I.E.	MATERIAL
OUTLET PIPE	*	SCH 40 PVC
		DIAMETER
		4"
CURB OPENING ORIENTATION		*
TOP OF CURB ELEVATION		*
ANTI-FLOTATION BALLAST IF REQUIRED	WIDTH	HEIGHT
	*	*
NOTES/SPECIAL REQUIREMENTS:		
* PER ENGINEER OF RECORD		

1. CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
2. PLANT, MULCH, AND DISSIPATION ROCK ARE SUPPLIED BY CONTECH AND DELIVERED AT TIME OF SYSTEM ACTIVATION. PLANT SELECTION SHALL BE DONE BY THE ENGINEER OF RECORD IN ACCORDANCE WITH THE PROJECT PLANS AND SPECIFICATIONS.
3. DIMENSIONS MARKED WITH () ARE REFERENCE DIMENSIONS. ACTUAL DIMENSIONS MAY VARY.
4. FOR SITE SPECIFIC DRAWINGS WITH DETAILED VAULT DIMENSIONS AND WEIGHTS, PLEASE CONTACT YOUR CONTECH REPRESENTATIVE.
www.ContechES.com
5. FILTERRA WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING.
6. STRUCTURE DESIGNED FOR PEDESTRIAN LIVE LOAD WITH H5 (4,000 LBS.) WHEEL LOAD MOUNTING THE CURB AND ADJACENT HS-2 LIVE LOAD SURCHARGE ON THE WALLS ON THE STRUCTURE.
7. FILTERRA STRUCTURE SHALL BE PRECAST CONCRETE CONFORMING TO ASTM C-857, ASTM C-918, AND ACI-318 LOAD FACTOR DESIGN METHOD.

A. ANY SUB-BASE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.

B. CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE FILTERRA VAULT (LIFTING CLUTCHES PROVIDED). SPREADER BAR WITH SUFFICIENT CABLE IS REQUIRED FOR SAFETY AND REDUCTION OF DAMAGE TO CONCRETE STRUCTURE.

C. CONTRACTOR TO INSTALL JOINT SEALANT BETWEEN ALL VAULT SECTIONS AND ASSEMBLE VAULT.

D. CONTRACTOR TO PROVIDE AND INSTALL OUTLET PIPE. PVC COUPLING CAST-IN TO WALL FOR OUTLET PIPE CONNECTION.

E. CONTRACTOR TO SUPPLY AND INSTALL INLET PROTECTION BAR IF REQUIRED BY LOCAL JURISDICTION.

F. CONTRACTOR TO TAKE APPROPRIATE MEASURES TO PROTECT FILTERRA MEDIA BAY FROM CONSTRUCTION-RELATED EROSION RUNOFF.

G. CONTECH IS RESPONSIBLE FOR ACTIVATION OF THE SYSTEM AND PLANTING OF THE PLANT THAT IS SPECIFIED. ACTIVATION ONLY OCCURS WHEN THE SITE IS FULLY STABILIZED, FINAL PAVEMENT INSTALLED AND SWEEPED CLEAN OF CONSTRUCTION SEDIMENT.

H. ALL FILTERRA UNITS MUST BE WATERED BY IRRIGATION LINES OR SPRINKLER SYSTEMS ON A REGULAR BASIS. EACH FILTERRA UNIT INCLUDES IRRIGATION HOLES FOR NEW OR EXISTING IRRIGATION LINES.



CONTECH[®]
ENGINEERED SOLUTIONS LLC
www.ContechES.com
5 Centre Pointe Dr., Suite 400, West Chester, OH 45069
513-338-1122 513-645-7000 513-645-7993 FAX

FILTERRA 8x6 OFFLINE STANDARD
LONG SIDE INLET
MODEL: FT0806

PERMIT LEVEL
NOT ISSUED FOR
CONSTRUCTION

[illegible]

FILTERRA DETAILS

70 QUARRY ROAD PORTLAND, MAINE 04103

PROJECT NAME:

..



A C O R N
ENGINEERING, INC.

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

FILE: 1176_DETAILS

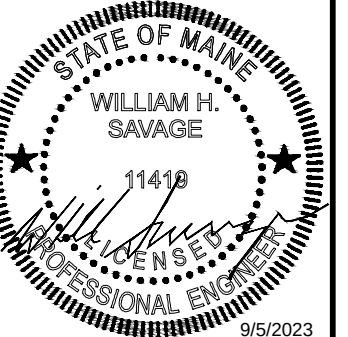
N:	1176
----	------

SALE:	AS NOTED
-------	----------

DESIGNED BY: CAB

RAWN BY: BJK

HECKED BY: WHS



DRAWING NO.

C-44

1.0 EROSION CONTROL MEASURES AND SITE STABILIZATION

AS PART OF THE SITE DEVELOPMENT, THE FOLLOWING TEMPORARY AND PERMANENT EROSION AND SEDIMENTATION CONTROL DEVICES SHALL BE IMPLEMENTED. DEVICES SHALL BE INSTALLED AS DESCRIBED IN THIS REPORT OR WITHIN THE PLAN SET. SEE THE MAINE EROSION AND SEDIMENT CONTROL HANDBOOK FOR CONSTRUCTION BEST MANAGEMENT PRACTICES FOR FURTHER REFERENCE.

1.1 TEMPORARY EROSION CONTROL MEASURES

THE FOLLOWING TEMPORARY EROSION AND SEDIMENTATION CONTROL MEASURES ARE PLANNED FOR THE PROJECT'S CONSTRUCTION PERIOD:

- 1.1.1 CRUSHED STONE STABILIZED CONSTRUCTION ENTRANCES SHALL BE PLACED AT ALL ACCESS POINTS TO THE PROJECT SITE WHERE THERE ARE DISTURBED AREAS. THE FOLLOWING SPECIFICATIONS SHALL BE FOLLOWED AT A MINIMUM:
 - STONE SIZE SHALL BE 2-3 INCHES, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.
 - THE THICKNESS OF THE ENTRANCE STONE LAYER SHALL BE NO LESS THAN 6 INCHES.
 - THE ENTRANCES SHALL NOT BE LESS THAN 20 FEET WIDE, HOWEVER NOT LESS THAN THE FULL WIDTH OF POINTS WHERE INGRESS OR EGRESS OCCURS. THE LENGTH SHALL NOT BE LESS THAN 50 FEET IN LENGTH.
 - GEOTEXTILE FABRIC (WOVEN OR NON-WOVEN) SHALL BE PLACED OVER THE ENTIRE ENTRANCE AREA.
- 1.1.2 THE ENTRANCE/EXIT SHALL BE MAINTAINED TO THE EXTENT THAT IT WILL PREVENT THE TRACKING OF SEDIMENT ONTO PUBLIC ROADWAYS. SILTATION FENCE OR EROSION CONTROL BERM SHALL BE INSTALLED DOWN GRADIENT OF ANY DISTURBED AREAS TO TRAP RUNOFF BORNE SEDIMENTS UNTIL PERMANENT STABILIZATION IS ACHIEVED. THE SILT FENCE OR EROSION CONTROL BERM SHALL BE INSTALLED PER THE DETAILS PROVIDED IN THE PLAN SET AND INSPECTED BEFORE AND IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. REPAIRS SHALL BE MADE IF THERE ARE ANY SIGNS OF EROSION OR SEDIMENTATION BELOW THE FENCE LINE OR BERM. IF THERE ARE SIGNS OF UNDERCUTTING AT THE CENTER OR THE EDGES, OR IMPOUNDING OF LARGE VOLUMES OF WATER BEHIND THE FENCE OR BERM, THE BARRIER SHALL BE REPLACED WITH A STONE CHECK DAM.
- 1.1.3 HAY MULCH INCLUDING HYDRO SEEDING IS INTENDED TO PROVIDE COVER FOR DENuded OR SEEDED AREAS UNTIL REVEGETATION IS ESTABLISHED. MULCH PLACED BETWEEN APRIL 15TH AND NOVEMBER 1ST ON SLOPES OF LESS THAN 15 PERCENT SHALL BE COVERED BY FABRIC NETTING AND ANCHORED WITH STAPLES IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATION. MULCH PLACED BETWEEN NOVEMBER 1ST AND APRIL 15TH ON SLOPES EQUAL TO OR STEEPER THAN 8 PERCENT AND EQUAL TO OR FLATTER THAN 2:1 SHALL USE MATS OR FABRIC NETTING AND ANCHORED WITH STAPLES IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATION.
- 1.1.4 AT ANY TIME OF THE YEAR, ALL SLOPES STEEPER THAN 3:1 SHALL BE STABILIZED WITH DOUBLE NET EROSION CONTROL BLANKET BIONET SC150BN BY NORTH AMERICAN GREEN OR APPROVED EQUAL, OR EROSION CONTROL MIX SLOPE PROTECTION AS DETAILED WITHIN THE PLANS.
- 1.1.5 FREE STREET, CROSS STREET, CENTER 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.
- 1.1.6 DURING DEMOLITION, CLEARING AND GRUBBING OPERATIONS, STONE CHECK DAMS SHALL BE INSTALLED AT ANY AREAS OF CONCENTRATED FLOW. THE MAXIMUM HEIGHT OF THE CHECK DAM SHALL NOT EXCEED 2 FEET. THE CENTER OF THE CHECK DAM SHALL BE 6 INCHES BELOW THE OUTER EDGES OF THE DAM. THE CONTRACTOR SHALL MULCH THE SIDE SLOPES AND INSTALL STONE CHECK DAMS FOR ALL NEWLY EXCAVATED DITCH LINES WITHIN 24 HOURS OF THEIR CREATION.
- 1.1.7 SILT FENCE STAKE SPACING SHALL NOT EXCEED 6 FEET UNLESS THE FENCE IS SUPPORTED WITH 14 GAUGE WIRE IN WHICH CASE THE MAXIMUM SPACING SHALL NOT EXCEED 10 FEET. THE SILT FENCE SHALL BE TOED INTO THE GROUND.
- 1.1.8 STORMDRAIN INLET PROTECTION SHALL BE PROVIDED TO STORMDRAINS THROUGH THE USE OF ANY OF THE FOLLOWING: HAY BALE DROP INLET STRUCTURES, SILT FENCE DROP INLET SEDIMENT FILTER, GRAVEL AND WIRE MESH DROP INLET SEDIMENT FILTER, OR CURB INLET SEDIMENT FILTER. BARRIERS SHALL BE INSPECTED AFTER EVERY RAINFALL EVENT AND REPAIRED AS NECESSARY. SEDIMENTS SHALL BE REMOVED WHEN ACCUMULATION HAS REACHED 1/2 THE DESIGN HEIGHT.
- 1.1.9 DUST CONTROL SHALL BE ACCOMPLISHED BY THE USE OF ANY OF THE FOLLOWING: WATER, CALCIUM CHLORIDE, STONE, OR AN APPROVED MDEP PRODUCT. DUST CONTROL SHALL BE APPLIED AS NEEDED TO ACCOMPLISH DUST CONTROL.
- 1.1.10 TEMPORARY LOAM, SEED, AND MULCHING SHALL BE USED IN AREAS WHERE NO OTHER EROSION CONTROL MEASURE IS USED. APPLICATION RATES FOR SEEDING ARE PROVIDED AT THE END OF THIS REPORT.
- 1.1.11 STOCKPILES SHALL BE STABILIZED WITHIN 7 DAYS OF FORMATION UNLESS A SCHEDULED RAIN EVENT OCCURS PRIOR TO THE 7 DAY WINDOW, IN WHICH CASE THE STOCKPILE SHALL BE STABILIZED PRIOR TO THE RAIN EVENT. METHODS OF STABILIZATION SHALL BE MULCH, EROSION CONTROL MIX, OR EROSION CONTROL BLANKETS/MATS. SILT FENCE OR WOOD WASTE COMPOST FILTER BERM SHALL BE PLACED DOWNHILL OF ANY SOIL STOCKPILE LOCATION.
- 1.1.12 FOR DISTURBANCE BETWEEN NOVEMBER 1 AND APRIL 15, PLEASE REFER TO WINTER STABILIZATION PLAN IN THIS REPORT AND THE MAINE EROSION AND SEDIMENT CONTROL BMP MANUAL FOR FURTHER INFORMATION.
- 1.1.13 IT IS OF THE UTMOST IMPORTANCE THAT STORMWATER RUNOFF AND POTENTIAL SEDIMENT FROM THE CONSTRUCTION SITE BE DIVERTED AROUND THE PROPOSED UNDERDRAINS UNTIL THE TRENCH IS BACKFILLED.

1.2 PERMANENT EROSION CONTROL MEASURES

THE FOLLOWING PERMANENT EROSION CONTROL MEASURES ARE INTENDED FOR POST DISTURBANCE AREAS OF THE PROJECT.

- 1.2.1 ALL DISTURBED AREAS DURING CONSTRUCTION, NOT SUBJECT TO OTHER PROPOSED CONDITIONS, SHALL RECEIVE A MINIMUM 4 OF LOAM AND SHALL BE LIMED, AND MULCHED.
- 1.2.2 EROSION CONTROL BLANKETS OR MATS SHALL BE PLACED OVER THE MULCH IN AREAS NOTED IN PARAGRAPH 4.2 OF THIS REPORT.
- 1.2.3 ALL STORMWATER DEVICES SHALL BE INSTALLED AND TRIBUTARY AREAS STABILIZED PRIOR RECEIVING STORMWATER.
- 1.2.3 REFER TO THE MAINE EROSION AND SEDIMENT CONTROL BMP MANUAL FOR ADDITIONAL INFORMATION.

2.0 EROSION AND SEDIMENTATION CONTROL PLAN

- 2.1 THE EROSION AND SEDIMENTATION CONTROL PLAN IS INCLUDED WITHIN THE PLAN SET.

3.0 DETAILS AND SPECIFICATIONS

- 3.1 EROSION CONTROL DETAILS AND SPECIFICATIONS ARE INCLUDED IN THE PLAN SET.

4.0 STABILIZATION PLAN FOR WINTER CONSTRUCTION

WINTER CONSTRUCTION CONSISTS OF EARTHWORK DISTURBANCE BETWEEN THE DATES OF NOVEMBER 1 AND APRIL 15. IF A CONSTRUCTION SITE IS NOT STABILIZED WITH PAVEMENT, A ROAD GRAVEL BASE, 75% MATURE VEGETATION COVER OR RIPRAP BY NOVEMBER 15, THEN THE SITE SHALL BE PROTECTED WITH OVER-WINTER STABILIZATION, ANY AREA NOT STABILIZED WITH PAVEMENT, VEGETATION, MULCHING, EROSION CONTROL MIX, EROSION CONTROL MATS, RIPRAP, OR GRAVEL BASE ON A ROAD SHALL BE CONSIDERED OPEN.

THE CONTRACTOR SHALL LIMIT THE WORK AREA TO AREAS THAT WORK WILL OCCUR IN DURING THE SUBSEQUENT 15 DAYS AND SO THAT IT CAN BE MULCHED ONE DAY PRIOR TO A SNOW EVENT. THE CONTRACTOR SHALL STABILIZE WORK AREAS PRIOR TO OPENING ADDITIONAL WORK AREAS TO MINIMIZE AREAS WITHOUT EROSION CONTROL MEASURES.

THE FOLLOWING MEASURES SHALL BE IMPLEMENTED DURING WINTER CONSTRUCTION PERIODS:

- 4.1 SEDIMENT BARRIERS DURING FROZEN CONDITIONS, SEDIMENT BARRIERS MAY CONSIST OF EROSION CONTROL MIX BERMS OR ANY OTHER RECOGNIZED SEDIMENT BARRIERS AS FROZEN SOIL PREVENTS THE PROPER INSTALLATION OF HAY BALES OR SILT FENCES.

4.2 MULCHING

ALL AREAS SHALL BE CONSIDERED TO BE DENuded UNTIL SEEDED AND MULCHED. HAY AND STRAW MULCH SHALL BE APPLIED AT A RATE OF 150 LB. PER 1,000 SQUARE FEET OR 3 TONS/ACRE (TWICE THE NORMAL ACCEPTED RATE OF 75-LBS./1,000 S.F. OR 1.5 TONS/ACRE) AND SHALL BE PROPERLY ANCHORED. EROSION CONTROL MIX MUST BE APPLIED WITH A MINIMUM 4 INCH THICKNESS. MULCH SHALL NOT BE SPREAD ON TOP OF SNOW. THE SNOW SHALL BE REMOVED DOWN TO A ONE-INCH DEPTH OR LESS PRIOR TO APPLICATION. AFTER EACH DAY OF FINAL GRADING, THE AREA SHALL BE PROPERLY STABILIZED WITH ANCHORED HAY OR STRAW OR EROSION CONTROL MATTING. AN AREA SHALL BE CONSIDERED TO HAVE BEEN STABILIZED WHEN EITHER MULCHED OR ADEQUATELY ANCHORED SO THAT GROUND SURFACE IS NOT VISIBLE THROUGH THE MULCH. BETWEEN THE DATES OF NOVEMBER 1 AND APRIL 15, ALL MULCH SHALL BE ANCHORED BY EITHER MULCH NETTING, TRACKING OR WOOD CELLULOSE FIBER. THE COVER WILL BE CONSIDERED SUFFICIENT WHEN THE GROUND SURFACE IS NOT VISIBLE THROUGH THE MULCH. AFTER NOVEMBER 1ST, MULCHING AND ANCHORING OF ALL EXPOSED SOIL SHALL OCCUR AT THE END OF EACH FINAL GRADING WORKDAY.

4.3 SOIL STOCKPILING

STOCKPILES OF SOIL OR SUBSOIL SHALL BE MULCHED FOR OVER WINTER PROTECTION WITH HAY OR STRAW AT TWICE THE NORMAL RATE OR WITH A FOUR-INCH LAYER OF EROSION CONTROL MIX. THIS SHALL BE DONE WITHIN 24 HOURS OF STOCKING AND RE-ESTABLISHED PRIOR TO ANY RAINFALL OR SNOWFALL.

4.4 SEEDING

BETWEEN THE DATES OF OCTOBER 15TH AND APRIL 1ST, LOAM OR SEED SHALL NOT BE REQUIRED. DURING PERIODS OF ABOVE FREEZING TEMPERATURES FINISHED AREAS SHALL BE FINE GRADY AND EITHER PROTECTED WITH MULCH OR TEMPORARILY SEEDED AND PROTECTED UNTIL SUCH TIME AS THE FINAL TREATMENT CAN BE APPLIED. IF THE DATE IS AFTER NOVEMBER 1ST AND IF THE EXPOSED AREA HAS NOT BEEN LOAMED, FINAL GRADING WITH A UNIFORM SURFACE, THEN THE AREA MAY BE DORMANT SEEDED AT A RATE OF 3 TIMES HIGHER THAN SPECIFIED FOR PERMANENT SEED AND THEN MULCHED.

DORMANT SEEDING MAY BE PLACED PRIOR TO THE PLACEMENT OF MULCH OR EROSION CONTROL BLANKETS. IF DORMANT SEEDING IS USED FOR THE SITE, ALL DISTURBED AREAS SHALL RECEIVE 4 OF LOAM AND SEED AT AN APPLICATION RATE OF 5 LBS/1,000 S.F. ALL AREAS SEEDED DURING THE WINTER SHALL BE INSPECTED IN THE SPRING FOR ADEQUATE CATCH. ALL AREAS INSUFFICIENTLY VEGETATED (LESS THAN 75% CATCH) SHALL BE REVEGETATED BY REPLACING LOAM, SEED AND MULCH. IF DORMANT SEEDING IS NOT USED FOR THE SITE, ALL DISTURBED AREAS SHALL BE REVEGETATED IN THE SPRING.

4.5 OVER WINTER STABILIZATION OF DISTURBED SOILS

BY SEPTEMBER 15TH, ALL DISTURBED SOILS ON AREAS HAVING A SLOPE LESS THAN 15% SHALL BE SEEDED AND MULCHED. IF THE DISTURBED AREAS ARE NOT STABILIZED BY THIS DATE, THEN ONE OF THE FOLLOWING ACTIONS SHALL BE TAKEN TO STABILIZE THE SOIL FOR LATE FALL AND WINTER:

- STABILIZE THE SOIL WITH TEMPORARY VEGETATION - BY OCTOBER 1ST, SEED THE DISTURBED SOIL WITH WINTER RYE AT A SEEDING RATE OF 3LBS PER 1,000 S.F., LIGHTLY MULCH THE SEEDED SOIL WITH HAY OR STRAW AT 75 LBS PER 1,000 S.F., AND ANCHOR THE MULCH WITH PLASTIC NETTING. MONITOR GROWTH OF THE RYE OVER THE NEXT 30 DAYS. IF THE RYE FAILS TO GROW AT LEAST THREE INCHES OR FAILS TO COVER AT LEAST 75% OF THE DISTURBED SOIL BEFORE NOVEMBER 1ST, THEN MULCH THE AREA FOR OVER-WINTER PROTECTION.
- STABILIZE THE SOIL WITH SOD - STABILIZE THE DISTURBED SOIL WITH PROPERLY INSTALLED SOD BY OCTOBER 1ST. PROPER INSTALLATION INCLUDES PINNING THE SOD ONTO THE SOIL WITH WIRE PINS, ROLLING THE SOD TO GUARANTEE CONTACT BETWEEN THE SOD AND UNDERLYING SOIL, AND WATERING THE SOD TO PROMOTE ROOT GROWTH INTO THE DISTURBED SOIL.
- STABILIZE THE SOIL WITH MULCH - BY NOVEMBER 15TH, MULCH THE DISTURBED SOIL BY SPREADING HAY OR STRAW AT A RATE OF AT LEAST 150 LBS PER 1,000 S.F. ON THE AREA SO THAT NO SOIL IS VISIBLE THROUGH THE MULCH. IMMEDIATELY AFTER APPLYING THE MULCH, ANCHOR THE MULCH WITH PLASTIC NETTING TO PREVENT WIND FROM MOVING THE MULCH OFF THE DISTURBED SOIL.

4.6 OVER WINTER STABILIZATION OF DISTURBED SLOPES

ALL STONE-COVERED SLOPES SHALL BE CONSTRUCTED AND STABILIZED BY NOVEMBER 15TH. ALL SLOPES TO BE VEGETATED SHALL BE SEEDED AND MULCHED BY SEPTEMBER 1ST. A SLOPE IS CONSIDERED A GRADE GREATER THAN 15%. IF A SLOPE TO BE VEGETATED IS NOT STABILIZED BY SEPTEMBER 1ST, THEN ONE OF THE FOLLOWING ACTION SHALL BE TAKEN TO STABILIZE THE SLOPE FOR LATE FALL AND WINTER:

- STABILIZE THE SOIL WITH TEMPORARY VEGETATION AND EROSION CONTROL MATS - BY OCTOBER 1ST THE DISTURBED SLOPE SHALL BE SEEDED WITH WINTER RYE AT A SEEDING RATE OF 3 LBS PER 1,000 S.F. AND THEN INSTALL EROSION CONTROL MATS OR ANCHORED MULCH OVER THE SEEDED. IF THE RYE FAILS TO GROW AT LEAST THREE INCHES OR FAILS TO COVER AT LEAST 75% OF THE SLOPE BY NOVEMBER 1ST, THEN THE CONTRACTOR SHALL COVER THE SLOPE WITH A LAYER OF EROSION CONTROL MIX OR WITH STONE RIPRAP.
- STABILIZE THE SOIL WITH SOD - THE DISTURBED SLOPE SHALL BE STABILIZED WITH PROPERLY INSTALLED SOD BY OCTOBER 1ST. PROPER INSTALLATION INCLUDES THE CONTRACTOR ROLLING THE SOD ONTO THE SLOPE WITH 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 EXIT SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. WHEN THE CONTROL PAD BECOMES INEFFECTIVE, THE STONE SHALL BE REMOVED ALONG WITH THE COLLECTED SOIL MATERIAL AND REDISTRIBUTED ON SITE IN A STABLE MANNER. THE ENTRANCE SHOULD THEN BE RECONSTRUCTED. THE CONTRACTOR SHALL SWEEP OR WASH PAVEMENT AT EXITS, WHICH HAVE EXPERIENCED MUD-TRACKING ON TO THE PAVEMENT OR TRAVELED WAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH AGGREGATE, WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE. ALL SEDIMENT SHALL BE PREVENTED FROM ENTERING STORM DRAINS, DITCHES, OR WATERWAYS.

5.3 MULCHED AREAS

ALL MULCHES MUST BE INSPECTED PERIODICALLY, IN PARTICULAR AFTER RAINSTORMS, TO CHECK FOR RILL EROSION. IF LESS THAN 90% OF THE SOIL SURFACE IS COVERED BY MULCH, ADDITIONAL MULCH SHALL BE IMMEDIATELY APPLIED. NETS MUST BE INSPECTED AFTER RAIN EVENTS FOR DISLOCATION OR FAILURE. IF WASHOUTS OR BREAKAGE OCCUR, RE-INSTALL THE NETS AS NECESSARY AFTER REPAIRING DAMAGE TO THE SLOPE, WHERE MULCH IS USED IN CONJUNCTION WITH ORNAMENTAL PLANTINGS, INSPECT PERIODICALLY THROUGHOUT THE YEAR TO DETERMINE IF MULCH IS MAINTAINING COVERAGE OF THE SOIL SURFACE. REPAIR AS NEEDED.

5.4 DUST CONTROL

WHEN TEMPORARY DUST CONTROL MEASURES ARE USED, REPETITIVE TREATMENT SHALL BE APPLIED AS NEEDED TO ACCOMPLISH CONTROL.

5.5 STORMWATER APPURTENANCES

ALL UNDERDRAINS, STORM DRAINS, AND CATCH BASINS 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:

- 0 MAINE PROFESSIONAL ENGINEERING LICENSE #11419
- 0 MAINE DEP - CERTIFIED IN MAINTENANCE & INSPECTION OF STORMWATER BMP'S CERT #14
- 0 CERTIFIED EROSION, SEDIMENT AND STORM WATER INSPECTOR (CESSWI) CERT #0293
- 0 CERTIFIED PROFESSIONAL IN EROSION AND SEDIMENT CONTROL (CPESC) CERT. #4620

THE CONTRACTOR HAS SOLE RESPONSIBILITY FOR COMPLYING WITH THE EROSION AND SEDIMENTATION REPORT/PLAN, INCLUDING CONTROL OF FUGITIVE DUST. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY MONETARY PENALTIES RESULTING FROM FAILURE TO COMPLY WITH THESE STANDARDS.

6.0 IMPLEMENTATION SCHEDULE

THE FOLLOWING IMPLEMENTATION SEQUENCE IS INTENDED TO MAXIMIZE THE EFFECTIVENESS OF THE ABOVE DESCRIBED EROSION CONTROL MEASURES. CONTRACTORS SHOULD AVOID OVEREXPOSING DISTURBED AREAS AND LIMIT THE AMOUNT OF STABILIZATION AREA.

1. INSTALL A STABILIZED CONSTRUCTION ENTRANCE IN ALL LOCATIONS WHERE CONSTRUCTION TRAFFIC WILL ENTER AND EXIT THE SITE.
2. INSTALL PERIMETER SILT FENCE OR EROSION CONTROL BERM.
3. INSTALL ALL OTHER EROSION CONTROL DEVICES AS NECESSARY THROUGHOUT THE REMAINDER OF THIS SCHEDULE.
4. COMMENCE INSTALLATION OF DRAINAGE INFRASTRUCTURE.
5. PRIORITIZE THE DOWNHILL SIDE TO CONTAIN RUNOFF WITHIN THE SITE WHILE PROVIDING AN ENGINEERED OUTLET WITH SILTATION BARRIER TO THE MUNICIPAL STORMWATER SYSTEM WITHIN SPRING STREET.
6. COMMENCE EARTHWORK OPERATIONS, WALL AND FOUNDATION INSTALLATION.
7. COMMENCE INSTALLATION OF UTILITIES.
8. CONTINUE EARTHWORK AND GRADING TO SUBGRADE AS NECESSARY FOR CONSTRUCTION.
9. COMPLETE INSTALLATION OF DRAINAGE INFRASTRUCTURE, AS WELL AS OTHER UTILITY WORK.
10. COMPLETE REMAINING EARTHWORK OPERATIONS.
11. INSTALL SUB-BASE AND BASE GRAVELS IN PAVED AREAS.
12. INSTALL PAVING, CURBING AND BRICKWORK.
13. LOAM, LIME, FERTILIZE, SEED AND MULCH DISTURBED AREAS AND COMPLETE ALL LANDSCAPING.
14. ONCE THE SITE IS STABILIZED, 90% CATCH OF GRASS HAS BEEN OBTAINED, OR MULCHING OF LANDSCAPE AREAS IS COMPLETE REMOVE ALL TEMPORARY EROSION CONTROL MEASURES.
15. TOUCH UP AREAS WITHOUT A VIGOROUS CATCH OF GRASS WITH LOAM AND SEED.
16. COMPLETE SITE SIGNAGE AND STRIPING.
17. EXECUTE PROPER MAINTENANCE OF ALL TEMPORARY AND PERMANENT EROSION CONTROL MEASURES THROUGHOUT THE PROJECT.

THE ABOVE IMPLEMENTATION SEQUENCE SHOULD BE GENERALLY FOLLOWED BY THE SITE CONTRACTOR. HOWEVER, THE CONTRACTOR MAY CONSTRUCT SEVERAL ITEMS SIMULTANEOUSLY. THE CONTRACTOR SHALL SUBMIT TO THE OWNER A SCHEDULE OF THE COMPLETION OF THE WORK. IF THE CONTRACTOR IS TO COMMENCE THE CONSTRUCTION OF MORE THAN ONE ITEM ABOVE, THEY SHALL LIMIT THE AMOUNT OF EXPOSED AREAS TO THOSE AREAS IN WHICH WORK IS EXPECTED TO BE UNDERTAKEN DURING THE FOLLOWING 30 DAYS.

THE CONTRACTOR SHALL RE-VEGETATE DISTURBED AREAS AS RAPIDLY AS POSSIBLE. ALL AREAS SHALL BE PERMANENTLY STABILIZED WITHIN 7 DAYS OF FINAL GRADING OR BEFORE A STORM EVENT. THE CONTRACTOR SHALL INCORPORATE PLANNED INLETS AND DRAINAGE SYSTEMS AS EARLY AS POSSIBLE INTO THE CONSTRUCTION PHASE.

7.0 SEEDING PLAN

7.1 SITE PREPARATION

THE SEEDED AREAS SHALL BE FEASIBLY GRADED OUT TO PROVIDE THE USE OF EQUIPMENT FOR SEEDBED PREPARATION, SEEDING, MULCH APPLICATION, AND MULCH ANCHORING. IF NECESSARY, THE SITE MAY REQUIRE ADDITIONAL TEMPORARY EROSION CONTROL MEASURES OUTLINED IN THE EROSION CONTROL REPORT.

7.2 SEEDBED PREPARATION

FERTILIZER SHALL BE APPLIED TO THE SITE AT A RATE OF 13.8 POUNDS PER 1,000 SQUARE FEET. THE COMPOSITION OF THE FERTILIZER SHALL BE 10-10-10 (N-P205-K20) OR EQUIVALENT.

LIMESTONE SHALL BE APPLIED TO THE SITE AT A RATE OF 13.8 POUNDS PER 1,000 SQUARE FEET.

7.3 SEEDING

THE COMPOSITION AND AMOUNT OF TEMPORARY SEED APPLIED TO A SITE SHALL BE DETERMINED BY THE FOLLOWING TABLE:

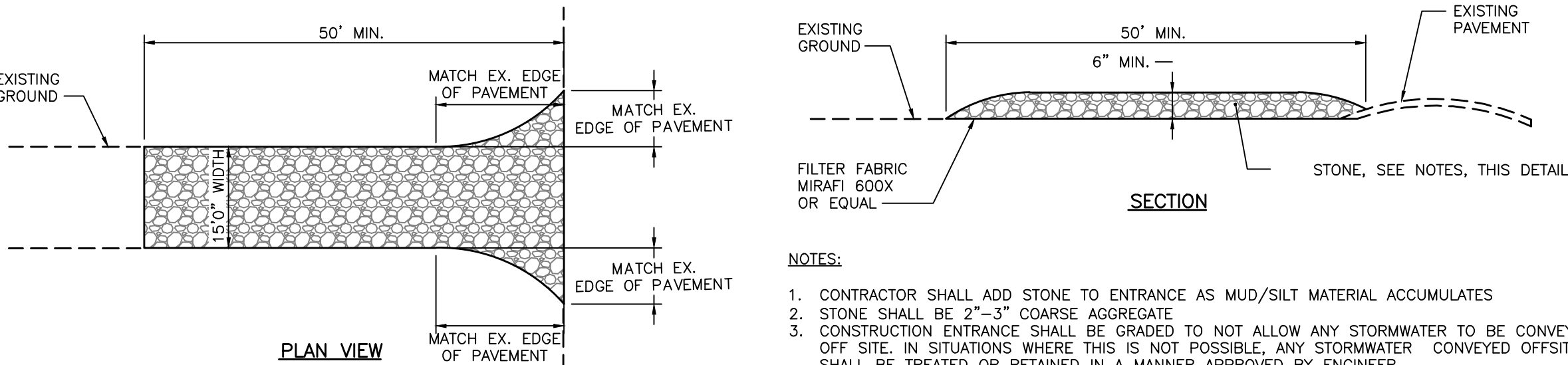
TEMPORARY SEED APPLICATION RATES			
SEED	LBS / ACRE	RECOMMENDED SEEDING DATES	
WINTER RYE	2.57	8/15 TO 10/1	
OATS	1.84	4/1 TO 7/1 8/15 TO 9/15	
ANNUAL RYGRASS	0.92	4/1 TO 7/1	
SUDANGRASS	0.92	5/15 TO 8/15	
PERENNIAL	0.92	8/15 TO 9/15	
TOTAL	7.17 LBS/ACRE		

7.4 MULCHING

MULCH SHALL BE HARDWOOD AND APPLIED AT A RATE OF 70 LBS - 90 LBS PER 1,000 SQUARE FEET. THE MULCH SHALL BE INSTALLED AT A MINIMUM DEPTH OF 4 INCHES. THE SEEDED AREA SHALL BE MULCHED IMMEDIATELY AFTER SEED IS APPLIED. MULCHING DURING THE WINTER SEASON SHALL BE DOUBLE THE NORMAL AMOUNT. REFER TO DETAIL FOR MORE INFORMATION.

8.0 CONCLUSION

THE ABOVE EROSION CONTROL NARRATIVE IS INTENDED TO MINIMIZE THE DEVELOPMENT IMPACT BY IMPLEMENTING TEMPORARY AND PERMANENT EROSION CONTROL MEASURES. THE CONTRACTOR SHALL ALSO REFER TO THE MAINE EROSION AND SEDIMENT CONTROL BMP MANUAL FOR ADDITIONAL INFORMATION.

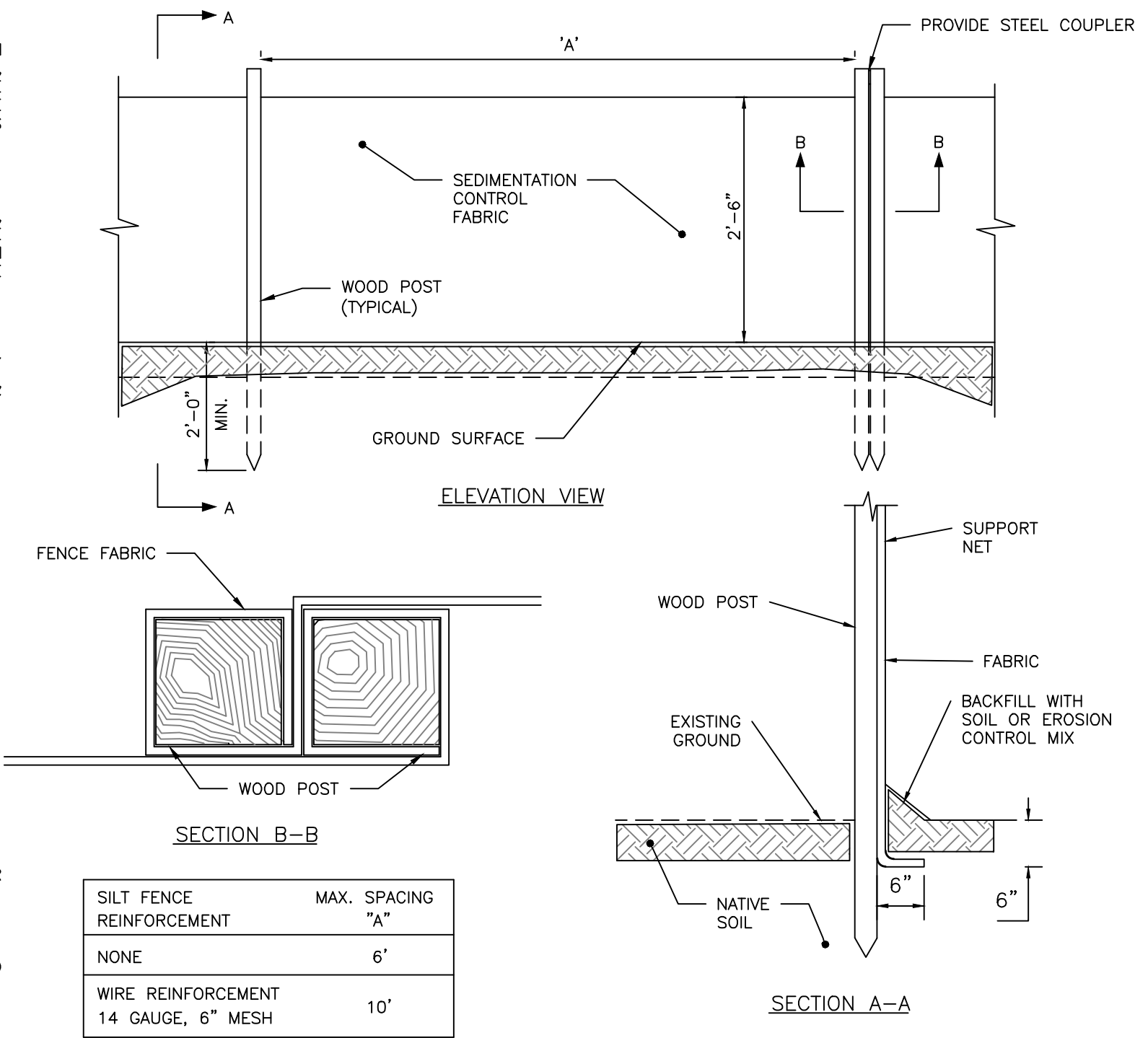


NOTES:

1. CONTRACTOR SHALL ADD STONE TO ENTRANCE AS MUD/SILT MATERIAL ACCUMULATES
2. STONE SHALL BE 2"-3" COARSE AGGREGATE
3. CONSTRUCTION ENTRANCE SHALL BE GRADED TO NOT ALLOW ANY STORMWATER TO BE CONVEYED OFF SITE. IN SITUATIONS WHERE THIS IS NOT POSSIBLE, ANY STORMWATER CONVEYED OFFSITE SHALL BE TREATED OR RETAINED IN A MANNER APPROVED BY ENGINEER.
4. WHEN NECESSARY, ON-SITE VEHICLES SHALL HAVE THEIR WHEELS CLEANED PRIOR TO LEAVING SITE.
5. CONSTRUCTION ENTRANCE SHALL BE GRADED IN A MANNER THAT PREVENTS TRACKING OF SEDIMENTS ONTO PUBLIC RIGHT-OF-WAY

STABILIZED CONSTRUCTION ENTRANCE

NOT TO SCALE

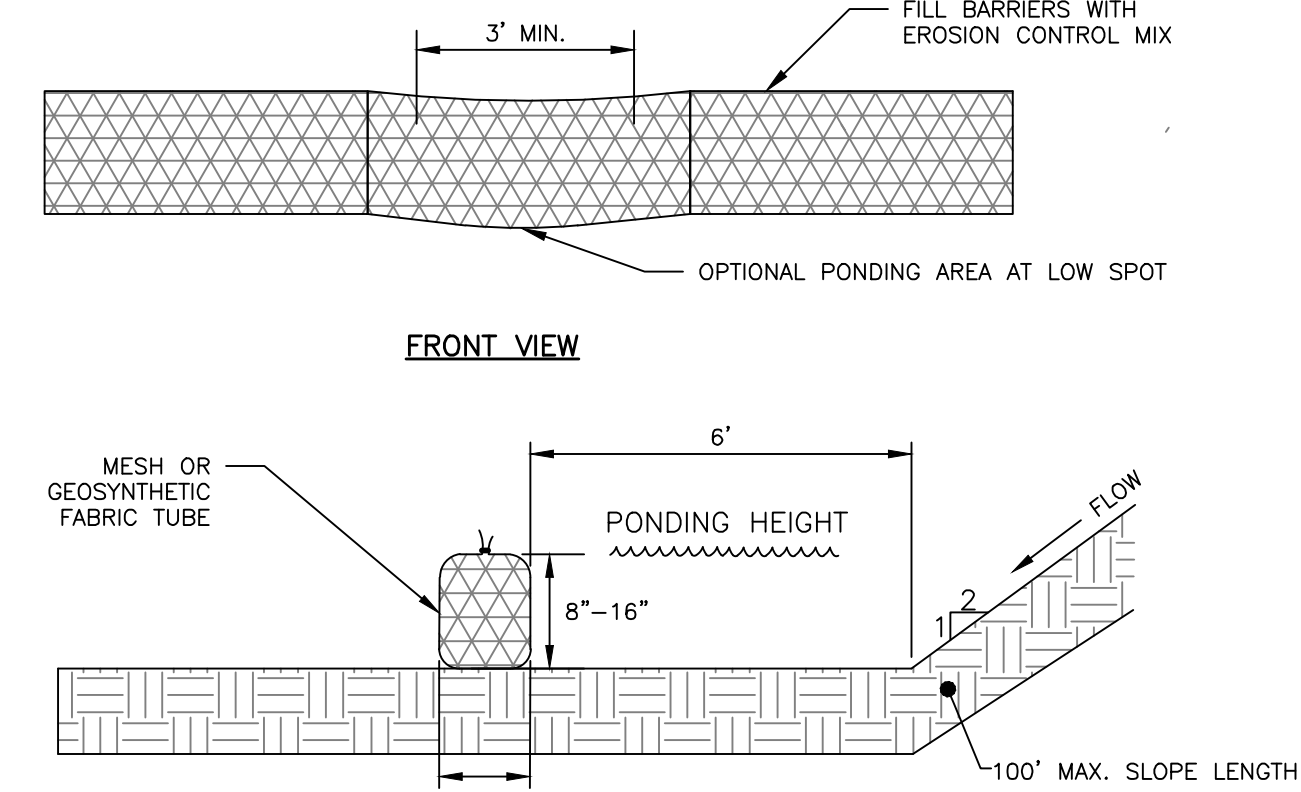


SILTATION FENCE DETAIL

NOT TO SCALE

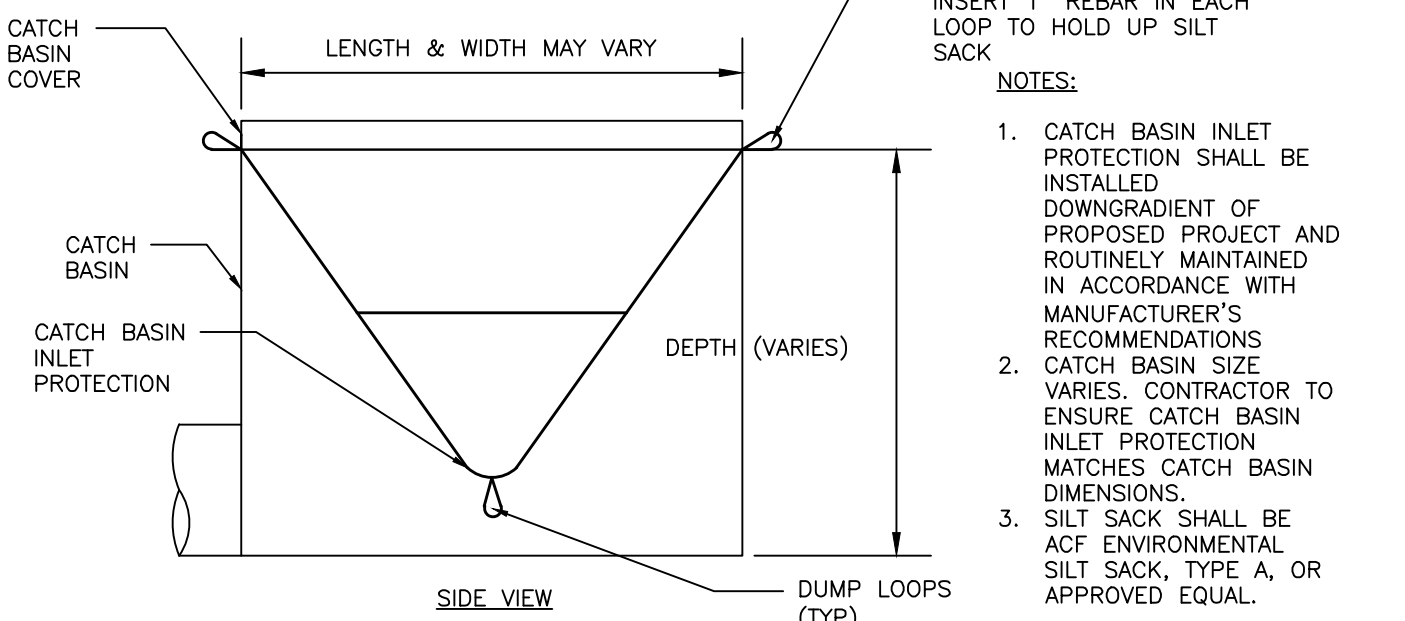
NOTES:

1. FULL CONTACT WITH THE GROUND IS CRITICAL TO PREVENT SHORT CIRCUITING UNDER THE TUBE - THE GROUND SURFACE SHOULD BE SMOOTH AND LEVEL. IN WOODED AREAS, PROTRUDING ROOTS AND DEBRIS MAY NEED TO BE REMOVED. IN GRASSED AREAS, THE GRASS NEEDS TO BE EITHER MOWED OR COMPRESSED DOWN.
2. STAKING MAY BE NECESSARY ON STEEP SLOPES.
3. UPON FINAL STABILIZATION, THE TUBE CAN BE CUT OPEN AND THE MATERIAL SPREAD OUT ONTO THE GROUND. THE MESH MATERIAL SHOULD BE REMOVE.
4. LOOSE COMPOST MAY BE BACKFILLED ALONG THE UPSLOPE SIDE OF THE COMPOST FILTER SOCK, FILLING THE SEAM BETWEEN THE SOIL SURFACE AND THE DEVICE, IMPROVING FILTRATION AND SEDIMENT RETENTION.



FILTER SOCK DETAIL

NOT TO SCALE



CATCH BASIN INLET PROTECTION

NOT TO SCALE

- NOTES:
1. CATCH BASIN INLET PROTECTION SHALL BE INSTALLED DOWNGRADIENT OF PROPOSED PROJECT AND ROUTINELY MAINTAINED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS
 2. CATCH BASIN SIZE VARIES. CONTRACTOR TO ENSURE CATCH BASIN INLET PROTECTION MATCHES CATCH BASIN DIMENSIONS.
 3. SILT SACK SHALL BE ACF ENVIRONMENTAL SILT SACK, TYPE A, OR APPROVED EQUAL.

PERMIT LEVEL
NOT ISSUED FOR
CONSTRUCTION

ISSUED FOR	BY
MAJOR SITE PLAN	DATE
COMMENT RESPONSE #1	DATE
COMMENT RESPONSE #2	DATE
COMMENT RESPONSE #3	DATE

EROSION & SEDIMENTATION CONTROL DETAILS	PROJECT NAME:
182 READ STREET WAREHOUSE EXPANSION	
PORTLAND, MAINE 04103	
NEW LOGISTICS	CLIENT:
70 QUARRY ROAD PORTLAND, MAINE 04103	

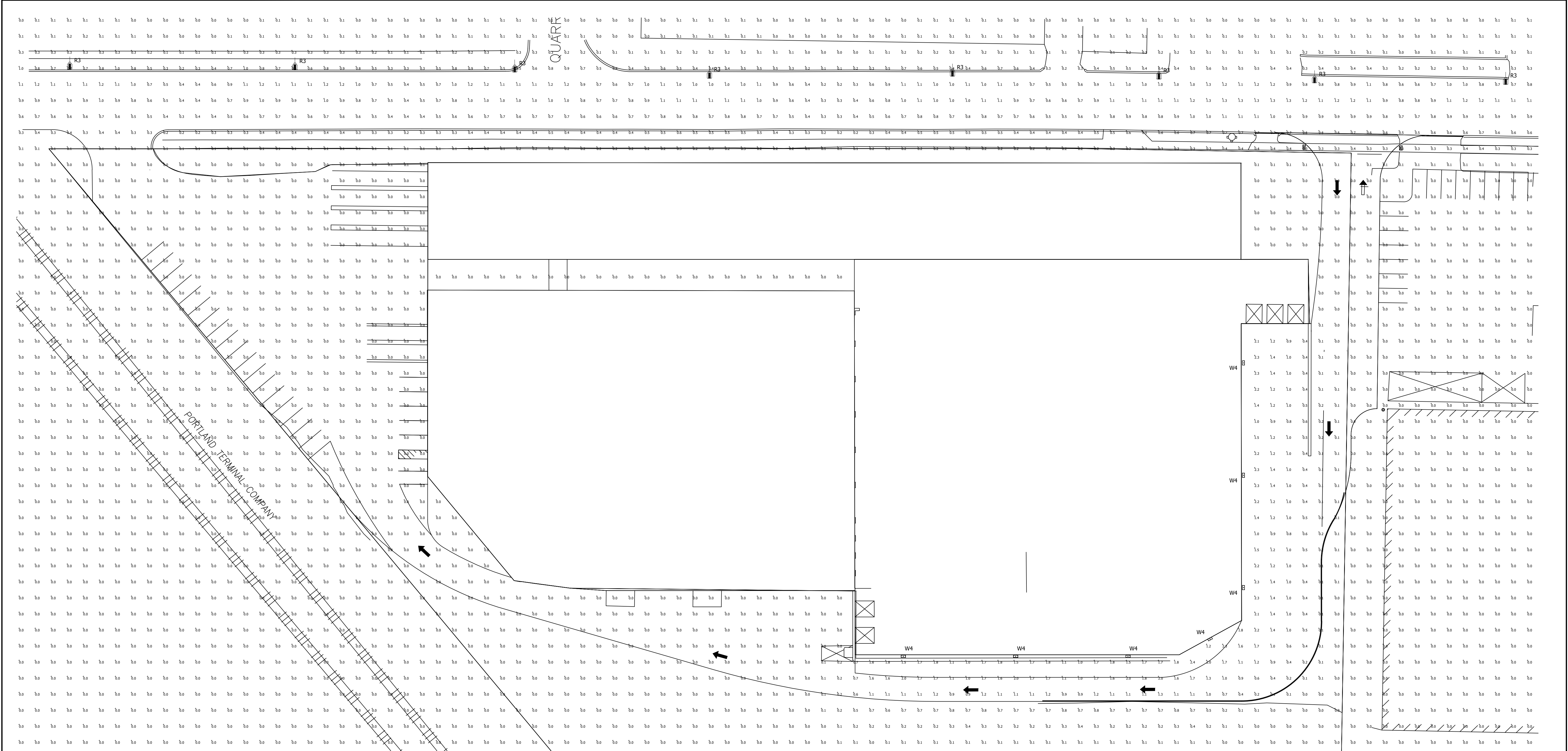
ACORN ENGINEERING, INC.	PO BOX 3372, PORTLAND MAINE 04104
ENGINEERING, INC.	(207) 775-2655
THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN AUTHORIZATION FROM ACORN ENGINEERING, INC. ANY ALTERATIONS, AMENDMENTS, OR REVISIONS SHALL BE MADE BY THE ENGINEER AND SHALL BE WITHOUT LIABILITY TO ACORN ENGINEERING, INC.	

FILE: 1176_DETAILS
JN: 1176
SCALE: AS NOTED
DESIGNED BY: CAB
DRAWN BY: BJK
CHECKED BY: WHS



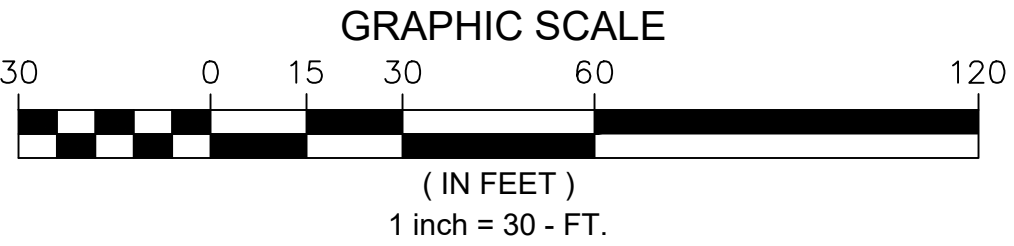
DRAWING NO.

C-46

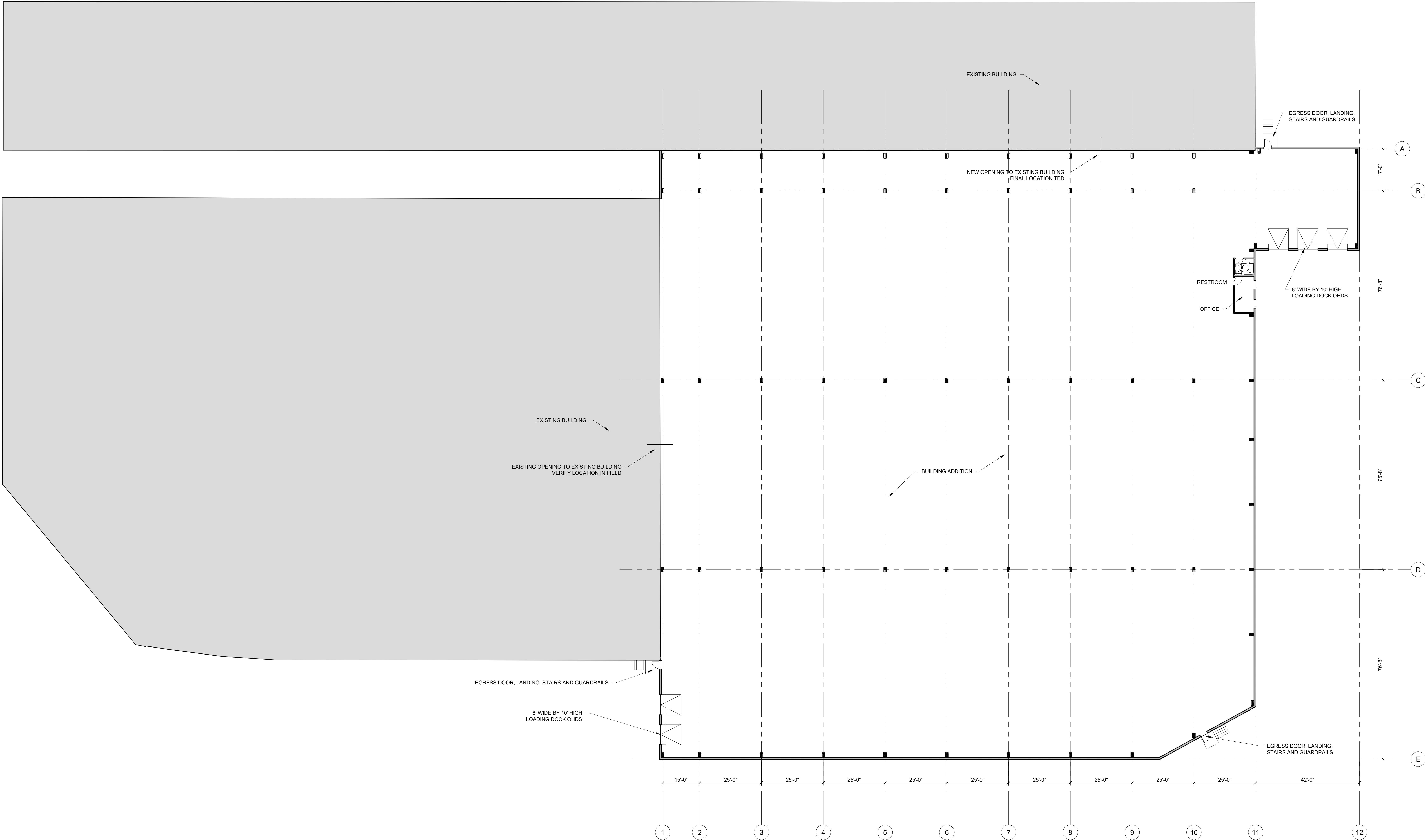


Luminaire Schedule							
Symbol	Qty	Label	Mounting Height	LLF	Lum. Lumens	Lum. Watts	Description
	8	R3	25' - 0" AFG	0.900	14820	115	RAR1-160L-115-3K7-3-U
	7	W4	15' - 0" AFG	0.900	4483	37	RWL1-48L-35-3K7-4W-U

Calculation Summary							
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
Overall Area	Illuminance	Fc	0.11	2.4	0.0	N.A.	N.A.
Paved Area	Illuminance	Fc	0.98	2.6	0.0	N.A.	N.A.
Property Line	Illuminance	Fc	0.06	0.3	0.0	N.A.	N.A.
Read Street	Illuminance	Fc	0.75	1.4	0.2	3.75	7.00

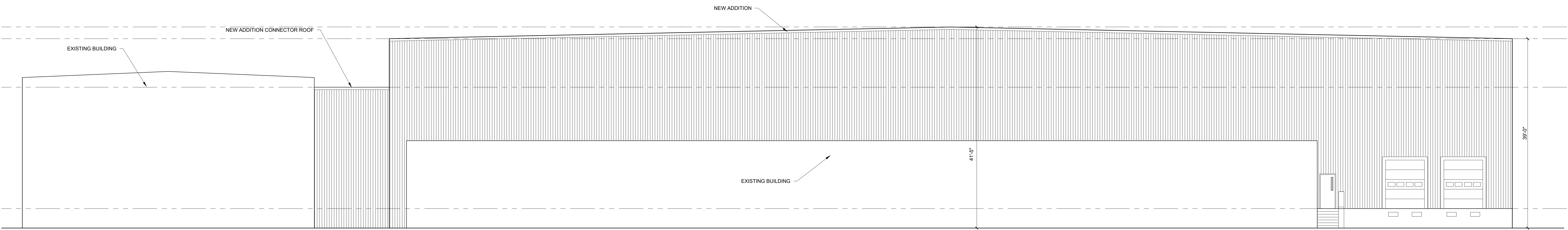


1. THIS LIGHTING DESIGN IS BASED ON LIMITED INFORMATION SUPPLIED BY OTHERS TO CURRENT. SITE DETAILS PROVIDED HEREON ARE REPRODUCED ONLY AS A VISUALIZATION AID. FIELD DEVIATIONS MAY SIGNIFICANTLY AFFECT PREDICTED PERFORMANCE. PRIOR TO INSTALLATION, CRITICAL SITE INFORMATION (POLE LOCATIONS, ORIENTATION, 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:		REVISED FROM DRAWING NUMBER(S):		ON BY:	
182 - 184 READ STREET PORTLAND, ME SITE PHOTOMETRIC PLAN		R1: 03/13/23		DHK	
		R2: 03/17/23		DATE: 10/19/22	
				CHK BY:	
				N/A	
				REV BY:	
				DHK	
				DATE: 03/17/23	
				SCALE:	
				AS NOTED	
				QUOTE:	
				N/A	
				DRAWING / DESIGN NO.:	
				A221197R2	

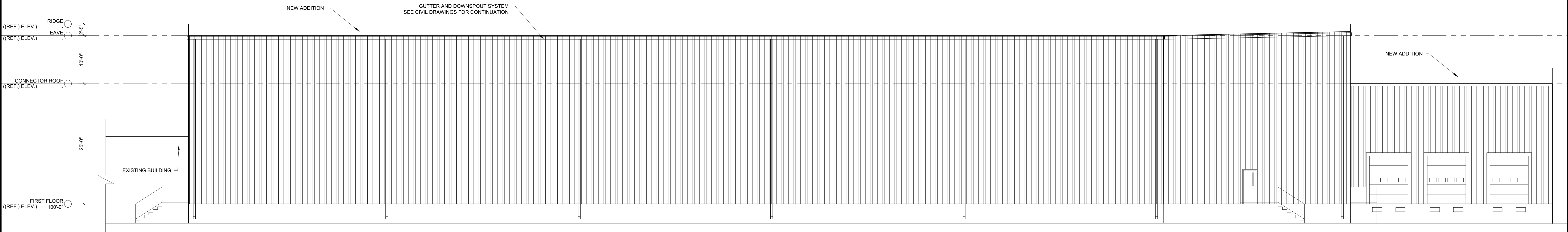


182 READ STREET
PORTLAND, MAINE

JUNE 05, 2023



2 ELEVATION
1/16" = 1'-0"

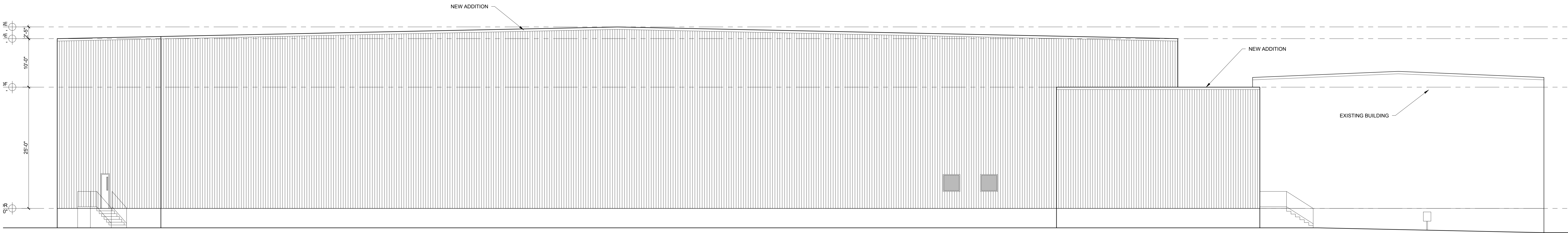


1 ELEVATION
1/16" = 1'-0"

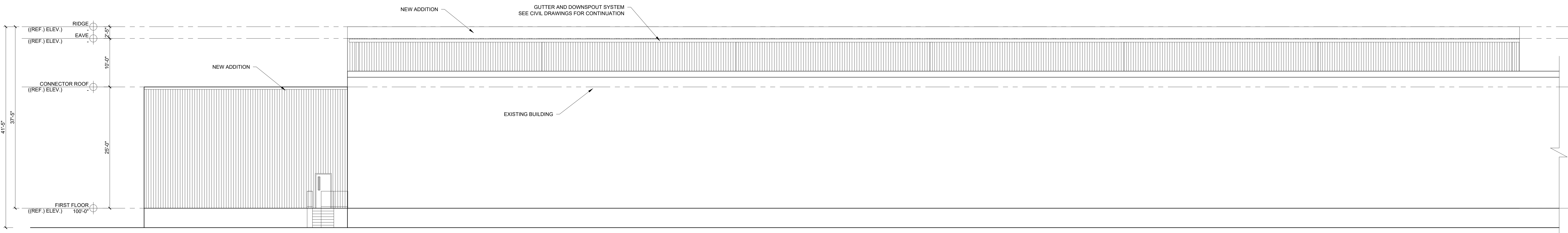
PROGRESS PRINT ONLY
Not for Construction

182 READ STREET
PORTLAND, MAINE

JUNE 05, 2023

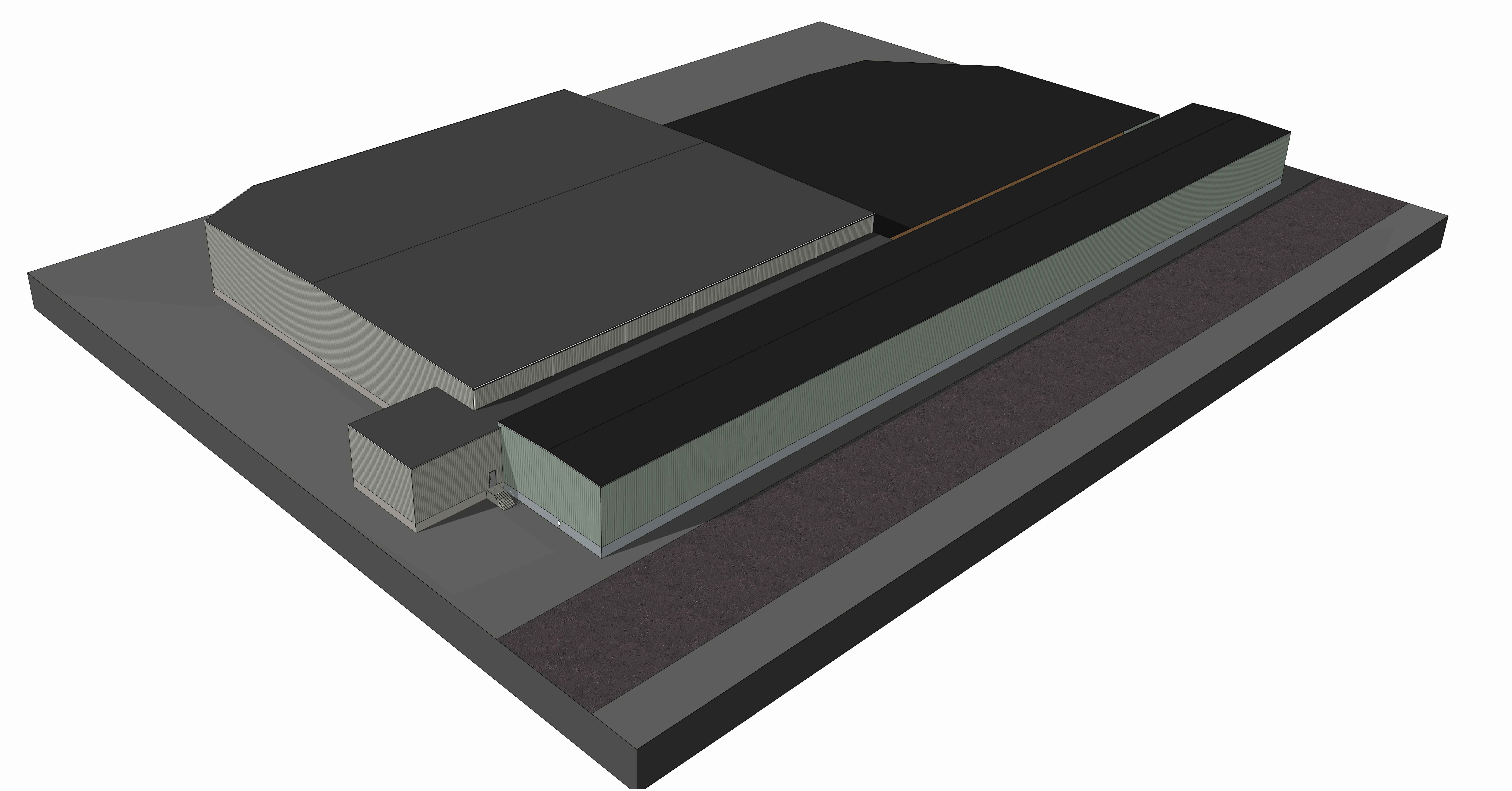


2 ELEVATION
1/16" = 1'-0"

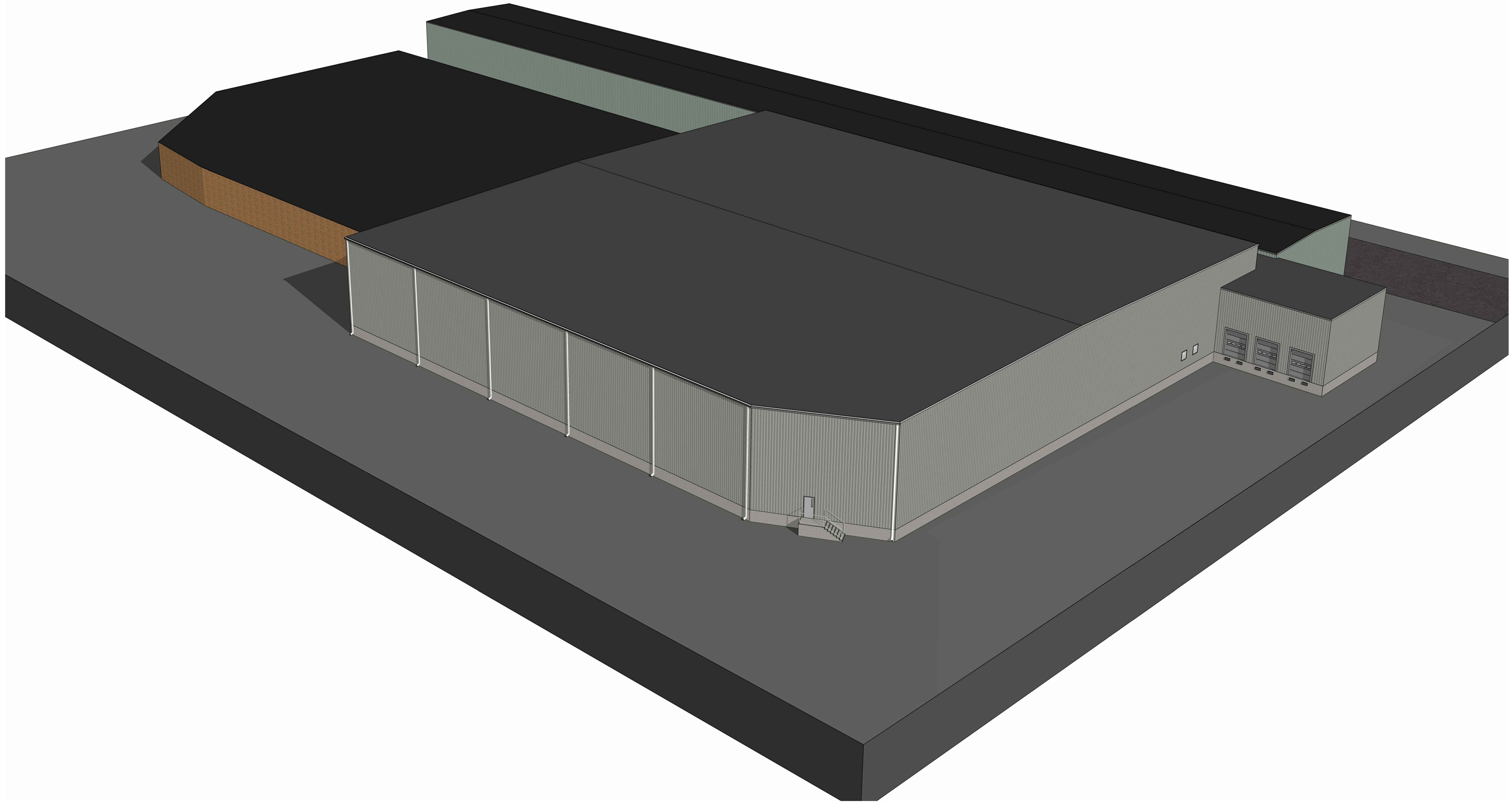


1 ELEVATION
1/16" = 1'-0"

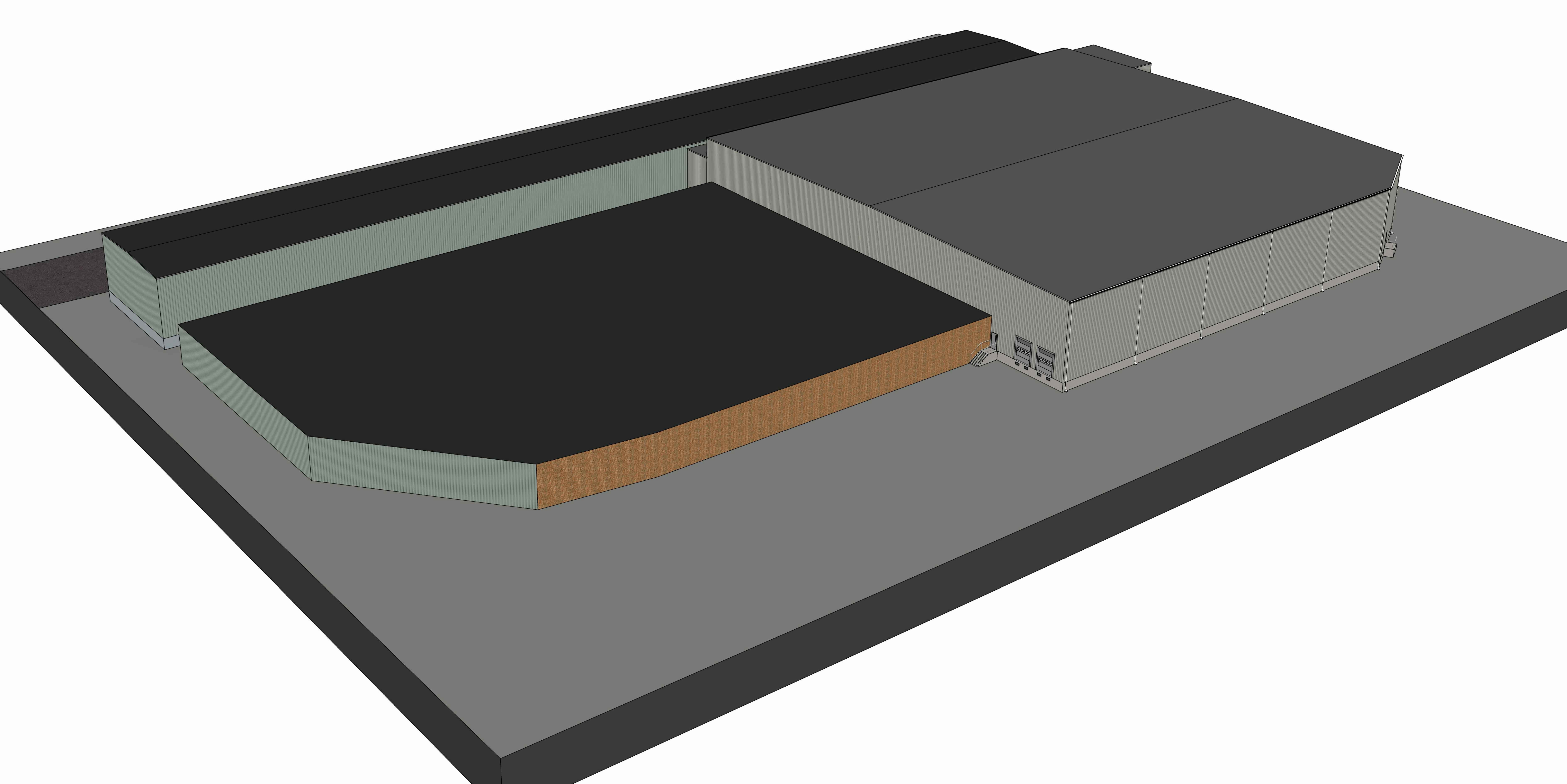
PROGRESS PRINT ONLY
Not for Construction



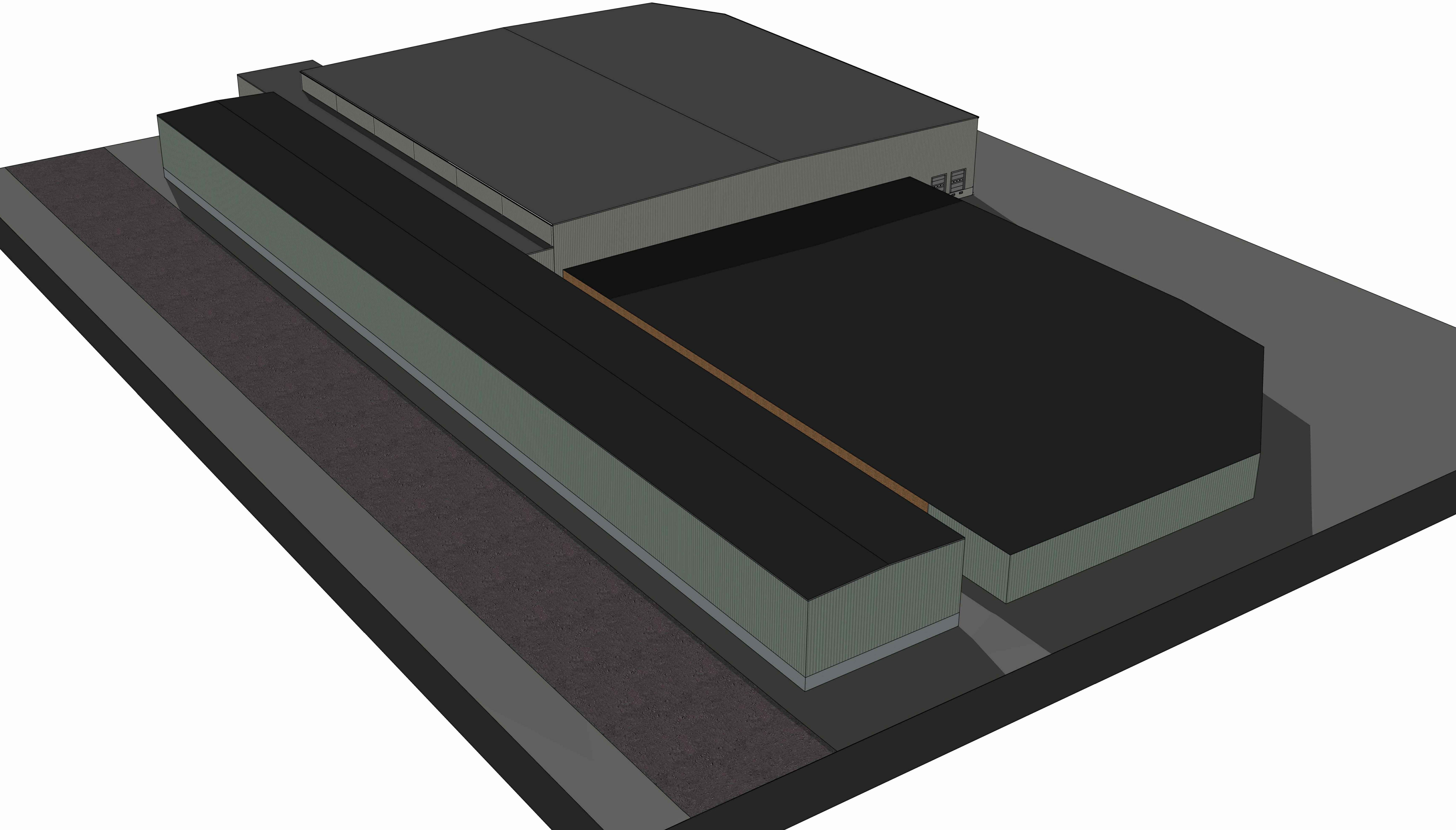
PROGRESS PRINT ONLY
Not for Construction



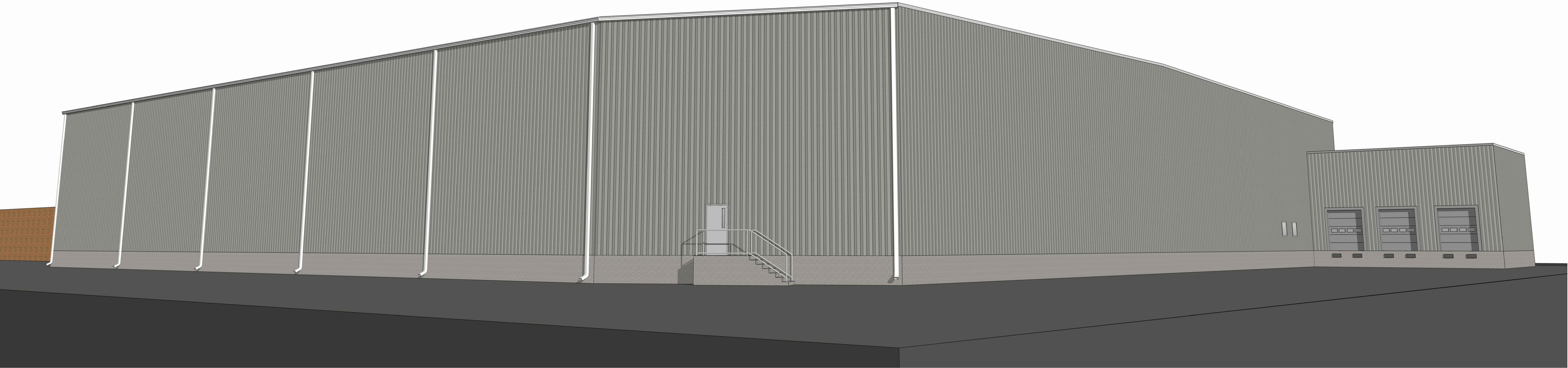
PROGRESS PRINT ONLY
Not for Construction



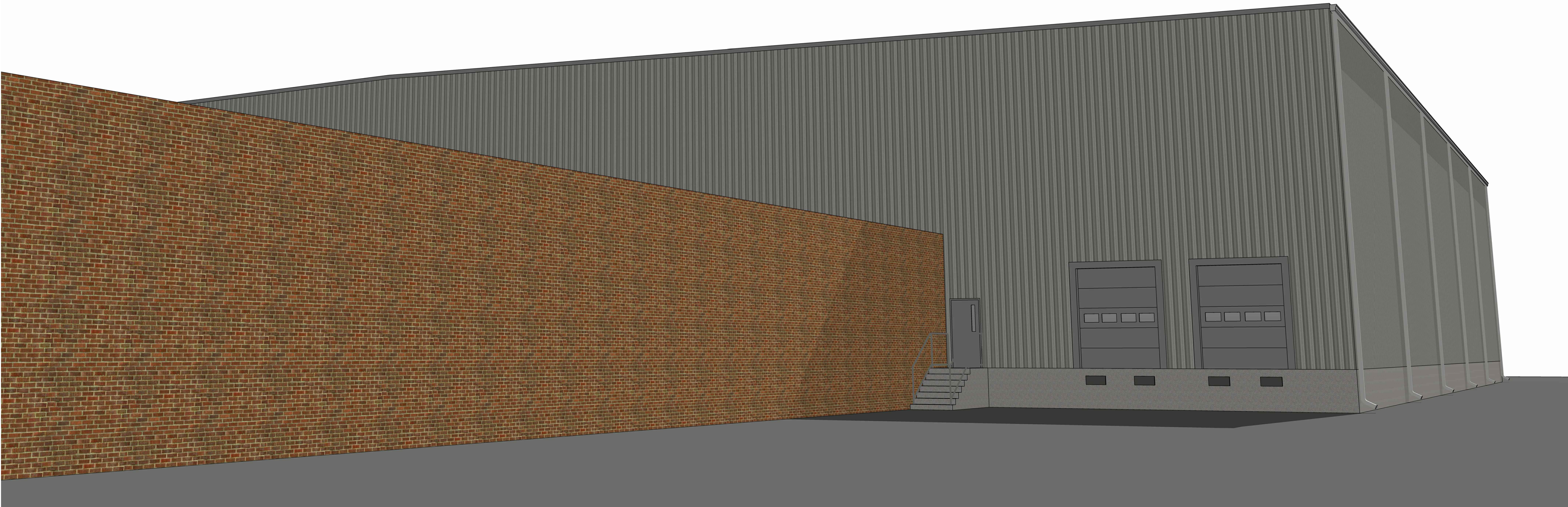
PROGRESS PRINT ONLY
Not for Construction



PROGRESS PRINT ONLY
Not for Construction



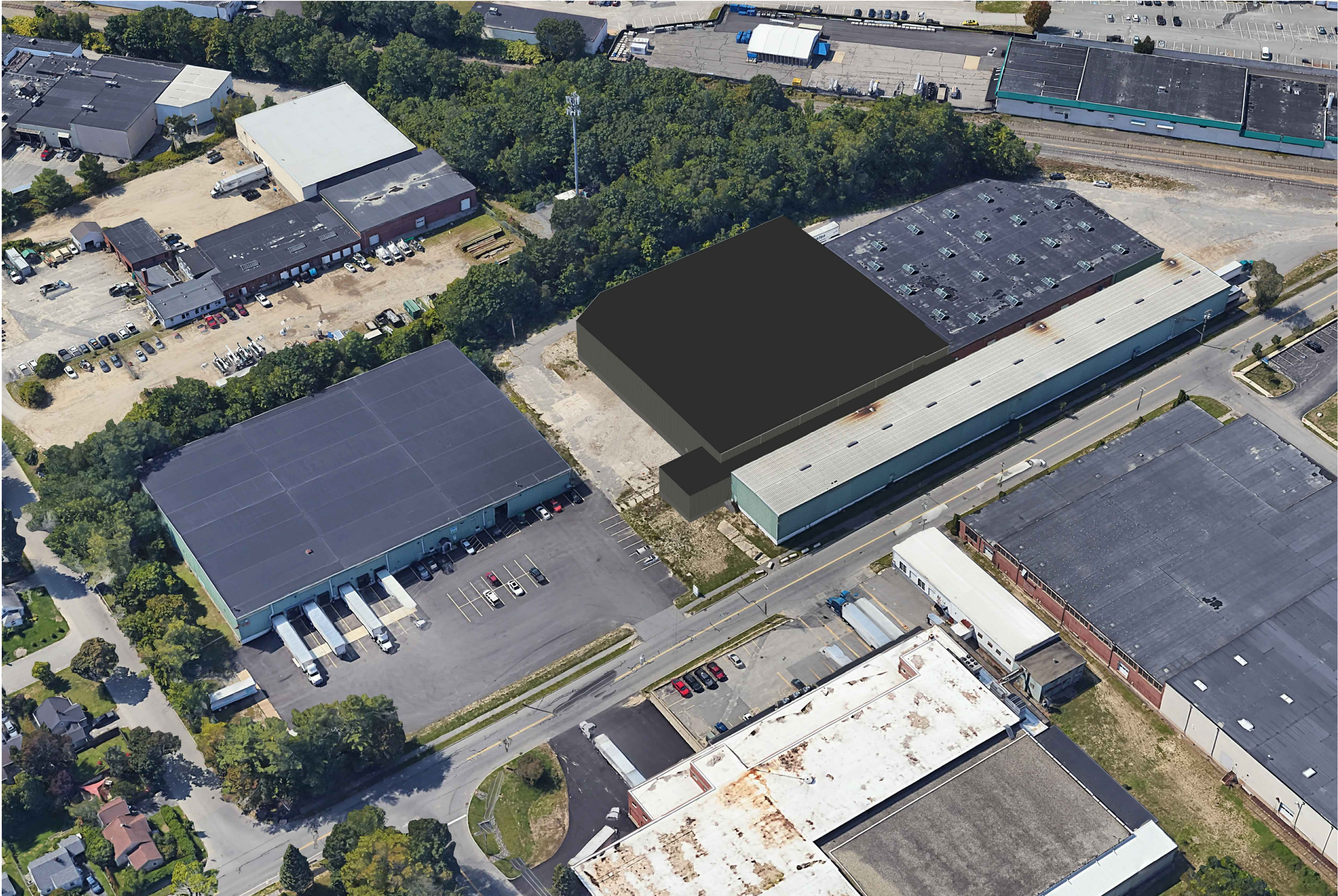
PROGRESS PRINT ONLY
Not for Construction



PROGRESS PRINT ONLY
Not for Construction



PROGRESS PRINT ONLY
Not for Construction



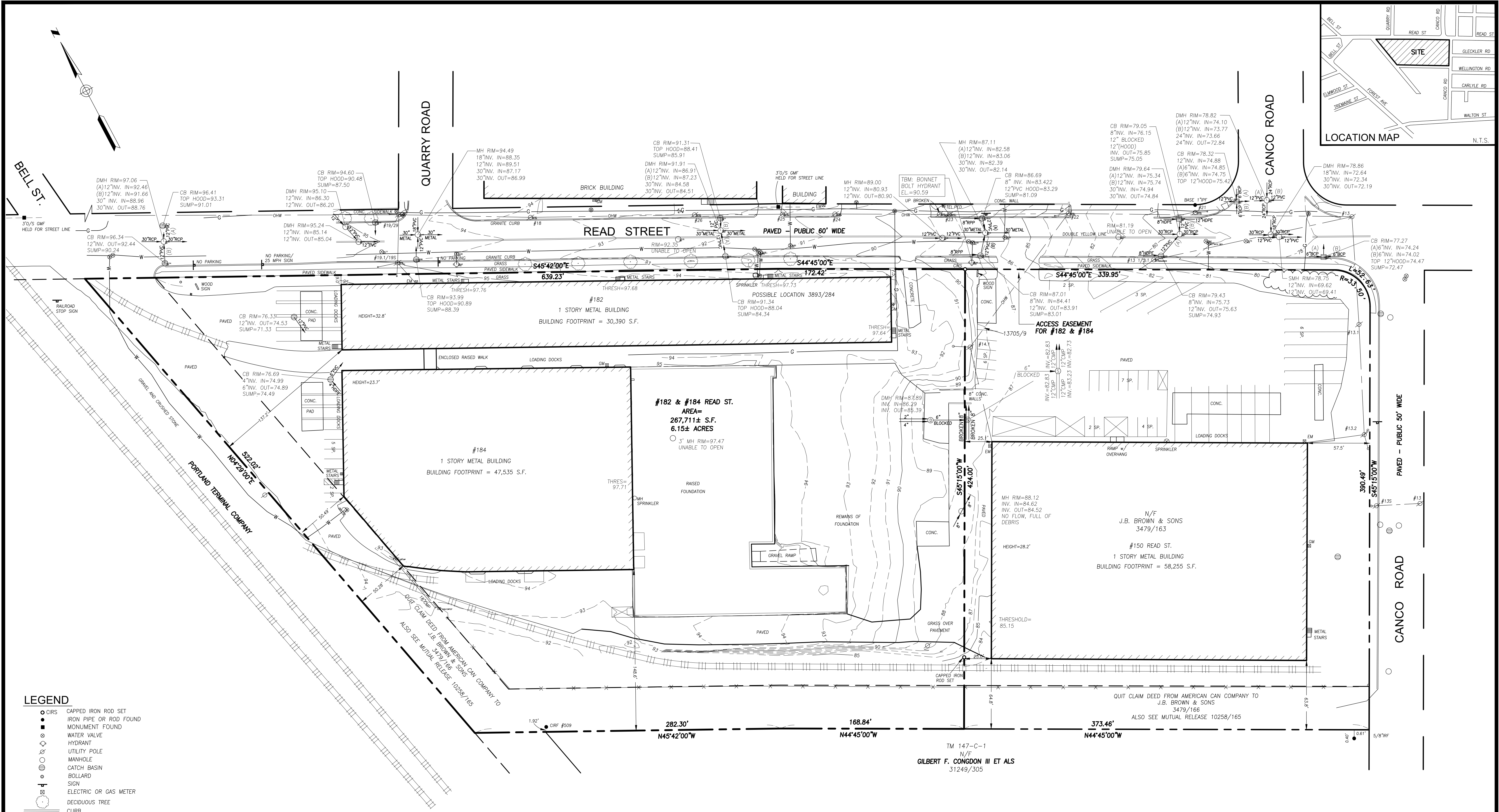
PROGRESS PRINT ONLY
Not for Construction

182 READ STREET
PORTLAND, MAINE

JUNE 05, 2023



PROGRESS PRINT ONLY
Not for Construction



LEGEND

- CIRS
- CAPPED IRON ROD SET
- IRON PIPE OR ROD FOUND
- MONUMENT FOUND
- WATER VALVE
- HYDRANT
- UTILITY POLE
- MANHOLE
- CATCH BASIN
- BOLLARD
- SIGN
- ELECTRIC OR GAS METER
- DECIDUOUS TREE
- CURB
- OHW
- OVERHEAD WIRES
- FENCE
- W
- WATER LINE
- G
- GAS LINE
- SD
- STORM DRAIN
- SS
- SANITARY SEWER
- 90
- 1" CONTOUR
- INTERIOR DEED LINE
- PROPERTY LINE
- N/F
- NOW OR FORMERLY
- 000/000
- DEED BOOK/PAGE
- CIRS
- CAPPED IRON ROD FOUND
- IPF/IRF
- IRON PIPE OR ROD FOUND
- SP
- SPACES

SCALE: 1" = 40'

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.

PLAN REFERENCES

- "PLAN OF LAND OF EDWARD L. BROWN, PORTLAND, MAINE" SEPT. 1945 BY H.J. JORDAN CIVIL ENGINEER.
- "PLAN OF LAND OF AMERICAN CAN CO., PORTLAND, MAINE" SEPT. 27, 1918 BY E.C. JORDAN CO., CIVIL ENGINEERS.
- CITY BLUE SHEETS FOR READ STREET, PROVIDED BY THE CITY OF PORTLAND.
- "ALTA/ACSM LAND TITLE SURVEY, 150-184 REED STREET, PORTLAND, CUMBERLAND COUNTY, MAINE MADE FOR RECORD OWNER J.B. BROWN & SONS, 36 DANFORTH STREET, PORTLAND, MAINE" MARCH 2, 2016 BY OWEN HASKELL, INC. RECORDED IN PLAN BOOK 216, PAGE 82.

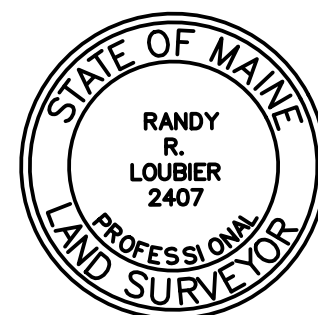
GENERAL NOTES

- OWNER OF RECORD: READ WAREHOUSE LLC & NEWP READ WAREHOUSE LLC 70 QUARRY ROAD, PORTLAND, ME 04103 C.C.R.D. BOOK 38021, PAGE 294
- ELEVATIONS BASED ON CITY DATUM (NGVD 29) 3' O/S MONUMENT AT THE SOUTH WEST CORNER WALTON STREET AND OCEAN AVE. ELEVATION = 49.70'.
- BEARINGS ARE BASED ON PLAN REFERENCE #1, MAGNETIC 1945. COORDINATES ARE BASED ON MAINE STATE PLANE COORDINATE SYSTEM WEST ZONE NAD 83.

CERTIFICATE

OWEN HASKELL, INC. HEREBY CERTIFIES THAT THIS PLAN IS BASED ON, AND THE RESULT OF, AN ON THE GROUND FIELD SURVEY AND THAT TO THE BEST OF OUR KNOWLEDGE, INFORMATION AND BELIEF, IT CONFORMS TO THE BOARD OF LICENSURE FOR PROFESSIONAL LAND SURVEYORS CURRENT STANDARDS OF PRACTICE.

RANDY R. LOUBIER, PLS #2407



Boundary & Topographic Survey
At

182 & 184 Read Street, Portland, Maine

Made for

Acorn Engineering

500 Washington Ave., Suite 202, Portland, ME

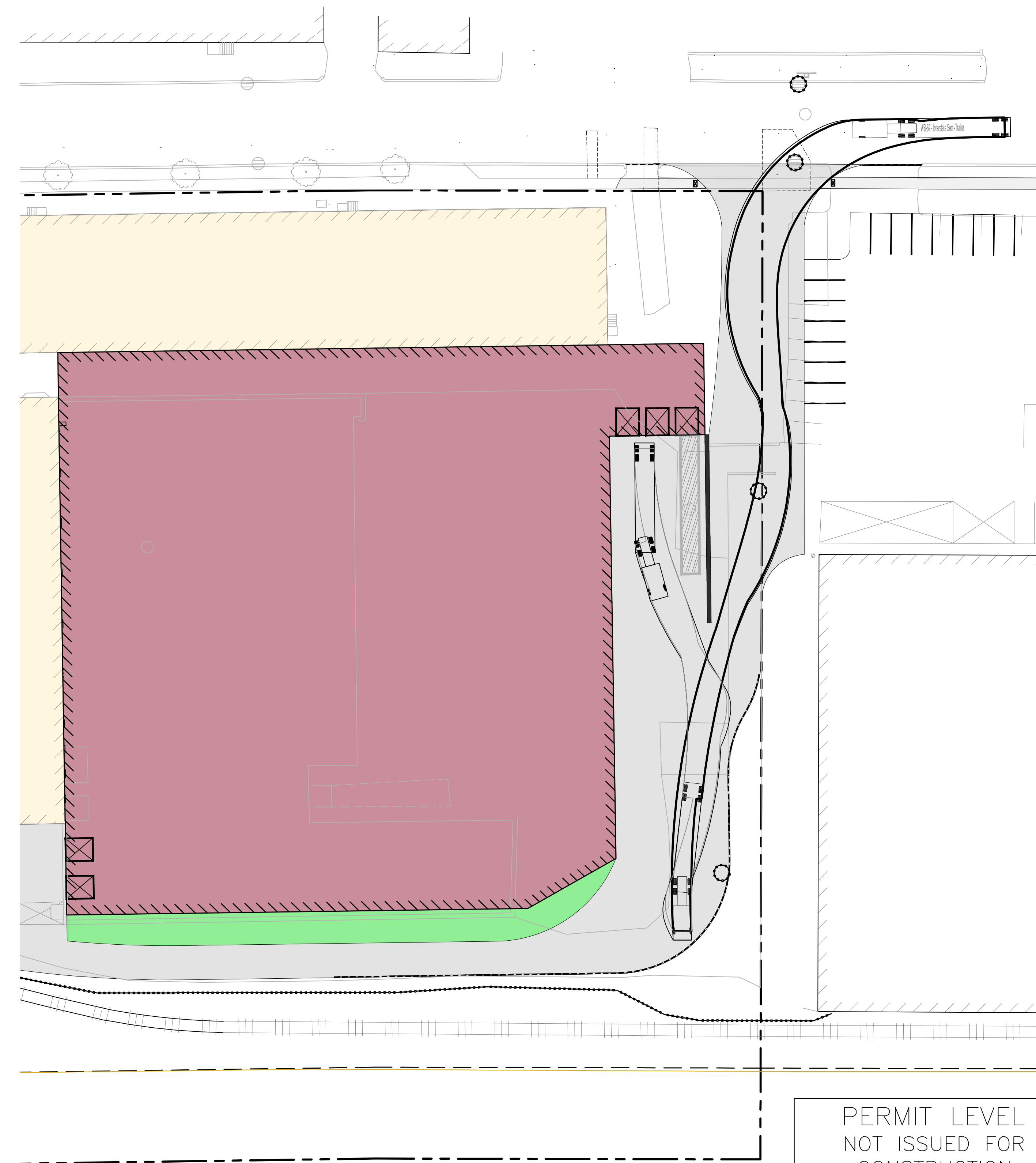
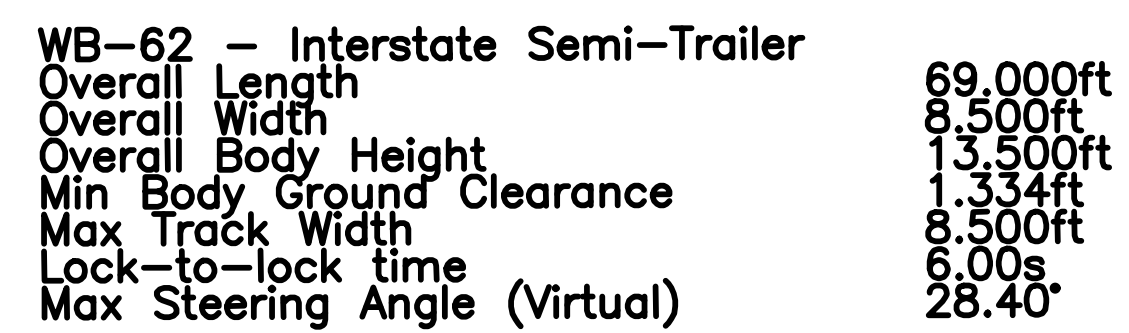
OWEN HASKELL, INC.

PROFESSIONAL LAND SURVEYORS

390 U.S. ROUTE ONE, UNIT 10, FALMOUTH, MAINE 04105

DRAWN BY: RS/JLW DATE: AUGUST 12, 2022 JOB NO. 2022-159 P

CHECKED BY: RRL SCALE: 1" = 40' DRWG. NO. 1



PERMIT LEVEL
NOT ISSUED FOR
CONSTRUCTION

[illegible]

BCNA <info@backcoveportland.org>

8:26 AM (1 hour ago)

to Ms Grimando, planning@portlandmaine.gov

Dear Ms Grimando,

I am writing as a representative of the Back Cove Neighborhood Association (BCNA) with regard to the proposed expansion of the warehouse at 182-184 Read Street.

Two of the BCNA Board of Directors attended the 12-07-22 meeting for neighborhood members, to discuss and review this project proposal. We were pleased to learn that, if approved, the City of Portland would require the developer to repave the Read Street crossing over the railroad tracks and to create pedestrian crossing over the tracks.

The primary concern from the BCNA perspective is the potential for increased truck traffic down Read Street, through a residential neighborhood, to Ocean Avenue. At the neighborhood meeting, it was stated that the proposed project could result in an estimated 18 to 20 additional trucks per day accessing the warehouse. There is currently signage at Read Street and Canco Road, directing trucks to turn left onto Canco Road instead of continuing down Read Street. However, BCNA members who live on Read Street report that many trucks disregard this sign and continue down Read Street to Ocean Avenue. We do not want to see this dangerous situation made worse.

The BCNA respectfully requests that this concern about increased truck traffic through the residential section of Read Street be addressed when considering the approval of this project. Perhaps better signage – e.g., a No Trucks sign with flashing lights – coupled with increased enforcement could be required. The General Manager of the warehouse should also be made aware of this concern and of the need to inform all drivers of trucks entering the premises that they cannot proceed on Read Street beyond Canco Road.

We would be happy to interact with members of your staff to discuss possible ways to address these concerns as the consideration of this project progresses.

Sincerely,

Gretchen H. Stanton

Review Criteria:

- This project is being reviewed with Portland's Site Plan Ordinance.

ZONING

- The maximum impervious surface ratio is 75%. The Zoning Analysis Table states that it will be 74.9%. Since that is so close to the maximum allowed, please submit information on how it was calculated.
- Section 19.2 outlines the criteria for off-street loading. The number of bays required is listed in Table 19-C.. The addition would require 2 new loading bays. The application appear to be adding 5 loading bays. The Zoning Analysis Table states there will be 12. Is that for all the loading bays in all three buildings?
- There is some existing pavement within 10' of the property line. Is the proposal adding any more pavement within 10' of the property line?
- The addition is 60,950 sf. Table 19-A requires 1 parking space per 1,000 sf in excess of 3,000 sf. $57900 \text{ sf} / 1000 = 57.95$ spaces rounded up to 60 spaces. The proposal appear to be adding 7 new spaces to the 8 existing spaces. How is this being justified?

TRANSPORTATION

- The existing entrance at the north end of the site does not appear to meet City standards (defined width/angle). Additionally, the driveway configuration makes it difficult to enter and exit the site to and from the south. Truck turning templates shall be provided.
- Truck turning templates shall be provided for vehicles entering and exiting 150 Read Street via the proposed shared driveway.
- The applicant has provided vehicle turning templates for a truck circulating behind the building from the loading docks to the northern driveway. The access roadway is very tight at the corner of the building, and it is unclear if improvements are proposed. While the turning template indicates this movement is feasible, field observations noted constrained conditions.
- Sight distance measurements shall be provided at both proposed and existing driveways.
- The sidewalk along the Read Street frontage shall be reconstructed in Portland Cement Concrete in accordance with the City's Sidewalk and Driveway Apron Material Policy. The sidewalk material shall be continued through the driveway aprons at grade with the proposed sidewalk and not in excess of 2% cross-slope.
- The applicant shall provide information as to how the project will comply with the City's street lighting standards in Section 10 of the Technical Manual.
- The applicant shall design both driveways along the property per City of Portland Standards in Section 1 of the Technical Manual.
- The City does not allow catch basin inlets to be located in driveways per technical manual standard 2.9.6. The applicant shall relocate any drainage inlet outside the limits of the proposed driveway.
- Private connections to City catch basins are not permitted per technical manual standard 2.9.7. The application shall tie stormwater flows from the development site directly into the existing drain manhole in Read Street.
- Any floor drains installed within the new warehouse space shall be connected to the sanitary sewer line and shall run through an oil/grit separator per detail II-20 in the recently approved technical manual update.

WATER QUALITY, STORMWATER, & INFRASTRUCTURE

- The application notes that ability to serve confirmation from water and gas utilities are included, but these materials are not present. Please include.
- The plans should show the extent of impact and repaving in Read Street due to the proposed utility work and driveway entrance construction.
- The application is proposing relatively steep grading along the eastern edge of the property, and onto the adjacent property in an area identified for a grading and drainage easement. This area of the site is also identified for snow storage, so there could be a fairly significant amount of flow in the area due to snowmelt. The proposal should ensure that this will not impact the adjacent property, and the building that will be close to this location. The proposed surface treatment should be identified for the area both on and off the property at this location as well.
- Please double check clearances at the crossing between the 15" roof drain to the proposed catch basin 3 and the nearby proposed 6" sewer lateral. Based on the structure inverts provided, these pipes will be close in elevation.
- Considering the size and angles of the proposed drainage pipes at CB #3, a larger structure will likely be required for this location.
- The project is required to meet the stormwater standards outlined in Maine DEP Chapter 500 and the City of Portland's Section 5 of the Technical Manual. We have the following comments:
- General Standards: The Applicant should address the General Standards relative to the City of Portland's Section 5 of the Technical Manual. The project will exceed the threshold of 1,000 square feet of new impervious surface on the site, requiring compliance with the General Standards.
- This flow increase will be into the City's storm drain system, and is relatively insignificant, but the Applicant should confirm that the stormwater system has adequate capacity to serve this increase, and a waiver of the flooding standard will be required.

LANDSCAPING & ENVIRONMENTAL QUALITY

- The applicant shall show how the existing trees will impact the installation of new sidewalk along the Read Street frontage.
- Please show that the proposal conforms to Tech Manual Landscaping and Landscape Preservation Standards, specifically 4.6.3, 4.5.3, 4.5.5.

GENERAL

- The current submission for the street lights is not adequate. The applicant shall revise the plans to meet the following street light submission requirement.
 - A lighting plan shall be provided which shall show the quantity and location of all existing and proposed street lights. This shall be incorporated into the site plan or presented on an individual lighting plan. Descriptive information including engineering detail drawings depicting the entire proposed fixture (luminaire, bracket arm, slip fitter) along with the proposed finish shall be included on the individual lighting plan.
 - The symbols for the proposed street lights are the same as the existing street lights. Please revise the plans to show a distinction between proposed and existing.

TRANSPORTATION

- Provide spot grades and slope for the proposed driveway to ensure they will meet ADA compliance.
- Please provide a truck turning template for exiting the northern driveway.
- The proposed DHMH needs to be relocated outside of the proposed driveway.
- Please provide evidence that 180 has permission to do work at 150 Read St
- Please also provide a site plan of 150 Read showing any site changes, including any parking changes and subsequent narrative as to how those changes are meeting site plan standards.
- Please provide turning template for 150 Read exiting the shared driveway.

WATER QUALITY, STORMWATER, & INFRASTRUCTURE

- The applicant is proposing to make a new connection into the City's storm drain system in Read Street and shift a significant amount of watershed area into this system from the predevelopment. From their HydroCad Report peak flows into the Read Street storm drain increase by the following values:

• 180 Read Street POI 1 (Read Street Storm Drain)			
• STORM EVENT	• Pre	• Post	• Increase
• 2-YEAR, 24 HOUR	• 2.04	• 6.06	• 4.02
• 10-YEAR, 24 HOUR	• 3.53	• 9.44	• 5.91
• 25-YEAR, 24 HOUR	• 4.73	• 12.12	• 7.39

- DPW will not provide permission for any increase of Peak flows into the City's storm drain system in Read Street unless a complete H&H study of the system is completed and the applicant can prove that the increase in peak flows won't cause capacity issues in the City's drainage system downstream, to the outfall. I would strongly suggest that the applicant provide on-site detention to manage flows so peak flows entering the City's system are not increased.



- Any impervious surface proposed to be restored as a permeable surface will need to meet the DEP recommended tilling depth and revegetation standard. Any impervious surface that is proposed to be reestablished to a vegetated area requires a tilling depth of 9”.

City Staff and Third-Party Peer Reviewers have completed the latest review of this application based off of the most recent submissions. Comments below have been provided to the Planning & Urban Development Department from the Department of Public Works, Water Resources, Zoning, and Third-Party Consulting Engineers (Stormwater + Traffic).

Please submit a written response to the comments below and upload the response, revised submissions, and new material to Project Dox (make sure all submissions maintain the same file naming format to allow for versioning). Once uploaded, please send an email to mbalassa@portlandmaine.gov notifying the planner of the resubmission.

Be advised that additional comments may be forthcoming and other changes may still be required if the comments are not addressed adequately. If you have any questions, please do not hesitate to ask.

Categories in green mean the plan is those meeting standards, red means the standard is not being met at this time.

General Review Comments		
Review	Discussion	Status
RTI	<u>Overview:</u> The applicant has demonstrated right, title, and interest through the property. The applicant has provided a letter from the owner of 150 Read.	
	<u>Comments:</u>	
Financial & Technical Capacity	<u>Overview:</u> Documentation to verify financial capacity from Charles Schwab is included in the submission. Documentation for technical capacity has also been included. The applicant team includes Acorn Engineering and Ryan Senatore Architecture.	
	<u>Comments:</u>	
Permits / Other Requirements	<u>Overview:</u>	
	<u>Comments:</u>	
Zoning	<u>Overview:</u> Meeting zoning requirements.	
	<u>Comments:</u>	
<u>Additional Submissions Requested:</u>		

14.6.1: Transportation Standards		
Standard	Discussion	Status
Impact on Surrounding Street Systems	Overview: The warehouse will support the expansion of the existing business for warehousing and distribution of goods. The expansion of this use is anticipated to increase truck traffic to and from this site by between approximately eight and twenty trucks per day, depending on the clients. The site plan includes sidewalk reconstruction. Utility connections into Read Street are proposed. A waiver is requested to construct the sidewalk with bituminous pavement instead of concrete.	

	Comments: - The bituminous driveway apron detail in the plan set does not meet the current standards. Update the plans using Figure I-10 Bituminous Driveway Apron. - Sidewalk ramps and granite curb tip-downs are not required at driveways. Remove the notes and symbols from the plans. Add the following note to the plans. Driveway to be constructed per the City Technical Manual Standard for COMMERCIAL/INDUSTRIAL DRIVEWAY APRON I-9B The sidewalk crossing the driveway shall be at least 4 inches above the flowline elevation. - The sidewalk longitudinal slope shall be continued through the driveway aprons and not in excess of 2% cross-slope. Remove the Detectable Pad and Tipdown notes and replace the details. - Utility plan shows new connections in the ROW but does not show the trench repair. The proposed trenches shall be repaired per the Minor Excavation Pavement Repair Details (prior to paving the finished surface) found in the Rules and Regulations for Excavation Activity. Update the plans to show these repairs.	
Access and Circulation	Overview: Turning templates have been submitted and meet the standards.	
	Comments:	
Public Transit Access	Overview: Not applicable. Neither the use nor the size of the proposed project meets the transit shelter requirements. Additionally, the site is not located along an existing public transit route.	
	Comments:	
Parking	Overview: Parking spots are increasing from 8 to 24. One ADA parking spot is proposed.	
	Comments: - Staff do not support the five parking spaces for 150 Road Street located along the driveway unless physical separation is provided or documentation on constraints that prevent it from being implemented is provided. - The site plan is currently not meeting the EV charging standard. The addition of 16 parking spaces to the site requires conformance with the City's Electric Vehicle (EV) Standards as outlined in the City's Technical Manual Section 1.14. New surface parking lots of five or more spaces shall include energized electrical outlets or installed chargers capable of providing Level 2 EV charging or higher to 20% of parking spaces. 20% of 16 parking spaces = 3. - Please request a waiver of the bike parking standard or add bike parking spaces to the site plan in conjunction with the number of new proposed parking spaces per Land Use Code.	
Transportation Demand Management	Overview: Not applicable.	
	Comments:	

Additional Submissions Requested:

-

14.6.2: Environmental Quality Standards		
Standard	Discussion	Status
Preservation of Significant Natural Features	<u>Overview:</u> No significant natural features have been identified on-site.	
	<u>Comments:</u> •	
Landscape Preservation	<u>Overview:</u> There are existing street trees along Read Street that will need to be preserved during construction.	
	<u>Comments:</u> •	
Site Landscaping and Buffers	<u>Overview:</u> Trees and shrubs are proposed along Read Street.	
	<u>Comments:</u> • CM / Site survey plan: Note that existing tree species and sizes are not indicated on plans, site visit indicated that trees are a mixture of elm and maple species. Would recommend new street trees in the esplanade match the alternating grouping of species patterns that exist along the street esplanade, unless compelling safety issues would necessitate alternate species. Applicants are welcome to also include some of the proposed prunus species within the new street tree planting pattern. (the trees in question were planted in 2021 by the forestry department and can be referenced here. • General comment - elm species selections - Please ensure for any elm plantings that the Ulmus Americana 'Jefferson' cultivar is specifically used. This species has a much better crown growth habit, disease resistance and structure that will require less maintenance and structural issues over time. Click here for reference. • Site plan - tree adjacencies- Ensure street trees along roadside esplanade and any trees planted alongside the building are staggered to the best extent possible to ensure healthy crown clearance and growth. In compact areas, having immediately adjacent tree spacing in circumstances narrower than mature crown spread, can negatively impact tree performance, growth, and health. • Site plan - crataegus and juniperus disease concern - crataegus and other apple species can be exposed to elevated risk /occurrences of fire blight and cedar rust when eastern red cedar species are present / nearby. Consider a non cedar species or a non malus / crataegus / amelanchier species that meets designer / applicant's original intent. • Site plan - prunus species appear too close to building for adequate growth. Consider an alternate shrub species with narrower growth habit (width) compact specimens or cultivars encouraged. Prunus species might be an acceptable alternative to crataegus species to avoid blight and cedar rust disease mentioned above.	

Water Quality, Stormwater Management and Erosion Control	Overview: A filterra and subsurface chamber system is being proposed to maintain peak flows into the separated stormwater system in Read Street and address some of the new non-roof impervious surface. A waiver for the flooding standard is being requested.	
	Comments: • The outlet storm drain pipe for the relocated city catch basin adjacent to the proposed driveway shall be routed directly to the City's DMH in Read Street. This may eliminate the need for PR. DMH-1. • The proposed storm drain outlet pipe connecting into the City's Read Street sewer line is shown as a 24" pipe. The size of this pipe doesn't seem warranted based on the proposed anticipated 25-YEAR, 24 Hour flow rate of 4.6 CFS. The applicant should provide further justification for the 24" connection, or revise the outlet pipe size to better reflect the proposed design flow rates. • Coordinate the invert information on the drainage structures associated with the storage system with the proposed piping, and with the details associated with the system. I believe there are some pipes missing and some pipe sizes that should be confirmed within the invert information on the grading and drainage plan. • The post-construction maintenance plan and agreement should be updated to include this subsurface storage system. • Confirmation of appropriate design should be provided by the manufacturer for their proposed systems – I believe both the treatment and storage systems are the same manufacturer in this case.	
Transportation Demand Management	Overview: Not applicable.	
	Comments: •	
Additional Submissions Requested: • A full review of the CM Plan will be done post approval, however, the landscape architect who reviewed the project had a comment on the CM Plan provided with this application: • CM plan - please update CM plan to show tree protection extents around specific trees to be preserved. Please also include any required construction fencing or perimeter control if adjacent to existing trees or natural areas.		

14.6.3: Public Infrastructure + Community Safety Standards		
Standard	Discussion	Status
Public Safety and Fire Prevention	Overview: Fire hydrant is proposed between 180 and 150 Read Street.	
	Comments:	
Public Utilities	Overview: Confirmation of ability to serve have been received for water and gas services and provided within the submission. The applicant is waiting on electric.	
	Comments: Please provide ability to serve confirmation from electric.	

Additional Submissions Requested:

-

14.6.4: Site Design Standards		
Standard	Discussion	Status
Massing, Ventilation and Wind Impact	Overview: Not anticipated to have massing, ventilation, and wind impacts.	
	Comments:	
Shadow	Overview: Not applicable.	
	Comments:	
Snow and Ice Loading	Overview: Snow storage is proposed at the rear southeast corner of the property.	
	Comments: Concerns persist regarding snow storage locations on eastern edge of property near the abutting building. Please consider alternate location or snow storage approach.	
View Corridors	Overview: Not in a view corridor.	
	Comments:	
Historic Resources	Overview: Not in a historic district.	
	Comments:	
Exterior Lighting	Overview: Photometric plan has been submitted with cut sheet details.	
	Comments:	
Noise and Vibration	Overview: Not anticipated to create noise and vibration impacts.	
	Comments:	
Signage and Wayfinding	Overview:	
	Comments:	
Design Standards	Overview: Not subject to design standards.	
	Comments:	
Additional Submissions Requested:		

PLANNING BOARD

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

October 10, 2023

Rob Cowans
NEPW Logistics
180 Read Street
Portland, Maine

Craig Burgess
Acorn Engineering
500 Washington Ave Suite 202
Portland, Maine 04103

Project Name:	Major Site Plan	Project ID:	PL-002223-2023
Address:	180 Read Street	CBL:	147 BOO1001
Applicant:	Rob Cowans		
Planner:	Maya Balassa		

Dear Rob Cowans:

On October 10, 2023, the Planning Board approved a major site plan application for a 60,630 square foot warehouse in the IM Moderate Impact zone. The decision is based upon the application, documents and plans as submitted. The Planning Board reviewed the proposal for conformance with the standards of the Site Plan Ordinance, Ch. 14, Article 14, Section 14.6. Based on the information provided to the Board in the application, plans, reports. Through testimony and other information submitted by the applicant, the Planning Board adopted the findings, conclusions and recommendations contained in the Planning Board Report for the public hearing on October 10, 2023, which is attached hereto and incorporated herein by reference. Based upon those findings, conclusions and recommendations, the Planning Board found that the application met all relevant standards and voted [add vote, for and against] to approve the application with the following conditions as presented below.

Site Plan Review

Based upon the information provided to the Board in the application, plans, reports, through testimony and other information submitted by the applicant, the Planning Board adopted the findings, conclusions and recommendations contained in Section IX of the Planning Board Report for the public hearing on October 10, 2023, which is attached hereto and incorporated herein by reference. The Planning Board voted [add vote, for and against] to find that the plan is in conformance with the site plan standards of the Land Use Code, subject to the following conditions of approval.

The approval is based on the submitted plans and findings related to site plan review contained in the Planning Board report dated 10-10-2023 for application PL-002223-2023, which is attached.

Standard Procedures

Note: The following standard procedures and requirements apply to all approved site plans:

1. Site Plan Expiration The site plan approval will be deemed to have expired unless work has commenced within one (1) year of the approval or within a time period up to three (3) years from the approval date as agreed upon in writing by the City and the applicant. Requests to extend approvals must be received before the one (1) year expiration date.
2. Separate Building Permits Are Required This approval does not constitute approval of building plans, which must be reviewed and approved by the City of Portland's Permitting and Inspections Department.
3. Performance Guarantee and Inspection Fees A performance guarantee covering the site improvements and an inspection fee payment of 2.0% of the guarantee amount and three (3) final sets of plans must be submitted to and approved by the Planning and Urban Development Department and Public Works Department prior to the release of a building permit, street opening permit or certificate of occupancy for site plans.
4. Construction Management Plans The applicant, contractor and subcontractors are required to conform to the approved Construction Management Plan, and all conditions contained within the project's approval, for the entire duration of the project. Any amendments to the approved Construction Management Plan shall be reviewed and approved by the Department of Public Works prior to the execution. The Planning Authority and the Department of Public Works have the right to seek revisions to an approved Construction Management Plan. The applicant shall coordinate the project's construction schedule with the timing of nearby construction activities to avoid cumulative impacts on a neighborhood and prevent unsafe vehicle and pedestrian movements. Accordingly, nearby construction activities could involve a delay in the commencement of construction.
5. Preconstruction Meeting Prior to the release of a building permit and scheduling of a preconstruction meeting, a hard copy set of approved plans shall be submitted to the Development Review Coordinator. A pre-construction meeting shall be held at the project site with the contractor, Development Review Coordinator, Public Works representative, and owner to review the construction schedule and critical aspects of the site work. At that time, the Development Review Coordinator will confirm that the contractor is working from the approved site plan and the approved Construction Management Plan. The site/building contractor shall provide one (1) copy of a detailed construction schedule to the attending City representative. It shall be the contractor's responsibility to arrange a mutually agreeable time for the pre-construction meeting.
6. Department of Public Works Permits If work or obstructions will occur within the public right-of-way, such as utilities, curb, sidewalk, driveway construction, site deliveries and equipment siting, a Street Opening and/or Occupancy Permits are required for your site. Please contact the Department of Public Works Permit Clerk at (207) 874-8300, ext. 8828. (Only excavators

licensed by the City of Portland are eligible.)

7. Develop Site According to Plan The site shall be developed and maintained as depicted on the site plan and in the written submission of the applicant. Any modifications of an approved site plan or alteration of a parcel, or of any approved exterior elevations, which were the subject of site plan approval after May 20, 1974, shall require the prior approval of an amended site plan by the Planning Board or Planning Authority pursuant to the terms of Chapter 14, Land Use, of the Portland City Code.
8. Stormwater Management The owner/operator of an 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. Final copies shall be submitted to both the Department of Planning and Urban Development and the Department of Public Works.

9. Third Party Inspections For all sites with one acre or greater of disturbance, the applicant shall retain the services of a third-party inspector for the duration of construction until final site stabilization is in place. The inspection is required in order to ensure that all construction and stabilization activities comply with the approved drawings and specifications; that field decisions regarding erosion control implementation, stormwater system installation, and natural resource protection are based on sound engineering and environmental considerations; and that any changes to the development's erosion control plan, stormwater management plan, or final stabilization plan is communicated to the City of Portland for additional review and approval.

The inspector will submit weekly written reports to the Stormwater Coordinator(s) in the Water Resources Division of Public Works. Reports must include: project ID, project address, the date(s) and time(s) of inspection(s), site photographs of areas under construction, and the date(s) and approximate duration(s) of any rainfall events. The report will identify and describe any erosion problems or discharge of pollutants and what actions will be taken to address these issues and repair any damage to other properties or natural resources, actions to eliminate the erosion source, and actions to prevent future sediment discharges from the area.

10. Defect Guarantee A defect guarantee, consisting of 10% of the performance guarantee, must be posted before the performance guarantee will be released.
11. As-Built Final Plans Final sets of as-built plans shall be submitted digitally to the Planning and Urban Development Department, on a CD or DVD, in AutoCAD format (.dwg), release AutoCAD 2005 or greater. Please provide one hard copy of the mylar.
12. Mylar Copies Mylar copies of the as-built drawings for the public streets and other public infrastructure in the subdivision must be submitted to Public Works prior to the issuance of a certificate of occupancy.

13. Impact Fees New development or changes of use that result in net new residential dwelling units, non-residential building square footage, or water meters, are subject to the City of Portland's impact fee ordinance (Chapter 14, Article XVII). Impact fees are calculated at the time of building permit and must be paid prior to the certificate of occupancy. For more information, visit <https://www.portlandmaine.gov/2409/Impact-Fees>

The Development Review Coordinator must be notified five (5) working days prior to the date required for final site inspection. The Development Review Coordinator can be reached at the Planning and Urban Development Department at drc@portlandmaine.gov or (207)874-8901. All site plan requirements must be completed and approved by the Development Review Coordinator prior to issuance of a Certificate of Occupancy. Please schedule any property closing with these requirements in mind.

If there are any questions, please contact Maya Balassa at (207)874-8718 or via email at mbalassa@portlandmaine.gov.

Sincerely,

Brandon Mazer, Planning Board Chair

Attachments:

1. Planning Board Report
2. Portland City Code: Chapter 32
3. Sample Stormwater Maintenance Agreement
4. Performance Guarantee Packet