

1. Legal Ad

Documents:

[PB LEGAL AD 6-13-17.PDF](#)

2. Agenda

Documents:

[PB AGENDA 6-13-17.PDF](#)

3. 383 Commercial Street

3.I. 6-13-17 Current Memo And Attachments

Documents:

[COMMERCIAL STREET - 383 \(CURRENT MEMO AND ATTACHMENTS\).PDF](#)

[COMMERCIAL STREET - 383 \(CURRENT APPLICANTS SUBMITTAL - MDP\).PDF](#)

[COMMERCIAL STREET - 383 \(CURRENT APPLICANTS SUBMITTAL - PHASE 1\).PDF](#)

[COMMERCIAL STREET - 383 \(CURRENT PLANS - MDP SINCE APRIL WORKSHOP\).PDF](#)

[COMMERCIAL STREET - 383 \(CURRENT PLANS - PHASE 1 SINCE APRIL WORKSHOP\).PDF](#)

3.II. April Memo Attachments (Brought Forward For Reference)

Documents:

[COMMERCIAL ST. - 383 \(MEMO AND ATTACHMENTS\).PDF](#)

[COMMERCIAL ST. - 383 \(APPLICANTS SUBMITTAL\).PDF](#)

[COMMERCIAL ST. - 383 \(PLANS - MDP\).PDF](#)

[COMMERCIAL ST. - 383 \(PLANS - PHASE 1 FOR INFORMATION\).PDF](#)

4. 1728 Washington Avenue

Documents:

[WASHINGTON AVE. - 1728 \(MEMO AND ATTACHMENTS\).PDF](#)

[WASHINGTON AVE. - 1728 \(APPLICANTS SUBMITTAL\).PDF](#)

[WASHINGTON AVE. - 1728 \(PUBLIC COMMENT\).PDF](#)

[WASHINGTON AVE. - 1728 \(PLANS\).PDF](#)

5. 101 York Street

Documents:

[YORK ST. - 101 \(TABLING MEMO\).PDF](#)

**LEGAL ADVERTISEMENT
PORTLAND PLANNING BOARD MEETING**

The Portland Planning Board will meet on **Tuesday, June 13, 2017**, Council Chambers, 2nd Floor, City Hall, 389 Congress Street.

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

Workshop: 4:30 p.m.

- i. Master Development Plan and Phase 1 Site Plan; 383 Commercial Street, Deering Property Development, LLC, Applicant. (4:30 – 5:30 p.m. estimated time). The Planning Board will hold a workshop to consider 1) a phased Master Development Plan (MDP) for the mixed-use redevelopment of the Rufus Deering Lumber Yard for a total of 27,642 sq. ft. of retail space along Commercial St., 284 residential condominiums, and structured parking for 387 vehicles accessed from both York and Maple Streets; and 2) the proposed site plan for Phase 1 of the MDP for 82 dwellings (including workforce housing), approx. 6000 sf retail and 103 parking spaces. The site is within the B-5b zone.
- ii. Level III Subdivision; 1728 Washington Avenue; Ron Goddard of Greenlight Enterprises, LLC., Applicant. (5:30 – 6:00 p.m. estimated time). The Planning Board will hold a workshop to consider a proposed residential subdivision with eight (8) new lots while retaining the existing home on a separate ninth lot. A new dead-end street is proposed off of Washington Avenue.

Public Hearing - 6:00 p.m.

- i. Subdivision Review on Amended Subdivision Plat; 101 York Street; JB Brown, Applicant. (6:00 p.m. estimated time). The Planning Board will hold a public hearing on an amended subdivision plat and condominium documents for the approved development at 101 York Street. The mixed use project, with first floor commercial and office space, along with 63 residential units on the upper floors, is currently under construction. The proposed revisions add the parking garage to lot 40-C-9 and further subdivide the retail space.

ELIZABETH BOEPPLE, CHAIR – PORTLAND PLANNING BOARD

CITY OF PORTLAND, MAINE
PLANNING BOARD

Elizabeth Boepple, Chair
Sean Dundon, Vice Chair
Carol Morrisette
David Eaton
Brandon Mazer
Maggie Stanley
Lisa Whited

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PUBLIC HEARING (there will not be a public hearing this evening)

At the request of the Applicant, this item will be tabled to the THURSDAY, JUNE 22, 2017 meeting. Subdivision Review on Amended Subdivision Plat; 101 York Street; JB Brown, Applicant. (6:00 p.m. estimated time). The Planning Board will hold a public hearing on an amended subdivision plat and condominium documents for the approved development at 101 York Street. The mixed use project, with first floor commercial and office space, along with 63 residential units on the upper floors, is currently under construction. The proposed revisions add the parking garage to an adjoining lot and further subdivide the retail space.



Memorandum Planning and Urban Development Department Planning Division

To: Elizabeth Boepple, Chair and Members of the Portland Planning Board
From: Jean Fraser, Planner
Date: June 9, 2017
Re: Level III Master Development Plan and Level III Site Plan for Phase 1;
383 Commercial Street (Rufus Deering site) (IZ Conditional Use also submitted)
Deering Property Development, LLC, Applicant
Project #: 2017-005 CBL: 042 A001001
Meeting Date: June 13, 2017

I. INTRODUCTION

The Board held a first Workshop on this project on April 6, 2017 which focused primarily on the Master Development Plan (MDP) proposals for a mixed use development comprising 275 dwelling units, 25,253 sq ft of retail space, and a 386 space parking garage on the former Rufus Deering site at the western end of Commercial Street. This second Workshop is to consider the revised proposals for the MDP, and the Phase I Level III site plan proposals for 78 dwelling units in a 6 story building on the eastern third of the site.

The April PB Memorandum is attached for reference.

The development site is 2.58 acres currently occupied by Rufus Deering Lumber, bounded by Commercial, Maple, York and High Streets in the B5b zone.

The site does not include the building currently occupied by the Baxter Academy at the corner of York and Maple Streets.

The project at MDP level has been reviewed by the Historic Preservation Board as it is within 100 feet of a historic district. The HP Board comments are summarized in ([Attachment 1](#)). The project is also subject to the Inclusionary Zoning ordinance and a Conditional Use application has been submitted.

Applicant: Deering Property Development LLC
Engineer: Sebago Technics, Inc
Architect: Archetype PA



This Workshop was noticed to 157 property owners within 500 feet of the site and interested parties, and a legal ad was published in the *Portland Press Herald* on June 5 & 6, 2017. A Neighborhood Meeting is required for the MDP and a separate one for the Phase 1; these were held on March 28th and April 26th

respectively and the attendees and meeting notes are attached. At the time of completing this Memorandum, the Planning Division has not received any written public comments.

Required Review (waivers are likely to be needed but have not been requested):

<i>Applicant's Proposal</i>	<i>Applicable Standards</i>
Overall master development plan for 284 dwelling units, 27,642 sq ft retail and 387 parking spaces	Master Development Plan Review
New phase 1 structure of 78 dwelling units and 6124 sq ft retail.	Subdivision Review
Multifamily and mixed use building of 151,980 sq ft	Level III Site Plan Review and B-5b Design Review
Inclusion of 9 Workforce units (likely to be revised)	Inclusionary Zoning Section 14-484

II. PROJECT DATA (See Level I Plan in Plan P17 for further details)

Existing Zoning	B-5b			
Existing Use	Lumber company; retail.			
Proposed Use	Mixed use (including retail, residential and structured parking)			
Proposed Development Program	Three phases, starting with Maple Street building (Phase 1) (In Phase 1 existing buildings on west part of site to remain)			
Property Size	2.58 acres			
	<i>Existing whole site</i>	<i>Proposed whole site</i>	<i>Net Change for whole site</i>	<i>Includes these for Phase 1</i>
Building Footprint	32,100 sq ft	97,827 sq ft	65,727 sq ft	29,025 sq ft
Building Floor Area	35,000 sq ft	484,969 sq ft (comprising 284 dwelling units, mix of sizes; and 27,747 sq ft retail)	449,969 sq ft	136,988 sq ft (comprising 78 dwelling units, mix of sizes; and 6,124 sq ft retail)
Impervious Surface Area	2.43 acres	2.50 acres	.7 acre	2.09
Parking Spaces (on site)	?	387	?	73 under bldg. plus 30 surface
Bicycle Parking Spaces	0	131	131	36
Estimated Cost of Project	Not identified			

III. PLANNING BOARD DISCUSSION 4.6.2017

The Planning Board provided the following comments at the April Workshop:

- Need to reconsider the building at the corner Commercial and High to avoid view of parking from west and address its “gateway” role with greater articulation and design features;
- Concerned about treatment of the 2-story “blank” wall along phases 1 and 2 in the interim condition; needs imaginative treatment eg mural/public art;
- Concerned as to how the service areas will work safely in view of backing trucks etc within active pedestrian areas;
- Would like clarification of how the IZ Ordinance would be addressed;
- Not supportive of the large, unimproved surface parking for interim areas of phases 2/3;
- Supported the public comment suggestion for a grocery store;
- Plazas should be more “green”;
- Would like to see an aerial rendering showing more of the neighborhood context.

IV. THE SITE and CONTEXT

The Rufus Deering site is a prominent parcel on Commercial Street, east of High Street. To the south is a gas station and to the north is the recently completed Marriott Courtyard Hotel. To the west across York Street is a new 5 story mixed use development currently under construction. To the west (across Commercial Street) is the Gulf of Maine Research Institute and the waterfront.



The submitted plan set includes a boundary survey, existing conditions plans and an aerial of the site (in April PB Memo).

V. MASTER DEVELOPMENT PLAN PROGRAM

The MDP proposals include the following key elements:

- Three sections of 6 story buildings, separated at the second level by three open plazas
- A full buildout of 284 dwellings (mixed sizes, predominantly 1 and 2 bedroom)) and 27,642 sq ft of retail along Commercial Street
- A 2-level parking garage (387 spaces) behind the retail and under the residential buildings (each level accessed from different street)
- Loading facilities in Maple Street and from Commercial Street in the third phase
- Pedestrian link between York and Maple Streets between the site and the building at 54 York Street
- Limited landscape
- Three phases, starting at Maple Street



Since the April Workshop the MDP plans have been revised, in part to address the Board and staff comments, as follows (see Plans P17-P22):

- Slight increase in the total number of proposed dwellings and retail floorspace;
- Revised building design at the corner of High Street and Commercial Street, though no entrance is located at this corner;
- Provided greater detail of the phases;
- Removed the unimproved (interim) surface parking lot for areas of phase 2 & 3 (retaining existing buildings with part grassed)
- Clarified treatment of “blank” 2-story wall of parking garage under phase 1 in interim
- Clarified treatment of existing retaining wall along York Street;
- Revised the proposed brick sidewalk along Commercial to be concrete;
- Revised the loading dock in Maple Street and provided additional information as to how it would operate;
- Provided a narrative outlining how open space and landscape would be integrated;
- Confirmed that the cobbles would be taken up (given to DPW) and replaced with granite setts.

V. PHASE 1 PROGRAM

The Phase 1 proposals comprise the following key elements:

- Six story building, comprising 4 stories of residential (78 units) over 2 levels of parking garage
- Parking underneath the building (73 spaces, accessed from both Maple Street and York Street) and 30 surface parking spaces along Commercial Street in the area to be Phase 2 (to be in the parking garage when Phase 2 is constructed)
- New granite sett sidewalk in Maple Street (cobble removed)
- Commercial Street concrete sidewalk to remain, but treewells and street lighting to be added in front of building only
- Details of servicing area/pedestrian walkway on Maple Street
- Mural on wall of the parking garage and grassed area behind surface parking
- Retention of existing Rufus Deering buildings for storage.



VI. ZONING ANALYSIS

The Master Development Plan and Phase 1 proposals comply with the zoning requirements of the B5b zone. The proposed height of the buildings is about 72 ft in absolute terms as from Commercial Street, but if measured using the zoning definition it is just under the 65 ft maximum for this zone.

It should be noted that the maximum front yard setback is 10 feet in the B5b zone. The project has met this requirement by creating a substantial street wall using 2-story high columns in three locations along Commercial Street. In discussion with the Zoning office and the Urban Designer, staff recommend that this approach meets the zoning requirement.

The first phase of the project comprises the zig zag building at the Maple Street end of the site, along with 30 surface parking spaces to serve the phase 1 building. The proposed parking for Phase 1 (103 spaces total) meets the zoning requirements assuming approximately half of the retail space is restaurant use.

VII. STAFF REVIEW – MASTER DEVELOPMENT PLAN

A. MASTER DEVELOPMENT PLAN OBJECTIVES

The Site Plan ordinance outlines that an approved Master Development Plan (MDP) establishes the general parameters to be adhered to for the development where the site is greater than one acre. The objective is to ensure the overall lot is designed as a cohesive and integral development program consisting of multiple buildings and associated site improvements built in phases over an extended timeframe, including the supporting documentation for floor area ratio and/or residential density, general types of uses, building coverage, generalized open space plans and infrastructure systems. It is not a final authorization for development, but it does confer pending proceeding status upon the development with the effect of maintaining the applicability of regulations in effect at the time of the approval for as long as the MDP approval remains valid. All Level III site plans for each phase shall be in general conformance with the approved MDP (6 years initially, which may be extended).

B. MASTER DEVELOPMENT PLAN SUBMISSION REQUIREMENTS (*Section 14-527(e)*)

Section 14-527 of the city's site plan ordinance outlines Master Development Plan submittal requirements. The Planning Authority or Planning Board may give direction regarding the form of the information required for the MDP review.

Since the April Workshop the applicant has submitted information/proposals that generally address the submission requirements.

C. MASTER DEVELOPMENT PLAN STANDARDS (*Section 14-524(a)3.c(iii)*)

Section 14-524 of the city's land use code establishes standards under which Master Development Plan applications must be reviewed. The April PB Memorandum included comments on how all of the requirements had been addressed and there are no new staff comments except regarding traffic and loading and issues that will be addressed in relation to the Phase 1 Site Plan review. The City's consultant Traffic Engineering reviewer has commented in respect of the MDP (Attachment 9):

- *A Traffic Movement Permit is required for the full build-out of the project. A traffic study scoping meeting was held on Thursday June 1, 2017 and upon receipt of the traffic study, comments will be provided. The traffic study will evaluate traffic impacts at the York Street/Maple Street, York Street/Garage Entrance, York Street/High Street, Commercial Street/Maple Street, Commercial Street/High Street, and Commercial Street/Park Street intersections. Several High Crash Locations were identified in the study area. The traffic study is expected to identify mitigation strategies for both safety and mobility deficiencies identified from detailed traffic modeling. The City has identified the potential for the installation of a traffic signal at the Commercial Street/High Street intersection, and the study will be evaluating conditions with and without the noted traffic signal.*
- *The proposed delivery arrangement on Commercial Street is not acceptable. Blockage of the sidewalk will not be permitted.*
- *All sidewalks shall be brick material.*

- *Public Street bicycle racks for the retail land uses shall be provided.*
- *We concur with the applicants request for postponing the construction of the curb extension at the westerly corner of Commercial Street/Maple Street to Phase II given Pavement Moratorium restrictions. Final details for the curb extension will be required including geometric design elements, detectible panel and crosswalk alignment/location, and the possible incorporation of storm water/rain garden features.*

The Planning Board had requested a rendering showing the project within the wider neighborhood and this has been submitted and is extracted below (in Plan 22):



VIII. STAFF REVIEW – PHASE 1: SUBDIVISION, SITE PLAN, & INCLUSIONARY ZONING

A. SUBDIVISION STANDARDS

14-496. Subdivision Plat Requirements

The applicant has submitted a draft plat (Plan P23) which has not been reviewed in detail.

14-497. General Requirements (a) Review Criteria

Water, Air Pollution and Soil Erosion

The applicant has submitted erosion control information and further information has been requested by the Peer Engineering reviewer (Attachment 10). A water capacity letter has not been submitted for phase 1.

Traffic

The consultant Traffic Engineer reviewer has confirmed that the proposed Phase 1 new building is not expected to create unreasonable traffic congestion or safety problems and does not require a Traffic Movement Permit (Attachment 9). However, he has requested specific information on the use of the existing buildings to remain under Phase 1 so that the traffic impacts can be understood and reviewed (Attachment 9).

Parking

The applicant is proposing 73 parking spaces in the 2-level parking garage under the 4 stories of residential and an additional 30 spaces in a surface parking lot on the Phase 2 part of the site. These serve the 78 residential units and the retail uses and meet the zoning requirements in terms of number. Reviewers have not raised any concerns with the proposed number of spaces but there are concerns about design that are discussed under *Site Plan*.

Sanitary Sewer/Soils

The application has been reviewed by the consulting Peer Engineer (Attachments 10) and is acceptable subject to confirmation of wastewater capacity.

Storm water

The applicant proposes to install a Storm Filter system with subsurface detention, which is considered acceptable in principle subject to some detailed revisions (Attachment 10).

Scenic Beauty

The existing site is almost completely impervious surface and there is little scope in Phase 1 for additional street tree planting. The applicant has submitted a narrative outlining the areas of open space and planting (Attachment U). The treatment of the surface parking lot needs reconsideration as discussed under site plan.

Comprehensive Plan

The project is consistent with the Housing Goals and Policies of the Comprehensive Plan.

B. SITE PLAN STANDARDS - 14-526 Site Plan Standards

Phase 1 Ground level (Plan P26)



Traffic - Access, Circulation, Servicing and Loading

The Phase 1 proposals provide vehicle access to the parking garage under the building from both York Street and Maple Street, a 15 foot wide loading area accessed from Maple Street, and a pedestrian walkway between the building and the existing building to the north. As noted at the previous workshop, the proximity of the garage access, loading area and pedestrian walkway in Maple Street are of concern and the Traffic Engineering reviewer has commented (Attachment 9):

- *The applicant shall provide information that supports the use of a smaller tractor-trailer truck (WB-40) in the evaluation of truck maneuvering. Given that large moving trucks can be expected, due residential uses, a larger design truck template is suggested. Turning templates shall be provided for movements in both directions on Maple Street. I would also note that the applicant shall confirm that the depth of the loading bay will not create sidewalk blockage. Additionally, truck turning templates at the Maple Street intersections with Commercial Street and York Street shall be provided.*
- *The applicant shall provide documentation in support of a formal waiver request for driveway separation between the parking garage entrance, the truck loading drive, and the Baxter Academy driveway. Driveway separation does not meet City standards.*

Sidewalks

The applicant is proposing to retain the existing concrete sidewalk along the Commercial Street frontage and has shown three different ROW materials along Maple Street. The Council's policy for this area is brick sidewalks and aprons and staff do not consider there is any basis for departing from that standard. The Traffic Engineering reviewer Tom Errico has commented ([Attachment 9](#)):

- *DPW does not support the mixed sidewalk material proposed by the applicant for Maple Street. The City recommends that the sidewalk material follow City Policy and therefore be brick. It should be noted that under City Policy, driveway aprons shall match the sidewalk material and therefore shall be brick. For the loading drive area, it is suggested that the bricks be rotated 90 degrees. The maximum cross-slope for driveways shall be 2 percent. For the section of sidewalk abutting the historic gutter area, it is suggested that vertical granite curbing be installed and match the Maple Street edge line and creation of an approximate 10 foot area that includes a 5-foot brick accessible pedestrian route with the remaining width dedicated to cobble material and tree wells. Continued coordination with the City's Historic Preservation staff, Arborist, and DPW will be required for the specific specification of the area. I would note that the driveway on York Street shall also meet City material and cross-slope requirements and include specific dimensional details.*
- *The plans note that the sidewalk material on Commercial Street for the Phase I project is concrete. It is recommended that for the Phase I building frontage, brick sidewalk be provided. It is our expectation that the existing sidewalk will be disturbed during construction. I would also note that the installation of street lighting and conduit will disturb the existing concrete sidewalk outside of the Phase I building frontage area and plans for sidewalk improvements should be defined for review and approval.*

Commercial Street is a moratorium street (until 2021) but the improvements to the Commercial Street sidewalk can be implemented within the existing curbs and not impact Commercial Street (though the curb cut closure may impact the street as noted by Mr Errico in his comments). The staff have recommended that a bump-out to match the one on the other side of Maple Street be implemented after the moratorium is lifted and the details of the proposed bump-out need further discussion; this would be the basis of a potential condition of approval.

On the Commercial Street frontage the applicant has not proposed any improvements along the frontage of the surface parking lot. Since that lot is part of the Phase 1 proposals, the staff suggest that the lighting and tree planter improvements (and brick sidewalk) should continue along the entire frontage not just in front of the building.

Public Transit Access - is not applicable to this project.

Parking

As noted above under the *Subdivision* review, the applicant is proposing 73 parking spaces within the parking garage and a further 30 spaces in a surface lot to the west of the phase 1 building. The proposal for surface

parking is acceptable in principle, but as noted in the Design Review comments and Traffic Engineering review comments ([Attachment 9](#)), the location and design is considered unacceptable for the following reasons:

- Location and screening does not meet B2b design standards;
- Landscaping does not meet site plan standards; and
- Needs greater separation from Commercial Street to ensure pedestrian safety

Information on the parking garage layout and dimensions has been requested by the Traffic Engineering reviewer, and the applicant will also need to address the likely changes to the on-street parking regulations in Maple Street.

Bicycle Parking

The Phase 1 application indicates that 36 bike parking spaces will be provided but the location is not identified. The proposed number of racks meets the ordinance standards, but the locations should address the use by residents, resident visitors and visitors to the retail uses.

Snow Storage - has not been addressed in the submissions.

Transportation Demand Management - is not applicable to this project.

Construction Management Plan (CMP) – a CMP meeting the City’s recent “template” shall be required as part of the final submissions. Of particular concern (see Peer Engineering comments) is that the existing retaining wall along the entirety of York Street may not be stable enough to withstand the construction activities of Phase 1. The applicant has submitted a brief explanation of the way the new building walls will relate to the existing retaining wall ([Attachment Z](#)), but further geotechnical and structural engineering information should be submitted to determine what measures should be included in the Phase 1 proposals to ensure the safety and stability of the Phases 2 & 3 wall during construction of Phase 1 .

Landscape Preservation / Site Landscaping and Screening/Street Trees

The applicants Landscape Plan (in [Plans P24](#)) does not include the surface parking area and this area needs to be revised and landscaped as noted above and to meet the Site Plan standards. Details (on a plan) of the second level plaza area have not been submitted although described in [Attachment U](#); these would need to be included in the final submissions.

The Commercial Street frontage already includes street trees and the new planters are welcomed; their details should be included in the final submissions. The City Arborist does not recommend street tree planting in Maple Street. The project requires 78 street trees and the applicant should provide an assessment of the number of street trees already around the Phase 1 area and how they are going to meet the requirement-bearing in mind the revised Site Plan ordinance and Technical Standards allow for other options in addition to a financial contribution to the Tree fund.

Water quality, Stormwater Management and Erosion Control - see discussion under *Subdivision Review* above.

Public Safety

The Crime Prevention through Environmental Design (CPTED) standards in the site plan ordinance address the principles of natural surveillance, access control and territorial reinforcement so that the design of developments enhance the security of public and private spaces and reduce the potential for crime.

The proposals do not raise any particular concerns, but further information is required regarding the entrance design for the parking garage and the design and lighting of the public walkway along the north side of the building.

Fire Prevention

The Fire Department does not have any concerns regarding the proposed new building (Attachment 13) but has raised questions about the existing structures/buildings that will remain (the submissions indicate these will be for storage) and what use/occupancy is proposed for the existing office building on the corner of High Street and Commercial Street.

Public Utilities - under review.

Massing, Ventilation and Wind Impact and Shadows – the proposal does not appear to raise any particular concerns.

Historic Resources

The broad design of Phase 1 is consistent with the overall design supported by the Historic Preservation Board (see comments in Attachment 1). The HP Board did note the awkward west elevation created by implementation of Phase 1 on its own.

The Maple Street frontage includes the remnants of the historic cobbles (see photo right and in the City Arborist comments). The applicant has suggested these be removed completely and replaced with granite setts - which staff do not consider acceptable. The Historic Preservation Program Manager would like to see these retained and staff are preparing some options for this sidewalk to discuss with the applicant that incorporates a brick sidewalk and retains the cobbles.



Exterior Lighting incl Street Lighting

The applicant has confirmed that street lights will be included in the phase 1 project in front of the building on Commercial Street (Attachment SS). Staff consider these should be extended along the frontage by the surface parking lot serving Phase 1. The need for street lights elsewhere is still under review. The proposed site lighting does not appear to meet the City's Technical Standards.

C. DESIGN STANDARDS

The Phase 1 proposal are subject to the B5b and Multi family Design standards and the following review has been prepared by the City's Urban Designer:

(c) B-5 and B-5b Urban Commercial Business Zones

Standard (1) a. Shared Infrastructure – Met – The project will share structured parking and driveway infrastructure across its three phases.

*Standard (1) b. Buildings and Uses shall be located close to the street . . . Corner lots shall fill into the corner and shall provide an architectural presence and focus to mark the corner. – Somewhat Met – Project is located near the property line on Commercial Street and creates strong street wall on street-facing façade consistent with other commercial or mixed use building placement. Building is mixed-use with commercial ground floor and residential upper floors. The York Street façade is residential and therefore more private in character – the buildings are oriented to the street but are setback and the residential use is elevated above the street level providing privacy **but also effectively disengaged from the street except for the stairs to the courtyards. If the setback from the sidewalk is going to be greater than that of other residential properties in this context, staff propose the sidewalk edge be held with a raised edge, low wall, or similar detail consistent with urban residential transition zones.** The sidewalk narrows on York Street for this project – considering the need for a furnishing zone for street lights, a wider sidewalk might be considered at least consistent with the existing sidewalk width in front of Baxter Academy building. The Maple/Commercial Street corner is built to*

the corner as required but *does not have any special architectural feature to mark the corner* (future building phases propose special features on other corners).

Standard (1) c. Buildings shall be oriented toward the street . . . – Somewhat Met – Commercial Street façade is activated with commercial ground floor uses and entrances provided directly from the street or the entrance “plaza.” The primary residential entrance for this phase is located on Maple Street and though directly oriented to the street, *appears diminutive compared with the scale of the façade and building – staff thought more emphasis and prominence would be appropriate for this primary entrance.*



Standard (1) d. Parking lots shall be located to the maximum extent practicable toward the rear . . . *Not Met* – Phase I proposes *a surface parking lot located adjacent to Commercial Street* which does not meet the intent of this standard. The parking lot currently *does not have screening measures proposed.*

(i) Multiple-family:

Standard (1) Design Compatibility – Met – Staff agree with the Historic Preservation Board assessment and comments regarding the building design and its compatibility with the surrounding context.

Standard (2) Relationship of building to the street –Somewhat Met – Project is located near the property line on Commercial, Maple, and High streets and those ground floor street frontages have an adequate amount of fenestration and at a level that provides some views into the building. Storefront should be transparent. *See Standard (1)b above regarding York Street residential building relationship to sidewalk.*

Standard (3) Open Space – Met – Project includes courtyard spaces for tenants and urban plazas for commercial uses. (See applicant’s narrative in Attachment TT)

Standard (4) Light and Air – Met – Project includes ample windows for light and air.

Standard (5) Surface Parking – *Not Met* – see Standard (1) d above regarding surface parking screening.

Standard (6) Lodging Conversion – Not applicable

D. WORKFORCE HOUSING CONDITIONAL USE (INCLUSIONARY ZONING)

This project is subject to the Inclusionary Zoning ordinance that ensures the provision of workforce housing. A development of ten or more units of housing in the City is required to provide on-site workforce housing units or make an in-lieu payment to the City's Housing Trust.

The applicant has confirmed in their Inclusionary Zoning application that they will address this requirement by providing a total of 9 workforce units: seven 1-bed units and two 2-bed units, although the location of the units has not been confirmed. The total number of proposed dwelling units has been reduced from 82 to 78, so the applicant should submit a revised application and clarify the location of the workforce units.

IX. NEXT STEPS

The final submissions will need to fully address the MDP, Subdivision, Site Plan and IZ review standards and address any further Planning Board comments, including the following:

MDP

- Provide additional information and possibly revise servicing and loading proposals
- Revise the sidewalk and apron materials
- Greater emphasis on entrances in the design

Phase 1

- Revise and clarify the servicing and loading operations (Maple Street)
- Submit details of the parking garage entrance design and layout, bike parking and pedestrian walkway
- Relocate and landscape the surface parking area
- Revise sidewalk materials
- Submit landscape details of the upper level plaza
- Clarify waiver requests
- Clarify how street tree requirements will be addressed
- Address reviewer comments (Peer Engineer; Traffic Engineer; Design Review and City Arborist)
- Clarify uses and occupancy of buildings to remain when Phase 1 constructed
- Submit Construction Management Plan and address concerns regarding the safety and stability of the existing wall along York Street

ATTACHMENTS

(note there are two set of attachment list- one for the April PB Memo brought forward and one for this PB memorandum)

A. APRIL MEMORANDUM ATTACHMENTS:

(brought forward for reference)

STAFF REVIEW COMMENTS

1. HP Board comments
2. Preliminary Design Review
3. Transportation comments
4. Peer Engineer Comments
5. City Arborist comments
6. Staff comments

PUBLIC COMMENTS (None received to date)

APPLICANT'S SUBMITTAL

- A. Master Development Plan Development Review Application
- B. RTI

APPLICANT'S SUBMITTAL, continued

- O. Solid Waste
- P. Fire
- Q. Design Review
- R. School Capacity Impact

PLANS - MDP

- P1. Boundary Survey
- P2. Existing Conditions Plan
- P3. Neighborhood Context Plan
- P4. Utility Plan
- P5. Level 1 Plan
- P6. Level 2 Plan
- P7. Level 3 Plan

- C. State & Federal Approvals Zoning Assessment
- D. Zoning Assessment
- E. Easements
- F. Waivers
- G. Technical and Financial Capability
- H. Boundary Survey
- I. Traffic Study
- J. TMP
- K. Natural Features
- L. Stormwater Management
- M. City Master Plans
- N. Utilities

- P8 Elevations
- P9 Site Section
- P10 Site Section
- P11 Renderings (11 sheets)

PLANS – PHASE 1 FOR INFORMATION

- P12 Phase 1 Site Plan
- P13 Floor Plans (5 sheets)
- P14 Elevations
- P15 Landscape Plans (2 sheets)
- P16 Phase 1 Rendering

B. THIS JUNE MEMORANDUM

STAFF REVIEW COMMENTS

- 7. HP comments (to follow)
- 8. Second Preliminary Design Review June 2017
- 9. Transportation/Traffic comments June 2017
- 10. Peer Engineer comments June 2017
- 11. City Arborist comments June 2017
- 12. Fire Department comments June 2017

PUBLIC COMMENTS (None received to date)

APPLICANT'S ADDITIONAL SUBMITTAL - MDP

- S. Master Development Plan Development Review Application - updated
- T. RTI and Zoning Assessment - updated
- U. Open Space & Landscape Treatment
- V. Historic Cobbles
- W. Curb Bumpout
- X. Loading Areas
- Y. Project Phasing
- Z. Treatment of rear retaining wall

APPLICANT'S ADDITIONAL SUBMITTAL – PHASE 1

- AA Application Form
- BB Application Fees
- CC Project Description
- DD RTI
- EE State/Federal Approvals
- FF Zoning Assessment
- GG Easements
- HH Financial & Technical Capability
- II Construction Management Plan
- JJ Traffic Study
- KK Natural Features
- LL Stormwater management plan
- MM City Master Plans

APPLICANT'S ADD'L SUBMITTAL – PHASE 1 CON'T

- NN Utility Capacity to Serve
- OO Solid Waste
- PP Code Summary
- QQ Design Review
- RR HVAC
- SS Light cut sheets (site and ROW)
- TT Open Space and Landscape
- UU Historic cobbles
- VV Curb Bumpout
- WW Loading Areas
- XX Treatment of Existing Retaining Wall

PLANS – MDP SINCE APRIL WORKSHOP

- P17 Level 1 Plans - updated
- P18 Level 2 Plans - updated
- P19 Level 3 Plans - updated
- P20 Elevations - updated
- P21 Site Sections - updated
- P22 Renderings (8 sheets) (new and updated)

PLANS – PHASE 1 SINCE APRIL WORKSHOP

- P23 Draft Subdivision Plat
- P24 Civil Plans (12 sheets)
- P25 Watershed Plans
- P26 Levels
- P27 Elevations
- P28 Section
- P29 Aerial

Planning and Urban Development Department

Planning Division



Subject: MDP and B-5 Design Review – 383 Commercial Street
Written by: Caitlin Cameron, Urban Designer
Date of Review: Thursday, June 8, 2017

The project at 383 Commercial Avenue was reviewed according to the *Master Development Plan Standards of Review* by Caitlin Cameron, Urban Designer, Matt Grooms, Planner, and Jean Fraser, Planner. The project is also within 100' of a historic district and included an advisory design review by the Historic Preservation Board.

This memo includes design review comments for the overall Master Development Plan and the Phase I Level III Site Plan. The proposed master plan for multi-family residential buildings is only reviewed according to the Master Plan criteria. The Level III Site Plan for Phase I development application is subject to the R-5 and Multi-family design guidelines.

Design Review Comments:

Master Development Plan

(iii) Standards of Review.

b. Developed in a comprehensive, design-integrated manner, according to an overall master development plan

- There is a clear cohesive design approach and architectural aesthetic applied to an overall master plan.

d. Consistent with the City's Comprehensive Plan and consistent with City Council approved master plans . . .

- The project is not within a Pedestrian Activities District Overlay zone (PAD)
- The project is not located within a view corridor protection area

f. When proposed adjacent to or within one hundred (100) feet of designated landmarks, historic districts or historic landscapes, the Master Plan shall be developed so as to be generally compatible with the major character-defining elements of the landmark or portion of the district in the immediate vicinity of the proposed development

- See memo from Historic Preservation staff regarding the Historic Preservation Board review comments for compatibility with the Old Port Historic District.

l. Designed as to create a cohesive identity through building scale, massing, and articulation; use of quality exterior material, architectural detailing at pedestrian scale; consistency of design and materials for streetscape and pedestrian amenities; framing of outdoor open space and linkages; a clear conveyance of the function and significance of various buildings,

entrances, and features; and to generally comply with design and development standards of the zone in which it is located;

- The project maintains a cohesive identity through its massing, material selection and placement, and consistent details and architectural features throughout the project phases. Commercial Street has a commercial/mixed use identity while York Street has a different character for the residential frontage.
- The exterior materials proposed are typical of what is found in contemporary construction around the city. Staff supports the use of more durable materials such as brick and cast concrete at the ground floor, as proposed. The level of articulation and detailing at the pedestrian level is not clear at this stage of project development – some visual interest is provided through active commercial frontage on Commercial Street. York Street ground level facades are less active, the residential spaces are elevated – some pedestrian amenity is provided by proposed landscape buffers between the sidewalk and building.
- Outdoor open space includes a pedestrian link from York to Maple Street marked with a material change and landscaping, private courtyards entered by stair on York Street indicating their private nature, and public plaza spaces on Commercial Streets serving as entrance courts to commercial retail spaces – these are framed by double-story trabeated “gateway”.
- The Commercial Street façade is successful in conveying its uses and entrances. **The residential entryways are less legible - indication/emphasis on pedestrian entries could be improved.**
- The streetscape design and materials are consistent across the phases. Commercial Street and York Street are different in character depending on use.
- The project clearly conveys the active, commercial portions of the buildings and the more private residential portions of the buildings.
- Generally, the project complies with the intent of the B-5 design standards. See below for Phase I-specific comments.

Level III Site Plan Review – Phase I

(c) B-5 and B-5b Urban Commercial Business Zones

Standard (1) a. Shared Infrastructure – Met – The project will share structured parking and driveway infrastructure across its three phases.

*Standard (1) b. Buildings and Uses shall be located close to the street . . . Corner lots shall fill into the corner and shall provide an architectural presence and focus to mark the corner. – Somewhat Met – Project is located near the property line on Commercial Street and creates strong street wall on street-facing façade consistent with other commercial or mixed use building placement. Building is mixed-use with commercial ground floor and residential upper floors. The York Street façade is residential and therefore more private in character – the buildings are oriented to the street but are setback and the residential use is elevated above the street level providing privacy **but also effectively disengaged from the street except for the stairs to the courtyards. If the setback from the sidewalk is going to be greater than that of other residential properties in this context, staff propose the sidewalk edge be held with a raised edge, low wall, or similar detail consistent with urban residential transition zones.** The sidewalk narrows on York Street for this project – considering the need for a furnishing zone for street lights, a wider sidewalk might be considered at least consistent with the existing sidewalk width in front of Baxter*

Academy building. The Maple/Commercial Street corner is built to the corner as required but **does not have any special architectural feature to mark the corner** (future building phases propose special features on other corners).

Standard (1) c. Buildings shall be oriented toward the street . . . – Somewhat Met – Commercial Street façade is activated with commercial ground floor uses and entrances provided directly from the street or the entrance “plaza.” The primary residential entrance for this phase is located on Maple Street and though directly oriented to the street, **appears diminutive compared with the scale of the façade and building – staff thought more emphasis and prominence would be appropriate for this primary entrance.**

Standard (1) d. Parking lots shall be located to the maximum extent practicable toward the rear . . . **Not Met** – Phase I proposes **a surface parking lot located adjacent to Commercial Street** which does not meet the intent of this standard. The parking lot currently **does not have screening measures proposed.**

(i) Multiple-family:

Standard (1) Design Compatibility – Met – Staff agree with the Historic Preservation Board assessment and comments regarding the building design and its compatibility with the surrounding context.

Standard (2) Relationship of building to the street –Somewhat Met – Project is located near the property line on Commercial, Maple, and High streets and those ground floor street frontages have an adequate amount of fenestration and at a level that provides some views into the building. Storefront should be transparent. **See Standard (1)b above regarding York Street residential building relationship to sidewalk.**

Standard (3) Open Space – Met – Project includes courtyard spaces for tenants and urban plazas for commercial uses.

Standard (4) Light and Air – Met – Project includes ample windows for light and air.

Standard (5) Surface Parking – **Not Met** – see Standard (1) d above regarding surface parking screening.

Standard (6) Lodging Conversion – Not applicable

383 Commercial Street - Status MDP and Phase 1 Traffic Review Comments

1 message

Tom Errico <thomas.errico@tylin.com>

Fri, Jun 9, 2017 at 8:34 AM

To: Jean Fraser <jf@portlandmaine.gov>

Cc: Katherine Earley <kas@portlandmaine.gov>, Jeremiah Bartlett

<JBartlett@portlandmaine.gov>, "Jeff Tarling (JST@portlandmaine.gov)"

<JST@portlandmaine.gov>, Lauren Swett <lszett@woodardcurran.com>, Bruce Hyman

<bhyman@portlandmaine.gov>

Hi Jean – the following summarizes traffic comments for both MDP and Phase 1 approvals.

Phase 1 Site Plan Level III Traffic Comments

- DPW does not support the mixed sidewalk material proposed by the applicant for Maple Street. The City recommends that the sidewalk material follow City Policy and therefore be brick. It should be noted that under City Policy, driveway aprons shall match the sidewalk material and therefore shall be brick. For the loading drive area, it is suggested that the bricks be rotated 90 degrees. The maximum cross-slope for driveways shall be 2 percent. For the section of sidewalk abutting the historic gutter area, it is suggested that vertical granite curbing be installed and match the Maple Street edge line and creation of an approximate 10 foot area that includes a 5-foot brick accessible pedestrian route with the remaining width dedicated to cobble material and tree wells. Continued coordination with the City's Historic Preservation staff, Arborist, and DPW will be required for the specific specification of this area. I would note that the driveway on York Street shall also meet City material and cross-slope requirements and include specific dimensional details.

- The applicant shall provide information that supports the use of a smaller tractor-trailer truck (WB-40) in the evaluation of truck maneuvering. Given that large moving trucks can be expected, due residential uses, a larger design truck template is suggested. Turning templates shall be provided for movements in both directions on Maple Street. I would also note that the applicant shall confirm that the depth of the

loading bay will not create sidewalk blockage. Additionally, truck turning templates at the Maple Street intersections with Commercial Street and York Street shall be provided.

- A detailed Construction Management Plan that meets City requirements shall be provided. The City recently developed a template for development of a Construction Management Plan and the applicant shall meet the noted requirements.
- The plans note that an existing driveway is being closed on Commercial Street. Commercial Street is a 5-Year Pavement Moratorium Street and thus this change may trigger a fee associated with impacting the new pavement. It should be noted that the moratorium is not expected to retire until 2021.
- The applicant shall provide an engineering detail of the sidewalk ramp at the project corner of Commercial Street and Maple Street that illustrates how the ramp meets ADA accessibility requirements. Given that the building will be constructed at the back of sidewalk, we would expect the existing ramp to be disturbed. It appears that the sidewalk will also extend outside of the public right-of-way and thus a pedestrian easement will be required.
- The plans note that the sidewalk material on Commercial Street for the Phase I project is concrete. It is recommended that for the Phase I building frontage, brick sidewalk be provided. It is our expectation that the existing sidewalk will be disturbed during construction. I would also note that the installation of street lighting and conduit will disturb the existing concrete sidewalk outside of the Phase I building frontage area and plans for sidewalk improvements should be defined for review and approval.
- Phase I traffic generation is not expected to create unreasonable traffic congestion or safety problems. I would note that the full build project requires a Traffic Movement Permit and a traffic study is currently being prepared by the applicant.
- It is recommended that a minimum 6-foot separation/buffer area (using suitable landscape materials) between temporary surface parking spaces and the Commercial Street sidewalk be provided for optimal pedestrian safety. Vehicle encroachment is possible with the proposed wheel stops. Details shall be provided for review and approval.

- The applicant shall provide specific information on the use of the existing buildings that will remain under Phase I, so that an appropriate review of traffic impacts can occur.
- The garage driveway on Maple Street and York Street shall include dimensions. It is suggested that a total driveway width of 24 feet be considered. Plans illustrating the parking garage layout shall be provided for review and approval.
- The applicant shall provide documentation in support of a formal waiver request for driveway separation between the parking garage entrance, the truck loading drive, and the Baxter Academy driveway. Driveway separation does not meet City standards.
- Modification to on-street parking regulations on Maple Street shall be noted for review and approval.
- We concur with the applicants request for postponing the construction of the curb extension at the westerly corner of Commercial Street/Maple Street to Phase II given Pavement Moratorium restrictions. Final details for the curb extension will be required including geometric design elements, detectible panel and crosswalk alignment/location, and the possible incorporation of storm water/rain garden features.

MDP Traffic Comments

- A Traffic Movement Permit is required for the full build-out of the project. A traffic study scoping meeting was held on Thursday June 1, 2017 and upon receipt of the traffic study, comments will be provided. The traffic study will evaluate traffic impacts at the York Street/Maple Street, York Street/Garage Entrance, York Street/High Street, Commercial Street/Maple Street, Commercial Street/High Street, and Commercial Street/Park Street intersections. Several High Crash Locations were identified in the study area. The traffic study is expected to identify mitigation strategies for both safety and mobility deficiencies identified from detailed traffic modeling. The City has identified the potential for the installation of a traffic signal at the Commercial Street/High Street intersection, and the study will be evaluating conditions with and without the noted traffic signal.

- The proposed delivery arrangement on Commercial Street is not acceptable. Blockage of the sidewalk will not be permitted.
- All sidewalks shall be brick material.
- Public Street bicycle racks for the retail land uses shall be provided.

If you have any questions, please contact me.

Best regards,

Thomas A. Errico, PE

Senior Associate

Traffic Engineering Director

TYLININTERNATIONAL

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"One Vision, One Company"

MEMORANDUM



TO: Jean Fraser, Planner
FROM: Lauren Swett, PE
DATE: June 8, 2017
RE: 383 Commercial Street Master Development Plan & Level III Site Plan for Phase 1

Woodard & Curran has reviewed the Master Development Plan Application and the Level III Site Plan Application for the proposed project located at the former Rufus Deering Lumber site at 383 Commercial Street in Portland, Maine. The final build-out of the site will include a combination of mixed-use retail, residential condominiums, and structured parking. The Phase 1 work also includes surface parking and site improvements.

Documents Reviewed by Woodard & Curran

- Master Development Plan Application and attachments, dated January 9, 2017 prepared by Sebago Technics on behalf of Deering Property Management, LLC.
- Master Development Plan plans, prepared by Archetype Architects, dated December 2016.
- Phase 1 Application and attachments, dated March 9, 2017, prepared by Sebago Technics on behalf of Deering Property Development, LLC.
- Phase 1 plans, dated May 23, 2017, prepared by Sebago Technics, on behalf of Deering Property Development, LLC.

Comments

Master Development Plan:

Comments have previously been provided on the Master Development Plan submission. It appears that the site plans have not been modified since that review. As noted previously:

- 1) The final boundary survey will be required to be stamped by a PLS.
- 2) The Applicant has noted that a capacity to serve letter from PWD is pending.
- 3) The utility plan currently only shows sewer and stormwater utilities. Proposed locations of other utility tie-ins should be included on the plans. The plans should show the locations of the proposed utilities relative to the existing utility infrastructure.
- 4) The Applicant has noted that subsurface chambers will be utilized for stormwater management in the full build-out condition, and an underdrain soil filter will be utilized in prior phases while a surface parking lot is in use. This general stormwater approach seems appropriate, and specific designs and details will be reviewed as part of each specific Site Plan submission.

Level III Site Plan:

- 1) The City of Portland requires that all Level III site plan applications submit a stormwater management plan pursuant to the regulations of MaineDEP Chapter 500 Stormwater Management Rules, including conformance with the Basic, General, and Flooding Standards (Technical Manual, Section 5. II. Applicability in Portland. C. a. and City of Portland Code of Ordinances Sec. 14-526 Site plan standards (b). 3. b.). We offer the following comments:
 - a) Basic Standard: Notes, and details have been provided to address erosion and sediment control requirements, inspection and maintenance requirements, and good housekeeping practices in accordance with Appendix A, B, & C of MaineDEP Chapter 500. Locations of proposed erosion and sedimentation controls should be shown on the plans. Catch basin protection should also be provided in all drainage structures on the property and in the City street in proximity to the project area.
 - b) General Standard: The project is required to provide stormwater treatment in accordance with the General Standard per the City's requirements for redevelopment. The Applicant is proposing to



install a Storm Filter system with subsurface detention. We agree that this will provide adequate treatment for the project site. The plans include details for Filterra Tree Boxes – we assume these systems will be installed as part of future phases. Please see additional stormwater comments later in this memo.

- c) Flooding Standard: The project will result in a net decrease in stormwater runoff in the 2-, 10-, and 25-year storm events, in conformance with the requirements of the Flooding Standard. Please see additional stormwater comments later in this memo.
- 2) We have the following additional comment on the proposed stormwater management system on the site. The Applicant should provide additional clarification:
 - a) The stormdrain pipe SD-7 is shown with a negative slope.
 - b) Some of the structures shown on the stormdrain structure data table are shown with unknown structure sizes.
 - c) The pipes from many of the proposed field inlets appear to have less than 3 feet of cover. Invert adjustments may be necessary or insulation could be provided.
 - d) The stormwater and sewer utility crossings beneath the garage should be verified. It appears that the S-8/SD-7 and S-3/Roof Drain crossings may be close, but additional information is necessary on roof drain pipe slopes and grease trap inverts to verify.
 - e) The depth of cover over the subsurface detention pipes should be verified. Based on the invert and pipe size, there will be approximately 1.2 feet of cover from the top of the pipe to the finish floor elevation of the garage. Based on the provided detail, the minimum soil cover is 1 foot, leaving little room for the concrete.
- 3) The stormwater inspection and maintenance manual references a separate manual for the maintenance of the Stormfilter system. A copy of this manufacturer's information should be included as a part of the project's manual.
- 4) The sewer stub proposed near field inlet FI-7 will have minimal cover as it crosses underneath a shallow swale. We understand that this will be within a building as part of a future phase. The pipe should be protected from freezing or damage until construction of the next phase of work.
- 5) The sewer manhole detail and the street pavement detail should be modified to be in conformance with the City of Portland Technical Standards for work that will occur within the City Right-of-Way.
- 6) The Applicant will be required to provide verification of utility capacity for water and sewer. The applicant will also be required to verify that their sewer and stormwater connection approach is acceptable.
- 7) The current City of Portland standard for sidewalk material in this area of Portland is brick. Per the sidewalk material policy, all driveway aprons must match the material of the adjacent sidewalk. Aprons on York and Maple Street should be brick.
- 8) The Applicant has submitted a letter as part of the application noting that the existing retaining wall along York Street will remain in place and that the project will construct a new retaining wall three feet away from that wall. The letter noted that the concept design was reviewed for the Applicant by a geotechnical and structural engineer. The existing wall provides support to significant infrastructure on York Street. The Applicant will be required to provide verification from their professional engineers that the final design of the proposed wall, the regular traffic loading at the York Street entrance, utility lines that must be installed through or near the existing wall, and the proposed construction work in the vicinity of the wall (excavation, equipment loading, etc.) on the 383 Commercial Street site will not have a detrimental impact on the existing wall or York Street. This evaluation is necessary for all phases of the Master Development Plan.

Re: Need updated comments pl - 383 Commercial St (Rufus Deering site)

1 message

Jeff Tarling <jst@portlandmaine.gov>

Thu, Jun 8, 2017 at 2:21 PM

To: Jean Fraser <jf@portlandmaine.gov>

Cc: "Swett, Lauren" <lszett@woodardcurran.com>, Deb Andrews <dga@portlandmaine.gov>

Jean -

I found one half of the landscape plan, is there only one or is there a second sheet?

We would ask that the new tree planters on Commercial Street follow the revised City standard that includes radis corners, see attached.

Since the new building is going to over-shadow the lower section of Maple Street and the interest to save or re-create the unique cobble / granite paving stone esplanade I would recommend not planting in this location. Will take a closer look at the building street view. It might be a recommendation to set a curb along this section of Maple Street to better define the curb, drainage flow. Option A might widen the new brick sidewalk to 5' or remove the granite, cobble, and pavers over towards the curb line and reset. This is the only known remaining pavement of this type left from the nineteenth century so it would be good to save a remnant of the past. The hotel next door did similar when they reset granite pavers on the former lane.

Other landscape & tree comments -

The re-use of the former Rufus Deering area and parking lot appears to have a landscape plan on a second sheet?

Green roof / patio - the concept of having a green roof, or landscape element on the second floor would be a welcomed design element.

Rain Planter - As this project looks at future phases it should explore creating a sidewalk, curb-line rain planter similar to the project next door. Lauren and PW can better advocate for rain planter. The one next door was the first of it's kind in Portland it is appears good aesthetically and hopefully functionally.

Green roof info:

<http://www.recovergreenroofs.com>

https://www.buildotechindia.com/advances_in_shallow_and_green_roof_design/

Sidewalk Rain Planter next door (example)



Maple Street cobble & paver post Baxter Academy improvements





Maple tree pre- Baxter Academy work, original



Jeff Tarling
City Arborist - City of Portland Maine
Parks, Recreation & Facilities Department
Forestry & Horticulture
212 Canco Road
Portland, ME. 04103
(207) 808-5446
jst@portlandmaine.gov

On Wed, Jun 7, 2017 at 11:33 AM, Jean Fraser <jf@portlandmaine.gov> wrote:

Hi

Just to amplify on the discussion this morning at Dev Rev, could you please provide updated comments on the revised plans submitted since May 18 (2017-005 and 2017-

MEMORANDUM

To: FILE

From: Jean Fraser

Subject: Application ID: 2017-053

Date: 6/8/2017

Comments Submitted by: Keith Gautreau/Fire on 6/8/2017

There is adequate water supply in the area with several hydrants within 400 ft of proposed 6 story building. Although I will not be requiring a letter from Portland Water District of ability to serve for phase I the applicant should plan to have something from PWD for the Master Development as there will be much more fire protection and domestic demand.

Comments Submitted by: Keith Gautreau/Fire on 6/8/2017

I have questions and concerns about the existing structures / buildings to remain for storage. What kind of storage? How much? What are the proposed fire protection systems? The existing office building at the corner of High and Commercial is to remain? If so, will it be occupied? What is the proposed Occupancy? Business, Storage, etc.

Comments Submitted by: Keith Gautreau/Fire on 6/8/2017

Premises Identification

The main entrance of the building must be the address for the property. This should be consistent with 911, tax assessor, Inspections Division and future mailing address.

Street addresses shall be marked on the structure and shall be as approved by the City E-911 Addressing Officer.

If the building entry faces a different street, both the street name and number should be large enough to read from the street.

Address numbers must be a minimum of 6 inches high.

The number should be in Arabic numerals rather than spelled out (for example, "130" instead of "One Hundred and Thirty").

Color: Addresses should be in a color that contrasts with the background.

Whenever possible, should be illuminated.

Provide additional address signs at entrances to the property when the building address is not legible from the public street.

Buildings set back in groups that share common entrances can make quickly locating a specific building and the shortest route difficult. On such sites, additional signs with directional arrows and/or diagrams of the buildings and access layout should be posted.

Comments Submitted by: Keith Gautreau/Fire on 6/8/2017

Emergency access for phase I is more than adequate. Proposed building is on corner of Commercial and Maple.

A R C H E T Y P E

March 29, 2017

I, David Lloyd hereby certify that a neighborhood meeting was held on March 28, 2017 at The Portland Regency Hotel, 20 Milk Street at 5:30 pm.

I also certify that on (date at least ten (10) days prior to the neighborhood meeting), invitations were mailed to the following:

1. All addresses on the mailing list provided by the Planning Division which includes property owners within 500 feet of the proposed development or within 1000 feet of a proposed industrial subdivision or industrial zone change.
2. Residents on the "interested parties" list.
3. jmy@portlandmaine.gov ldobson@portlandmaine.gov

A digital copy of the notice was also provided to the Planning Division (and) and the assigned planner to be forwarded to those on the interested citizen list who receive e-mail notices.

Signed,

David Lloyd


_____ 03/29/2017

Attached to this certification are:

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

A R C H E T Y P E

March 2, 2017

Dear Neighbor:

Please join us for a neighborhood meeting to discuss our plans for a mixed use residential and commercial development located at 383 Commercial Street (former Rufus Deering site).

Meeting Location: Conference Room at the Portland Regency Hotel, 20 Milk Street, Portland, ME 04101

Meeting Date: Tuesday - March 28, 2017

Time: 5:30pm

(The City code requires that property owners within 500 feet (1000 feet for proposed industrial subdivisions and industrial zone changes) of the proposed development and residents on an "interested parties list", be invited to participate in a neighborhood meeting. A sign-in sheet will be circulated and minutes of the meeting will be taken. Both the sign-in sheet and minutes will be submitted to the Planning Board.)

If you have any questions, please call Joe Dasco (413) 244-9092.

Sincerely,



David Lloyd
Maine Licensed Architect

Note:

Under Section 14-32(C) and 14-524(a)d of the City Code of Ordinances, an applicant for a Level III development, subdivision of over five lots/units, or zone change is required to hold a neighborhood meeting within 30 days of submitting a preliminary application or 21 days of submitting a final site plan application, if a preliminary plans was not submitted. The neighborhood meeting must be held at least seven days prior to the Planning Board public hearing on the proposal. Should you wish to offer additional comments on this proposed development, you may contact the Planning Division at 874-8721 or send written correspondence to the Planning and Urban Development Department, Planning Division 4th Floor, 389 Congress Street Portland, ME 04101 or by email: to bab@portlandmaine.gov

A R C H E T Y P E

383 Commercial Street
Minutes of the Neighborhood Meeting – 28 March 2017, 5:30 pm

Introduction:

Joe Dasco introduced himself and the architects and gave a short description of who he is and the development work he has done in Portland. He discussed the impact that this type of development can have on a neighborhood, especially as it relates to future commercial/retail development, and gave the Bay House as an example.

David Lloyd introduced himself and Kevin Gough and told briefly who Archetype is. He explained where this project is in terms of the Planning process and let everyone know that the first planning workshop is scheduled for April 6. He then gave a project overview.

Questions and Discussion:

1. Will a traffic light be needed on Maple Street at Commercial?
Not to the best of our knowledge, but the traffic analysis process is only in the beginning stages
2. Where is the parking entry and how will it affect traffic?
Entries on Maple and York. Not into Commercial St traffic.
3. Where is the service entrance?
Maple St
4. What is the projected square footage of the retail?
25,000 SF
5. Concern was shared over the impact of the retail on the traffic. Noted that traffic is particularly bad at High St westbound in the evening.
6. What is the unit size? Is it condo or rental?
Condos with an average size of 800 sq. ft., but the largest units are approx. 1400 sq. ft.
7. Assume you will need pile foundations?
Perhaps on some parts, but geotechnical analysis preliminarily suggests spread footings on much of the site.
8. Design questions and comments: Likes the plazas, but does not like the treatment of the loggias at the building face. Referenced 500 Boylston as an example where this does not work well. Suggested we “activate” the corner of the building at High and Commercial with some material or formal differentiation.
9. Questioned the use of parking and whether the project could support some type of car-share program.
Joe Dasco explained this is part of his planning
10. When do we hope to break ground?
This is a function of the planning board process, but if all goes well could break ground on Phase 1 in September.
11. Will the parking on Commercial St change over to pay meters?
Not sure. This is up to the City and not a function of our project.
12. What energy efficiency measures are you considering?
Best design practices exceed the energy codes. Electric heat pumps and on-demand hot water.
13. Is the City receptive to the project, generally?
Yes, it seems so.
14. Comment was shared of support for development on the North side of Commercial, but not on the water side.
15. Traffic concerns were shared.
16. Suggest looking at the street lighting plan, as some areas of Commercial St are very dark at night.
17. Will some of the retail space be for restaurants?
Sure. This is a natural choice in Portland. But still an open question until we get further along.
18. Will the retail be sold or leased?
Combination

End Minutes

SIGN UP SHEET
383 Commercial Street
28-Mar-17

	Name	Address
1	David Tamulevich	20 MILK ST PORTLAND, ME 04101
2	IAN JACOB	59 STATE ST PORTLAND ME 04101
3	Tim Barthelman	56 Pleasant St. Portland, ME 04101
4	Ken Mitsui	101 YORK Street, Portland, ME
5	Tim Reich	350 Commercial St, Portland, ME
6	NICK AUFBRU	481 Commercial ST " "
7	Mike Aufbruch	481 " " " "
8	DAVID MARSDEN	129 York Street #5. P. 60
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A R C H E T Y P E

April 27, 2017

I, David Lloyd hereby certify that a neighborhood meeting was held on April 26, 2017 at The Portland Regency Hotel, 20 Milk Street at 5:30 pm.

I also certify that on (date at least ten (10) days prior to the neighborhood meeting), invitations were mailed to the following:

1. All addresses on the mailing list provided by the Planning Division which includes property owners within 500 feet of the proposed development or within 1000 feet of a proposed industrial subdivision or industrial zone change.
2. Residents on the "interested parties" list.
3. jmy@portlandmaine.gov ldobson@portlandmaine.gov

A digital copy of the notice was also provided to the Planning Division (and) and the assigned planner to be forwarded to those on the interested citizen list who receive e-mail notices.

Signed,

David Lloyd

_____ 05/02/2017

Attached to this certification are:

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

A R C H I T E C T Y P E

April 11, 2017

Dear Neighbor:

Please join us for a Level III Site Plan Neighborhood Meeting to discuss Phase 1 of a mixed use residential and commercial development located at 383 Commercial Street (former Rufus Deering site).

Meeting Location: Conference Room at the Portland Regency Hotel, 20 Milk Street, Portland, ME 04101

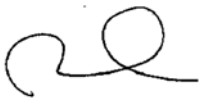
Meeting Date: Wednesday – April 26, 2017

Time: 5:30pm

(The City code requires that property owners within 500 feet (1000 feet for proposed industrial subdivisions and industrial zone changes) of the proposed development and residents on an “interested parties list”, be invited to participate in a neighborhood meeting. A sign-in sheet will be circulated and minutes of the meeting will be taken. Both the sign-in sheet and minutes will be submitted to the Planning Board.)

If you have any questions, please call Joe Dasco (413) 244-9092.

Sincerely,



David Lloyd
Maine Licensed Architect

Note:

Under Section 14-32(C) and 14-524(a)d of the City Code of Ordinances, an applicant for a Level III development, subdivision of over five lots/units, or zone change is required to hold a neighborhood meeting within 30 days of submitting a preliminary application or 21 days of submitting a final site plan application, if a preliminary plans was not submitted. The neighborhood meeting must be held at least seven days prior to the Planning Board public hearing on the proposal. Should you wish to offer additional comments on this proposed development, you may contact the Planning Division at 874-8721 or send written correspondence to the Planning and Urban Development Department, Planning Division 4th Floor, 389 Congress Street Portland, ME 04101 or by email: to bab@portlandmaine.gov

SIGN UP SHEET

383 Commercial Street

26-Apr-17

	Name	Address
1	Carol MITCHELL	TIQA-327 Commercial St, Portland
2	JOHN + NANCY BUTMAN	107 Pine St.
3	Bryan VanDussen	48 High St Portland
4	Joe Malone	30 Highland St. Portland
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Neighborhood Meeting Notes

383 Commercial Street

April 26, 2017

Presenter: David Lloyd Architect, Archetype Architects

David Lloyd Architect and Joe Dasco, developer give overview of project, following were questions asked by attendees.

1. What is phasing time line? **Answer:** *Start Phase 1 Fall of 2017 completed in one year, remaining phases based upon market, but hope to complete within 5 to 7 years.*
2. How many units in phase one? **Answer:** *Plus or minus 80 units.*
3. Asked what other projects Reger Dasco has completed? **Answer:** *Joe Dasco reviewed others in Portland and David Lloyd mentioned some of Archetype's projects.*
4. Asked who builder may be? **Answer:** *Probably Landry French.*
5. Asked about HP review? **Answer:** *Explained they are advisory and review complete.*
6. Asked if this was part of city comprehensive plan? **Answer:** *Please read comprehensive plan on line at the City's web site.*
7. What will units sell for? **Answer:** *About \$450 per foot.*
8. Will there be rentals? **Answer:** *Possibly.*
9. What will temporary wall on phase one look like? **Answer:** *Fiber cement and possibility a mural.*
10. What kind of amenities on site? **Answer:** *Community room, exercise, library, possible concierge on site.*
11. Age group? **Answer:** *None but most probably baby boomers.*
12. Comment: Grocery store in complex would be nice.
13. How high is building? **Answer:** *Explained zoning how it is calculated and gave building height of 65 feet.*
14. What color is brick and expressed does not like yellow brick. **Answer:** *Red tones*

End of Notes



383 Commercial Street
**Master Development Plan
Development Review Application
Portland, Maine**

Planning and Urban Development Department
Planning Division

Portland's Planning and Urban Development Department coordinates the development review process for site plan, subdivision and other applications under the City's Land Use Code. Attached is the application form to be used for a Master Development Plan. Please note that Portland has delegated review from the State of Maine for reviews under the Site Location of Development Act, Chapter 500 Stormwater Permits, and Traffic Movement Permits.

Purpose of a Master Development Plan:

- The purpose of a Master Development Plan is to provide for a mix of land uses at designated locations to achieve a land development responsive to the assets of a site. A Master Development Plan is a well-integrated development in terms of land uses, functional activities, and major design elements such as buildings, roads, utilities, drainage systems and open space. The Master Development Plan is deemed appropriate to large scale mixed use projects that are intended to be developed in phases. The Master Development Plan shall be reviewed by the Planning Board and may be reviewed independently or concurrently with review of a Level III site plan application for a phased development.

A Master Development Plan is applicable as follows:

- A Master Development Plan is applicable for a site with one acre or larger in cumulative lot area that is designed as a cohesive and integral development program consisting of multiple buildings and associated site improvements proposed to be built in phases.
- The Master Development Plan option shall not apply in residential zones, except for institutional uses.

Planning Board Decision:

- A Master Development Plan approval shall not be construed as final authorization of the development. An approval shall confer pending proceeding status upon the development with the effect of maintaining the applicability of regulations in effect at the time of approval for as long as the Master Development approval remains valid (6 years from date of approval), including permissible extensions if granted (two 2-year extensions may be granted based upon criteria). All Level III site plans for each phase shall be in general conformance with the Master Development Plan.

Portland's development review process and requirements are outlined in the Land Use Code (Chapter 14) which is available on our website:

Land Use Code: <http://me-portland.civicplus.com/DocumentCenter/Home/View/1080>

Design Manual: <http://me-portland.civicplus.com/DocumentCenter/View/2355>

Technical Manual: <http://me-portland.civicplus.com/DocumentCenter/View/2356>

Planning Division

Fourth Floor, City Hall
389 Congress Street
(207) 874-8719

planning@portlandmaine.gov

Office Hours

Monday thru Friday
8:00 a.m. – 4:30 p.m.

PROJECT NAME:383 Commercial Street**PROPOSED DEVELOPMENT ADDRESS:**383 Commercial Street**PROJECT DESCRIPTION:**Mixed Use Retail (27,747SF) and Residential
Condominiums (284 units) and Structured Parking**CHART/BLOCK/LOT:** 42/A/1**PRELIMINARY PLAN**

_____(date)

FINAL PLAN

_____(date)

CONTACT INFORMATION:

Applicant – must be owner, Lessee or Buyer Name: <u>Deering Property Development LLC</u> Business Name, if applicable: Address: <u>2730 Transit Road</u> City/State: <u>West Seneca NY</u> Zip Code: <u>14224</u>	Applicant Contact Information Work #: Home #: Cell #: <u>413.244.9097</u> Fax#: e-mail: <u>joe.dasco@comcast.net</u>
Owner – (if different from Applicant) Name: <u>Milliken Smith Block LLC</u> Address: City/State: Zip Code:	Owner Contact Information Work #: Home #: Cell #: Fax#: e-mail:
Agent/ Representative Name: <u>Sebago Technics / Will Conway</u> Address: <u>75 John Roberts Road</u> City/State: <u>So. Portland ME</u> Zip Code: <u>04106</u>	Agent/Representative Contact information Work #: <u>207.260.2055</u> Home #: Cell #: Fax#: e-mail: <u>wconway@sebago technics.com</u>
Billing Information Name: <u>Sebago Technics Inc</u> Address: City/State: Zip Code:	Billing Information Work #: Home #: Cell #: Fax#: e-mail:

Engineer Name: <u>Sebago Technics Inc.</u> Address: City/State : Zip Code:	Engineer Contact Information Work #: Home #: Cell #: Fax#: e-mail:
Surveyor Name: <u>Owen Haskell, Inc.</u> Address: City/State : Zip Code:	Surveyor Contact Information Home #: Work #: Cell #: Fax#: e-mail:
Architect Name: <u>Archetype PA/ David Lloyd</u> Address: <u>48 Union Street</u> City/State : <u>Portland</u> Zip Code: <u>04101</u> <u>ME</u>	Architect Contact Information Work #: <u>207. 712. 6022</u> Home #: Cell #: Fax#: e-mail: <u>lloyd @ archetypepa . com</u>
Attorney Name: <u>—</u> Address: City/State : Zip Code:	Attorney Contact Information Work #: Home #: Cell #: Fax#: e-mail:
Designated person/person(s) for uploading to e-Plan: Name: <u>William Conway</u> e-mail: <u>wconway @ sebago technics . com</u> Name: e-mail: Name: e-mail:	

APPLICATION FEES:

Master Development Plan (check applicable reviews) ☒ Application Fee (\$1,000.00)	The City invoices separately for the following: • Notices (\$.75 each) • Legal Ad (% of total Ad) • Planning Review (\$50.00 hour) • Legal Review (\$75.00 hour) Third party review fees are assessed separately. Any outside reviews or analysis requested from the Applicant as part of the development review, are the responsibility of the Applicant and are separate from any application or invoice fees.
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INSTRUCTIONS FOR ELECTRONIC SUBMISSION:

Please refer to the application checklist (attached) for a detailed list of submission requirements.

1. Fill out the application completely and e-mail the application only to planning@portlandmaine.gov (Please be sure to designate a person who will be responsible for uploading documents and drawings.) This step will generate the project ID number for your project.
2. An invoice for the application fee will be e-mailed to you. Payments can be made on-line at [Pay Your Invoice](#), by mail or in person at City Hall, 4th Floor. Please reference the Application Number when submitting your payment which is located in the upper left hand corner of the invoice.
3. The designated person responsible for uploading documents and drawings will receive an email from eplan@portlandmaine.gov with an invitation into the project. At this time, you will upload all corresponding documents and plans into the project. For first time users you will receive a temporary password which you must change on entry. Make note of your username and password for any future projects.

Reminder: Before the project can move forward, the application fee shall be paid in full and all required documents and drawings shall be uploaded into e-plan correctly.

4. Follow the link below (Applying Online Instructions) for step by step instructions on how to do the following:
Tab 1 - Setting up the appropriate compatibility settings for your PC and getting started in e-plan.
Tab 2 - Preparing your drawings, documents and photos for uploading using the correct naming conventions
Tab 3 - Preparing and uploading revised drawings and documents

Applying Online Instructions

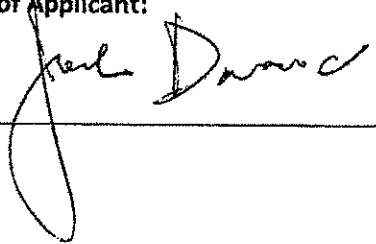
5. When ready, upload your files and documents into the following folders:
"Application Submittal – Drawings"
"Application Submittal – Documents"
6. Once a preliminary check has been made of the submittal documents and drawings, staff will move them to permanent folders labeled Drawings and Documents. As the process evolves you will be able to log in and see markups, comments and upload revisions as requested into these folders.

APPLICANT SIGNATURE:

By digitally signing the attached document(s), you are signifying your understanding this is a legal document and your electronic signature is considered a **legal signature** per Maine state law.

I hereby certify that I am the Owner of record of the named property, or that the owner of record authorizes the proposed work and that I have been authorized by the owner to make this application as his/her authorized agent. I agree to conform to all applicable laws of this jurisdiction. In addition, if a permit for work described in this application is issued, I certify that the Planning Authority and Code Enforcement's authorized representative shall have the authority to enter all areas covered by this permit at any reasonable hour to enforce the provisions of the codes applicable to this permit.

This application is for a Master Development Plan review. It is not a permit to begin construction. An approved site plan, a Performance Guarantee, Inspection Fee, Building Permit, and associated fees will be required prior to construction. Other Federal, State or local permits may be required prior to construction, which are the responsibility of the applicant to obtain.

Signature of Applicant: 	Date: 1/9/17
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PROJECT DATA

The following information is required where applicable, in order complete the application.

Total Area of Site	2.58 AC sq. ft.
Proposed Total Disturbed Area of the Site	2.58 sq. ft.
If the proposed disturbance is greater than one acre, then the applicant shall apply for a Maine Construction General Permit (MCGP) with DEP and a Stormwater Management Permit, Chapter 500, with the City of Portland	
Impervious Surface Area	
Impervious Area (Total Existing)	2.43 AC sq. ft.
Impervious Area (Total Proposed)	2.50 AC sq. ft.
Building Ground Floor Area and Total Floor Area	
Building Footprint (Total Existing)	2,950 sq. ft.
Building Footprint (Total Proposed)	97,827 sq. ft.
Floor Area (Total Existing)	5,900 sq. ft.
Floor Area (Total Proposed)	484,969 sq. ft.
Zoning	
Existing	B5b
Proposed, if applicable	B5b
Land Use	
Existing	LUMBER RETAIL
Proposed	RETAIL / RESIDENTIAL
Residential, if applicable	
# Residential Units (Total Existing)	0
# Residential Units (Total Proposed)	284
# Number of Lots (Total Proposed)	1
# Affordable Housing Units (Total Proposed)	TBD
Proposed Bedroom Mix	
# Efficiency Units (Total Proposed)	40
# One-Bedroom Units (Total Proposed)	129
# Two-Bedroom Units (Total Proposed)	113
# Three-Bedroom Units (Total Proposed)	2
Parking Spaces	
# Parking Spaces (Total Existing)	
# Parking Spaces (Total Proposed)	387
# Handicapped Spaces (Total Proposed)	8
Bicycle Parking Spaces	
# Bicycle Spaces (Total Existing)	0
# Bicycle Spaces (Total Proposed)	131
Estimated Cost of Project	TBD

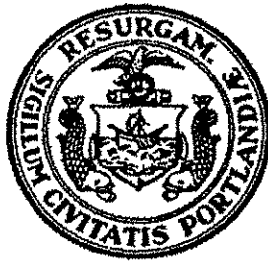
MMP

MASTER DEVELOPMENT PLAN SUBMISSIONS			
Applicant Checklist	Planner Checklist	# of Copies	GENERAL WRITTEN SUBMISSIONS CHECKLIST Sec. 14-527 (c) and (e)
✓		1	Completed Application form
✓		1	Application fees
✓		1	Written description of project
✓		1	A written statement and/or plan as to the general impact of the proposed Master Development plan upon the area, relationship to surrounding properties, and measures to create appropriate transitions and access to abutting public properties and neighboring tracts.
✓		1	Evidence of right, title and interest
✓		1	Evidence of state and/or federal approvals, if applicable
✓		1	Written assessment of proposed project's compliance with applicable zoning requirements
✓		1	Summary of existing and/or proposed easement, covenants, public or private rights-of-way, or other burdens on the site
✓		1	Written requests for waivers from site plan or technical standards, if applicable
✓		1	Evidence of financial and technical capacity
✓		1	General statements concerning storm water management techniques.
✓		1	Traffic Analysis and recommendations prepared by a registered professional engineer, including current traffic counts, existing street capacity, traffic generation projections, and ability to absorb the increased traffic. If Traffic Movement Permit applies, the TMP submissions and review supersede. (Section 14-527 (e) xii)
✓		1	Utilities analysis and recommendations prepared by registered professional engineer. (see utility plan below) Analysis shall assess capacity, identify deficiencies and recommend improvements, including timing, funding mechanisms and coordination with City (14-527 (e) xiii)
Applicant Checklist	Planner Checklist	# of Copies	SITE PLAN SUBMISSIONS CHECKLIST Sec. 14-527 (c) and (e)
✓		1	Boundary Survey meeting the requirements of Section 13 of the City of Portland's Technical Manual
✓		1	Master Development Plan Site Plan including the following: (information provided may be preliminary in nature during preliminary plan phase) – scale not less than 1 inch equaling 50 feet
✓			Neighborhood context map, at a scale not less than 1 inch 100 feet
✓			Approximate boundary lines of existing and proposed lots with areas and dimensions
✓			Plan show north arrow, date, scale, legend, title Master Development Concept Site Plan, followed by project name, applicant, engineer, designer, and/or agents
✓			For residential areas, proposed density, lot configuration, circulation and plot plan
✓			Analysis of natural features of the site, including natural waterways, wetlands, floodplains, topography, soil conditions and other natural features
✓			Analysis of designated view corridors, historic resources, and archeological resources associated with the site
✓			Existing/proposed buildings and other significant structures, building groupings, exterior building elevations and entrances, parking areas and other significant physical features of the site

✓		Context drawings, perspective renderings, photographic montages, or computer generated graphics depicting the proposed development within the surrounding building and environmental context
✓		Building elevation drawings shall include:
✓		• Illustration of all sides of the structures
✓		• Views of major entries or prominent building features
✓		• Illustration of building articulation and elements
✓		• Building finish composition
✓		• Pedestrian and streetscape elements of the Master Development Plan
		Digital 3-D model tied to specific location that is submitted as a KML, KMZ, DXF or DWG file on a CD or DVD or such format as approved by the Planning Authority (Sec. 14527 (e)2)
✓		Major circulation patterns surrounding and serving the site, existing and proposed street lines, ways, easement and public areas within or next to the site
✓		Major landscaping elements, features, open space, and plans for preservation of natural features
		Analysis of the public safety services needed to support the Master Development Plan
✓		Analysis of the anticipated impacts on the public school system to support the Master Development Plan
✓		Generalized drainage plan for the site, drainage ways, flows, points of outfall and indicating impacts of development on affected drainage basins. Contour information at not less than 2 ft. intervals and document run-off characteristics
✓		Inventory of existing utilities (storm water, sanitary, electrical , fire alarm boxes & lines, gas, water, lighting, curb and gutter and etc.) illustrating locations, sizes, diameters carrying capacity and present load

CITY OF PORTLAND WASTEWATER CAPACITY APPLICATION

Department of Public Services,
55 Portland Street,
Portland, Maine 04101-2991



Bradley Roland, P.E.
Water Resources Division

Date: _____

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

Site Address: 383 Commercial Street Chart Block Lot Number: 42/A/1

Proposed Use: Retail / Residential
Previous Use: Lumber Yard
Existing Sanitary Flows: TBD GPD
Existing Process Flows: 0 GPD
Description and location of City sewer that is to receive the proposed building sewer lateral.
Commercial Street

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

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

2. Please, Submit Contact Information.

City Planner's Name: TBD Phone: _____
Owner/Developer Name: _____
Owner/Developer Address: _____
Phone: _____ Fax: _____ E-mail: _____
Engineering Consultant Name: _____
Engineering Consultant Address: _____
Phone: _____ Fax: _____ E-mail: _____

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: 42,150 GPD
Peaking Factor/ Peak Times: _____
Specify the source of design guidelines: (i.e. "Handbook of Subsurface Wastewater Disposal in Maine," "Plumbers and Pipe Fitters Calculation Manual," Portland Water District Records, Other (specify) _____

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.

Flow Calculations:
Retail - 45 employees @ 12 gpe = 540 gpd
(169) Efficiency / 11 BR units @ 120 gpd = 20,280 gpd
(113) 2 BR units @ 180 gpe = 20,340 gpd
(2) 3 BR units @ 270 gpe = 540 gpd
TOTAL = 41,700 gpd

4. Please, Submit External Grease Interceptor Calculations.

Total Drainage Fixture Unit (DFU) Values:

TBD

Size of External Grease Interceptor:

Retention Time:

Peaking Factor/ Peak Times:

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

5. Please, Submit Industrial Process Wastewater Flow Calculations

Estimated Industrial Process Wastewater Flows Generated:

N/A GPD

Do you currently hold Federal or State discharge permits?

Yes No

Is the process wastewater termed categorical under CFR 40?

Yes No

OSHA Standard Industrial Code (SIC):

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

Peaking Factor/Peak Process Times:

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

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

383 COMMERCIAL STREET
RIGHT, TITLE OR INTEREST

THERE ARE THREE DOCUMENTS ATTACHED. THE PURCHASE AND SALE AGREEMENT – NOTE THERE ARE (3) PAGE 10 DOCUMENTS – ONE SIGNED BY THE SELLER, ONE BY THE BUYER, AND ONE BY THE ESCROW AGENT.

THE SECOND DOCUMENT, A LETTER FOM REGER HOLDINGS, LLC, ASSURES THAT GORDON REGER IS THE MAJORITY SHAREHOLDER AND MANAGING MEMBER OF BOTH REGER HOLDINGS AND DEERING PROPERTY DEVELOPMENT, LLC.

THE THIRD DOCUMENT IS THE LLC AGREEMENT OF DEERING PROPERTY DEVELOPMENT LLC, SIGNED BY GORDON REGER, ITS SOLE MEMBER.

PURCHASE AND SALE AGREEMENT

This Purchase and Sale Agreement ("Agreement") is made and entered into as of this 6TH day of July 2016 (the "Effective Date"), by and between Milliken Smith Block, LLC, a Maine limited liability company with a mailing address of c/o William M. Moody Jr., 5 High Street, Yarmouth, ME., 04096 ("Seller") and Deering Property Development LLC, a Maine limited liability company with a mailing address of 2730 Transit Road, West Seneca, New York 14224 Attn: Gordon Reger ("Buyer").

In consideration of the mutual covenants and promises hereinafter set forth, Seller and Buyer agree as follows:

1. PREMISES. Seller agrees to sell and Buyer agrees to purchase, on the terms and conditions contained in this Agreement, the approximately 110,000 square foot parcel of land located at or near 383 Commercial Street in Portland, Cumberland County, Maine, and bounded by Commercial Street, High Street, York Street, and Maple Street, and all other improvements remaining thereon on the date of Closing and all rights and easements appurtenant thereto (together, the "Premises"). The Premises is approximately depicted on Exhibit A attached hereto and shown on Tax Map 42, Block A as Lot 1. The Premises does not include the building currently occupied by the Charter School and related land located on the northwest corner of the block described above and depicted on Tax Map 42, Block A as Lot 7, and the related 15-foot wide passageway depicted on Tax Map 42, Block A as Lot 8 (together, the "Charter School Property"). The Premises does not include the lumber business currently operated on the Premises by Rufus Deering Lumber Company ("RDC") pursuant to a lease by and between Seller and RDC (the "RDC Lease").

2. PURCHASE PRICE Subject to any adjustments and prorations hereinafter described, the purchase price for the Premises shall be [REDACTED] per square foot of land area in the Premises, which would be [REDACTED] based on the estimated land area of 110,000 square feet, to be paid by immediately-available funds at the Closing. The actual purchase price paid by Buyer at Closing shall be calculated using the foregoing price per square foot and the actual land area of the Premises as determined according to an ALTA/NSPS survey of the Premises performed by a reputable surveyor, which Buyer agrees to obtain at Buyer's expense.

Handwritten signature/initials
7-6-16

Promptly upon full execution of this Agreement, Buyer shall deliver to Malone Commercial ("Escrow Agent"), an earnest money deposit (the "Deposit") [REDACTED] as security for Buyer's performance under this Agreement. The Deposit shall be held in escrow by Escrow Agent pursuant to this Agreement. Upon the expiration of the initial 60-day Inspection Contingency Period, unless Buyer has terminated this Agreement, the Deposit shall become non-refundable.

If Buyer has not terminated this Agreement by the expiration of the Inspection Contingency Period and not terminated this agreement pursuant to Buyer's Approvals Contingency in Paragraph 6 below, Buyer shall make the following monthly payments, all of which payments shall be nonrefundable (except in the event of a Seller default) and included in the definition of Deposit:

(a) Beginning on or before ninety (90) days from the Effective Date and continuing on or before the first day of each month until December 1, 2016, Buyer shall deliver to Escrow Agent [REDACTED] per month, prorated for any portion of a month.

(b) Beginning January 1, 2017, and continuing on or before the first day of each month until June 1, 2017, Buyer shall deliver to Escrow Agent [REDACTED] per month, prorated for any portion of a month.

(c) Beginning July 1, 2017, and continuing on or before the first day of each month until the Approvals Contingency Period Expiration, Buyer shall deliver to Escrow Agent [REDACTED] per month, prorated for any portion of a month.

Buyer shall not be in default of this Agreement for failure to make any of the Deposit payments above unless and until Buyer fails to make such payment within seven (7) days of when due. All of the Deposit shall be credited towards the purchase price at the Closing or otherwise disbursed in accordance with this Agreement.

3. TITLE. Seller shall convey the Premises to Buyer at the Closing in fee simple, subject to the Permitted Encumbrances (as defined below), but free and clear of all liens, except for liens for real estate taxes not yet due and payable. Seller may, at the time of delivery of the deed, use the purchase proceeds or any portion thereof to clear the title of liens and encumbrances that are not Permitted Encumbrances, including without limitation consideration for the early termination of the RDC lease, provided that all instruments so procured are delivered simultaneously with the delivery of the deed.

Within sixty (60) days of the Effective Date (the "Title Review Period"), Buyer shall notify Seller in

Handwritten initials: AL 11/1/16

writing (the "Title Objection Notice") of matters of record at the Cumberland County Registry of Deeds adversely affecting title to the Premises that are objectionable to Buyer in Buyer's sole discretion ("Title Defects"). Buyer shall be deemed to have waived the right to object to any matter affecting title as of the Effective Date, excluding any mortgage, tax lien, mechanics' lien, judgment lien, or other liens encumbering the Premises (for which no title objection is required), if Buyer fails to specifically identify such matters in the Title Objection Notice (each matter not objected to being a "Permitted Encumbrance"). The RDC Lease shall not be a Permitted Encumbrance. Seller shall use good faith efforts to cure such Title Defects and shall have a period of not more than sixty (60) days after Seller's receipt of the Title Objection Notice within which to cure any such Title Defects (the "Title Cure Period"). Seller agrees that after the Effective Date, it shall not permit or suffer encumbrance of the Premises with any liens, easements, leases, or other encumbrances. On or before the Closing, Seller shall remove at its sole cost any matters affecting the title to the Premises suffered or created by or consented to by Seller, whether voluntarily or involuntarily, after the Effective Date that are not approved in writing by Buyer. If Seller fails to cure any Title Defects within the Title Cure Period, then Buyer shall elect, by written notice to Seller on or before ten (10) days from the expiration of the Title Cure Period, either (i) to accept title to the Premises subject to such uncured Title Defects without reduction of the purchase price and without any liability on the part of Seller therefor, in which case such Title Defects shall be Permitted Encumbrances, or (ii) to terminate this Agreement, whereupon the Deposit immediately shall be returned to Buyer and neither party shall have any further obligations under this Agreement, except for provisions that expressly survive termination. In the event that Buyer does not timely elect either option (i) or (ii) above, Buyer shall be deemed to have elected option (i).

4. BUYER'S INSPECTION AND INVESTIGATIONS CONTINGENCY. Buyer or its agents may enter onto the Premises at any time after the date of this Agreement until the Closing, subject to compliance with the conditions below in this paragraph 4, in order to conduct surveys, engineering studies, soil studies, and such other investigations of the Premises as Buyer elects. Following the exercise of any of Buyer's inspection rights hereunder, Buyer promptly shall use reasonable efforts to restore any portion of the Premises disturbed to its condition prior to disturbance. Buyer shall indemnify and hold Seller harmless for all claims, damages, causes of action, judgments, penalties, fines, costs and expenses, including without limitation attorneys', paralegals' and expert witnesses' fees and court costs, incurred by Seller in connection with the exercise by Buyer or its employees, agents, or contractors, of the investigation and inspection rights contained in this paragraph except for pre-existing conditions and matters

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resulting from Seller's negligence, which indemnity shall survive the Closing or any termination of this Agreement. Buyer also intends to investigate the zoning and other land use restrictions on the Premises, which investigations may include discussions with City of Portland officials, and investigate the feasibility of development of the Premises. In the event that Buyer is not satisfied with any of Buyer's inspections or other investigations of the Premises or the potential development of the Premises, in Buyer's sole discretion, Buyer shall so notify Seller in writing (which notice does not have to set forth the reasons for termination) within sixty (60) days from the Effective Date (the "Inspection Contingency Period"), whereupon this Agreement shall automatically terminate, and the Deposit promptly shall be returned to Buyer, and thereafter, neither party shall have any further obligations under this Agreement, except for indemnities and other provisions that expressly survive termination. In the event that Buyer does not terminate this Agreement by the expiration of the Inspection Contingency Period, Buyer shall be deemed to have waived the foregoing inspection contingency. In the event that Buyer terminates this Agreement pursuant to this Section 4, Buyer shall deliver to Seller simultaneously with such termination notice copies of all reports, studies, plans, surveys, title insurance commitments, and other matters prepared by or for Buyer in connection with its inspections and investigations.

Buyer shall coordinate all due diligence that requires physical inspection or investigation on the Premises with Seller and have such on-site work performed when RDC is not open to the public and only after Seller approves by email the scope, time, and manner of any physical inspection or investigation on the Property, such approval not to be unreasonably withheld, conditioned, or delayed. All of Buyer's due diligence reports relating to the Premises will be owned by Buyer. Buyer shall have such reports certified to Seller, or provide Seller with a reliance letter from the consultant producing such reports, and deliver copies of such reports to Seller, all to the end that Seller may rely on such reports in the event that Buyer does not proceed with the purchase of the Premises. Seller shall not use or disclose the contents of any such report unless the Agreement is terminated or the Closing otherwise fails to occur. Buyer shall obtain from those due diligence consultants conducting on-site investigations confidentiality agreements reasonably satisfactory to Seller, for the benefit of Seller and RDC, the parties acknowledging that RDC's business could be adversely impacted if the potential sale of the Premises became known to RDC's employees or the public.

5. SELLER DELIVERABLES. Within five (5) days of the Effective Date, Seller shall deliver to Buyer the following: (i) a copy of any surveys and plans of the Premises; (ii) any Phase I or Phase II Environmental

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Site Assessments; (iii) copies of any soils engineering reports, all to the extent such items are in Seller's possession or control that are in effect on the date of this Agreement (together, the "Seller Deliverables"). For purposes of this paragraph, "control" means in the possession of a person who Seller has contractually engaged to provide services to Seller. Buyer acknowledges and agrees that (a) the Seller Deliverables are being provided by Seller to Buyer as a courtesy, and therefore, Seller makes no representation or warranty regarding the accuracy and/or completeness of the Seller Deliverables, and (b) Buyer and any person to whom Buyer provides the Seller Deliverables shall rely on the same at their own risk.

Buyer agrees, acknowledges and represents that except as specifically set forth in this Agreement, Buyer is entering into this Agreement and shall perform all of its obligations hereunder and consummate the transaction contemplated by this Agreement solely in reliance on and as a result of Buyer's own investigations and efforts (including Buyer's inspection of the Premises and such other investigations, examinations and inspections as Buyer has chosen to make or has made) and at Buyer's sole risk, cost and expense, including, without limitation, the risk that Buyer's inspection of the Premises and such other investigations, examinations and inspections may not reveal any or all adverse or existing conditions, aspects or attributes of the Premises. Buyer acknowledges that Seller has afforded, and, during the Inspection Contingency Period, shall afford, Buyer the opportunity for full and complete investigation, examination and inspection of the Land. Buyer acknowledges that this paragraph was a negotiated part of this Agreement and serves as an essential component of consideration for the same. Without limiting the generality of the foregoing, the parties specifically acknowledge that Buyer has had, and, during the Inspection Contingency Period shall have, an opportunity to fully inspect the Premises, including, but not limited to, the physical condition of the Premises (including all environmental concerns), and the purchase price has been negotiated to eliminate all claims except those arising under representations, warranties or agreements contained in this Agreement, whether known or unknown, relating to the condition of the Premises as of the date of this Agreement and all aspects and attributes thereof, including, without limitation, all environmental matters. Buyer acknowledges and agrees that Seller has made and shall make no representation or warranty with respect to the Premises, except as expressly set forth in this Agreement. The Premises shall be sold and conveyed "AS IS, WHERE IS" without representation or warranty of any kind except as otherwise explicitly set forth herein.

6. BUYER APPROVALS CONTINGENCY. Buyer's obligation to close on the purchase of the

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Premises shall be conditioned upon Buyer's receipt of all necessary, final and unappealable, land-use approvals (the "Approvals") for Buyer's intended development of the Premises (the "Development") by June 30, 2017. Buyer shall notify Seller of the Approvals required for the Development by August 30, 2016, which notification shall include Buyer's estimate of the milestone dates to obtain the Approvals. In the event that Buyer is unable to obtain the Approvals by June 30, 2017, Buyer's approvals contingency deadline automatically shall be extended to November 1, 2017, provided that Buyer continues to make good faith effort to obtain the Approvals. In the event that Buyer is unable to obtain the Approvals (or Buyer's earlier determines in its sole discretion that the Approvals are unlikely to be obtained) by June 30, 2017, or November 1, 2017, if the Approvals deadline is extended as provided above (as such date is determined, the "Approvals Contingency Expiration"), Buyer shall so notify Seller in writing on or before the Approvals Contingency Expiration whereupon this Agreement shall automatically terminate, and the Deposit shall be delivered by Escrow Agent to Seller and thereafter neither party shall have any further obligations under this Agreement, except for indemnities and other provisions that expressly survive termination. Seller agrees to cooperate with Buyer in applying for and seeking any Approvals, such cooperation to include joining as the land owner in any applications for Approvals, provided that Seller shall not be obligated to incur any material out-of-pocket expense to provide such cooperation.

7. CLOSING; DEED. The closing shall take place on the business day that is closest to sixty (60) days from the Approvals Contingency Expiration at 10:00 a.m., at the offices of Bernstein Shur, 100 Middle Street, Portland, Maine, or at such other time and place as Seller and Buyer may mutually agree upon in writing (as determined, the "Closing"). At the Closing, Seller shall execute and deliver to Buyer, or Buyer's nominee, against payment of the balance of the purchase price, a Quitclaim Deed with Covenant for the Premises in accordance with the Short Form Deeds Act, 33 M.R.S.A. 761 et seq. (the "Deed"). Seller also shall execute and deliver to Buyer at the Closing the following: a customary and reasonable title insurance Seller's Affidavit regarding persons in possession and mechanics' liens; a 1099-S data form, a FIRPTA affidavit; REW-3; W-9 form; an underground storage tank affidavit to comply with 38 M.R.S.A. § 563(6); evidence of Seller's existence and authority to satisfy the customary seller authority requirements for issuance of an owner's title insurance policy; a real estate transfer tax declaration of value form; and a settlement statement.

8. REPRESENTATIONS.

- (a) Except as actually known to Buyer prior to Closing as a result of Buyer's investigations of the

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Land, Seller represents and warrants to Buyer as follows, which representations and warranties, and the restatement thereof at Closing, shall survive Closing for a period of one (1) year:

(i) Seller has the legal right, power and authority to enter into this Agreement and to perform all of its obligations hereunder, and the execution and delivery of this Agreement and the performance by Seller of its obligations hereunder will not conflict with, or result in breach of any regulation, order, judgment, injunction or decree of any court or governmental authority or any agreement or instrument to which Seller is a party or by which it is bound.

(ii) There are no tenancies, occupancies or licenses affecting the Premises, except for the RDC Lease.

(b) Buyer has the legal right, power and authority to enter into this Agreement and to perform all of its obligations hereunder, and the execution and delivery of this Agreement and the performance by Buyer of its obligations hereunder will not conflict with, or result in breach of any regulation, order, judgment, injunction or decree of any court or governmental authority or any agreement or instrument to which Buyer is a party or by which it is bound.

9. AFFIRMATIVE COVENANTS OF SELLER. Seller agrees, pending closing, that:

(a) Seller shall pay, when due, all taxes and assessments of every type or nature levied or assessed against the Premises and any valid lien against the Premises.

(b) Seller (i) shall not commit or suffer waste and (ii) shall materially comply with all laws, ordinances, regulations, covenants, conditions and restrictions affecting the Premises and will not suffer or permit any material violation thereof.

10. ADJUSTMENTS, PRORATIONS AND CLOSING COSTS.

(a) Real estate taxes and municipal assessments shall be prorated as of the Closing on the basis of the latest available tax bill.

(b) The Maine real estate transfer tax shall be paid equally by Seller and Buyer in accordance with 36 M.R.S.A. Section 4641-A.

(c) The recording fee for the deed of conveyance and any expenses related to any financing for Buyer in connection with the purchase of the Premises shall be paid by Buyer.

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(d) A portion of the purchase price shall be withheld at the Closing by Buyer if required by 36 M.R.S.A. § 5250-A.

11. POSSESSION. Seller shall deliver possession of the Premises to Buyer at the Closing, free of all leases, tenancies or occupancies, including without limitation the RDC Lease. Seller or RDC may remove from the Premises any and all equipment, fixtures and improvements provide that no debris or waste therefrom remains on the Premises and none of RDC's hazardous, toxic, or special materials inventory or wastes remain on the Premises. RDC shall have the right to occupy the Premises for the operation of its business until the Closing.

12. DEFAULT; REMEDIES. In the event that Buyer fails to close hereunder for a reason other than the default of Seller, Seller may terminate this Agreement by written notice to Buyer and thereupon Seller shall be entitled to the Deposit as Seller's sole and exclusive remedy for Buyer's breach, and Escrow Agent shall be authorized to disburse the Deposit to Seller. Seller and Buyer acknowledge and agree that the damages for Buyer's breach of this Agreement are difficult to calculate and that the Deposit is a reasonable estimate of such damages. In the event that Seller breaches this Agreement for a reason other than the default of Buyer, Buyer shall be entitled to either (i) terminate this Agreement by written notice to the Seller, in which case Buyer shall be entitled to a return of the Deposit and Escrow Agent shall be authorized to disburse the Deposit to Buyer or (ii) pursue the remedy of specific performance. In the event of litigation regarding breach of this Agreement by either party, the party who obtains a final, un-appealable judgment in its favor shall be entitled to collect its reasonable attorneys' and paralegals' fees and court costs from the other party.

13. BROKERAGE/ESCROW AGENT. Seller and Buyer each represent to the other that they have not dealt or had contact with any broker in connection with this transaction other than Malone Commercial. Seller shall pay Malone Commercial a commission equal to two and one-half percent (2.5%) of the purchase price at the Closing, and Buyer shall pay Malone Commercial a commission equal to one percent (1.0%) of the purchase price at the Closing.

14. MISCELLANEOUS.

(a) Time. Time is of the essence hereof.

(b) Notices. Except as expressly provided to the contrary in this Agreement, all notices,

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demands and other communications hereunder shall be in writing and shall be given by electronic mail: if to Seller:

William Moody (billmoody222@gmail.com) and Mike Pearce (mpearce@pearcedow.com), and if to Buyer: Gordon Reger (greger@regerholdings.com) and Tom Hanson (thanson@bssn.com), with a copy of such notice to Seller or Buyer at their addresses set forth in the preamble to this Agreement sent by certified mail, return receipt requested. Notices and communications of any kind shall never be sent to Bill Moody or anyone else at RDC or care of the RDC address. All notices shall be deemed to have been duly given if the electronic mail time stamp is prior to the expiration date and time specified herein. Attorneys are authorized to give notices on behalf of their clients. Either party may change the notice electronic mail addresses and certified mail notice addresses for purposes of this subparagraph by giving the other party notice of the new address in the manner described herein.

(c) Assignment. Buyer's rights under this Agreement may not be assigned without Seller's prior written approval, which approval shall be conditioned on Seller being satisfied that Buyer's assignee has in Seller's opinion the financial ability to acquire the Premises; notwithstanding the foregoing, Buyer may assign this Agreement to any entity of which Reger Holdings, LLC or Gordon Reger or his family or some combination thereof are the controlling principals without Seller consent, but with notice to the Seller. Buyer shall remain liable under this Agreement notwithstanding any such assignment. This Agreement will inure to the benefit of and bind the respective successors and assigns of Seller and Buyer.

(d) 1031 Exchange. Seller may elect to perform an IRC §1031 tax deferred exchange. Buyer agrees to cooperate in such an exchange and to sign the documents customarily used in such an exchange, provided that such documents do not modify the terms and conditions of this Agreement or impose additional liabilities or obligations on Buyer.

(e) Entire Agreement. This Agreement constitutes the entire agreement between Seller and Buyer with respect to the sale of the Premises, and there are no representations, warranties, agreements or understandings between the parties except as set forth herein.

(f) Construction. This Agreement shall be governed by and construed in accordance with the laws of Maine, without taking into account choice of law principles. If any provision of this Agreement is determined to be invalid or unenforceable, it shall not affect the validity or enforcement of the remaining provisions hereof.

(g) Confidentiality. Seller, Buyer and Escrow Agent agree not to disclose the terms, conditions or existence of this Agreement to any persons except lawyers, accountants, financial advisors, lenders,

J. H. Reger
12-6-16

appraisers, and consultants to the parties. The terms and conditions of a certain Confidentiality Agreement by and between Seller, RDC, Reger Holdings, LLC and Gordon Reger dated May 27, 2016 (the "CA"), are incorporated by reference. It shall not be a breach of this provision or the CA for Seller or its consultants to discuss the development of the Premises with City of Portland officials or to submit applications for Approvals to the City of Portland pursuant to Buyer's Approvals Contingency.

(h) Counterpart Execution. This Agreement may be executed in one or more counterpart signatures, and together the signed counterparts shall be deemed to be a fully-executed contract.

IN WITNESS WHEREOF, Seller and Buyer have executed this Agreement as of the date first above written.

WITNESS:

Seller: Milliken Smith Bock, LLC

By: _____

William Moody
Its duly-authorized Manager

Buyer: Deering Property Development LLC

By: _____

Gordon Reger
Its duly-authorized Manager

Malone Commercial Brokers as Escrow Agent

By: _____

Joseph Malone

Edith M. Bluhm

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(b) Counterpart Execution. This Agreement may be executed in one or more counterpart signatures, and together the signed counterparts shall be deemed to be a fully-executed contract.

IN WITNESS WHEREOF, Seller and Buyer have executed this Agreement as of the date first above written.

WITNESS:

Seller: Milliken Smith Beck, LLC

K. Moody

By:

William H. Moody
William Moody
Its duly-authorized Manager

Buyer: Deering Property Development LLC

By:

Gordon Reger
Gordon Reger
Its duly-authorized Manager

Malone Commercial Brokers as Escrow Agent

By:

Joseph Malone
Joseph Malone

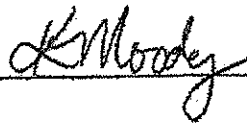
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(b) Counterpart Execution. This Agreement may be executed in one or more counterpart signatures, and together the signed counterparts shall be deemed to be a fully-executed contract.

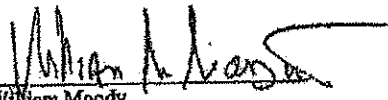
IN WITNESS WHEREOF, Seller and Buyer have executed this Agreement as of the date first above written.

WITNESS:

Seller: ~~Millican~~ Smith Rock, LLC



By:


William Moody
Its duly-authorized Manager

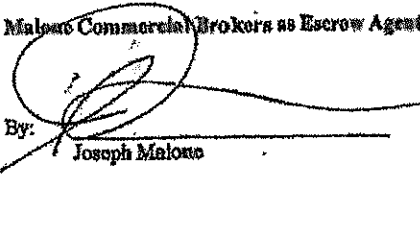
Buyer: Dearing Property Development LLC

By:

Gordon Reger
Its duly-authorized Manager

Malone Commercial Brokers as Escrow Agent

By:


Joseph Malone

Reger Holdings, LLC hereby joins this Agreement, jointly and severally with Buyer, with respect to Buyer's obligations under this Agreement.

Reger Holdings, LLC

Abel M. Buchan

By:

Gordon Reger

Gordon Reger
Its duly-authorized Manager



HOLDINGS, LLC
2730 TRANSIT ROAD
WEST SENECA, NY 14224

PHONE: (716) 675-1200

www.REGERHOLDINGS.COM FAX: (716) 674-2947

SENT VIA EMAIL

March 13, 2017

To whom it may concern:

We are writing to help confirm the relationships between Gordon Reger, Reger Holdings, LLC, and Deering Property Development, LLC. Reger Holdings and our affiliated companies typically form a new LLC for each specific project we acquire which is the case with Deering Property Development LLC that was formed for the Commercial Street project. Gordon Reger is the majority shareholder and managing member of both Reger Holdings and Deering Property Development LLC. Therefore, Gordon Reger is the individual legally associated with and responsible for funding both of these entities.

The letter confirming financial capacity references Reger Holdings given that it is the portfolio company that is the main operating company for which Gordon Reger runs the day to day real estate investment and development operations. However, we believe the letter is intended to indirectly confirm the broader capacity of Gordon Reger as the individual with the financial capacity given the business dealings referenced in the letter have spanned across several companies affiliated directly with Reger Holdings and Gordon Reger all of which he has been the majority shareholder and managing member. We would be happy to request any clarification to the letter that may be necessary.

Should you need any additional information please feel free to contact me.

Regards,

A handwritten signature in cursive script, appearing to read "Joseph Armenia".

Joseph Armenia
Chief Financial Officer

**LIMITED LIABILITY COMPANY AGREEMENT
OF
DEERING PROPERTY DEVELOPMENT LLC**

Dated as of June 30, 2016

In accordance with the Maine Limited Liability Company Act, 31 M.R.S.A. §1501 *et seq.* (the "Act"), this Limited Liability Company Agreement (this "Agreement") of the Maine limited liability company known as "Deering Property Development LLC" (the "Company"), is entered into as of the above date by Reger Holdings, LLC (the "Sole Member") and the Company.

**ARTICLE 1
Formation; Business Purpose**

1.1 Formation. The Company shall be formed upon the execution of this Agreement and the filing of a Certificate of Formation of the Company with the Secretary of State of the State of Maine.

1.2 Purpose. The Company is formed for the purpose of ownership, development, leasing, and management of real estate and any other business permitted under Maine law and approved by the Sole Member (the "Business"). The Company, acting through its Manager, shall have all authority and powers necessary or convenient to carry out the Business and to take such further actions as may be permitted by the laws of the State of Maine. The Company's principal business location shall be in Portland, Maine or such other location as the Sole Member shall select from time to time.

**ARTICLE 2
Members**

2.1 Members. The Sole Member shall be the only initial Member of the Company. No additional Members may be admitted without the written consent of the Sole Member. Each additional Member, as a condition to admission to the Company, shall enter into this Agreement, as it may be amended.

2.2 Meetings. The Sole Member may, but is not required to, hold formal meetings for the purpose of transacting business.

2.3 Action by the Sole Member Without a Meeting. Whenever the Sole Member is required or permitted to take any action by vote, such action may be taken without a meeting, prior notice or a vote if a written consent or consents setting forth the action so taken shall be signed by the Sole Member. For purposes of this Section 2.3, "written" includes a communication that is transmitted and/or received by electronic means, including but not limited to by electronic mail, and "signed" includes an electronic signature as defined in the Maine Uniform Electronic Transactions Act, 10 M.R.S.A. § 9401 *et seq.*

2.4 Outside Activities. The Sole Member may have business interests and engage in business activities in addition to those relating to the Company, including business interests and activities which compete with the Company, and shall have no duty or obligation to bring any "corporate opportunity" to the Company. The Company shall not have any rights by virtue of this Agreement in any business interests or activities of the Sole Member.

ARTICLE 3

Membership Interest; Capital Contribution

The Sole Member has made the initial contribution to the capital of the Company ("Capital Contribution") giving rise to his capital account representing the Sole Member's contribution to the Company as adjusted from time to time ("Capital Account") and is deemed to own the equity interest of the Company ("Membership Interest") all as set forth on *Schedule A* hereto. The Sole Member shall not be obligated to make any additional contribution to the Company.

ARTICLE 4

Liability; Loans

4.1 Liability. The Sole Member shall not have any liability for the debts and obligations of the Company.

4.2 Loans. The Sole Member may make loans to the Company on such terms as the Manager shall determine.

ARTICLE 5

Allocations; Distributions; Capital Account

5.1 Allocations. All net profits, net losses, tax items and distributions of cash or other property from the Company shall be allocated or distributed entirely to the Sole Member.

5.2 Distributions from Operations of the Company. Subject to any limitations imposed by the Act, the Manager shall make distributions to the Sole Member at such time and in such manner as the Manager may reasonably determine, taking into account the Company's working capital needs.

5.3 Capital Account. The Company shall maintain the Sole Member's Capital Account in accordance with Section 704(b) of the Internal Revenue Code of 1986, as amended, and the Treasury Regulations promulgated thereunder.

ARTICLE 6

Management

6.1 Authority. The Company shall be managed by one (1) Manager appointed by the Sole Member. The Manager shall be vested with the exclusive power and authority to manage the Company's Business. The Manager shall serve at the pleasure of the Sole Member and may

be removed and replaced by the Sole Member at any time without prior notice. Initially, the Sole Member shall serve as the Manager.

6.2 Powers. Without limitation, the Manager is authorized to purchase, sell, mortgage, lease and dispose of real, personal and intangible property, appoint officers, hire employees, contract with third parties, including affiliates, borrow money and pledge the assets of the Company.

6.3 Action by the Manager Without Meeting. The Manager may act by written consent in lieu of a formal meeting, provided that one or more written consents approving the action taken or to be taken, at any time before or after the intended effective date of such action, are signed by the Manager and included in the records of the Company. For purposes of this Section 6.3, "written" includes a communication that is transmitted and/or received by electronic means, including but not limited to by electronic mail, and "signed" includes an electronic signature as defined in the Maine Uniform Electronic Transactions Act, 10 M.R.S.A. § 9401 *et seq.*

ARTICLE 7

Term; Dissolution

7.1 Term. The Company shall exist perpetually until dissolved by consent of the Sole Member or as otherwise provided under Maine law.

7.2 Dissolution. Upon the Company's dissolution, the Manager shall take all necessary actions to wind up the Company's affairs and shall make all appropriate filings with the Secretary of State of the State of Maine. The Company's existence continues until completion of the winding up of the Company's affairs, or until a decree dissolving the Company has been entered by a court of competent jurisdiction.

ARTICLE 8

Dissociation; Successors

Upon the occurrence of any of the events specified in §1582 of the Act (including, without limitation, the death, adjudication of incompetency, bankruptcy or insolvency, dissolution or voluntary or involuntary dissociation of a Member), the dissociating Member's heirs, successors and assigns shall be entitled to all of the rights and benefits represented by such dissociating Member's Membership Interest, including the right to name a substitute Member in place of the dissociating Member. The dissociation of a Member shall not cause the dissolution of the Company.

ARTICLE 9

Charging Order

Notwithstanding anything to the contrary contained herein, a creditor of the Sole Member, notwithstanding any judgment received in the creditor's favor with respect to any interest in the Company, shall not acquire any rights of the Sole Member or have the ability to be involved in

the management of the Company or have the right to cause the dissolution and/or liquidation of the Company. The rights of such judgment creditor shall be expressly limited to the right to receive distributions, if any, made to the Sole Member in accordance with this Agreement, up to the amount of the judgment against the Sole Member.

ARTICLE 10

Indemnification

The doing of any act or the failure to do any act by a Manager or a Member, the effect which may cause or result in loss or damage to the Company or its property, shall not subject the Manager or Member to any personal liability to the Company or the other Members, unless the Manager's or Member's acts or omissions constituted bad faith, gross negligence, willful misconduct, fraud or, in the case of a Manager, a material violation of this Agreement. The Company shall indemnify the Manager(s) and Member(s) and make advances for expenses incurred in defense of claims of liability to the maximum extent permitted by law. The Company shall indemnify its employees and agents who are not Managers or Members to the fullest extent permitted by law provided that such indemnification is first approved by the Manager. The right to indemnification under this Agreement shall be fully vested with respect to any matter. No amendment to this Agreement shall have any retroactive effect except to enhance such right for the benefit of the indemnitee.

ARTICLE 11

Miscellaneous

11.1 Registered Agent and Office. The Company shall have the registered agent and office determined from time to time by the Manager and as reported on filings made with the Secretary of State of the State of Maine as required by the Act.

11.2 Ratification. All actions taken on behalf of the Company by the Organizer identified in the Certificate of Formation up to and including the date hereof are hereby ratified and confirmed.

11.3 Accounting Period and Methods. The Company's accounting period shall be the calendar year. The Company shall use such accounting methods as the Manager deems most advantageous.

11.4 Records. The Company shall maintain complete and accurate books and records of the Company's affairs. At a minimum, the Company shall maintain copies of its Certificate of Formation and Limited Liability Company Agreement, with all amendments, current and past lists of all members and their addresses, tax returns and financial statements for the past six (6) years, consents or minutes of all meetings of the Members and all documents relative to any Member's obligation to contribute cash, property or services.

11.5 Governing Law; Binding Effect. This Agreement shall be governed by and construed in accordance with Maine law. This Agreement is binding upon and inures to the benefit of the parties' heirs, successors and assigns.

11.6 Amendments. This Agreement, the Company's Certificate of Formation and any Statement of Authority of the Company on file with the Secretary of State of the State of Maine may be amended only by written consent of the Sole Member.

Executed by:

Sole Member:
Reger Holdings, LLC

By: 
Gordon Reger, its Manager

Company:

Deering Property Development LLC
By: Reger Holdings, LLC, its Manager

By: 
Gordon Reger, its Manager

Schedule A

DEERING PROPERTY DEVELOPMENT LLC

MEMBERS

As of June 30, 2016

Member's Name and Address	Capital Contribution	Membership Interest
Reger Holdings, LLC 2730 Transit Road West Seneca, New York 14224	\$100.00	100%

SITE PLAN APPLICATION
383 COMMERCIAL STREET
WRITTEN SUBMISSION S2 – ZONING ASSESSMENT

THE PROJECT IS LOCATED WITHIN THE B5b ZONING DISTRICT , AND CONFORMS TO THE PURPOSE OF THE DISTRICT – TO REDEVELOP UNDERDEVELOPED LOTS WITH DENSER, MIXED USES THAT RELY ON SHARED INFRASTRUCTURE, INCLUDING SERVICE ALLEYS, PARKING LOTS, PUBLIC TRANSPORTATION FACILITIES, STORMWATER MANAGEMENT, AND DRIVEWAYS.

THE RETAIL, RESIDENTIAL , SURFACE PARKING AND PARKING GARAGE USES ARE ALL PERMITTED USES IN THE B5b DISTRICT.

IN THE B5b DISTRICT THERE ARE NO DIMENSIONAL REQUIREMENTS FOR LOT SIZE, STREET FRONTAGE, LOT COVERAGE NOR MINIMUM YARD SETBACKS. THE PROJECT CONFORMS TO THE REQUIREMENT OF A MAXIMUM FRONT YARD SETBACK OF 10 FEET.

THE AVERAGE FINISH GRADE AT THE BUILDING PERIMETER IS CALCULATED AS FOLLOWS :

ELEV 15.00 CORNER OF COMMERCIAL/ HIGH STREETS

ELEV 30.00 CORNER OF HIGH / YORK STREETS

ELEV 27.00 AT NW BUILDING CORNER/ YORK STREET

ELEV. 11.00 CORNER OF MAPLE / COMMERCIAL STREET

ADDING THE ABOVE = 83 FEET DIVIDED BY FOUR DATA POINTS = 20.75 AVERAGE FINISH GRADE

MAXIMUM BUILDING HEIGHT = $20.75 + 65.00 = 85.75$ FEET

PROPOSED BUILDING HEIGHT = 84.00 FEET

THE PROJECT WILL CONFORM TO ALL OF THE PERFORMANCE STANDARDS IN THE B5b DISTRICT, AS STIPULATED IN ZONING SECTION 14 - 230.5.

ARCHETYPE HAS DESIGNED A BUILDING THAT COMPLIMENTS THE COMMERCIAL STREET CORRIDOR AND ENGAGED IN A REVIEW PROCESS WITH THE HP BOARD. A PUBLIC ACCESS WALKWAY WILL TRAVERSE THE SITE FROM YORK STREET TO COMMERCIAL STREET, LOCATED BETWEEN THE PHASE 1 AND BAXTER ACADEMY BUILDINGS .

WITH RESPECT TO OFF STREET PARKING , 1 SPACE PER 284 UNITS = 284 SPACES. 27,624 SF OF RETAIL AREA IS PROPOSED . THE APPLICANT PROPOSES TO DEDUCT 25 % OF THE GROSS AREA FOR STORAGE , THEREFORE $20,718 \text{ SF} @ 1 \text{ SPACE} / 200 \text{ SF} = 103 \text{ SPACES}$ REQUIRED FOR RETAIL USES. $284 + 103 = 387$ SPACES REQUIRED ; 387 SPACES ARE PROPOSED. REQUIRED BICYCLE PARKING WILL BE PROVIDED IN THE TWO PLAZA SPACES ON COMMERCIAL STREET, AND WITHIN THE STORAGE AREAS ON THE TWO GARAGE LEVELS. TWO OFF STREET LOADING AREAS ARE PROPOSED, ONE ON MAPLE STREET AND ONE AT COMMERCIAL STREET.

383 COMMERCIAL STREET
OPEN SPACE AND LANDSCAPE TREATMENTS

THE MASTER DEVELOPMENT PLAN AND LEVEL III SITE PLAN PROVIDE FOR OPEN SPACE IN TWO WAYS :

- INDIVIDUAL UNITS WILL HAVE PRIVATE PATIOS AT THE PLAZA LEVEL AND BALCONIES ON THE UPPER FLOORS.
- EACH PHASE WILL FEATURE A CENTRAL ROOFTOP COURTYARD, CONSTRUCTED AT THE THIRD LEVEL ABOVE THE PARKING GARAGES BELOW. THESE ROOFTOP COURTYARDS WILL BE BUILT USING PEDESTAL PAVERS INSTALLED OVER A WATERPROOFED CONCRETE DECK. PLANTING AREAS WILL BE CREATED USING CURBS TO RETAIN SOIL ADJACENT TO THE PAVERS.
- LAWN SOD WILL BE INSTALLED IN THE AREAS OF THE COURTYARDS NOT PROPOSED AS PAVED AREAS, AND ALL LAWN AREAS WILL BE IRRIGATED.
- THE RESULTING OPEN SPACES WILL PROVIDE ATTRACTIVE AND UNUSUAL ELEVATED GREEN SPACES FOR RESIDENTS – SEE ATTACHED PHOTOGRAPH OF A SIMILAR OPEN SPACE ENJOYED BY RESIDENTS AT THE BAY HOUSE, IN THE INDIA STREET NEIGHBORHOOD.

THE YORK STREET EDGE OF THE PROJECT WILL INCLUDE LANDSCAPE PLANTINGS BETWEEN THE SIDEWALK AND THE BUILDING EDGE, SOFTENING THIS AREA AND ENHANCING ITS FEEL AS RESIDENTIAL.

THE COMMERCIAL STREET EDGE OF THE PROJECT WILL INCLUDE THE INSTALLATION OF NEW STREET TREES, PLANTED IN ELONGATED AND RAISED GRANITE CURBS, AS REQUESTED BY THE CITY ARBORIST. NEW STREET LIGHTS WILL ALSO BE INSTALLED, IN ACCORDANCE WITH THE CITY LIGHTING ORDINANCE. AS THIS EDGE OF THE PROJECT INCLUDES RETAIL USES AND BECAUSE THE BUILDING WILL BE BUILT TO THE STREET LINE , THIS AREA IS PREDOMINANTLY HARDSCAPE. PLANTINGS ARE PROPOSED WITHIN THE TWO COURTYARDS ON COMMERCIAL STREET, HOWEVER, THESE SPACES ARE MOSTLY HARDSCAPE, AS THE APPLICANT ENVISIONS OUTDOOR CAFES / SEATING IN THESE LOCATIONS.

AT THE CORNER OF COMMERCIAL STREET AND EXTENDING UP HIGH STREET, LANDSCAPE AREAS ARE PROPOSED BETWEEN THE SIDEWALK AND THE BUILDING.

ANOTHER OPEN SPACE OCCURS AT THE NW CORNER OF THE SITE, WHERE THE PUBLIC WALKWAY DESCENDS FROM HIGH STREET TO MAPLE STREET. IN THIS AREA, ADJACENT TO THE BAXTER ACADEMY BUILDING, A LAWN AREA WITH COLUMNAR TREES IS PROPOSED, AS WELL AS SOME FOUNDATION PLANTINGS NEAR THE SERVICE AREA.



ROOFTOP PLAZA AT BAY HOUSE

383 COMMERCIAL STREET
MAPLE STREET HISTORIC COBBLES

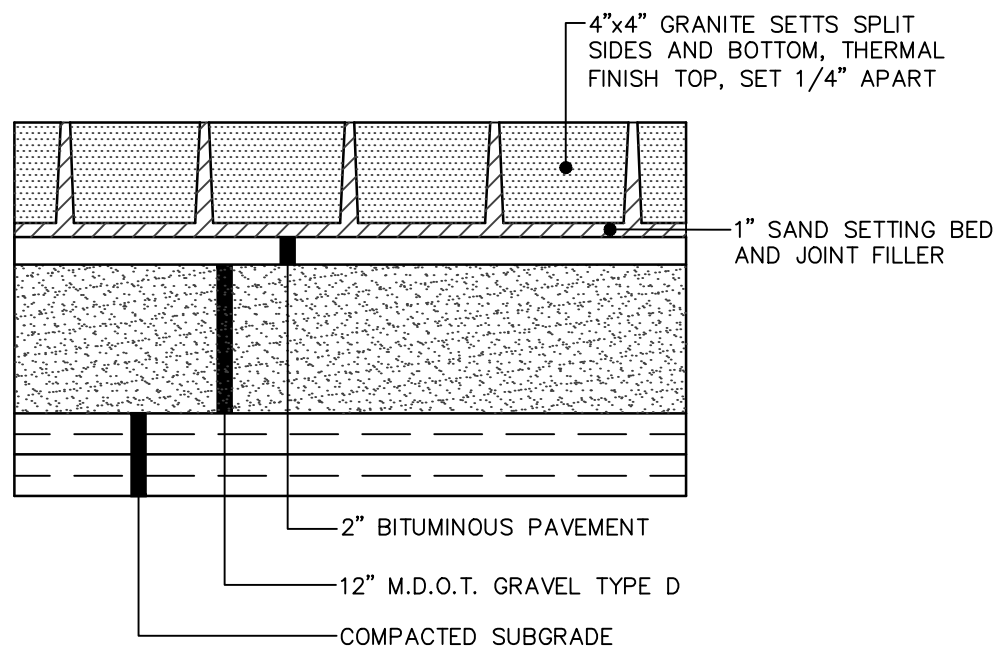
IN THE MARCH 22, 2016 STAFF REPORT INCLUDES A PHOTOGRAPH AND STATEMENT THAT " ON MAPLE STREET THERE ARE REMNANTS OF THE HISTORIC COBBLES IN THE SIDEWALK AND EXISTING CURB CUT, AND FURTHER DISCUSSION IS NEEDED AS TO WHETHER AND HOW THESE MAY BE PRESERVED."

THE APPLICANT HAS CONSIDERED THIS REQUEST AND IS PROPOSING THAT THE APPLICANT'S SITE CONTRACTOR SALVAGE AND PRESERVE THE EXISTING COBBLES. BECAUSE THEY ARE WORN AND IRREGULAR, THEY WOULD BE UNSAFE TO USE IN THE MAPLE STREET SIDEWALK.

AS A GESTURE TO SIGNIFICANCE OF THESE COBBLES, THE APPLICANT PROPOSES TO RECONSTRUCT THIS SECTION OF THE SIDEWALK WITH GRANITE SETTS – THESE ARE GRANITE PAVERS WITH A SMOOTH THERMAL FINISH WHICH IS SAFE FOR WALKING ON – AND A VISUAL REFERENCE TO THE COBBLES.

THE EXISTING COBBLES WILL BE RETURNED TO CITY PUBLIC SERVICES FOR RE – USE IN A LOCATION DETERMINED BY THE CITY.

SEE ATTACHED DETAIL FOR INSTALLATION OF THE GRANITE SETTS.



GRANITE SETT DETAIL

NOT TO SCALE

383 COMMERCIAL STREET
CURB BUMPOUT AT COMMERCIAL STREET AND MAPLE STREET

CITY STAFF HAS REQUESTED THAT THE APPLICANT PROVIDE FOR A CURB BUMPOUT AT THE SOUTHWEST CORNER OF COMMERCIAL STREET AND MAPLE STREET. DUE TO THE CURRENT MORATORIUM PROHIBITING WORK ON COMMERCIAL STREET, THE APPLICANT PROPOSES TO CONSTRUCT THIS IMPROVEMENT IN PHASE 2 OF THE PROJECT, AT WHICH TIME IT IS ANTICIPATED THAT THE MORATORIUM WILL BE EXPIRED.

ATTACHED IS THE APPLICANT'S DESIGN PROPOSAL FOR THIS LOCATION. THE DESIGN FEATURES A GRANITE BENCH, RAISED PLANTED AREA AND BICYCLE RACKS – TO MIMIC AND COMPLIMENT THE BUMPOUT ACROSS MAPLE STREET, AT THE NORTHWEST CORNER OF THIS INTERSECTION AND IN FRONT OF THE EXISTING HOTEL PROPERTY.

383 COMMERCIAL STREET
SERVICE AND LOADING AREAS

IN RESPONSE TO STAFF COMMENTS, THE MAPLE STREET SERVICE AREA HAS BEEN REDESIGNED. THE BUILDING FOOTPRINT HAS BEEN REDUCED AND SHIFTED FURTHER FROM THE BAXTER ACADEMY PROPERTY LINE. BY INCREASING THIS DIMENSION, THE SERVICE DRIVE HAS BEEN WIDENED TO 15 FEET, LEAVING 6 FEET FOR THE PUBLIC WALKWAY AND RETAINING WALL. THE RETAINING WALL IS A LOW WALL AND IS ONLY 12 INCHES WIDE, LEAVING A CLEAR WIDTH OF 5 FEET FOR THE PUBLIC WALKWAY. THE PUBLIC WALKWAY IS SEPARATED FROM THE SERVICE DRIVE BY A VERTICAL GRANITE CURB. WHILE IT IS POSSIBLE THAT PEDESTRIANS WOULD USE THE WALKWAY WHILE A SERVICE VEHICLE IS PRESENT, THIS OCCURRENCE WILL BE INFREQUENT, AND THE REVISED DESIGN PROVIDES FOR A FUNCTIONAL WALKWAY WIDTH AND SEPARATION FROM THE SERVICE DRIVEWAY.

AS DEPICTED ON THE ATTACHED PLANS, THIS SERVICE AREA WILL ACCOMMODATE THE TURNING MOVEMENTS OF A WB -40 TRACTOR TRAILER AND AN SU -30 TRUCK VEHICLE.

THE COMMERCIAL STREET SERVICE AREA, TO BE CONSTRUCTED IN PHASE 2, IS ALSO DESIGNED TO ACCOMMODATE A WB – 40 TRACTOR TRAILER AND AN SU -30 TRUCK VEHICLE. DELIVERIES TO THIS SERVICE AREA WILL BE RESTRICTED TO EARLY AM HOURS TO LIMIT PEDSTRIAN CONFLICTS. MODIFICATIONS TO CURBING AND ON - STREET PARKING WILL BE REQUIRED AT THIS LOCATION.

383 COMMERCIAL STREET
PROJECT PHASING PLAN

THE PROJECT IS PROPOSED TO BE CONSTRUCTED IN THREE PHASES, AS DEPICTED ON PLANS SUBMITTED BY ARCHETYPE.

IN PHASE 1, (4) EXISTING BUILDINGS WILL BE REMOVED, AND (3) EXISTING BUILDINGS WILL REMAIN.

A LARGE LAWN AREA IS PROPOSED AT THE SOUTH END OF THE PHASE 1 BUILDING. ON THE TWO STORY BLANK BUILDING WALL, THE APPLICANT AGREES WITH THE PLANNING BOARD'S RECOMMENDATION TO APPLY A MURAL / ARTWORK TO THIS SURFACE. THE APPLICANT PROPOSES TO COORDINATE THE ARTIST SELECTION AND DESIGN WITH THE PORTLAND PUBLIC ARTS COMMITTEE.

(30) TEMPORARY SURFACE PARKING SPACES ARE PROPOSED ALONG THE COMMERCIAL STREET EDGE. THIS PROPOSAL IS BASED UPON AN INEFFICIENT GARAGE LAYOUT, AS ALL OF THE ACCESS TO THE FULL BUILD-OUT GARAGE OCCURS IN PHASE 1.

IN PHASE 1, MUCH OF THE YORK STREET SIDEWALK WILL REMAIN, WITH PORTIONS OF IT RECONSTRUCTED FOR ENTRANCES TO THE PEDSTRIAN PLAZA, THE LEVEL 2 GARAGE, AND THE PUBLIC WALKWAY. MAPLE STREET SIDEWALKS WILL BE COMPLETELY RECONSTRUCTED. THE COMMERCIAL STREET SIDEWALK WILL BE RECONSTRUCTED – THE EXTENT COINCIDES WITH THE WIDTH OF THE PHASE 1 BUILDING.

IN PHASE 2, THE (3) REMAINING EXISTING BUILDINGS WILL BE REMOVED. THE PHASE 1 TEMPORARY PARKING WILL BE REMOVED, AS THE PHASE TWO GARAGE LAYOUT CAN ACCOMMODATE THE REQUIRED PARKING FOR BOTH PHASES.

SIMILAR TO THE PHASE 1 PROPOSAL, IN PHASE 2 A LARGE LAWN AREA IS PROPOSED BETWEEN THE BUILDING AND HIGH STREET, AND AN ART MURAL WILL BE APPLIED TO THAT SIDE OF THE BUILDING.

THE YORK STREET SIDEWALK WILL REMAIN EXCEPT FOR A BUILDING ENTRANCE. THE COMMERCIAL STREET SIDEWALK WILL BE RECONSTRUCTED – THE EXTENT COINCIDING WITH THE WIDTH OF THE PHASE 2 BUILDING.

ALSO IN PHASE 2, IT IS ANTICIPATED THAT THE MORATORIUM IN COMMERCIAL STREET WILL BE TERMINATED, AND THE CURB BUMPOUT AT MAPLE STREET WILL BE CONSTRUCTED .

IN PHASE 3, THE BUILDOUT OF THE STRUCTURE WILL BE COMPLETED. A SECOND SERVICE AREA WILL BE CONSTRUCTED IN PHASE 3. THE COMMERCIAL STREET AND HIGH STREET SIDEWALKS WILL ALSO BE COMPLETED IN THIS PHASE.

May 18, 2017

Jean Fraser, Planner
City of Portland
389 Congress Street
Portland, ME 04101

Dear Jean,

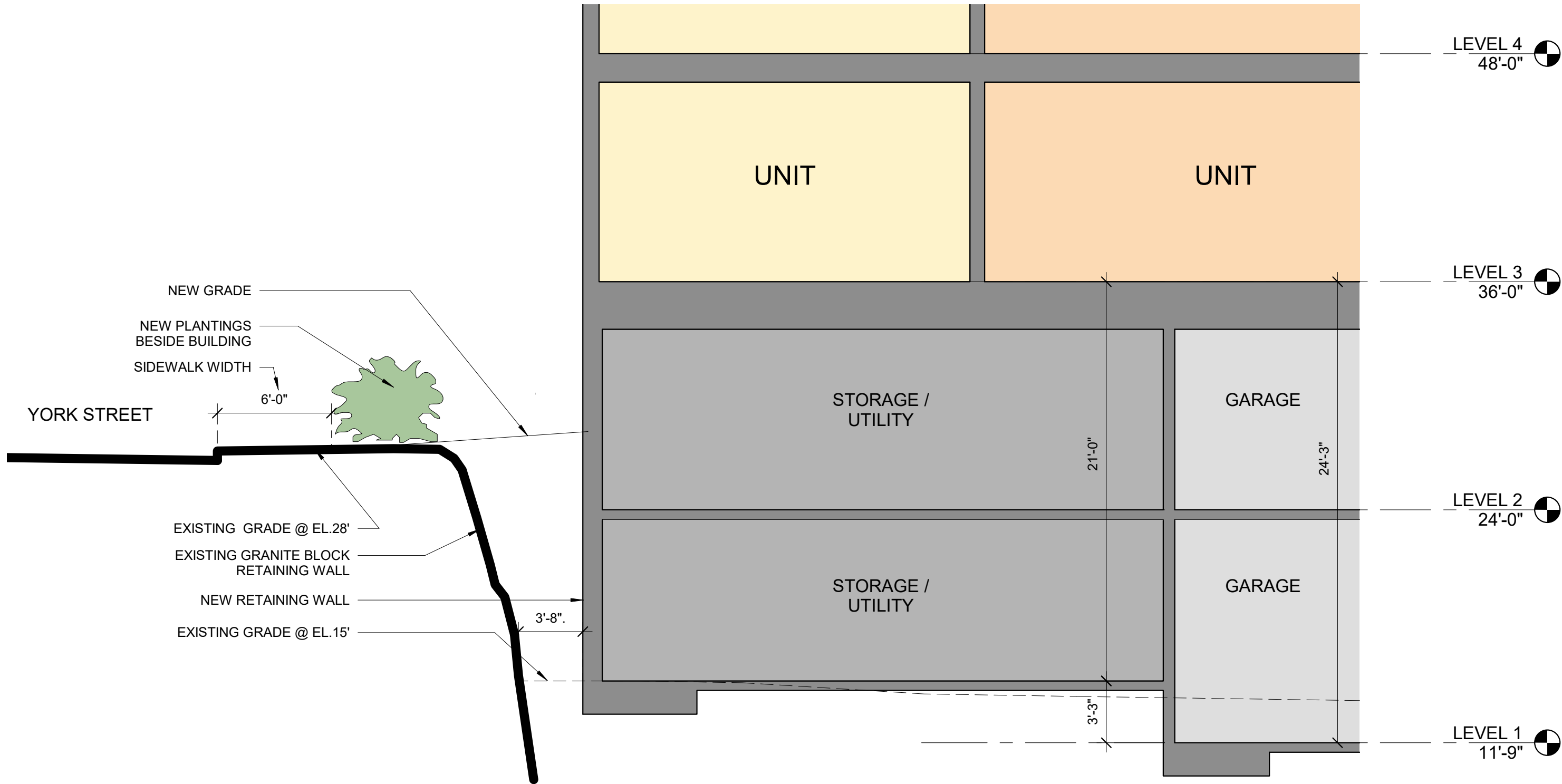
RE: Rear Existing Retaining Wall, 383 Commercial Street

The existing retaining wall running east to west on the north side has been in place for well over 100 years. It is our intention to leave the existing retaining wall in place in its existing condition. We will build a new retaining wall approximately three feet away which will be designed to take the lateral earth loads that the present wall retains. Between the walls well-draining gravel will be placed and a footing drain will be added. The foundation of the new wall will be designed such that the capacity of the existing wall is not compromised during construction. The concept design has been reviewed by Bill Peterlein, Geotechnical Engineer and Rimas Veitas, Structural Engineer. See attached section.

Respectfully Submitted,



David Lloyd
Maine Licensed Architect



383 COMMERCIAL STREET
Portland, Maine





383 COMMERCIAL STREET

**Level III – Preliminary and Final Site Plans
Development Review Application
Portland, Maine**

Planning and Urban Development Department
Planning Division

Portland's Planning and Urban Development Department coordinates the development review process for site plan, subdivision and other applications under the City's Land Use Code. Attached is the application form for a Level III: Preliminary or Final Site Plan. Please note that Portland has delegated review from the State of Maine for reviews under the Site Location of Development Act, Chapter 500 Stormwater Permits, and Traffic Movement Permits.

Level III: Site Plan Development includes:

- New structures with a total floor area of 10,000 sq. ft. or more except in Industrial Zones.
- New structures with a total floor area of 20,000 sq. ft. or more in Industrial Zones.
- New temporary or permanent parking area(s) or paving of existing unpaved parking areas for more than 75 vehicles.
- Building addition(s) with a total floor area of 10,000 sq. ft. or more (cumulatively within a 3 year period) except in Industrial Zones.
- Building addition(s) with a total floor area of 20,000 sq. ft. or more in Industrial Zones.
- A change in the use of a total floor area of 20,000 sq. ft. or more in any existing building (cumulatively within a 3 year period).
- Multiple family development (3 or more dwelling units) or the addition of any additional dwelling unit if subject to subdivision review.
- Any new major or minor auto business in the B-2 or B-5 Zone, or the construction of any new major or minor auto business greater than 10,000 sq. ft. of building area in any other permitted zone.
- Correctional prerelease facilities.
- Park improvements: New structures greater than 10,000 sq. ft. and/or facilities encompassing 20,000 sq. ft. or more (excludes rehabilitation or replacement of existing facilities); new nighttime outdoor lighting of sports, athletic or recreation facilities not previously illuminated.
- Land disturbance of 3 acres or more (includes stripping, grading, grubbing, filling or excavation).

Portland's development review process and requirements are outlined in the Land Use Code (Chapter 14) which is available on our website:

Land Use Code: <http://me-portland.civicplus.com/DocumentCenter/Home/View/1080>

Design Manual: <http://me-portland.civicplus.com/DocumentCenter/View/2355>

Technical Manual: <http://me-portland.civicplus.com/DocumentCenter/View/2356>

Planning Division

Fourth Floor, City Hall

389 Congress Street

p.m. (207) 874-8719

planning@portlandmaine.gov

Office Hours

Monday thru Friday

8:00 a.m. – 4:30

PROJECT NAME:383 COMMERCIAL STREET**PROPOSED DEVELOPMENT ADDRESS:**383 COMMERCIAL STREET**PROJECT DESCRIPTION:**PHASE 1 - MIXED USE RETAIL (4,934 SF), RESIDENTIAL CONDOMINIUMS
(82 UNITS) AND STRUCTURED PARKING**CHART/BLOCK/LOT:** 042/A/001**PRELIMINARY PLAN** _____ (date)
FINAL PLAN _____ (date)**CONTACT INFORMATION:**

Applicant – must be owner, Lessee or Buyer Name: <u>DEERING PROPERTY DEVELOPMENT, LLC</u> Business Name, if applicable: Address: <u>2730 TRANSIT ROAD</u> City/State: <u>WEST SENECA, NY</u> Zip Code: <u>14224</u>	Applicant Contact Information Work #: Home #: Cell #: <u>413-244-9092</u> Fax#: e-mail: <u>joe.dasco@comcast.com</u>
Owner – (if different from Applicant) Name: <u>MILLIKEN SMITH BLOCK, LLC</u> Address: <u>5 HIGH ST.</u> City/State: <u>YARMOUTH, ME</u> Zip Code: <u>04096</u>	Owner Contact Information Work #: Home #: Cell #: Fax#: e-mail:
Agent/ Representative Name: <u>SEBAGO TECHNICS, INC.</u> Address: <u>75 JOHN ROBERTS ROAD</u> City/State: <u>SO. PORTLAND, ME</u> Zip Code: <u>04106</u>	Agent/Representative Contact Information Work #: <u>207-200-2055</u> Home #: Cell #: Fax#: e-mail: <u>wconway@sebagotechnics.com</u>
Billing Information Name: <u>SEBAGO TECHNICS, INC.</u> Address: City/State: Zip Code:	Billing Contact Information Work #: Home #: Cell #: Fax#: e-mail:

Engineer Name: <i>SEBAGO TECHNICS, INC.</i> Address: City/State : Zip Code:	Engineer Contact Information Work #: Home #: Cell #: Fax#: e-mail:
Surveyor Name: <i>OWEN HASKELL, INC.</i> Address: <i>390 U.S. ROUTE ONE</i> City/State : <i>FALMOUTH, ME</i> Zip Code: <i>04105</i>	Surveyor Contact Information Home #: Work #: <i>207-774-0424</i> Cell #: Fax#: e-mail:
Architect Name: <i>ARCHETYPE PA</i> Address: <i>48 UNION ST.</i> City/State : <i>PORTLAND, ME</i> Zip Code: <i>04101</i>	Architect Contact Information Work #: <i>207-772-6022</i> Home #: Cell #: Fax#: e-mail:
Attorney Name: Address: City/State : Zip Code:	Attorney Contact Information Work #: Home #: Cell #: Fax#: e-mail:
Designated person/person(s) for uploading to e-Plan: Name: <i>RICHARD MEEK</i> e-mail: <i>rmeek@sebagotechnics.com</i> Name: <i>WILLIAM CONWAY</i> e-mail: <i>wconway@sebagotechnics.com</i> Name: e-mail:	

APPLICATION FEES:

Level III Development (check applicable reviews) ☐ Less than 50,000 sq. ft. (\$750.00) ☐ 50,000 - 100,000 sq. ft. (\$1,000) ☒ 100,000 - 200,000 sq. ft. (\$2,000) ☐ 200,000 - 300,000 sq. ft. (\$3,000) ☐ over 300,000 sq. ft. (\$5,000) ☒ Parking lots over 11 spaces (\$1,000) ☐ After-the-fact Review (\$1,000.00 plus applicable application fee) Plan Amendments (check applicable reviews) ☐ Planning Staff Review (\$250) ☐ Planning Board Review (\$500) The City invoices separately for the following: • Notices (\$.75 each) • Legal Ad (% of total Ad) • Planning Review (\$50.00 hour) • Legal Review (\$75.00 hour) Third party review fees are assessed separately. Any outside reviews or analysis requested from the Applicant as part of the development review, are the responsibility of the Applicant and are separate from any application or invoice fees.	Other Reviews (check applicable reviews) ☒ Traffic Movement (\$1,500) ☒ Stormwater Quality (\$250) ☒ Subdivisions (\$500 + \$25/lot) # of Lots <u>82</u> x \$25/lot = <u>\$2050.00</u> ☐ Site Location (\$3,500, except for residential projects which shall be \$200/lot) # of Lots <u> </u> x \$200/lot = <u> </u> ☐ Other <u> </u> ☐ Change of Use ☐ Flood Plain ☐ Shoreland ☐ Design Review ☐ Housing Replacement ☐ Historic Preservation
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INSTRUCTIONS FOR ELECTRONIC SUBMISSION:

Please refer to the application checklist (attached) for a detailed list of submission requirements.

1. Fill out the application completely and e-mail the application only to planning@portlandmaine.gov (Please be sure to designate a person who will be responsible for uploading documents and drawings.) This step will generate the project ID number for your project.
2. An invoice for the application fee will be e-mailed to you. Payments can be made on-line at [Pay Your Invoice](#), by mail or in person at City Hall, 4th Floor. Please reference the Application Number when submitting your payment which is located in the upper left hand corner of the invoice.
3. The designated person responsible for uploading documents and drawings will receive an email from eplan@portlandmaine.gov with an invitation into the project. At this time, you will upload all corresponding documents and plans into the project. For first time users you will receive a temporary password which you must change on entry. Make note of your username and password for any future projects.

Reminder: Before the project can move forward, the application fee shall be paid in full and all required documents and drawings shall be uploaded into e-plan correctly.

4. Follow the link below (Applying Online Instructions) for step by step instructions on how to do the following:
 Tab 1 - Setting up the appropriate compatibility settings for your PC and getting started in e-plan.
 Tab 2 - Preparing your drawings, documents and photos for uploading using the correct naming conventions
 Tab 3 - Preparing and uploading revised drawings and documents

[Applying Online Instructions](#)

5. When ready, upload your files and documents into the following folders:
 "Application Submittal - Drawings"
 "Application Submittal - Documents"

6. Once a preliminary check has been made of the submittal documents and drawings, staff will move them to permanent folders labeled Drawings and Documents. As the process evolves you will be able to log in and see markups, comments and upload revisions as requested into these folders.

APPLICANT SIGNATURE:

By digitally signing the attached document(s), you are signifying your understanding this is a legal document and your electronic signature is considered a legal signature per Maine state law.

I hereby certify that I am the Owner of record of the named property, or that the owner of record authorizes the proposed work and that I have been authorized by the owner to make this application as his/her authorized agent. I agree to conform to all applicable laws of this jurisdiction. In addition, if a permit for work described in this application is issued, I certify that the Planning Authority and Code Enforcement's authorized representative shall have the authority to enter all areas covered by this permit at any reasonable hour to enforce the provisions of the codes applicable to this permit.

This application is for a Level III Site Plan review. It is not a permit to begin construction. An approved site plan, a Performance Guarantee, Inspection Fee, Building Permit, and associated fees will be required prior to construction. Other Federal, State or local permits may be required prior to construction, which are the responsibility of the applicant to obtain.

Signature of Applicant:  Manager	Date: 3/9/17
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Deering Property Development LLC

PROJECT DATA

The following information is required where applicable, in order to complete the application.

Total Area of Site	2.58 AC	sq. ft.
Proposed Total Disturbed Area of the Site	2.58 AC	sq. ft.
If the proposed disturbance is greater than one acre, then the applicant shall apply for a Maine Construction General Permit (MCGP) with DEP and a Stormwater Management Permit, Chapter 500, with the City of Portland.		
Impervious Surface Area		
Impervious Area (Total Existing)	2.43 AC	sq. ft.
Impervious Area (Total Proposed)	2.09 AC	sq. ft.
Building Ground Floor Area and Total Floor Area		
Building Footprint (Total Existing)	32,100	sq. ft.
Building Footprint (Total Proposed)	29,025	sq. ft.
Building Floor Area (Total Existing)	35,000	sq. ft.
Building Floor Area (Total Proposed)	136,980	sq. ft.
Zoning		
Existing	B5b	
Proposed, if applicable	B5b	
Land Use		
Existing	LUMBER COMPANY / RETAIL	
Proposed	RETAIL, RESIDENTIAL	
Residential, If applicable		
# of Residential Units (Total Existing)	0	
# of Residential Units (Total Proposed)	70	
# of Lots (Total Proposed)	1	
# of Affordable Housing Units (Total Proposed)	T.B.D.	
Proposed Bedroom Mix		
# of Efficiency Units (Total Proposed)	20	
# of One-Bedroom Units (Total Proposed)	39	
# of Two-Bedroom Units (Total Proposed)	29	
# of Three-Bedroom Units (Total Proposed)	0	
Parking Spaces		
# of Parking Spaces (Total Existing)	-	
# of Parking Spaces (Total Proposed)	103 (73 GARAGE, 30 SURFACE)	
# of Handicapped Spaces (Total Proposed)	6	
Bicycle Parking Spaces		
# of Bicycle Spaces (Total Existing)	-	
# of Bicycle Spaces (Total Proposed)	36	
Estimated Cost of Project	T.B.D.	

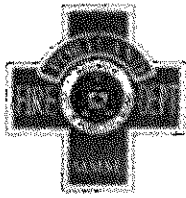
PRELIMINARY PLAN (Optional) - Level III Site Plan			
Applicant Checklist	Planner Checklist	# of Copies	GENERAL WRITTEN SUBMISSIONS CHECKLIST
✓		1	Completed Application form
✓		1	Application fees
✓		1	Written description of project
✓		1	Evidence of right, title and interest
		1	Evidence of state and/or federal approvals, if applicable
✓		1	Written assessment of proposed project's compliance with applicable zoning requirements
N/A		1	Summary of existing and/or proposed easement, covenants, public or private rights-of-way, or other burdens on the site
T.B.D		1	Written requests for waivers from site plan or technical standards, if applicable.
✓		1	Evidence of financial and technical capacity
✓		1	Traffic Analysis (may be preliminary, in nature, during the preliminary plan phase)
Applicant Checklist	Planner Checklist	# of Copies	SITE PLAN SUBMISSIONS CHECKLIST
✓		1	Boundary Survey meeting the requirements of Section 13 of the City of Portland's Technical Manual
✓		1	Preliminary Site Plan including the following: (information provided may be preliminary in nature during preliminary plan phase)
✓			Proposed grading and contours;
✓			Existing structures with distances from property line;
✓			Proposed site layout and dimensions for all proposed structures (including piers, docks or wharves in Shoreland Zone), paved areas, and pedestrian and vehicle access ways;
✓			Preliminary design of proposed stormwater management system in accordance with Section 5 of the Technical Manual (note that Portland has a separate applicability section);
✓			Preliminary infrastructure improvements;
✓			Preliminary Landscape Plan in accordance with Section 4 of the Technical Manual;
N/A			Location of significant natural features (including wetlands, ponds, watercourses, floodplains, significant wildlife habitats and fisheries or other important natural features) located on the site as defined in Section 14-526 (b)(1);
N/A			Proposed buffers and preservation measures for significant natural features, as defined in Section 14-526 (b)(1);
N/A			Location, dimensions and ownership of easements, public or private rights of way, both existing and proposed;
✓			Exterior building elevations.

FINAL PLAN - Level III Site Plan			
Applicant Checklist	Planner Checklist	# of Copies	GENERAL WRITTEN SUBMISSIONS CHECKLIST (* If applicant chooses to submit a Preliminary Plan, then the * items were submitted for that phase and only updates are required)
✓		1	* Completed Application form
✓		1	* Application fees
✓		1	* Written description of project
✓		1	* Evidence of right, title and interest
✓		1	* Evidence of state and/or federal permits
✓		1	* Written assessment of proposed project's specific compliance with applicable Zoning requirements
✓		1	* Summary of existing and/or proposed easements, covenants, public or private rights-of-way, or other burdens on the site
✓		1	* Evidence of financial and technical capacity
✓		1	Construction Management Plan
✓		1	A traffic study and other applicable transportation plans in accordance with Section 1 of the technical Manual, where applicable.
✓		1	Written summary of significant natural features located on the site (Section 14-526 (b) (a))
✓		1	Stormwater management plan and stormwater calculations
✓		1	Written summary of project's consistency with related city master plans
✓		1	Evidence of utility capacity to serve
✓		1	Written summary of solid waste generation and proposed management of solid waste
✓		1	A code summary referencing NFPA 1 and all Fire Department technical standards
✓		1	Where applicable, an assessment of the development's consistency with any applicable design standards contained in Section 14-526 and in City of Portland Design Manual
✓		1	Manufacturer's verification that all proposed HVAC and manufacturing equipment meets applicable state and federal emissions requirements.

Applicant Checklist	Planner Checklist	# of Copies	SITE PLAN SUBMISSIONS CHECKLIST (* If applicant chooses to submit a Preliminary Plan, then the * items were submitted for that phase and only updates are required)
✓		1	* Boundary Survey meeting the requirements of Section 13 of the City of Portland's Technical Manual
✓		1	Final Site Plans including the following:
✓			Existing and proposed structures, as applicable, and distance from property line (including location of proposed piers, docks or wharves if in Shoreland Zone);
✓			Existing and proposed structures on parcels abutting site;
✓			All streets and intersections adjacent to the site and any proposed geometric modifications to those streets or intersections;
✓			Location, dimensions and materials of all existing and proposed driveways, vehicle and pedestrian access ways, and bicycle access ways, with corresponding curb lines;
✓			Engineered construction specifications and cross-sectional drawings for all proposed driveways, paved areas, sidewalks;
✓			Location and dimensions of all proposed loading areas including turning templates for applicable design delivery vehicles;
✓			Existing and proposed public transit infrastructure with applicable dimensions and engineering specifications;
✓			Location of existing and proposed vehicle and bicycle parking spaces with applicable dimensional and engineering information;
✓			Location of all snow storage areas and/or a snow removal plan;
✓			A traffic control plan as detailed in Section 1 of the Technical Manual;
N/A			Proposed buffers and preservation measures for significant natural features, where applicable, as defined in Section 14-526(b)(1);
N/A			Location and proposed alteration to any watercourse;
N/A			A delineation of wetlands boundaries prepared by a qualified professional as detailed in Section 8 of the Technical Manual;
N/A			Proposed buffers and preservation measures for wetlands;
N/A			Existing soil conditions and location of test pits and test borings;
✓			Existing vegetation to be preserved, proposed site landscaping, screening and proposed street trees, as applicable;
✓			A stormwater management and drainage plan, in accordance with Section 5 of the Technical Manual;
✓			Grading plan;
N/A			Ground water protection measures;
✓			Existing and proposed sewer mains and connections;

- Continued on next page -

✓		Location of all existing and proposed fire hydrants and a life safety plan in accordance with Section 3 of the Technical Manual;
✓		Location, sizing, and directional flows of all existing and proposed utilities within the project site and on all abutting streets;
✓		Location and dimensions of off-premises public or publicly accessible infrastructure immediately adjacent to the site;
✓		Location and size of all on site solid waste receptacles, including on site storage containers for recyclable materials for any commercial or industrial property;
✓		Plans showing the location, ground floor area, floor plans and grade elevations for all buildings;
		A shadow analysis as described in Section 11 of the Technical Manual, if applicable;
N/A		A note on the plan identifying the Historic Preservation designation and a copy of the Application for Certificate of Appropriateness, if applicable, as specified in Section Article IX, the Historic Preservation Ordinance;
T.B.D		Location and dimensions of all existing and proposed HVAC and mechanical equipment and all proposed screening, where applicable;
✓		An exterior lighting plan in accordance with Section 12 of the Technical Manual;
N/A		A signage plan showing the location, dimensions, height and setback of all existing and proposed signs;
N/A		Location, dimensions and ownership of easements, public or private rights of way, both existing and proposed.



**PORTLAND FIRE DEPARTMENT
SITE REVIEW
FIRE DEPARTMENT CHECKLIST**



A separate drawing[s] shall be provided as part of the site plan application for the Portland Fire Department's review.

1. Name, address, telephone number of applicant
- 2.
3. Name address, telephone number of architect
4. Proposed uses of any structures [NFPA and IBC classification]
- 5.
6. Square footage of all structures [total and per story]
7. Elevation of all structures
8. Proposed fire protection of all structures
 - As of September 16, 2010 all new construction of one and two family homes are required to be sprinkled in compliance with NFPA 13D. This is required by City Code. (NFPA 101 2009 ed.)
9. Hydrant locations
10. Water main[s] size and location
11. Access to all structures [min. 2 sides]
12. A code summary shall be included referencing NFPA 1 and all fire department. Technical standards.

Some structures may require Fire flows using annex H of NFPA 1

CITY OF PORTLAND WASTEWATER CAPACITY APPLICATION

Department of Public Services,
55 Portland Street,
Portland, Maine 04101-2991



Bradley Roland, P.E.
Water Resources Division

Date: _____

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

Site Address: 383 COMMERCIAL ST.

Chart Block Lot Number: 042/A/001

Proposed Use: RETAIL/RESIDENTIAL

Previous Use: LUMBER COMPANY/RETAIL

Existing Sanitary Flows: T.B.D. GPD

Existing Process Flows: 0 GPD

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

MAPLE ST.

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: JEAN FRASER Phone: _____

Owner/Developer Name: DEERING PROPERTY DEVELOPMENT, LLC

Owner/Developer Address: 2730 TRANSIT ROAD WEST SENECA, NY 14224

Phone: 413-244-9092

Fax: _____

E-mail: joe.dasco@comcast.com

Engineering Consultant Name: SERAGO TECHNICS, INC.

Engineering Consultant Address: 75 JOHN ROBERTS RD. SO. PORTLAND, ME 04106

Phone: 207-200-2075

Fax: _____

E-mail: cmeek@seragotechnics.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: 12,360 GPD

Peaking Factor/ Peak Times: 12,360 GPD (10/16 HR) X (1 HR/60 MIN) X 6 = 77 GPM

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

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

RETAIL: 45 EMPLOYEES @ 12 GPD = 540 GPD

RESIDENTIAL:

(49) EFFICIENCY/1 BR UNITS @ 120 GPD = 5,880 GPD

(33) 2 BR UNITS @ 180 GPD = 5,940 GPD

TOTAL = 12,360 GPD

4. Please, Submit External Grease Interceptor Calculations.

Total Drainage Fixture Unit (DFU) Values:

T. B. D.

Size of External Grease Interceptor:

Retention Time:

Peaking Factor/ Peak Times:

Note: In determining your restaurant process water flows, and the size of your external grease interceptor, please use The Uniform Plumbing Code. Note: In determining the retention time, sixty (60) minutes is the minimum retention time.

Note: Please submit detailed calculations showing the derivation of your restaurant process water design flows, and please submit detailed calculations showing the derivation of the size of your external grease interceptor, either in the space provided below, or attached, as a separate sheet.

5. Please, Submit Industrial Process Wastewater Flow Calculations

Estimated Industrial Process Wastewater Flows Generated:

N/A GPD

Do you currently hold Federal or State discharge permits?

Yes ☐ No ☐

Is the process wastewater termed categorical under CFR 40?

Yes ☐ No ☐

OSHA Standard Industrial Code (SIC):

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

Peaking Factor/Peak Process Times:

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

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

APPLICATION FEES

The Level III Site Plan application fees were paid prior to this submission in accordance with the Level III application process.

PROJECT DESCRIPTION

The site is located in the City block bordered by Commercial Street (east side), York Street (west side), High Street (south side) and Maple Street (north side). The parcel is fully developed and is the current location of Deering Lumber Company.

The developer proposes to construct a 138,486 gross square foot multi-story, mixed-use building and 149 parking spaces in a surface parking lot. The site is accessed via an existing driveway from Commercial Street. Additional access will be provided from Maple Street and York Street to two levels of a structured parking garage.

Stormwater runoff from the building will be routed to a proposed StormFilter treatment unit located below the parking garage floor slab. Runoff from the parking lot will sheet flow to one of four proposed Filterra units. The Water Quality Volume and any bypass flow will be routed to the City's infrastructure on Maple Street and High Street.

The project will be served by public water, sanitary sewer, natural gas, electrical power, telephone and data services. All of the utilities are currently available within the four public right-of-ways bordering the site.

383 COMMERCIAL STREET
RIGHT, TITLE OR INTEREST

THERE ARE THREE DOCUMENTS ATTACHED. THE PURCHASE AND SALE AGREEMENT – NOTE THERE ARE (3) PAGE 10 DOCUMENTS – ONE SIGNED BY THE SELLER, ONE BY THE BUYER, AND ONE BY THE ESCROW AGENT.

THE SECOND DOCUMENT, A LETTER FOM REGER HOLDINGS, LLC, ASSURES THAT GORDON REGER IS THE MAJORITY SHAREHOLDER AND MANAGING MEMBER OF BOTH REGER HOLDINGS AND DEERING PROPERTY DEVELOPMENT, LLC.

THE THIRD DOCUMENT IS THE LLC AGREEMENT OF DEERING PROPERTY DEVELOPMENT LLC, SIGNED BY GORDON REGER, ITS SOLE MEMBER.

PURCHASE AND SALE AGREEMENT

This Purchase and Sale Agreement ("Agreement") is made and entered into as of this 6th day of July 2016 (the "Effective Date"), by and between Milliken Smith Block, LLC, a Maine limited liability company with a mailing address of c/o William M. Moody Jr., 5 High Street, Yarmouth, ME., 04096 ("Seller") and Deering Property Development LLC, a Maine limited liability company with a mailing address of 2730 Transit Road, West Seneca, New York 14224 Attn: Gordon Reger ("Buyer").

In consideration of the mutual covenants and promises hereinafter set forth, Seller and Buyer agree as follows:

1. PREMISES. Seller agrees to sell and Buyer agrees to purchase, on the terms and conditions contained in this Agreement, the approximately 110,000 square foot parcel of land located at or near 383 Commercial Street in Portland, Cumberland County, Maine, and bounded by Commercial Street, High Street, York Street, and Maple Street, and all other improvements remaining thereon on the date of Closing and all rights and easements appurtenant thereto (together, the "Premises"). The Premises is approximately depicted on Exhibit A attached hereto and shown on Tax Map 42, Block A as Lot 1. The Premises does not include the building currently occupied by the Charter School and related land located on the northwest corner of the block described above and depicted on Tax Map 42, Block A as Lot 7, and the related 15-foot wide passageway depicted on Tax Map 42, Block A as Lot 8 (together, the "Charter School Property"). The Premises does not include the lumber business currently operated on the Premises by Rufus Deering Lumber Company ("RDC") pursuant to a lease by and between Seller and RDC (the "RDC Lease").

2. PURCHASE PRICE Subject to any adjustments and prorations hereinafter described, the purchase price for the Premises shall be [REDACTED] per square foot of land area in the Premises, which would be [REDACTED] based on the estimated land area of 110,000 square feet, to be paid by immediately-available funds at the Closing. The actual purchase price paid by Buyer at Closing shall be calculated using the foregoing price per square foot and the actual land area of the Premises as determined according to an ALTA/NSPS survey of the Premises performed by a reputable surveyor, which Buyer agrees to obtain at Buyer's expense.

Handwritten signature/initials
7-6-16

Promptly upon full execution of this Agreement, Buyer shall deliver to Malone Commercial ("Escrow Agent"), an earnest money deposit (the "Deposit") [REDACTED] as security for Buyer's performance under this Agreement. The Deposit shall be held in escrow by Escrow Agent pursuant to this Agreement. Upon the expiration of the initial 60-day Inspection Contingency Period, unless Buyer has terminated this Agreement, the Deposit shall become non-refundable.

If Buyer has not terminated this Agreement by the expiration of the Inspection Contingency Period and not terminated this agreement pursuant to Buyer's Approvals Contingency in Paragraph 6 below, Buyer shall make the following monthly payments, all of which payments shall be nonrefundable (except in the event of a Seller default) and included in the definition of Deposit:

(a) Beginning on or before ninety (90) days from the Effective Date and continuing on or before the first day of each month until December 1, 2016, Buyer shall deliver to Escrow Agent [REDACTED] per month, prorated for any portion of a month.

(b) Beginning January 1, 2017, and continuing on or before the first day of each month until June 1, 2017, Buyer shall deliver to Escrow Agent [REDACTED] per month, prorated for any portion of a month.

(c) Beginning July 1, 2017, and continuing on or before the first day of each month until the Approvals Contingency Period Expiration, Buyer shall deliver to Escrow Agent [REDACTED] per month, prorated for any portion of a month.

Buyer shall not be in default of this Agreement for failure to make any of the Deposit payments above unless and until Buyer fails to make such payment within seven (7) days of when due. All of the Deposit shall be credited towards the purchase price at the Closing or otherwise disbursed in accordance with this Agreement.

3. TITLE. Seller shall convey the Premises to Buyer at the Closing in fee simple, subject to the Permitted Encumbrances (as defined below), but free and clear of all liens, except for liens for real estate taxes not yet due and payable. Seller may, at the time of delivery of the deed, use the purchase proceeds or any portion thereof to clear the title of liens and encumbrances that are not Permitted Encumbrances, including without limitation consideration for the early termination of the RDC lease, provided that all instruments so procured are delivered simultaneously with the delivery of the deed.

Within sixty (60) days of the Effective Date (the "Title Review Period"), Buyer shall notify Seller in

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writing (the "Title Objection Notice") of matters of record at the Cumberland County Registry of Deeds adversely affecting title to the Premises that are objectionable to Buyer in Buyer's sole discretion ("Title Defects"). Buyer shall be deemed to have waived the right to object to any matter affecting title as of the Effective Date, excluding any mortgage, tax lien, mechanics' lien, judgment lien, or other liens encumbering the Premises (for which no title objection is required), if Buyer fails to specifically identify such matters in the Title Objection Notice (each matter not objected to being a "Permitted Encumbrance"). The RDC Lease shall not be a Permitted Encumbrance. Seller shall use good faith efforts to cure such Title Defects and shall have a period of not more than sixty (60) days after Seller's receipt of the Title Objection Notice within which to cure any such Title Defects (the "Title Cure Period"). Seller agrees that after the Effective Date, it shall not permit or suffer encumbrance of the Premises with any liens, easements, leases, or other encumbrances. On or before the Closing, Seller shall remove at its sole cost any matters affecting the title to the Premises suffered or created by or consented to by Seller, whether voluntarily or involuntarily, after the Effective Date that are not approved in writing by Buyer. If Seller fails to cure any Title Defects within the Title Cure Period, then Buyer shall elect, by written notice to Seller on or before ten (10) days from the expiration of the Title Cure Period, either (i) to accept title to the Premises subject to such uncured Title Defects without reduction of the purchase price and without any liability on the part of Seller therefor, in which case such Title Defects shall be Permitted Encumbrances, or (ii) to terminate this Agreement, whereupon the Deposit immediately shall be returned to Buyer and neither party shall have any further obligations under this Agreement, except for provisions that expressly survive termination. In the event that Buyer does not timely elect either option (i) or (ii) above, Buyer shall be deemed to have elected option (i).

4. BUYER'S INSPECTION AND INVESTIGATIONS CONTINGENCY. Buyer or its agents may enter onto the Premises at any time after the date of this Agreement until the Closing, subject to compliance with the conditions below in this paragraph 4, in order to conduct surveys, engineering studies, soil studies, and such other investigations of the Premises as Buyer elects. Following the exercise of any of Buyer's inspection rights hereunder, Buyer promptly shall use reasonable efforts to restore any portion of the Premises disturbed to its condition prior to disturbance. Buyer shall indemnify and hold Seller harmless for all claims, damages, causes of action, judgments, penalties, fines, costs and expenses, including without limitation attorneys', paralegals' and expert witnesses' fees and court costs, incurred by Seller in connection with the exercise by Buyer or its employees, agents, or contractors, of the investigation and inspection rights contained in this paragraph except for pre-existing conditions and matters

AK 1-6-16

resulting from Seller's negligence, which indemnity shall survive the Closing or any termination of this Agreement. Buyer also intends to investigate the zoning and other land use restrictions on the Premises, which investigations may include discussions with City of Portland officials, and investigate the feasibility of development of the Premises. In the event that Buyer is not satisfied with any of Buyer's inspections or other investigations of the Premises or the potential development of the Premises, in Buyer's sole discretion, Buyer shall so notify Seller in writing (which notice does not have to set forth the reasons for termination) within sixty (60) days from the Effective Date (the "Inspection Contingency Period"), whereupon this Agreement shall automatically terminate, and the Deposit promptly shall be returned to Buyer, and thereafter, neither party shall have any further obligations under this Agreement, except for indemnities and other provisions that expressly survive termination. In the event that Buyer does not terminate this Agreement by the expiration of the Inspection Contingency Period, Buyer shall be deemed to have waived the foregoing inspection contingency. In the event that Buyer terminates this Agreement pursuant to this Section 4, Buyer shall deliver to Seller simultaneously with such termination notice copies of all reports, studies, plans, surveys, title insurance commitments, and other matters prepared by or for Buyer in connection with its inspections and investigations.

Buyer shall coordinate all due diligence that requires physical inspection or investigation on the Premises with Seller and have such on-site work performed when RDC is not open to the public and only after Seller approves by email the scope, time, and manner of any physical inspection or investigation on the Property, such approval not to be unreasonably withheld, conditioned, or delayed. All of Buyer's due diligence reports relating to the Premises will be owned by Buyer. Buyer shall have such reports certified to Seller, or provide Seller with a reliance letter from the consultant producing such reports, and deliver copies of such reports to Seller, all to the end that Seller may rely on such reports in the event that Buyer does not proceed with the purchase of the Premises. Seller shall not use or disclose the contents of any such report unless the Agreement is terminated or the Closing otherwise fails to occur. Buyer shall obtain from those due diligence consultants conducting on-site investigations confidentiality agreements reasonably satisfactory to Seller, for the benefit of Seller and RDC, the parties acknowledging that RDC's business could be adversely impacted if the potential sale of the Premises became known to RDC's employees or the public.

5. SELLER DELIVERABLES. Within five (5) days of the Effective Date, Seller shall deliver to Buyer the following: (i) a copy of any surveys and plans of the Premises; (ii) any Phase I or Phase II Environmental

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Site Assessments; (iii) copies of any soils engineering reports, all to the extent such items are in Seller's possession or control that are in effect on the date of this Agreement (together, the "Seller Deliverables"). For purposes of this paragraph, "control" means in the possession of a person who Seller has contractually engaged to provide services to Seller. Buyer acknowledges and agrees that (a) the Seller Deliverables are being provided by Seller to Buyer as a courtesy, and therefore, Seller makes no representation or warranty regarding the accuracy and/or completeness of the Seller Deliverables, and (b) Buyer and any person to whom Buyer provides the Seller Deliverables shall rely on the same at their own risk.

Buyer agrees, acknowledges and represents that except as specifically set forth in this Agreement, Buyer is entering into this Agreement and shall perform all of its obligations hereunder and consummate the transaction contemplated by this Agreement solely in reliance on and as a result of Buyer's own investigations and efforts (including Buyer's inspection of the Premises and such other investigations, examinations and inspections as Buyer has chosen to make or has made) and at Buyer's sole risk, cost and expense, including, without limitation, the risk that Buyer's inspection of the Premises and such other investigations, examinations and inspections may not reveal any or all adverse or existing conditions, aspects or attributes of the Premises. Buyer acknowledges that Seller has afforded, and, during the Inspection Contingency Period, shall afford, Buyer the opportunity for full and complete investigation, examination and inspection of the Land. Buyer acknowledges that this paragraph was a negotiated part of this Agreement and serves as an essential component of consideration for the same. Without limiting the generality of the foregoing, the parties specifically acknowledge that Buyer has had, and, during the Inspection Contingency Period shall have, an opportunity to fully inspect the Premises, including, but not limited to, the physical condition of the Premises (including all environmental concerns), and the purchase price has been negotiated to eliminate all claims except those arising under representations, warranties or agreements contained in this Agreement, whether known or unknown, relating to the condition of the Premises as of the date of this Agreement and all aspects and attributes thereof, including, without limitation, all environmental matters. Buyer acknowledges and agrees that Seller has made and shall make no representation or warranty with respect to the Premises, except as expressly set forth in this Agreement. The Premises shall be sold and conveyed "AS IS, WHERE IS" without representation or warranty of any kind except as otherwise explicitly set forth herein.

6. BUYER APPROVALS CONTINGENCY. Buyer's obligation to close on the purchase of the

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Premises shall be conditioned upon Buyer's receipt of all necessary, final and unappealable, land-use approvals (the "Approvals") for Buyer's intended development of the Premises (the "Development") by June 30, 2017. Buyer shall notify Seller of the Approvals required for the Development by August 30, 2016, which notification shall include Buyer's estimate of the milestone dates to obtain the Approvals. In the event that Buyer is unable to obtain the Approvals by June 30, 2017, Buyer's approvals contingency deadline automatically shall be extended to November 1, 2017, provided that Buyer continues to make good faith effort to obtain the Approvals. In the event that Buyer is unable to obtain the Approvals (or Buyer's earlier determines in its sole discretion that the Approvals are unlikely to be obtained) by June 30, 2017, or November 1, 2017, if the Approvals deadline is extended as provided above (as such date is determined, the "Approvals Contingency Expiration"), Buyer shall so notify Seller in writing on or before the Approvals Contingency Expiration whereupon this Agreement shall automatically terminate, and the Deposit shall be delivered by Escrow Agent to Seller and thereafter neither party shall have any further obligations under this Agreement, except for indemnities and other provisions that expressly survive termination. Seller agrees to cooperate with Buyer in applying for and seeking any Approvals, such cooperation to include joining as the land owner in any applications for Approvals, provided that Seller shall not be obligated to incur any material out-of-pocket expense to provide such cooperation.

7. CLOSING; DEED. The closing shall take place on the business day that is closest to sixty (60) days from the Approvals Contingency Expiration at 10:00 a.m., at the offices of Bernstein Shur, 100 Middle Street, Portland, Maine, or at such other time and place as Seller and Buyer may mutually agree upon in writing (as determined, the "Closing"). At the Closing, Seller shall execute and deliver to Buyer, or Buyer's nominee, against payment of the balance of the purchase price, a Quitclaim Deed with Covenant for the Premises in accordance with the Short Form Deeds Act, 33 M.R.S.A. 761 et seq. (the "Deed"). Seller also shall execute and deliver to Buyer at the Closing the following: a customary and reasonable title insurance Seller's Affidavit regarding persons in possession and mechanics' liens; a 1099-S data form, a FIRPTA affidavit; REW-3; W-9 form; an underground storage tank affidavit to comply with 38 M.R.S.A. § 563(6); evidence of Seller's existence and authority to satisfy the customary seller authority requirements for issuance of an owner's title insurance policy; a real estate transfer tax declaration of value form; and a settlement statement.

8. REPRESENTATIONS.

- (a) Except as actually known to Buyer prior to Closing as a result of Buyer's investigations of the

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Land, Seller represents and warrants to Buyer as follows, which representations and warranties, and the restatement thereof at Closing, shall survive Closing for a period of one (1) year:

(i) Seller has the legal right, power and authority to enter into this Agreement and to perform all of its obligations hereunder, and the execution and delivery of this Agreement and the performance by Seller of its obligations hereunder will not conflict with, or result in breach of any regulation, order, judgment, injunction or decree of any court or governmental authority or any agreement or instrument to which Seller is a party or by which it is bound.

(ii) There are no tenancies, occupancies or licenses affecting the Premises, except for the RDC Lease.

(b) Buyer has the legal right, power and authority to enter into this Agreement and to perform all of its obligations hereunder, and the execution and delivery of this Agreement and the performance by Buyer of its obligations hereunder will not conflict with, or result in breach of any regulation, order, judgment, injunction or decree of any court or governmental authority or any agreement or instrument to which Buyer is a party or by which it is bound.

9. AFFIRMATIVE COVENANTS OF SELLER. Seller agrees, pending closing, that:

(a) Seller shall pay, when due, all taxes and assessments of every type or nature levied or assessed against the Premises and any valid lien against the Premises.

(b) Seller (i) shall not commit or suffer waste and (ii) shall materially comply with all laws, ordinances, regulations, covenants, conditions and restrictions affecting the Premises and will not suffer or permit any material violation thereof.

10. ADJUSTMENTS, PRORATIONS AND CLOSING COSTS.

(a) Real estate taxes and municipal assessments shall be prorated as of the Closing on the basis of the latest available tax bill.

(b) The Maine real estate transfer tax shall be paid equally by Seller and Buyer in accordance with 36 M.R.S.A. Section 4641-A.

(c) The recording fee for the deed of conveyance and any expenses related to any financing for Buyer in connection with the purchase of the Premises shall be paid by Buyer.

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(d) A portion of the purchase price shall be withheld at the Closing by Buyer if required by 36 M.R.S.A. § 5250-A.

11. POSSESSION. Seller shall deliver possession of the Premises to Buyer at the Closing, free of all leases, tenancies or occupancies, including without limitation the RDC Lease. Seller or RDC may remove from the Premises any and all equipment, fixtures and improvements provide that no debris or waste therefrom remains on the Premises and none of RDC's hazardous, toxic, or special materials inventory or wastes remain on the Premises. RDC shall have the right to occupy the Premises for the operation of its business until the Closing.

12. DEFAULT; REMEDIES. In the event that Buyer fails to close hereunder for a reason other than the default of Seller, Seller may terminate this Agreement by written notice to Buyer and thereupon Seller shall be entitled to the Deposit as Seller's sole and exclusive remedy for Buyer's breach, and Escrow Agent shall be authorized to disburse the Deposit to Seller. Seller and Buyer acknowledge and agree that the damages for Buyer's breach of this Agreement are difficult to calculate and that the Deposit is a reasonable estimate of such damages. In the event that Seller breaches this Agreement for a reason other than the default of Buyer, Buyer shall be entitled to either (i) terminate this Agreement by written notice to the Seller, in which case Buyer shall be entitled to a return of the Deposit and Escrow Agent shall be authorized to disburse the Deposit to Buyer or (ii) pursue the remedy of specific performance. In the event of litigation regarding breach of this Agreement by either party, the party who obtains a final, un-appealable judgment in its favor shall be entitled to collect its reasonable attorneys' and paralegals' fees and court costs from the other party.

13. BROKERAGE/ESCROW AGENT. Seller and Buyer each represent to the other that they have not dealt or had contact with any broker in connection with this transaction other than Malone Commercial. Seller shall pay Malone Commercial a commission equal to two and one-half percent (2.5%) of the purchase price at the Closing, and Buyer shall pay Malone Commercial a commission equal to one percent (1.0%) of the purchase price at the Closing.

14. MISCELLANEOUS.

(a) Time. Time is of the essence hereof.

(b) Notices. Except as expressly provided to the contrary in this Agreement, all notices,

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demands and other communications hereunder shall be in writing and shall be given by electronic mail: if to Seller:

William Moody (billmoody222@gmail.com) and Mike Pearce (mpearce@pearcedow.com), and if to Buyer: Gordon Reger (greger@regerholdings.com) and Tom Hanson (thanson@bssn.com), with a copy of such notice to Seller or Buyer at their addresses set forth in the preamble to this Agreement sent by certified mail, return receipt requested. Notices and communications of any kind shall never be sent to Bill Moody or anyone else at RDC or care of the RDC address. All notices shall be deemed to have been duly given if the electronic mail time stamp is prior to the expiration date and time specified herein. Attorneys are authorized to give notices on behalf of their clients. Either party may change the notice electronic mail addresses and certified mail notice addresses for purposes of this subparagraph by giving the other party notice of the new address in the manner described herein.

(c) Assignment. Buyer's rights under this Agreement may not be assigned without Seller's prior written approval, which approval shall be conditioned on Seller being satisfied that Buyer's assignee has in Seller's opinion the financial ability to acquire the Premises; notwithstanding the foregoing, Buyer may assign this Agreement to any entity of which Reger Holdings, LLC or Gordon Reger or his family or some combination thereof are the controlling principals without Seller consent, but with notice to the Seller. Buyer shall remain liable under this Agreement notwithstanding any such assignment. This Agreement will inure to the benefit of and bind the respective successors and assigns of Seller and Buyer.

(d) 1031 Exchange. Seller may elect to perform an IRC §1031 tax deferred exchange. Buyer agrees to cooperate in such an exchange and to sign the documents customarily used in such an exchange, provided that such documents do not modify the terms and conditions of this Agreement or impose additional liabilities or obligations on Buyer.

(e) Entire Agreement. This Agreement constitutes the entire agreement between Seller and Buyer with respect to the sale of the Premises, and there are no representations, warranties, agreements or understandings between the parties except as set forth herein.

(f) Construction. This Agreement shall be governed by and construed in accordance with the laws of Maine, without taking into account choice of law principles. If any provision of this Agreement is determined to be invalid or unenforceable, it shall not affect the validity or enforcement of the remaining provisions hereof.

(g) Confidentiality. Seller, Buyer and Escrow Agent agree not to disclose the terms, conditions or existence of this Agreement to any persons except lawyers, accountants, financial advisors, lenders,

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K-6-16

appraisers, and consultants to the parties. The terms and conditions of a certain Confidentiality Agreement by and between Seller, RDC, Reger Holdings, LLC and Gordon Reger dated May 27, 2016 (the "CA"), are incorporated by reference. It shall not be a breach of this provision or the CA for Seller or its consultants to discuss the development of the Premises with City of Portland officials or to submit applications for Approvals to the City of Portland pursuant to Buyer's Approvals Contingency.

(h) Counterpart Execution. This Agreement may be executed in one or more counterpart signatures, and together the signed counterparts shall be deemed to be a fully-executed contract.

IN WITNESS WHEREOF, Seller and Buyer have executed this Agreement as of the date first above written.

WITNESS:

Seller: Milliken Smith Bock, LLC

By: _____

William Moody
Its duly-authorized Manager

Buyer: Deering Property Development LLC

By: _____

Gordon Reger
Its duly-authorized Manager

Malone Commercial Brokers as Escrow Agent

By: _____

Joseph Malone

Edith M. Bluhm

appraisers, and consultants to the parties. The terms and conditions of a certain Confidentiality Agreement by and between Seller, RDC, Reger Holdings, LLC and Gordon Reger dated May 27, 2016 (the "CA"), are incorporated by reference. It shall not be a breach of this provision or the CA for Seller or its consultants to discuss the development of the Premises with City of Portland officials or to submit applications for Approvals to the City of Portland pursuant to Buyer's Approvals Contingency.

(b) Counterpart Execution. This Agreement may be executed in one or more counterpart signatures, and together the signed counterparts shall be deemed to be a fully-executed contract.

IN WITNESS WHEREOF, Seller and Buyer have executed this Agreement as of the date first above written.

WITNESS:

Seller: Milliken Smith Beck, LLC

K. Moody

By:

William H. Moody
William Moody
Its duly-authorized Manager

Buyer: Deering Property Development LLC

By:

Gordon Reger
Gordon Reger
Its duly-authorized Manager

Malone Commercial Brokers as Escrow Agent

By:

Joseph Malone
Joseph Malone

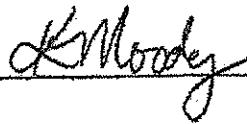
appraisers, and consultants to the parties. The terms and conditions of a certain Confidentiality Agreement by and between Seller, RDC, Reger Holdings, LLC and Gordon Reger dated May 27, 2016 (the "CA"), are incorporated by reference. It shall not be a breach of this provision or the CA for Seller or its consultants to discuss the development of the Premises with City of Portland officials or to submit applications for Approvals to the City of Portland pursuant to Buyer's Approvals Contingency.

(b) Counterpart Execution. This Agreement may be executed in one or more counterpart signatures, and together the signed counterparts shall be deemed to be a fully-executed contract.

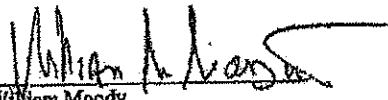
IN WITNESS WHEREOF, Seller and Buyer have executed this Agreement as of the date first above written.

WITNESS:

Seller: ~~Milliken~~ Smith Rock, LLC



By:


William Moody
Its duly-authorized Manager

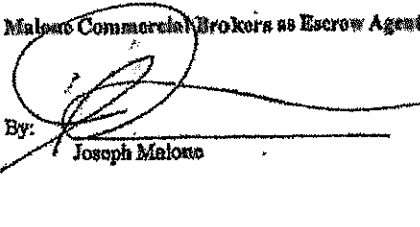
Buyer: Dearing Property Development LLC

By:

Gordon Reger
Its duly-authorized Manager

Malone Commercial Brokers as Escrow Agent

By:


Joseph Malone

Reger Holdings, LLC hereby joins this Agreement, jointly and severally with Buyer, with respect to Buyer's obligations under this Agreement.

Reger Holdings, LLC

Abel M. Buchan

By:

Gordon Reger

Gordon Reger
Its duly-authorized Manager



HOLDINGS, LLC
2730 TRANSIT ROAD
WEST SENECA, NY 14224

PHONE: (716) 675-1200

www.REGERHOLDINGS.COM FAX: (716) 674-2947

SENT VIA EMAIL

March 13, 2017

To whom it may concern:

We are writing to help confirm the relationships between Gordon Reger, Reger Holdings, LLC, and Deering Property Development, LLC. Reger Holdings and our affiliated companies typically form a new LLC for each specific project we acquire which is the case with Deering Property Development LLC that was formed for the Commercial Street project. Gordon Reger is the majority shareholder and managing member of both Reger Holdings and Deering Property Development LLC. Therefore, Gordon Reger is the individual legally associated with and responsible for funding both of these entities.

The letter confirming financial capacity references Reger Holdings given that it is the portfolio company that is the main operating company for which Gordon Reger runs the day to day real estate investment and development operations. However, we believe the letter is intended to indirectly confirm the broader capacity of Gordon Reger as the individual with the financial capacity given the business dealings referenced in the letter have spanned across several companies affiliated directly with Reger Holdings and Gordon Reger all of which he has been the majority shareholder and managing member. We would be happy to request any clarification to the letter that may be necessary.

Should you need any additional information please feel free to contact me.

Regards,

A handwritten signature in cursive script, appearing to read "Joseph Armenia".

Joseph Armenia
Chief Financial Officer

**LIMITED LIABILITY COMPANY AGREEMENT
OF
DEERING PROPERTY DEVELOPMENT LLC**

Dated as of June 30, 2016

In accordance with the Maine Limited Liability Company Act, 31 M.R.S.A. §1501 *et seq.* (the "Act"), this Limited Liability Company Agreement (this "Agreement") of the Maine limited liability company known as "Deering Property Development LLC" (the "Company"), is entered into as of the above date by Reger Holdings, LLC (the "Sole Member") and the Company.

**ARTICLE 1
Formation; Business Purpose**

1.1 Formation. The Company shall be formed upon the execution of this Agreement and the filing of a Certificate of Formation of the Company with the Secretary of State of the State of Maine.

1.2 Purpose. The Company is formed for the purpose of ownership, development, leasing, and management of real estate and any other business permitted under Maine law and approved by the Sole Member (the "Business"). The Company, acting through its Manager, shall have all authority and powers necessary or convenient to carry out the Business and to take such further actions as may be permitted by the laws of the State of Maine. The Company's principal business location shall be in Portland, Maine or such other location as the Sole Member shall select from time to time.

**ARTICLE 2
Members**

2.1 Members. The Sole Member shall be the only initial Member of the Company. No additional Members may be admitted without the written consent of the Sole Member. Each additional Member, as a condition to admission to the Company, shall enter into this Agreement, as it may be amended.

2.2 Meetings. The Sole Member may, but is not required to, hold formal meetings for the purpose of transacting business.

2.3 Action by the Sole Member Without a Meeting. Whenever the Sole Member is required or permitted to take any action by vote, such action may be taken without a meeting, prior notice or a vote if a written consent or consents setting forth the action so taken shall be signed by the Sole Member. For purposes of this Section 2.3, "written" includes a communication that is transmitted and/or received by electronic means, including but not limited to by electronic mail, and "signed" includes an electronic signature as defined in the Maine Uniform Electronic Transactions Act, 10 M.R.S.A. § 9401 *et seq.*

2.4 Outside Activities. The Sole Member may have business interests and engage in business activities in addition to those relating to the Company, including business interests and activities which compete with the Company, and shall have no duty or obligation to bring any "corporate opportunity" to the Company. The Company shall not have any rights by virtue of this Agreement in any business interests or activities of the Sole Member.

ARTICLE 3

Membership Interest; Capital Contribution

The Sole Member has made the initial contribution to the capital of the Company ("Capital Contribution") giving rise to his capital account representing the Sole Member's contribution to the Company as adjusted from time to time ("Capital Account") and is deemed to own the equity interest of the Company ("Membership Interest") all as set forth on *Schedule A* hereto. The Sole Member shall not be obligated to make any additional contribution to the Company.

ARTICLE 4

Liability; Loans

4.1 Liability. The Sole Member shall not have any liability for the debts and obligations of the Company.

4.2 Loans. The Sole Member may make loans to the Company on such terms as the Manager shall determine.

ARTICLE 5

Allocations; Distributions; Capital Account

5.1 Allocations. All net profits, net losses, tax items and distributions of cash or other property from the Company shall be allocated or distributed entirely to the Sole Member.

5.2 Distributions from Operations of the Company. Subject to any limitations imposed by the Act, the Manager shall make distributions to the Sole Member at such time and in such manner as the Manager may reasonably determine, taking into account the Company's working capital needs.

5.3 Capital Account. The Company shall maintain the Sole Member's Capital Account in accordance with Section 704(b) of the Internal Revenue Code of 1986, as amended, and the Treasury Regulations promulgated thereunder.

ARTICLE 6

Management

6.1 Authority. The Company shall be managed by one (1) Manager appointed by the Sole Member. The Manager shall be vested with the exclusive power and authority to manage the Company's Business. The Manager shall serve at the pleasure of the Sole Member and may

be removed and replaced by the Sole Member at any time without prior notice. Initially, the Sole Member shall serve as the Manager.

6.2 Powers. Without limitation, the Manager is authorized to purchase, sell, mortgage, lease and dispose of real, personal and intangible property, appoint officers, hire employees, contract with third parties, including affiliates, borrow money and pledge the assets of the Company.

6.3 Action by the Manager Without Meeting. The Manager may act by written consent in lieu of a formal meeting, provided that one or more written consents approving the action taken or to be taken, at any time before or after the intended effective date of such action, are signed by the Manager and included in the records of the Company. For purposes of this Section 6.3, "written" includes a communication that is transmitted and/or received by electronic means, including but not limited to by electronic mail, and "signed" includes an electronic signature as defined in the Maine Uniform Electronic Transactions Act, 10 M.R.S.A. § 9401 *et seq.*

ARTICLE 7

Term; Dissolution

7.1 Term. The Company shall exist perpetually until dissolved by consent of the Sole Member or as otherwise provided under Maine law.

7.2 Dissolution. Upon the Company's dissolution, the Manager shall take all necessary actions to wind up the Company's affairs and shall make all appropriate filings with the Secretary of State of the State of Maine. The Company's existence continues until completion of the winding up of the Company's affairs, or until a decree dissolving the Company has been entered by a court of competent jurisdiction.

ARTICLE 8

Dissociation; Successors

Upon the occurrence of any of the events specified in §1582 of the Act (including, without limitation, the death, adjudication of incompetency, bankruptcy or insolvency, dissolution or voluntary or involuntary dissociation of a Member), the dissociating Member's heirs, successors and assigns shall be entitled to all of the rights and benefits represented by such dissociating Member's Membership Interest, including the right to name a substitute Member in place of the dissociating Member. The dissociation of a Member shall not cause the dissolution of the Company.

ARTICLE 9

Charging Order

Notwithstanding anything to the contrary contained herein, a creditor of the Sole Member, notwithstanding any judgment received in the creditor's favor with respect to any interest in the Company, shall not acquire any rights of the Sole Member or have the ability to be involved in

the management of the Company or have the right to cause the dissolution and/or liquidation of the Company. The rights of such judgment creditor shall be expressly limited to the right to receive distributions, if any, made to the Sole Member in accordance with this Agreement, up to the amount of the judgment against the Sole Member.

ARTICLE 10

Indemnification

The doing of any act or the failure to do any act by a Manager or a Member, the effect which may cause or result in loss or damage to the Company or its property, shall not subject the Manager or Member to any personal liability to the Company or the other Members, unless the Manager's or Member's acts or omissions constituted bad faith, gross negligence, willful misconduct, fraud or, in the case of a Manager, a material violation of this Agreement. The Company shall indemnify the Manager(s) and Member(s) and make advances for expenses incurred in defense of claims of liability to the maximum extent permitted by law. The Company shall indemnify its employees and agents who are not Managers or Members to the fullest extent permitted by law provided that such indemnification is first approved by the Manager. The right to indemnification under this Agreement shall be fully vested with respect to any matter. No amendment to this Agreement shall have any retroactive effect except to enhance such right for the benefit of the indemnitee.

ARTICLE 11

Miscellaneous

11.1 Registered Agent and Office. The Company shall have the registered agent and office determined from time to time by the Manager and as reported on filings made with the Secretary of State of the State of Maine as required by the Act.

11.2 Ratification. All actions taken on behalf of the Company by the Organizer identified in the Certificate of Formation up to and including the date hereof are hereby ratified and confirmed.

11.3 Accounting Period and Methods. The Company's accounting period shall be the calendar year. The Company shall use such accounting methods as the Manager deems most advantageous.

11.4 Records. The Company shall maintain complete and accurate books and records of the Company's affairs. At a minimum, the Company shall maintain copies of its Certificate of Formation and Limited Liability Company Agreement, with all amendments, current and past lists of all members and their addresses, tax returns and financial statements for the past six (6) years, consents or minutes of all meetings of the Members and all documents relative to any Member's obligation to contribute cash, property or services.

11.5 Governing Law; Binding Effect. This Agreement shall be governed by and construed in accordance with Maine law. This Agreement is binding upon and inures to the benefit of the parties' heirs, successors and assigns.

11.6 Amendments. This Agreement, the Company's Certificate of Formation and any Statement of Authority of the Company on file with the Secretary of State of the State of Maine may be amended only by written consent of the Sole Member.

Executed by:

Sole Member:
Reger Holdings, LLC

By: 
Gordon Reger, its Manager

Company:

Deering Property Development LLC
By: Reger Holdings, LLC, its Manager

By: 
Gordon Reger, its Manager

Schedule A

DEERING PROPERTY DEVELOPMENT LLC

MEMBERS

As of June 30, 2016

Member's Name and Address	Capital Contribution	Membership Interest
Reger Holdings, LLC 2730 Transit Road West Seneca, New York 14224	\$100.00	100%

STATE/FEDERAL APPROVALS

A State of Maine Chapter 500 Stormwater and Traffic Movement permits are required for this project. These permits will be reviewed by the City under delegated review authority.

There are no federal permits required.

SITE PLAN APPLICATION
383 COMMERCIAL STREET
WRITTEN SUBMISSION S2 – ZONING ASSESSMENT

THE PROJECT IS LOCATED WITHIN THE B5b ZONING DISTRICT , AND CONFORMS TO THE PURPOSE OF THE DISTRICT – TO REDEVELOP UNDERDEVELOPED LOTS WITH DENSER, MIXED USES THAT RELY ON SHARED INFRASTRUCTURE, INCLUDING SERVICE ALLEYS, PARKING LOTS, PUBLIC TRANSPORTATION FACILITIES, STORMWATER MANAGEMENT, AND DRIVEWAYS.

THE RETAIL, RESIDENTIAL , SURFACE PARKING AND PARKING GARAGE USES ARE ALL PERMITTED USES IN THE B5b DISTRICT.

IN THE B5b DISTRICT THERE ARE NO DIMENSIONAL REQUIREMENTS FOR LOT SIZE, STREET FRONTAGE, LOT COVERAGE NOR MINIMUM YARD SETBACKS. THE PROJECT CONFORMS TO THE REQUIREMENT OF A MAXIMUM FRONT YARD SETBACK OF 10 FEET.

THE AVERAGE FINISH GRADE AT THE BUILDING PERIMETER IS CALCULATED AS FOLLOWS :

ELEV 15.00 CORNER OF COMMERCIAL/ HIGH STREETS

ELEV 30.00 CORNER OF HIGH / YORK STREETS

ELEV 27.00 AT NW BUILDING CORNER/ YORK STREET

ELEV. 11.00 CORNER OF MAPLE / COMMERCIAL STREET

ADDING THE ABOVE = 83 FEET DIVIDED BY FOUR DATA POINTS = 20.75 AVERAGE FINISH GRADE

MAXIMUM BUILDING HEIGHT = $20.75 + 65.00 = 85.75$ FEET

PROPOSED BUILDING HEIGHT = 84.00 FEET

THE PROJECT WILL CONFORM TO ALL OF THE PERFORMANCE STANDARDS IN THE B5b DISTRICT, AS STIPULATED IN ZONING SECTION 14 - 230.5.

ARCHETYPE HAS DESIGNED A BUILDING THAT COMPLIMENTS THE COMMERCIAL STREET CORRIDOR AND ENGAGED IN A REVIEW PROCESS WITH THE HP BOARD. A PUBLIC ACCESS WALKWAY WILL TRAVERSE THE SITE FROM YORK STREET TO COMMERCIAL STREET, LOCATED BETWEEN THE PHASE 1 AND BAXTER ACADEMY BUILDINGS .

WITH RESPECT TO OFF STREET PARKING , 1 SPACE PER 284 UNITS = 284 SPACES. 27,624 SF OF RETAIL AREA IS PROPOSED . THE APPLICANT PROPOSES TO DEDUCT 25 % OF THE GROSS AREA FOR STORAGE , THEREFORE $20,718 \text{ SF} @ 1 \text{ SPACE} / 200 \text{ SF} = 103 \text{ SPACES}$ REQUIRED FOR RETAIL USES. $284 + 103 = 387$ SPACES REQUIRED ; 387 SPACES ARE PROPOSED. REQUIRED BICYCLE PARKING WILL BE PROVIDED IN THE TWO PLAZA SPACES ON COMMERCIAL STREET, AND WITHIN THE STORAGE AREAS ON THE TWO GARAGE LEVELS. TWO OFF STREET LOADING AREAS ARE PROPOSED, ONE ON MAPLE STREET AND ONE AT COMMERCIAL STREET.

EASEMENTS

There are no existing or proposed easement areas associated with this project.

FINANCIAL AND TECHNICAL CAPABILITY

The applicant's financial capability is evidenced by the attached letter from its financing partner. In addition, a letter from Reger Holdings, LLC is provided to clarify the connection between Gordon Reger and Deering Property Development, LLC.

Deering Property Development, LLC has retained Archetype PA as project Architect and Sebago Technics, Inc. as the Landscape Architect/Civil Engineer.

The applicant has demonstrated its technical ability with the successful completion of the Bay House, a mixed use retail/residential project with a parking garage; and Seaport Lofts, a residential project. Both of these are located in the India Street neighborhood.

Archetype PA is an experienced Professional architecture and planning firm located on the Portland waterfront. Their staff, headed by Principal David Lloyd, has extensive design talent and knowledge of building construction requirements.

Sebago Technics, Inc. is providing landscape architecture and civil engineering services for the project. Sebago Technics is the design firm of record for the Bay House, Seaport Lofts, Maine Medical Center, Whole Foods, and several additional projects in Portland, including projects for the City.



December 22, 2016

Mrs. Barbara Barhydt
Portland Planning Staff
Portland City Hall
389 Congress Street
Portland, ME 04101

RE: Commercial Street in Portland

Dear Mrs. Barhydt:

I'm writing regarding the future development of Commercial Street in Portland being proposed by Reger Holdings. Our firm NGKF and my prior firm has acted as a financing intermediary for Reger Holdings for the past 15 years on numerous projects from condominiums to industrial. In the last 3 years alone, we arranged the financing for over \$100 million of development in Maine, Massachusetts and South Carolina. One example locally was the Bay House Condominiums in Downtown Portland; a \$20 million dollar construction loan arranged with a Boston Bank that had a very successful sellout.

NGKF Debt group in Boston has the capacity to finance large development projects thru our long term relationships. We also have access to sources thru our owner BGC Partners (NYSE: BGCP) and our proprietary lending platforms in Canter Commercial and Berkeley Point Capital.

Reger Holdings is a third generation well respected real estate company with numerous holdings and experience. The company is run and spearheaded by Mr. Gordon Reger. Our dealing with him and his firm have always been handled in a first class manner. As a result, we would highly recommend Reger Holdings for the development of Commercial Street.

If I can be of any assistance in your decision, please do not hesitate to give me a call. Thank you.

Regards,

David M. Douvadjian

A handwritten signature in dark ink, appearing to read "David M. Douvadjian", written over the printed name and title.

Head of Mortgage Banking

New England

(617) 863-8388

ddouvadjian@ngkf.com



HOLDINGS, LLC
2730 TRANSIT ROAD
WEST SENECA, NY 14224

PHONE: (716) 675-1200

www.REGERHOLDINGS.COM FAX: (716) 674-2947

SENT VIA EMAIL

March 13, 2017

To whom it may concern:

We are writing to help confirm the relationships between Gordon Reger, Reger Holdings, LLC, and Deering Property Development, LLC. Reger Holdings and our affiliated companies typically form a new LLC for each specific project we acquire which is the case with Deering Property Development LLC that was formed for the Commercial Street project. Gordon Reger is the majority shareholder and managing member of both Reger Holdings and Deering Property Development LLC. Therefore, Gordon Reger is the individual legally associated with and responsible for funding both of these entities.

The letter confirming financial capacity references Reger Holdings given that it is the portfolio company that is the main operating company for which Gordon Reger runs the day to day real estate investment and development operations. However, we believe the letter is intended to indirectly confirm the broader capacity of Gordon Reger as the individual with the financial capacity given the business dealings referenced in the letter have spanned across several companies affiliated directly with Reger Holdings and Gordon Reger all of which he has been the majority shareholder and managing member. We would be happy to request any clarification to the letter that may be necessary.

Should you need any additional information please feel free to contact me.

Regards,

Joseph Armenia
Chief Financial Officer

CONSTRUCTION MANAGEMENT PLAN

The project is anticipated to include an approximate eighteen month construction schedule commencing in the fall of 2017. The anticipated construction schedule is dependent on approval of the final design plans for the project.

SCHEDULE

- | | | |
|----|---|-----------|
| 1. | Estimated construction time | 18 months |
| 2. | Erosion control measures placed | |
| 3. | Site clearing and demolition | |
| 4. | Construction of parking lot sub-base | |
| 5. | Stormwater Management infrastructure installation | |
| 6. | Utility improvements and site construction | |
| 7. | Building Construction | |
| 8. | Landscaping and final pavement of parking areas | |

Schedule is subject to change at the discretion of the architect and construction manager depending on construction progress.

TRAFFIC STUDY

The attached Traffic Impact Study memorandum is provided to address Section 1 of the Technical Manual.

Memorandum

16324

To: Will Conway, RLA, LEED-AP

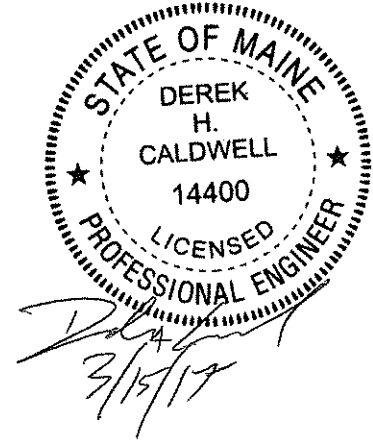
From: Derek Caldwell, P.E.

Date: March 15, 2017

Subject: Traffic Impact Study

Phase 1 Development

383 Commercial Street, Portland



This Traffic Impact Study is intended to be included with the Phase 1 Level III Site Plan Application. This Study has been prepared in accordance with Section 1 of the City of Portland Technical Manual.

After discussions with City of Portland staff, the Study Area will include the following intersections in addition to the project access points:

- Maple Street and Commercial Street
- Maple Street and York Street
- York Street and High Street
- High Street and Commercial Street
- Commercial Street and Park Street

A Traffic Movement Permit Application has also been filed with the City to accompany the Master Plan Application for the future full-build out of the development.

Existing and Proposed Uses

The development area was formerly the site of the Rufus Deering Lumber Company at 383 Commercial Street in Portland, Maine. The company has closed permanently as of December 1, 2016. The site included a two story office structure and four separate enclosed materials storage areas. The site had access via entrance only and exit only drives on Commercial Street approximately 260 feet and 100 feet north of the intersection with High Street, respectively. The site also had a gated driveway onto Maple Street.

The proposed use includes a six story structure to be built in three phases. Phase 1 of this development will include 6,219 square feet of retail space and 82 residential condominium units. Within the first two

floors of the structure there will also be an enclosed parking garage. The first level of parking is proposed to have 43 spaces with access from Maple Street. The second level of parking is proposed to have 41 spaces with access from York Street. The parking levels are not to be connected. The access drives onto Maple Street and York Street built in Phase 1 are to remain and be the sole access points for the future full build development. During Phase 1, 154 surface parking spaces also are proposed to the south of the structure to be built. This parking will be accessed by an existing driveway on Commercial Street. The remaining two curb cuts on Commercial Street will be closed.

Proposed Development Entrances and Exits

Access to Phase 1 of development is proposed by three separate entrances.

One drive will provide access to Maple Street at a point approximately 110 feet northwest of the intersection with Commercial Street. This entrance will provide direct access to the first level of the parking garage. This entrance is proposed to be 28 feet wide to include one 13 foot ingress lane, one 13 foot egress lane, and a 1 foot curb offset on both sides. The drive is to be constructed of concrete.

The other drive will provide access to York Street at a point approximately 475 feet north of the intersection with High Street. This entrance will provide direct access to the second level of the parking garage. This entrance is proposed to be 28 feet wide to include one 13 foot ingress lane, one 13 foot egress lane, and a 1 foot curb offset on both sides. The drive is to be constructed of concrete.

During phase one, prior to full build out of the parking garage, access to at grade parking will be provided by one of the existing drives onto Commercial Street. The remaining existing drives will be closed. This existing drive is approximately 25 feet wide. Commercial Street at this location is approximately 90 feet wide with on-street angled parking present on both sides of the roadway.

Maple Street is a functionally classified local two-way roadway oriented in a northwesterly/southeasterly direction. The roadway is 35 feet wide and contains no pavement markings. There is brick sidewalk present on both sides of the roadway. The posted speed limit is 25 miles per hour. On-street parking and brick sidewalks are currently permitted on both sides of the roadway. The segment on which the entrance is proposed is approximately 275 feet in length between Commercial Street and York Street. Both ends of this segment have stop control at each respective intersection. Due to this short segment length, sight distance of the drive will be limited to each adjacent intersection. Sight distance is measured to be to the intersection with Commercial Street when looking to the right from the proposed access drive, a distance of approximately 110 feet, and to the intersection with York Street when looking to the left, a distance of approximately 160 feet. Sight distance could also be limited if cars are parked on the southwesterly side of the road. Immediately to the northwest of the proposed entrance there is an existing driveway in which the property line travels thru the center of. This drive is presently used by the Baxter Academy Building. On the opposite side of Maple Street there is an existing 27 foot wide drive which provides access to parking at the adjacent Courtyard Marriott Hotel.

York Street is a functionally classified local two-way roadway oriented in a north-south direction. The roadway is approximately 45 feet wide consisting of one travel lane in each direction separated by a double yellow center line. On-street parking is prohibited on the eastern side of the road and permitted on the western side. There is sidewalk on both sides of the roadway. The posted speed limit of York

Street is 25 miles per hour. Sight distance is measured to be to the intersection of High Street when looking left from the proposed access point, a distance of 450 feet, and to the intersection with Danforth Street when looking right, a distance of approximately 600 feet. These distances exceed the minimum value of 200 feet measured distance for a 25 mile per hour roadway. On the opposite side of the road from the proposed entrance location there is an existing driveway which provides access to a private parking lot.

Commercial Street at this location is a two lane urban minor arterial oriented in a generally north-south direction. The roadway is approximately 90 feet wide consisting of one travel lane in each direction separated by a double yellow centerline and on-street angled parking on both sides of the roadway. The posted speed limit of Commercial Street is 30 miles per hour. Sight distance is measured to be to the intersection with High Street when looking to the right, a distance of 300 feet. Sight distance looking to the left was measured to be 300 feet.

The attached plan shows the sight distance measurements completed on January 23rd, 2017.

Trip Generation

Using the 7th Edition of ITE's Trip Generation Manual we have estimated the following trip generation shown within Tables 1 and 2 located on the following page. The retail spaces and condominiums have ITE land uses of 826 – Specialty Retail Center and 230 – Residential Condominium/Townhouse, respectively. Phase 1 development includes 6,219 square feet of retail space and 82 condominium units.

Table 1: Trip Generation
Land Use 826 – Specialty Retail Center
(6,219 Square Feet)

Time Period	Trip Generation Rate (trips/ 1,000 square feet)	Total Trips	Entering	Exiting
Weekday (Daily)	44.32/KSF	276	138	138
AM Peak Hour of Adjacent Street (7-9 AM)	0/KSF ^A	0	0	0
PM Peak Hour of Adjacent Street (4-6 PM)	2.71/KSF	17	7	10
AM Peak Hour of Generator	6.84/KSF	43	19	24
PM Peak Hour of Generator	5.02/KSF	31	14	17
Saturday (Daily)	42.04/KSF	261	130	131
Saturday Peak Hour of Generator	6.49/KSF ^B	41	18	23
Sunday (Daily)	20.43/KSF	127	64	63
Sunday Peak Hour of Generator	3.32/KSF ^B	20	10	10

A. Trip generation estimate not available for AM Hour of Adjacent Street. It is assumed that this land use will not produce trips during this time period.

B. Trip Generation data for Saturday Peak and Sunday Peak is not provided. Rate calculated by a ratio of the weekend and weekday daily rates to find peak hourly rate

Table 2: Trip Generation
Land Use 230 – Residential Condominium/Townhouse
(82 Units)

Time Period	Trip Generation Formula	Total Trips	Entering	Exiting
Weekday (Daily)	$\ln(T) = 0.87 \ln(X) + 2.46$	542	271	271
AM Peak Hour of Adjacent Street (7-9 AM)	$\ln(T) = 0.80 \ln(X) + 0.26$	44	7	37
PM Peak Hour of Adjacent Street (4-6 PM)	$\ln(T) = 0.82 \ln(X) + 0.15$	51	34	17
AM Peak Hour of Generator	$\ln(T) = 0.82 \ln(X) + 0.32$	43	8	35
PM Peak Hour of Generator	$T = 0.34 (X) + 35.87$	64	41	23
Saturday (Daily)	$T = 3.62(X) + 427.93$	724	362	362
Saturday Peak Hour of Generator	$T = 0.29(X) + 42.63$	67	36	31
Sunday (Daily)	$T = 3.13(X) + 357.26$	614	307	307
Sunday Peak Hour of Generator	$T = 0.23(X) + 50.01$	69	34	35

- **T=No. of Trips, X=No. of Dwelling Units (82)**

Due to the downtown location of this development, we believe a number of the new external trips will be taken by walking and public transit to and from the development. We calculated the amount of expected external trips to be made by these modes of transportation using two methods. The first method used was the Environmental Protection Agency (EPA) Mixed-Use Trip Generation Model. This model utilizes data from the land use of the development and employment data of the surrounding area to arrive at a percentage of trips to be made by walking as well as public transit. In tangent with the report a Microsoft Excel file was developed by the firm Fehr & Peers that calculates the internal capture, walking, and public transit use data for the subject project using the EPA Model. A copy of this spreadsheet is attached. For this Project, the estimated external trips taken by walking is 15% and the amount by public transit to be 2%, for a total reduction in external trips of 17%. The second method we used was to utilize data from the U.S. Census Bureau's American Community Survey 2009-2013 5 Year Estimates (census tract geography). This data lists the percentage each mode of transportation used for commuting in each respective census tract. In this data, it is seen that the Project Site is on the border between two tracts. The tract the project site is located in lists the percentage of commuters walking to work as 45.9% and the adjacent tract lists the percentage as 23.8%.

Based on this information and the above mentioned EPA Model, we applied a reduction of 20% in external trips due to walking and transit.

Table 3 shows the resulting external trips generated by the proposed development. These values are calculated by summing of the trip generation values of each land use found in Tables 1 and 2. This value is then reduced by 20% to account for the external trips to be completed by walking and transit.

Table 3: Trip Generation
Gross External Vehicle Trips

Time Period	Total Trips	Entering	Exiting
Weekday (Daily)	654	327	327
AM Peak Hour of Adjacent Street (7-9 AM)	35	6	29
PM Peak Hour of Adjacent Street (4-6 PM)	54	33	21
AM Peak Hour of Generator	69	22	47
PM Peak Hour of Generator	76	44	32
Saturday (Daily)	789	394	394
Saturday Peak Hour of Generator	86	43	43
Sunday (Daily)	593	296	296
Sunday Peak Hour of Generator	71	35	36

Furthermore, we calculated the existing trips from the former Rufus Deering Lumber site in order to establish a trip credit. This trip credit is subtracted from the above calculated gross external vehicle trips in order to establish the Net External Vehicle Trips for the proposed development. ITE Land use 812 – Building Materials and Lumber Store was used for this calculation. The gross floor area of the former building was found to be 6,028 square feet. Table 4 shows the results of the prior site use trip generation calculation.

Table 4: Trip Generation
Land Use 812 –Building Materials and Lumber Store
(6,028 Sq. Ft.)

Time Period	Trip Generation Rate (trips/ 1,000 square feet)	Total Trips	Entering	Exiting
Weekday (Daily)	45.16/KSF	272	136	136
AM Peak Hour of Adjacent Street (7-9 AM)	2.60/KSF	16	11	5
PM Peak Hour of Adjacent Street (4-6 PM)	4.49/KSF	27	13	14
AM Peak Hour of Generator	4.16/KSF	25	14	11
PM Peak Hour of Generator	5.56/KSF	34	17	17
Saturday (Daily)	51.60/KSF	312	156	156
Saturday Peak Hour of Generator	9.58/KSF	58	30	28
Sunday (Daily)	24.50/KSF	148	74	74
Sunday Peak Hour of Generator	4.57/KSF	27	12	15

Table 5 shows the Total Net External Trips expected from the development. These totals are calculated by subtracting the estimated trip generation for the prior land use found in Table 4 from the gross external trips shown in Table 3. The highest anticipated new trip generation is during the AM Peak Hour of the generator with 44 new trips. This is below the 100 trip threshold to require a MaineDOT Traffic Movement permit.

Table 5: Trip Generation
Total Net External Trips

Time Period	Total Trips	Entering	Exiting
Weekday (Daily)	381	191	191
AM Peak Hour of Adjacent Street (7-9 AM)	20	-5	24
PM Peak Hour of Adjacent Street (4-6 PM)	28	21	7
AM Peak Hour of Generator	44	8	36
PM Peak Hour of Generator	42	27	15
Saturday (Daily)	478	239	239
Saturday Peak Hour of Generator	28	14	14
Sunday (Daily)	445	223	223
Sunday Peak Hour of Generator	43	22	21

Trip Distribution

Access to the site will be via the three access locations on Commercial Street, Maple Street, and York Street. It is assumed that traffic entering and exiting the site will be split evenly between the three proposed access points. Traffic was distributed from the access points based upon AADT volumes from the 2015 Maine Transportation Count Book at multiple locations on Commercial Street and York Street in the vicinity of the site. Approximately 8% of traffic is projected to be distributed to/from York Street to the north, 25% to/from Commercial Street to the north, 28% to/from Commercial Street to the south, and 39% to/from York Street to the south. The attached figure shows the anticipated trip distribution from the site driveways.

Capacity Analysis

A full capacity analysis will be completed for the study area intersections and site driveways once traffic counts have been completed. Traffic counts will be recorded after April 1st to comply with the MaineDOT data collection guidelines. Due to the low number of new trips from Phase 1 of the development, Project generated traffic is not expected to adversely impact the Study intersections.

Crash Analysis

The most recent 3-year crash history (2013-2015) was obtained from MaineDOT for the intersections and roadway links in the vicinity of the project site. Intersections and roadway links are considered to be High Crash Locations (HCL's) if they have a Critical Rate Factor (CRF) greater than 1.0 and have minimum of 8 accidents in a three-year period. Four locations within the project study area have been identified as HCL's. A summary of this information is presented below and the MaineDOT Summary Report is contained in the Appendix.

Intersections				
Node	Description	# of Crashes	CRF	HCL
16784	Commercial Street & High Street	10	1.41	Yes
16785	Commercial Street & Maple Street	4	0.60	No
16783	Commercial Street & Park Street	20	2.32	Yes
18980	Maple Street & York Street	2	0.73	No
18529	High Street & York Street	9	0.64	No

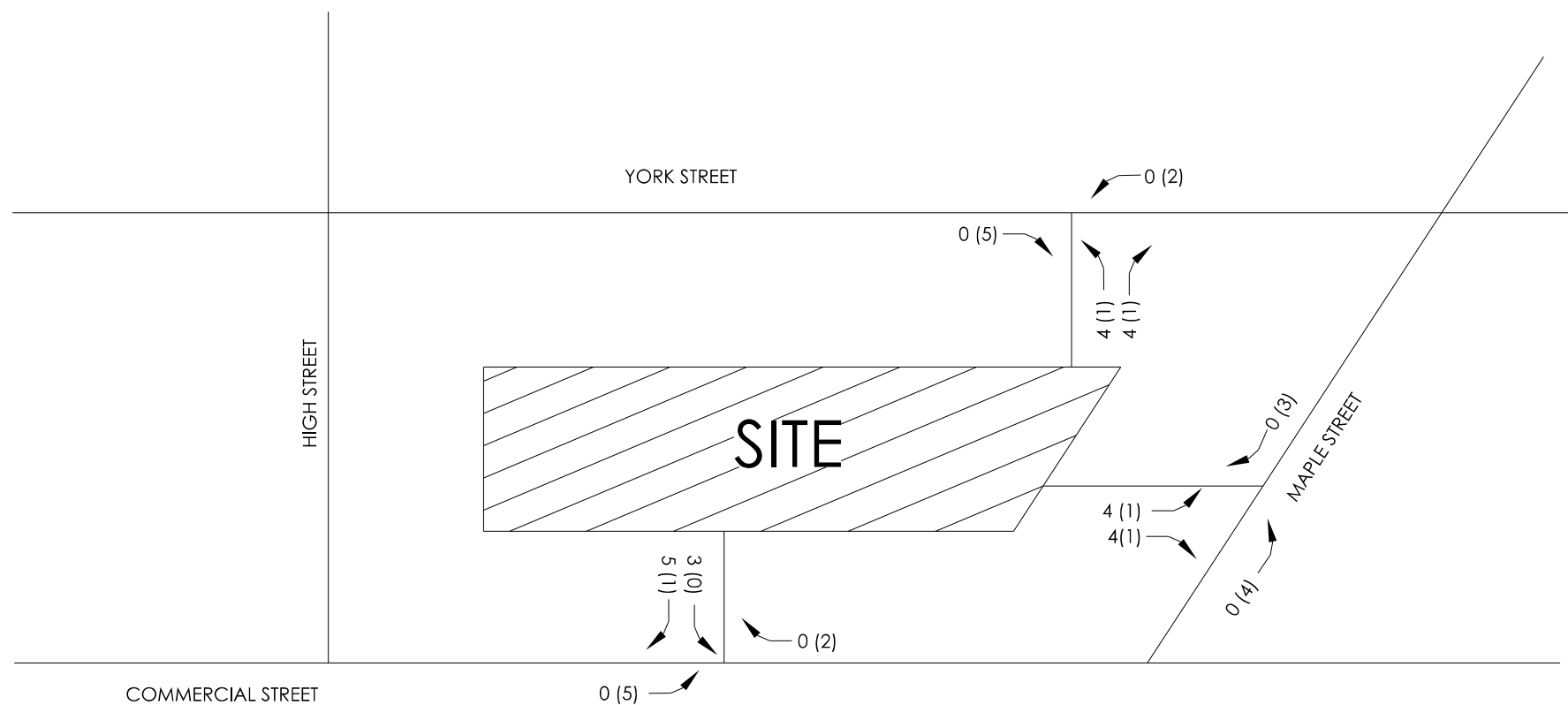
Roadway Segments				
Link	Description	# of Crashes	CRF	HCL
16783-16784	Commercial Street – Park to High	9	1.34	Yes
16784-16785	Commercial Street – High to Maple	13	1.40	Yes
16785-18980	Maple Street	4	5.03	No
18529-18980	York Street	1	0.14	No
16784-18529	High Street	1	0.60	No

A review of the crash data suggests a high number of the reported crashes at the intersections of Commercial Street with High Park Streets are the result of vehicles failing to properly yield when turning from the minor street onto Commercial Street and when turning left from Commercial Street to the minor street.

On the roadway segment of Commercial Street between High Street and Maple Street, there are currently two existing driveways. During Phase 1 of this Project, the curb cut closest to High Street will be closed, which will reduce the number of access points on this high crash segment of Commercial Street.

Conclusion

When considering the previous use of the site and the urban location of the development, the resultant trip generation of the proposed uses does not result in a large number of new trips being introduced into the roadway network. The addition of new vehicle trips generated by the proposed Phase 1 of 383 Commercial Street development is not projected to result in a noticeable impact to the traffic operations of the area.



KEY

XX AM PEAK HOUR
(XX) PM PEAK HOUR



75 John Roberts Rd., - Suite 1A
South Portland, ME 04106
Tel. 207-200-2100

250 Goddard Rd., - Suite B
Lewiston, ME 04240
Tel. 207-783-5656

TRIP DISTRIBUTION

383 COMMERCIAL STREET DEVELOPMENT - PHASE 1

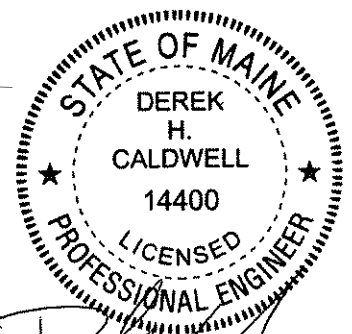
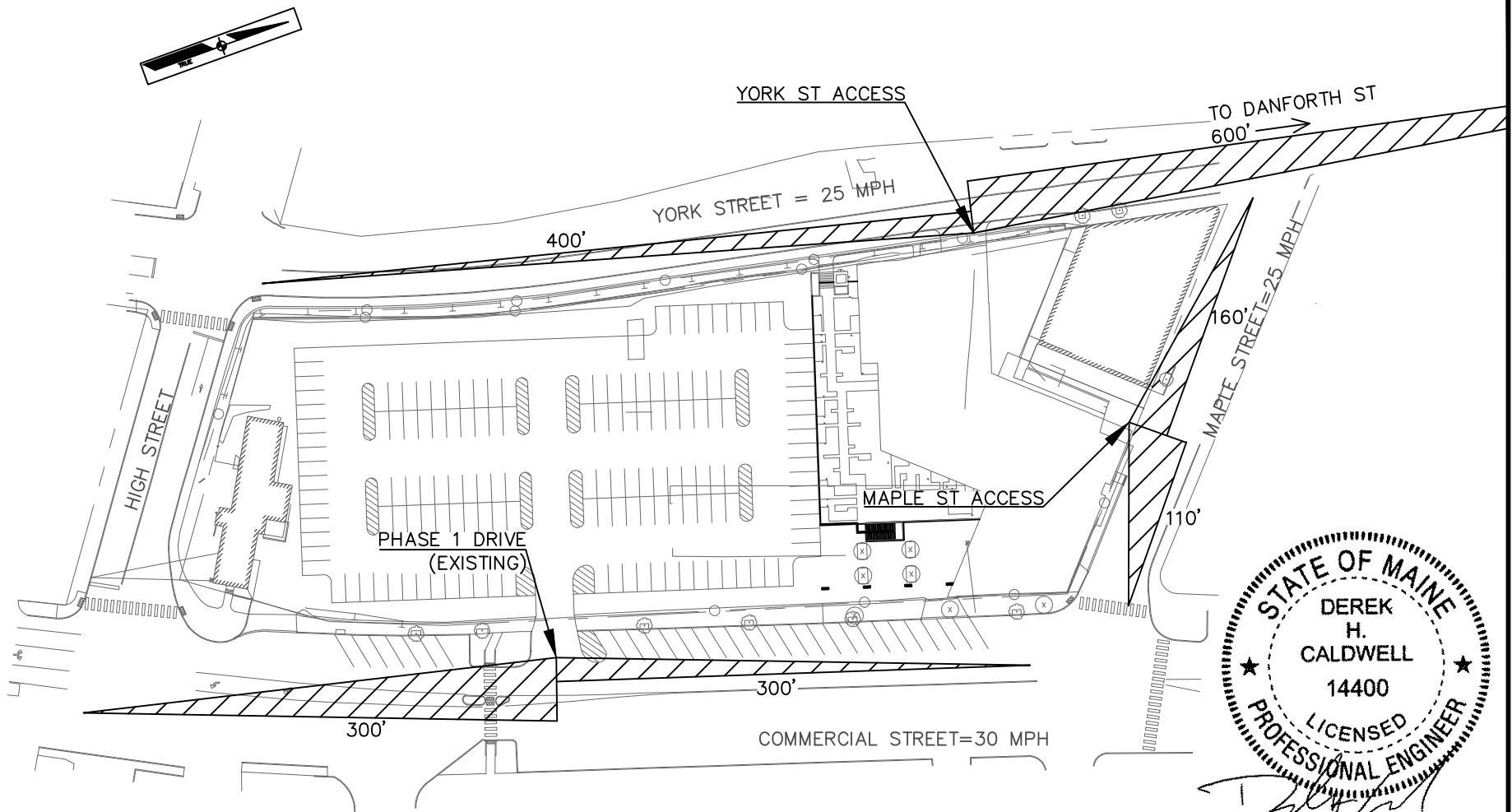
LOCATION: 383 COMMERCIAL STREET
PORTLAND, MAINE

FOR: DEERING PROPERTY MANAGEMENT, LLC
2730 TRANSIT ROAD
WEST SENECA, NEW YORK 14224

SCALE: N.T.S.

DATE: 03/14/2017

FIGURE:
1 OF 1



[Signature]
 2/15/17
 *FOR SIGHT DISTANCE ONLY

*FOR SIGHT DISTANCE ONLY. SITE PLAN BY OTHERS.



75 John Roberts Rd. Suite 1A
 South Portland, ME 04106
 Tel. 207-200-2100

250 Goddard Rd. Suite B
 Lewiston, ME 04240
 Tel. 207-783-5656

SIGHT DISTANCE MEASUREMENTS OF 383 COMMERCIAL STREET

LOCATION:
 383 COMMERCIAL STREET (ROUTE 1A)
 PORTLAND, MAINE

FOR: DEERING PROPERTY MANAGEMENT, LLC
 2730 TRANSIT ROAD
 WEST SENECA, NY 14224

SCALE: 1"=100'

DATE: 01/24/2017

SHEET:
 1 OF 1

NATURAL FEATURES

There are no significant natural features on this site.

STORMWATER MANAGEMENT PLAN

The attached Stormwater Management plan is provided to address stormwater runoff quality and quantity associated with the redevelopment of this site.

Stormwater Management Plan

383 Commercial Street Portland, ME

Introduction

This Stormwater Management Plan has been prepared to address the potential impacts associated with this project due to the proposed modification in stormwater runoff characteristics. The stormwater management controls that are outlined in this plan have been incorporated to best suit the proposed development and to comply with applicable regulatory requirements.

The project is proposed to be constructed in three phases and consists of redevelopment of a 2.59-acre parcel in Portland. In phase one, four of the seven existing buildings will be removed to allow for the construction of a 28,542-square foot multi-story residential building with two parking levels, 23 parking spaces in a surface parking lot and a lawn area.

Based upon the anticipated development, the project is subject to the Chapter 500 Basic, and General standards. The proposed erosion controls, inspection and maintenance criteria, and the stormwater management system have been designed to meet MDEP and City of Portland requirements.

Existing Conditions

The site is located in the City block bordered by Commercial Street (east side), York Street (west side), High Street (south side) and Maple Street (north side). The parcel is fully developed with seven buildings and extensive paved areas. The site is the current location of Deering Lumber Company.

Stormwater is collected in a few on-site catch basins and is routed to the City's storm drainage infrastructure in Maple, Commercial, and High Streets. The City's storm drainage is discharged to the brackish portion of the Fore River.

Proposed Development

The developer proposes to construct a 28,542-square foot multi-story residential building with two parking levels, 23 parking spaces in a surface parking lot and a lawn area. The site is accessed via an existing driveway from Commercial Street. Additional access will be provided from Maple Street and York Street to two levels of a structured parking garage.

The proposed development will result in the following:

Total disturbed/developed area	= 1.58 acres
Total impervious area	= 1.05 acres

Regulatory Requirements

Maine Department of Environmental Protection (MDEP)

MDEP Rule Chapters 500 and 502 describe stormwater management requirements for new development projects. These rules describe performance standards divided into five major categories: Basic Standard, General Standard, Phosphorous Standard, Urban Impaired Stream Standard, and Flooding Standard. The following sections describe how this project will address these stormwater management performance standards.

Basic Standard: A project must meet basic standards if it disturbs an area greater than one (1) acre. As this development will disturb approximately 1.58 acres, it must meet the basic standard. The standard includes various erosion and sedimentation controls, inspection and maintenance procedures, and general housekeeping requirements.

General Standard: A project is subject to the general standard if it results in the creation of one (1) or more acres of impervious area or developed areas greater than five (5) acres. As this project will include approximately 1.05 acres of impervious area, it must meet the general standard. The standard requires that a minimum of 95% of all impervious areas and at least 80% of all developed areas are designed to be tributary to stormwater BMPs. However, for redevelopment projects, the required treatment is scaled based on the pollutant discharge that, if the stormwater was untreated, would result from the redevelopment project. Standard BMPs have been defined by the MDEP and are described thoroughly in their publication Stormwater Management for Maine: Best Management Practices manual, as revised May 2016.

Phosphorous Standard: A project must meet the phosphorous standards if located within a lake watershed. As this project is not tributary to a lake watershed, it is not subject to the phosphorus standard.

Urban Impaired Stream Standard: A project must meet the urban impaired stream standards if located within an urban impaired stream watershed. As this project is not tributary to an Urban Impaired Stream as defined by MDEP Chapter 502, this project is not subject to the urban impaired stream standard.

Flooding Standard: A project must meet to the flooding standards if it creates impervious areas greater than three (3) acres, or developed areas greater than twenty (20) acres. As this project includes approximately 1.05 acres of impervious area, it is not subject to the flooding standard.

City of Portland:

In accordance with Section 5.II.D of the City of Portland Technical manual, all projects not subject to requirements of an existing Site Law or Stormwater Management Law Permit that include redevelopment of non-roof impervious area greater than 5,000 square-feet and are subject to City of Portland review shall provide stormwater quality treatment in accordance with the General Standards for no less than 50% of the redeveloped impervious area. The runoff from any up-gradient area must

be either directed away from the stormwater treatment measure or that measure must be sized to treat the runoff from the up-gradient area.

Methodology

In order to evaluate drainage characteristics as a result of the proposed development activities, a quantitative analysis was performed to determine peak runoff rates in the pre-development and post-development conditions. The evaluation was performed using the methodology outlined in the USDA Soil Conservation Service's "Urban Hydrology for Small Watersheds - Technical Release #55 (TR-55)". HydroCAD computer software was utilized to perform the calculations.

The peak runoff rates were calculated using a 24-hour duration storm event with a Type III rainfall distribution. The rainfall amounts for Cumberland County have recently been updated and the following 24-hour duration rainfall amounts were used for this report:

Storm Frequency	24-hr Duration Rainfall (in.)
2-yr	3.1
10-yr	4.6
25-yr	5.8

The model incorporates design assumptions including the following:

- The minimum time of concentration (T_c) is six minutes, based upon limitations of the TR-55 model.
- Although a portion of the site is being converted to landscape area in Phase 1, the T_c value used in the post-development model is six minutes.

Quality Treatment

Stormwater runoff from the building will be routed to a proposed StormFilter treatment unit located below the parking garage floor slab. The Water Quality Volume and any bypass flow will be routed to the City's infrastructure on Maple Street.

The Stormfilter is comprised of a precast vault that houses rechargeable, media-filled cartridges. The number of cartridges required is based upon water quality/channel protection volume which is equal to 1.0-inch times the subcatchment's impervious area and 0.4-inch times the subcatchment's tributary landscaped areas. The system is designed to drain completely within 24 to 72 hours after the storm.

Redevelopment standards apply because the proposed building will replace existing buildings and pavement areas. After completing the calculations outlined in §4.C(2)(d) of Chapter 500, the ranked impact change due to redevelopment is calculated to be -0.51, requiring that 0.0% of developed area be treated. However, the minimum level of treatment required by the City of Portland Technical manual is 50% for redevelopment projects.

The attached treatment table summarizes the total impervious and developed areas for the proposed development indicates the BMP measures proposed for treating the impervious areas. The conclusion is a tabulation of the effective treatment percentages for the proposed development. The results of this tabulation indicate the following:

- The post-development area requiring treatment includes approximately 1.05 acres of impervious area and a total of approximately 1.58 acres of developed area.
- The redevelopment standard requires treatment for 50% of the new impervious areas. As such, the site is required to provide treatment for a minimum of 0.53 acres. The proposed StormFilter has been sized to treat 70% of the water quality volume. As such, the total area receiving treatment is approximately 70% of 0.88 acres, or 58.50%.
- The redevelopment standard requires treatment for 50% of the new developed areas. As such, the site is required to provide treatment for a minimum of 0.79 acres. The proposed StormFilter has been sized to treat 70% of the water quality volume. As such, the total area receiving treatment is approximately 70% of 0.99 acres, or 62.40%.

Peak Flow Analysis

The subcatchment areas and times of concentration of the post-development conditions vary from the pre-development conditions based on the proposed site development and grading. The following table summarizes the results of the hydrologic analysis of the project during pre-development and post-development conditions.

Stormwater Peak Discharge Summary Table									
Study Point	2-Year Storm			10-Year Storm			25-Year Storm		
	Pre (cfs)	Post (cfs)	Diff. (cfs)	Pre (cfs)	Post (cfs)	Diff. (cfs)	Pre (cfs)	Post (cfs)	Diff. (cfs)
SP1	7.81	6.86	-0.95	11.76	10.54	-1.22	14.91	13.86	-1.05

The results of the stormwater modeling at Study Point SP1 indicate that the peak rates of runoff in the post-developed condition will be less than the pre-developed condition for the 2-year, 10-year and 25-year storm events.

Conclusions

Erosion and sedimentation controls, inspection and maintenance procedures and general housekeeping requirements have been outlined to prevent unreasonable impacts on the site and to the surrounding environment.

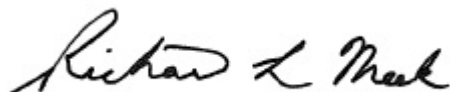
By utilizing Best Management practices, stormwater quality treatment has been provided for at least 50% of the total impervious area and at least 50% of the total developed area. Based on the modeling data, the post-development peak rates of runoff for the 2-year, 10-year and 25-year storm events

demonstrate decreases in the peak rates of runoff when compared to the pre-development peak rates of runoff.

With the incorporation of the above referenced erosion control, treatment and detention measures, the project has been designed in conformance with the Maine Department of Environmental Protection Chapter 500 Stormwater Law and City of Portland Stormwater Management Standards. Accordingly, it is anticipated that stormwater runoff from the proposed development will not cause a significant adverse effect to off-site receiving channels or downstream properties.

Prepared by,

SEBAGO TECHNICS, INC.

A handwritten signature in black ink, reading "Richard L. Meek". The signature is written in a cursive, flowing style.

Richard L. Meek
Sr. Project Engineer

May 23, 2017

Attachment A

STORWATER QUALITY CALCULATIONS

Table 1: MDEP GENERAL STANDARD CALCULATIONS: 383 Commercial Street, Portland, Maine

AREA ID	WATERSHED SIZE (S.F.)	EXISTING IMPERVIOUS AREA (To Remain) (S.F.)	NEW IMPERVIOUS AREA (S.F.)	EXISTING LANDSCAPED AREA (To Remain) (S.F.)	NEW LANDSCAPED AREA (S.F.)	NEW DEVELOPED AREA (S.F.)	UNDEVELOPED AREAS (S.F.)	TREATMENT PROVIDED?	NEW IMPERVIOUS AREA TREATED* (S.F.)	NEW LANDSCAPED AREA TREATED* (S.F.)	NEW DEVELOPED AREA TREATED* (S.F.)	TREATMENT BMP
11	35,424	0	35,424	0	0	35,424	0	YES	31,543	0	31,543	SF
12	29,965	3,000	3,838	0	23,127	26,965	0	YES	6,838	23,127	29,965	SF
13	6,625	0	6,625	0	0	6,625	0	NO	0	0	0	NONE
14	45,684	40,005	0	5,679	0	0	0	NO	0	0	0	NONE
SUM	117,698	43,005	45,887	5,679	23,127	69,014	0	-	38,381	23,127	61,508	-

Designations: SF = StormFilter sized for 70% of WQV

TOTAL NEW IMPERVIOUS AREA (Ac.)	45,887	TOTAL NEW DEVELOPED AREA (Ac.)	69,014
TOTAL IMPERVIOUS AREA RECEIVING TREATMENT (Ac.)	38,381	TOTAL DEV. AREA RECEIVING TREATMENT (Ac.)	43,056
% OF IMPERVIOUS AREA RECEIVING TREATMENT	58.5%	% OF DEV. AREA RECEIVING TREATMENT	62.4%

Table 2: MDEP GENERAL STANDARD CALCULATIONS: 383 Commercial Street, Portland, Maine

Existing Areas by Pollutant Ranking (S.F.)							Proposed Areas by Pollutant Ranking (S.F.)						
0	1	2	3	4	5	SUM	0	1	2	3	4	5	SUM
0	5,679	34,100	77,919	0	0	117,698	0	28,806	48,333	40,559	0	0	117,698

Existing Areas by Pollutant Ranking (acres)							Proposed Areas by Pollutant Ranking (S.F.)						
0	1	2	3	4	5	SUM	0	1	2	3	4	5	SUM
0.00	0.13	0.78	1.79	0.00	0.00	2.70	0.00	0.66	1.11	0.93	0.00	0.00	2.70

Existing Weighted Average (Item A)							Proposed Weighted Average (Item B)						
7.06							5.67						

Total Existing Development Area (acres)							Total Redevelopment Area (acres)						
2.70							2.70						

Total Existing Development Area (acres) - Excludes Area With Pollutant Impact Ranking of 0							Ranked Impact Change Due to Redevelopment (Item E)						
2.70							-0.51						

Percent Increase in Developed Area						
0.00%						

Treatment Levels for Redevelopment Projects	
Ranked Impact Change Due to Redevelopment (Item E)	Percentage of Developed Area that Must be Treated
0.0 or less	0% (Stormwater projects) 50% (Site projects)
≤ 0.0 to ≥ 1.0	60%
> 1.0 to ≥ 2.0	70%
> 2.0 to ≥ 3.0	80%
> 3.0	Same treatment level as for new development



Determining Number of Cartridges for Systems Downstream of Detention

CONTECH Engineered Solutions Engineer:
Date Prepared:

CJA
3/20/2017

Site Information

Project Name	383 Commercial
Project State	Maine
Project Location	Portland
Drainage Area, Ad	0.68 ac
Impervious Area, Ai	0.68 ac
Pervious Area, Ap	0.00
% Impervious	100%
Runoff Coefficient, Rc	0.95

Upstream Detention System

Water Quality Volume	2458 cf
24-hr release rate	12.77 gpm
Detention pretreatment credit	50%

Mass loading calculations

Mean Annual Rainfall, P	45 in
Agency required % removal	85%
Percent Runoff Capture	100%
MEDEP Mean Annual Runoff, Vt	110,588 ft ³
Event Mean Concentration of Pollutant, EMC	70 mg/l
Annual Mass Load, M _{total}	482.97 lbs

Filter System

Filtration brand	StormFilter
Cartridge height	18 in
Specific Flow Rate per MEDEP authorization	2.00 gpm/cart

Number of cartridges - mass loading

Mass removed by pretreatment system, M _{pre}	241.49 lbs
Mass load to filters after pretreatment, M _{pass1}	241.49 lbs
Estimate the required filter efficiency, E _{filter}	0.70
Mass to be captured by filters, M _{filter}	169.04 lbs
Allowable Cartridge Flow rate, Q _{cart}	15.00
Mass load per cartridge, M _{cart} (lbs)	36.00 lbs
Number of Cartridges required, N _{mass}	5
Treatment Capacity	10.00 gpm

Determine Critical Sizing Value

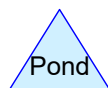
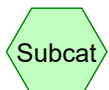
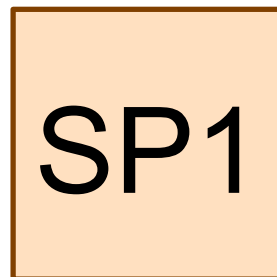
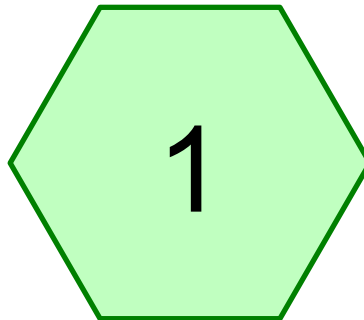
Number of Cartridges using Q _{release treat} , N _{flow}	7
---	----------

Method to Use: **HYDRAULIC**

SUMMARY	
Hydraulic	
Treatment Flow Rate (gpm)	12.77
Cartridge Flow Rate (gpm)	2.0
Number of Cartridges	7
Mass Loading	
Treatment Mass (lbs)	169.04
Cartridge Mass Capacity (lbs)	36.00
Number of Cartridges	5

Attachment B

HYDROCAD OUTPUT



Routing Diagram for 16324-Pre

Prepared by {enter your company name here}, Printed 5/23/2017
HydroCAD® 10.00-18 s/n 01856 © 2016 HydroCAD Software Solutions LLC

16324-Pre*Type III 24-hr 2-Year Rainfall=3.10"*

Prepared by {enter your company name here}

Printed 5/23/2017

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Page 2

Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 1:

Runoff Area=2.701 ac 95.19% Impervious Runoff Depth>2.59"

Tc=6.0 min CN=97 Runoff=7.81 cfs 0.584 af

Reach SP1:

Inflow=7.81 cfs 0.584 af

Outflow=7.81 cfs 0.584 af

16324-Pre*Type III 24-hr 10-Year Rainfall=4.60"*

Prepared by {enter your company name here}

Printed 5/23/2017

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Page 3

Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 1:

Runoff Area=2.701 ac 95.19% Impervious Runoff Depth>3.97"

Tc=6.0 min CN=97 Runoff=11.76 cfs 0.895 af

Reach SP1:

Inflow=11.76 cfs 0.895 af

Outflow=11.76 cfs 0.895 af

16324-Pre*Type III 24-hr 25-Year Rainfall=5.80"*

Prepared by {enter your company name here}

Printed 5/23/2017

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Page 4

Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 1:

Runoff Area=2.701 ac 95.19% Impervious Runoff Depth>5.07"

Tc=6.0 min CN=97 Runoff=14.91 cfs 1.142 af

Reach SP1:

Inflow=14.91 cfs 1.142 af

Outflow=14.91 cfs 1.142 af

Summary for Subcatchment 1:

Runoff = 14.91 cfs @ 12.09 hrs, Volume= 1.142 af, Depth> 5.07"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-Year Rainfall=5.80"

Area (ac)	CN	Description
* 2.571	98	Impervious
0.130	74	>75% Grass cover, Good, HSG C
2.701	97	Weighted Average
0.130		4.81% Pervious Area
2.571		95.19% Impervious Area

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

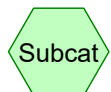
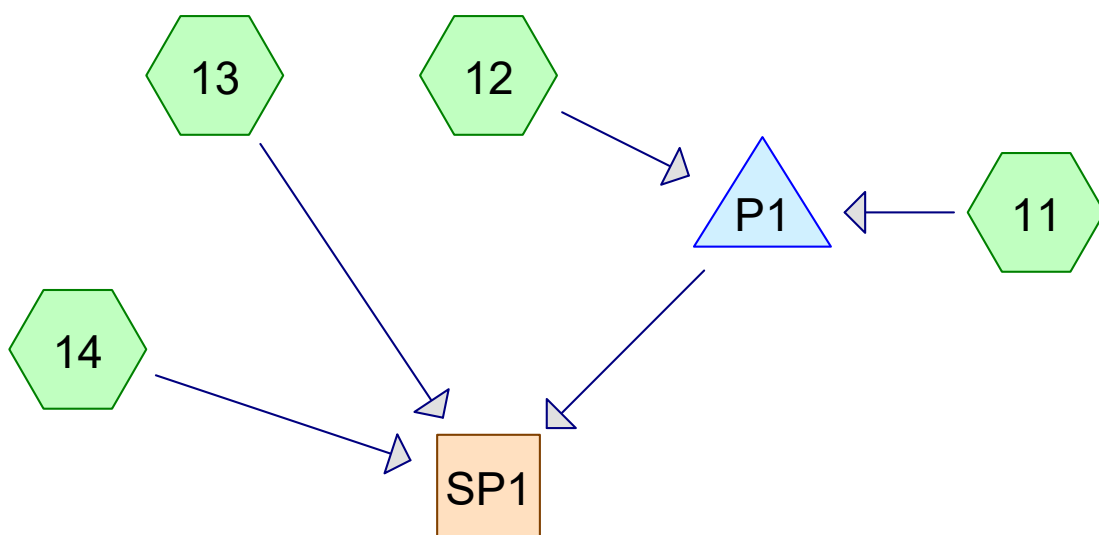
Summary for Reach SP1:

Inflow Area = 2.701 ac, 95.19% Impervious, Inflow Depth > 5.07" for 25-Year event

Inflow = 14.91 cfs @ 12.09 hrs, Volume= 1.142 af

Outflow = 14.91 cfs @ 12.09 hrs, Volume= 1.142 af, Atten= 0%, Lag= 0.0 min

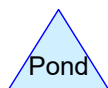
Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs



Subcat



Reach



Pond



Link

Routing Diagram for 16324-Post

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16324-Post*Type III 24-hr 2-Year Rainfall=3.10"*

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Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 11:	Runoff Area=35,424 sf 100.00% Impervious Runoff Depth>2.68" Tc=6.0 min CN=98 Runoff=2.39 cfs 0.182 af
Subcatchment 12:	Runoff Area=29,965 sf 22.82% Impervious Runoff Depth>1.16" Tc=6.0 min CN=79 Runoff=0.98 cfs 0.067 af
Subcatchment 13:	Runoff Area=6,625 sf 100.00% Impervious Runoff Depth>2.68" Tc=6.0 min CN=98 Runoff=0.45 cfs 0.034 af
Subcatchment 14:	Runoff Area=45,684 sf 87.57% Impervious Runoff Depth>2.41" Tc=6.0 min CN=95 Runoff=2.90 cfs 0.210 af
Reach SP1:	Inflow=6.86 cfs 0.452 af Outflow=6.86 cfs 0.452 af
Pond P1:	Peak Elev=93,375.17' Storage=1,777 cf Inflow=3.37 cfs 0.248 af Outflow=3.51 cfs 0.208 af

16324-Post*Type III 24-hr 10-Year Rainfall=4.60"*

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Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 11:	Runoff Area=35,424 sf 100.00% Impervious Runoff Depth>4.05" Tc=6.0 min CN=98 Runoff=3.57 cfs 0.275 af
Subcatchment 12:	Runoff Area=29,965 sf 22.82% Impervious Runoff Depth>2.29" Tc=6.0 min CN=79 Runoff=1.95 cfs 0.131 af
Subcatchment 13:	Runoff Area=6,625 sf 100.00% Impervious Runoff Depth>4.05" Tc=6.0 min CN=98 Runoff=0.67 cfs 0.051 af
Subcatchment 14:	Runoff Area=45,684 sf 87.57% Impervious Runoff Depth>3.79" Tc=6.0 min CN=95 Runoff=4.46 cfs 0.331 af
Reach SP1:	Inflow=10.54 cfs 0.748 af Outflow=10.54 cfs 0.748 af
Pond P1:	Peak Elev=221,591.50' Storage=1,777 cf Inflow=5.51 cfs 0.406 af Outflow=5.42 cfs 0.365 af

16324-Post*Type III 24-hr 25-Year Rainfall=5.80"*

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Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 11:	Runoff Area=35,424 sf 100.00% Impervious Runoff Depth>5.15" Tc=6.0 min CN=98 Runoff=4.51 cfs 0.349 af
Subcatchment 12:	Runoff Area=29,965 sf 22.82% Impervious Runoff Depth>3.28" Tc=6.0 min CN=79 Runoff=2.76 cfs 0.188 af
Subcatchment 13:	Runoff Area=6,625 sf 100.00% Impervious Runoff Depth>5.15" Tc=6.0 min CN=98 Runoff=0.84 cfs 0.065 af
Subcatchment 14:	Runoff Area=45,684 sf 87.57% Impervious Runoff Depth>4.90" Tc=6.0 min CN=95 Runoff=5.70 cfs 0.428 af
Reach SP1:	Inflow=13.86 cfs 0.989 af Outflow=13.86 cfs 0.989 af
Pond P1:	Peak Elev=405,221.94' Storage=1,777 cf Inflow=7.27 cfs 0.537 af Outflow=7.32 cfs 0.496 af

Summary for Subcatchment 11:

Runoff = 4.51 cfs @ 12.09 hrs, Volume= 0.349 af, Depth> 5.15"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-Year Rainfall=5.80"

	Area (sf)	CN	Description
*	35,424	98	Impervious
	0	74	>75% Grass cover, Good, HSG C
	35,424	98	Weighted Average
	35,424		100.00% Impervious Area

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

Summary for Subcatchment 12:

Runoff = 2.76 cfs @ 12.09 hrs, Volume= 0.188 af, Depth> 3.28"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-Year Rainfall=5.80"

	Area (sf)	CN	Description
*	6,838	98	Impervious
	23,127	74	>75% Grass cover, Good, HSG C
	29,965	79	Weighted Average
	23,127		77.18% Pervious Area
	6,838		22.82% Impervious Area

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

Summary for Subcatchment 13:

Runoff = 0.84 cfs @ 12.09 hrs, Volume= 0.065 af, Depth> 5.15"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-Year Rainfall=5.80"

	Area (sf)	CN	Description
*	6,625	98	Impervious
	0	74	>75% Grass cover, Good, HSG C
	6,625	98	Weighted Average
	6,625		100.00% Impervious Area

16324-Post

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

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

Summary for Subcatchment 14:

Runoff = 5.70 cfs @ 12.09 hrs, Volume= 0.428 af, Depth> 4.90"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-Year Rainfall=5.80"

	Area (sf)	CN	Description
*	40,005	98	Impervious
	5,679	74	>75% Grass cover, Good, HSG C
	45,684	95	Weighted Average
	5,679		12.43% Pervious Area
	40,005		87.57% Impervious Area

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

Summary for Reach SP1:

Inflow Area = 2.702 ac, 75.53% Impervious, Inflow Depth > 4.39" for 25-Year event
 Inflow = 13.86 cfs @ 12.09 hrs, Volume= 0.989 af
 Outflow = 13.86 cfs @ 12.09 hrs, Volume= 0.989 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Summary for Pond P1:

Inflow Area = 1.501 ac, 64.63% Impervious, Inflow Depth > 4.29" for 25-Year event
 Inflow = 7.27 cfs @ 12.09 hrs, Volume= 0.537 af
 Outflow = 7.32 cfs @ 12.09 hrs, Volume= 0.496 af, Atten= 0%, Lag= 0.1 min
 Primary = 7.32 cfs @ 12.09 hrs, Volume= 0.496 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 Peak Elev= 405,221.94' @ 12.09 hrs Surf.Area= 988 sf Storage= 1,777 cf

Plug-Flow detention time= 48.7 min calculated for 0.494 af (92% of inflow)
 Center-of-Mass det. time= 21.7 min (773.4 - 751.7)

Volume	Invert	Avail.Storage	Storage Description
#1A	7.08'	0 cf	13.08'W x 75.50'L x 4.17'H Field A 4,116 cf Overall - 1,777 cf Embedded = 2,339 cf x 0.0% Voids
#2A	7.58'	1,777 cf	CMP_Arch 57x38 x 6 Inside #1 Effective Size= 57.0"W x 38.0"H => 11.83 sf x 20.00'L = 236.7 cf Overall Size= 57.0"W x 38.0"H x 20.00'L Row Length Adjustment= +4.00' x 11.83 sf x 2 rows 11.08' Header x 11.83 sf x 2 = 262.3 cf Inside

16324-Post

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

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1,777 cf Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	5.60'	SFMH72 - (7) 18" cartridges X 7.00 Starts@7.60' 0.250" Diameter, C= 0.600, 0.125" Trickle Diameter

Primary OutFlow Max=7.14 cfs @ 12.09 hrs HW=386,620.33' (Free Discharge)↑1=**SFMH72 - (7) 18" cartridges** (Orifice Controls 7.14 cfs @ 2,993.87 fps)

Attachment C

INSPECTION, MAINTENANCE, AND HOUSEKEEPING

INSPECTION, MAINTENANCE, AND HOUSEKEEPING PLAN

**383 Commercial Street
Portland, ME**

Introduction

The owner of the development is Deering Property Development, LLC. The owner's address is 2730 Transit Road, West Seneca, NY 14224; the telephone number is 413-244-9092. The owner of the proposed project will be responsible for the maintenance of all stormwater management structures, the establishment of any contract services required to implement the program, and the keeping of records and maintenance logbook. The owner will assure that the following maintenance program will be adhered.

Records of all inspections and maintenance work accomplished must be kept on file and retained for a minimum 5-year time span. The maintenance logbook will be made available to the Maine Department of Environmental Protection (MDEP) and the City of Portland upon request. At a minimum, the appropriate and relevant activities for each of the stormwater management systems will be performed on the prescribed schedule.

The following plan outlines the anticipated inspection, maintenance, and housekeeping procedures for the erosion and sedimentation controls as well as stormwater management devices for the project site. Also, this plan outlines several housekeeping requirements that shall be followed during and after construction. These procedures should be followed in order to ensure the intended function of the designed measures and to prevent unreasonable adverse impacts to the surrounding environment.

The procedures outlined in the Inspection, Maintenance, and Housekeeping Plan are provided as an overview of the anticipated practices to be used on this site. In some instances, additional measures may be required due to unexpected conditions. For additional details on any of the erosion and sedimentation control measures or stormwater management devices to be utilized on this project, refer to the most recently revised edition of the "Maine Erosion and Sedimentation Control BMP" manual and/or the "Stormwater Management for Maine: Best Management Practices" manual as published by the MDEP.

During Construction

1. **Inspection:** During the construction process, it is the Contractor's responsibility to comply with the inspection and maintenance procedures outlined in this section. These responsibilities include inspecting disturbed and impervious areas, erosion control measures, materials storage areas that are exposed to precipitation, and locations where vehicles enter or exit the site. These areas shall be inspected at least once a week as well as before and after a storm event, and prior to completing permanent stabilization measures. A person with knowledge of erosion and stormwater control, including the standards and conditions in any applicable

permits, shall conduct the inspections.

2. **Maintenance:** All measures shall be maintained in an effective operating condition until areas are permanently stabilized. If Best Management Practices (BMPs) need to be maintained or modified, additional BMPs are necessary, or other corrective action is needed, implementation must be completed within seven (7) calendar days and prior to any storm event (rainfall).
3. **Documentation:** A log summarizing the inspections and any corrective action taken must be maintained on-site. The log must include the name(s) and qualifications of the person making the inspections, the date(s) of the inspections, and major observations about the operation and maintenance of erosion and sedimentation controls, material storage areas, and vehicle access points to the site. Major observations must include BMPs that need maintenance, BMPs that failed to operate as designed or proved inadequate for a particular location, and locations where additional BMPs are needed. For each BMP requiring maintenance, BMP needing replacement, and location needing additional BMPs, note in the log the corrective action taken and when it was taken.

The log must be made accessible to the appropriate regulatory agency upon request. The permittee shall retain a copy of the log for a period of at least three (3) years from the completion of permanent stabilization.

4. **Specific Inspection and Maintenance Tasks:** The following is a list of erosion control and stormwater management measures and the specific inspection and maintenance tasks to be performed during construction.

A. Sediment Barriers:

- Hay bale barriers, silt fences, and filter berms shall be inspected immediately after each rainfall and at least daily during prolonged rainfall.
- If the fabric on a silt fence or filter barrier should decompose or become ineffective prior to the end of the expected usable life and the barrier is still necessary, it shall be replaced.
- Sediment deposits should be removed after each storm event. They must be removed before deposits reach approximately one-half the height of the barrier.
- Filter berms shall be reshaped as needed.
- Any sediment deposits remaining in place after the silt fence or filter barrier is no longer required should be dressed to conform to the existing grade, prepared, and seeded.

B. Riprap Materials:

- Once a riprap installation has been completed, it should require very little maintenance. It shall, however, be inspected periodically to determine if high flows have caused scour beneath the riprap or dislodged any of the stone.

C. Erosion Control Blankets:

- Inspect these reinforced areas semi-annually and after significant rainfall events for slumping, sliding, seepage, and scour. Pay close attention to unreinforced areas adjacent to the erosion control blankets, which may experience accelerated erosion.
- Review all applicable inspection and maintenance procedures recommended by the specific blanket manufacturer. These tasks shall be included in addition to this plan.

D. Temporary Storm Drain Inlet Protection:

- The inlet protection structure shall be inspected before each rain event and repaired as necessary.
- Sediment shall be removed and the storm drain sediment barrier restored to its original dimensions when the sediment has accumulated to half of the design depth of the trap.
- Structures shall be removed upon permanent stabilization of the tributary area.
- Upon removal of the structure, all accumulated sediments downstream of the structure shall be cleaned from the storm drain system.

E. Stabilized Construction Entrances/Exits:

- The exit shall be maintained in a condition that will prevent tracking of sediment onto public rights-of-way.
- When the control pad becomes ineffective, the stone shall be removed along with the collected soil material. The entrance should then be reconstructed.
- Areas that have received mud-tracking or sediment deposits shall be swept or washed. Washing shall be done on an area stabilized with aggregate, which drains into an approved sediment-trapping device (not into storm drains, ditches, or waterways).

F. Temporary Seed and Mulch:

- Mulched areas should be inspected after rain events to check for rill erosion.
- If less than 90% of the soil surface is covered by mulch, additional mulch shall be applied in bare areas.
- In applications where seeding and mulch have been applied in conjunction with erosion control blankets, the blankets must be inspected after rain events for dislocation or undercutting.
- Mulch shall continue to be reapplied until 95% of the soil surface has established temporary vegetative cover.

G. Stabilized Drainage Swales:

- Sediment accumulation in the swale shall be removed once the cross section of the swale is reduced by 25%.

- The swales shall be inspected after rainfall events. Any evidence of sloughing of the side slopes or channel erosion shall be repaired and corrective action should be taken to prevent reoccurrence of the problem.
- In addition to the stabilized lining of the channel (i.e. erosion control blankets), stone check dams may be needed to further reduce channel velocity.

5. **Housekeeping:** The following general performance standards apply to the proposed project.

- Spill Prevention:** Controls must be used to prevent pollutants from being discharged from materials on-site, including storage practices to minimize exposure of the materials to stormwater, and appropriate spill prevention, containment, and response planning and implementation.
- Groundwater Protection:** During construction, liquid petroleum products and other hazardous materials with the potential to contaminate groundwater may not be stored or handled in areas of the site draining to an infiltration area. An "infiltration area" is any area of the site that by design or as a result of soils, topography and other relevant factors, accumulates runoff that infiltrates into the soil. Dikes, berms, sumps, and other forms of secondary containment that prevent discharge to groundwater may be used to isolate portions of the site for the purposes of storage and handling of these materials.
- Fugitive Sediment and Dust:** Actions must be taken to insure that activities do not result in noticeable erosion of soils or fugitive dust emissions during or after construction. Oil may not be used for dust control.
- Debris and Other Materials:** Litter, construction debris, and chemicals exposed to stormwater must be prevented from becoming a pollutant source.
- Trench or Foundation Dewatering:** Trench dewatering is the removal of water from trenches, foundations, cofferdams, ponds, and other areas within the construction area that retain water after excavation. In most cases, the collected water is heavily silted and hinders correct and safe construction practices. The collected water must be removed from the ponded area, either through gravity or pumping, and must be spread through natural wooded buffers or removed to areas that are specifically designed to collect the maximum amount of sediment possible, like a cofferdam sedimentation basin. Avoid allowing the water to flow over disturbed areas of the site. Equivalent measures may be taken if approved.
- F.

After Construction

- 1. Inspection:** After construction, the owner or operator shall hire a qualified post-construction stormwater inspector to at least annually, inspect the BMPs, in accordance with all municipal and state inspection, cleaning and maintenance requirements of the approved post-construction stormwater management plan.

- 2. Maintenance, and repair:** If a BMP requires maintenance, repair or replacement to function as intended by the approved post-construction stormwater management plan, the owner or operator shall take corrective actions to address the deficiency or deficiencies as soon as possible after the deficiency is discovered and shall provide a record of the deficiency and corrective actions to the Department of Public Services (DPS). The following is a list of permanent erosion control and stormwater management measures and the inspection, maintenance, and housekeeping tasks to be performed after construction.

A. Vegetated Areas:

- Inspect vegetated areas, particularly slopes and embankments, early in the growing season or after heavy rains to identify active or potential erosion problems.
- Replant bare areas or areas with sparse growth. Where rill erosion is evident, armor the area with an appropriate lining or divert the erosive flows to on-site areas able to withstand the concentrated flows.

B. Winter Sanding:

- Clear accumulations of winter sand in parking lots and along roadways at least once a year, preferably in the spring.
- Accumulations on pavement may be removed by pavement sweeping.
- Accumulations of sand along road shoulders may be removed by grading excess sand to the pavement edge and removing it manually or by a front-end loader or other acceptable method.

C. Catch Basins:

- Inspect and, if required, clean-out catch basins at least once a year, preferably in early spring.
- Clean out must include the removal and legal disposal of accumulated sediments and debris at the bottom of the basin, at any inlet grates, at any inflow channels to the basin, and at any pipes between basins.

D. Stormfilter:

- Refer to Contech – Stormfilter operation manual for guidance on required maintenance and inspection.

- 3. Annual Report:** The owner or operator or a qualified post-construction stormwater inspector hired by that person, shall, on or by June 30 of each year, provide a completed and signed certification that the person has inspected the BMPs and that they are adequately maintained and functioning as intended by the approved post-construction stormwater management plan, or that they require maintenance or repair, including the record of the deficiency and corrective actions taken.

4. **Duration of Maintenance:** Perform maintenance as described and required for any associated permits unless and until the system is formally accepted by a municipality or quasi-municipal district, or is placed under the jurisdiction of a legally created association that will be responsible for the maintenance of the system. If a municipality or quasi-municipal district chooses to accept a stormwater management system, or a component of a stormwater system, it must provide a letter to the MDEP stating that it assumes responsibility for the system. The letter must specify the components of the system for which the municipality or district will assume responsibility, and that the municipality or district agrees to maintain those components of the system in compliance with MDEP standards. Upon such assumption of responsibility, and approval by the MDEP, the municipality, quasi-municipal district, or association becomes a co-permittee for this purpose only and must comply with all terms and conditions of the permit.

Attachments

Attachment 1 – Sample Stormwater Inspection and Maintenance Form

Attachment 1 - Sample Stormwater Inspection and Maintenance Form

383 Commercial Street Portland, ME

This log is intended to accompany the stormwater Inspection, Maintenance and Housekeeping Plan for 383 Commercial Street. The following items shall be checked, cleaned and maintained on a regular basis as specified in the Maintenance Plan and as described in the table below. This log shall be kept on file for a minimum of five (5) years and shall be available for review. Qualified personnel familiar with drainage systems and soils shall perform all inspections. Attached is a copy of the construction and post-construction maintenance logs.

Item	Maintenance Required & Frequency	Date Completed	Maintenance Personnel	Comments
Ditches and Swales	Inspect after major rainfall event producing greater than 3" of rain in 2 hours.			
	Repair erosion or damage immediately.			
Catch Basins and Culverts	Remove accumulated sediment and debris			
	Sump depth			
Vegetated Areas	Inspect Slopes			
	Replant Bare Areas			
	Check after Major Storms			
Winter Sanding	Clean annually (Spring)			
	Remove sand and sediment from roadway shoulders			
Stormfilter	Inspect annually			

CITY MASTER PLANS

There are no City Master Plans related to this site.

EVIDENCE OF UTILITY CAPACITY TO SERVE

This project will be served with potable water supplied by the Portland Water District. An ability to serve letter is pending.

Sanitary wastewater will be discharged to the City of Portland public infrastructure – a wastewater application is attached.

Electrical service will be provided by Central Maine Power. Natural gas will be supplied by Unitil. Telephone and data will be provided by Fairpoint and Spectrum.

Existing utilities are expected to be adequate to serve the project without upgrades or off-site improvements.

SOLID WASTE

Normal residential waste will be generated at a rate of approximately 287 cubic yards per month. All construction debris and household waste will be transported to an approved solid waste handling facility.

CODE SUMMARY – NFPA AND FIRE DEPARTMENT

The proposed building will comply with the applicable NFPA regulations and will be reviewed by the State Fire Marshall for verification. In addition, the site plan generally complies with the applicable sections of the Technical Design Manual in the following manner:

There is an existing City owned and maintained hydrant within the public right-of-way directly in front of the proposed building.

The proposed building complies with the Site Access Standards.

As the building is bounded on three sides by public right-of ways (Commercial Street, Maple Street and York Street), the project conforms to the Standards for Emergency Access Lanes and Gates; and conforms to the Subdivision Standards.

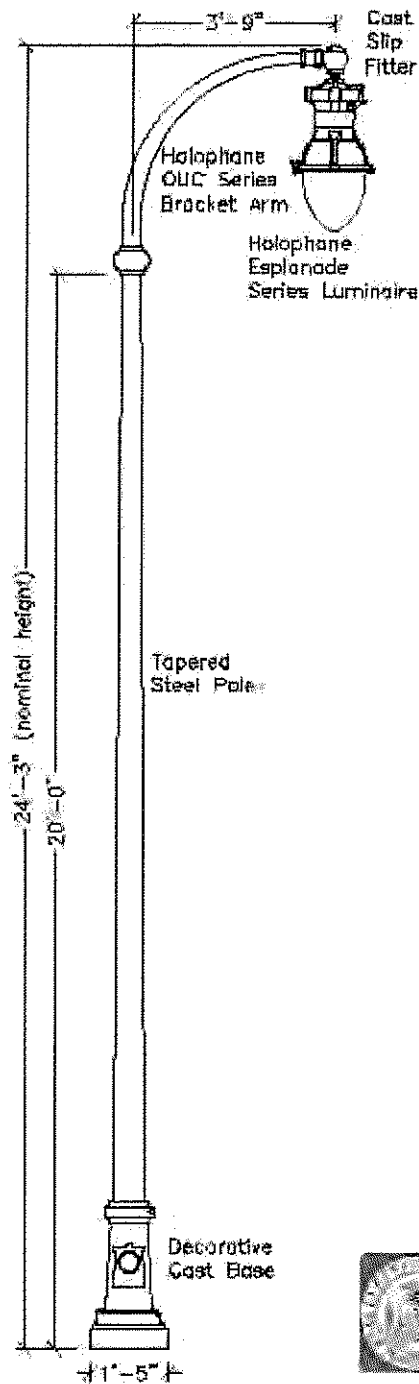
There is no blasting anticipated for this project.

DESIGN REVIEW

Design review is not required for this project, however, the Historic Preservation Board will review the building design concurrently with the Planning Department review.

HVAC

The proposed HVAC equipment has not been finalized. Once determined, verification that all equipment meets applicable state and federal emissions requirements will be provided by the manufacturer.

**LUMINAIRE**

Holophane Lighting model ESU175MH12A4-R.
Luminaire shall be furnished and installed by The Central Maine Power Company under the municipal lease agreement for street lighting.
Luminaire shall be manufacturer's standard black color.

LAMP

Holophane Lighting model 5-M175/U 64471
Vertical mounted, 175 watt mogul base clear metal halide lamp.

BRACKET ARM

Holophane Lighting model OUC 6083-T8
Aluminum crossarm with a post-top fitting for a 3-1/2" by 8" tenon.
Bracket arm shall be manufacturer's standard black color.

SLIP FITTER

Holophane Lighting model BHLF200-SCA/AS (Boston Harbor Series)
2-3/8" O.D. with swivel cast fitter.
Slip fitter shall be manufacturer's standard black color.

LIGHTING POLE

Tapered steel pole shaft rated for a 80mph wind load with a 1.3 gust factor. Provide four hot-dipped galvanized steel L-type anchor bolts.

Lighting pole shall be manufacturer's standard black color.

DECORATIVE POLE BASE

Holophane Lighting model Cambridge Series
Decorative clamshell cast aluminum base.
Hardware shall be stainless steel.
Decorative pole base shall be manufacturer's standard black color.

APPLICATION

Street/Sidewalk lighting for two-way streets with parking on both sides.

Suggested layout:

90-100 ft on center (one side only)

175-225 ft on center (staggered pattern both sides)

City of Portland, Maine

Street & Sidewalk Lighting
WATERFRONT COMMERCIAL DISTRICT
Large Scale Lighting Pole

08/25/07

383 Commercial Street - Fixture 'A'

DATE:
AUGUST 2009

CITY OF PORTLAND, MAINE
TECHNICAL STANDARDS MANUAL

MUNICIPAL STREET
LIGHTING STANDARDS
SECTION X

FIGURE:

REVISED:

EASTERN WATERFRONT DISTRICT LARGE
SCALE LIGHTING POLE

X-5B

CIMARRON LED CL1S

Cat.#

Job

Type

Approvals

**SPAULDING
LIGHTING**

SPECIFICATIONS

Construction:

- Stylish vertically finned die-cast solid top housing for maximum heat dissipation; Stops collection of unsightly debris
- Rugged lower die-cast aluminum heat sink accelerates thermal management and optimizes PCB and optical performance
- One piece die-cut silicone gasket with mechanically compressed stainless steel bezel ensures weather proof seal around each individual LED for IP65 rating
- Backlight Control (BC) option available for 85% spill light reduction, doesn't change fixture appearance or EPA, recommended for Type III and Type IV distributions
- Complements the Cimarron LED CL1 in the Hubbell Southwest series of outdoor fixtures
- Weight - 19 pounds, EPA - .45 ft²
- Features exclusive wiHUBB technology
 - Wireless system for On/Off and 0-10VDC dimming protocol with functional range of 10-100%
 - Programmable autonomous operation

Optics:

- Choice of 54 high brightness LED configurations with individual acrylic lenses specially designed for IES Type II, III, IV and V distributions
- 3000K, 80 CRI; 4200K, 70 CRI; 5100K, 67 CRI

Electrical:

- Universal input voltage 120-277 VAC, 50/60 Hz
- Ambient operating temperature -40° C to 40° C
- Automatic thermal self-protection
- Drivers have greater than 90% power factor and less than 10% THD
- Optional 0-10VDC continuous dimming to 10%

- LED drivers have output power over-voltage, over-current protection and short circuit protection with auto recovery
- LED electrical assembly, including PR devices, consumes no power in the 'off' state
- Surge protection of 10KA 8/20 µsec wave; clamping voltage of 320V & surge rating of 273J

Installation:

- Quick-mount plate included for easy installation
- The decorative integral arm houses two stage hinge mechanism
- Safety latch holds luminaire door to prevent "free swing"
- Quick-connect wiring for simplified, hassle-free installation
- Suitable for applications requiring 3G testing prescribed by ANSI @136.31

Finish:

- TGIC thermoset polyester powder paint finish applied at nominal 2.5 mil thickness

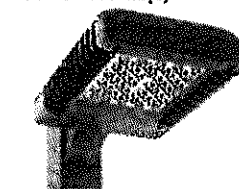
Warranty:

Five year limited warranty, for more information visit: <http://www.hubbelloutdoor.com/resources/warranty/>

Listings:

- Listed to UL1598 and CSA C22.2#250.0-24 for wet locations
- DesignLights Consortium (DLC) qualified
- IDA approved
- IP66
- IES Progress Award Winner - 2013

PRODUCT IMAGE(S)



48 LED 3/4 VIEW



16 LED

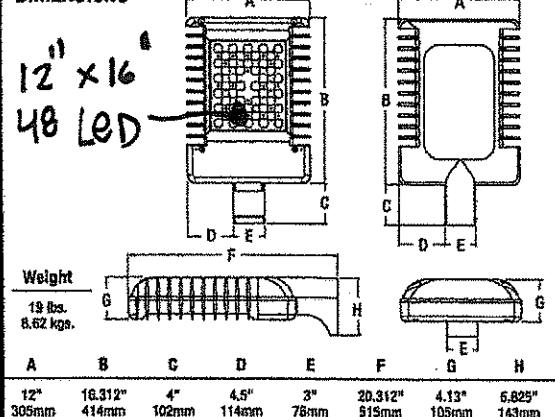


32 LED



48 LED

DIMENSIONS



CERTIFICATIONS/LISTINGS



ORDERING INFORMATION ORDERING EXAMPLE: CL1S-A-48LU-5K-3-DB-RPA3

SERIES	NO. OF LEDS	VOLTAGE	CCT	DRIVE CURRENT	OPTIONS
CL1S Cimarron LED Pedestrian Scale	16L 16 High brightness LEDs 32L 32 High brightness LEDs 48L 48 High brightness LEDs	U ³ Universal 120V-277V, 50/60 Hz 1 ¹ 120V 2 ¹ 208V 3 ¹ 240V 4 ¹ 277V 5 480V, 60 Hz F 347V, 60 Hz E ⁴ 220V, 50 Hz	3K 3000K, 80 CRI 4K 4200K, 70 CRI 5K 5100K, 67 CRI	Leave blank for 700mA (standard)	BC ³ Backlight control CD ^{4,7} Continuous dimming F(X) ^{2,4} Fusing (replace X with voltage: 1-120V, 2-208V, 3-240V, 4-277V, 5-480V, 6-347V) RPA3 3" Round pole adapter RPA4 4" Round pole adapter
MOUNTING				COLOR	
A 4" straight arm attached to housing complete with quick-mount plate				DB Dark Bronze BL Black WH White GR Gray PS Platinum Silver RD Red (premium color) FG Forest Green (premium color) CC Custom Color	TB Terminal block WB Wall bracket WHB ⁵ White LED bezel WIH ^{2,6} In-fixture wireless control module PR(X) ² NEMA Photo cell receptacle (replace X with voltage: U=120-277, 5=480, 6=347)
			DISTRIBUTION		MOTION CONTROL OPTIONS
			2 Type II 3 Type III 4 Type IV 5M Type V Medium 5S Type V Short 5W Type V Wide 2L Type II rotated left 3L Type III rotated left 4L Type IV rotated left 2R Type II rotated right 3R Type III rotated right 4R Type IV rotated right		SC0 ⁹ Motion sensor On/Off control, No light output when no motion detected SCP ⁸ Programmable motion control, factory default is 50%

Notes: 1 - Select only when using voltage specific options F, WH
2 - WH cannot be combined with CD or PRQ
3 - Fuse option not available with U voltage
4 - Select F3 fusing option for 220V
5 - Not recommended for Type 5S, 5M or 5W
6 - Order to match larger Cimarron CL1 with white bezels
7 - Dimming leads accessible for connection to third party dimming systems
8 - Only available with 120V or 277V input
9 - 0-10V fully adjustable dimming with automatic daylight calibration and different time delay settings

**SPAULDING
LIGHTING**

Spaulding Lighting • 701 Millennium Boulevard • Greenville, SC 29607 • Phone: 864-678-1000
Due to our continued efforts to improve our products, product specifications are subject to change without notice.
© 2014 SPAULDING LIGHTING, All Rights Reserved • For more information visit our website: www.spauldinglighting.com • Printed in USA

CL1SLED-SPEC 4/14

383 Commercial Street Fixture 'B'

383 COMMERCIAL STREET
OPEN SPACE AND LANDSCAPE TREATMENTS

THE MASTER DEVELOPMENT PLAN AND LEVEL III SITE PLAN PROVIDE FOR OPEN SPACE IN TWO WAYS :

- INDIVIDUAL UNITS WILL HAVE PRIVATE PATIOS AT THE PLAZA LEVEL AND BALCONIES ON THE UPPER FLOORS.
- EACH PHASE WILL FEATURE A CENTRAL ROOFTOP COURTYARD, CONSTRUCTED AT THE THIRD LEVEL ABOVE THE PARKING GARAGES BELOW. THESE ROOFTOP COURTYARDS WILL BE BUILT USING PEDESTAL PAVERS INSTALLED OVER A WATERPROOFED CONCRETE DECK. PLANTING AREAS WILL BE CREATED USING CURBS TO RETAIN SOIL ADJACENT TO THE PAVERS.
- LAWN SOD WILL BE INSTALLED IN THE AREAS OF THE COURTYARDS NOT PROPOSED AS PAVED AREAS, AND ALL LAWN AREAS WILL BE IRRIGATED.
- THE RESULTING OPEN SPACES WILL PROVIDE ATTRACTIVE AND UNUSUAL ELEVATED GREEN SPACES FOR RESIDENTS – SEE ATTACHED PHOTOGRAPH OF A SIMILAR OPEN SPACE ENJOYED BY RESIDENTS AT THE BAY HOUSE, IN THE INDIA STREET NEIGHBORHOOD.

THE YORK STREET EDGE OF THE PROJECT WILL INCLUDE LANDSCAPE PLANTINGS BETWEEN THE SIDEWALK AND THE BUILDING EDGE, SOFTENING THIS AREA AND ENHANCING ITS FEEL AS RESIDENTIAL.

THE COMMERCIAL STREET EDGE OF THE PROJECT WILL INCLUDE THE INSTALLATION OF NEW STREET TREES, PLANTED IN ELONGATED AND RAISED GRANITE CURBS, AS REQUESTED BY THE CITY ARBORIST. NEW STREET LIGHTS WILL ALSO BE INSTALLED, IN ACCORDANCE WITH THE CITY LIGHTING ORDINANCE. AS THIS EDGE OF THE PROJECT INCLUDES RETAIL USES AND BECAUSE THE BUILDING WILL BE BUILT TO THE STREET LINE , THIS AREA IS PREDOMINANTLY HARDSCAPE. PLANTINGS ARE PROPOSED WITHIN THE TWO COURTYARDS ON COMMERCIAL STREET, HOWEVER, THESE SPACES ARE MOSTLY HARDSCAPE, AS THE APPLICANT ENVISIONS OUTDOOR CAFES / SEATING IN THESE LOCATIONS.

AT THE CORNER OF COMMERCIAL STREET AND EXTENDING UP HIGH STREET, LANDSCAPE AREAS ARE PROPOSED BETWEEN THE SIDEWALK AND THE BUILDING.

ANOTHER OPEN SPACE OCCURS AT THE NW CORNER OF THE SITE, WHERE THE PUBLIC WALKWAY DESCENDS FROM HIGH STREET TO MAPLE STREET. IN THIS AREA, ADJACENT TO THE BAXTER ACADEMY BUILDING, A LAWN AREA WITH COLUMNAR TREES IS PROPOSED, AS WELL AS SOME FOUNDATION PLANTINGS NEAR THE SERVICE AREA.



ROOFTOP PLAZA AT BAY HOUSE

383 COMMERCIAL STREET
MAPLE STREET HISTORIC COBBLES

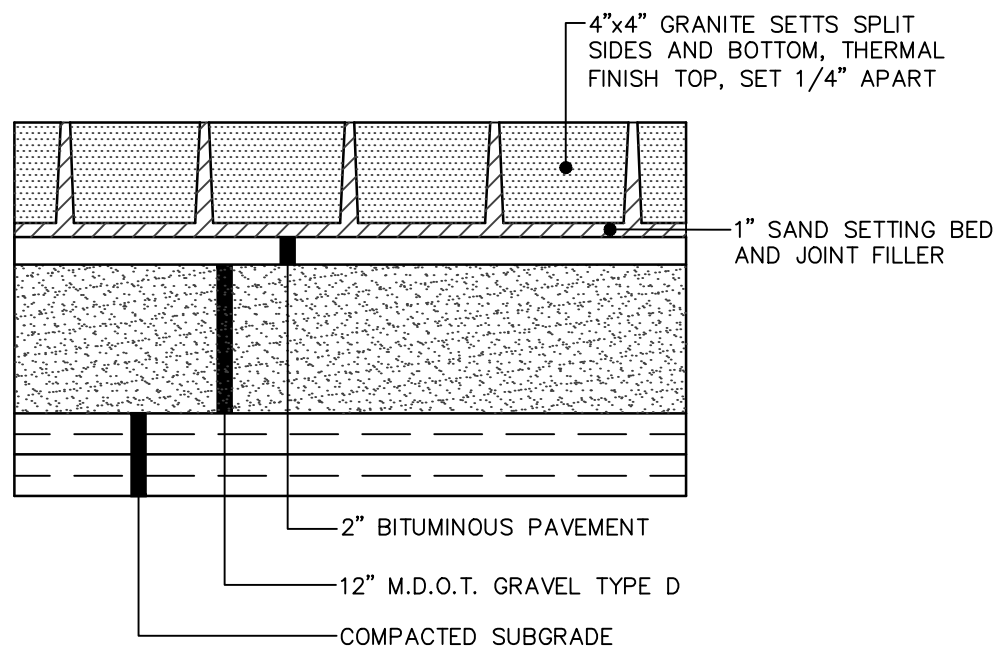
IN THE MARCH 22, 2016 STAFF REPORT INCLUDES A PHOTOGRAPH AND STATEMENT THAT " ON MAPLE STREET THERE ARE REMNANTS OF THE HISTORIC COBBLES IN THE SIDEWALK AND EXISTING CURB CUT, AND FURTHER DISCUSSION IS NEEDED AS TO WHETHER AND HOW THESE MAY BE PRESERVED."

THE APPLICANT HAS CONSIDERED THIS REQUEST AND IS PROPOSING THAT THE APPLICANT'S SITE CONTRACTOR SALVAGE AND PRESERVE THE EXISTING COBBLES. BECAUSE THEY ARE WORN AND IRREGULAR, THEY WOULD BE UNSAFE TO USE IN THE MAPLE STREET SIDEWALK.

AS A GESTURE TO SIGNIFICANCE OF THESE COBBLES, THE APPLICANT PROPOSES TO RECONSTRUCT THIS SECTION OF THE SIDEWALK WITH GRANITE SETTS – THESE ARE GRANITE PAVERS WITH A SMOOTH THERMAL FINISH WHICH IS SAFE FOR WALKING ON – AND A VISUAL REFERENCE TO THE COBBLES.

THE EXISTING COBBLES WILL BE RETURNED TO CITY PUBLIC SERVICES FOR RE – USE IN A LOCATION DETERMINED BY THE CITY.

SEE ATTACHED DETAIL FOR INSTALLATION OF THE GRANITE SETTS.



GRANITE SETT DETAIL

NOT TO SCALE

383 COMMERCIAL STREET
CURB BUMPOUT AT COMMERCIAL STREET AND MAPLE STREET

CITY STAFF HAS REQUESTED THAT THE APPLICANT PROVIDE FOR A CURB BUMPOUT AT THE SOUTHWEST CORNER OF COMMERCIAL STREET AND MAPLE STREET. DUE TO THE CURRENT MORATORIUM PROHIBITING WORK ON COMMERCIAL STREET, THE APPLICANT PROPOSES TO CONSTRUCT THIS IMPROVEMENT IN PHASE 2 OF THE PROJECT, AT WHICH TIME IT IS ANTICIPATED THAT THE MORATORIUM WILL BE EXPIRED.

ATTACHED IS THE APPLICANT'S DESIGN PROPOSAL FOR THIS LOCATION. THE DESIGN FEATURES A GRANITE BENCH, RAISED PLANTED AREA AND BICYCLE RACKS – TO MIMIC AND COMPLIMENT THE BUMPOUT ACROSS MAPLE STREET, AT THE NORTHWEST CORNER OF THIS INTERSECTION AND IN FRONT OF THE EXISTING HOTEL PROPERTY.

383 COMMERCIAL STREET
SERVICE AND LOADING AREAS

IN RESPONSE TO STAFF COMMENTS, THE MAPLE STREET SERVICE AREA HAS BEEN REDESIGNED. THE BUILDING FOOTPRINT HAS BEEN REDUCED AND SHIFTED FURTHER FROM THE BAXTER ACADEMY PROPERTY LINE. BY INCREASING THIS DIMENSION, THE SERVICE DRIVE HAS BEEN WIDENED TO 15 FEET, LEAVING 6 FEET FOR THE PUBLIC WALKWAY AND RETAINING WALL. THE RETAINING WALL IS A LOW WALL AND IS ONLY 12 INCHES WIDE, LEAVING A CLEAR WIDTH OF 5 FEET FOR THE PUBLIC WALKWAY. THE PUBLIC WALKWAY IS SEPARATED FROM THE SERVICE DRIVE BY A VERTICAL GRANITE CURB. WHILE IT IS POSSIBLE THAT PEDESTRIANS WOULD USE THE WALKWAY WHILE A SERVICE VEHICLE IS PRESENT, THIS OCCURRENCE WILL BE INFREQUENT, AND THE REVISED DESIGN PROVIDES FOR A FUNCTIONAL WALKWAY WIDTH AND SEPARATION FROM THE SERVICE DRIVEWAY.

AS DEPICTED ON THE ATTACHED PLANS, THIS SERVICE AREA WILL ACCOMMODATE THE TURNING MOVEMENTS OF A WB -40 TRACTOR TRAILER AND AN SU -30 TRUCK VEHICLE.

THE COMMERCIAL STREET SERVICE AREA, TO BE CONSTRUCTED IN PHASE 2, IS ALSO DESIGNED TO ACCOMMODATE A WB – 40 TRACTOR TRAILER AND AN SU -30 TRUCK VEHICLE. DELIVERIES TO THIS SERVICE AREA WILL BE RESTRICTED TO EARLY AM HOURS TO LIMIT PEDSTRIAN CONFLICTS. MODIFICATIONS TO CURBING AND ON - STREET PARKING WILL BE REQUIRED AT THIS LOCATION.

May 18, 2017

Jean Fraser, Planner
City of Portland
389 Congress Street
Portland, ME 04101

Dear Jean,

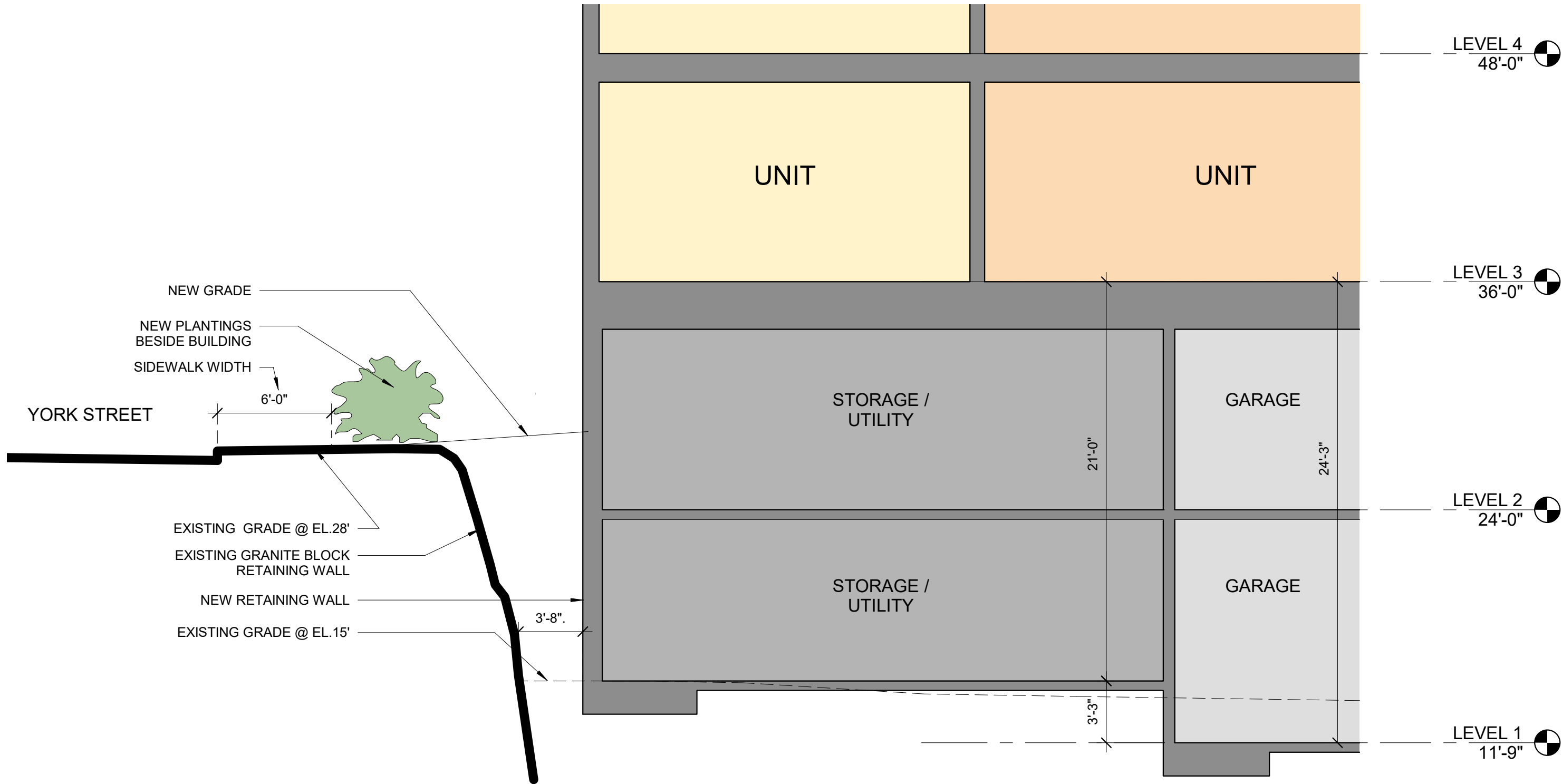
RE: Rear Existing Retaining Wall, 383 Commercial Street

The existing retaining wall running east to west on the north side has been in place for well over 100 years. It is our intention to leave the existing retaining wall in place in its existing condition. We will build a new retaining wall approximately three feet away which will be designed to take the lateral earth loads that the present wall retains. Between the walls well-draining gravel will be placed and a footing drain will be added. The foundation of the new wall will be designed such that the capacity of the existing wall is not compromised during construction. The concept design has been reviewed by Bill Peterlein, Geotechnical Engineer and Rimas Veitas, Structural Engineer. See attached section.

Respectfully Submitted,



David Lloyd
Maine Licensed Architect



383 COMMERCIAL STREET
Portland, Maine





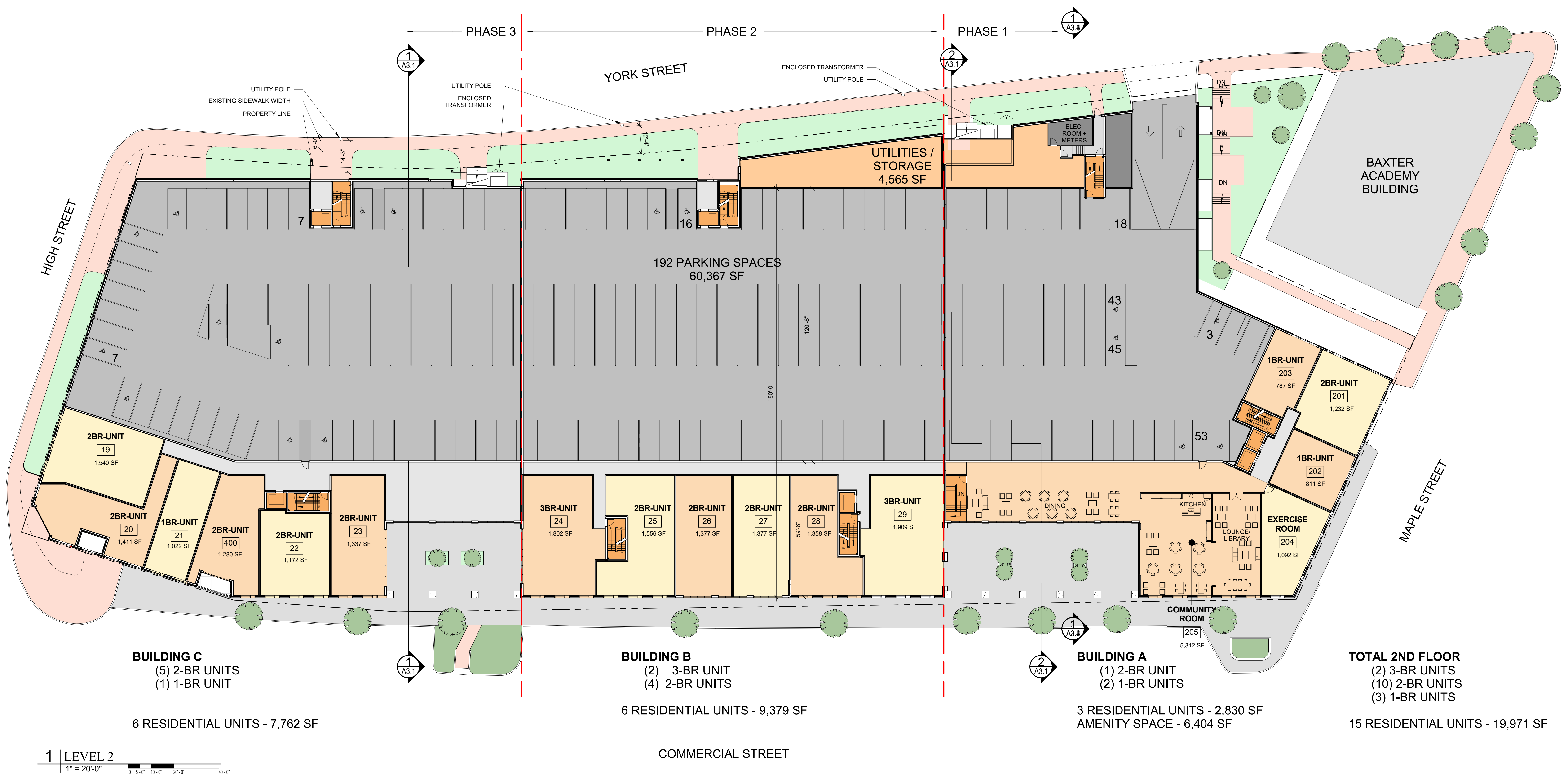
1 | LEVEL 1 - PHASE 1 - OVERALL SITE
1" = 20'-0"

383 COMMERCIAL STREET

Portland, Maine

MAY 23, 2017

A1.1-1

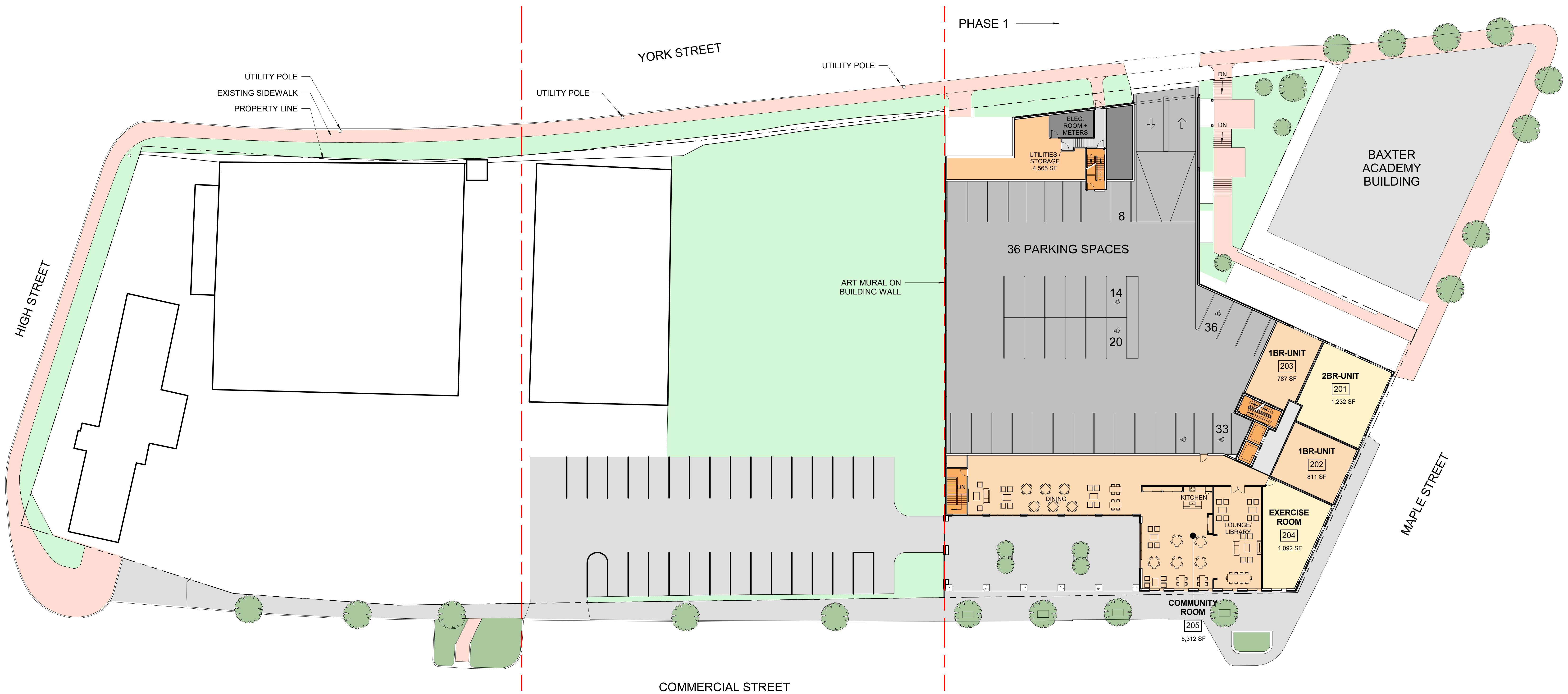


383 COMMERCIAL STREET

Portland, Maine

MAY 23, 2017

A1.2



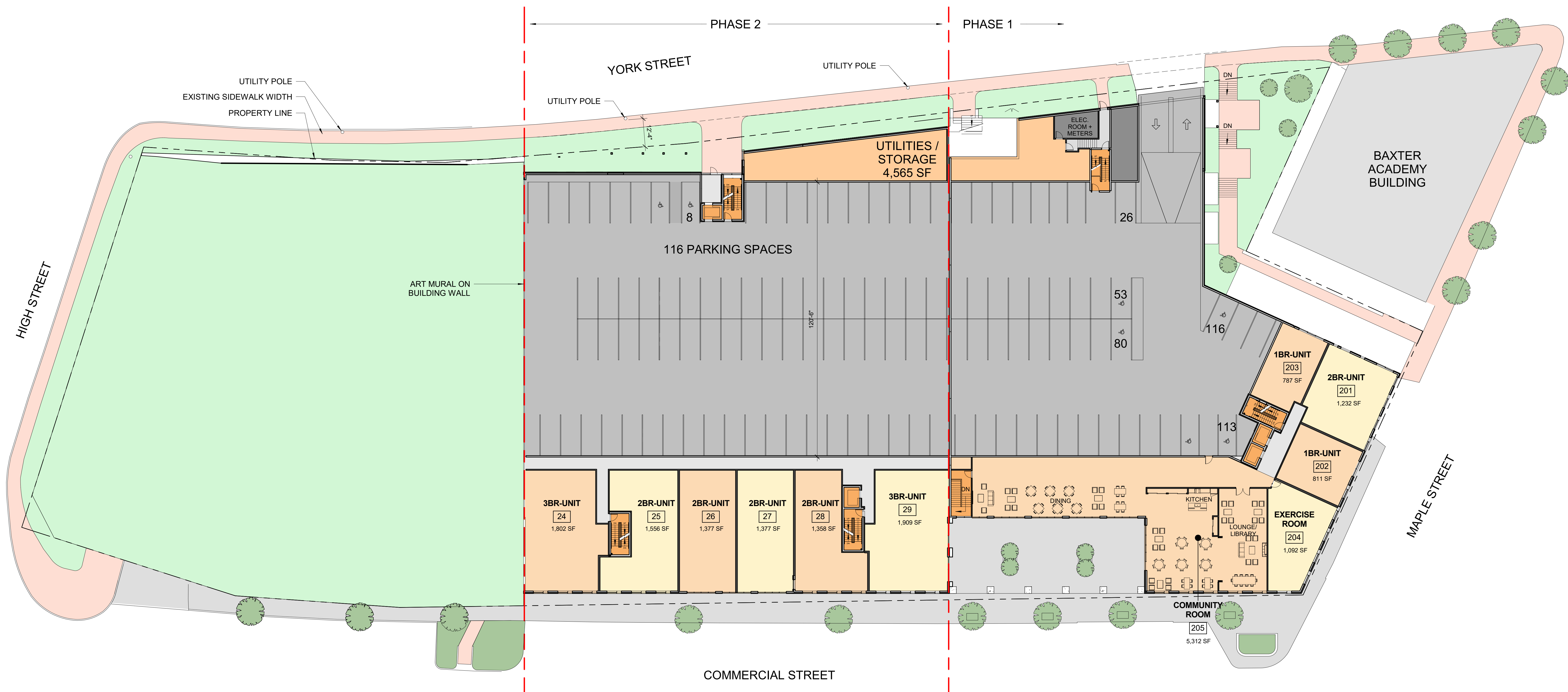
1 | LEVEL 2 - PHASE 1 - OVERALL SITE
1" = 20'-0"

383 COMMERCIAL STREET

Portland, Maine

MAY 23, 2017

A1.2-1



1 | LEVEL 2 - PHASE 2 - OVERALL SITE

1" = 20'-0"

0 5'-0" 10'-0" 20'-0" 40'-0"

383 COMMERCIAL STREET

Portland, Maine

MAY 23, 2017

A1.2-2



BUILDING C
3RD FLOOR
 (7) 2-BR UNITS
 (10) 1-BR UNITS
 (3) EFF UNITS
 20 RESIDENTIAL UNITS - 18,125 SF
 1 RETAIL SPACE - 2,087 SF

4TH-6TH FLOORS
 (8) 2-BR UNITS
 (11) 1-BR UNITS
 (3) EFF UNITS
 22 RESIDENTIAL UNITS - 20,216 SF
 - 20,216 SF (6TH FLOOR)

BUILDING B
3RD - 6TH FLOORS
 (11) 2-BR UNITS
 (14) 1-BR UNITS
 (2) EFF UNITS
 27 RESIDENTIAL UNITS - 26,003 SF
 - 25,415 SF (6TH FLOOR)

BUILDING A
3RD FLOOR
 (6) 2-BR UNITS
 (7) 1-BR UNITS
 (5) EFF UNITS
 18 RESIDENTIAL UNITS - 16,917 SF
 AMENITY SPACE - 788 SF

4TH-6TH FLOORS
 (8) 2-BR UNITS
 (11) 1-BR UNITS
 (3) EFF UNITS
 19 RESIDENTIAL UNITS - 17,701 SF
 - 17,834 SF (6TH FLOOR)

TOTAL 3RD FLOOR
 (24) 2-BR UNITS
 (31) 1-BR UNITS
 (10) EFF UNITS
 65 RESIDENTIAL UNITS - 61,045 SF

TOTAL 4TH-6TH FLOORS
 (78) 2-BR UNITS
 (96) 1-BR UNITS
 (30) EFF UNITS
 204 RESIDENTIAL UNITS - 191,305 SF

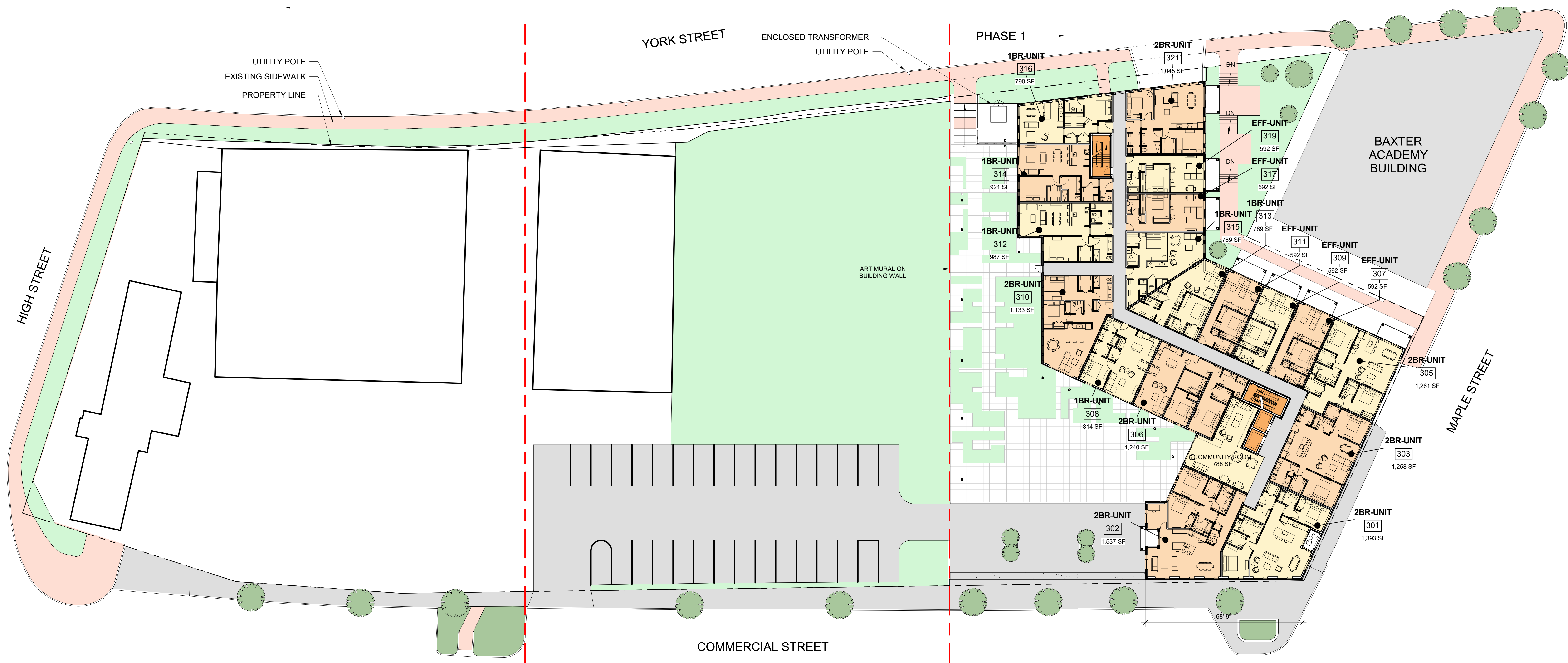
1 | LEVELS 3 THROUGH 5
 1" = 20'-0"

383 COMMERCIAL STREET

Portland, Maine

MAY 23, 2017

A1.3



1 | LEVELS 3 THROUGH 5 - PHASE 1 - OVERALL SITE
1" = 20'-0"

383 COMMERCIAL STREET

Portland, Maine

MAY 23, 2017

A1.3-1



1 | LEVELS 3 THROUGH 5 - PHASE 2 - OVERALL SITE

1" = 20'-0"

0 5'-0" 10'-0" 20'-0" 40'-0"

383 COMMERCIAL STREET

Portland, Maine

MAY 23, 2017

A1.3-2

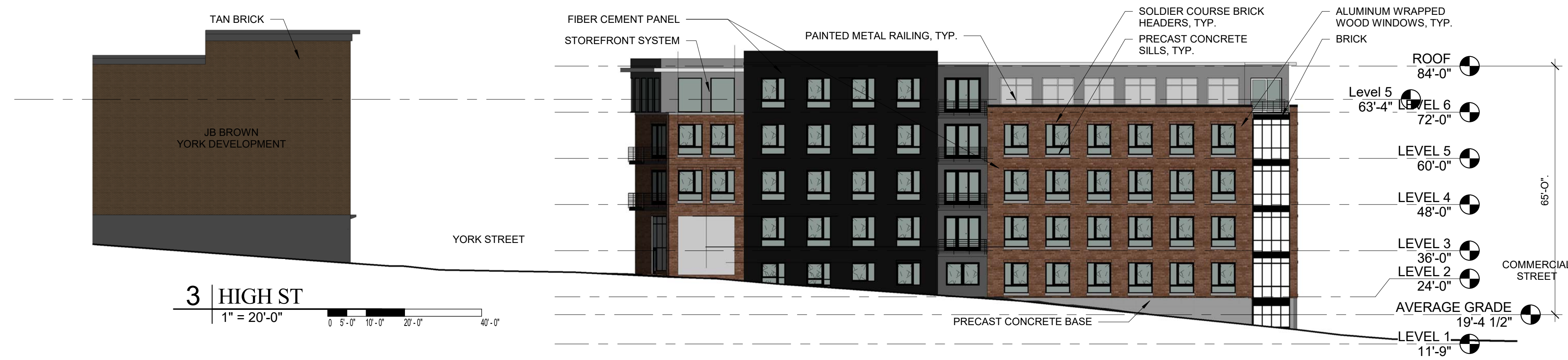


GENERAL NOTES:
1. AVERAGE GRADE BY DEFINITION: 4 CORNER AVERAGE GRADE - NW 27.75' + NE 27' + SE 11' + SW 11.75' / 4 = 19'- 4.5" (AVERAGE GRADE TAKEN AT THE PHASE 1 SINCE THE GRADE IS LOWEST THERE)
2. BUILDING HEIGHT: THE VERTICAL MEASUREMENT FROM AVERAGE GRADE TO HIGHEST POINT OF THE ROOF BEAMS = 65' - 0"

1 | MAPLE ST
1" = 20'-0"



2 | COMMERCIAL ST
1" = 20'-0"



3 | HIGH ST
1" = 20'-0"



4 | YORK STREET
1" = 20'-0"

383 COMMERCIAL STREET

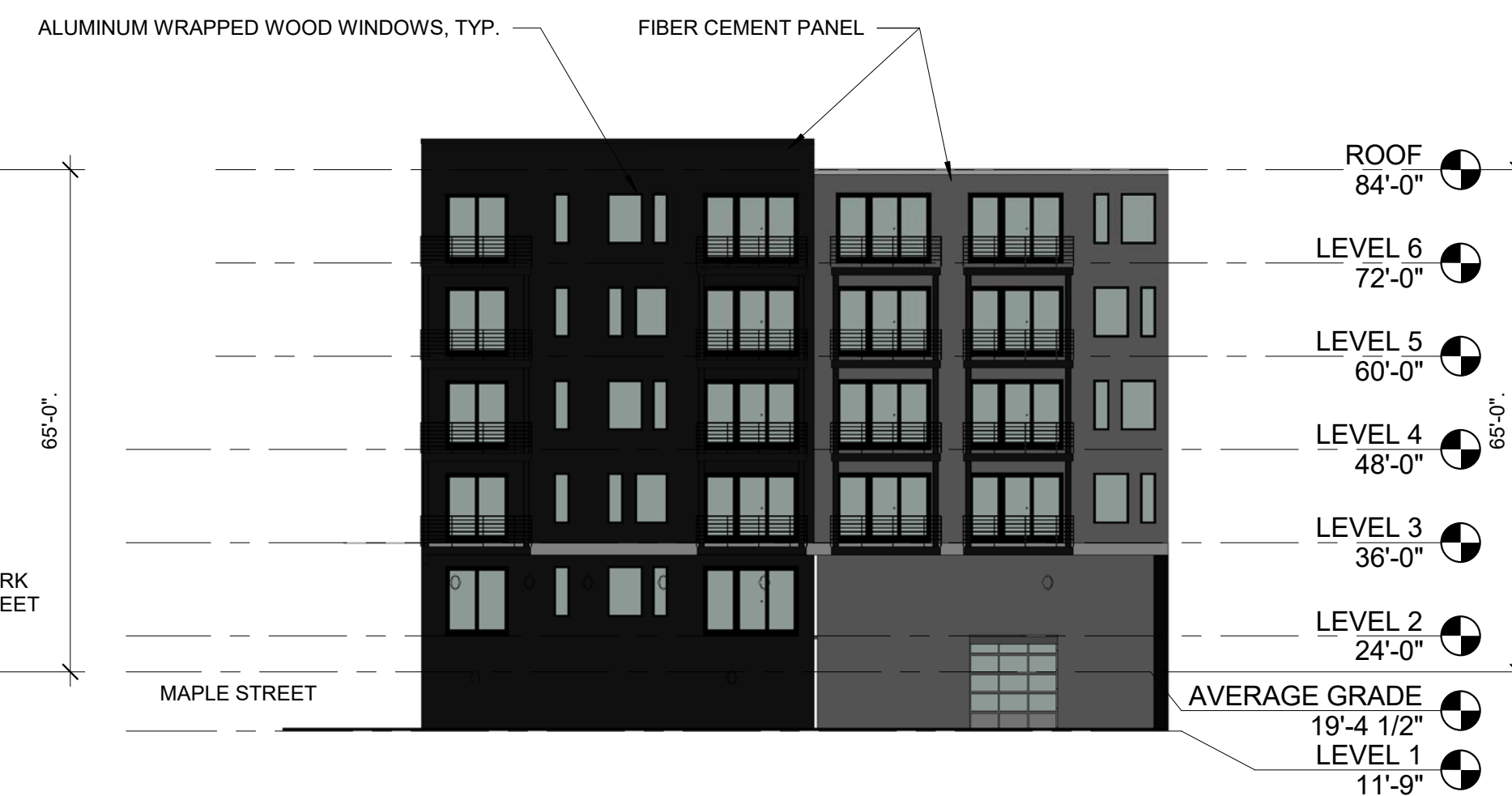
Portland, Maine

MAY 23, 2017

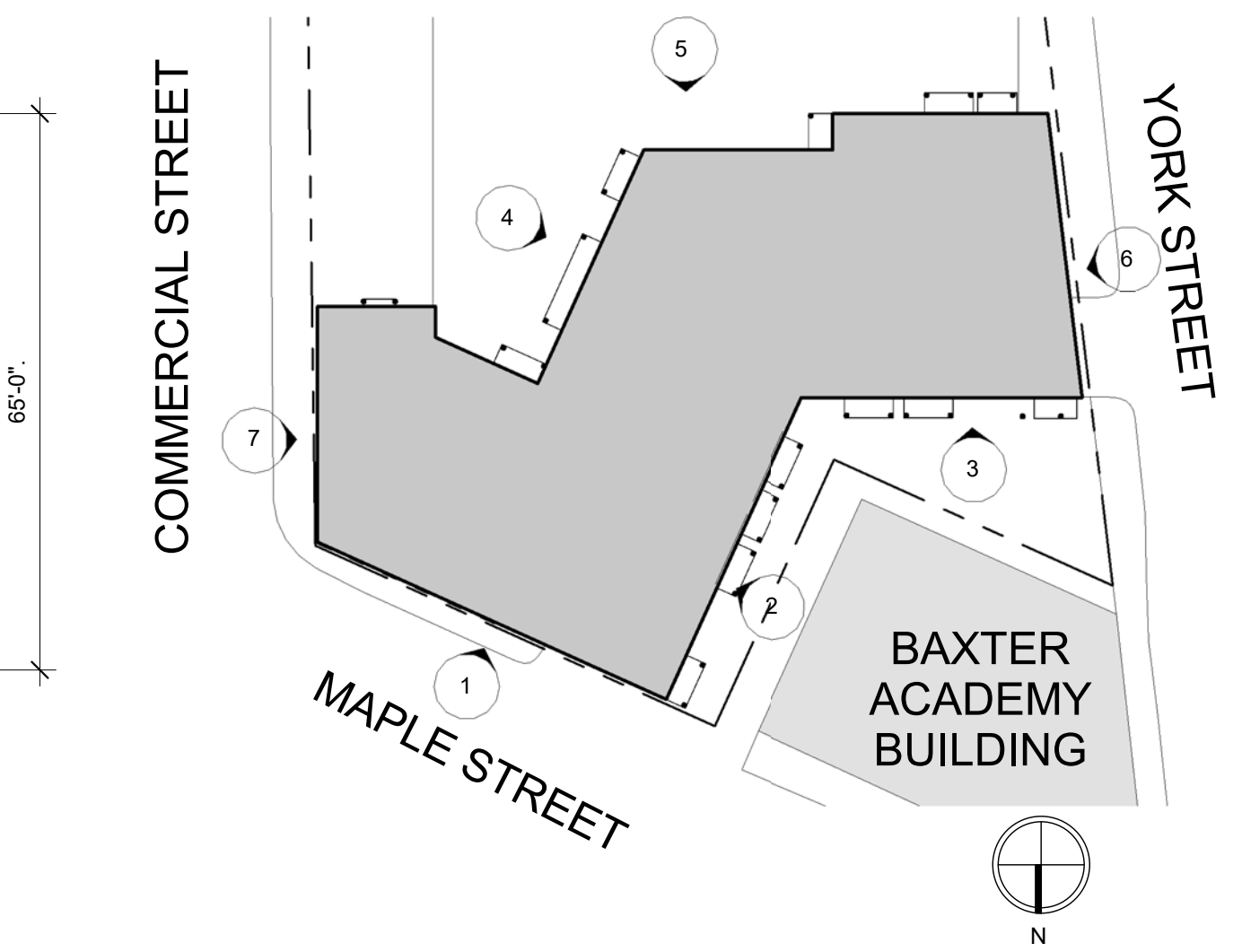
A2.1



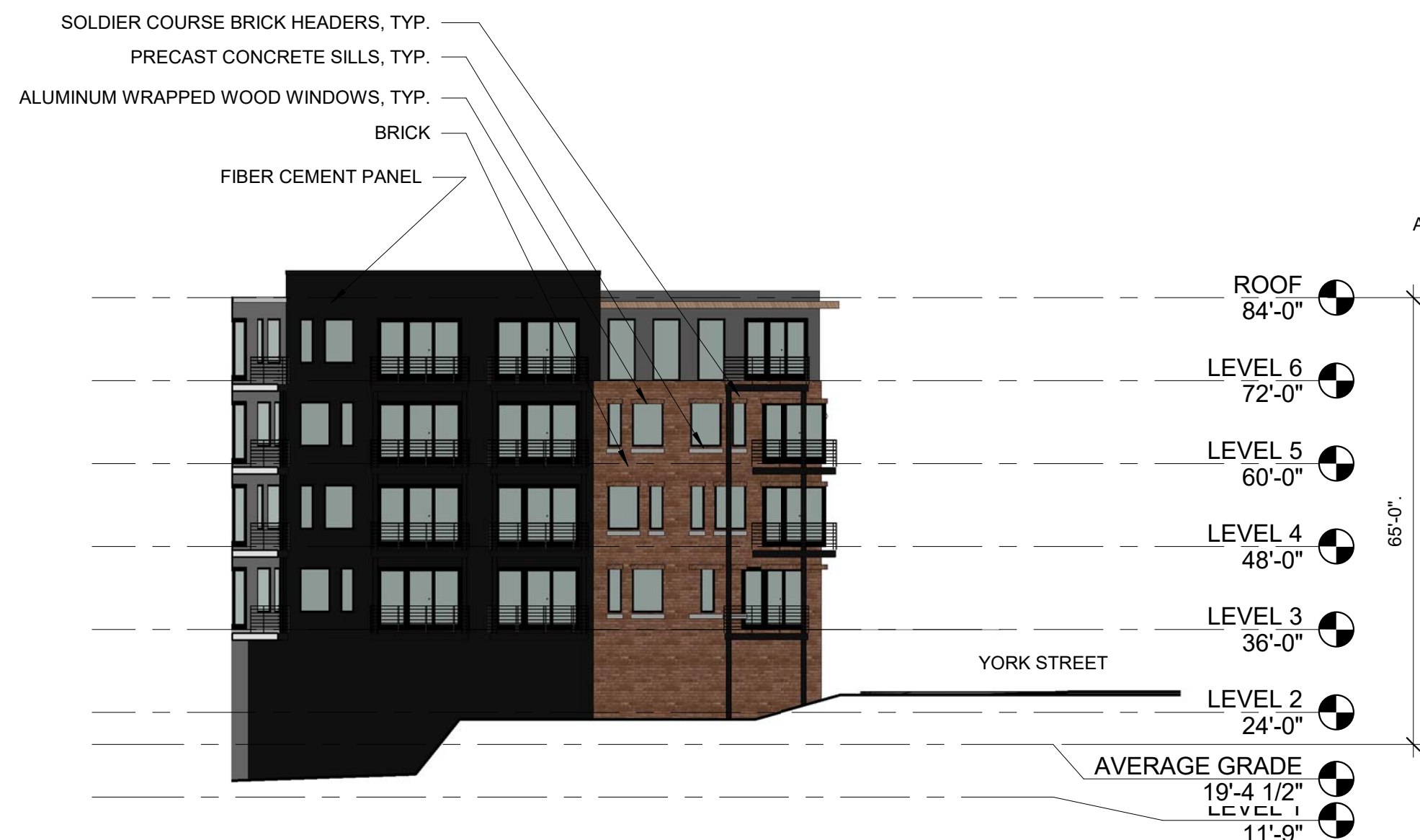
1 | PHASE 1 - MAPLE ST ELEVATION
 1" = 20'-0"



2 | PHASE 1 - WEST ELEVATION
 1" = 20'-0"



GENERAL NOTES:
 1. AVERAGE GRADE BY DEFINITION: 4 CORNER AVERAGE GRADE - NW 27.75' + NE 27' + SE 11' + SW 11.75' / 4 = 19'-4.5" (AVERAGE GRADE TAKEN AT THE PHASE 1 SINCE THE GRADE IS LOWEST THERE)
 2. BUILDING HEIGHT: THE VERTICAL MEASUREMENT FROM AVERAGE GRADE TO HIGHEST POINT OF THE ROOF BEAMS = 65' - 0"



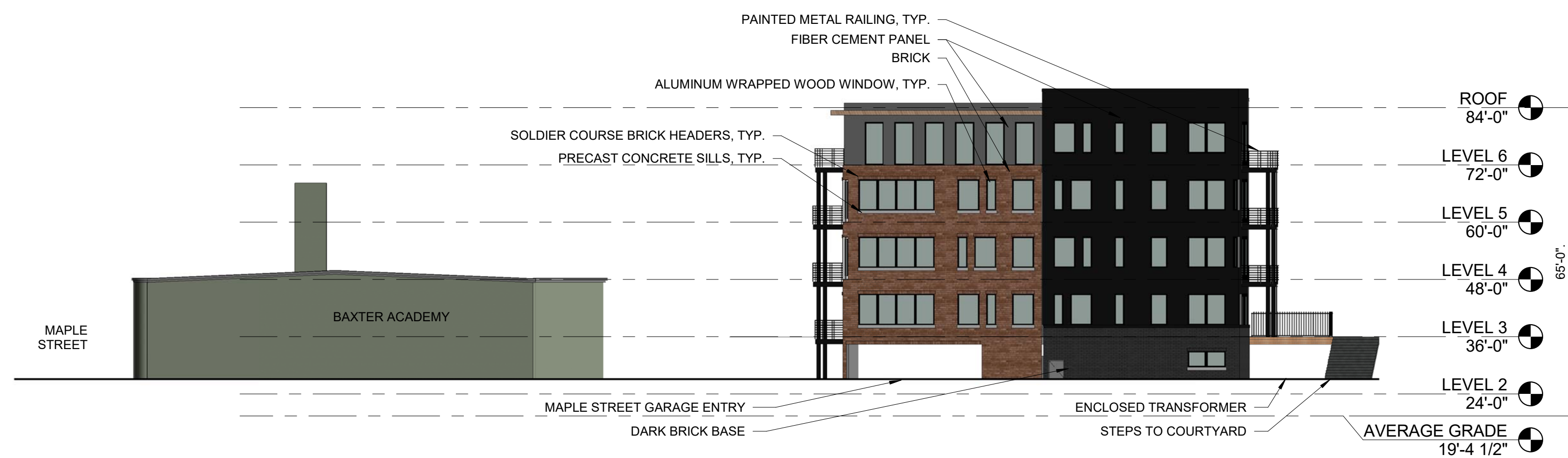
3 | PHASE 1 - EAST ELEVATION
 1" = 20'-0"



4 | PHASE 1 - SOUTH EAST ELEVATION
 1" = 20'-0"



5 | PHASE 1 - SOUTH ELEVATION
 1" = 20'-0"



6 | PHASE 1 - YORK ST ELEVATION
 1" = 20'-0"



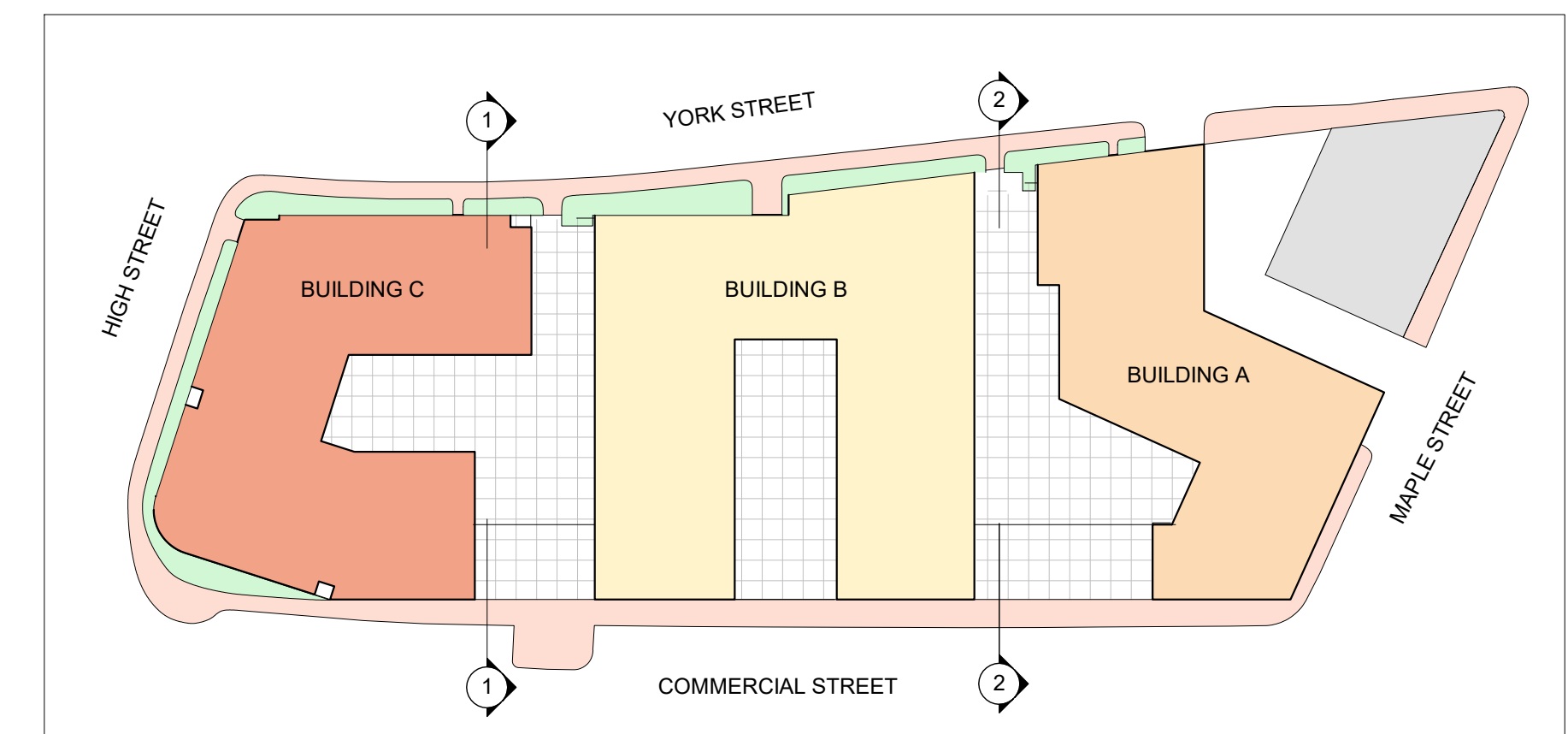
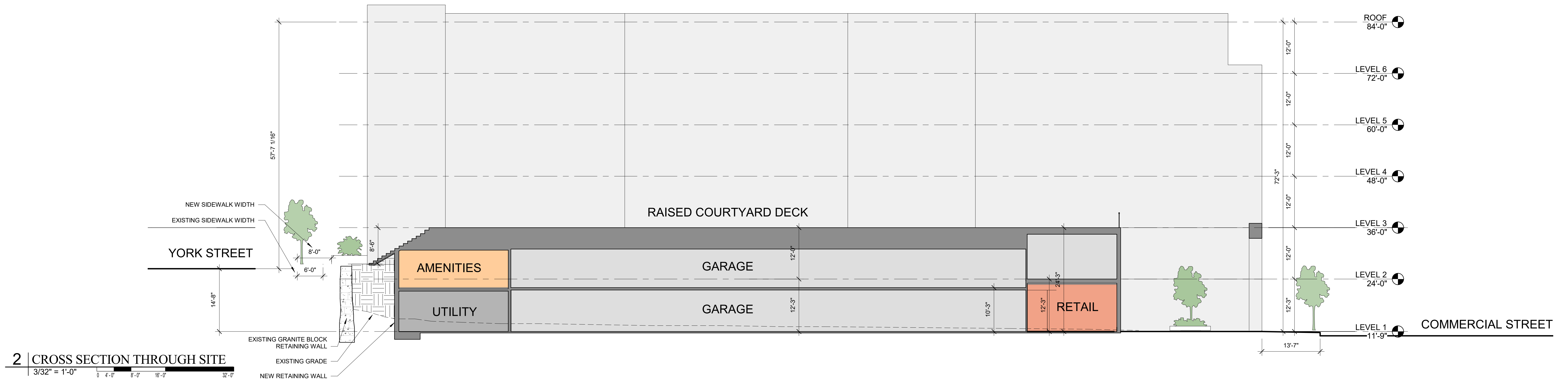
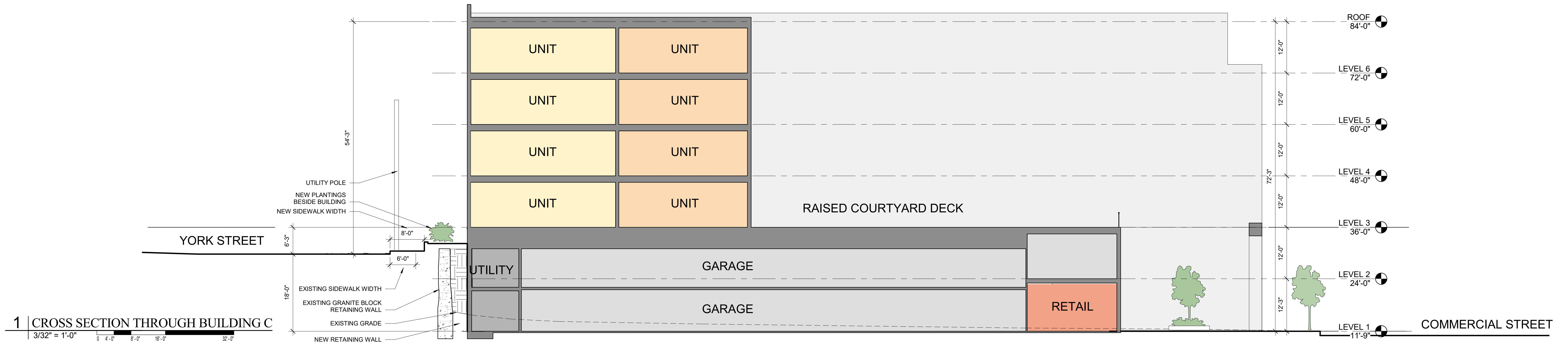
7 | PHASE 1 - COMMERCIAL ST ELEVATION
 1" = 20'-0"

383 COMMERCIAL STREET

Portland, Maine

MAY 23, 2017

A2.1-1



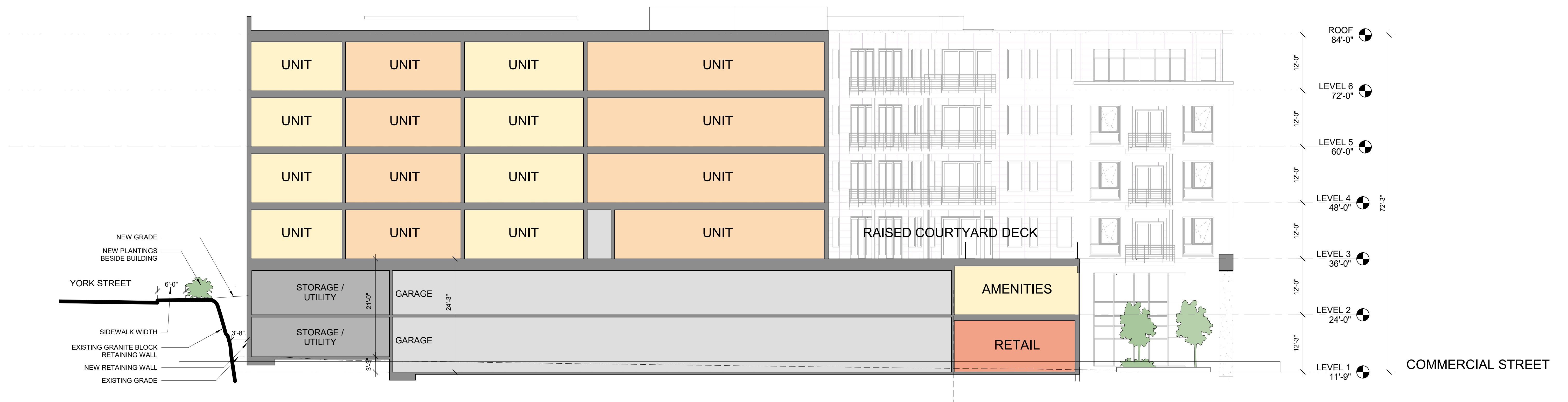
383 COMMERCIAL STREET

Portland, Maine

MAY 23, 2017

A3.1





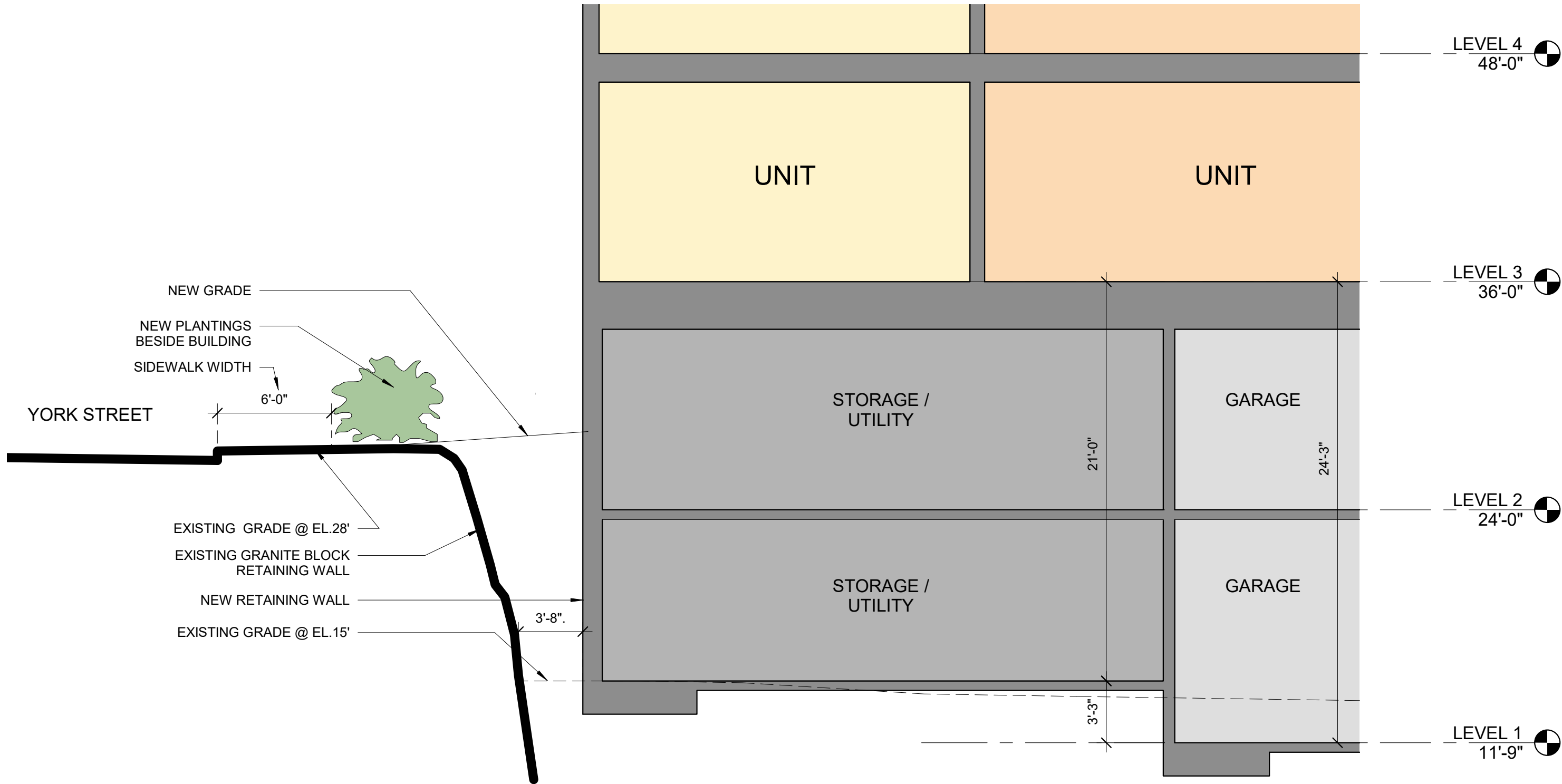
1 | SECTION PHASE 1
3/32" = 1'-0"

383 COMMERCIAL STREET

Portland, Maine

MAY 23, 2017

A3.3-1



383 COMMERCIAL STREET
Portland, Maine









383 Commercial Street

Portland, Maine

May 2017













1. THE RECORD OWNER OF THE PARCEL IS MILLIKEN SMITH BLOCK LLC BY DEED RECORDED AT THE CUMBERLAND COUNTY REGISTRY OF DEEDS (CCRD) IN BOOK 22473, PAGE 307.

2. THE PROPERTY IS SHOWN AS LOT A-001 ON THE CITY OF PORTLAND TAX MAP 42 AND IS LOCATED IN THE B5-B URBAN COMMERCIAL MIXED USE ZONE.

3. SEBAGO TECHINCS, INC. HAS NOT PERFORMED ANY INDEPENDENT RECORDS RESEARCH OR FIELD SURVEY IN CONJUNCTION WITH THE ISSUANCE OF THIS PLAN. THIS PLAN, THE BOUNDARY AND TOPOGRAPHIC INFORMATION DEPICTED HEREON IS BASED SOLELY UPON PLAN REFERENCE 10-A. THE SURVEYORS STAMP ON THIS PLAN IS RELATIVE TO THE FUTURE SALE OF UNITS WITHIN THE PROPOSED BUILDING DEPICTED HEREON.

4. LOT AREA IS 112,647 S.F. / 2.586 ACRES PER PLAN REFERENCE 10-A.

5. BASIS OF BEARINGS ARE TRUE NORTH PER PLAN REFERENCE 10-A.

6. BOUNDARY AND TOPOGRAPHIC INFORMATION SHOWN HEREON IS BASED SOLEY UPON PLAN REFERENCE 10-A.

7. ELEVATIONS ARE BASED ON CITY DATUM PER PLAN REFERENCE 10-A.

8. ALL UTILITIES SHOWN HEREON ARE BASED SOLEY UPON PLAN REFERENCE 10-A.

9. SPACE AND BULK REQUIREMENTS:

MINIMUM LOT SIZE -	NONE	PROPOSED:	2,586 ACRES
MINIMUM FRONTAGE -	NONE		566.51 FT (COMMERCIAL STREET)
MINIMUM FRONT SETBACK -	NONE		NONE
MINIMUM SIDE SETBACK -	NONE		NONE
MINIMUM REAR SETBACK -	NONE		3 FEET
MINIMUM FRONT SETBACK -	10 FEET		2 FEET
MAXIMUM LOT COVERAGE -	100 %		108,099 SF (96 %)
MAXIMUM BUILDING HEIGHT -	65 FEET		65 FEET

10. THE LOCUS PROPERTY AS DEPICTED HEREON DOES/DOES NOT FALL WITHIN A SPECIAL FLOOD HAZARD AREA AS DELINEATED ON THE FLOOD INSURANCE RATE MAP FOR PORTLAND, MAINE, CUMBERLAND COUNTY, COMMUNITY-PANEL NUMBER 230051-0013-B, HAVING AN EFFECTIVE DATE OF JULY 17, 1986. THE LOCUS FALLS WITHIN AN AREA IDENTIFIED AS ZONE C, AREAS OF MINIMAL FLOODING.

12. PROPOSED RETAIL AREA - 6,736 SF

13. PROPOSED RESIDENTIAL MULTI - FAMILY RESIDENTIAL UNITS - 78

14. OFF STREET PARKING REQUIREMENTS:

A. 78 RESIDENTIAL UNITS @ 1 SPACE EA. = 78 SPACES.

B. 6,736 GROSS RETAIL AREA, NET RETAIL AREA (75%) = 5052 SF @ 1 SPACE/200 SF = 25 SPACES

C. TOTAL REQUIRED = 103 SPACES.

D. TOTAL PROVIDED = 103 SPACES, 73 SPACES IN GARAGE, 30 TEMPORARY SURFACE SPACES.

E. TEMPORARY SURFACE SPACES WILL BE RELOCATED TO GARAGE IN PHASE 2 OF THE PROJECT.

15. BICYCLE PARKING REQUIREMENTS:

A. 2 SPACES PER EACH (5) RESIDENTIAL UNITS - 78/5 = 31 SPACES.

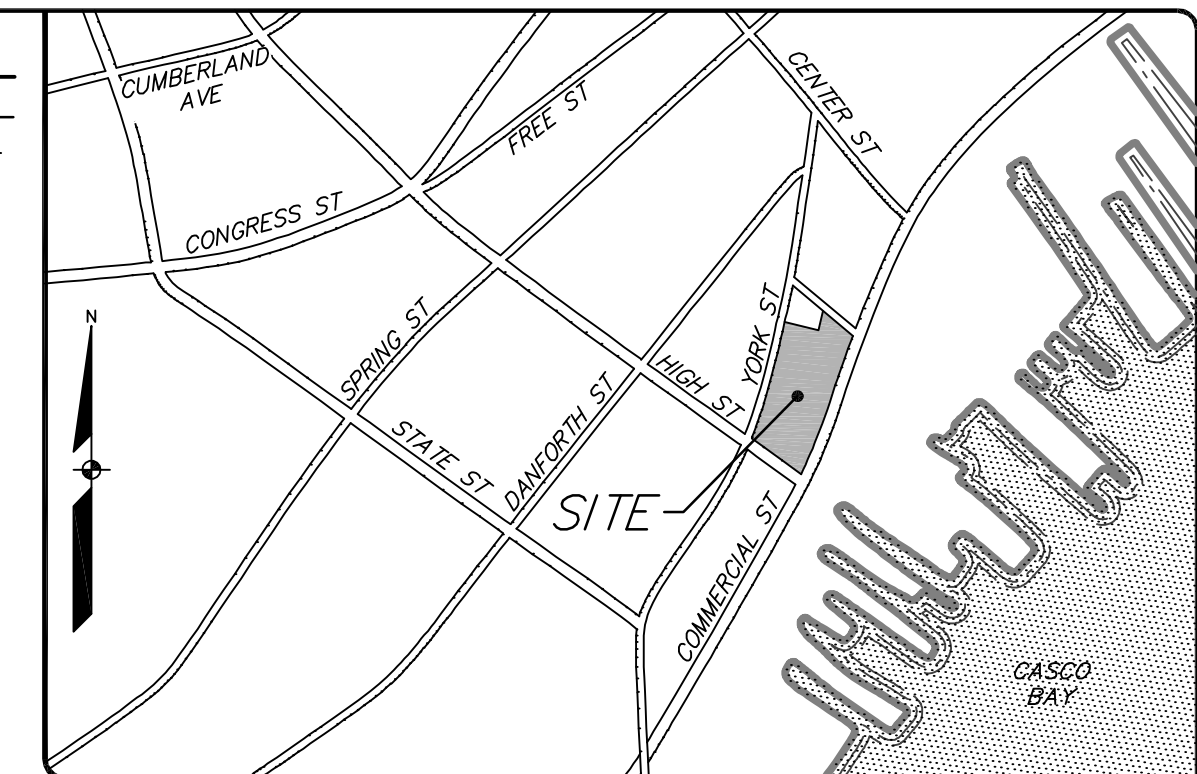
B. 2 SPACES PER EACH (10) RETAIL PARKING SPACES - 25/10 = 2.5x2 = 5 SPACES.

C. 36 SPACES REQUIRED.

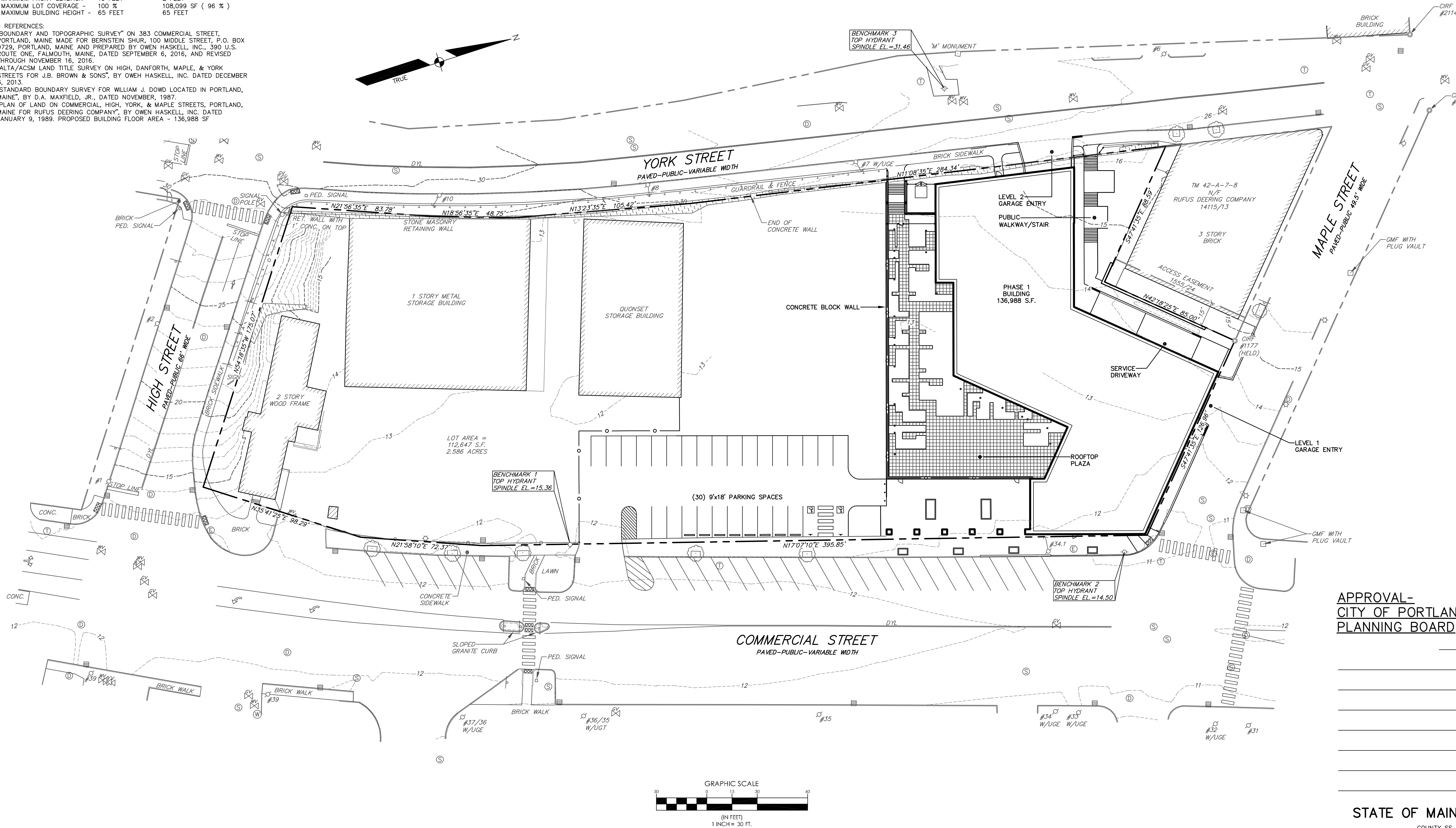
D. 36 BIKE RACK SPACES PROVIDED IN GARAGE.

1. TO BE DETERMINED.

EXISTING	DESCRIPTION	PROPOSED	EXISTING	DESCRIPTION
	PROPERTY LINE/R.O.W.			STONE MASONRY WALL
	ABUTTER LINE/R.O.W.			DECIDUOUS TREE
	SETBACK			CONIFEROUS TREE
	EASEMENT			BOLLARD
	MONUMENT			SIGN
	IRON PIPE/ROD			GAS GATE VALVE
C1/L1	CURVE/LINE NO.			WATER GATE VALVE
	BUILDING			HYDRANT
	DECK/STEPS/ OVERHANG			SANITARY MANHOLE
	EDGE PAVEMENT			DRAINAGE MANHOLE
	EDGE CONCRETE			CATCH BASIN
	PAVEMENT PAINT			ELECTRIC MANHOLE
	CURB LINE			TELEPHONE MANHOLE
	NON-SKIP PAD			LIGHT POLE
	CHAIN LINK FENCE			UTILITY POLE
	STOCKADE FENCE			GUY WIRE
	GUARD RAIL			
	RETAINING WALL			



N.T.S.



APPROVAL-
CITY OF PORTLAND
PLANNING BOARD

DATE _____

PERSON _____

STATE OF MAINE

_____ COUNTY SS REGISTRY OF DEEDS
RECEIVED _____, 20____
AT ____h ____m ____M. AND RECORDED IN
PLAN BOOK _____ PAGE _____

ATTEST _____ REGISTRAR

STATE OF MAINE
MATTHEW W. EK
No. 2117
★
SURRENDERED
JUN 28 2018
JUL 15 2017

DESIGNED					CHECKED				
RLM/BRF					MWE				

SEBAGO
TECHNICS

WWW.SEBAGOTECHNICS.COM

75 John Roberts Rd.
Suite 1A
South Portland, ME 04106
Tel. 207-200-2100

250 Goddard Rd.
Suite B
Lewiston, ME 04203
Tel. 207-783-5663

63425B

SUBDIVISION PLAT

OF:

383 COMMERCIAL STREET
383 COMMERCIAL STREET
PORTLAND, MAINE

FOR: DEERING PROPERTY DEVELOPMENT, LLC

2730 TRANSIT ROAD
WEST SENECA, NEW YORK

RECORD OWNER:
MILKLEN SMITH
BOOK 22473 PAGE 307

PROJECT NO.	SCALE
16324	1"=30'

SHEET 1 OF 1

383 COMMERCIAL STREET-PHASE 1

383 COMMERCIAL STREET
PORTLAND, MAINE

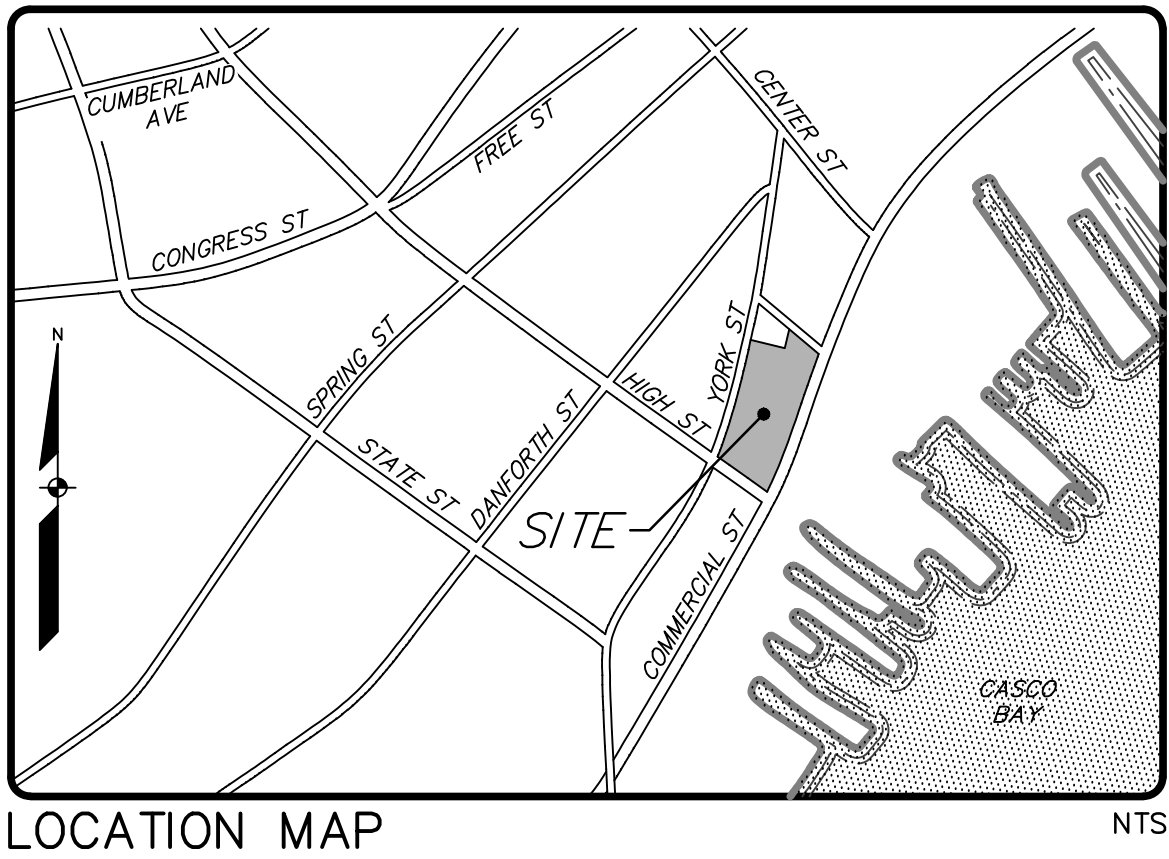
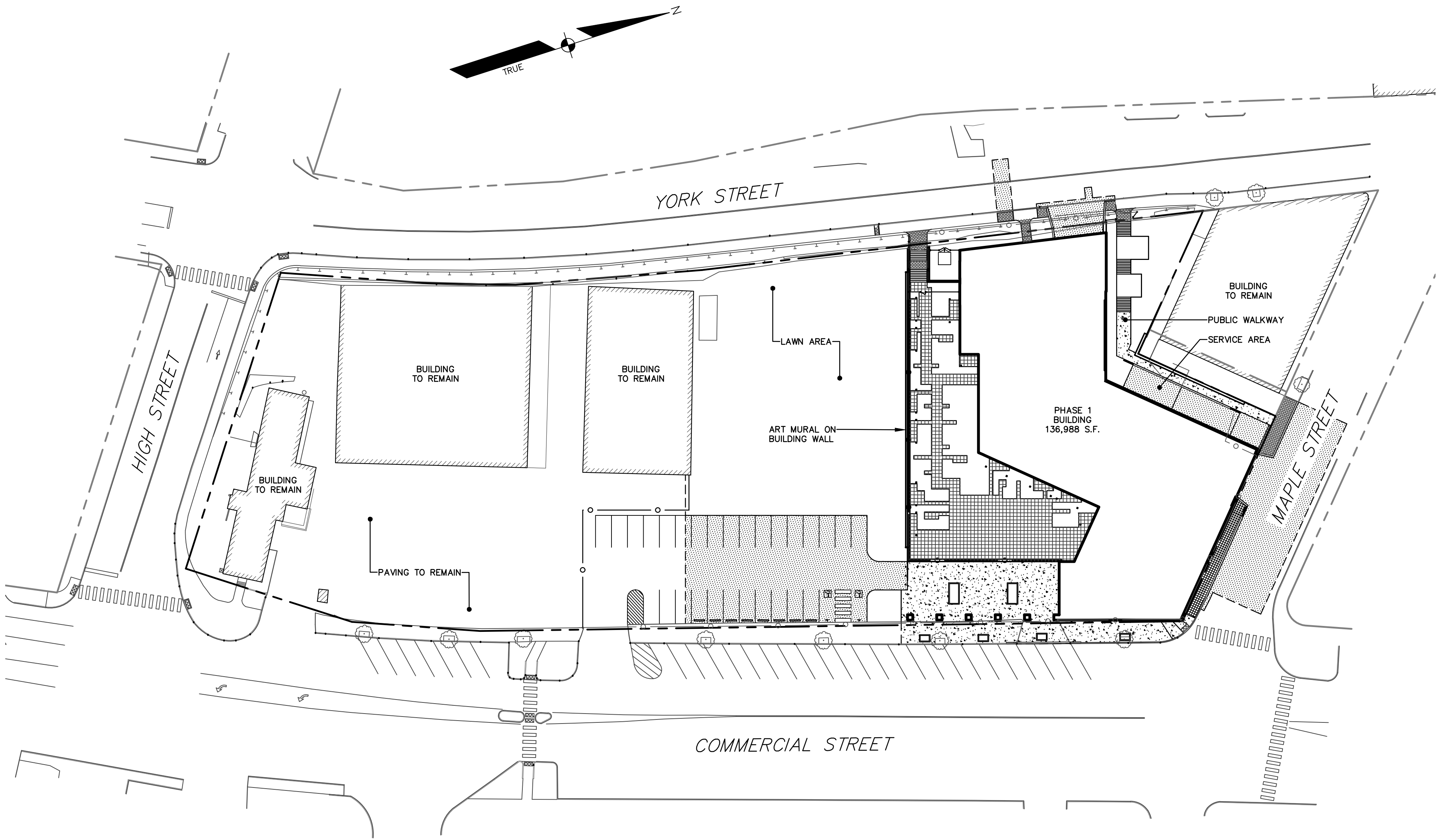
APPLICANT:
DEERING PROPERTY
DEVELOPMENT, LLC
2730 TRANSIT ROAD
WEST SENECA, NEW YORK

ENGINEER/SURVEYOR:

SEBAGO
TECHNICS
WWW.SEBAGOTECHNICS.COM
75 John Roberts Rd. Suite 1A South Portland, ME 04106
250 Goddard Rd. Suite B Lewiston, ME 04240
Tel. 207-200-2100 Tel. 207-753-5656

PROJECT ARCHITECT:

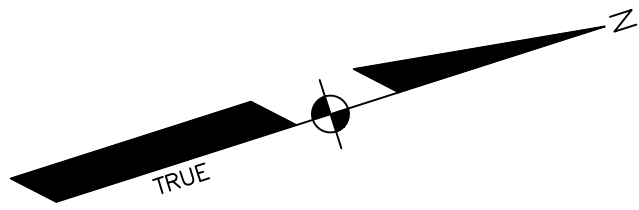
ARCHETYPE
ARCHITECTS
48 UNION WHARF
PORTLAND, MAINE 04101



INDEX OF PLANS

SHEET NO.	SHEET TITLE
1	COVER
2	DEMOLITION PLAN
3	SITE PLAN
4	SITE PLAN
5	GRADING PLAN
6	GRADING PLAN
7	UTILITY PLAN
8	UTILITY PLAN
9	LANDSCAPE PLAN
10	DETAILS
11	DETAILS
12	DETAILS
1	PRE-DEVELOPMENT WATERSHED PLAN
2	POST DEVELOPMENT WATERSHED PLAN

SCALE: 1" = 40'

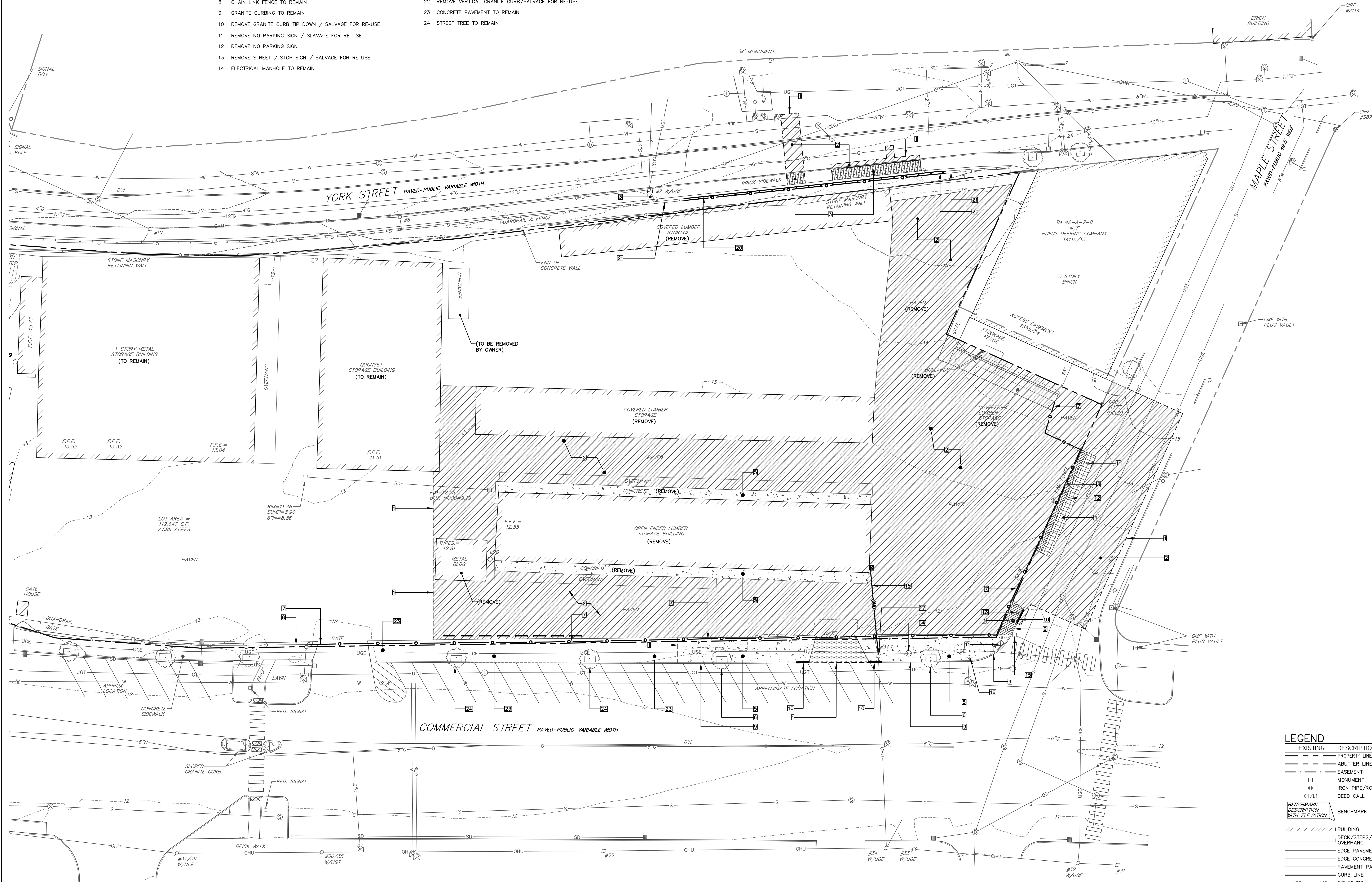


DEMOLITION KEY:

- | | |
|---|--|
| 1 SAW CUT PAVEMENT | 15 CATCH BASIN TO REMAIN |
| 2 REMOVE ASPHALT PAVEMENT | 16 FIRE HYDRANT TO REMAIN |
| 3 REMOVE BRICK PAVERS / SALVAGE FOR RE-USE | 17 UTILITY POLE TO REMAIN |
| 4 REMOVE GRANITE COBBLES / SALVAGE FOR CITY OF PORTLAND | 18 REMOVE OVERHEAD UTILITY |
| 5 REMOVE CONCRETE PAVEMENT | 19 STONE RETAINING WALL TO REMAIN |
| 6 REMOVE STREET TREE | 20 REMOVE VEHICLE GUARDRAIL AND FENCING |
| 7 REMOVE CHAIN LINK FENCE AND GATES | 21 VEHICLE GUARDRAIL AND FENCING TO REMAIN |
| 8 CHAIN LINK FENCE TO REMAIN | 22 REMOVE VERTICAL GRANITE CURB/SALVAGE FOR RE-USE |
| 9 GRANITE CURBING TO REMAIN | 23 CONCRETE PAVEMENT TO REMAIN |
| 10 REMOVE GRANITE CURB TIP DOWN / SALVAGE FOR RE-USE | 24 STREET TREE TO REMAIN |
| 11 REMOVE NO PARKING SIGN / SALVAGE FOR RE-USE | |
| 12 REMOVE NO PARKING SIGN | |
| 13 REMOVE STREET / STOP SIGN / SALVAGE FOR RE-USE | |
| 14 ELECTRICAL MANHOLE TO REMAIN | |

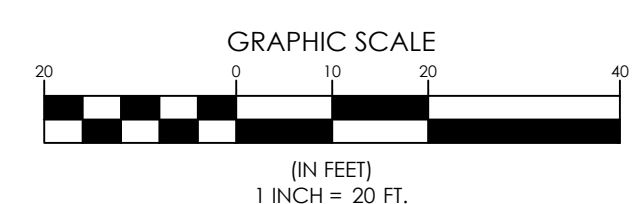
DEMOLITION NOTES:

- CONTRACTOR SHALL NOTIFY DIGSAFE FOR UTILITY LOCATIONS PRIOR TO EXCAVATION.
- EXISTING MATERIALS TO BE SALVAGED AND RE-USED SHALL BE STORED AND PROTECTED DURING CONSTRUCTION.
- ALL DEMOLITION WORK SHALL BE PERFORMED IN ACCORDANCE TO ALL APPLICABLE CODES AND REGULATIONS.



LEGEND

EXISTING	DESCRIPTION	EXISTING	DESCRIPTION
---	PROPERTY LINE/R.O.W.	---	RETAINING WALL
---	ABUTTER LINE/R.O.W.	---	BOLLARD
---	EASEMENT	---	SIGN
---	MONUMENT	---	GAS
---	IRON PIPE/ROD	---	GAS GATE VALVE
---	DEED CALL	---	WATER
---	CI/LI	---	WATER GATE VALVE
---	BENCHMARK	---	HYDRANT
---	BENCHMARK	---	SANITARY SEWER
---	BUILDING	---	SANITARY MANHOLE
---	DECK/STEPS/OVERHANG	---	STORM DRAIN
---	EDGE PAVEMENT	---	DRAINAGE MANHOLE
---	EDGE CONCRETE	---	CATCH BASIN
---	PAVEMENT PAINT	---	OHU
---	CURB LINE	---	OVERHEAD UTILITY
---	CONTOURS	---	UNDERGROUND UTILITY
---	SPOT GRADE	---	ELECTRICAL MANHOLE
---	CHAIN LINK FENCE	---	TELEPHONE MANHOLE
---	STOCKADE FENCE	---	LIGHT POLE
---	GUARD RAIL	---	UTILITY POLE
---		---	GUY WIRE



DEMOLITION PLAN
OF
383 COMMERCIAL STREET-PHASE 1
383 COMMERCIAL STREET
PORTLAND, MAINE
FOR:
DEERING PROPERTY DEVELOPMENT, LLC
2730 TRANSIT ROAD
WEST SEBEC, NEW YORK

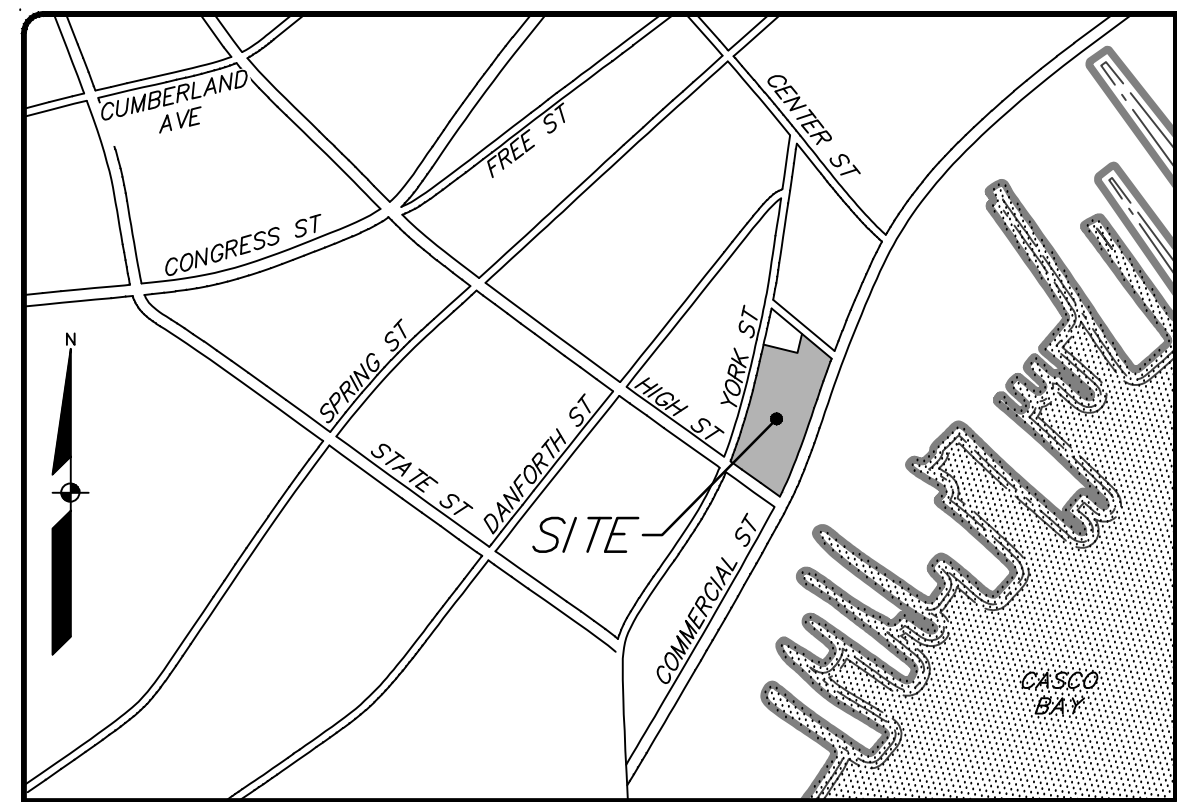
PROJECT NO. 16324
SCALE 1\"/>

SHEET 2 OF 12

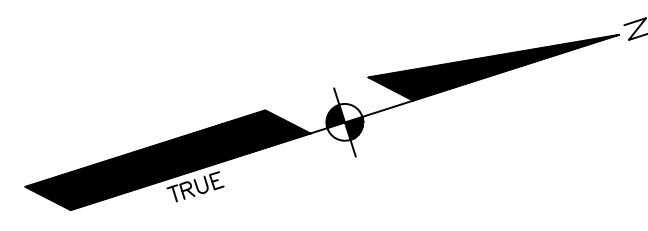
SEBAGO
TECHNICS
WWW.SEBAGOTECHNICS.COM
75 John Stevens Rd. 250 South Road
South Portland, ME 04106
Tel. 207-200-2100

DESIGNED WTC/RLM
CHECKED RLM
B WTC 05/23/17 RESUBMIT TO CITY
A WTC 03/22/17 SUBMIT LEVEL III APPLICATION TO CITY
REV. BY: DATE: STATUS:
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WILLIAM T. CONWAY, RLA 108
RICHARD L. MEER, PE 10668
LANDSCAPE ARCHITECTS
RICHARD L. MEER, PE 10668
WILLIAM T. CONWAY, RLA 108
05/23/17



LOCATION MAP

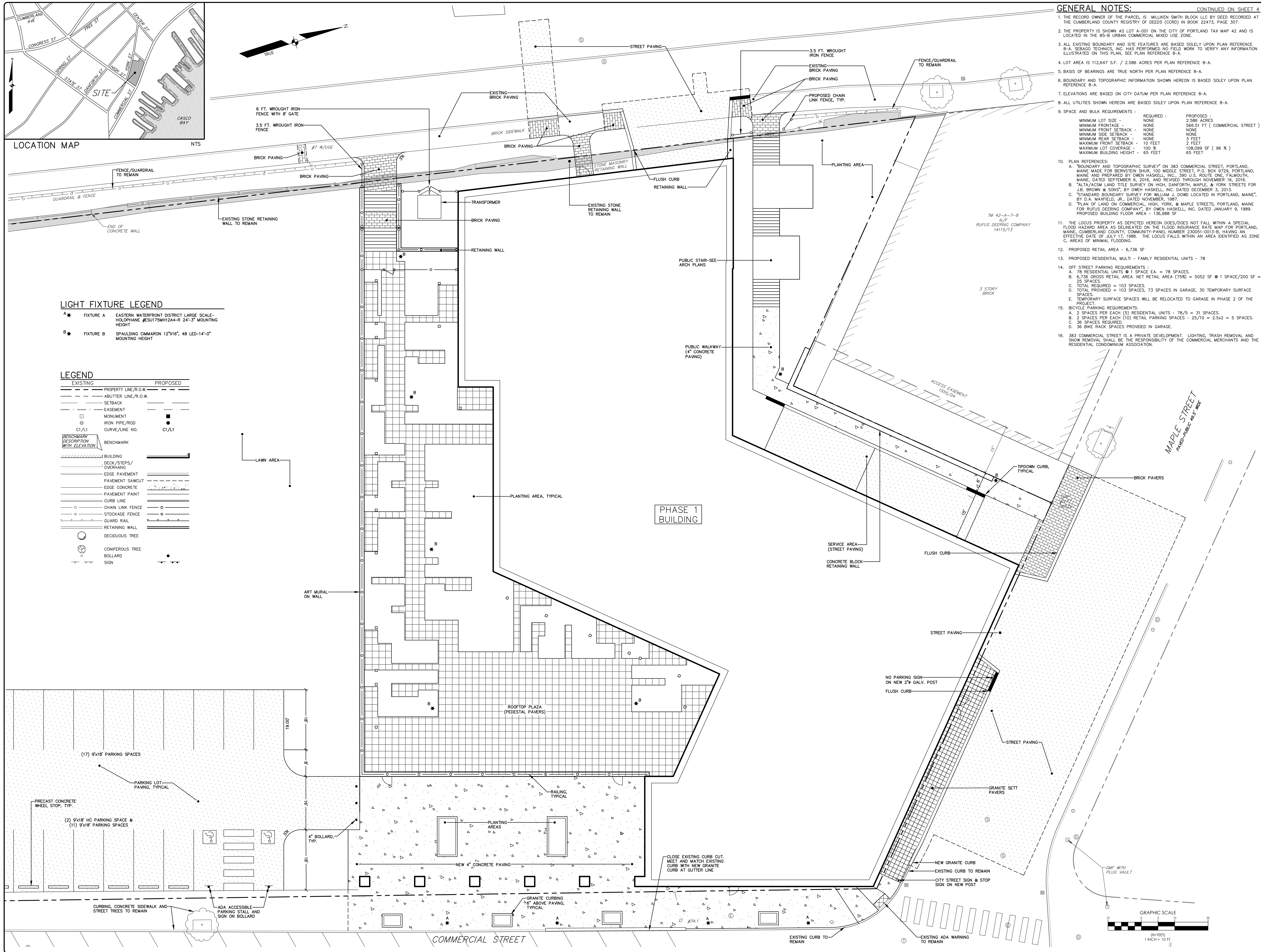


LIGHT FIXTURE LEGEND

- A * FIXTURE A EASTERN WATERFRONT DISTRICT LARGE SCALE-HOLOGRAPHIC #ESU175MH1244-R 24"-3" MOUNTING HEIGHT
- B * FIXTURE B SPAULDING COMMARON 12"x16", 48 LED-14'-0" MOUNTING HEIGHT

LEGEND

EXISTING	PROPOSED
PROPERTY LINE/R.O.W.	PROPERTY LINE/R.O.W.
ABUTTER LINE/R.O.W.	ABUTTER LINE/R.O.W.
SETBACK	SETBACK
EASEMENT	EASEMENT
MONUMENT	MONUMENT
IRON PIPE/ROD	IRON PIPE/ROD
C1/L1	C1/L1
CURVE/LINE NO.	CURVE/LINE NO.
BENCHMARK DESCRIPTION WITH ELEVATION	BENCHMARK
BUILDING	BUILDING
DECK/STEPS/OVERHANG	DECK/STEPS/OVERHANG
EDGE PAVEMENT	EDGE PAVEMENT
PAVEMENT SAWCUT	PAVEMENT SAWCUT
EDGE CONCRETE	EDGE CONCRETE
PAVEMENT PAINT	PAVEMENT PAINT
CURB LINE	CURB LINE
CHAIN LINK FENCE	CHAIN LINK FENCE
STOCKADE FENCE	STOCKADE FENCE
GUARD RAIL	GUARD RAIL
RETAINING WALL	RETAINING WALL
DECIDUOUS TREE	DECIDUOUS TREE
CONIFEROUS TREE	CONIFEROUS TREE
BOLLARD	BOLLARD
SIGN	SIGN



GENERAL NOTES:

CONTINUED ON SHEET 4

- THE RECORD OWNER OF THE PARCEL IS MILLIKEN SMITH BLOCK LLC BY DEED RECORDED AT THE CUMBERLAND COUNTY REGISTRY OF DEEDS (CCRD) IN BOOK 22473, PAGE 307.
- THE PROPERTY IS SHOWN AS LOT A-001 ON THE CITY OF PORTLAND TAX MAP 42 AND IS LOCATED IN THE B5-B URBAN COMMERCIAL MIXED USE ZONE.
- ALL EXISTING BOUNDARY AND SITE FEATURES ARE BASED SOLELY UPON PLAN REFERENCE 8-A. SEBAGO TECHINCS, INC. HAS PERFORMED NO FIELD WORK TO VERIFY ANY INFORMATION ILLUSTRATED ON THIS PLAN. SEE PLAN REFERENCE 8-A.
- LOT AREA IS 112,647 S.F. / 2.586 ACRES PER PLAN REFERENCE 8-A.
- BASIS OF BEARINGS ARE TRUE NORTH PER PLAN REFERENCE 8-A.
- BOUNDARY AND TOPOGRAPHIC INFORMATION SHOWN HEREON IS BASED SOLELY UPON PLAN REFERENCE 8-A.
- ELEVATIONS ARE BASED ON CITY DATUM PER PLAN REFERENCE 8-A.
- ALL UTILITIES SHOWN HEREON ARE BASED SOLELY UPON PLAN REFERENCE 8-A.
- SPACE AND BULK REQUIREMENTS:

MINIMUM LOT SIZE -	REQUIRED -	PROPOSED -
2,586 ACRES	NONE	2.586 ACRES
MINIMUM FRONTAGE -	NONE	566.51 FT (COMMERCIAL STREET)
MINIMUM FRONT SETBACK -	NONE	NONE
MINIMUM SIDE SETBACK -	NONE	NONE
MINIMUM REAR SETBACK -	NONE	3 FEET
MAXIMUM FRONT SETBACK -	NONE	2 FEET
MAXIMUM LOT COVERAGE -	100 %	108,099 SF (96 %)
MAXIMUM BUILDING HEIGHT -	65 FEET	65 FEET
- PLAN REFERENCES:
 - BOUNDARY AND TOPOGRAPHIC SURVEY ON 383 COMMERCIAL STREET, PORTLAND, MAINE MADE FOR BERNSTEIN SHUR, 100 MIDDLE STREET, P.O. BOX 9729, PORTLAND, MAINE AND PREPARED BY OWEN HASKELL, INC., 300 U.S. ROUTE ONE, FALMOUTH, MAINE, DATED SEPTEMBER 6, 2016, AND REVISED THROUGH NOVEMBER 16, 2016.
 - "ALTA/ACSM LAND TITLE SURVEY ON HIGH, DANFORTH, MAPLE, & YORK STREETS FOR J.B. BROWN & SONS" BY OWEN HASKELL, INC. DATED DECEMBER 3, 2013.
 - "STANDARD BOUNDARY SURVEY FOR WILLIAM J. DOWD LOCATED IN PORTLAND, MAINE," BY D.A. MAXFIELD, JR., DATED NOVEMBER, 1987.
 - "PLAN OF LAND ON COMMERCIAL, HIGH, YORK, & MAPLE STREETS, PORTLAND, MAINE FOR RUFUS DEERING COMPANY," BY OWEN HASKELL, INC. DATED JANUARY 9, 1989. PROPOSED BUILDING FLOOR AREA - 136,988 SF.
- THE LOCUS PROPERTY AS DEPICTED HEREON DOES/DOES NOT FALL WITHIN A SPECIAL FLOOD HAZARD AREA AS DELINEATED ON THE FLOOD INSURANCE RATE MAP FOR PORTLAND, MAINE, CUMBERLAND COUNTY, COMMUNITY-PANEL NUMBER 230051-0013-B, HAVING AN EFFECTIVE DATE OF JULY 17, 1986. THE LOCUS FALLS WITHIN AN AREA IDENTIFIED AS ZONE C. AREAS OF MINIMAL FLOODING.
- PROPOSED RETAIL AREA - 6,736 SF
- PROPOSED RESIDENTIAL MULTI - FAMILY RESIDENTIAL UNITS - 78
- OFF STREET PARKING REQUIREMENTS:
 - 78 RESIDENTIAL UNITS @ 1 SPACE/EA. = 78 SPACES.
 - 6,736 GROSS RETAIL AREA. NET RETAIL AREA (75%) = 5052 SF @ 1 SPACE/200 SF = 25 SPACES REQUIRED.
 - TOTAL REQUIRED = 103 SPACES.
 - TOTAL PROVIDED = 103 SPACES, 73 SPACES IN GARAGE, 30 TEMPORARY SURFACE SPACES.
 - TEMPORARY SURFACE SPACES WILL BE RELOCATED TO GARAGE IN PHASE 2 OF THE PROJECT.
- BICYCLE PARKING REQUIREMENTS:
 - 2 SPACES PER EACH (5) RESIDENTIAL UNITS - 78/5 = 31 SPACES.
 - 2 SPACES PER EACH (10) RETAIL PARKING SPACES - 25/10 = 2.5x2 = 5 SPACES.
 - 36 SPACES REQUIRED.
 - 36 BIKE RACK SPACES PROVIDED IN GARAGE.
- 383 COMMERCIAL STREET IS A PRIVATE DEVELOPMENT. LIGHTING, TRASH REMOVAL AND SNOW REMOVAL SHALL BE THE RESPONSIBILITY OF THE COMMERCIAL MERCHANTS AND THE RESIDENTIAL CONDOMINIUM ASSOCIATION.

DESIGNED
WTC

CHECKED
WTC

DATE: 05/23/17

BY: WTC

STATUS: SUBMIT TO CITY

REVISION: 1

PROJECT NO. 16324

SCALE 1"=10'

SHEET 3 OF 12

16325.dwg

SEBAGO TECHINCS

75 John...
South Portland, ME 04106
Tel: 207-200-2100

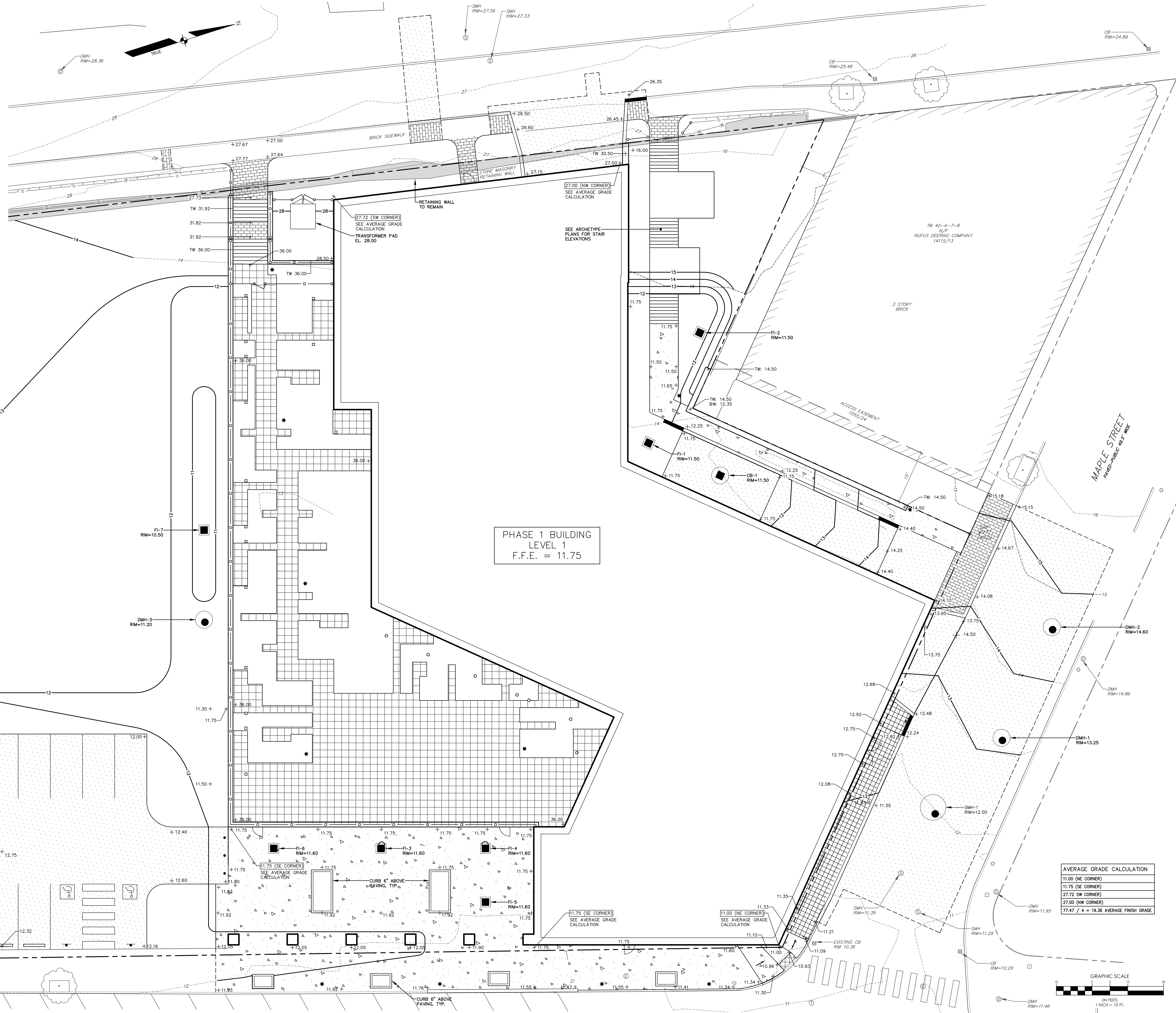
WWW.SEAGOTECHNICS.COM

250...
Lewiston, ME 04240
Tel: 207-782-5656

SITE PLAN OF 383 COMMERCIAL STREET PHASE 1

FOR DEERING PROPERTY DEVELOPMENT, LLC

LEGEND	
EXISTING	PROPOSED
PROPERTY LINE/R.O.W.	
ABUTTER LINE/R.O.W.	
SETBACK	
EASEMENT	
BUILDING	
DECK/STEPS/ OVERHANG	
EDGE PAVEMENT	
PAVEMENT SAWCUT	
EDGE CONCRETE	
PAVEMENT PAINT	
CURB LINE	
CHAIN LINK FENCE	
STOCKADE FENCE	
GUARD RAIL	
RETAINING WALL	
DECIDUOUS TREE	
CONIFEROUS TREE	
BOLLARD	
SIGN	
X120.00 SPOT GRADE	+120.00
CONTOURS	+120.00
X120.00 SPOT GRADE	+120.00
SANITARY MANHOLE	
DRAINAGE MANHOLE	
CATCH BASIN	
TRANSFORMER PAD	
ELECTRICAL MANHOLE	
TELEPHONE MANHOLE	
LIGHT POLE	
UTILITY POLE	
GUY WIRE	



WILLIAM T. CONWAY, RLA 108 RICHARD L. MEER, PE 10668

STATE OF MAINE

RICHARD L. MEER, No. 10668

Professional Seal

STATE OF MAINE

WILLIAM T. CONWAY, No. 10668

Professional Seal

05/23/17

DESIGNED	CHECKED
WTC/RLM	RLM
B WTC 05/23/17 RESUBMIT TO CITY	
A RLM 03/22/17 SUBMIT LEVEL III APPLICATION TO CITY	
REV. BY:	DATE:
STATUS:	
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SEBAGO TECHNIQS

WWW.SEBAGOTECHNIQS.COM

75 John J. White Rd., 250 South Portland Rd., Lewiston, ME 04240

South Portland, ME 04106

Tel: 207-200-2100

Tel: 207-783-5555

GRADING PLAN

OF

383 COMMERCIAL STREET-PHASE 1

383 COMMERCIAL STREET

PORTLAND, MAINE

FOR:

DEERING PROPERTY DEVELOPMENT, LLC

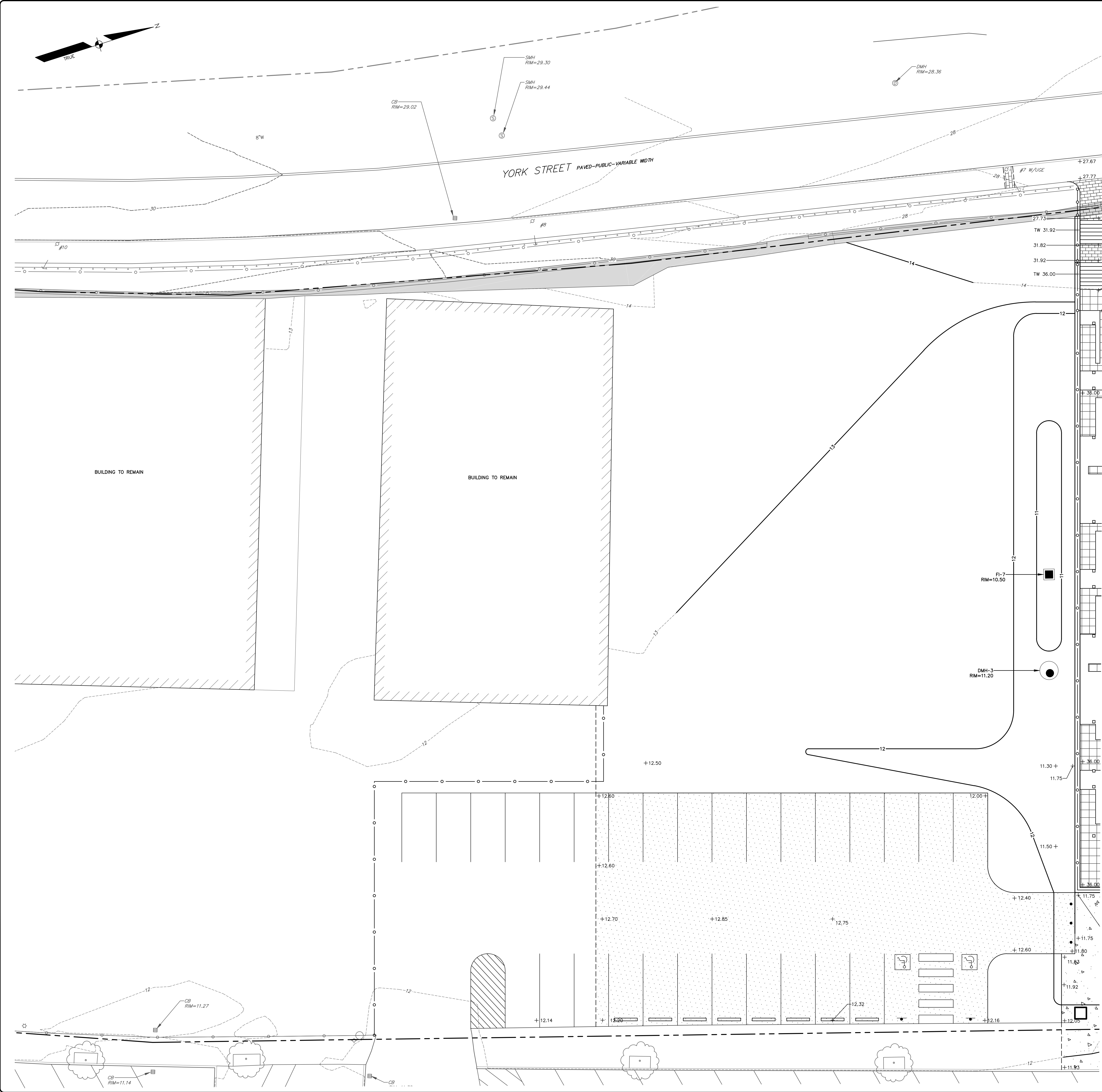
2730 TRANSIT ROAD

WEST BENECA, NEW YORK

PROJECT NO.	SCALE
16324	1"=10'

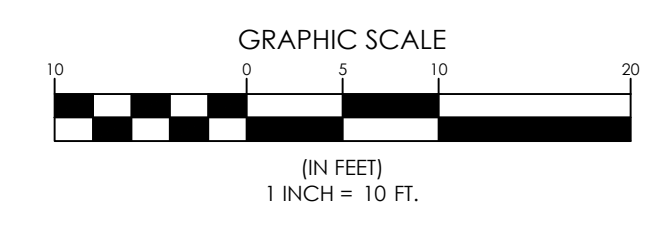
SHEET 5 OF 12

16324.dwg, TAB:01



LEGEND

EXISTING	PROPOSED
PROPERTY LINE/R.O.W.	PROPERTY LINE/R.O.W.
ABUTTER LINE/R.O.W.	ABUTTER LINE/R.O.W.
SETBACK	SETBACK
EASEMENT	EASEMENT
BUILDING	BUILDING
DECK/STEPS/ OVERHANG	DECK/STEPS/ OVERHANG
EDGE PAVEMENT	EDGE PAVEMENT
PAVEMENT SAWCUT	PAVEMENT SAWCUT
EDGE CONCRETE	EDGE CONCRETE
PAVEMENT PAINT	PAVEMENT PAINT
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CHAIN LINK FENCE	CHAIN LINK FENCE
STOCKADE FENCE	STOCKADE FENCE
GUARD RAIL	GUARD RAIL
RETAINING WALL	RETAINING WALL
DECIDUOUS TREE	DECIDUOUS TREE
CONIFEROUS TREE	CONIFEROUS TREE
BOLLARD	BOLLARD
SIGN	SIGN
SPOT GRADE	SPOT GRADE
CONTOURS	CONTOURS
SPOT GRADE	SPOT GRADE
SANITARY MANHOLE	SANITARY MANHOLE
DRAINAGE MANHOLE	DRAINAGE MANHOLE
CATCH BASIN	CATCH BASIN
TRANSFORMER PAD	TRANSFORMER PAD
ELECTRICAL MANHOLE	ELECTRICAL MANHOLE
TELEPHONE MANHOLE	TELEPHONE MANHOLE
LIGHT POLE	LIGHT POLE
UTILITY POLE	UTILITY POLE
GUY WIRE	GUY WIRE



GRADING PLAN
OF
383 COMMERCIAL STREET-PHASE 1
383 COMMERCIAL STREET
PORTLAND, MAINE
FOR:
DEERING PROPERTY DEVELOPMENT, LLC
2730 TRANSIT ROAD
WEST SEBEC, NEW YORK

PROJECT NO. 16324 SCALE 1"=10'

SHEET 6 OF 12

WWW.SEBAGOTECHNICS.COM
75 John Deere Rd.
South Portland, ME 04106
Tel: 207-200-2100

SEBAGO
TECHNICS

DESIGNED WTC/RLM
CHECKED RLM

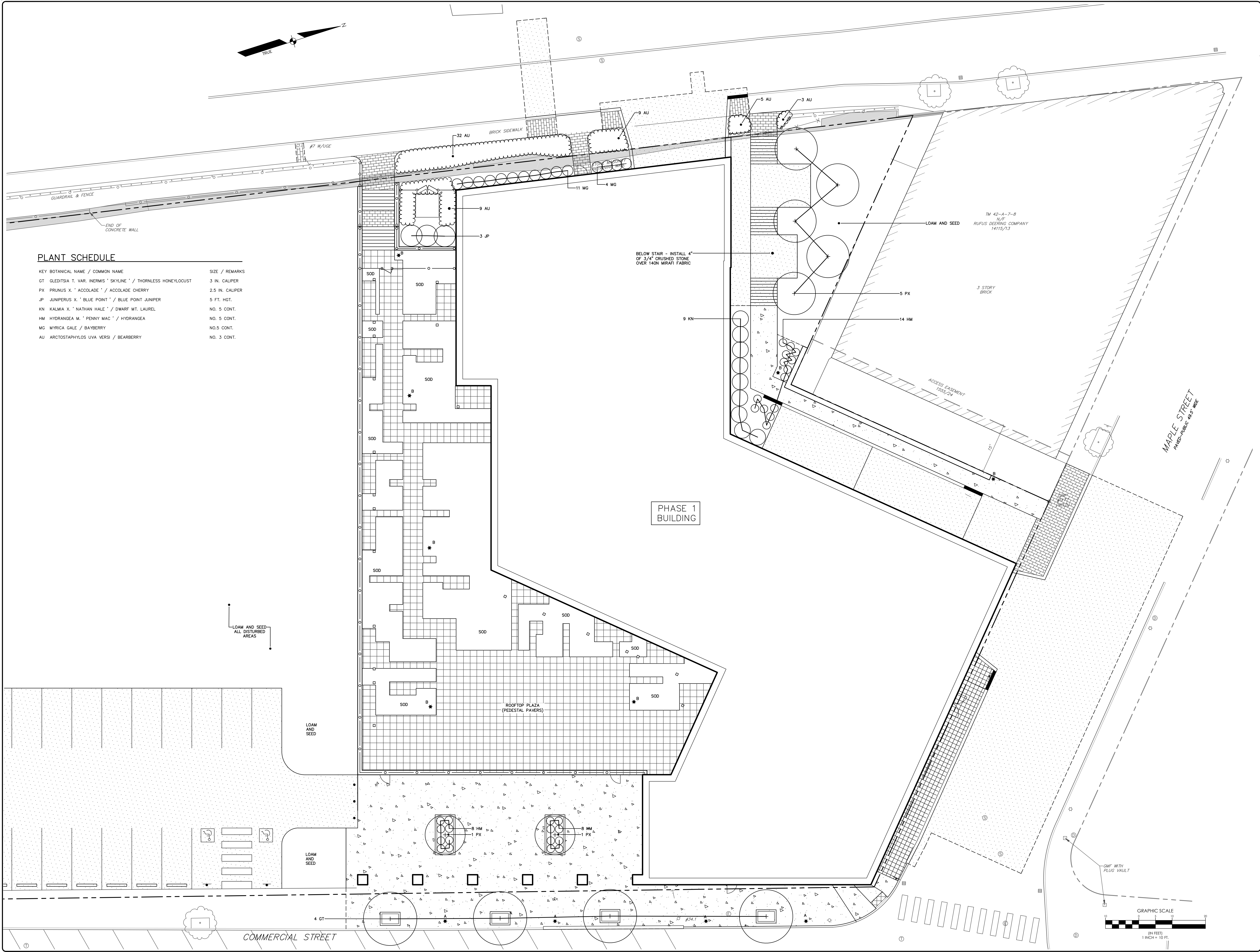
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WILLIAM T. CONWAY, RLA 108
RICHARD L. MEER, PE 10668

SEAL OF RICHARD L. MEER, PE 10668
STATE OF MAINE
05/23/17

SEAL OF WILLIAM T. CONWAY, RLA 108
STATE OF MAINE
05/23/17



PLANT SCHEDULE

KEY BOTANICAL NAME / COMMON NAME	SIZE / REMARKS
GT GLEDITSIA T. VAR. INERMIS 'SKYLINE' / THORNLESS HONEYLOCUST	3 IN. CALIPER
PX PRUNUS X. 'ACCOLADE' / ACCOLADE CHERRY	2.5 IN. CALIPER
JP JUNIPERUS X. 'BLUE POINT' / BLUE POINT JUNIPER	5 FT. HGT.
KN KALMIA X. 'NATHAN HALE' / DWARF MT. LAUREL	NO. 5 CONT.
HM HYDRANGEA M. 'PENNY MAC' / HYDRANGEA	NO. 5 CONT.
MG MYRICA GALE / BAYBERRY	NO.5 CONT.
AU ARCTOSTAPHYLOS UVA VERSI / BEARBERRY	NO. 3 CONT.

LANDSCAPE PLAN
OF:
383 COMMERCIAL STREET PHASE 1
PORTLAND, MAINE
FOR:
DEERING PROPERTY DEVELOPMENT, LLC
2750 TRANSIT ROAD
WEST SERENA, NEW YORK

PROJECT NO. 16324
SCALE 1" = 10'

SHEET 9 OF 12

SEBAGO
TECHNICS
WWW.SEBAGOTECHNICS.COM
75 John Deere Rd.
South Portland, ME 04106
Tel: 207-266-2100

DESIGNED WTC
CHECKED WTC
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LANDSCAPE ARCHITECT
WILLIAM T. CONWAY
STATE OF NEW YORK
05/23/17

WILLIAM T. CONWAY, RLA 108

EROSION CONTROL MEASURES

PRE-CONSTRUCTION PHASE

PRIOR TO THE BEGINNING OF ANY CONSTRUCTION, SEDIMENT BARRIERS (SILT FENCE) WILL BE STAKED/INSTALLED ACROSS THE SLOPE(S), ON THE CONTOUR AT OR JUST BELOW THE LIMITS OF CLEARING OR GRUBBING, AND/OR JUST ABOVE ANY ADJACENT PROPERTY LINE OR WATERCOURSE TO PROTECT AGAINST CONSTRUCTION RELATED EROSION. THE PLACEMENT OF SEDIMENT BARRIERS SHALL BE COMPLETED IN ACCORDANCE WITH GUIDELINES ESTABLISHED IN BEST MANAGEMENT PRACTICES AND IN ACCORDANCE WITH THIS EROSION CONTROL PLAN AND DETAILS IN THIS PLAN SET. THIS NETWORK IS TO BE MAINTAINED BY THE CONTRACTOR UNTIL ALL EXPOSED SLOPES HAVE AT LEAST 85%-90% VIGOROUS PERENNIAL VEGETATIVE COVER TO PREVENT EROSION. TEMPORARY EROSION CONTROL MEASURES SHALL BE REMOVED WITHIN 30 DAYS AFTER PERMANENT STABILIZATION IS ATTAINED.

PRIOR TO ANY CLEARING OR GRUBBING, A CONSTRUCTION ENTRANCE/EXIT SHALL BE CONSTRUCTED AT THE INTERSECTION OF THE PROPOSED ENTRANCES AND EXISTING ROADWAY TO AVOID TRACKING OF MUD, DUST AND DEBRIS FROM THE SITE.

PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL PREPARE A DETAILED SCHEDULE AND MARKED UP PLAN INDICATING AREAS AND COMPONENTS OF THE WORK AND KEY DATES SHOWING DATE OF DISTURBANCE AND COMPLETION OF THE WORK. THE CONTRACTOR SHALL SCHEDULE A PRE-CONSTRUCTION MEETING WITH THE MUNICIPAL STAFF. THREE COPIES OF THE SCHEDULE AND MARKED UP PLAN SHALL BE PROVIDED TO THE MUNICIPALITY THREE DAYS PRIOR TO THE SCHEDULED PRE-CONSTRUCTION MEETING. SPECIAL ATTENTION SHALL BE GIVEN TO THE 14 DAY LIMIT OF DISTURBANCE IN THE SCHEDULE ADDRESSING TEMPORARY AND PERMANENT VEGETATION MEASURES.

CONSTRUCTION AND POST-CONSTRUCTION PHASE

AREAS UNDERGOING ACTUAL CONSTRUCTION SHALL ONLY EXPOSE THAT AMOUNT OF MINERAL SOIL NECESSARY FOR PROGRESSIVE AND EFFICIENT CONSTRUCTION. ANY AREA CONSIDERED OPEN IS ANY AREA NOT STABILIZED WITH PAVEMENT, VEGETATION, MULCHING, EROSION CONTROL MATS, RIPRAP OR GRAVEL BASED ON A ROAD. OPEN AREAS SHALL BE ANCHORED WITH TEMPORARY EROSION CONTROL AS SHOWN ON THE DESIGN PLANS AND AS DESCRIBED WITHIN THIS EROSION CONTROL PLAN WITHIN 14-DAYS OF DISTURBANCE. AREAS LOCATED WITHIN 100' OF STREAMS SHALL BE ANCHORED WITH TEMPORARY EROSION CONTROL WITHIN SEVEN (7) DAYS. REFER TO WINTER EROSION CONTROL NOTES FOR THE TREATMENT OF OPEN AREAS AFTER OCTOBER 1ST OF THE CONSTRUCTION YEAR.

THE CONTRACTOR MUST INSTALL ANY ADDED MEASURES WHICH MAY BE NECESSARY TO CONTROL EROSION/SEDIMENTATION FROM THE SITE DEPENDENT UPON THE ACTUAL SITE AND WEATHER CONDITIONS. CONTINUATION OF EARTHWORK OPERATIONS ON ADDITIONAL AREAS SHALL NOT BEGIN UNTIL THE PREVIOUSLY EXPOSED SURFACE ON THE AREA BEING WORKED HAS BEEN STABILIZED, IN ORDER TO MINIMIZE AREAS WITHOUT EROSION CONTROL PROTECTION.

EROSION CONTROL APPLICATIONS & MEASURES

THE PLACEMENT OF EROSION CONTROL MEASURES SHALL BE COMPLETED IN ACCORDANCE WITH GUIDELINES ESTABLISHED IN BEST MANAGEMENT PRACTICES AND IN ACCORDANCE WITH THE EROSION CONTROL PLAN AND DETAILS IN THE PLAN SET.

1. TEMPORARY MULCHING:

ALL DISTURBED AREAS SHALL BE MULCHED WITH MATERIALS SPECIFIED BELOW PRIOR TO ANY STORM EVENT. ALL DISTURBED AREAS NOT FINAL GRADED WITHIN 14 DAYS SHALL BE MULCHED. ALSO, AREAS, WHICH HAVE BEEN TEMPORARILY OR PERMANENTLY SEEDED, SHALL BE MULCHED IMMEDIATELY FOLLOWING SEEDING. EROSION CONTROL BLANKETS ARE RECOMMENDED TO BE USED AT THE BASE OF GRASSED WATERWAYS AND ON SLOPES GREATER THAN 15%. MULCH ANCHORING SHOULD BE USED ON SLOPES GREATER THAN 3% AFTER SEPTEMBER 15TH OF THE CONSTRUCTION YEAR (SEE WINTER EROSION CONTROL NOTES).

TYPES OF MULCH:
HAY OR STRAW: SHALL BE APPLIED AT A RATE OF 75 LBS/1,000 S.F. (1.5 TONS PER ACRE).
EROSION CONTROL MIX: SHALL BE PLACED EVENLY AND MUST PROVIDE 100% SOIL COVERAGE. EROSION CONTROL MIX SHALL BE APPLIED SUCH THAT THE THICKNESS ON SLOPES 3:1 OR LESS IS 2 INCHES PLUS 1/2" INCH PER 20 FEET OF SLOPE UP TO 100 FEET. THE THICKNESS ON SLOPES BETWEEN 3:1 AND 2:1 SHALL BE 4 INCHES PLUS 1/2" INCH PER 20 FEET OF SLOPE UP TO 100 FEET. THIS SHALL NOT BE USED ON SLOPES GREATER THAN 2:1.
EROSION CONTROL BLANKET: SHALL BE INSTALLED SUCH THAT CONTINUOUS CONTACT BETWEEN THE MAT AND THE SOIL IS OBTAINED. INSTALL BLANKETS AND STAPLE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

2. SOIL STOCKPILES:

STOCKPILES OF SOIL OR SUBSOIL SHALL BE MULCHED WITH HAY OR STRAW AT A RATE OF 75 LBS/1,000 S.F. (1.5 TONS PER ACRE) OR WITH A FOUR-INCH LAYER OF WOOD WASTE EROSION CONTROL MIX. THIS WILL BE DONE WITHIN 24 HOURS OF STOCKING AND RE-ESTABLISHED PRIOR TO ANY RAINFALL. ANY SOIL STOCKPILE WILL NOT BE PLACED (EVEN COVERED WITH HAY OR STRAW) WITHIN 100 FEET FROM ANY NATURAL RESOURCES.

3. NATURAL RESOURCES PROTECTION:

ANY AREAS WITHIN 100 FEET FROM ANY NATURAL RESOURCES, IF NOT STABILIZED WITH A MINIMUM OF 75% MATURE VEGETATION CATCH, SHALL BE MULCHED USING TEMPORARY MULCHING (AS DESCRIBED IN PART 1. OF THIS SECTION) WITHIN 7 DAYS OF EXPOSURE OR PRIOR TO ANY STORM EVENT. SEDIMENT BARRIERS (AS DESCRIBED IN PART 4. OF THIS SECTION) SHALL BE PLACED BETWEEN ANY NATURAL RESOURCE AND THE DISTURBED AREA. PROJECTS CROSSING THE NATURAL RESOURCE SHALL BE PROTECTED A MINIMUM DISTANCE OF 100 FEET ON EITHER SIDE FROM THE RESOURCE.

4. SEDIMENT BARRIERS:

PRIOR TO THE BEGINNING OF ANY CONSTRUCTION, SEDIMENT BARRIERS SHALL BE STAKED ACROSS THE SLOPE(S), ON THE CONTOUR AT OR JUST BELOW THE LIMITS OF CLEARING OR GRUBBING, AND/OR JUST ABOVE ANY ADJACENT PROPERTY LINE OR WATERCOURSE TO PROTECT AGAINST CONSTRUCTION RELATED EROSION. SEDIMENT BARRIERS SHALL BE MAINTAINED BY THE CONTRACTOR UNTIL ALL EXPOSED SLOPES HAVE AT LEAST 85%-90% VIGOROUS PERENNIAL VEGETATIVE COVER TO PREVENT EROSION.

SILT FENCE: SHALL BE INSTALLED PER THE DETAIL ON THE PLANS. THE EFFECTIVE HEIGHT OF THE FENCE SHALL NOT EXCEED 36 INCHES. IT IS RECOMMENDED THAT SILT FENCE BE REMOVED BY CUTTING THE FENCE MATERIALS AT GROUND LEVEL SO AS TO AVOID ADDITIONAL SOIL DISTURBANCE.

HAY BALES: SHALL BE INSTALLED PER THE DETAIL ON THE PLANS. BALES SHALL BE WIRE-BOUND OR STRING-TIED AND THESE BINDINGS MUST REMAIN PARALLEL WITH THE GROUND SURFACE DURING INSTALLATION TO PREVENT DETERIORATION OF THE BINDINGS. BALES SHALL BE INSTALLED WITHIN A MINIMUM 4 INCH DEEP TRENCH LINE WITH ENDS OF ADJACENT BALES TIGHTLY BUTTING ONE ANOTHER.

EROSION CONTROL MIX: SHALL BE INSTALLED PER THE DETAIL ON THE PLANS. THE MIX SHALL CONSIST PRIMARILY OF ORGANIC MATERIAL AND CONTAIN A WELL-GRADED MIXTURE OF PARTICLE SIZES AND MAY CONTAIN ROCKS LESS THAN 4 INCHES IN DIAMETER. THE MIX COMPOSITION SHALL MEET THE STANDARDS DESCRIBED WITHIN THE MDEP BEST MANAGEMENT PRACTICES. NO TRENCHING IS REQUIRED FOR INSTALLATION OF THIS BARRIER.

CONTINUOUS CONTAINED BERM: SHALL BE INSTALLED PER THE DETAIL ON THE PLANS. THIS SEDIMENT BARRIER IS EROSION CONTROL MIX PLACED WITHIN A SYNTHETIC TUBULAR NETTING AND PERFORMS AS A STURDY SEDIMENT BARRIER THAT WORKS WELL ON HARD GROUND SUCH AS FROZEN CONDITIONS, TRAVELED AREAS OR PAVEMENT. NO TRENCHING IS REQUIRED FOR INSTALLATION OF THIS BARRIER.

5. TEMPORARY CHECK DAMS:

SHALL BE INSTALLED PER THE DETAIL ON THE PLANS. CHECK DAMS ARE TO BE PLACED BETWEEN DITCHES/ SWALES AS SPECIFIED ON THE DESIGN PLANS IMMEDIATELY AFTER FINAL GRADIENT CHECK DAMS. CHECK DAMS SHALL BE 2 FEET HIGH TEMPORARY CHECK DAMS TO BE REMOVED ONLY AFTER THE ROADWAYS ARE PAVED AND THE VEGETATED SWALE ARE ESTABLISHED WITH AT LEAST 85%-90% OF VIGOROUS PERENNIAL GROWTH. THE AREA BENEATH THE CHECK DAM MUST BE SEEDED AND MULCHED IMMEDIATELY AFTER REMOVAL OF THE CHECK DAM.

STONE CHECK DAMS: SHOULD BE CONSTRUCTED OF 2 TO 3 INCH STONE AND PLACED SUCH THAT COMPLETE COVERAGE OF THE SWALE IS OBTAINED AND THAT THE CENTER OF THE DAM IS 6 INCHES LOWER THAN THE OUTER EDGES.

HAY BALE CHECK DAMS: WE DO NOT RECOMMEND THE USE OF HAY BALES AS CHECK DAMS.

MANUFACTURED CHECK DAMS: MANUFACTURED CHECK DAMS, AS SPECIFIED IN THE DETAIL ON THE PLANS, MAY BE USED IF AUTHORIZED BY THE PROPER LOCAL, STATE OR FEDERAL REGULATING AGENCIES. THESE UNITS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

6. STORMDRAIN INLET PROTECTION:

INLET PROTECTION SHALL BE PLACED AROUND A STORMDRAIN DROP INLET OR CURB INLET PRIOR TO PERMANENT STABILIZATION OF THE IMMEDIATE AND UPSTREAM DISTURBED AREAS. THEY SHALL BE CONSTRUCTED IN A MANNER THAT WILL FACILITATE CLEAN-OUT AND DISPOSAL OF TRAPPED SEDIMENTS AND MINIMIZE INTERFERENCE WITH CONSTRUCTION ACTIVITIES. ANY RESULTANT PONDING OF WATER FROM THE PROTECTION METHOD MUST NOT CAUSE EXCESSIVE INCONVENIENCE OR DAMAGE TO ADJACENT AREAS OR STRUCTURES.

HAY BALE DROP INLET PROTECTION: WE DO NOT RECOMMEND THE USE OF HAY BALES AS INLET PROTECTION.

CONCRETE BLOCK AND STONE INLET SEDIMENT FILTER (DROP OR CURB INLET): SHALL BE INSTALLED PER THE DETAIL ON THE PLANS. THE HEIGHT OF THE CONCRETE BLOCK BARRIER CAN VARY BUT MUST BE BETWEEN 12 AND 24 INCHES TALL. A MINIMUM OF 1 INCH CRUSHED STONE SHALL BE USED.

MANUFACTURED SEDIMENT BARRIERS AND FILTER (DROP OR CURB INLET): MANUFACTURED FILTERS, AS SPECIFIED IN THE DETAIL ON THE PLANS, MAY BE USED IF INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

7. STABILIZED CONSTRUCTION ENTRANCE/EXIT:

PRIOR TO CLEARING AND/OR GRUBBING THE SITE A STABILIZED CONSTRUCTION ENTRANCE/EXIT SHALL BE CONSTRUCTED WHEREVER TRAFFIC WILL EXIT THE CONSTRUCTION SITE ONTO A PAVED ROADWAY IN ORDER TO MINIMIZE THE TRACKING OF SEDIMENT AND DEBRIS FROM THE CONSTRUCTION SITE ONTO PUBLIC ROADWAYS. THE ENTRANCES AND ADJACENT ROADWAY AREAS SHALL BE PERIODICALLY SWEEP OR WASHED TO FURTHER MINIMIZE THE TRACKING OF MUD, DUST OR DEBRIS FROM THE CONSTRUCTION AREA. STABILIZED CONSTRUCTION EXITS SHALL BE CONSTRUCTED IN AREAS SPECIFIED ON THE PLANS AND AS DETAILED ON THE PLANS.

8. DUST CONTROL:

DUST CONTROL DURING CONSTRUCTION SHALL BE ACHIEVED BY THE USE OF A WATERING TRUCK TO PERIODICALLY SPRINKLE THE EXPOSED ROADWAY AREAS AS NECESSARY TO REDUCE DUST DURING THE DRY MONTHS. APPLYING OTHER DUST CONTROL PRODUCTS SUCH AS CALCIUM CHLORIDE OR OTHER MANUFACTURED PRODUCTS ARE ALLOWED IF AUTHORIZED BY THE PROPER LOCAL, STATE AND/OR FEDERAL REGULATING AGENCIES. HOWEVER, IT IS THE CONTRACTOR'S ULTIMATE RESPONSIBILITY TO MITIGATE DUST AND SOIL LOSS FROM THE SITE.

9. TEMPORARY VEGETATION:

TEMPORARY VEGETATION SHALL BE APPLIED TO DISTURBED AREAS THAT WILL NOT RECEIVE FINAL GRADING FOR PERIODS UP TO 12 MONTHS. THIS PROCEDURE SHOULD BE USED EXTENSIVELY IN AREAS ADJACENT TO NATURAL RESOURCES. SEEDED PREPARATION AND APPLICATION OF SEED SHALL BE CONDUCTED AS INDICATED IN THE PERMANENT VEGETATION SECTION OF THIS NARRATIVE. SPECIFIC SEEDS (FAST GROWING AND SHORT LIVING) SHALL BE SELECTED FROM THE MAINE EROSION AND SEDIMENT CONTROL BMP MANUAL, DATED 3/2003 OR LATER. ALTERNATIVE EROSION CONTROL MEASURES SHOULD BE USED IF SEEDING CAN NOT BE DONE BEFORE SEPTEMBER 15TH OF THE CONSTRUCTION YEAR.

10. PERMANENT VEGETATION:

REVEGETATION MEASURES SHALL COMMENCE IMMEDIATELY UPON COMPLETION OF FINAL GRADING OF AREAS TO BE LOADED AND SEEDED. THE APPLICATION OF SEED SHALL BE CONDUCTED BETWEEN APRIL 1ST AND OCTOBER 1ST OF THE CONSTRUCTION YEAR. PLEASE REFER TO THE WINTER EROSION CONTROL NOTES FOR MORE DETAIL. REVEGETATION MEASURES SHALL CONSIST OF THE FOLLOWING:

SEEDED PREPARATION:

A. FOUR (4) INCHES OF LOAM SHALL BE SPREAD OVER DISTURBED AREAS AND SMOOTHED TO A UNIFORM SURFACE. LOAM SHALL BE FREE OF SUBSOIL, CLAY LUMPS, STONES AND OTHER OBJECTS OVER 2 INCHES OR LARGER IN ANY DIMENSION, AND WITHOUT WEEDS, ROOTS OR OTHER OBJECTIONABLE MATERIAL.

B. SOILS TESTS SHALL BE TAKEN AT THE TIME OF SOIL STRIPPING TO DETERMINE FERTILIZATION REQUIREMENTS. SOILS TESTS SHALL BE TAKEN PROMPTLY AS TO THE COST THEREOF. THEREFORE, CONTRACTOR SHALL BE RESPONSIBLE FOR FAMILIARIZING THEMSELVES WITH ALL CONTRACT DOCUMENTS, FIELD CONDITIONS AND DIMENSIONS AND CONFIRMING THAT THE WORK MAY BE ACCOMPLISHED AS SHOWN PRIOR TO PROCEEDING WITH CONSTRUCTION. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO THE COMMENCEMENT OF WORK.

C. CONTRACTOR SHALL NOTIFY ENGINEER OF ALL PRODUCTS OR ITEMS NOTED AS "EXISTING" WHICH ARE NOT FOUND IN THE FIELD.

D. INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS AND OWNER'S REQUIREMENTS UNLESS SPECIFICALLY OTHERWISE INDICATED OR WHERE LOCAL CODES OR REGULATIONS TAKE PRECEDENCE.

E. 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.

F. CONTRACTOR SHALL CLEAN AND REMOVE DEBRIS AND SEDIMENT DEPOSITED ON PUBLIC STREETS, SIDEWALKS, ADJACENT AREAS, OR OTHER PUBLIC WAYS DUE TO CONSTRUCTION.

G. CONTRACTOR SHALL INCORPORATE PROVISIONS AS NECESSARY IN CONSTRUCTION TO PROTECT EXISTING STRUCTURES, PHYSICAL FEATURES, AND MAINTAIN SITE STABILITY DURING CONSTRUCTION. CONTRACTOR SHALL RESTORE ALL AREAS TO ORIGINAL CONDITION AND AS DIRECTED BY DESIGN DRAWINGS.

H. SITE CONTRACTOR SHALL OBTAIN ALL REQUIRED PERMITS PRIOR TO CONSTRUCTION.

I. ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED IN ACCORDANCE WITH "MAINE EROSION AND SEDIMENTATION CONTROL HANDBOOK FOR CONSTRUCTION: BEST MANAGEMENT PRACTICES" PUBLISHED BY THE CUMBERLAND COUNTY SOIL AND WATER DISTRICT AND MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION, MARCH 1991 OR LATEST EDITION. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO POSSESS A COPY OF THE EROSION CONTROL PLAN AT ALL TIMES.

J. THE CONTRACTOR IS HEREBY CAUTIONED THAT ALL SITE FEATURES SHOWN HEREON ARE BASED ON FIELD OBSERVATIONS BY THE SURVEYOR AND BY INFORMATION PROVIDED BY UTILITY COMPANIES. THE INFORMATION IS NOT TO BE RELED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR SHALL CONTACT DIG SAFE (811) 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. CONTRACTORS SHALL BE RESPONSIBLE FOR COMPLIANCE WITH THE REQUIREMENTS OF 23 M.R.S.A. §360-A. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE WITH THE APPROPRIATE UTILITIES TO OBTAIN AUTHORIZATION PRIOR TO RELOCATION OF ANY EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THESE PLANS. IF A UTILITY CONFLICT ARISES, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE OWNER, THE MUNICIPALITY AND APPROPRIATE UTILITY COMPANY PRIOR TO PROCEEDING WITH ANY RELOCATION.

K. IMMEDIATELY UPON COMPLETION OF CUTS/FILLS, THE CONTRACTOR SHALL STABILIZE DISTURBED AREAS IN ACCORDANCE WITH EROSION CONTROL NOTES AND AS SPECIFIED ON PLANS.

L. INSTALL UNDERGROUND UTILITY SERVICES IN SCHEDULE 40 PVC CONDUIT AT LOCATIONS WITHIN PAVED, GRAVELL, OR TRAFFIC AREAS.

M. ALL SEWER PIPE TO BE PVC SDR 35. ALL OTHER REQUIRED DRAINAGE PIPE SHALL BE CORRUGATED METAL PIPE OR REINFORCED CONCRETE PIPE.

N. PRIOR TO ANY CONSTRUCTION AT THE SITE, REPRESENTATIVES OF THE OWNER, SITE CONTRACTOR AND THE SITE DESIGN ENGINEER SHALL ARRANGE FOR AND MEET WITH THE DIRECTOR OF PUBLIC WORKS AND CITY ENGINEER TO DISCUSS THE SCHEDULING OF THE SITE CONSTRUCTION, ON OR BEFORE THAT MEETING, THE CONTRACTOR WILL PREPARE A DETAILED SCHEDULE AND MARKED-UP SITE PLAN INDICATING AREAS AND COMPONENTS OF THE WORK AND KEY DATES SHOWING DATE OF DISTURBANCE AND COMPLETION OF THE WORK. IF DISTURBED AREAS ARE NOT TO BE FINISHED (LOADED, SEEDED AND MULCHED) WITHIN FOURTEEN (14) DAYS, THE SCHEDULE SHALL INDICATE THOSE AREAS TO BE PROTECTED WITH TEMPORARY SEEDING/MULCH.

TRENCH DEWATERING AND TEMPORARY STREAM DIVERSION:

WATER FROM CONSTRUCTION TRENCH DEWATERING OR TEMPORARY STREAM DIVERSION WILL PASS FIRST THROUGH A FILTER BAG OR SECONDARY CONTAINMENT STRUCTURE (E.G. HAY BALE LINED POOL) PRIOR TO DISCHARGE. THE DISCHARGE SITE SHALL BE SELECTED TO AVOID FLOODING AND SEDIMENT DISCHARGES TO A PROTECTED RESOURCE. IN NO CASE SHALL THE FILTER BAG OR CONTAINMENT STRUCTURE BE LOCATED WITHIN 100 FEET OF A PROTECTED NATURAL RESOURCE.

STANDARDS FOR TIMELY STABILIZATION:

STANDARD FOR THE TIMELY STABILIZATION OF DISTURBED SLOPES -- BY OCTOBER 1 THE CONTRACTOR WILL SEED THE DISTURBED SLOPE WITH WINTER RYE AT A SEEDING RATE OF 3 POUNDS PER 1000 SQUARE FEET AND APPLY EROSION CONTROL MATS OVER THE MULCHED SLOPE. THE CONTRACTOR WILL MONITOR GROWTH OF THE RYE OVER THE NEXT 30 DAYS. IF THE RYE FAILS TO GROW AT LEAST THREE INCHES OR COVER AT LEAST 75% OF THE DISTURBED SLOPE BY NOVEMBER 1, THEN THE APPLICANT WILL COVER THE SLOPE WITH A LAYER OF WOOD WASTE COMPOST AS DESCRIBED IN ITEM 2(C) OF THIS STANDARD OR WITH STONE RIPRAP AS DESCRIBED IN ITEM 2(D) OF THIS STANDARD.

B. STABILIZE THE SLOPE WITH SOD -- THE CONTRACTOR WILL STABILIZE THE DISTURBED SLOPE WITH PROPERLY INSTALLED SOD BY NOVEMBER 15. PROPER INSTALLATION INCLUDES THE APPLICANT PINNING THE SOD ONTO THE SLOPE WITH WIRE PINS, ROLLING THE SOD TO GUARANTEE CONTACT BETWEEN THE SOD AND UNDERLYING SOIL, AND WATERING THE SOD TO PROMOTE ROOT GROWTH INTO THE DISTURBED SOIL. THE APPLICANT WILL NOT USE LATE-SEASON SOD INSTALLATION TO STABILIZE SLOPES HAVING A GRADE GREATER THAN 3:30 (3H:1V).

C. STABILIZE THE SLOPE WITH WOOD WASTE COMPOST -- THE CONTRACTOR WILL PLACE A SIX-INCH LAYER OF WOOD WASTE COMPOST ON THE SLOPE BY NOVEMBER 15. PRIOR TO PLACING THE WOOD WASTE COMPOST, THE APPLICANT WILL REMOVE ANY SNOW ACCUMULATION ON THE DISTURBED SLOPE. THE APPLICANT WILL NOT USE WOOD WASTE COMPOST TO STABILIZE SLOPES HAVING GRADATIONS GREATER THAN 80% (2H:1V) OR HAVING GROUNDWATER SEEPS ON THE SLOPE FACE.

D. STABILIZE THE SLOPE WITH STONE RIPRAP -- THE CONTRACTOR WILL PLACE A LAYER OF STONE RIPRAP ON THE SLOPE BY NOVEMBER 15. THE APPLICANT WILL HIRE A REGISTERED PROFESSIONAL ENGINEER TO DETERMINE THE STONE SIZE NEEDED FOR STABILITY AND TO DESIGN A FILTER LAYER FOR UNDERNEATH THE RIPRAP.

STANDARD FOR THE TIMELY STABILIZATION OF DISTURBED SOILS -- BY SEPTEMBER 15 THE CONTRACTOR WILL SEED AND MULCH ALL DISTURBED SOILS ON AREAS HAVING A SLOPE LESS THAN 15%. IF THE CONTRACTOR FAILS TO STABILIZE THESE SOILS BY THIS DATE, THEN THE CONTRACTOR WILL TAKE ONE OF THE FOLLOWING ACTIONS TO STABILIZE THE SOIL FOR LATE FALL AND WINTER.

A. STABILIZE THE SOIL WITH TEMPORARY VEGETATION -- BY OCTOBER 1 THE CONTRACTOR WILL SEED THE DISTURBED SLOPE WITH WINTER RYE AT A SEEDING RATE OF 3 POUNDS PER 1000 SQUARE FEET, LIGHTLY MULCH THE SEEDED SOIL WITH HAY OR STRAW AT 75 POUNDS PER 1000 SQUARE FEET, AND ANCHOR THE MULCH WITH PLASTIC NETTING. THE APPLICANT WILL MONITOR GROWTH OF THE RYE OVER THE NEXT 30 DAYS. IF THE RYE FAILS TO GROW AT LEAST THREE INCHES OR COVER AT LEAST 75% OF THE DISTURBED SOIL BEFORE NOVEMBER 15, THEN THE APPLICANT WILL MULCH THE AREA FOR OVER-WINTER PROTECTION AS DESCRIBED IN ITEM 2(C) OF THIS STANDARD.

B. STABILIZE THE SOIL WITH MULCH -- BY NOVEMBER 15 THE APPLICANT WILL STABILIZE THE DISTURBED SOIL WITH PROPERLY INSTALLED SOD BY OCTOBER 1. PROPER INSTALLATION INCLUDES THE APPLICANT PINNING THE SOD ONTO THE SOIL WITH WIRE PINS, ROLLING THE SOD TO GUARANTEE CONTACT BETWEEN THE SOD AND UNDERLYING SOIL, AND WATERING THE SOD TO PROMOTE ROOT GROWTH INTO THE DISTURBED SOIL.

C. STABILIZE THE SOIL WITH MULCH -- BY NOVEMBER 15 THE APPLICANT WILL MULCH THE DISTURBED SOIL BY SPREADING HAY OR STRAW AT A RATE OF AT LEAST 150 POUNDS PER 1000 SQUARE FEET ON THE AREA SO THAT NO SOIL IS VISIBLE THROUGH THE MULCH. PRIOR TO APPLYING THE MULCH, THE APPLICANT WILL REMOVE ANY SNOW ACCUMULATION ON THE DISTURBED AREA. IMMEDIATELY AFTER APPLYING THE MULCH, THE APPLICANT WILL ANCHOR THE MULCH WITH PLASTIC NETTING TO PREVENT WIND FROM MOVING THE MULCH OFF THE DISTURBED SOIL.

STANDARD FOR THE TIMELY STABILIZATION OF DISTURBED SOILS -- BY SEPTEMBER 15 THE CONTRACTOR WILL SEED AND MULCH ALL DISTURBED SOILS ON AREAS HAVING A SLOPE LESS THAN 15%. IF THE CONTRACTOR FAILS TO STABILIZE THESE SOILS BY THIS DATE, THEN THE CONTRACTOR WILL TAKE ONE OF THE FOLLOWING ACTIONS TO STABILIZE THE SOIL FOR LATE FALL AND WINTER.

A. STABILIZE THE SOIL WITH TEMPORARY VEGETATION -- BY OCTOBER 1 THE CONTRACTOR WILL SEED THE DISTURBED SOIL WITH WINTER RYE AT A SEEDING RATE OF 3 POUNDS PER 1000 SQUARE FEET, LIGHTLY MULCH THE SEEDED SOIL WITH HAY OR STRAW AT 75 POUNDS PER 1000 SQUARE FEET, AND ANCHOR THE MULCH WITH PLASTIC NETTING. THE APPLICANT WILL MONITOR GROWTH OF THE RYE OVER THE NEXT 30 DAYS. IF THE RYE FAILS TO GROW AT LEAST THREE INCHES OR COVER AT LEAST 75% OF THE DISTURBED SOIL BEFORE NOVEMBER 15, THEN THE APPLICANT WILL MULCH THE AREA FOR OVER-WINTER PROTECTION AS DESCRIBED IN ITEM 2(C) OF THIS STANDARD.

B. STABILIZE THE SOIL WITH MULCH -- BY NOVEMBER 15 THE APPLICANT WILL STABILIZE THE DISTURBED SOIL WITH PROPERLY INSTALLED SOD BY OCTOBER 1. PROPER INSTALLATION INCLUDES THE APPLICANT PINNING THE SOD ONTO THE SOIL WITH WIRE PINS, ROLLING THE SOD TO GUARANTEE CONTACT BETWEEN THE SOD AND UNDERLYING SOIL, AND WATERING THE SOD TO PROMOTE ROOT GROWTH INTO THE DISTURBED SOIL.

C. STABILIZE THE SOIL WITH MULCH -- BY NOVEMBER 15 THE APPLICANT WILL MULCH THE DISTURBED SOIL BY SPREADING HAY OR STRAW AT A RATE OF AT LEAST 150 POUNDS PER 1000 SQUARE FEET ON THE AREA SO THAT NO SOIL IS VISIBLE THROUGH THE MULCH. PRIOR TO APPLYING THE MULCH, THE APPLICANT WILL REMOVE ANY SNOW ACCUMULATION ON THE DISTURBED AREA. IMMEDIATELY AFTER APPLYING THE MULCH, THE APPLICANT WILL ANCHOR THE MULCH WITH PLASTIC NETTING TO PREVENT WIND FROM MOVING THE MULCH OFF THE DISTURBED SOIL.

INSPECTIONS/MONITORING:

1. MAINTENANCE MEASURES SHALL BE APPLIED AS NEEDED DURING THE ENTIRE CONSTRUCTION CYCLE. AFTER EACH RAINFALL, SNOW STORM OR PERIOD OF THAWING AND RUNOFF, OR AT LEAST EVERY SEVEN (7) DAYS, THE CONTRACTOR SHALL PERFORM A VISUAL INSPECTION OF ALL INSTALLED EROSION CONTROL MEASURES. THE CONTRACTOR SHALL PERFORM REPAIRS AS NEEDED TO ALLOW CONTINUED PROPER FUNCTIONING OF THE EROSION CONTROL MEASURE. THE CONTRACTOR SHALL PROVIDE THE NECESSARY REGULATING AGENCIES WITH WRITTEN DOCUMENTATION DESCRIBING DATES OF INSPECTIONS AND NECESSARY FOLLOW-UP WORK TO MAINTAIN EROSION CONTROL MEASURES MEETING THE REQUIREMENTS OF THIS PLAN.

2. FOLLOWING THE TEMPORARY AND/OR FINAL SEEDINGS, THE CONTRACTOR SHALL INSPECT THE WORK AREA SEMI-MONTHLY UNTIL THE SEEDINGS HAVE BEEN ESTABLISHED. ESTABLISHED MEANS A MINIMUM OF 85%-90% OF AREAS VEGETATED WITH VIGOROUS GROWTH. RESEEDING SHALL BE CARRIED OUT BY THE CONTRACTOR WITH FOLLOW-UP INSPECTIONS IN THE EVENT OF ANY FAILURES UNTIL VEGETATION IS ADEQUATELY ESTABLISHED.

CONSTRUCTION NOTES

1. WORK SHALL CONFORM TO THE APPLICABLE CODES AND ORDINANCES.

2. CONTRACTOR SHALL VISIT THE SITE AND FAMILIARIZE THEMSELVES WITH ALL CONDITIONS AFFECTING THE PROPOSED WORK AND SHALL MAKE PROVISIONS AS TO THE COST THEREOF. THEREFORE, CONTRACTOR SHALL BE RESPONSIBLE FOR FAMILIARIZING THEMSELVES WITH ALL CONTRACT DOCUMENTS, FIELD CONDITIONS AND DIMENSIONS AND CONFIRMING THAT THE WORK MAY BE ACCOMPLISHED AS SHOWN PRIOR TO PROCEEDING WITH CONSTRUCTION. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO THE COMMENCEMENT OF WORK.

3. CONTRACTOR SHALL NOTIFY ENGINEER OF ALL PRODUCTS OR ITEMS NOTED AS "EXISTING" WHICH ARE NOT FOUND IN THE FIELD.

4. INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS AND OWNER'S REQUIREMENTS UNLESS SPECIFICALLY OTHERWISE INDICATED OR WHERE LOCAL CODES OR REGULATIONS TAKE PRECEDENCE.

5. 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.

6. CONTRACTOR SHALL CLEAN AND REMOVE DEBRIS AND SEDIMENT DEPOSITED ON PUBLIC STREETS, SIDEWALKS, ADJACENT AREAS, OR OTHER PUBLIC WAYS DUE TO CONSTRUCTION.

7. CONTRACTOR SHALL INCORPORATE PROVISIONS AS NECESSARY IN CONSTRUCTION TO PROTECT EXISTING STRUCTURES, PHYSICAL FEATURES, AND MAINTAIN SITE STABILITY DURING CONSTRUCTION. CONTRACTOR SHALL RESTORE ALL AREAS TO ORIGINAL CONDITION AND AS DIRECTED BY DESIGN DRAWINGS.

8. SITE CONTRACTOR SHALL OBTAIN ALL REQUIRED PERMITS PRIOR TO CONSTRUCTION.

9. ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED IN ACCORDANCE WITH "MAINE EROSION AND SEDIMENTATION CONTROL HANDBOOK FOR CONSTRUCTION: BEST MANAGEMENT PRACTICES" PUBLISHED BY THE CUMBERLAND COUNTY SOIL AND WATER DISTRICT AND MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION, MARCH 1991 OR LATEST EDITION. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO POSSESS A COPY OF THE EROSION CONTROL PLAN AT ALL TIMES.

10. THE CONTRACTOR IS HEREBY CAUTIONED THAT ALL SITE FEATURES SHOWN HEREON ARE BASED ON FIELD OBSERVATIONS BY THE SURVEYOR AND BY INFORMATION PROVIDED BY UTILITY COMPANIES. THE INFORMATION IS NOT TO BE RELED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR SHALL CONTACT DIG SAFE (811) 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. CONTRACTORS SHALL BE RESPONSIBLE FOR COMPLIANCE WITH THE REQUIREMENTS OF 23 M.R.S.A. §360-A. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE WITH THE APPROPRIATE UTILITIES TO OBTAIN AUTHORIZATION PRIOR TO RELOCATION OF ANY EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THESE PLANS. IF A UTILITY CONFLICT ARISES, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE OWNER, THE MUNICIPALITY AND APPROPRIATE UTILITY COMPANY PRIOR TO PROCEEDING WITH ANY RELOCATION.

11. IMMEDIATELY UPON COMPLETION OF CUTS/FILLS, THE CONTRACTOR SHALL STABILIZE DISTURBED AREAS IN ACCORDANCE WITH EROSION CONTROL NOTES AND AS SPECIFIED ON PLANS.

12. INSTALL UNDERGROUND UTILITY SERVICES IN SCHEDULE 40 PVC CONDUIT AT LOCATIONS WITHIN PAVED, GRAVELL, OR TRAFFIC AREAS.

13. ALL SEWER PIPE TO BE PVC SDR 35. ALL OTHER REQUIRED DRAINAGE PIPE SHALL BE CORRUGATED METAL PIPE OR REINFORCED CONCRETE PIPE.

14. PRIOR TO ANY CONSTRUCTION AT THE SITE, REPRESENTATIVES OF THE OWNER, SITE CONTRACTOR AND THE SITE DESIGN ENGINEER SHALL ARRANGE FOR AND MEET WITH THE DIRECTOR OF PUBLIC WORKS AND CITY ENGINEER TO DISCUSS THE SCHEDULING OF THE SITE CONSTRUCTION, ON OR BEFORE THAT MEETING, THE CONTRACTOR WILL PREPARE A DETAILED SCHEDULE AND MARKED-UP SITE PLAN INDICATING AREAS AND COMPONENTS OF THE WORK AND KEY DATES SHOWING DATE OF DISTURBANCE AND COMPLETION OF THE WORK. IF DISTURBED AREAS ARE NOT TO BE FINISHED (LOADED, SEEDED AND MULCHED) WITHIN FOURTEEN (14) DAYS, THE SCHEDULE SHALL INDICATE THOSE AREAS TO BE PROTECTED WITH TEMPORARY SEEDING/MULCH.

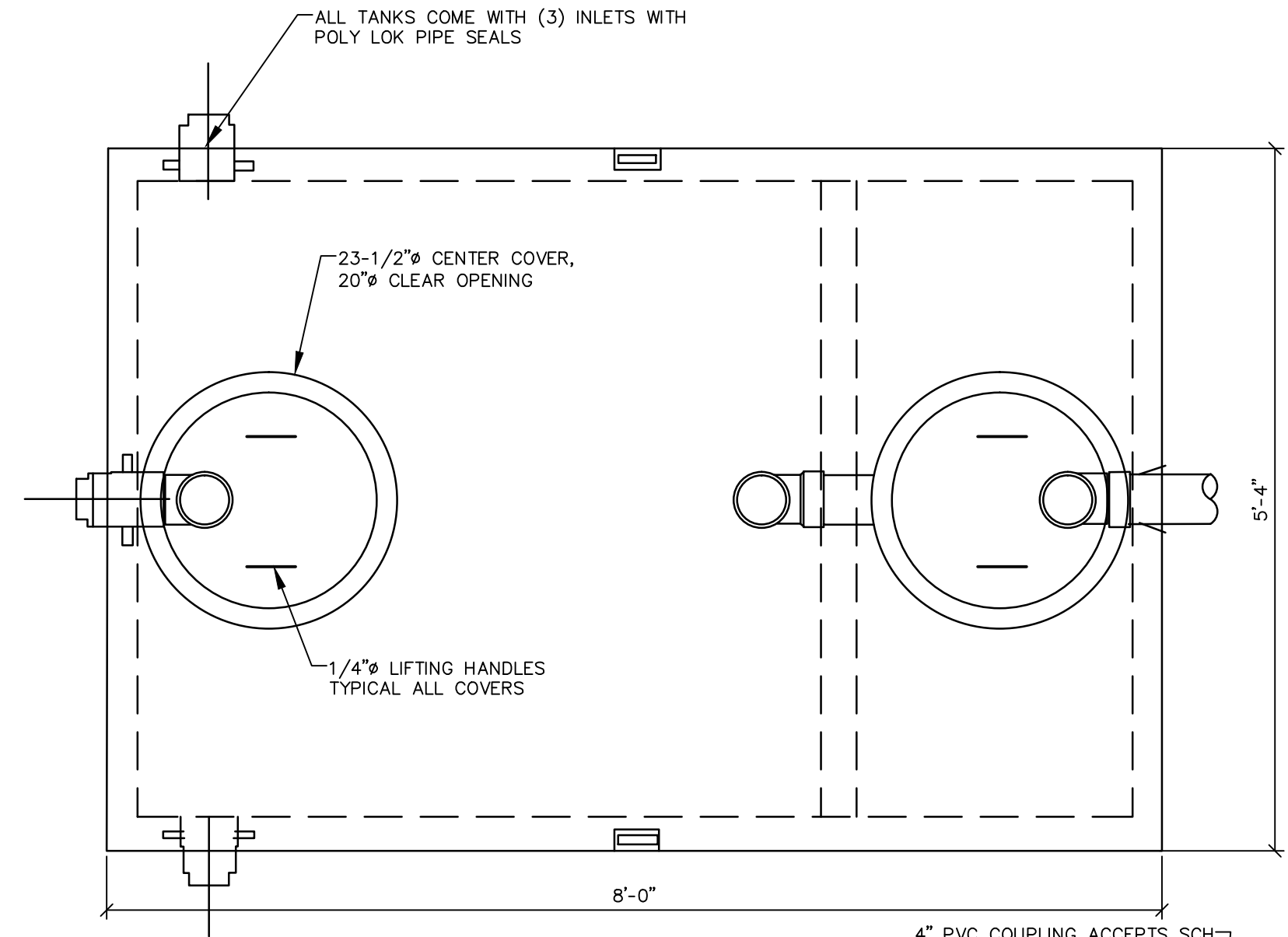
15. PRIOR TO CONSTRUCTION, THE SITE CONTRACTOR SHALL CONFIRM SETBACKS AND BUILDING DIMENSIONS WITH ARCHITECTURAL DRAWINGS. CONTRACTOR SHALL NOTIFY ENGINEER AND OWNER OF ANY DIFFERENCES AFFECTING BUILDING OR SITE CONSTRUCTION.

16. 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).

17. REMOVE TOPSOIL AND ROUGHEN SUBGRADE TO ESTABLISH SUITABLE INTERFACE FOR ALL FILLS.

18. FILL AREAS UNDER PAVEMENT SHALL BE GRANULAR BORROW. ALL OTHER FILL AREAS SHALL BE A COMMON BORROW MATERIAL SUITABLE FOR EMBANKMENT CONSTRUCTION, FREE FROM FROZEN MATERIAL, PERSHABLE, PEAT, ORGANIC, 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 IF THE ENGINEER GRANULAR BORROW AND COMMON BORROW SHALL COMPLY WITH M.D.O.T. SPECIFICATIONS.

19. ALL SUBSURFACE UTILITY LINES SHOWN HEREON ARE BASED SOLELY ON THE FIELD LOCATION OF VISIBLE STRUCTURES, SMM'S, GPS, HORANT'S, ETC. IN CONJUNCTION WITH DESIGN AND/OR AS-BUILT PLANS SUPPLIED TO SEBAGO TECHNIQS INC. BY OTHERS PRIOR TO ANY CONSTRUCTION, EXCAVATION, TEST BORINGS, DRILLING, ETC. DIG GATE MUST BE NOTIFIED AND A SITE IDENTIFICATION NUMBER ALONG WITH A SAFE TO DIG DATE OBTAINED. THE SITE CONTRACTOR SHALL BE RESPONSIBLE FOR FIELD VERIFYING THE LOCATION, DEPTH AND NUMBER OF ALL SUBSURFACE UTILITY LINES SHOWN HEREON AND ANY AND ALL OTHERS LOCATED ON SITE WITHIN THE CONSTRUCTION AREA.



1000 GALLON GREASE TRAP

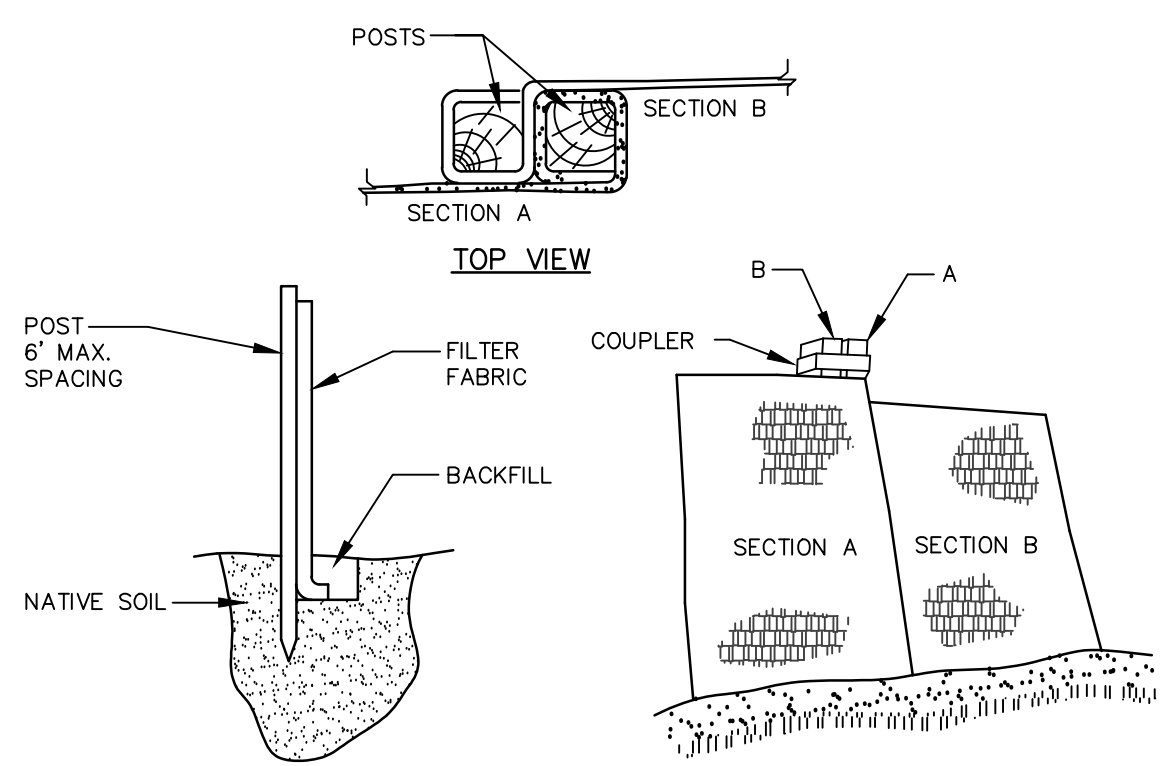
NOT TO SCALE

CONCRETE SPECIFICATIONS:

- 4000 PSI @ 28 DAYS
- 45-48 ENTRAINED AIR
- TANK PENETRATIONS ARE INTERNALLY COATED
- ALL JOINTS SEALED WITH BUTYL RUBBER JOINT SEALANT

GREASE TRAP INFORMATION:

- TANKS SHOULD BE PUMPED AS NEEDED
- ACCESS COVERS SHOULD HAVE RISERS TO BEING COVER ACCESS TO GRADE
- TANKS CAN BE VACUUM TESTED AT AN ADDITIONAL COST.

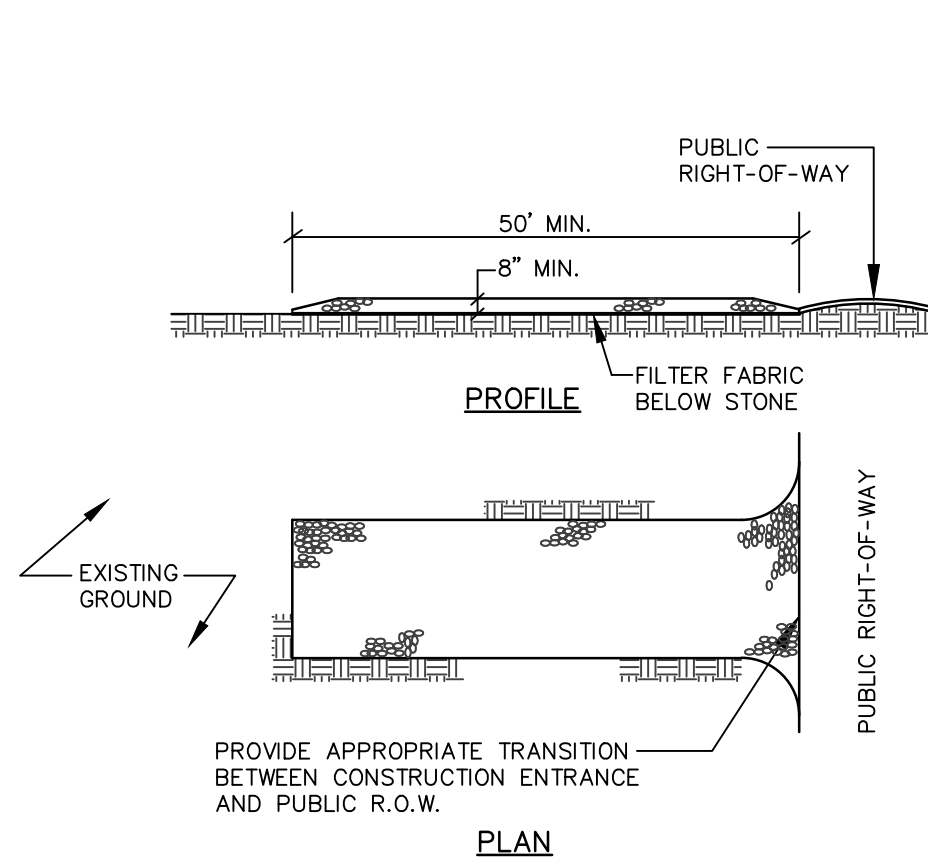


INSTALLATION:

- EXCAVATE A 6" x 6" TRENCH ALONG THE LINE OF PLACEMENT FOR THE FILTER BARRIER.
- UNROLL A SECTION AT A TIME AND POSITION THE POSTS AGAINST THE BACK (DOWNSTREAM) WALL OF THE TRENCH.
- DRIVE POSTS INTO THE GROUND UNTIL APPROXIMATELY 2" OF FABRIC IS LYING ON THE TRENCH BOTTOM.
- LAY THE TOE-IN FLAP OF FABRIC ONTO THE UNDISTURBED BOTTOM OF THE TRENCH, BACKFILL THE TRENCH AND TAMP THE TOE-IN. ALSO BE ACCOMPLISHED BY LAYING THE FABRIC FLAP ON UNDISTURBED GROUND AND PILING AND TAMPING FILL AT THE BASE, BUT MUST BE ACCOMPANIED BY AN INTERCEPTION DITCH.
- JOIN SECTION AS SHOWN ABOVE.
- BARRIER SHALL BE MIRAFI SILT FENCE OR EQUAL.

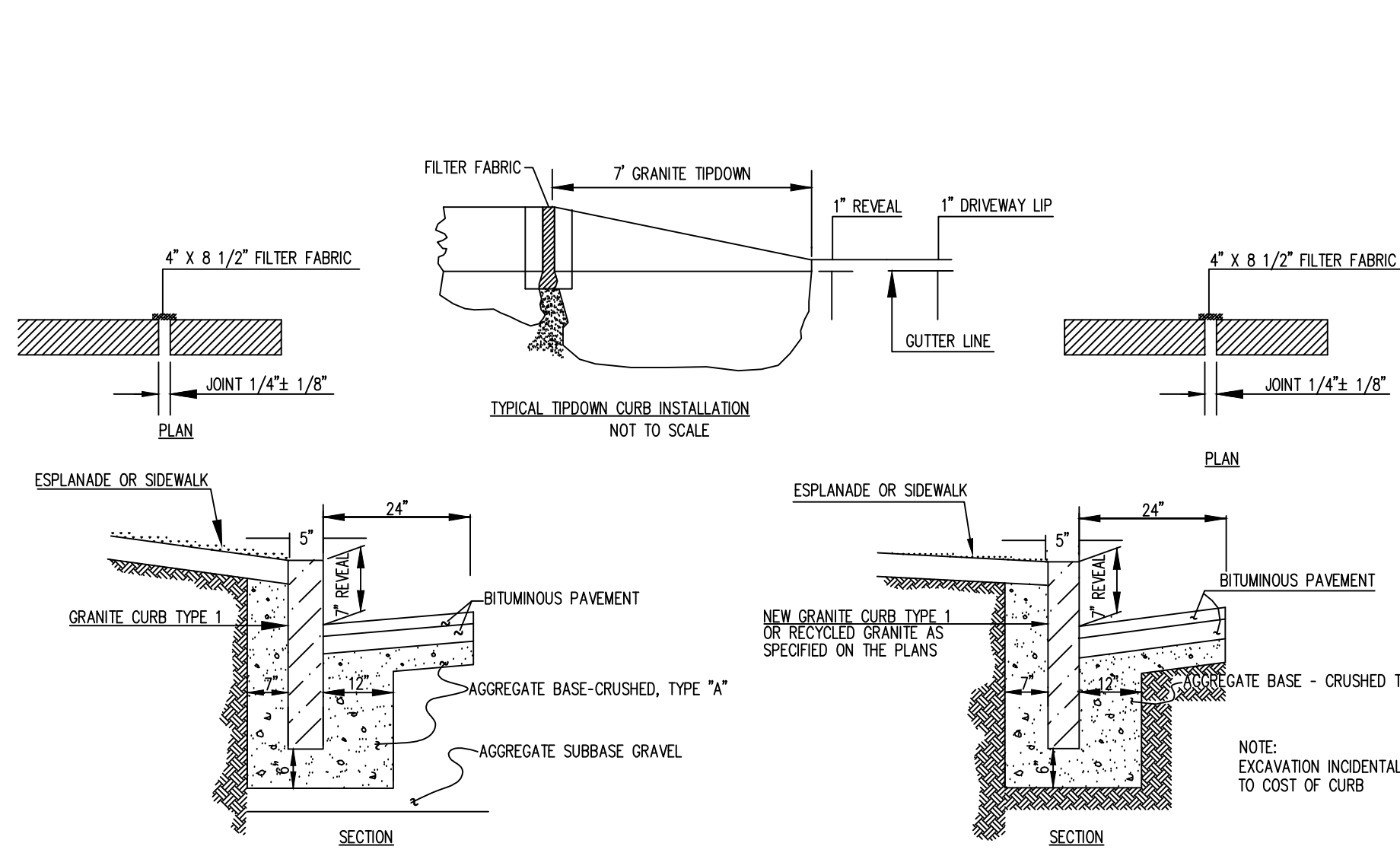
FILTER BARRIER

NOT TO SCALE



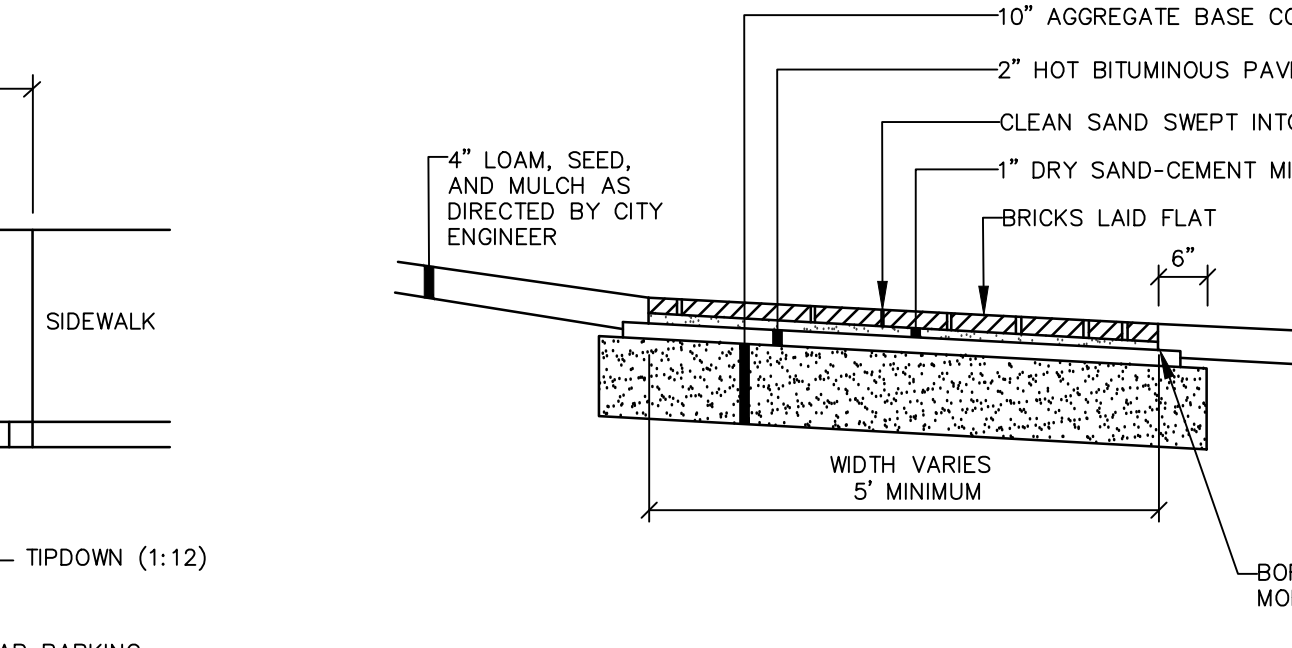
NOTES:

- STONE SIZE- AASHTO DESIGNATION M43, SIZE NO. 2 (1 1/2" TO 1 1/2"), USE CRUSHED STONE.
- LENGTH- AS SHOWN ON PLANS, MIN. 50 FEET.
- THICKNESS- NOT LESS THAN EIGHT (8) INCHES.
- WIDTH- NOT LESS THAN FULL WIDTH WITH ALL PRELIMINARY INGRESS OR EGRESS.
- MAINTENANCE- THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHT-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEANST OF REMOVAL OF SEDIMENT. MATERIALS THAT ARE WASHED, WASHED OR TRACKED ONTO PUBLIC RIGHT-OF-WAY MUST BE REMOVED IMMEDIATELY.



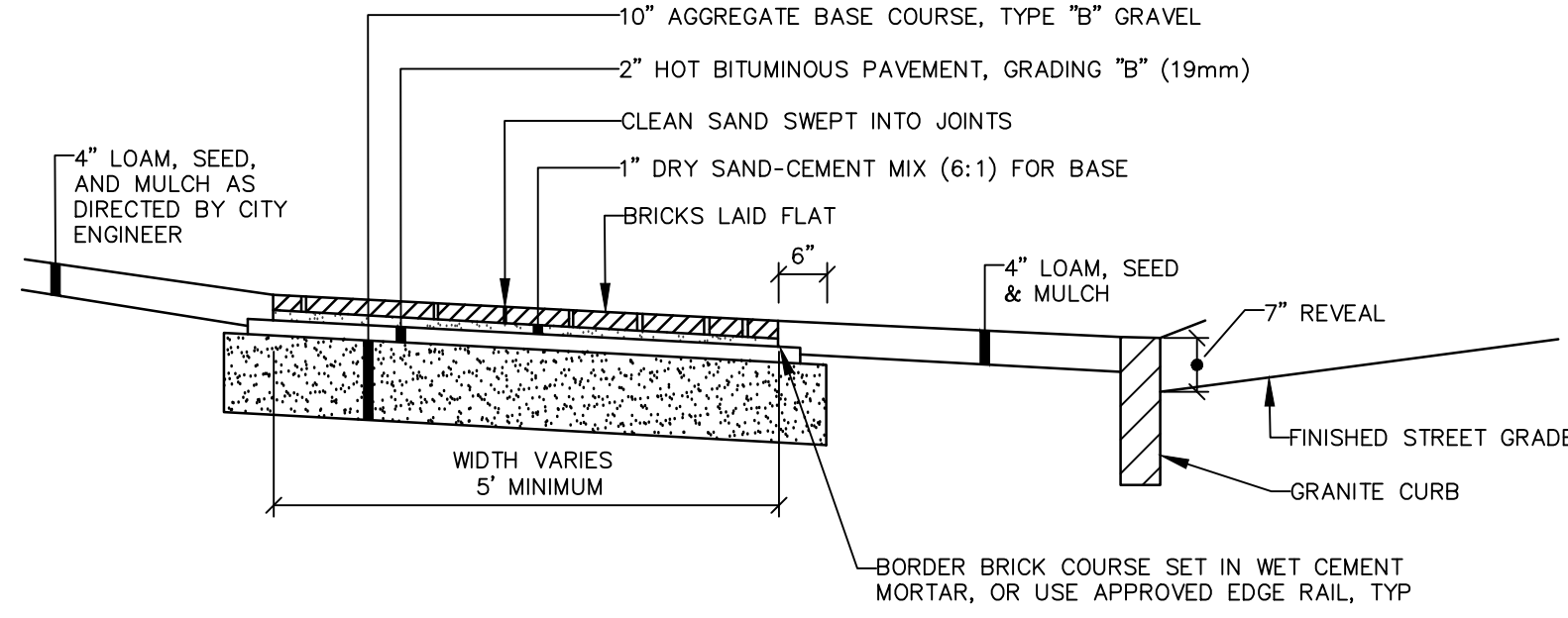
BRICK DRIVEWAY APRON WITH BITUMINOUS BASE

NOT TO SCALE



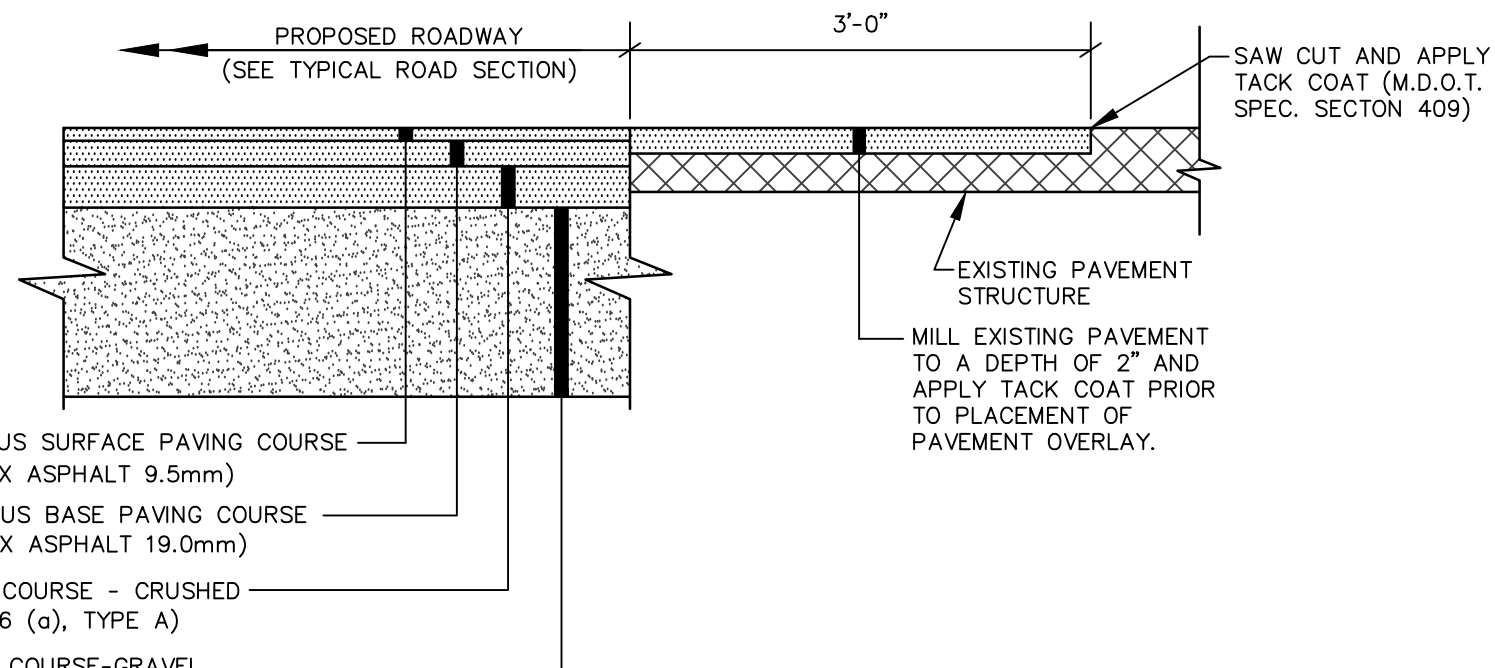
BRICK SIDEWALK WITH BITUMINOUS BASE

NOT TO SCALE



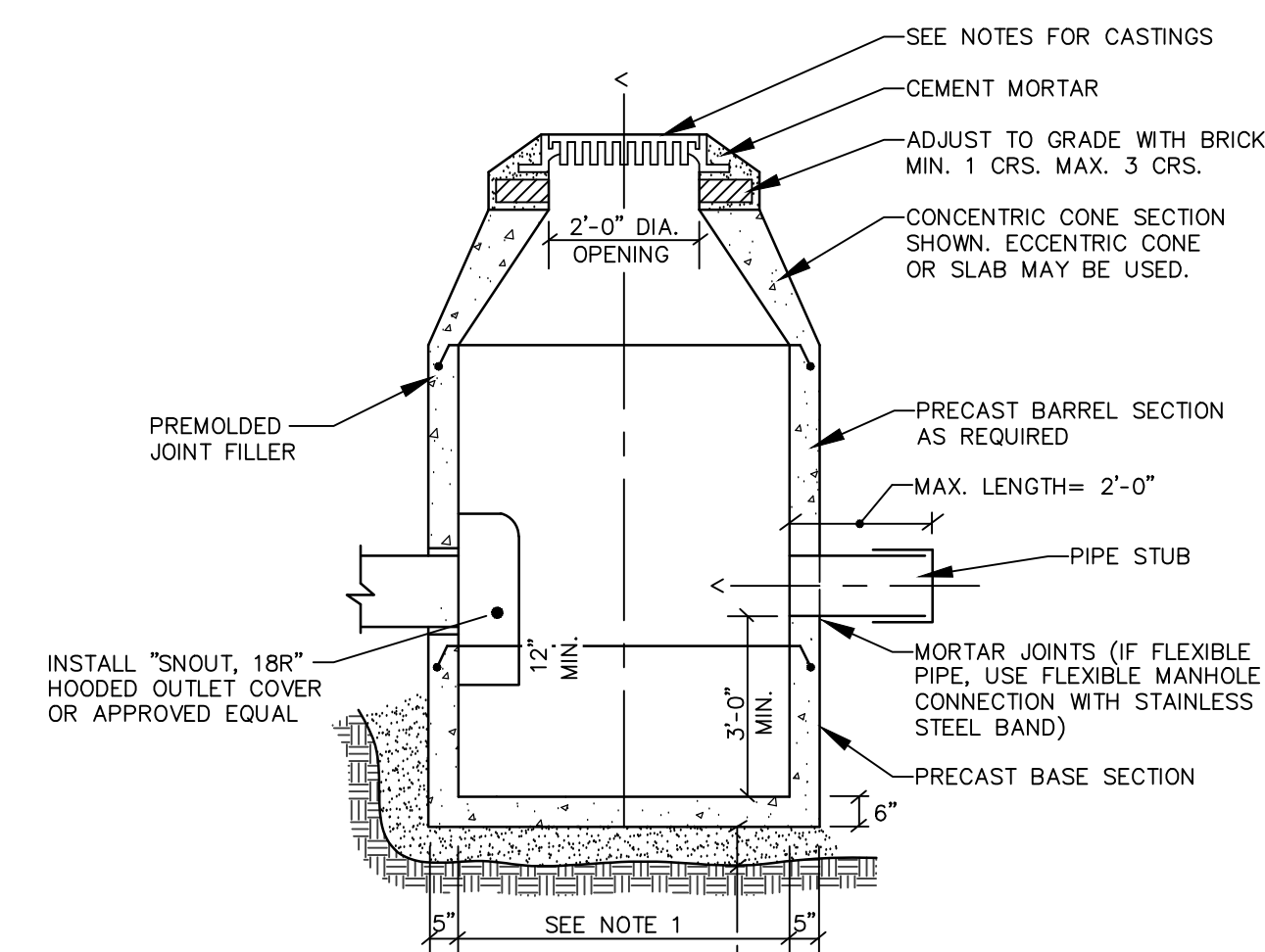
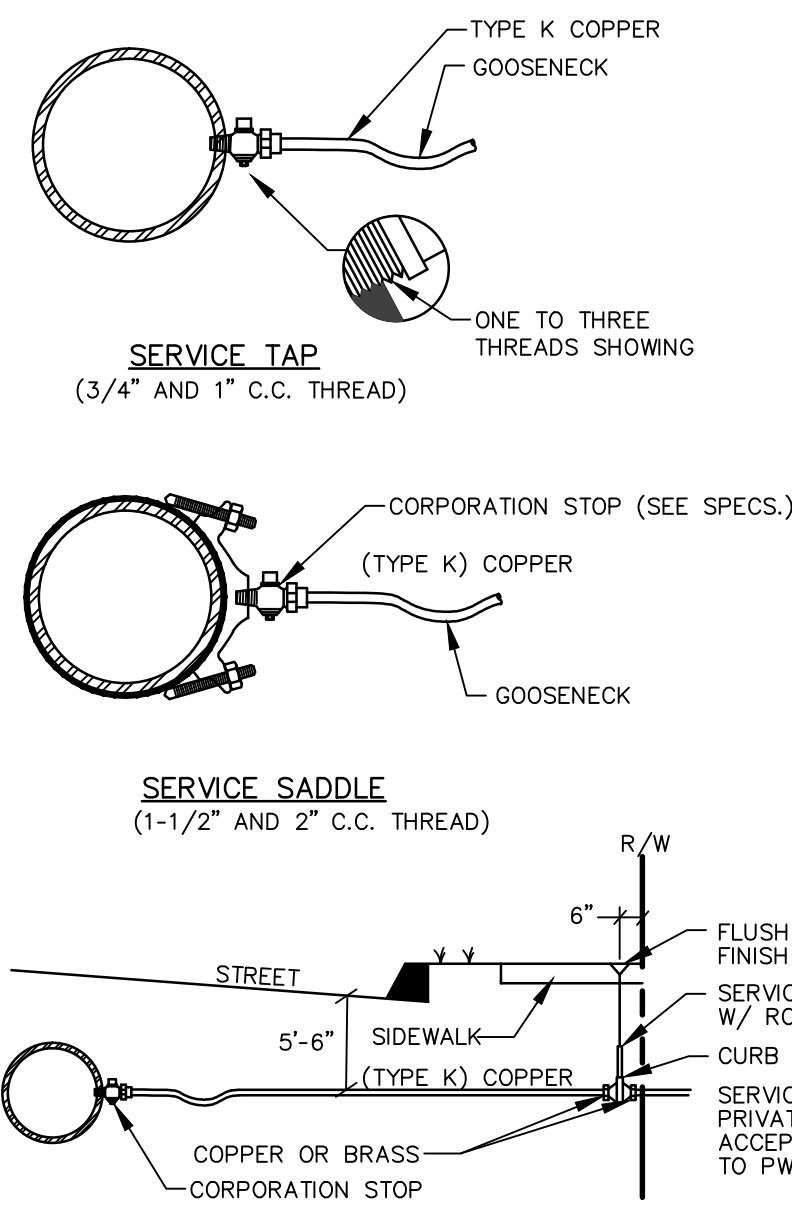
HANDICAP RAMP

NOT TO SCALE



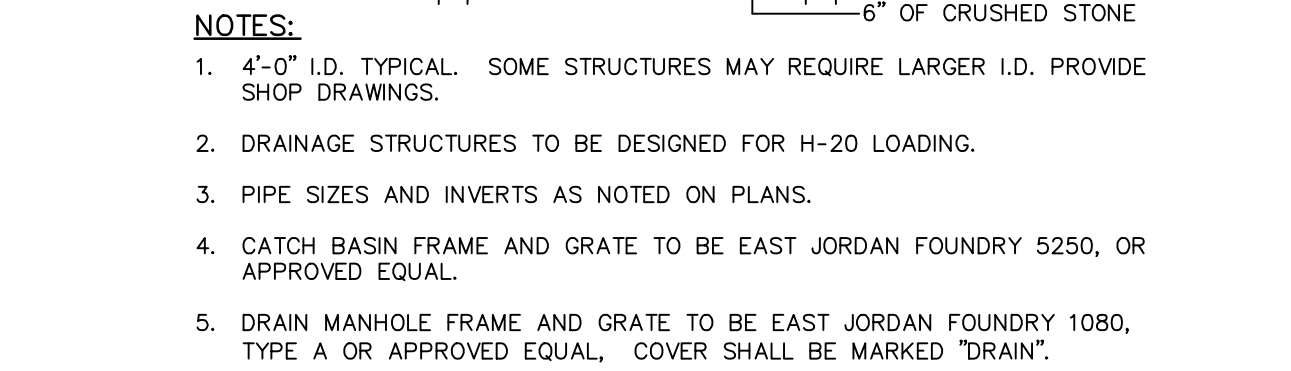
TYPICAL PAVEMENT JOINT

NOT TO SCALE



GRANITE SETT DETAIL

NOT TO SCALE

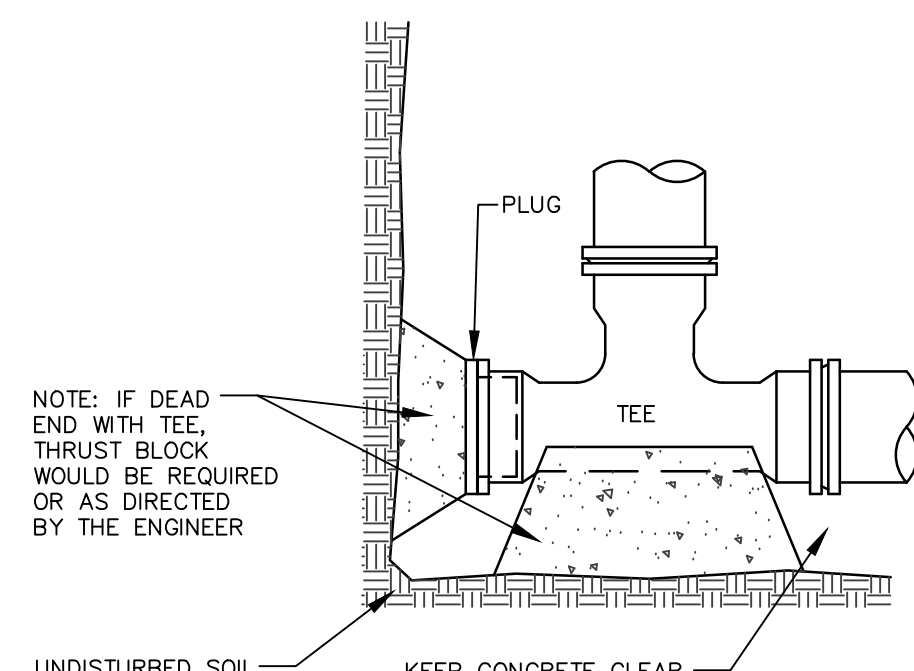


TYPICAL DRAINAGE MANHOLE/CATCH BASIN

NOT TO SCALE

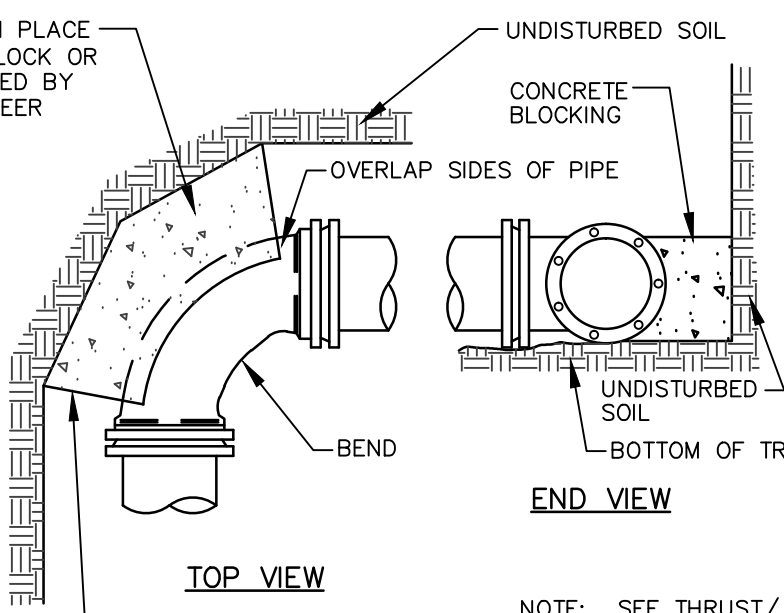
TYPICAL SERVICE CONNECTION

NOT TO SCALE



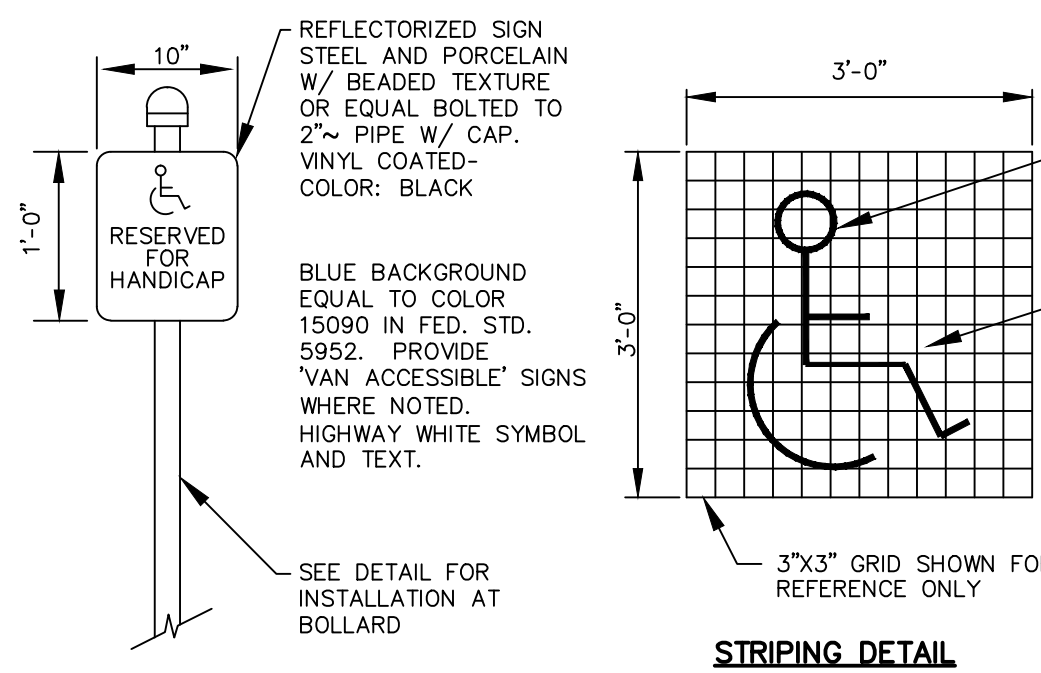
STANDARD TEE BLOCKING

NOT TO SCALE



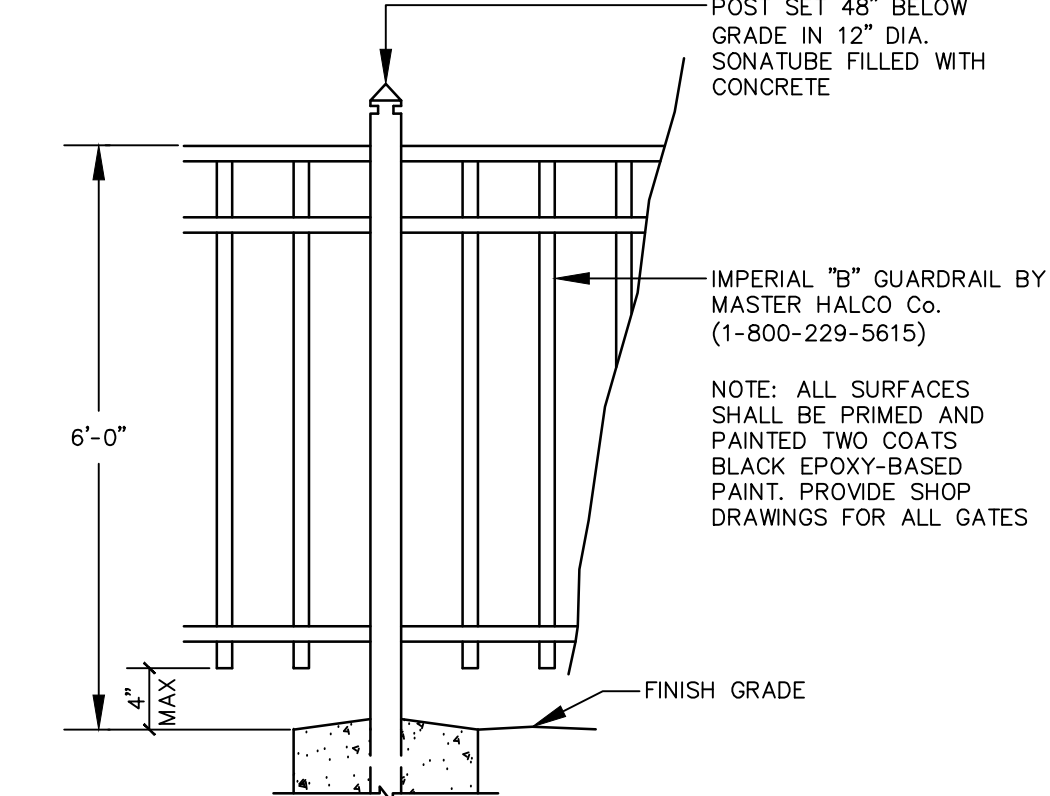
STANDARD BEND BLOCKING

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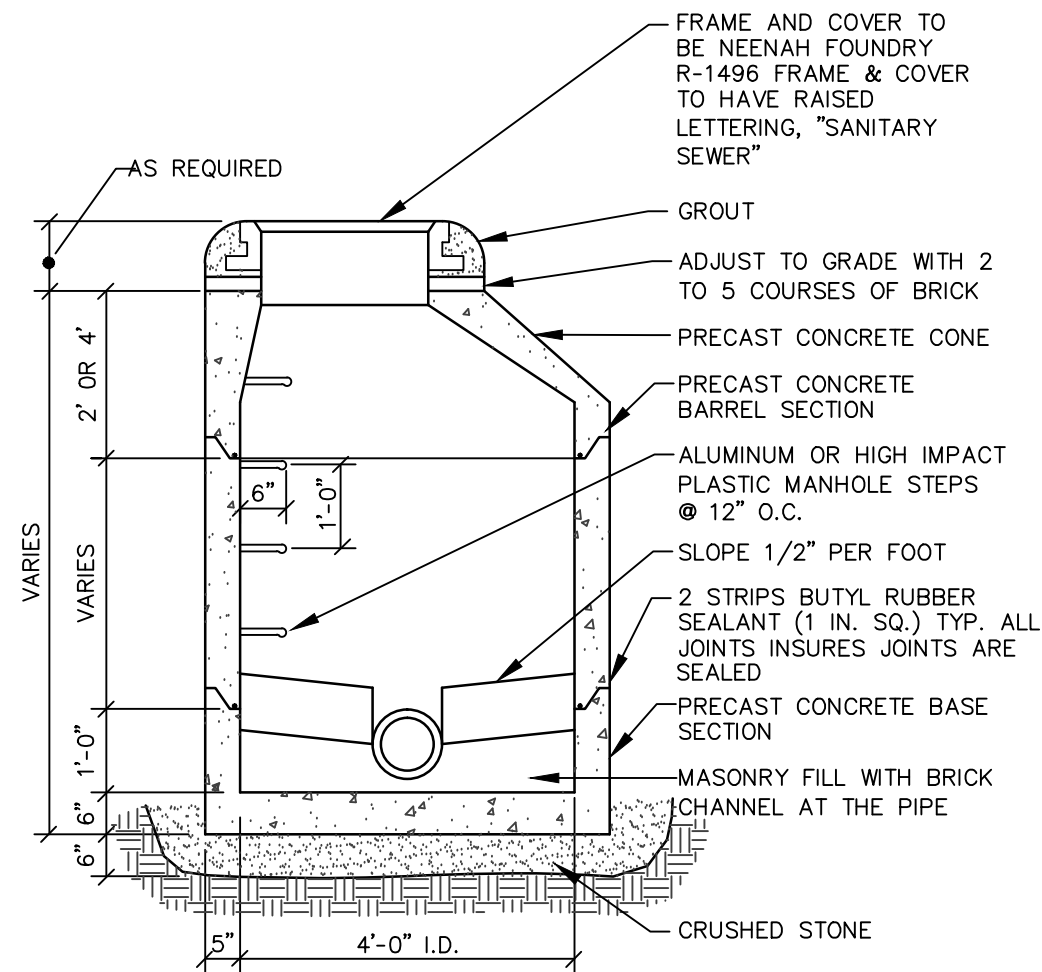
HANDICAP SIGNS AND STRIPING

NOT TO SCALE



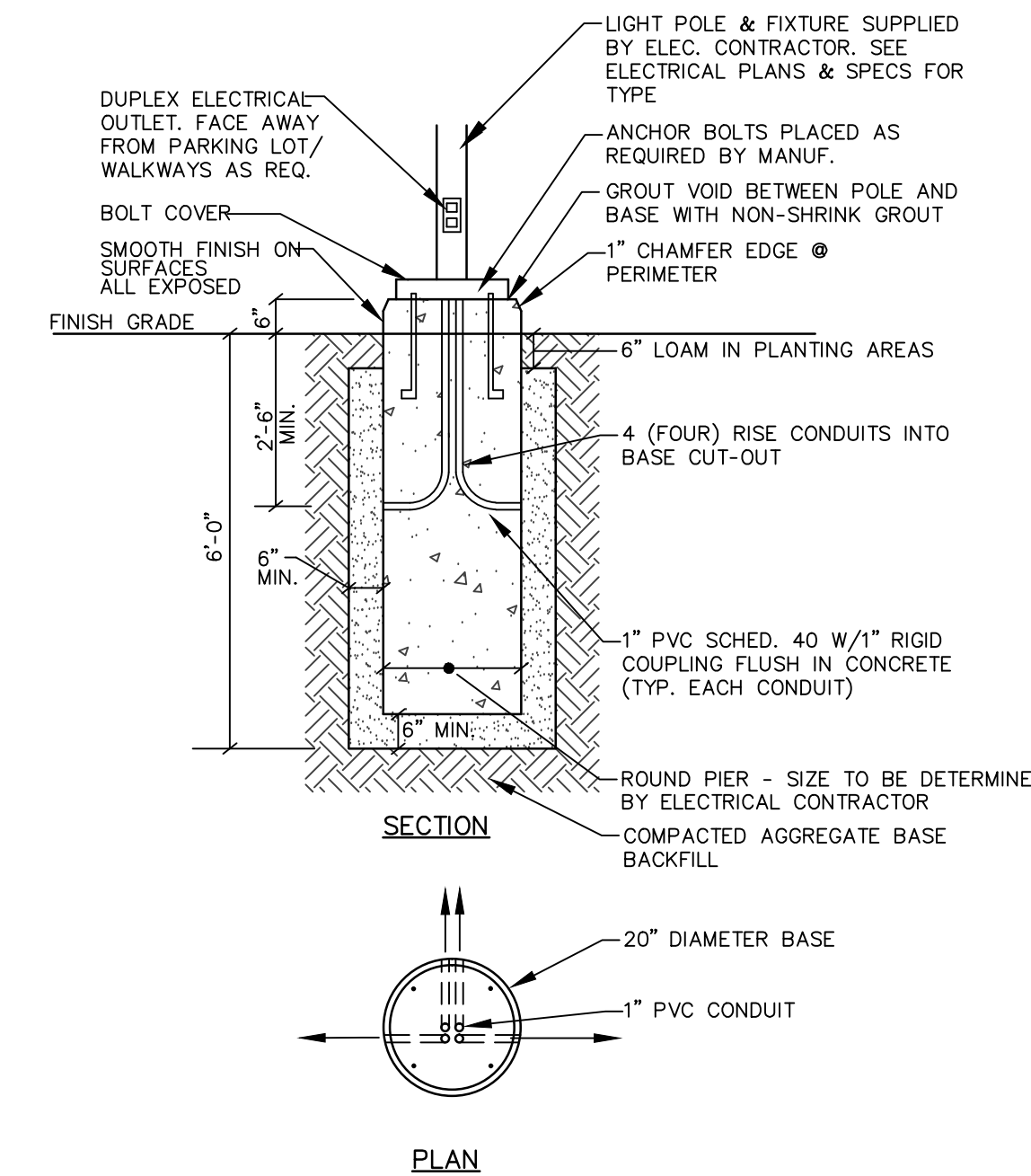
WROUGHT IRON FENCE (ALUMINUM TUBING)

NOT TO SCALE



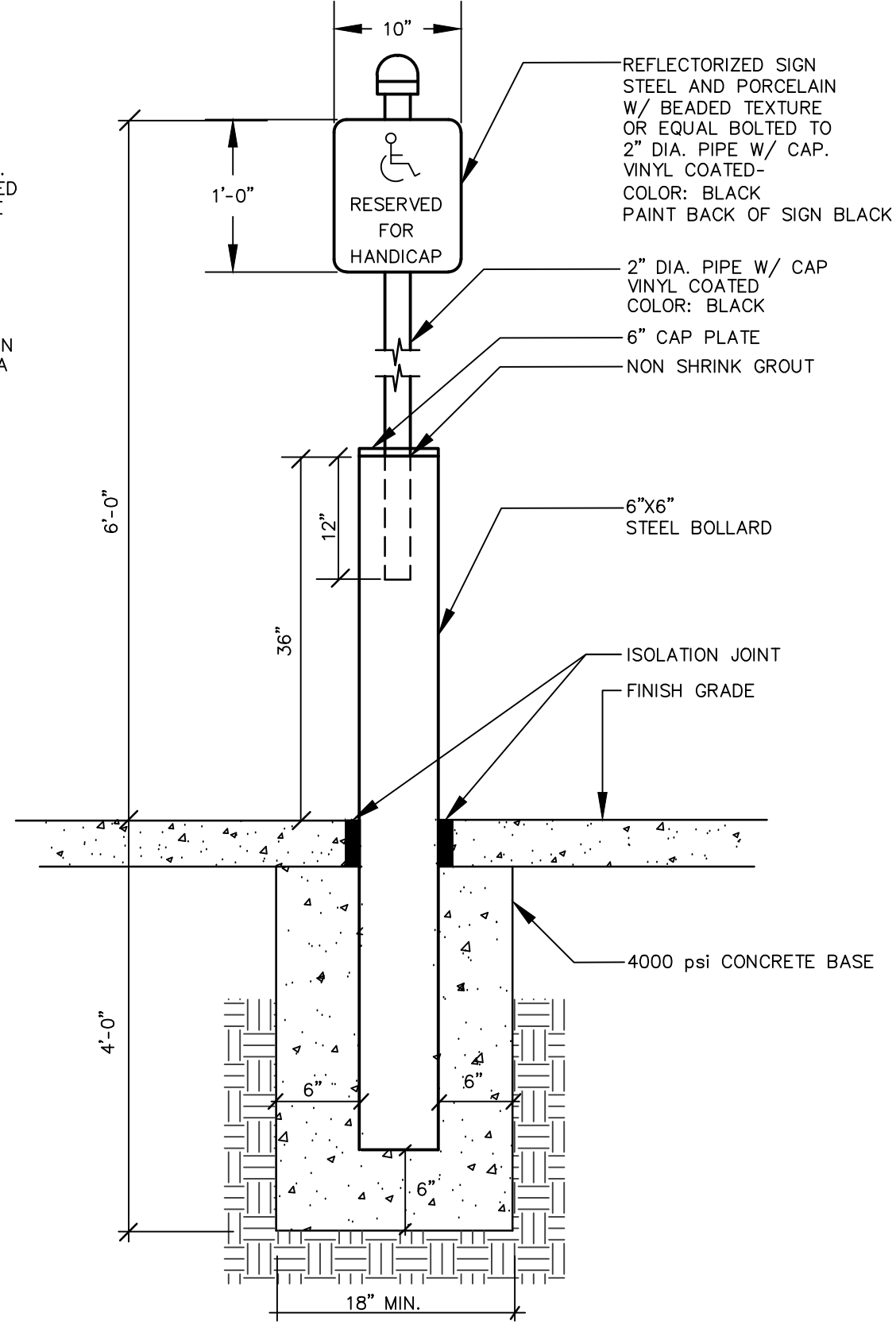
PRECAST MANHOLE

NOT TO SCALE



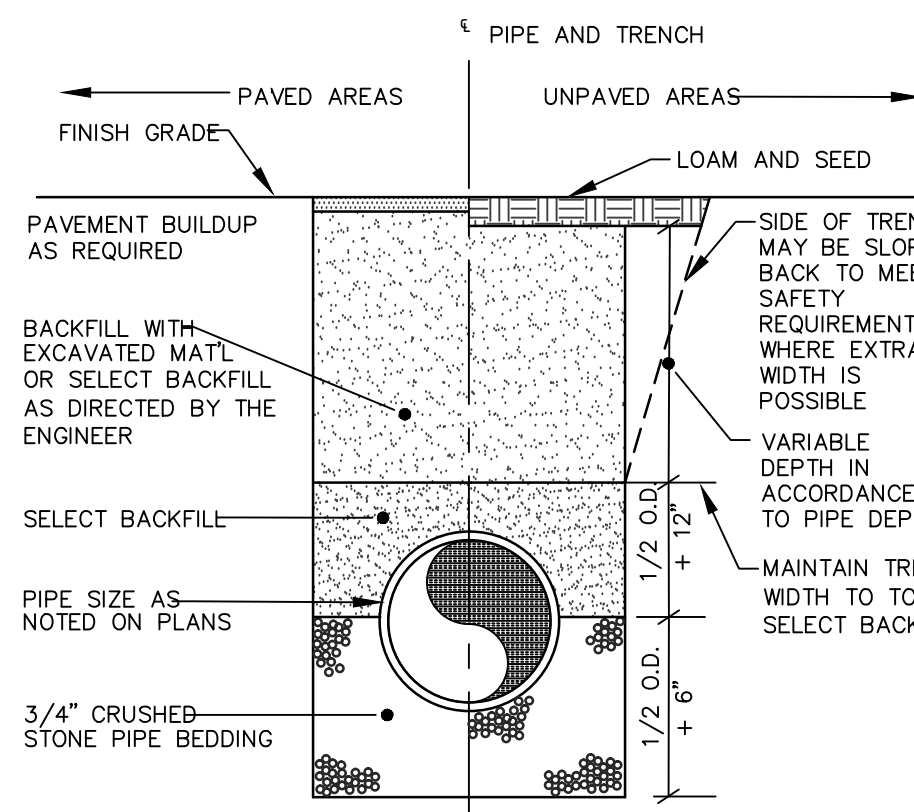
20" ROUND LIGHT POLE BASE

NOT TO SCALE



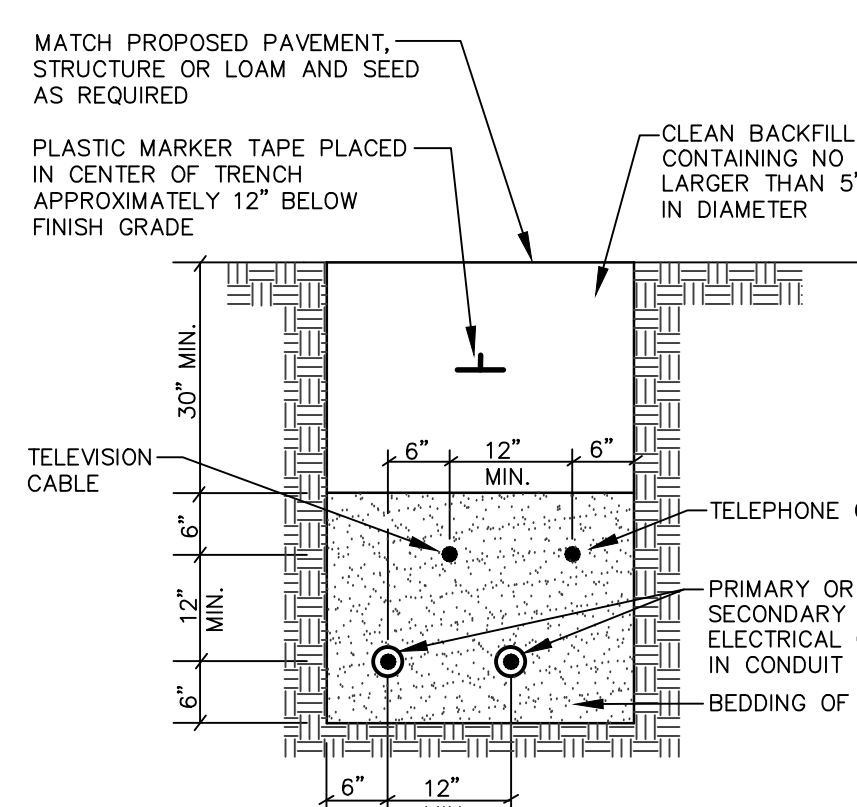
STEEL BOLLARD MOUNTED SIGN

NOT TO SCALE



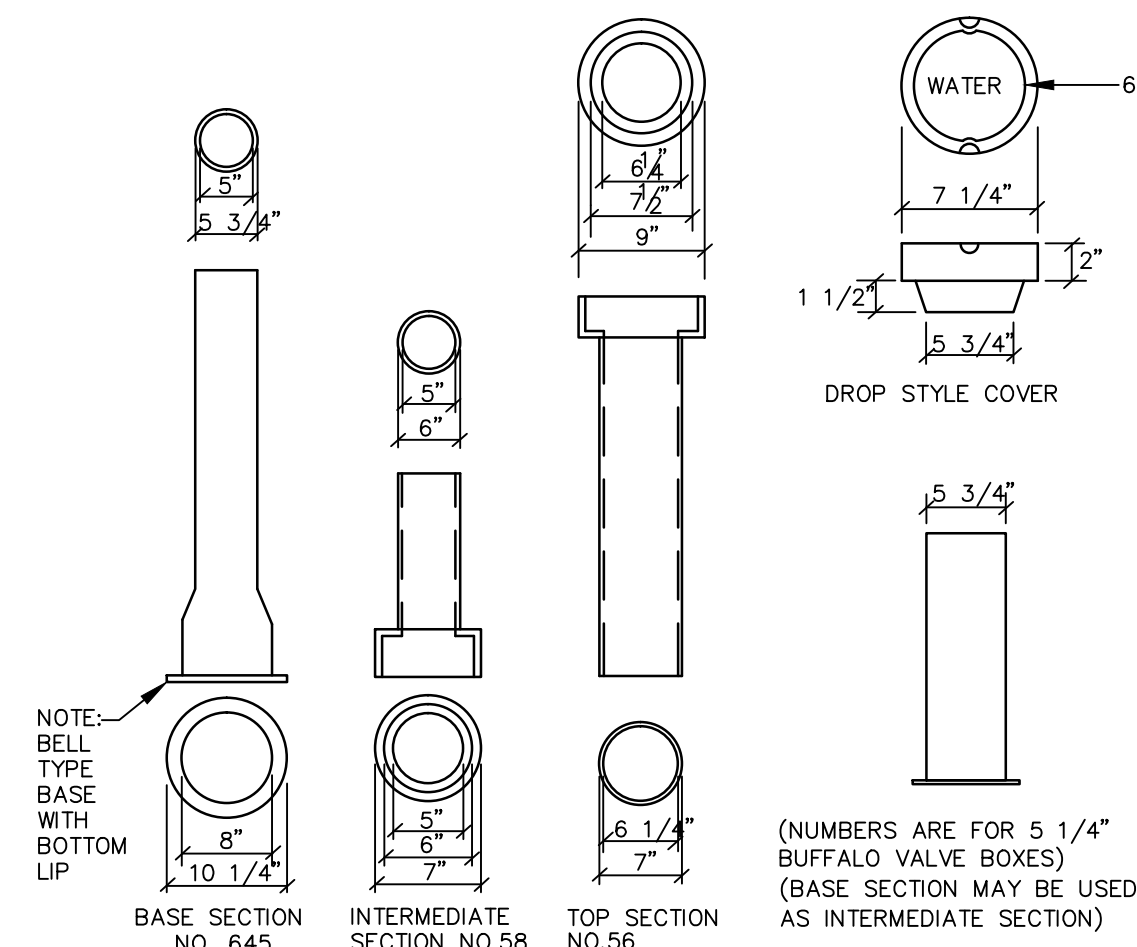
TYPICAL TRENCH SECTION

NOT TO SCALE



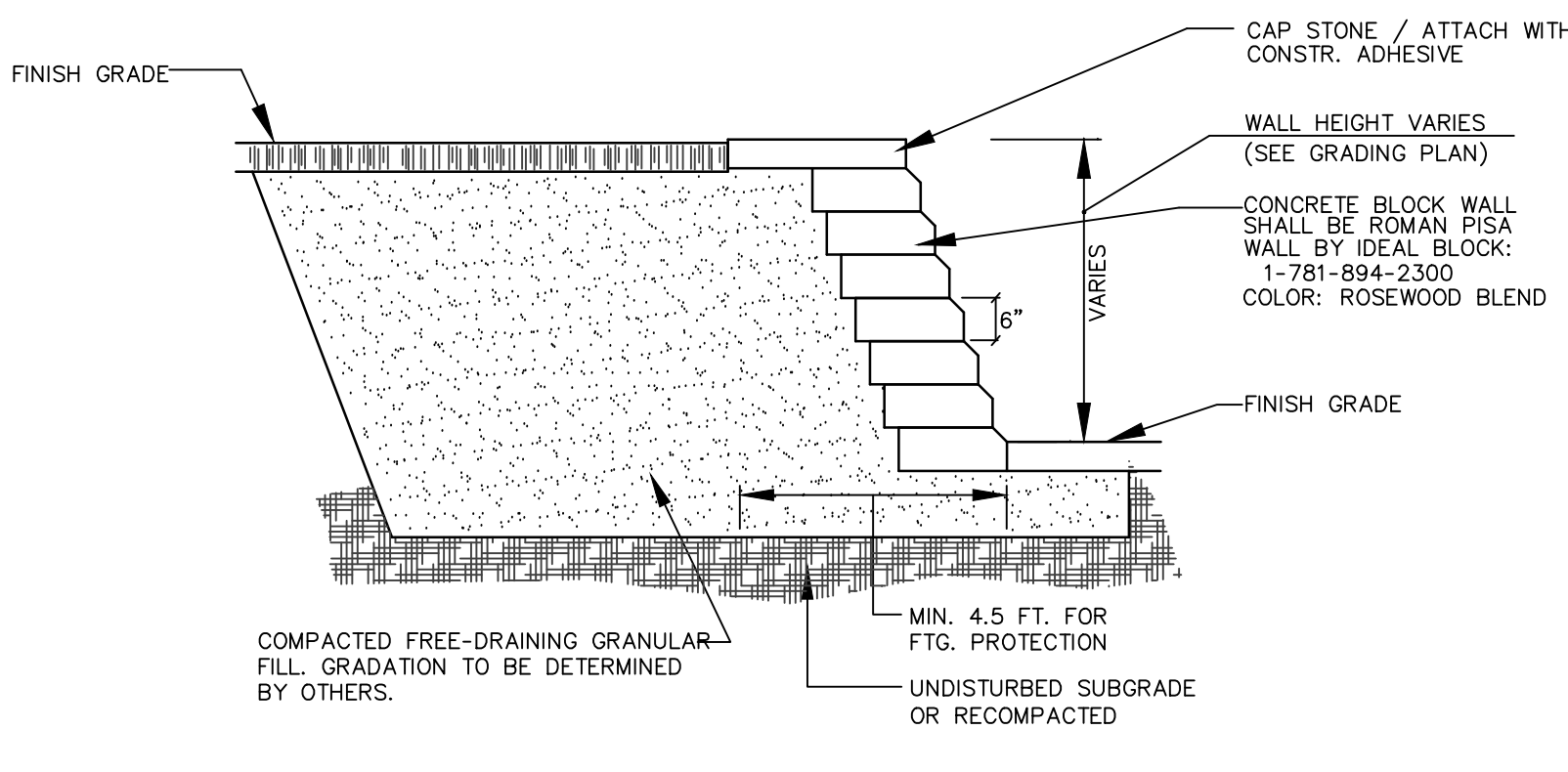
TYPICAL UNDERGROUND CABLE INSTALLATION

NOT TO SCALE



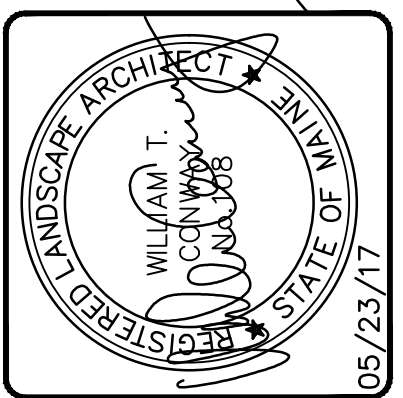
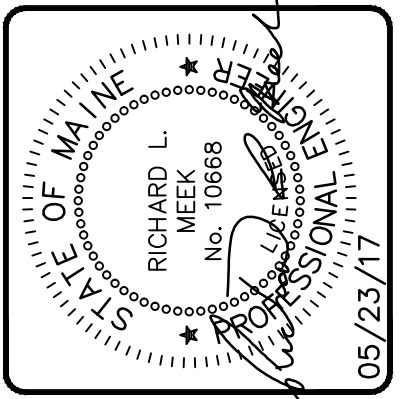
VALVE BOX & COVER

NOT TO SCALE



CONCRETE BLOCK RETAINING WALL

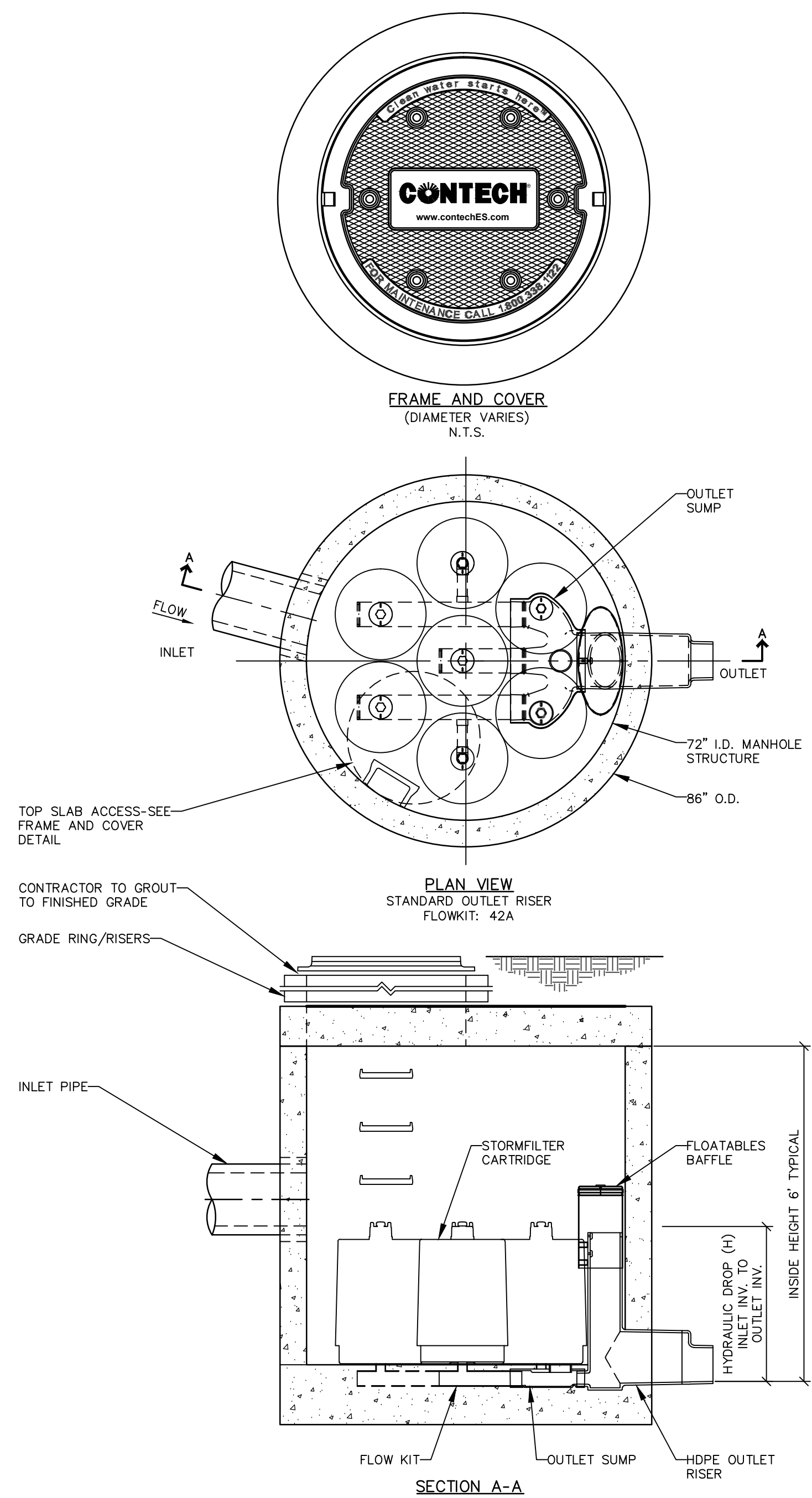
NOT TO SCALE



DESIGNED	CHECKED
WTC/RLM	RLM
DATE: 05/23/17	DATE: 05/23/17
BY: WTC/RLM	BY: RLM
REVISIONS	
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SEBAGO TECHNICS
WWW.SEAGOTECHNICS.COM
75 John Stevens Rd. 250 South Main Rd.
South Portland, ME 04106 Lewiston, ME 04240
Tel: 207-200-2100 Tel: 207-752-5555

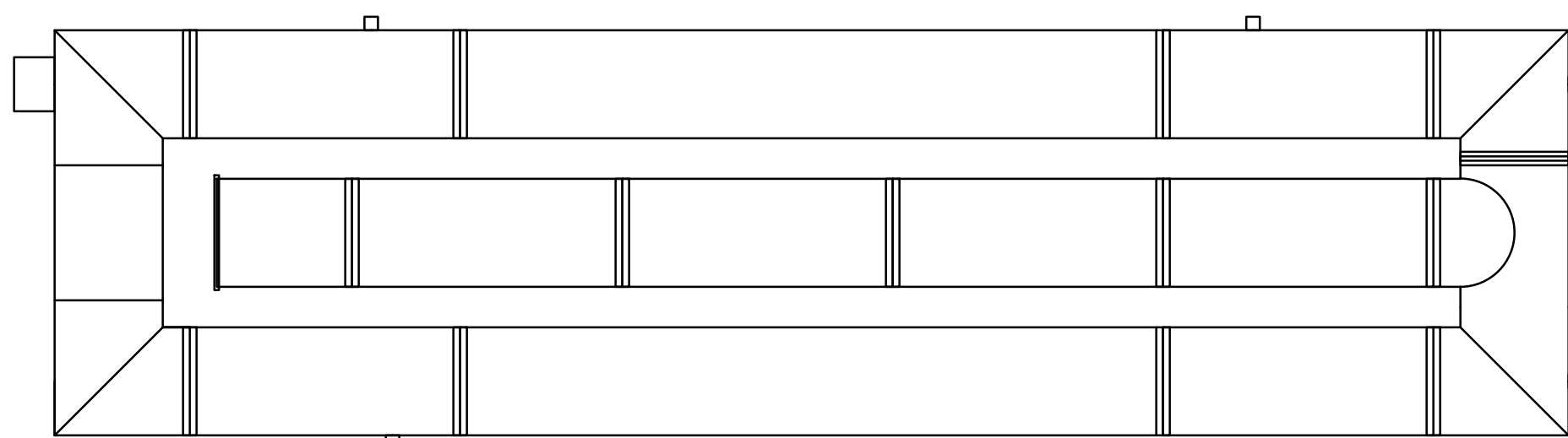
DETAILS OF 383 COMMERCIAL STREET-PHASE 1
FOR: DEERING PROPERTY DEVELOPMENT, LLC
2730 TRANSIT ROAD
WEST BENECA, NEW YORK
PROJECT NO. 16324
SCALE: NTS
SHEET 110F 12



STORMFILTER DESIGN NOTES						
STORMFILTER TREATMENT CAPACITY IS A FUNCTION OF THE CARTRIDGE SELECTION AND THE NUMBER OF CARTRIDGES. THE STANDARD MANHOLE STYLE IS SHOWN WITH THE MAXIMUM NUMBER OF CARTRIDGES (7). VOLUME SYSTEM IS ALSO AVAILABLE WITH MAXIMUM 7 CARTRIDGES. 672" MANHOLE STORMFILTER PEAK HYDRAULIC CAPACITY IS 1.5 CFS. IF THE SITE CONDITIONS EXCEED 1.5 CFS AN UPSTREAM BYPASS STRUCTURE IS REQUIRED.						
CARTRIDGE SELECTION	27"		18"		LOW DROP	
CARTRIDGE HEIGHT	3.05'		2.3'		1.8'	
SPECIFIC FLOW RATE (gpm/sf)	2 gpm/sf	1.67 gpm/sf	1 gpm/sf	2 gpm/sf	1.67 gpm/sf	1 gpm/sf
CARTRIDGE FLOW RATE (gpm)	2.5	18.79	11.25	15	12.53	7.5
* 1.67 gpm/sf SPECIFIC FLOW RATE IS APPROVED WITH PHOSPHOSORB® (PSORB) MEDIA ONLY						

- GENERAL NOTES**
- CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
 - DIMENSIONS MARKED WITH () ARE REFERENCE DIMENSIONS. ACTUAL DIMENSIONS MAY VARY.
 - FOR SITE SPECIFIC DRAWINGS WITH DETAILED VAULT DIMENSIONS AND WEIGHTS, PLEASE CONTACT YOUR CONTECH ENGINEERED SOLUTIONS LLC REPRESENTATIVE. www.contechES.com
 - STORMFILTER WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING.
 - STRUCTURE SHALL MEET AASHTO HS-20 LOAD RATING, ASSUMING EARTH COVER OF 0' - 5' AND GROUNDWATER ELEVATION AT, OR BELOW, THE OUTLET PIPE INVERT ELEVATION. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION. CASTINGS SHALL MEET AASHTO M306 AND BE CAST WITH THE CONTECH LOGO.
 - FILTER CARTRIDGES SHALL BE MEDIA-FILLED, PASSIVE, SIPHON ACTUATED, RADIAL FLOW, AND SELF CLEANING. RADIAL MEDIA DEPTH SHALL BE 7-INCHES. FILTER MEDIA CONTACT TIME SHALL BE AT LEAST 38 SECONDS.
 - SPECIFIC FLOW RATE IS EQUAL TO THE FILTER TREATMENT CAPACITY (gpm) DIVIDED BY THE FILTER CONTACT SURFACE AREA (sq ft).
 - STORMFILTER STRUCTURE SHALL BE PRECAST CONCRETE CONFORMING TO ASTM C-478 AND AASHTO 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 STORMFILTER STRUCTURE (LIFTING CLUTCHES PROVIDED).
 - CONTRACTOR TO INSTALL JOINT SEALANT BETWEEN ALL STRUCTURE SECTIONS AND ASSEMBLE STRUCTURE.
 - CONTRACTOR TO PROVIDE, INSTALL, AND GROUT INLET PIPE(S).
 - CONTRACTOR TO PROVIDE AND INSTALL CONNECTOR TO THE OUTLET RISER SUB. STORMFILTER EQUIPPED WITH A DUAL DIAMETER HDPE OUTLET SUB AND SAND COLLAR. IF OUTLET PIPE IS LARGER THAN 8 INCHES, CONTRACTOR TO REMOVE THE 8 INCH OUTLET SUB AT MOLDED IN CUT LINE. COUPLING BY FERROD OR EQUAL AND PROVIDED BY CONTRACTOR.
 - CONTRACTOR TO TAKE APPROPRIATE MEASURES TO PROTECT CARTRIDGES FROM CONSTRUCTION-RELATED EROSION RUNOFF.

SFM72 STORMFILTER STANDARD DETAIL
NOT TO SCALE

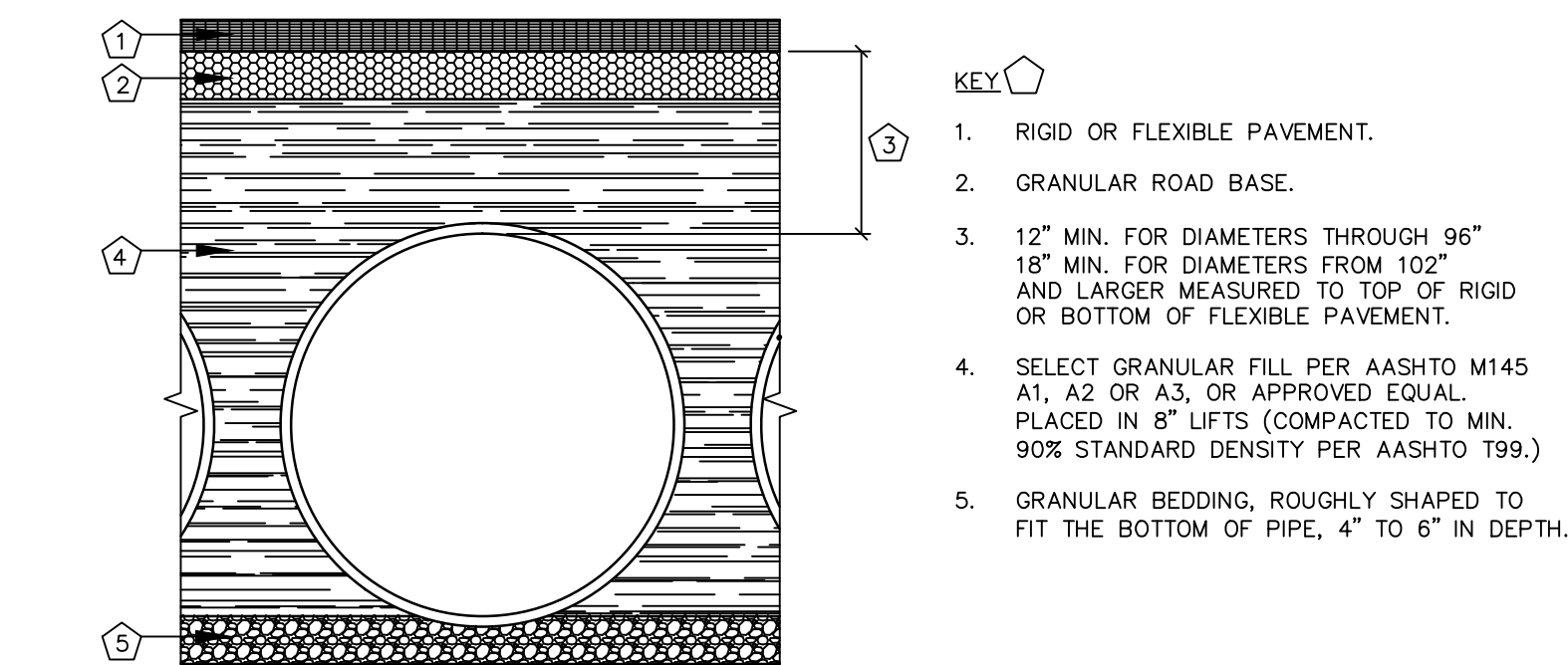


CONTECH SUBSURFACE SYSTEM
NOT TO SCALE

FTIBC-C LONG SIDE CURB INLET						
DESIGNATION (LONG SIDE)	SIZE (MEDIA BAY)	VAULT LENGTH	VAULT WIDTH	MAX. BYPASS PIPE SIZE	MAX. BYPASS FLOW (CFS)	UNDERDRAIN PIPE DIA. (PERF.)
FTIBC-C0404 LS	4' x 4'	6'-0"	4'-0"	6" SDR 35	1.42	4" SDR 35
FTIBC-C0604	6' x 4'	8'-0"	4'-0"	8" SDR 35	1.89	4" SDR 35
FTIBC-C0806 LS	8' x 6'	8'-0"	6'-0"	10" SDR 35	2.37	4" SDR 35
FTIBC-C0804	8' x 4'	10'-0"	4'-0"	8" SDR 35	1.89	4" SDR 35
FTIBC-C0806	8' x 6'	10'-0"	6'-0"	10" SDR 35	2.37	4" SDR 35
FTIBC-C1006	10' x 6'	12'-0"	6'-0"	10" SDR 35	2.37	6" SDR 35
FTIBC-C1204	12' x 4'	14'-0"	4'-0"	8" SDR 35	1.89	4" SDR 35
FTIBC-C1206	12' x 6'	14'-0"	6'-0"	10" SDR 35	2.37	6" SDR 35
FTIBC-C1307	13' x 7'	15'-0"	7'-0"	10" SDR 35	2.37	6" SDR 35

INTERNAL PIPE CONFIGURATION MAY VARY DEPENDING ON VAULT SIZE

PRECAST FILTERRA DETAIL-LONG SIDE CURB INLET
NOT TO SCALE



- SEE STANDARD SPECIFICATIONS SECTION 7-08.3(3) FOR PIPE ZONE BACKFILL.
- SEE STANDARD SPECIFICATIONS SECTION 9-03.12(3) FOR GRAVEL BACKFILL FOR PIPE ZONE BACKFILL.

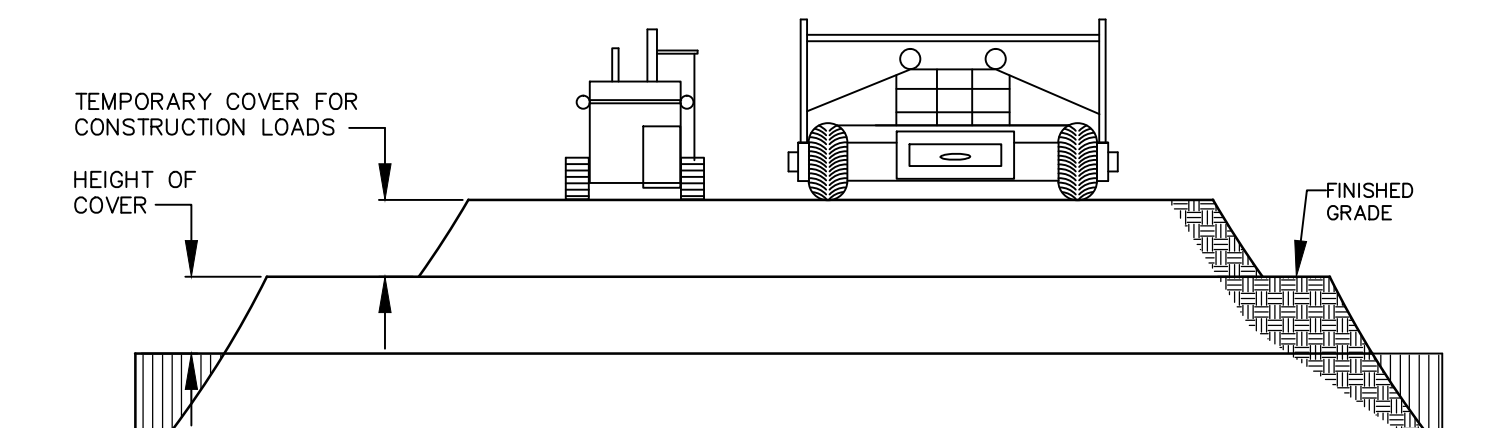
FOUNDATION/BEDDING PREPARATION

PRIOR TO PLACING THE BEDDING, THE FOUNDATION MUST BE CONSTRUCTED TO A UNIFORM AND STABLE GRADE. IN THE EVENT THAT UNSUITABLE FOUNDATION MATERIALS ARE ENCOUNTERED DURING EXCAVATION, THEY SHALL BE REMOVED AND BROUGHT BACK TO THE GRADE WITH A FILL MATERIAL AS APPROVED BY THE ENGINEER. ONCE THE FOUNDATION PREPARATION IS COMPLETE, 4" - 6" OF A WELL-GRADED GRANULAR MATERIAL SHALL BE PLACED AS THE BEDDING.

THE BACKFILL SHALL BE AN A1, A2 OR A3 GRANULAR FILL PER AASHTO M145, OR A WELL-GRADED GRANULAR FILL AS APPROVED BY THE SITE ENGINEER (SEE INSTALLATION GUIDELINES). THE MATERIAL SHALL BE PLACED IN 6" LOOSE LIFTS AND COMPACTED TO 90% AASHTO 199 STANDARD PROCTOR DENSITY. WHEN PLACING THE FIRST LIFTS OF BACKFILL, IT IS IMPORTANT TO MAKE SURE THAT THE BACKFILL IS PROPERLY COMPACTED UNDER AND AROUND THE PIPE LAUNCHES. BACKFILL SHALL BE PLACED SUCH THAT THERE IS NO MORE THAN A TWO LIFT (16") DIFFERENTIAL BETWEEN ANY OF THE PIPES AT ANY TIME DURING THE BACKFILL PROCESS. THE BACKFILL SHALL BE ADVANCED ALONG THE LENGTH OF THE DETENTION SYSTEM AT THE SAME RATE TO AVOID DIFFERENTIAL LOADING ON THE PIPE.

OTHER ALTERNATE BACKFILL MATERIAL MAY BE ALLOWED DEPENDING ON SITE SPECIFIC CONDITIONS, AS APPROVED BY SITE ENGINEER.

BACKFILL DETAIL
NOT TO SCALE



FOR TEMPORARY CONSTRUCTION VEHICLE LOADS, AN EXTRA AMOUNT OF COMPACTED COVER MAY BE REQUIRED OVER THE TOP OF THE PIPE. THE HEIGHT-OF-COVER SHALL MEET THE MINIMUM REQUIREMENTS SHOWN IN THE TABLE BELOW. THE USE OF HEAVY CONSTRUCTION EQUIPMENT NECESSITATES GREATER PROTECTION FOR THE PIPE THAN FINISHED GRADE COVER MINIMUMS FOR NORMAL HIGHWAY TRAFFIC.

PIPE SPAN, INCHES	AXLE LOADS (kips)			
	18-50	50-75	75-110	110-150
MINIMUM COVER (FT)				
12-42	2.0	2.5	3.0	3.0
48-72	3.0	3.0	3.5	4.0
78-120	3.0	3.5	4.0	4.0
126-144	3.5	4.0	4.5	4.5

MINIMUM COVER MAY VARY, DEPENDING ON LOCAL CONDITIONS. THE CONTRACTOR MUST PROVIDE THE ADDITIONAL COVER REQUIRED TO AVOID DAMAGE TO THE PIPE. MINIMUM COVER IS MEASURED FROM THE TOP OF THE PIPE TO THE TOP OF THE MAINTAINED CONSTRUCTION ROADWAY SURFACE.

CONSTRUCTION LOADING DIAGRAM
NOT TO SCALE

SPECIFICATION FOR CORRUGATED STEEL PIPE-ALUMINIZED TYPE 2 STEEL
SCOPE

THIS SPECIFICATION COVERS THE MANUFACTURE AND INSTALLATION OF THE CORRUGATED STEEL PIPE (CSP) DETAILED IN THE PROJECT PLANS.

MATERIAL

THE ALUMINIZED TYPE 2 STEEL COILS SHALL CONFORM TO THE APPLICABLE REQUIREMENTS OF AASHTO M274 OR ASTM A929.

EPIPE

THE CSP SHALL BE MANUFACTURED IN ACCORDANCE WITH THE APPLICABLE REQUIREMENTS OF AASHTO M38 OR ASTM A760. THE PIPE SIZES, GAGES AND CORRUGATIONS SHALL BE AS SHOWN ON THE PROJECT PLANS.

ALL FABRICATION OF THE PRODUCT SHALL OCCUR WITHIN THE UNITED STATES.

MATERIAL SPECIFICATION
NOT TO SCALE

HANDLING AND ASSEMBLY

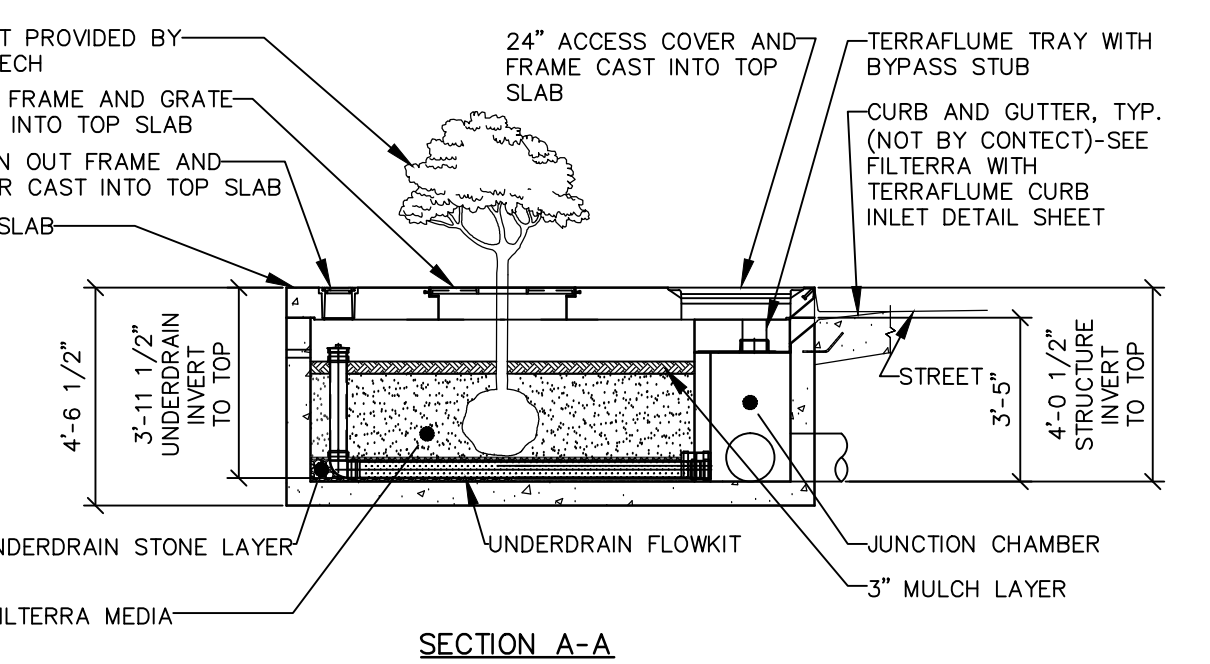
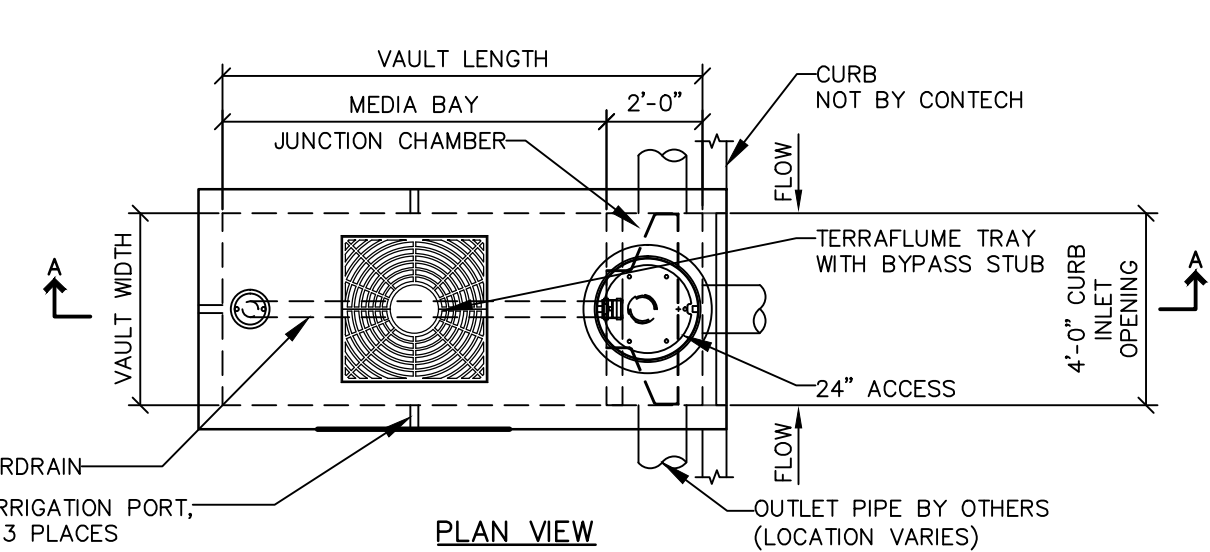
SHALL BE IN ACCORDANCE WITH RECOMMENDATIONS OF THE NATIONAL CORRUGATED STEEL PIPE ASSOCIATION (NCSPA)

INSTALLATION

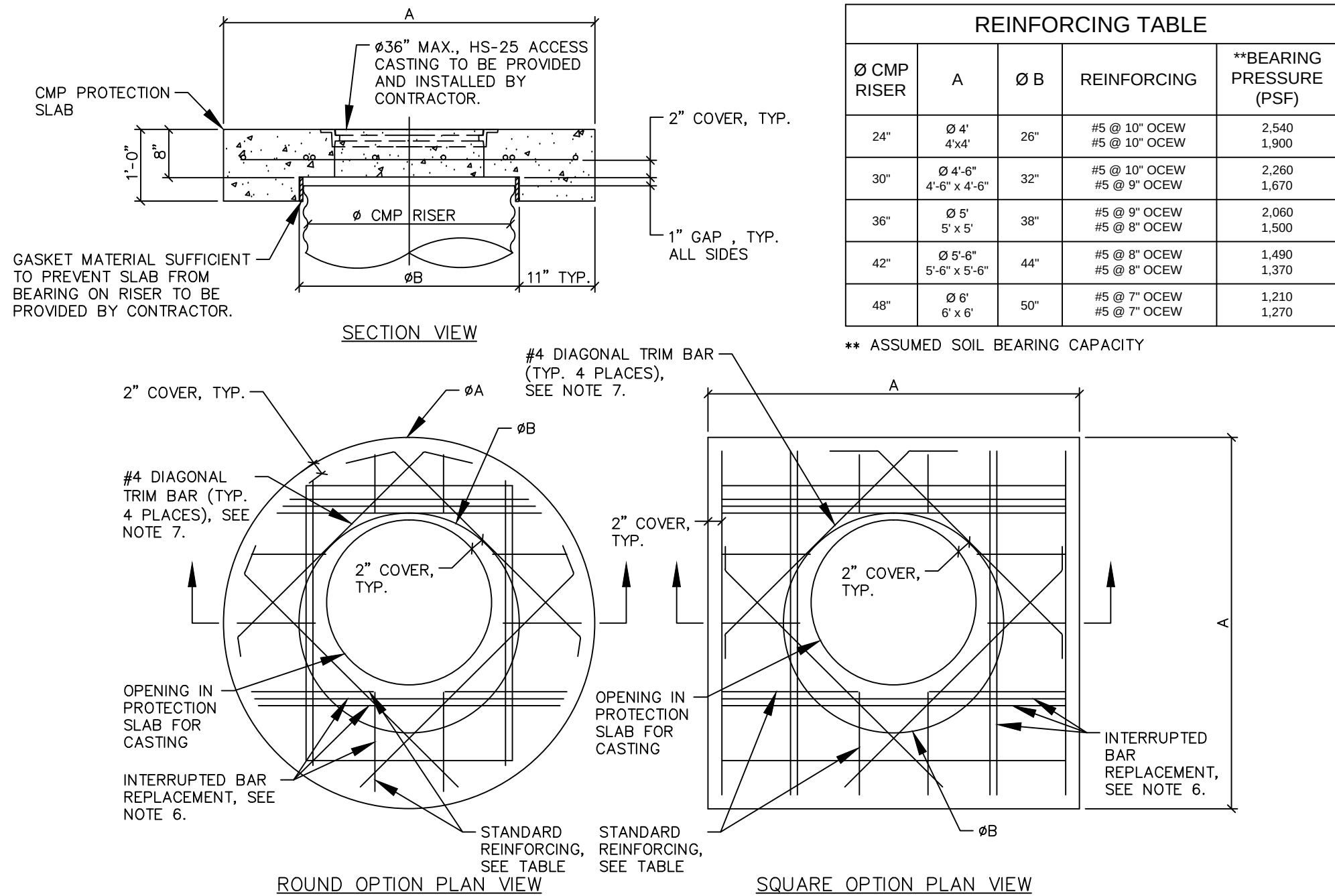
SHALL BE IN ACCORDANCE WITH AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, SECTION 26, DIVISION II OR ASTM A798 AND IN CONFORMANCE WITH THE PROJECT PLANS AND SPECIFICATIONS. IF THERE ARE ANY INCONSISTENCIES OR CONFLICTS THE CONTRACTOR SHOULD DISCUSS AND RESOLVE WITH THE SITE ENGINEER.

IT IS ALWAYS THE RESPONSIBILITY OF THE CONTRACTOR TO FOLLOW OSHA GUIDELINES FOR SAFE PRACTICES.

ALL FABRICATION OF THE PRODUCT SHALL OCCUR WITHIN THE UNITED STATES.



PRECAST FILTERRA DETAIL-SHORT SIDE CURB INLET
NOT TO SCALE



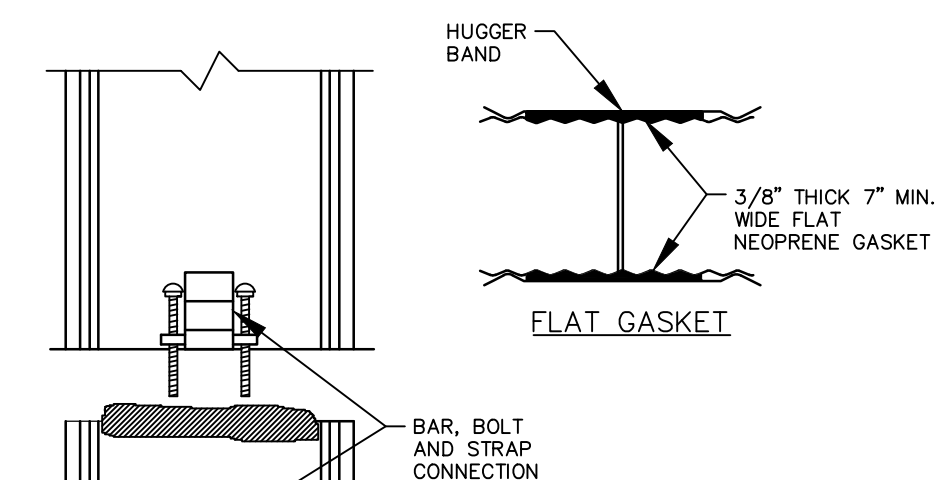
NOTES:

- DESIGN IN ACCORDANCE WITH AASHTO, 17TH EDITION AND ACI 350.
- DESIGN LOAD HS25.
- EARTH COVER = 1' MAX.
- CONCRETE STRENGTH = 4,000 psi
- REINFORCING STEEL = ASTM A615, GRADE 60.
- PROVIDE ADDITIONAL REINFORCING AROUND OPENINGS EQUAL TO THE BARS INTERRUPTED, HALF EACH SIDE. ADDITIONAL BARS TO BE IN THE SAME PLANE.
- TRIM OPENING WITH DIAGONAL #4 BARS, EXTEND BARS A MINIMUM OF 12" BEYOND OPENING, BEND BARS AS REQUIRED TO MAINTAIN BAR COVER.
- PROTECTION SLAB AND ALL MATERIALS TO BE PROVIDED AND INSTALLED BY CONTRACTOR.
- DETAIL DESIGN BY DELTA ENGINEERS, ARCHITECTS AND LAND SURVEYORS, ENDWELL, NY.

MANHOLE CAP DETAIL
NOT TO SCALE

FTIBC-C SHORT SIDE CURB INLET						
DESIGNATION (SHORT SIDE)	SIZE (MEDIA BAY)	VAULT LENGTH	VAULT WIDTH	MAX. BYPASS PIPE SIZE	MAX. BYPASS FLOW (CFS)	UNDERDRAIN PIPE DIA. (PERF.)
FTIBC-C0404 SS	4' x 4'	6'-0"	4'-0"	6" SDR 35	1.42	4" SDR 35
FTIBC-C0606	4' x 6'	8'-0"	4'-0"	8" SDR 35	1.89	4" SDR 35
FTIBC-C0808	4' x 8'	10'-0"	4'-0"	8" SDR 35	1.89	4" SDR 35
FTIBC-C0412	4' x 12'	14'-0"	4'-0"	8" SDR 35	1.89	4" SDR 35
FTIBC-C0606 SS	6' x 6'	8'-0"	6'-0"	10" SDR 35	2.37	4" SDR 35
FTIBC-C0608	6' x 8'	10'-0"	6'-0"	10" SDR 35	2.37	4" SDR 35
FTIBC-C0810	6' x 10'	12'-0"	6'-0"	10" SDR 35	2.37	6" SDR 35
FTIBC-C0812	6' x 12'	14'-0"	6'-0"	10" SDR 35	2.37	6" SDR 35
FTIBC-C0713	7' x 13'	15'-0"	7'-0"	10" SDR 35	2.37	6" SDR 35

INTERNAL PIPE CONFIGURATION MAY VARY DEPENDING ON VAULT SIZE



CONNECTION DETAIL SINGLE BOLT, BAR AND STRAP

NOTES:

- BANDS ARE NORMALLY FURNISHED AS FOLLOWS:
12" THRU 48", 1-PIECE
54" THRU 96", 2-PIECE
102" THRU 144", 3-PIECES
- BAND FASTENERS ARE ATTACHED WITH SPOT WELDS, RIVETS OR HAND WELDS
- REROLLED ANNUAL END CORRUGATIONS ARE NORMALLY 2 2/3" x 1/2". DIMENSIONS ARE SUBJECT TO MANUFACTURING TOLERANCES

12" HUGGER BAND DETAIL
NOT TO SCALE

DETAILS OF

383 COMMERCIAL STREET-PHASE 1

383 COMMERCIAL STREET

PORTLAND, MAINE

FOR: DEERING PROPERTY DEVELOPMENT, LLC

2730 TRANSIT ROAD

WEST SEBEN, NEW YORK

16324

12

SHEET 12 OF 12

PROJECT NO.

16324

SCALE

16324

DESIGNED

WTC/RLM

CHECKED

RLM

DATE

05/23/17

STATUS

RESUBMIT TO CITY

REVISION

05/23/17

REVISION

05/23/17

DESIGNED

WTC/RLM

CHECKED

RLM

DATE

05/23/17

STATUS

RESUBMIT TO CITY

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CHECKED

RLM

DATE

05/23/17

STATUS

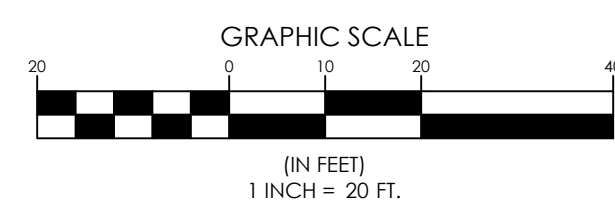
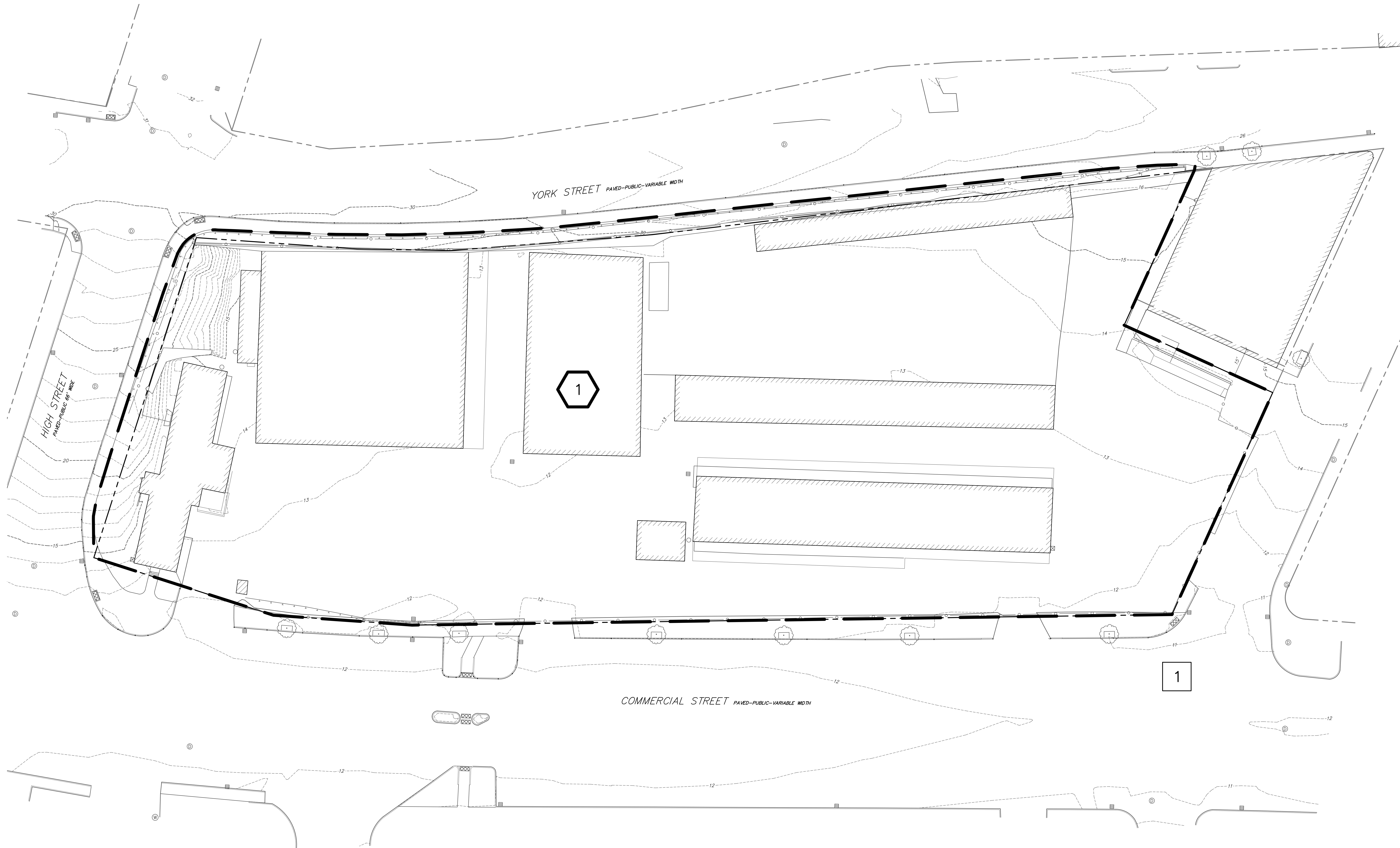
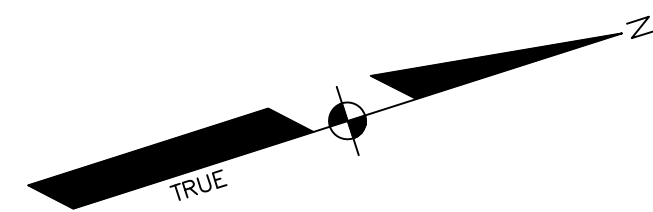
RESUBMIT TO CITY

REVISION

05/23/17

REVISION

05/23/17



LEGEND

- WATERSHED BOUNDARY
- TIME OF CONCENTRATION
- REACH
- WATERSHED LABEL
- REACH
- DETENTION POND
- SOILS BOUNDARY

PRE-DEVELOPMENT WATERSHED PLAN
OF:
383 COMMERCIAL STREET-PHASE 1
383 COMMERCIAL STREET
PORTLAND, MAINE
FOR:
DEERING PROPERTY DEVELOPMENT, LLC
2730 TRANSIT ROAD
WEST SENECAL, NEW YORK

PROJECT NO.
16324

SHEET 1 OF 2

SCALE
1" = 20'

16324SNP.dwg TAB PRE

SEBAGO
TECHNICS
WWW.SEAGOTECHNICS.COM
75 John Stevens Rd. 250 South Portland
South Portland, ME 04106
Tel. 207-200-2100

Richard L. Meek, P.E.
No. 10668
05/23/17

DESIGNED
RLM

CHECKED
RLM

B WTC 05/23/17 RESUBMIT TO CITY
A RLM 03/22/17 SUBMIT LEVEL III APPLICATION TO CITY
REV. BY: DATE: STATUS:
THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM SEBAGO TECHNICS, INC. ANY ALTERATIONS, AUTHORIZED OR OTHERWISE, SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO SEBAGO TECHNICS, INC.



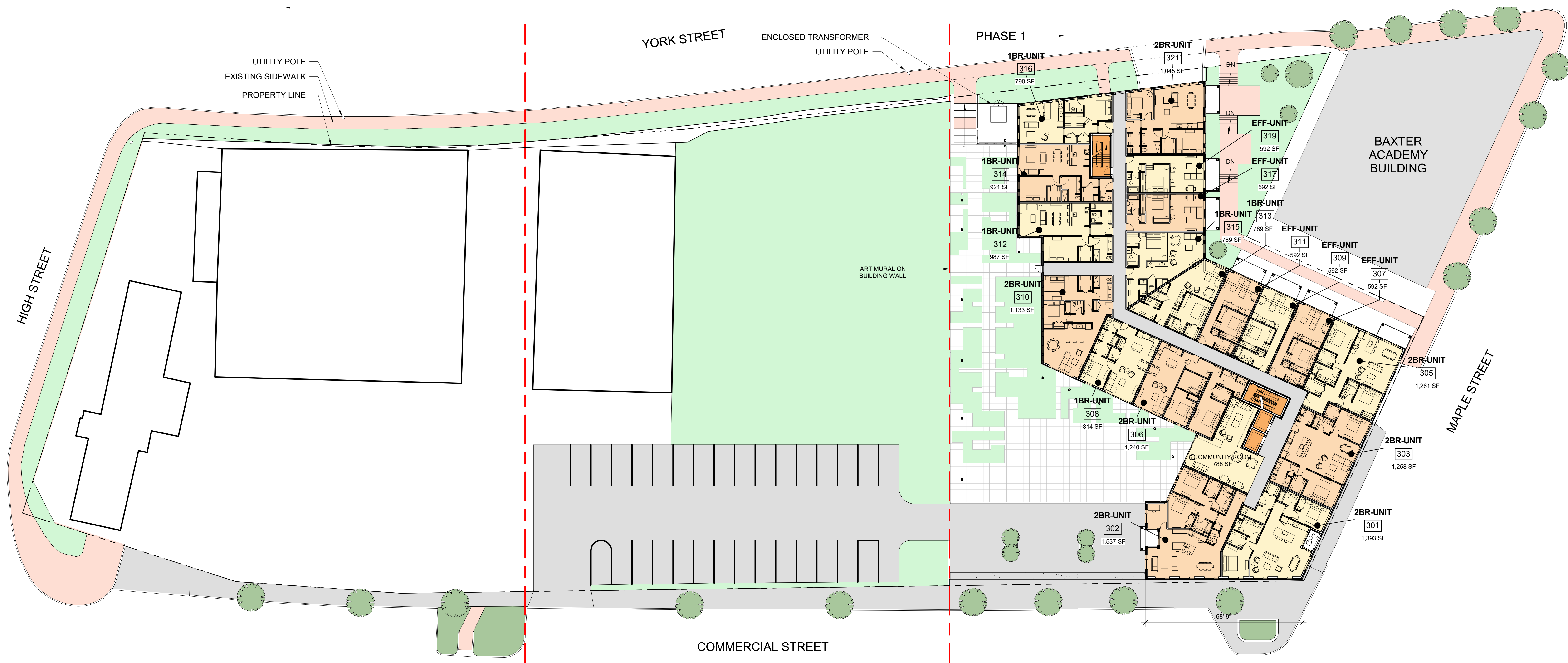
1 | LEVEL 1 - PHASE 1 - OVERALL SITE
1" = 20'-0"

383 COMMERCIAL STREET

Portland, Maine

MAY 23, 2017

A1.1-1



1 | LEVELS 3 THROUGH 5 - PHASE 1 - OVERALL SITE
1" = 20'-0"

383 COMMERCIAL STREET

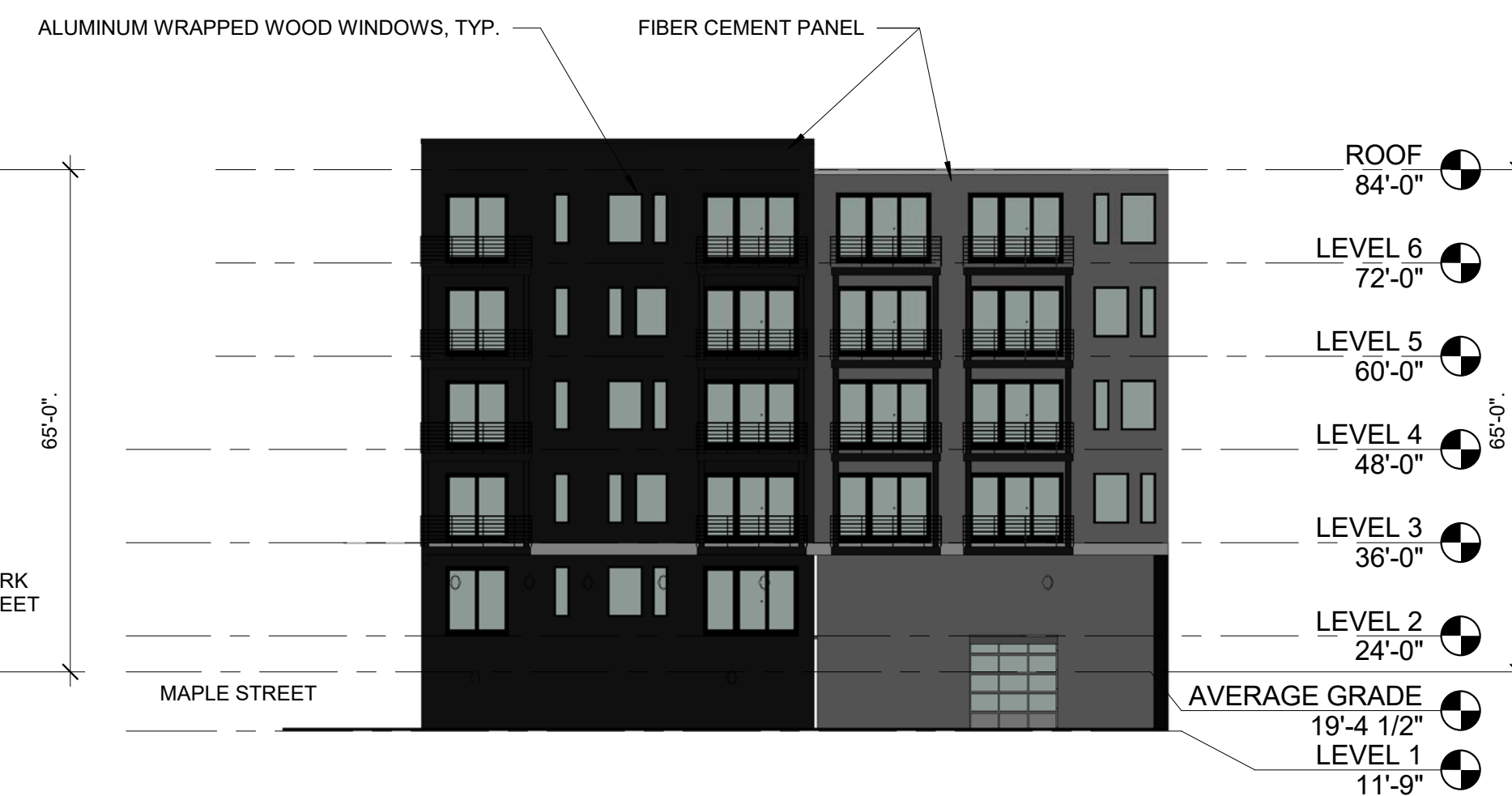
Portland, Maine

MAY 23, 2017

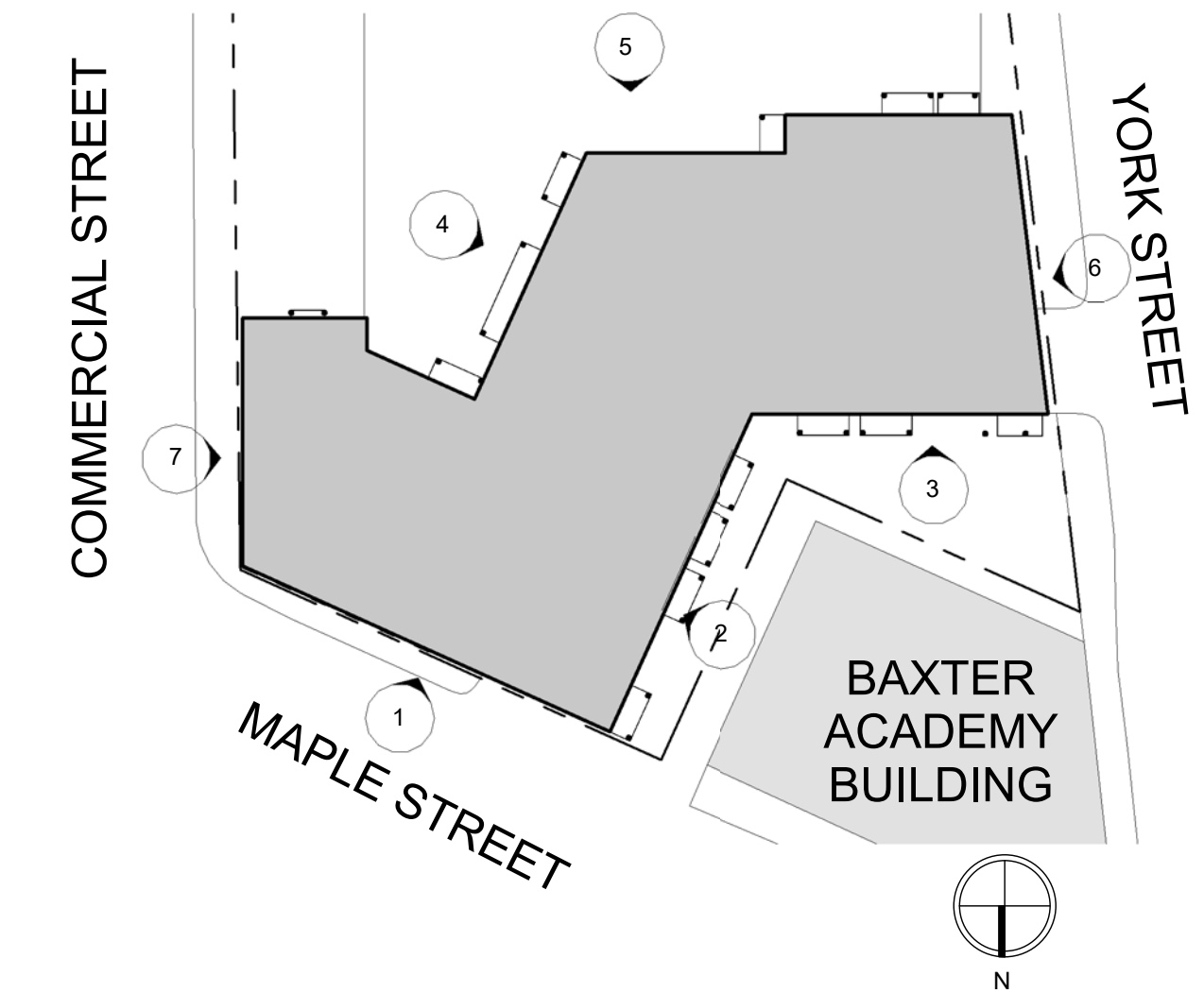
A1.3-1



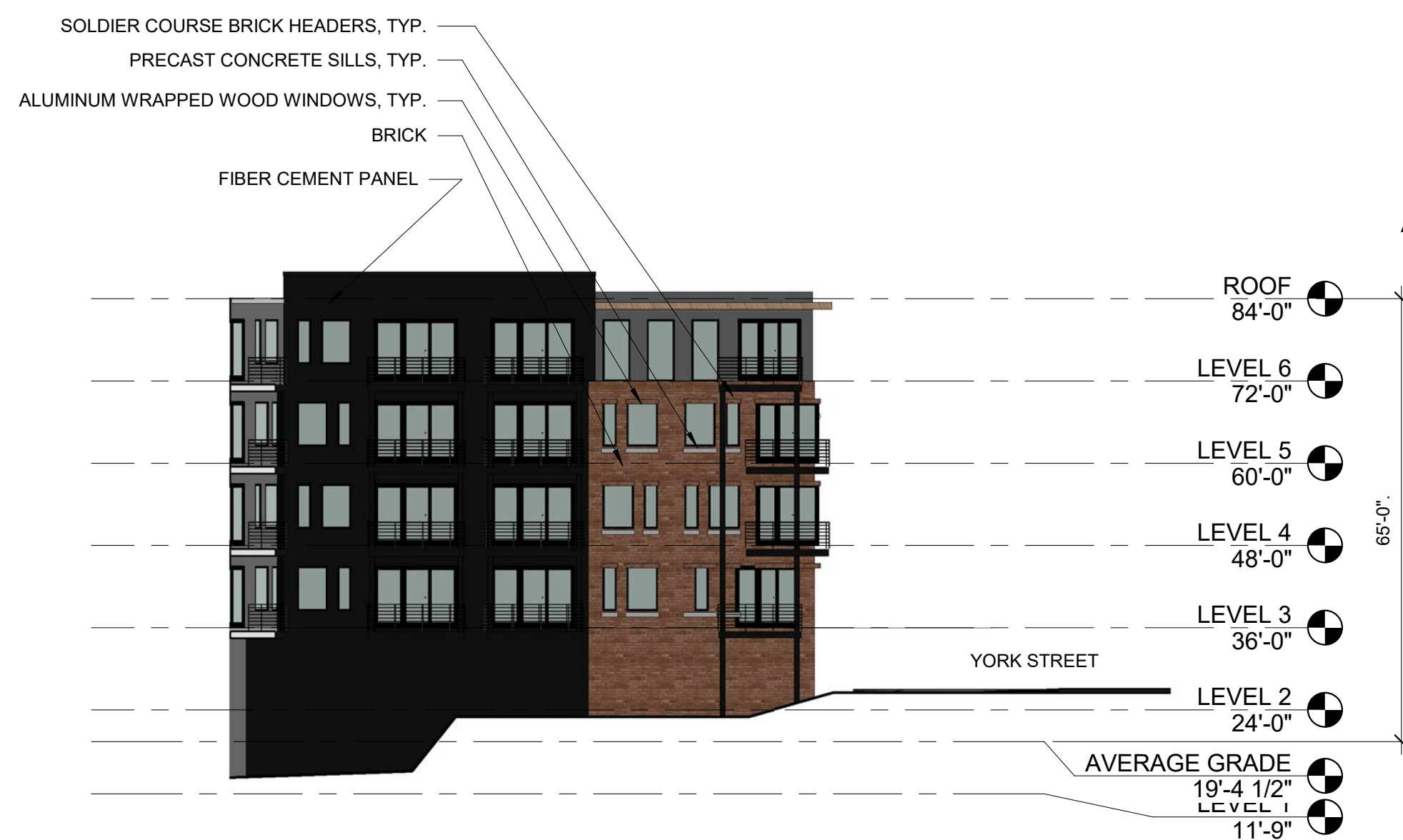
1 | PHASE 1 - MAPLE ST ELEVATION
1" = 20'-0"



2 | PHASE 1 - WEST ELEVATION
1" = 20'-0"



GENERAL NOTES:
1. AVERAGE GRADE BY DEFINITION: 4 CORNER AVERAGE GRADE - NW 27.75' + NE 27' + SE 11' + SW 11.75' / 4 = 19'-4.5" (AVERAGE GRADE TAKEN AT THE PHASE 1 SINCE THE GRADE IS LOWEST THERE)
2. BUILDING HEIGHT: THE VERTICAL MEASUREMENT FROM AVERAGE GRADE TO HIGHEST POINT OF THE ROOF BEAMS = 65' - 0"



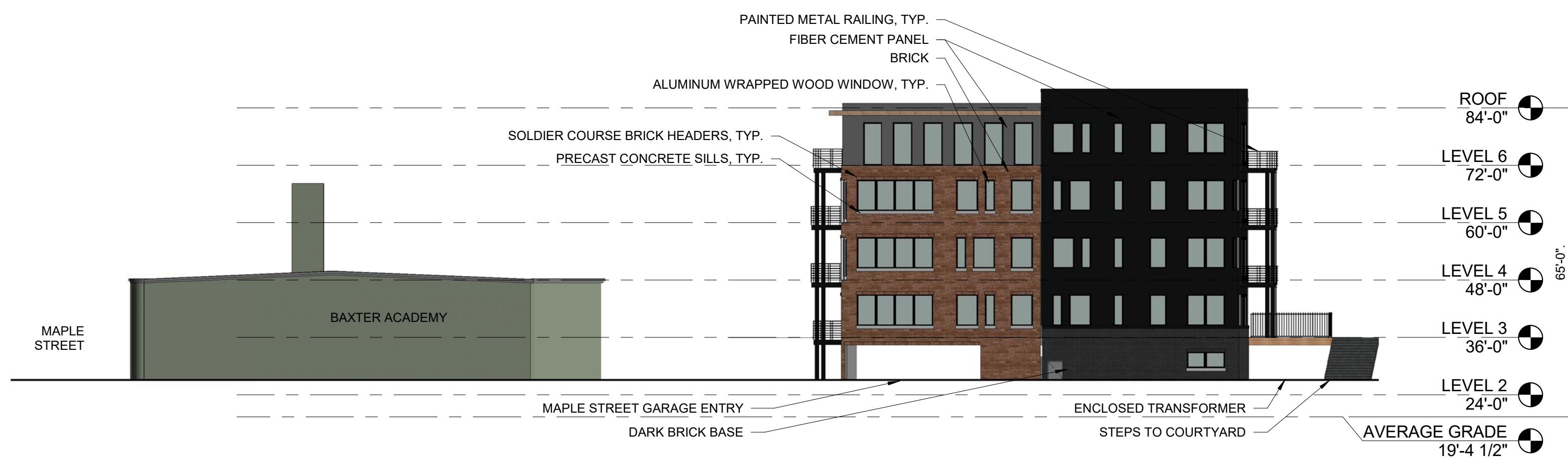
3 | PHASE 1 - EAST ELEVATION
1" = 20'-0"



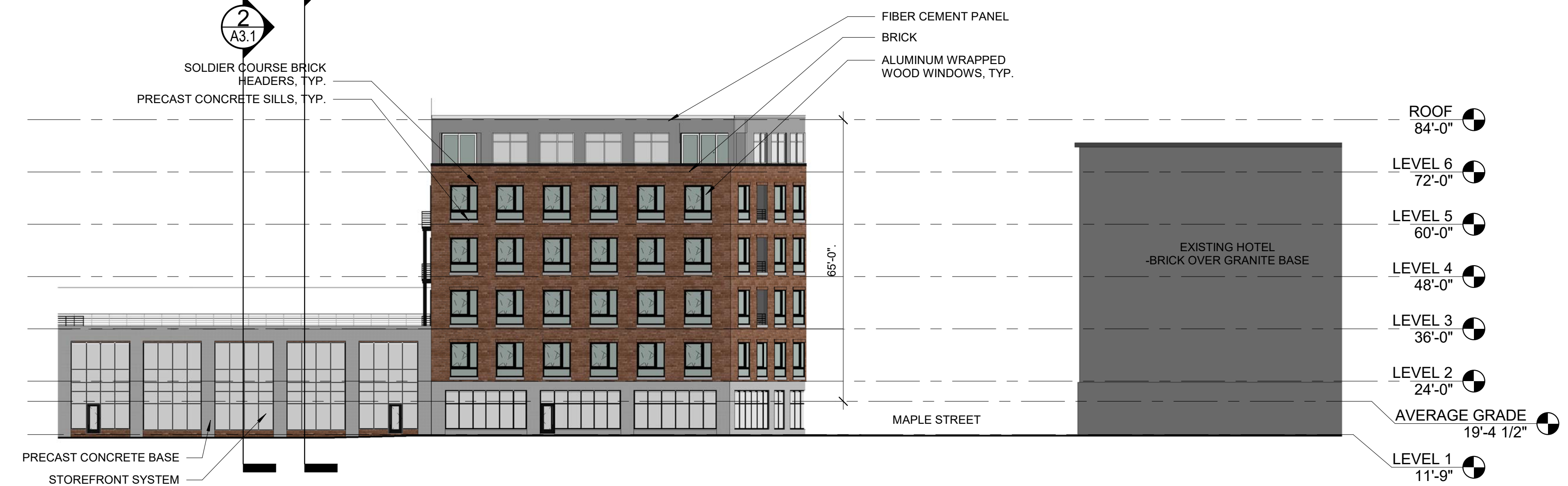
4 | PHASE 1 - SOUTH EAST ELEVATION
1" = 20'-0"



5 | PHASE 1 - SOUTH ELEVATION
1" = 20'-0"



6 | PHASE 1 - YORK ST ELEVATION
1" = 20'-0"



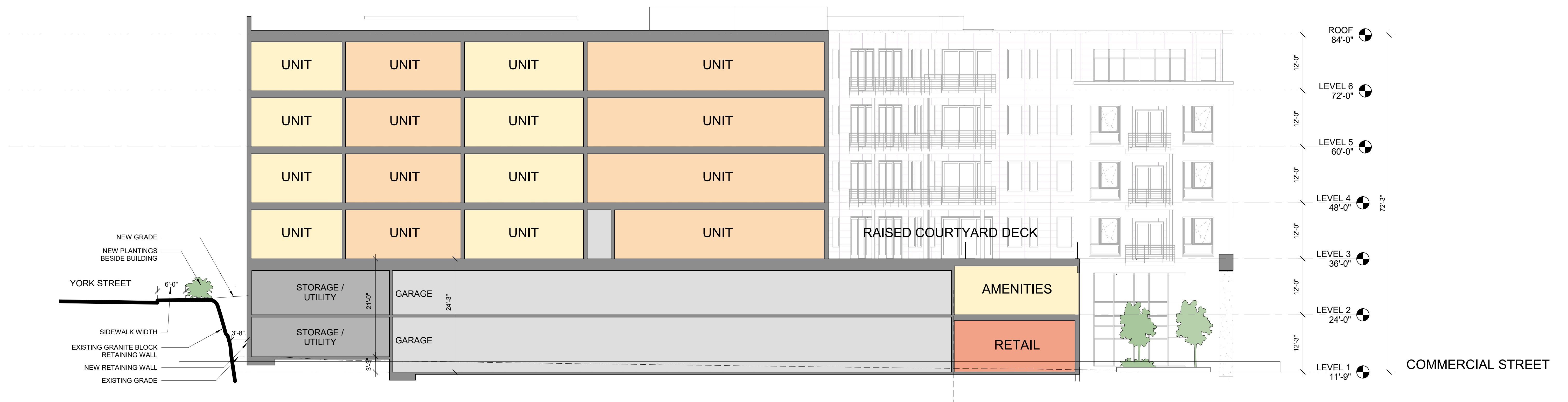
7 | PHASE 1 - COMMERCIAL ST ELEVATION
1" = 20'-0"

383 COMMERCIAL STREET

Portland, Maine

MAY 23, 2017

A2.1-1



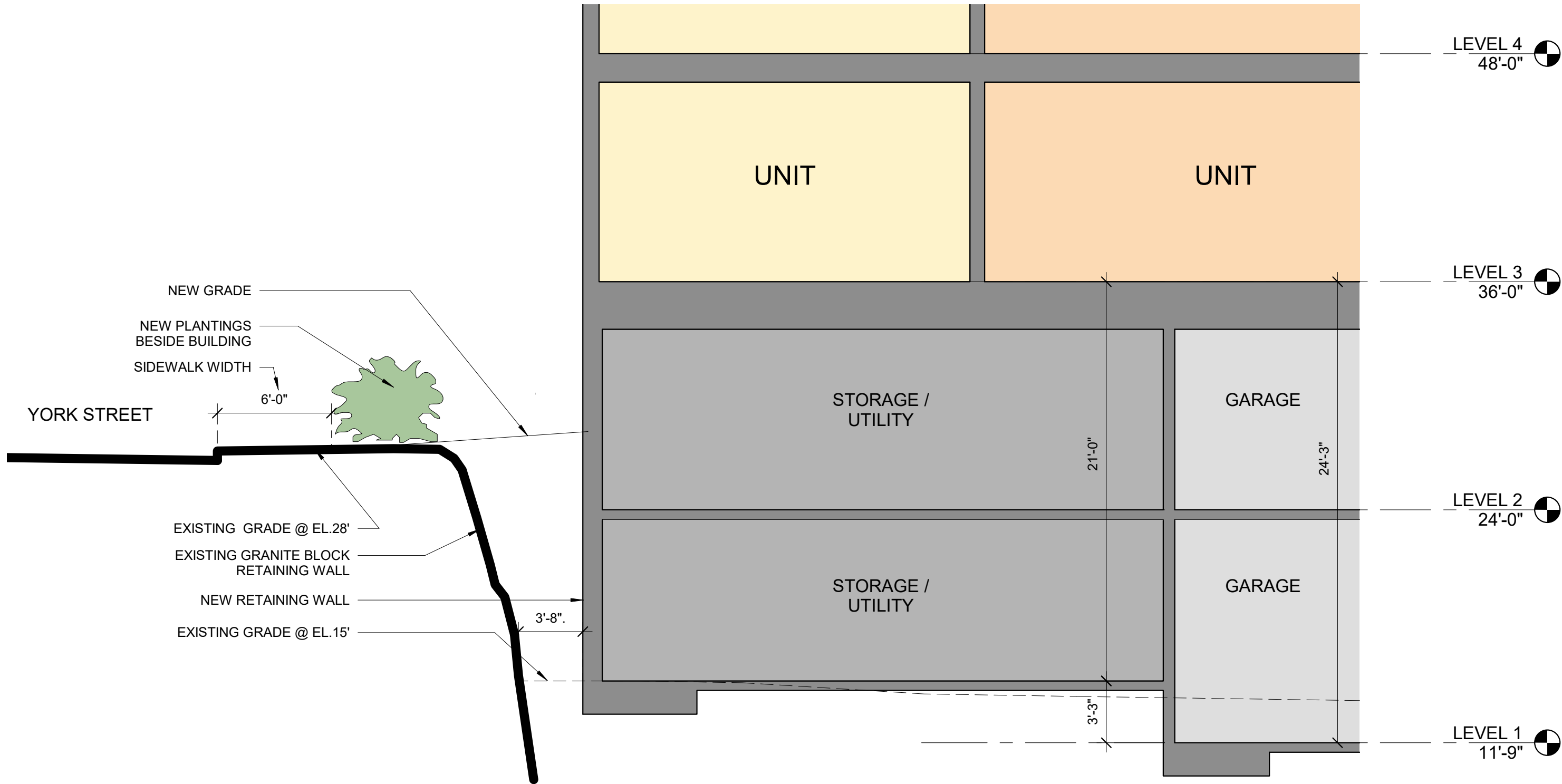
1 | SECTION PHASE 1
3/32" = 1'-0"

383 COMMERCIAL STREET

Portland, Maine

MAY 23, 2017

A3.3-1



383 COMMERCIAL STREET
Portland, Maine







Memorandum

Planning and Urban Development Department

Planning Division

To: Elizabeth Boepple, Chair and Members of the Portland Planning Board

From: Jean Fraser, Planner

Date: March 31, 2017

Re: Level III Master Development Plan; 383 Commercial Street (Rufus Deering site)
(IZ Conditional Use and Level III Site Plan for Phase I have also been submitted)

Deering Property Development, LLC, Applicant
Project #: 2017-005 CBL: 042 A001001

Meeting Date: March 22, 2016

I. INTRODUCTION

Sebago Technics, on behalf of Deering Property Development, LLC, has submitted a Level III Master Development Plan (MDP) for a mixed use development comprising 275 dwelling units, 25,253 sq ft of retail space, and a 386 space parking garage. The development is proposed on a 2.58 acre lot currently occupied by Rufus Deering Lumber, bounded by Commercial, Maple, York and High Streets in the B5b zone.

The site does not include the building currently occupied by the Baxter Academy at the corner of York and Maple Streets.

It is understood that the development is to be implemented in three phases from east to west, starting with "Phase 1" comprising 82 dwellings, about 6000 sq ft of retail, a loading area, and 149 parking spaces at surface level.

The applicant has separately requested an advisory review from the Historic Preservation Board, as it is within 100 feet of a historic district. The HP Board comments are included in this Memo ([Attachment 1](#)).

A Level III Site Plan application for Phase I of the MDP was received very recently and the applicant has requested that it be reviewed concurrently with the MDP review. The Phase 1 application was not completed in time for it to be noticed and reviewed formally as part of this Memo, but key information regarding the Level III Phase 1 has been included to inform the discussion. This Memo focusses on several threshold questions (mainly phasing and servicing), and it is anticipated that there will be a second workshop where both the MDP and the Phase 1 Level III Site Plan will be presented in more detail.



Required Review:

Review	Applicable Standards
Master Development Plan	14-527.a.3.c

A total of 158 notices were sent to property owners within 500 feet of the site and interested parties, and a legal ad was published in the *Portland Press Herald* on March 27 & 28, 2017. A Neighborhood Meeting is required but has not been held. It should be noted that the Site Plan ordinance requires separate neighborhood meeting for Master Development Plans and Level III applications. As of the time of completing this Memorandum, the Planning Division has not received any written public comments.

II. PROJECT DATA

Existing Zoning	B-5b
Existing Use	Lumber company; retail.
Proposed Use	Mixed use (including retail and residential and structured parking)
Proposed Development Program	Three phases, starting with Maple Street building (Phase 1) (In Phase 1 the existing Rufus Deering building at the corner with High Street is likely to remain)
Property Size	2.58 acres

	<i>Existing whole site</i>	<i>Proposed whole site</i>	<i>Net Change for whole site</i>	<i>Includes these approx for Phase 1</i>
Building Footprint	32,100 sq ft	96,392 sq ft	64,292 sq ft	Approx 17,000 sf excluding courtyard area
Building Floor Area	35,000 sq ft	483,870 sq ft (comprising 275 dwelling units, mix of sizes; and 25,253 sq ft retail)		Approx. 140,000 sf (comprising 82 dwelling units and approx. 6000sf retail)
Impervious Surface Area	2.43 acres	2.50 acres	.7 acre	?
Parking Spaces (on site)	?	386	?	149
Bicycle Parking Spaces	?	131	?	57
Estimated Cost of Project	Not identified			

III. THE SITE and CONTEXT

The Rufus Deering site is a prominent parcel on Commercial Street, east of High Street. To the south is a gas station and to the north is the recently completed Marriott Courtyard Hotel. To the west across York Street is a new 5 story mixed use development currently under construction. To the west (across Commercial Street) is the Gulf of Maine Research Institute and the waterfront.



The submitted plan set includes a boundary survey, existing conditions plans and an aerial of the site.

IV. MASTER DEVELOPMENT PLAN PROGRAM

The MDP application does not include a project description and some of the details are currently under reconsideration, but the general concepts are clear from the submission and include:

- Three sections of 6 story buildings, separated at the second level by three open plazas
- A full buildout of 275 dwellings (mixed sizes) and 25,253 sq ft of retail along Commercial Street
- A 2-level parking garage (386 spaces) behind the retail and under the residential buildings
- Loading facilities in Maple Street
- Pedestrian link between York and Maple Streets between the site and the building at 54 York Street
- Limited landscape
- Three phases, starting at Maple Street



Rendering as seen from Waterfront looking across Commercial Street with Maple St at right (see [Plan P11](#))

V. ZONING ANALYSIS

The Master Development Plan proposals comply with the zoning requirements of the B5b zone. The proposed height of the buildings is about 72 ft in absolute terms as from Commercial Street, but if measured using the zoning definition it is just under the 65 ft maximum for this zone.

The first phase of the project comprises the zig zag building at the Maple Street end of the site, along with 149 surface parking spaces which may not all serve the phase 1 building. The use for surface parking as a principal use is allowed in this zone in this area.

VI. STAFF REVIEW

A. MASTER DEVELOPMENT PLAN OBJECTIVES

The Site Plan ordinance outlines that an approved Master Development Plan (MDP) establishes the general parameters to be adhered to for the development where the site is greater than one acre. The objective is to ensure the overall lot is designed as a cohesive and integral development program consisting of multiple buildings and associated site improvements built in phases over an extended timeframe, including the supporting documentation for floor area ratio and/or residential density, general types of uses, building coverage, generalized open space plans and infrastructure systems. It is not a final authorization for development, but it does confer pending proceeding status upon the development with the effect of maintaining the applicability of regulations in effect at the time of the approval for as long as the MDP approval remains valid. All Level III site plans for each phase shall be in general conformance with the approved MDP (6 years initially, which may be extended).

B. MASTER DEVELOPMENT PLAN SUBMISSION REQUIREMENTS (Section 14-527(e))

Section 14-527 of the city's site plan ordinance outlines Master Development Plan submittal requirements. The Planning Authority or Planning Board may give direction regarding the form of the information required for the MDP review.

Staff met with the applicant and his consultants on March 1 to better understand the proposals and to clarify the information that needed to be submitted to address the MDP submittal requirements, as confirmed in staff e-mails (Attachment 6).

The design information is fairly complete, partly because of the earlier HP advisory review and subsequent discussions with the City's Urban Designer. The remainder of the key MDP submissions requirements need further work to meet the submittal requirements, either because the details/data of the proposals are inconsistent, or because key pieces of information are not included.

Staff has nevertheless considered it would be helpful to bring this project to a Workshop given the prominence of the site and the scale of the proposal, with the focus of the discussion on the implications of the site constraints (eg change of grade) and the approach to phasing and servicing in particular.

C. MASTER DEVELOPMENT PLAN STANDARDS (Section 14-524(a)3.c(iii))

Section 14-524 of the city's land use code establishes standards under which Master Development Plan applications must be reviewed. Per this section, Master Development Plans shall adhere to the following general requirements and features:

a. A designated tract of land consisting of a parcel or parcels of contiguous land or land on both sides of a public street, totaling one (1) acre or more;

Staff comments: The 2.58 acre site meets this requirement.

b. Developed in a comprehensive, design-integrated manner, according to an overall master development plan;

Staff comments: The overall build out appears to meet this requirement.

c. Consistent with the objectives of this ordinance; and d. Consistent with the City's Comprehensive Plan and consistent with City Council approved master plans and facility plans for off-premise infrastructure, including but not limited to, trails, pedestrian and bicycle network, view corridors, environmental management, sewer and stormwater, streets, or other facilities (see Section 15 of the Technical Manual);

Staff comments: This is still under review and additional information is needed. This will be discussed in detail at the second Workshop.

e. Developed so as to locate buildings and improvements in a manner that provides usable open space, preserves significant natural features, as defined by the site plan ordinance standards, and preserves existing trees to the maximum extent possible;

Staff comments: The existing site is 94 % impervious with no existing significant tree vegetation. The proposals envisage mostly "hard" landscape "plazas" over the parking to address this standard. A narrative regarding the extent and nature of plazas and balconies and their "open space" functions was requested but not received to date. (See also standard *l* below which references relevant design standards).

f. Ordinance standards for designated landmarks or for properties within designated historic districts or designated historic landscapes, if applicable. When proposed adjacent to or within one hundred (100) feet of designated landmarks, historic districts or historic landscapes, the Master Plan

shall be developed so as to be generally compatible with the major character-defining elements of the landmark or portion of the district in the immediate vicinity of the proposed development;

Staff comments: The applicant submitted an application to the Historic Preservation Board in November, 2016 requesting an advisory review in relation to this standard. The corner lot at 54 York Street (currently Baxter Academy) is within the Old Port Historic District. The Historic Preservation Program manager has provided a Memo confirming the Historic Preservation Board finding that the proposal, as fully built out, would be generally compatible with the historic district (Attachment 1).

Regarding the first phase, the Historic Preservation Board commented:

There was general acknowledgement that the developer's choice to phase the overall project would result, at least in the short term, in a rather curious—and much less compatible—development. This was especially the case because the easternmost “block”, which is proposed to be built first, features the most non-contextual massing. Also, the Phase One building would present challenges in terms of providing a satisfactory terminus for the precast colonnade at the sidewalk level. In sum, Board members stressed that because the proposed design solution is predicated on a repetition of forms, compatibility of the project is achieved at full build-out. The concern would be if all the phases are not constructed as proposed.

g. An efficient use of land which properly considers topography and protects significant natural features including, but not limited to, waterways, wetlands, floodplains and wildlife;

Staff comments: The Existing Conditions Plan (Plan P2) illustrates that there is a significant retaining wall (former wharf) along the boundary of the site with York Street, and within the site at the Maple Street end there is a grade change of 4-5 feet between York Street and Commercial Street. The proposals envisage a second retaining wall alongside this existing wall so that the full extent of the site can be developed. Further geotechnical information and structural engineering design information will be required at the Site Plan stage to demonstrate that the proposed new wall is adequately designed.

On Maple Street there are remnants of the historic cobbles in the sidewalk and existing curb cut, and further discussion is needed as to whether and how these may be preserved.



h. An efficient use of land demonstrating full coordination of its own site development and surrounding context including, but not limited to, the land uses and functions contemplated, architecture, open space and pedestrian networks, vehicular access and circulation, and all other infrastructure;

i. Linked and coordinated with surrounding land uses, infrastructure and off-site public facilities, including but not limited to the public school system, where appropriate, in a manner that is safe, efficient, non-injurious to the public, and an improvement or benefit to the public where possible; and

j. Designed with sizing of street and other infrastructure systems to accommodate the overall service demand of the Master Plan;

k. Designed to create a street grid pattern that reflects average city block sizes of the neighborhood for street connectivity;

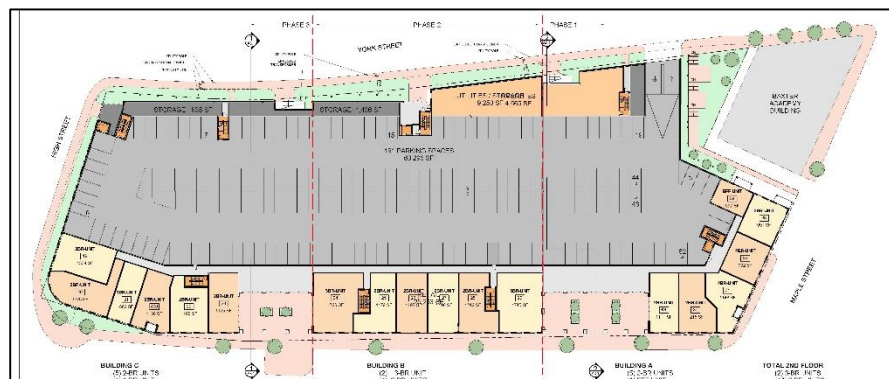
Staff comment: The lower two levels (parking garage) and the floorplan for the upper levels are abstracted below as reference for the staff comments.

Ground level, second level and upper level MDP Plans (see Plans Layout (buildings over)
(See Plans P5, P6 and P7)

Lowest level:



Second level:



Third and upper levels:



- ***Loading and Servicing:*** The MDP currently proposes that all servicing take place from Maple Street, where there is a loading dock and pedestrian walkway along the boundary with the Baxter Building, and the garage access just downhill. Staff have the following concerns:
 - That this loading area is remote from the residential and retail occupants located in the western part of the development, and that this will result on congestion elsewhere;

- That Maple Street is a narrow street and also serves the hotel and JB Brown lots across the street. Tom Errico, the City's Traffic Reviewer, has commented:

[An MDP] Submission Requirement is (quote from Site Plan Ordinance): "Major circulation patterns surrounding and serving the site, the existing and proposed lines of streets (including the street width), ways, easements and any public areas within or next to the site."

- *The project will be providing parking on-site with access proposed on Maple Street and York Street. The applicant will need to provide information at the proposed driveways including sight distance, driveway separation, and intersection corner clearance. Additionally, information that the driveway locations will not present traffic operational problems should be provided. Maple Street is a low volume street (and the lowest volume street for which access could be provided) and would appear to be a good location. I would finally note that details on truck delivery accommodations should be defined.*
- **Pedestrian linkages/sidewalks:** It is understood that the applicant had originally included a pedestrian link from Commercial Street across to York Street, with stairs at each end so that pedestrians would walk across the second level plaza(s). This pedestrian link was relocated at the encouragement of the HP Board to be at ground level and follow a likely desire line between York and Commercial Streets. The current proposal is for the pedestrian route to be along the boundary between the site and the Baxter Building.

Staff are concerned that this pedestrian route may be impacted by the loading bay immediately adjacent to it at the Maple Street end. The Planning Board may wish to give direction regarding this proposal and also whether greater permeability is desirable for this long block.

At the meeting in early March staff advised the applicant that sidewalk bump-outs and wide sidewalks along Commercial Street should be incorporated to match those along the Marriott Courtyard Hotel on the other corner of Maple Street. The plans need to be revised to address these comments.

- **Traffic:** Tom Errico, Traffic Engineering reviewer, has provided the following comment:
[An MDP] Submission Requirement is (quote from Site Plan Ordinance): "A traffic analysis and recommendations prepared by a registered professional engineer qualified to conduct such studies, including current traffic counts for streets surrounding the project, analysis of the existing capacity of those streets, projections of the amount of traffic that will be generated by the proposed development, and the ability of the street system to absorb the increased traffic without decreasing the level of service below an acceptable level – said level to be determined by the Planning Authority in concert with the Department of Public Services. In cases where the Master Development Plan is subject to a Traffic Movement Permit (TMP) for all phases, the TMP submissions and review shall supersede these requirements."
 - *The applicant has submitted a Traffic Study for Phase 1 of the project and a Traffic Movement Permit Application for the full build-out of the project. Following review of the Traffic Movement Permit Application, a Traffic Study Scoping meeting will be scheduled. Review of specific traffic impacts associated with the Full Build Project will occur following submission of the traffic study as defined at the Scoping Meeting.*

- **Stormwater:** The applicant has submitted a Utility Plan that includes general information regarding stormwater and the broad approach is considered acceptable (Attachment 4). The Peer Engineering reviewer has also noted the need for additional information in respect of the phase 1 proposals.

l. Designed as to create a cohesive identity through building scale, massing, and articulation; use of quality exterior materials, architectural detailing at pedestrian scale; consistency of design and materials for streetscape and pedestrian amenities; framing of outdoor open space and linkages; a clear conveyance of the function and significance of various buildings, entrances, and features; and to generally comply with design and development standards of the zone in which it is located;

Staff comments: The applicant has submitted a range of renderings and aerials (Plan P11), and provide the model digitally, to address the MDP submission standards. These have been reviewed by the City's Urban Designer and the proposals for the full build out are considered to meet the MDP review standards (Attachment 2).

It is noted that these proposals are also subject to the B5b and Multiple Family design standards. In respect of those standards there are a couple of issues:

- Surface Parking Lot areas until full build out is completed: The B5b Design Standards include: *"(1) d. Parking lots shall be located to the maximum extent practicable toward the rear."* The Multiple Family Design Standards include a standard that states: *"The scale and surface area of parking, driveways and paved areas are arranged and landscaped to properly screen vehicles from adjacent properties and streets;"* The surface parking lot shown in the Phase 1 site layout (Plan P12 and below) shows the parking lot very near the Commercial street sidewalk, and in Plan P15 Phase I Landscaping there is not landscape treatment.
- Provision of Open Space: The Multiple Family Design Standards also include this standard, and it is not clear as to how this is addressed in the MDP proposals: *"Open space on the site for all two-family, special needs independent living unit, bed and breakfast and multiple-family development shall be integrated into the development site. Such open space in a special needs independent living unit or a multiple-family development shall be designed to complement and enhance the building form and development proposed on the site. Open space functions may include but are not limited to buffers and screening from streets and neighboring properties, yard space for residents, play areas, and planting strips along the perimeter of proposed buildings;"*

m. Inclusive of provisions for the ownership and maintenance of usable open space as appropriate;

Staff comments: Not yet addressed.

n. For areas proposed as future development phase(s), the proposed interim conditions shall be managed and maintained to ensure stable, safe and attractive site conditions.

Staff comments: A phasing plan has been requested but not yet received. The proposals for phase 1 are shown in Plans P12 to P16 which illustrate that the 6 story building will end abruptly with a 2-story high blank wall, with the remainder of the site comprising a large surface parking lot with no landscaping (Plan 15). (See below)

Similar issues are likely to arise with Phase 2 which would be the middle third of the site and would leave surface parking to the west.

Staff recommend that the applicant submit a phasing plan which shows each phase and how it is integrated into the site and local context, including information regarding access, servicing, and landscaping including the extent of sidewalk and pedestrian improvements.

VII. NEXT STEPS re Master Development Plan (MDP)

Please note that the Phase 1 Level III Site Plan has not been reviewed by all staff and review comments on Phase 1 will be prepared and forwarded to the applicant in the near future. As noted above, the Phase I application was not submitted in time to be included for this workshop and another workshop is recommended.

Prior to the second PB Workshop on the Master Development Plan, the following action needs to be taken:

1. Hold a Neighborhood Meeting for the Master Development Plan (please note a separate neighborhood meeting for the Level III application is also required);
2. Submit further information as outlined in the PB Memorandum, including:
 - Loading, servicing and driveway information and impacts on Maple Street
 - Phasing plan (s) and how phases will be integrated and meet standards
 - Landscaping and open space information and details
3. Address detailed review comments eg re sidewalks;
4. Confirm all details of RTI, floorspace and other data; and
5. Discuss preservation of the cobbles in Maple Street with HP and staff.

ATTACHMENTS

MEMORANDUM ATTACHMENTS

1. HP Board comments
2. Preliminary Design Review
3. Transportation comments
4. Peer Engineer Comments
5. City Arborist comments
6. Staff comments

PUBLIC COMMENTS (None received to date)

APPLICANT'S SUBMITTAL

- A. Master Development Plan Development Review Application
- B. RTI
- C. State & Federal Approvals Zoning Assessment
- D. Zoning Assessment
- E. Easements
- F. Waivers
- G. Technical and Financial Capability
- H. Boundary Survey
- I. Traffic Study
- J. TMP
- K. Natural Features
- L. Stormwater Management
- M. City Master Plans
- N. Utilities

APPLICANT'S SUBMITTAL, continued

- O. Solid Waste
- P. Fire
- Q. Design Review
- R. School Capacity Impact

PLANS - MDP

- P1. Boundary Survey
- P2. Existing Conditions Plan
- P3. Neighborhood Context Plan
- P4. Utility Plan
- P5. Level 1 Plan
- P6. Level 2 Plan
- P7. Level 3 Plan
- P8. Elevations
- P9. Site Section
- P10. Site Section
- P11. Renderings (11 sheets)

PLANS – PHASE 1 FOR INFORMATION

- P12. Phase 1 Site Plan
- P13. Floor Plans (5 sheets)
- P14. Elevations
- P15. Landscape Plans (2 sheets)
- P16. Phase 1 Rendering

Memorandum
Department of Planning and Development
Historic Preservation Office



To: Chair Boepple and Members of the Planning Board
From: Deborah Andrews, Historic Preservation Program Manager
Cc: Jean Fraser, Planner
Date: March 29, 2017
Re: Historic Preservation Board Advisory Review of Proposed Development at 383 Commercial Street

Under Sec. 14-526 (b) of the site plan ordinance, proposed developments located within 100 feet of a historic district boundary must be found to be “generally compatible with the major character-defining elements of the ... portion of the district in the immediate vicinity of the proposed development.” Although the Planning Board makes the ultimate determination regarding compatibility, the site plan ordinance requires that historic preservation staff “provide a written analysis of the proposed development’s immediate context, identifying the major character-defining elements and any established building patterns that characterize the context”. In the case of major developments, it has also been customary for the Historic Preservation Board to forward its assessment of the development’s compatibility for consideration by the Planning Board. This memo includes both a description of the project’s historic context and an analysis of its compatibility with that context.

As the following map illustrates, the subject parcel immediately abuts the western boundary of the Portland Waterfront Historic District on both its Commercial Street and York Street frontages. As each of these major corridors has its own distinct character, the proposed should be examined for its compatibility with both its immediate York Street and Commercial Street contexts.



Cross-hatched area: subject parcel
Shaded area: Portland Waterfront Historic District

Project Context

Immediate Context

The proposed development's immediate context is quite disparate. East of the property and separated by Maple Street is the new Courtyard Marriott at 321 Commercial. Completed in 2014, the six-story structure extends in an easterly direction to Foundry Lane and exhibits many of Commercial Street's identifiable, shared building characteristics (discussed below.) West of the development parcel, on the other side of High Street, is Cumberland Farms, which departs from Commercial Street's typical development character in every respect. Across Commercial Street is the Gulf of Maine Research Institute, a large-scale, architecturally notable, corrugated-metal-sided structure. While the building exhibits its own distinctive architectural character, it takes its inspiration from vernacular New England building forms. North of the proposed development parcel, on the other side of York Street, the character of existing development is decidedly mixed, due in large part to the transitional nature of the block. With the completion of the large residential building currently under construction at the corner of York and High, it is likely this area will be redeveloped in the not-so-distant future. Completing the new development's immediate context is the small-scale historic warehouse structure that houses Baxter Academy. This building forms the western terminus of the Portland Waterfront Historic District on York Street.

General Context



While the development site's immediate context is varied, its larger Commercial Street context (inland side) is one of the most architecturally cohesive in the city. Once built, the proposed

development will function as the western terminus of what is today an almost continuous row of similarly-scaled and architecturally unified commercial blocks that stretch along the inland side of Commercial Street to the Galt Block east of Franklin Street. Given this architectural unity and the compelling streetscape that results from it, it is important that Commercial Street's salient building characteristics be studied and reinforced in any new development.

As Board members are aware, Commercial Street was created in the early 1850's on filled land. It was the coming of the railroad in the 1840's that mandated its creation. Starting in 1850, the land downhill from Fore Street was filled to create a mile-long, 100'-wide street to accommodate tracks, traffic and the business blocks and warehouses of an expanding economy. The fact that Commercial Street was almost fully developed within a very brief time period and that many of its structures were built for the same general function, accounts for Commercial Street's striking uniformity in scale, materials and architectural expression.

While most of the existing structures on the north side of Commercial were built shortly after the street was created in 1850, at least one building (the former Porteous warehouse between Center St. and Foundry Lane) was built in the early 20th century (1902.) Because of its form, scale, material palette and compatible architectural treatment, the Porteous warehouse continued and reinforced the established development pattern to the east. In 2013, approval was granted for the new Courtyard Marriot, immediately west of the Porteous Warehouse. Although the parcel was undeveloped when the Portland Waterfront Historic District was created, the boundary encompassed this open parcel to ensure compatible development on this site. As with the Porteous warehouse building, great care was taken to ensure that the new structure built upon the strongly consistent building patterns and characteristics that unify Commercial Street.

On the previous page are aerial views of several segments of the north side of Commercial Street. From the photographs, one can observe the following **unifying characteristics**:

Relationship to the street:

- With few exceptions, the entire width of each block is developed with wall-to-wall buildings. On a few blocks, individual buildings with large footprints fill the entire width of the block. More often, individual, smaller-footprint buildings directly abut each other, sharing party walls. This creates a strong continuous streetwall, interrupted only by intersecting side streets. The few gaps in this continuous streetwall pattern are the result of demolition and reuse of the subject site for surface parking.
- Buildings are oriented with their principal facades facing Commercial Street, with no setback from the sidewalk.
- The flatness and unusual breadth of Commercial Street, together with its broad sweeping curve as one travels from one end to the other, makes possible expansive views of the continuous streetwall on the inland side of the street. This configuration allows one to appreciate the relationship between individual buildings.

Scale, Form and Architectural Composition of Individual Structures:

- A strong base, typically executed in granite, which is clearly distinguished from the upper floors. A continuous horizontal datum is established by the frieze/cornice above abutting storefronts
- Building heights that generally range from 3-5 stories. Courtyard Marriott is 6 stories.

- Overall simplicity of massing
- Very regular fenestration, individual punched window openings, windows of vertical proportions
- A defined cornice
- Roof forms are typically flat or gambrel, with few exceptions
- Consistent and limited material palette.

Variety of Architectural Detail

- Within the generally uniform architectural framework described above, the individual buildings exhibit a great deal of architectural variety. Architectural detail is provided through corbelling of brick, projecting and recessed elements, decorative cornices, alternating bay treatments, granite detailing, etc. Observing the various ways in which granite alone is employed in buildings along Commercial Street, one sees a wide range of surface treatments and detailing. This lends textural and architectural interest to the street.

Historic Preservation Board Review Process

The Historic Preservation Board held two workshops (January 4 and March 1) on the proposed design solution for the 383 Commercial Street development. While a second workshop was not required, the development team volunteered to return with design revisions developed in response to the Board's comments and concerns at the January review session. Following are images of the project as submitted for the second workshop:



Commercial Street elevations





Looking west on Commercial Street toward proposed development



York Street elevations





Initial proposal



Revised Proposal

The photos above illustrate some of the major design revisions which were made in response to HP Board comments at the January 4 workshop. Note that the brick façade on Commercial Street was extended further into the interior courtyards to provide more visual mass and to avoid the appearance of a shallow brick “veneer” on Commercial. The brick façade was also carried around the Maple Street elevation. The pergola treatment at the top floor was revised, the balconies were modified and the courtyard treatment was simplified. The ground floor granite arcade that continues across the entire width of the building was revised to step up to a two-story arcade in front of the courtyards. Although not apparent in the images, the level of tonal contrast between the front elevations and the interior courtyard elevations was reduced to better unify the structure. Note that the Board recommended a number of additional design revisions at the second workshop. These are itemized in the following section.

Modifications were made to the York Street elevation as well, although not as substantive.

HP Board Assessment of Compatibility, Outstanding Design Issues as of March 1 Wkshp

At the conclusion of the March 1 workshop, there was a consensus among Historic Preservation Board members that the proposed development—once full build-out was achieved--would be generally compatible with its respective historic context(s).

In reviewing the proposal, the Board accepted the basic organization and massing of the proposed development as being a result of the developer’s stated priorities for the project (i.e. providing light and views for as many of the upper story residential units as possible.) Although wide spacing between individual buildings is not characteristic of Commercial Street’s development pattern (most structures directly abut each other), the Board did not recommend significant changes in the project’s massing, such as reducing or consolidating the number of individual “buildings” as viewed from Commercial Street. Rather, the Board focused its discussion on key elements of the design and contributing details. Given that the existing character of development on the inland side of Commercial Street differs significantly from that on York Street, compatibility factors for consideration differed as well. In the Board’s view,

York Street could support a higher degree of architectural and material variety than Commercial Street because the streetscape was more varied and less visually “weighty”.

There was general acknowledgement that the developer’s choice to phase the overall project would result, at least in the short term, in a rather curious—and much less compatible—development. This was especially the case because the easternmost “block”, which is proposed to be built first, features the most non-contextual massing. Also, the Phase One building would present challenges in terms of providing a satisfactory terminus for the precast colonnade at the sidewalk level. In sum, Board members stressed that because the proposed design solution is predicated on a repetition of forms, *compatibility of the project is achieved at full build-out*. The concern would be if all the phases are not constructed as proposed.

In addition to this general observation, the HP Board identified several elements of the design that warranted further revision/reconsideration, including:

- The ground level treatment of the building’s Commercial/High Street corner remained unresolved.
- The spacing of the precast piers in front of the recessed arcades creates openings that appear too monumental and “heroic” in proportions. The architect was encouraged to add an additional pier to the eastern and western colonnades to achieve the proportions shown in the center arcade. This would reduce the size of the openings and provide a more appropriate scale at the street level.
- Given the varied façade treatment across the York Street elevation, Board members suggested that a continuous brick base might provide a unifying element to the overall composition. Also, a suggestion was made to reduce the depth of the overhangs on York Street.
- Although Board members acknowledged that the question of use is not within the HP Board’s purview, the developer was encouraged to consider including a retail, personal service or other commercial use along a portion of York Street’s frontage. This would further engage the development with the street and serve a growing residential population in the area.

Note: In reviewing the most recent submission prepared for the Planning Board workshop, staff notes that the design has been revised to respond to most of these suggestions.

Planning and Urban Development Department Planning Division



Subject: MDP and B-5 Design Review – 383 Commercial Street
Written by: Caitlin Cameron, Urban Designer
Date of Review: Wednesday, March 29, 2017

The project at 383 Commercial Avenue was reviewed according to the *Master Development Plan Standards of Review* by Caitlin Cameron, Urban Designer, Matt Grooms, Planner, and Jean Fraser, Planner. The project is also within 100' of a historic district and included an advisory design review by the Historic Preservation Board.

The proposed master plan for multi-family residential buildings is only reviewed according to the Master Plan criteria. In future Site Plan design reviews, the projects will be subject to the R-5 and Multi-family design guidelines – some initial comments are provided at the end of this memo regarding the future Phase I Site Plan application submitted.

Design Review Comments:

(iii) Standards of Review.

b. Developed in a comprehensive, design-integrated manner, according to an overall master development plan

- There is a clear cohesive design approach and architectural aesthetic applied to an overall master plan.

d. Consistent with the City's Comprehensive Plan and consistent with City Council approved master plans . . .

- The project is not within a Pedestrian Activities District Overlay zone (PAD)
- The project is not located within a view corridor protection area

f. When proposed adjacent to or within one hundred (100) feet of designated landmarks, historic districts or historic landscapes, the Master Plan shall be developed so as to be generally compatible with the major character-defining elements of the landmark or portion of the district in the immediate vicinity of the proposed development

- See memo from Historic Preservation staff regarding the Historic Preservation Board review comments for compatibility with the Old Port Historic District.

l. Designed as to create a cohesive identity through building scale, massing, and articulation; use of quality exterior material, architectural detailing at pedestrian scale; consistency of design and materials for streetscape and pedestrian amenities; framing of outdoor open space and linkages; a clear conveyance of the function and significance of various buildings, entrances, and features; and to generally comply with design and development standards of the zone in which it is located;

(c) B-5 and B-5b Urban Commercial Business Zones

Standard (1) a. Shared Infrastructure – Met – Project is located near the property line and creates strong street wall on street-facing façade consistent with other commercial or mixed use building placement while keeping bay projections above private property.

Standard (1) b. Buildings and Uses shall be located close to the street . . . – Met- Building is mixed-use with commercial ground floor and residential upper floors.

Standard (1) c. Buildings shall be oriented toward the street . . . – Met – Primary building entrance is oriented to the street.

Standard (1) d. Parking lots shall be located to the maximum extent practicable toward the rear . . . – More information needed – Ground floor street frontage has an adequate amount of fenestration and at a level that provides some views into the building while maintaining some privacy for the users. Fenestration should meet the minimum transparency standard of .7 VT.

(i) Multiple-family:

Standard (1) – Met – Project is located near the property line and

Standard (2) – Met – Project is located near the property line and

Standard (3) – Met – Project is located near the property line and

Standard (4) – Met – Project includes ample windows for light and air.

Standard (5) – More information needed – the

Standard (6) – Not applicable

383 Commercial Street - Preliminary Traffic Comments Related to the MDP

1 message

Tom Errico <thomas.errico@tylin.com>

Fri, Mar 31, 2017 at 8:48 AM

To: Jean Fraser <jf@portlandmaine.gov>

Cc: Katherine Earley <kas@portlandmaine.gov>, Jeremiah Bartlett

<JBartlett@portlandmaine.gov>, Jeff Tarling <jst@portlandmaine.gov>, Lauren Swett

<lswett@woodardcurran.com>

Hi Jean - the following summarizes my initial traffic comments as it relates to the Master Development Plan and the City's submission requirements.

Submission Requirement: Major circulation patterns surrounding and serving the site, the existing and proposed lines of streets (including the street width), ways, easements and any public areas within or next to the site

- **The project will be providing parking on-site with access proposed on Maple Street and York Street. The applicant will need to provide information at the proposed driveways including sight distance, driveway separation, and intersection corner clearance. Additionally, information that the driveway locations will not present traffic operational problems should be provided. Maple Street is a low volume street (and the lowest volume street for which access could be provided) and would appear to be a good location. I would finally note that details on truck delivery accommodations should be defined.**

Submission Requirement: A traffic analysis and recommendations prepared by a registered professional engineer qualified to conduct such studies, including current traffic counts for streets surrounding the project, analysis of the existing capacity of those streets, projections of the amount of traffic that will be generated by the proposed development, and the ability of the street system to absorb the increased traffic without decreasing the level of service below an acceptable level – said level to be determined by the Planning Authority in concert with the Department of Public Services. In cases where the Master Development Plan is subject to a Traffic Movement Permit (TMP) for all phases, the TMP submissions and review shall supersede these requirements.

- **The applicant has submitted a Traffic Study for Phase 1 of the project and a Traffic Movement Permit Application for the full build-out of the project. Following review of the Traffic Movement Permit Application, a Traffic Study Scoping meeting will be scheduled. Review of specific traffic impacts associated with the**

Full Build Project will occur following submission of the traffic study as defined at the Scoping Meeting.

If you have any questions, please contact me.

Best regards,

Thomas A. Errico, PE

Senior Associate

Traffic Engineering Director

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383 Commercial

1 message

Lauren Swett <lswett@woodardcurran.com>

Thu, Mar 30, 2017 at 9:14 PM

To: Jean Fraser <jf@portlandmaine.gov>

Hi Jean,

I have done a quick review of the 383 Commercial Street Phase 1 application. In general it looks OK, but they will need to provide some additional information.

- They have written their stormwater management plan around the Maine DEP Chapter 500 standards only, and have not addressed it to the City of Portland Standards. It appears that they will meet the standards – for example, City threshold requires meeting the Flooding Standard, and DEP does not, but they do appear to be meeting it.
- They will need to provide additional information on the sizing of their Filterra and subsurface systems to show that they are appropriately sized for the proposed use. Some of this will be standard information from the manufacturer, but they also need to show that their subsurface system is sized appropriately for the proposed flow. They currently do not model this in their HydroCAD model.
- I'm not completely clear on how the Filterra units proposed within the parking lot will work. The details for the units show inlets located on only one side of each Filterra, but the units are located in low points on the site, so additional clarity on the location of the inlet, and how flow from the lot will enter the unit is needed. It also doesn't appear that the islands are curbed, so there will need to be more information provided on how these will be installed.
- The Filterra trees are called out to be provided by Contech and are not shown on the landscaping plan.

Stormdrain ties into both High and Maple Street systems. I believe they've already had discussions with DPW, but I can work with Brad as part of a more detailed review to make sure what they are doing works for DPW.

Those are my early comments. The overall approach to stormwater seems to be OK, just more detail should be provided.

Thanks,

Lauren

Lauren Swett, P.E.

Technical Manager

Woodard & Curran

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383 Commercial Street tree & landscape Phase 1

1 message

Jeff Tarling <jst@portlandmaine.gov>
To: Jean Fraser <jf@portlandmaine.gov>

Fri, Mar 31, 2017 at 9:41 AM

Jean -

Would like to see more landscape details for the proposed Phase 1 plan at 383 Commcerial Street.

This would include the following:

a) Phase 1 surface parking lot -

Note we have 8 parking lot islands = 16 parking lot trees at two per island along with 2 near the entrance parking lot island. This would help add some landscape buffering and parking lot shade. Similar to what the Hampton Inn has done on Fore Street that seems to be successful as an interim landscape improvement.

b) Phase 1 Building - Streetscape

We should look at options for the Commercial Street sidewalk edge. New street trees would be in raised planters that could include other herbaceous landscape plants or seasonal flowers, rain planter similar to next door if streetscape design warrents bump-out or perhaps in later phases.

c) Green roof / patio - The second floor patio space appears to have green roof or landscape features built into the design. This could be a project amenity vs requirement.

Jeff Tarling
City Arborist - City of Portland Maine
Parks, Recreation & Facilities Department
Forestry & Horticulture
212 Canco Road
Portland, ME. 04103

Fwd: 383 Commercial Street

1 message

Jean Fraser <jf@portlandmaine.gov>

Fri, Mar 24, 2017 at 3:17 PM

To: "Lloyd, David" <lloyd@archetypepa.com>, Will Conway
<wconway@sebagotechnics.com>

Cc: Joe Dasco <joedasco@comcast.net>, "Barhydt, Barbara" <bab@portlandmaine.gov>

Hello all,

Status Update: the MDP is scheduled for a PB workshop on Thursday, April 6th (time to be confirmed). Further information is needed asap as outlined below.

This morning we undertook a design review based on the MDP and the recent Site Plan submissions in order to prepare the PB memo next week for the April 6th PB workshop.

Regarding the MDP Design Review: In order to complete the design review (Design Standards for B5b; Multi family development and MDP submissions and review apply) we need the following in the next day or two in order for the review comments to be included in the Planning Board Memo next week:

- aerial view that shows more of the surrounding context (and updated design)
- model file
- visual representation of project in context on Maple Street

Regarding the rest of the MDP Review: A neighborhood meeting is required on the MDP proposals, so please update us regarding that. We requested additional information at the March 1 meeting as summarized in my e-mail dated March 7 - please send this info urgently so that we are able to complete the rest of the MDP review next week:

- RTI information as outlined in a previous e-mail
- Traffic information to address the MDP submittal requirements which state:

A traffic analysis and recommendations prepared by a registered professional engineer qualified to conduct such studies, including current traffic counts for streets surrounding the project, analysis of the existing capacity of those streets, projections of the amount of traffic that will be generated by the proposed development, and the ability of the street system to absorb the increased traffic without decreasing the level of service below an acceptable level – said level to be determined by the Planning Authority in concert with the Department of Public Services. In cases where the Master Development Plan is subject to a Traffic Movement Permit (TMP) for all phases, the TMP submissions and review shall supersede these requirements.

- Phasing Plan, showing how the rest of the site is modified to ensure each phase can work prior to other phases being implemented
- Detail re loading and how that will work in Maple Street and in relation to the pedestrian link (and detail re any loading arrangements at the other end of the site)
- Open Space narrative to address this MDP submittal requirement: Drawings/info showing: *Major landscaping elements, features, open space, and plans for preservation of natural features.*

Regarding the Level III (Phase 1) Site Plan Review: Unfortunately the Level III plans & docs were submitted too late for us to advertise this (for the PB Workshop) as legally required. So the emphasis for the April 6th Planning Board meeting will be the MDP Review, and we will include the level III submittals (without a full staff review) so the Board (and public) would understand how it relates to the MDP and be able to offer comments and direction if they wish.

As the plans and docs were received late yesterday we have not had time to review the Site Plan application in full, and I will send a separate e-mail with questions/comments etc asap.

Please note that we would not be able to complete a design review of the level III application until we receive the Phase 1 elevations (with material call outs and correct locations of entrances shown), so I suggest that information be submitted asap.

Please let me know if you have any questions.

Thank you
Jean

Fwd: 383 Commercial St MDP - update and note of 3.1.17 meeting

1 message

Jean Fraser <jf@portlandmaine.gov>

Tue, Mar 21, 2017 at 2:08 PM

To: Will Conway <wconway@sebagotechnics.com>

Will

As noted at the meeting, the MDP application needs more info as noted above and discussed at the meeting. I don't see that anything has been sent to me or uploaded into e-plan- could you advise me where this stands and whether there is more info coming our way.

thank you
Jean.

----- Forwarded message -----

From: **Jean Fraser** <jf@portlandmaine.gov>

Date: Tue, Mar 7, 2017 at 2:37 PM

Subject: 383 Commercial St MDP - update and note of 3.1.17 meeting

To: Will Conway <wconway@sebagotechnics.com>, Joe Dasco
<joedasco@comcast.net>, "Lloyd, David" <lloyd@archetypepepa.com>

Cc: Virginie Stanley <virginie@archetypepepa.com>, Derek Caldwell
<dcaldwell@sebagotechnics.com>, "Barhydt, Barbara" <bab@portlandmaine.gov>,
"Errico, Thomas" <thomas.errico@tylin.com>, "Hyman, Bruce"
<bhyman@portlandmaine.gov>, "Bartlett, Jeremiah" <jbartlett@portlandmaine.gov>,
"Peverada, John" <jbp@portlandmaine.gov>, "Swett, Lauren"
<lszett@woodardcurran.com>, "Tarling, Jeff" <jst@portlandmaine.gov>, "Gautreau,
Keith" <kng@portlandmaine.gov>, "Cameron, Caitlin" <ccameron@portlandmaine.gov>,
"Andrews, Deb" <dga@portlandmaine.gov>

Hello all,

This is going to both the applicants team and reviewers - it is a brief note of the meeting held on Wed March 1 which was set up to better understand the MDP proposals and clarify regarding further information that was needed for the review. Please let me know if you feel I have misrepresented anything or omitted an important item.

[The next steps are:

- Applicants team to submit additional info and plans for the MDP (see below, and including RTI clarification as requested in previous separate e-mail)
- Applicants team to submit the Level III Site Plan (and IZ application) for Phase 1 (details in previous e-mail)
- Applicants team to arrange Neighborhood Meeting on MDP asap (copy invitation to us)
- (note- a separate Neighborhood Meeting is required re the Site Plan)
- Transportation reviewers are planning to meet with Derek Caldwell next week
- The first PB workshop is tentatively scheduled for April 6th (Thursday) subject to receiving the Site Plan application in the very near future.]

NOTE OF MARCH 1 MEETING

Attendance:

Applicants team: Joe Dasco; David Lloyd, Virginia Stanley; Derek Caldwell (Will Conway unable to attend)

Reviewers: Barbara Barhydt; Jean Fraser; Jeremiah Bartlett; Bruce Hyman; Jeff Tarling; John Peverada; Lauren Swett (Tom Errico unable to attend)

Key points:

- HP (within 100 ft of Historic District): Separate application made to HP to get their recommendation to PB- second Workshop that night; had revised architecture to address HP Board comments including moving the pedestrian link east to the area between the site and the Baxter Academy building (which is a separate lot). Reviewers noted that the Design Standards review and PB may conclude a mid block connection still needed.
- Structural: Proposal involves construction of new structural retaining wall inside the existing along York. Allows for widened area (total of 8 ft) between road and building (discussion re this - would not support trees).
- Transportation/Traffic: Submissions need to address MDP submittal requirements, which includes a circulation plan and info about the capacity of surrounding streets and intersections. TMP not a requirement until site plan but can be done now. Reviewers are concerned about phasing and long timeframe- need to submit a phasing plan as each phase needs to be workable without the next one. Need info re users of the proposed interim surface parking lot and on proposed pedestrian amenities. Reviewers to meet separately with Derek to clarify.
- Loading: Proposal at present is for all loading from Maple via "dock"; reviewers expressed concern as servicing of the third phase would be difficult and mean likely more servicing from middle of Commercial St.. Suggested rear access corridor within the structured garage to rear of all retail. What about moving vans for residential? Some of the submitted plans show loading area from Commercial between phase 2 and 3 but this is not a definite proposal .

- York sidewalk: Existing is recent and 6 ft wide so discussion of what might be best there - how to use additional 2 ft. Needs further consideration.
- Commercial St sidewalk: Reviewers requested that the treatment now in front of Marriott be extended in front of this site, including bump outs. Question of phasing. Needs further discussion.
- Open space and Landscape: Reviewers noted that Design Standards require open space and submittals should clarify how being provided. (Design Standards sent to applicants team on 3/3/17). Landscape Plan for MDP needed.
- Stormwater/Utilities: Broad approach re stormwater OK but interim pond may be problematic. Utilities Plan needs to show all utility connections.

During the discussion it came to light that the applicant had intended this to be reviewed as a Master Development Plan in conjunction with a Phase 1 Level III Site Plan application (for 82 unit zig zag building at Maple Street end). The City had not received a Level III Site Plan application (which would be a separate application) so the applicant will address that asap.

Reviewers noted that many of the MDP submittal requirements are not fully met in the current application, so that when the Phase I Site Plan application is being prepared, some additional submissions are needed for the MDP. The MDP submittal requirements are listed below for reference.

Thank you
Jean

MDP submission requirements:

(e) *Master Development Plan*. A Master Development Plan is an optional submittal as part of the Level III site plan application review process. If the applicant elects to submit a Master Development Plan for review, it shall include the following information in addition to the general submission requirements of Sec. 14-527 (c)(d):

1. A neighborhood context map, at a scale not less than one (1) inch equals one hundred (100) feet, providing a graphic description of the neighborhood in which the tract lies, including roads, utilities and other public facilities, major existing buildings and structures. There shall also be a statement and/or plan as to the general impact of the proposed Master Development Plan upon the area, indicating how the Master Development Plan relates to surrounding properties and what measures will be taken to create appropriate transitions and access from the subject property to abutting public properties (i.e. parks, waterfront, etc.) or other neighboring tracts (if applicable).
2. A conceptual site plan drawn to a scale of not less than one (1) inch equaling fifty (50) feet, or series of drawings at the same scale, and any necessary supporting information, showing:

(i) The approximate boundary lines of existing and proposed lots within and immediately adjacent to the Master Development Plan, with approximate areas and dimensions. With respect to residential areas, the proposed density, lot configuration, circulation and a typical plot plan shall be included in the application.

(ii) An analysis of the natural features of the site, including existing and/or adjacent natural waterways, wetlands, floodplains, topography, soil conditions and other natural features requested or required by the Planning Authority.

(iii) An analysis of the designated view corridors, historic resources, and archeological resource associated with the site.

(iv) Existing/proposed buildings and other significant structures, building groupings, exterior building elevations and entrances, parking areas, and other significant physical features of the site.

(v) Context drawings, perspective renderings, photographic montages, or computer generated graphics depicting the proposed development within the surrounding building and environmental context. Building elevation drawings shall include the following:

- a. Illustrations of all sides of the structures;
- b. Views of major entries or prominent building features;
- c. Illustration of building articulation and elements;
- d. Building finish composition; and
- e. Pedestrian and streetscape elements of the Master Development Plan.

The submission shall include a digital three-dimensional model tied to a specific location that is submitted as a KML, KMZ, DXF, or DWG file on a CD or DVD or such format as approved by the Planning Authority. It is the applicant's

responsibility that the model is complete and represents the proposed development accurately using best practice modeling techniques and layering standards.

(vi) Major circulation patterns surrounding and serving the site, the existing and proposed lines of streets (including the street width), ways, easements and any public areas within or next to the site.

(vii) Major landscaping elements, features, open space, and plans for preservation of natural features.

(viii) An analysis of the public safety services needed to support the master plan.

(ix) An analysis of the anticipated impacts on the public school system to support the Master Development Plan.

(x) A generalized drainage plan for the site, indicating drainage ways, flow, points of outfall, and indicating impacts of development on affected drainage basins. The plan shall include contour information at not less than two-foot (2') contour intervals and document anticipated quantities of run-off characteristics. General statements concerning storm water management techniques shall also be submitted with the application.

(xi) The plan shall clearly show Master Development Plan boundaries, north arrow, date, scale, legend, the title "Master Development Plan Concept Site Plan" followed by the formal project name, and the name(s) of applicant(s), engineer(s), designer(s) and/or agent(s).

(xii) A traffic analysis and recommendations prepared by a registered professional engineer qualified to conduct such studies, including current traffic counts for streets surrounding the project, analysis of the existing capacity of those streets, projections of the amount of traffic that will be generated by the proposed development, and the ability of the street system to absorb the increased traffic without decreasing the level of service below an acceptable level – said level to be determined by the Planning Authority in concert with the Department of Public Services. In cases where the Master Development Plan is subject to a Traffic Movement Permit (TMP) for all phases, the TMP submissions and review shall supersede these requirements.

(xiii) A utilities analysis and recommendations prepared by a registered professional engineer qualified to conduct such studies. Said analysis shall contain an inventory

of existing utilities including, but not limited to, storm sewers and drains, sanitary sewers, electrical lines, fire alarm boxes and lines, gas lines/mains, water mains, lighting, curb and gutter, etc. Said inventory shall illustrate utility locations, sizes, diameters, carrying capacity and present load on the system. The engineer's report shall state if the current system is capable of adequately serving the proposed development. If the current utility system is found to be inadequate for the proposed development, the report shall confirm the deficiencies and make recommendation(s) as to the infrastructure improvements necessary to properly service the proposed development and maintain the existing service. The report shall also present a formal plan for infrastructure improvements, documenting timing, funding mechanisms and coordination with the City; and

(xiv) Any other supportive information the applicant feels may be beneficial in the evaluation of the request.

(xv) The Planning Authority or Planning Board may reduce the level of information required at the Master Development Plan review stage, provided more detailed supportive documentation is provided at final Level III Site Plan Review of the Master Development Plan or phases thereof.

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Jean Fraser, Planner
City of Portland
874 8728

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Jean Fraser, Planner
City of Portland
874 8728

383 Commercial Street applications

1 message

Jean Fraser <jf@portlandmaine.gov>

Fri, Mar 3, 2017 at 4:55 PM

To: Will Conway <wconway@sebagotechnics.com>, "Lloyd, David" <lloyd@archetypepa.com>

Cc: Joe Dasco <joedasco@comcast.net>, "Barhydt, Barbara" <bab@portlandmaine.gov>, Jennifer Munson <jmy@portlandmaine.gov>, "Norod, Tyler" <tnn@portlandmaine.gov>

Hello all,

I am preparing a draft note of Wednesday's meeting (re review issues) as there were several key people who were unable to attend the meeting - but I wanted to separately advise you about several key pieces re the applications that need urgent attention:

- Right, Title and Interest info submitted for the MDP is incomplete for the following reasons:
 - Applicant listed on application form (Deering Property Management LLC) is different from the "buyer" in the P&S Agreement (Deering Property Development LLC)
 - The P&S Agreement does not have the signature of the "Buyer"
 - The letter confirming financial capacity does not reference the applicant (Reger Holdings is referenced);
 - We can see that Gordon Reger is associated with most of the referenced LLCs in some way, but the applicant and "buyer" need to be the same entity and we need evidence that Reger Holdings (as referenced in the bank's letter) is legally connected to/responsible for funding of the applicant.
- Site Plan - we confirmed at the meeting that you had intended to submit a Level III Site plan (and Subdivision) application for Phase 1 and will now be arranging for its urgent submission; please note:
 - This will be a separate application so please submit the usual set of plans that support a site plan application including the boundary survey, demo, site plan, grading plan, utilities plan, landscape plan and how meeting the B5b design (and multiple family) standards (these are extracted and listed below - note particularly open space and surface parking standards);
 - Please clarify if "preliminary" or "final" and ensure RTI references are consistent;
 - Please complete the data sheet in the application and address the submission requirements in Section 14-527 (a) and (c) (if preliminary) (d) if final.
- Inclusionary Zoning (IZ) Conditional Use Application: concurrent with the Level III site plan you also need to submit a separate IZ application- please note:

- o The application is available at this link: <https://me-portland.civicplus.com/DocumentCenter/View/11916>
- o This also goes to the Planning Board and is part of the Boards approval;
- o The staff contact for this is Tyler Norod in the Housing Division of my Department- I understand you have already contacted him so the IZ application would presumably confirm what has been agreed but also note the calculations and other supporting data.

thank you
Jean

DESIGN STANDARDS:

(c) B-5 AND B5-B URBAN COMMERCIAL BUSINESS ZONES:

(1) **STANDARDS.** Development located in the B-5 and B-5b zones shall meet the following additional standards:

- a. **Shared infrastructure:** Shared circulation, parking, and transportation infrastructure shall be provided to the extent practicable, with utilization of joint curb cuts, walkways, service alleys, bus pull-out areas, and related infrastructure shared with abutting lots and roadways. Easements for access for abutting properties and shared internal access points at property lines shall be provided where possible to facilitate present or future sharing of access and infrastructure.
- b. **Buildings and uses** shall be located close to the street where practicable. Corner lots shall fill into the corner and shall provide an architectural presence and focus to mark the corner.
- c. **Buildings** shall be oriented toward the street and shall include prominent facades with windows and entrances oriented toward the street. Uses that include public access to a building or commercial/office uses in mixed-use developments shall be oriented toward major streets whenever possible.
- d. **Parking lots** shall be located to the maximum extent practicable toward the rear of the property and shall be located along property lines where joint use or combined parking areas with abutting properties are proposed or anticipated.

(i) TWO-FAMILY, SPECIAL NEEDS INDEPENDENT LIVING UNITS, MULTIPLE-FAMILY, LODGING HOUSES, BED AND BREAKFASTS, AND EMERGENCY SHELTERS:

(1) **STANDARDS.** Two-family, special needs independent living units, multiple-family, lodging houses, bed and breakfasts, and emergency shelters shall meet the following standards:

- a. **Proposed structures and related site improvements** shall meet the following standards:
 1. The exterior design of the proposed structures, including architectural style, facade materials, roof pitch, building form and height, window pattern and spacing, porches and entryways, cornerboard and trim details, and facade variation in projecting or recessed building elements, shall be designed to complement and enhance the nearest residential neighborhood. The design of exterior facades shall provide positive visual interest by incorporating appropriate architectural elements;
 2. The proposed development shall respect the existing relationship of buildings to public streets. New development shall be integrated with the existing city fabric and streetscape including building placement, landscaping, lawn areas, porch and entrance areas, fencing, and other

streetscape elements;

3. Open space on the site for all two-family, special needs independent living unit, bed and breakfast and multiple-family development shall be integrated into the development site. Such open space in a special needs independent living unit or a multiple-family development shall be designed to complement and enhance the building form and development proposed on the site. Open space functions may include but are not limited to buffers and screening from streets and neighboring properties, yard space for residents, play areas, and planting strips along the perimeter of proposed buildings;
4. The design of proposed dwellings shall provide ample windows to enhance opportunities for sunlight and air in each dwelling in principal living areas and shall also provide sufficient storage areas;
5. The scale and surface area of parking, driveways and paved areas are arranged and landscaped to properly screen vehicles from adjacent properties and streets;
6. Two-family or multiple-family dwellings shall not be converted to lodging houses unless all units in the building have been vacant for at least one (1) year prior to the date conversion is sought or unless the individual multiple-family units are less than one thousand (1,000) square feet in size. In no event shall any single-family dwelling in the R-5 or R-6 zone be converted in whole or in part to a lodging house.

Jean Fraser, Planner
City of Portland
874 8728



383 Commercial Street
Master Development Plan
Development Review Application
Portland, Maine

Planning and Urban Development Department
 Planning Division

Portland's Planning and Urban Development Department coordinates the development review process for site plan, subdivision and other applications under the City's Land Use Code. Attached is the application form to be used for a Master Development Plan. Please note that Portland has delegated review from the State of Maine for reviews under the Site Location of Development Act, Chapter 500 Stormwater Permits, and Traffic Movement Permits.

Purpose of a Master Development Plan:

- The purpose of a Master Development Plan is to provide for a mix of land uses at designated locations to achieve a land development responsive to the assets of a site. A Master Development Plan is a well-integrated development in terms of land uses, functional activities, and major design elements such as buildings, roads, utilities, drainage systems and open space. The Master Development Plan is deemed appropriate to large scale mixed use projects that are intended to be developed in phases. The Master Development Plan shall be reviewed by the Planning Board and may be reviewed independently or concurrently with review of a Level III site plan application for a phased development.

A Master Development Plan is applicable as follows:

- A Master Development Plan is applicable for a site with one acre or larger in cumulative lot area that is designed as a cohesive and integral development program consisting of multiple buildings and associated site improvements proposed to be built in phases.
- The Master Development Plan option shall not apply in residential zones, except for institutional uses.

Planning Board Decision:

- A Master Development Plan approval shall not be construed as final authorization of the development. An approval shall confer pending proceeding status upon the development with the effect of maintaining the applicability of regulations in effect at the time of approval for as long as the Master Development approval remains valid (6 years from date of approval), including permissible extensions if granted (two 2-year extensions may be granted based upon criteria). All Level III site plans for each phase shall be in general conformance with the Master Development Plan.

Portland's development review process and requirements are outlined in the Land Use Code (Chapter 14) which is available on our website:

Land Use Code: <http://me-portland.civicplus.com/DocumentCenter/Home/View/1080>

Design Manual: <http://me-portland.civicplus.com/DocumentCenter/View/2355>

Technical Manual: <http://me-portland.civicplus.com/DocumentCenter/View/2356>

Planning Division

Fourth Floor, City Hall

389 Congress Street

(207) 874-8719

planning@portlandmaine.gov

Office Hours

Monday thru Friday

8:00 a.m. – 4:30 p.m.

PROJECT NAME:383 Commercial Street**PROPOSED DEVELOPMENT ADDRESS:**383 Commercial Street**PROJECT DESCRIPTION:**Mixed Use Retail (22,691 SF) and Residential
Condominiums (275 units) and Structured Parking**CHART/BLOCK/LOT:** 42/A/1**PRELIMINARY PLAN** _____ (date)**FINAL PLAN** _____ (date)**CONTACT INFORMATION:**

Applicant – must be owner, Lessee or Buyer Name: <u>Deering Property Management LLC</u> Business Name, if applicable: Address: <u>2730 Transit Road</u> City/State: <u>West Seneca NY</u> Zip Code: <u>14224</u>	Applicant Contact Information Work #: Home #: Cell #: <u>413.244.9092</u> Fax#: e-mail: <u>joeclasco@comcast.net</u>
Owner – (if different from Applicant) Name: <u>Milliken Smith Block LLC</u> Address: City/State: Zip Code:	Owner Contact Information Work #: Home #: Cell #: Fax#: e-mail:
Agent/ Representative Name: <u>Sebrgo Technics / Will Conway</u> Address: <u>75 John Roberts Road</u> City/State: <u>So. Portland ME</u> Zip Code: <u>04106</u>	Agent/Representative Contact information Work #: <u>207.280.2055</u> Home #: Cell #: Fax#: e-mail: <u>wconway@sebrgo technics.com</u>
Billing Information Name: <u>Sebrgo Technics Inc</u> Address: City/State: Zip Code:	Billing Information Work #: Home #: Cell #: Fax#: e-mail:

Engineer Name: <u>Sebygo Technics Inc.</u> Address: City/State : Zip Code:	Engineer Contact Information Work #: Home #: Cell #: Fax#: e-mail:
Surveyor Name: <u>Owen Haskell, Inc.</u> Address: City/State : Zip Code:	Surveyor Contact Information Home #: Work #: Cell #: Fax#: e-mail:
Architect Name: <u>Archetype PA/ David Lloyd</u> Address: <u>48 Union Street</u> City/State : <u>Portland</u> Zip Code: <u>04101</u> <u>ME</u>	Architect Contact Information Work #: <u>207. 772. 6022</u> Home #: Cell #: Fax#: e-mail: <u>lloyd @ archetypepa . com</u>
Attorney Name: <u>—</u> Address: City/State : Zip Code:	Attorney Contact Information Work #: Home #: Cell #: Fax#: e-mail:
Designated person/person(s) for uploading to e-Plan: Name: <u>William Conway</u> e-mail: <u>wconway @ sebygo technics . com</u> Name: e-mail: Name: e-mail:	

APPLICATION FEES:

Master Development Plan (check applicable reviews) ☒ Application Fee (\$1,000.00)	The City invoices separately for the following: • Notices (\$.75 each) • Legal Ad (% of total Ad) • Planning Review (\$50.00 hour) • Legal Review (\$75.00 hour) Third party review fees are assessed separately. Any outside reviews or analysis requested from the Applicant as part of the development review, are the responsibility of the Applicant and are separate from any application or invoice fees.
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INSTRUCTIONS FOR ELECTRONIC SUBMISSION:

Please refer to the application checklist (attached) for a detailed list of submission requirements.

1. Fill out the application completely and e-mail the **application only** to planning@portlandmaine.gov (Please be sure to designate a person who will be responsible for uploading documents and drawings.) This step will generate the project ID number for your project.
2. An invoice for the application fee will be e-mailed to you. Payments can be made on-line at [Pay Your Invoice](#), by mail or in person at City Hall, 4th Floor. Please reference the Application Number when submitting your payment which is located in the upper left hand corner of the invoice.
3. The designated person responsible for uploading documents and drawings will receive an email from eplan@portlandmaine.gov with an invitation into the project. At this time, you will upload all corresponding documents and plans into the project. For first time users you will receive a temporary password which you must change on entry. Make note of your username and password for any future projects.

Reminder: Before the project can move forward, the application fee shall be paid in full and all required documents and drawings shall be uploaded into e-plan correctly.

4. Follow the link below (Applying Online Instructions) for step by step instructions on how to do the following:
Tab 1 - Setting up the appropriate compatibility settings for your PC and getting started in e-plan.
Tab 2 - Preparing your drawings, documents and photos for uploading using the correct naming conventions
Tab 3 - Preparing and uploading revised drawings and documents

Applying Online Instructions

5. When ready, upload your files and documents into the following folders:
"Application Submittal – Drawings"
"Application Submittal – Documents"
6. Once a preliminary check has been made of the submittal documents and drawings, staff will move them to permanent folders labeled Drawings and Documents. As the process evolves you will be able to log in and see markups, comments and upload revisions as requested into these folders.

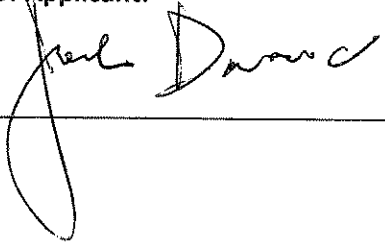
APPLICANT SIGNATURE:

By digitally signing the attached document(s), you are signifying your understanding this is a legal document and your electronic signature is considered a **legal signature** per Maine state law.

I hereby certify that I am the Owner of record of the named property, or that the owner of record authorizes the proposed work and that I have been authorized by the owner to make this application as his/her authorized agent. I agree to conform to all applicable laws of this jurisdiction. In addition, if a permit for work described in this application is issued, I certify that the Planning Authority and Code Enforcement's authorized representative shall have the authority to enter all areas covered by this permit at any reasonable hour to enforce the provisions of the codes applicable to this permit.

This application is for a Master Development Plan review. It is not a permit to begin construction. An approved site plan, a Performance Guarantee, Inspection Fee, Building Permit, and associated fees will be required prior to construction. Other Federal, State or local permits may be required prior to construction, which are the responsibility of the applicant to obtain.

Signature of Applicant:

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

Date:

1/9/17

PROJECT DATA

The following information is required where applicable, in order complete the application.

Total Area of Site	2.58 AC	sq. ft.
Proposed Total Disturbed Area of the Site	2.58	sq. ft.
If the proposed disturbance is greater than one acre, then the applicant shall apply for a Maine Construction General Permit (MCGP) with DEP and a Stormwater Management Permit, Chapter 500, with the City of Portland		
Impervious Surface Area		
Impervious Area (Total Existing)	2.43 AC	sq. ft.
Impervious Area (Total Proposed)	2.50 AC	sq. ft.
Building Ground Floor Area and Total Floor Area		
Building Footprint (Total Existing)	2,950	sq. ft.
Building Footprint (Total Proposed)	96,392	sq. ft.
Floor Area (Total Existing)	5,900	sq. ft.
Floor Area (Total Proposed)	483,870	sq. ft.
Zoning		
Existing	B5b	
Proposed, if applicable	B5b	
Land Use		
Existing	LUMBER RETAIL	
Proposed	RETAIL / RESIDENTIAL	
Residential, If applicable		
# Residential Units (Total Existing)	0	
# Residential Units (Total Proposed)	275	
# Number of Lots (Total Proposed)	1	
# Affordable Housing Units (Total Proposed)	TBD	
Proposed Bedroom Mix		
# Efficiency Units (Total Proposed)	40	
# One-Bedroom Units (Total Proposed)	117	
# Two-Bedroom Units (Total Proposed)	101	
# Three-Bedroom Units (Total Proposed)	17	
Parking Spaces		
# Parking Spaces (Total Existing)		
# Parking Spaces (Total Proposed)	386	
# Handicapped Spaces (Total Proposed)	8	
Bicycle Parking Spaces		
# Bicycle Spaces (Total Existing)	0	
# Bicycle Spaces (Total Proposed)	131	
Estimated Cost of Project		
	TBD	

MASTER DEVELOPMENT PLAN SUBMISSIONS			
Applicant Checklist	Planner Checklist	# of Copies	GENERAL WRITTEN SUBMISSIONS CHECKLIST Sec. 14-527 (c) and (e)
✓		1	Completed Application form
✓		1	Application fees
✓		1	Written description of project
✓		1	A written statement and/or plan as to the general impact of the proposed Master Development plan upon the area, relationship to surrounding properties, and measures to create appropriate transitions and access to abutting public properties and neighboring tracts.
✓		1	Evidence of right, title and interest
✓		1	Evidence of state and/or federal approvals, if applicable
✓		1	Written assessment of proposed project's compliance with applicable zoning requirements
✓		1	Summary of existing and/or proposed easement, covenants, public or private rights-of-way, or other burdens on the site
✓		1	Written requests for waivers from site plan or technical standards, if applicable
✓		1	Evidence of financial and technical capacity
✓		1	General statements concerning storm water management techniques.
✓		1	Traffic Analysis and recommendations prepared by a registered professional engineer, including current traffic counts, existing street capacity, traffic generation projections, and ability to absorb the increased traffic. If Traffic Movement Permit applies, the TMP submissions and review supersede. (Section 14-527 (e) xii)
✓		1	Utilities analysis and recommendations prepared by registered professional engineer. (see utility plan below) Analysis shall assess capacity, identify deficiencies and recommend improvements, including timing, funding mechanisms and coordination with City (14-527 (e) xiii)
Applicant Checklist	Planner Checklist	# of Copies	SITE PLAN SUBMISSIONS CHECKLIST Sec. 14-527 (c) and (e)
✓		1	Boundary Survey meeting the requirements of Section 13 of the City of Portland's Technical Manual
✓		1	Master Development Plan Site Plan including the following: (information provided may be preliminary in nature during preliminary plan phase) – scale not less than 1 inch equaling 50 feet
✓			Neighborhood context map, at a scale not less than 1 inch 100 feet
✓			Approximate boundary lines of existing and proposed lots with areas and dimensions
✓			Plan show north arrow, date, scale, legend, title Master Development Concept Site Plan, followed by project name, applicant, engineer, designer, and/or agents
✓			For residential areas, proposed density, lot configuration, circulation and plot plan
✓			Analysis of natural features of the site, including natural waterways, wetlands, floodplains, topography, soil conditions and other natural features
✓			Analysis of designated view corridors, historic resources, and archeological resources associated with the site
✓			Existing/proposed buildings and other significant structures, building groupings, exterior building elevations and entrances, parking areas and other significant physical features of the site

✓		Context drawings, perspective renderings, photographic montages, or computer generated graphics depicting the proposed development within the surrounding building and environmental context
✓		Building elevation drawings shall include:
✓		• Illustration of all sides of the structures
✓		• Views of major entries or prominent building features
✓		• Illustration of building articulation and elements
✓		• Building finish composition
✓		• Pedestrian and streetscape elements of the Master Development Plan
		Digital 3-D model tied to specific location that is submitted as a KML, KMZ, DXF or DWG file on a CD or DVD or such format as approved by the Planning Authority (Sec. 14527 (e)2)
✓		Major circulation patterns surrounding and serving the site, existing and proposed street lines, ways, easement and public areas within or next to the site
✓		Major landscaping elements, features, open space, and plans for preservation of natural features
		Analysis of the public safety services needed to support the Master Development Plan
✓		Analysis of the anticipated impacts on the public school system to support the Master Development Plan
✓		Generalized drainage plan for the site, drainage ways, flows, points of outfall and indicating impacts of development on affected drainage basins. Contour information at not less than 2 ft. intervals and document run-off characteristics
✓		Inventory of existing utilities (storm water, sanitary, electrical, fire alarm boxes & lines, gas, water, lighting, curb and gutter and etc.) illustrating locations, sizes, diameters carrying capacity and present load

CITY OF PORTLAND WASTEWATER CAPACITY APPLICATION

Department of Public Services,
55 Portland Street,
Portland, Maine 04101-2991



Bradley Roland, P.E.
Water Resources Division

Date: _____

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

Site Address: 323 Commercial Street

Chart Block Lot Number: 42/A/1

Proposed Use: Retail / Residential

Previous Use: Lumber Yard

Existing Sanitary Flows: TBD GPD

Existing Process Flows: 0 GPD

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

Commercial Street

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

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

2. Please, Submit Contact Information.

City Planner's Name: TBD Phone: _____

Owner/Developer Name: _____

Owner/Developer Address: _____

Phone: _____ Fax: _____ E-mail: _____

Engineering Consultant Name: _____

Engineering Consultant Address: _____

Phone: _____ Fax: _____ E-mail: _____

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: 42,150 GPD

Peaking Factor/ Peak Times: _____

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

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.

Flow Calculations:

Retail - 45 employees @ 12 gpd = 540 gpd
 (157) Efficiency / 1 BR units @ 120 gpd = 18,840 " "
 (101) 2 BR units @ 180 gpd = 18,180 "
 (17) 3 BR units @ 270 gpd = 4,590 "
 TOTAL = 42,150 gpd

4. Please, Submit External Grease Interceptor Calculations.

Total Drainage Fixture Unit (DFU) Values:

TBD

Size of External Grease Interceptor:

Retention Time:

Peaking Factor/ Peak Times:

Note: In determining your restaurant process water flows, and the size of your external grease interceptor, please use The Uniform Plumbing Code. Note: In determining the retention time, sixty (60) minutes is the minimum retention time.

Note: Please submit detailed calculations showing the derivation of your restaurant process water design flows, and please submit detailed calculations showing the derivation of the size of your external grease interceptor, either in the space provided below, or attached, as a separate sheet.

5. Please, Submit Industrial Process Wastewater Flow Calculations

Estimated Industrial Process Wastewater Flows Generated:

N/A

GPD

Do you currently hold Federal or State discharge permits?

Yes No

Is the process wastewater termed categorical under CFR 40?

Yes No

OSHA Standard Industrial Code (SIC):

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

Peaking Factor/Peak Process Times:

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

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

PURCHASE AND SALE AGREEMENT

This Purchase and Sale Agreement ("Agreement") is made and entered into as of this 8TH day of July 2016 (the "Effective Date"), by and between Milliken Smith Block, LLC, a Maine limited liability company with a mailing address of c/o William M. Moody Jr., 5 High Street, Yarmouth, ME., 04096 ("Seller") and Deering Property Development LLC, a Maine limited liability company with a mailing address of 2730 Transit Road, West Seneca, New York 14224 Attn: Gordon Reger ("Buyer").

In consideration of the mutual covenants and promises hereinafter set forth, Seller and Buyer agree as follows:

1. PREMISES. Seller agrees to sell and Buyer agrees to purchase, on the terms and conditions contained in this Agreement, the approximately 110,000 square foot parcel of land located at or near 383 Commercial Street in Portland, Cumberland County, Maine, and bounded by Commercial Street, High Street, York Street, and Maple Street, and all other improvements remaining thereon on the date of Closing and all rights and easements appurtenant thereto (together, the "Premises"). The Premises is approximately depicted on Exhibit A attached hereto and shown on Tax Map 42, Block A as Lot 1. The Premises does not include the building currently occupied by the Charter School and related land located on the northwest corner of the block described above and depicted on Tax Map 42, Block A as Lot 7, and the related 15-foot wide passageway depicted on Tax Map 42, Block A as Lot 8 (together, the "Charter School Property"). The Premises does not include the lumber business currently operated on the Premises by Rufus Deering Lumber Company ("RDC") pursuant to a lease by and between Seller and RDC (the "RDC Lease").

2. PURCHASE PRICE Subject to any adjustments and prorations hereinafter described, the purchase price for the Premises shall be [REDACTED] Dollars per square foot of land area in the Premises, which would be [REDACTED] (\$ [REDACTED]) based on the estimated land area of 110,000 square feet, to be paid by immediately-available funds at the Closing. The actual purchase price paid by Buyer at Closing shall be calculated using the foregoing price per square foot and the actual land area of the Premises as determined according to an ALTA/NSPS survey of the Premises performed by a reputable surveyor, which Buyer agrees to obtain at Buyer's expense.

Handwritten signature/initials
1-6-16

Promptly upon full execution of this Agreement, Buyer shall deliver to Malone Commercial ("Escrow Agent"), an earnest money deposit (the "Deposit") in the amount of [REDACTED] U.S. Dollars (\$ [REDACTED]), as security for Buyer's performance under this Agreement. The Deposit shall be held in escrow by Escrow Agent pursuant to this Agreement. Upon the expiration of the initial 60-day Inspection Contingency Period, unless Buyer has terminated this Agreement, the Deposit shall become non-refundable.

If Buyer has not terminated this Agreement by the expiration of the Inspection Contingency Period and not terminated this agreement pursuant to Buyer's Approvals Contingency in Paragraph 6 below, Buyer shall make the following monthly payments, all of which payments shall be nonrefundable (except in the event of a Seller default) and included in the definition of Deposit:

(a) Beginning on or before ninety (90) days from the Effective Date and continuing on or before the first day of each month until [REDACTED] Buyer shall deliver to Escrow Agent [REDACTED] Dollars (\$ [REDACTED]) per month, prorated for any portion of a month.

(b) Beginning [REDACTED], and continuing on or before the first day of each month until [REDACTED] Buyer shall deliver to Escrow Agent [REDACTED] Dollars (\$ [REDACTED]) per month, prorated for any portion of a month.

(c) Beginning [REDACTED], and continuing on or before the first day of each month until the Approvals Contingency Period Expiration, Buyer shall deliver to Escrow Agent [REDACTED] Dollars (\$ [REDACTED]) per month, prorated for any portion of a month.

Buyer shall not be in default of this Agreement for failure to make any of the Deposit payments above unless and until Buyer fails to make such payment within seven (7) days of when due. All of the Deposit shall be credited towards the purchase price at the Closing or otherwise disbursed in accordance with this Agreement.

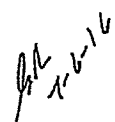
3. TITLE. Seller shall convey the Premises to Buyer at the Closing in fee simple, subject to the Permitted Encumbrances (as defined below), but free and clear of all liens, except for liens for real estate taxes not yet due and payable. Seller may, at the time of delivery of the deed, use the purchase proceeds or any portion thereof to clear the title of liens and encumbrances that are not Permitted Encumbrances, including without limitation consideration for the early termination of the RDC lease, provided that all instruments so procured are delivered simultaneously with the delivery of the deed.

Within sixty (60) days of the Effective Date (the "Title Review Period"), Buyer shall notify Seller in

Handwritten signature/initials

writing (the "Title Objection Notice") of matters of record at the Cumberland County Registry of Deeds adversely affecting title to the Premises that are objectionable to Buyer in Buyer's sole discretion ("Title Defects"). Buyer shall be deemed to have waived the right to object to any matter affecting title as of the Effective Date, excluding any mortgage, tax lien, mechanics' lien, judgment lien, or other liens encumbering the Premises (for which no title objection is required), if Buyer fails to specifically identify such matters in the Title Objection Notice (each matter not objected to being a "Permitted Encumbrance"). The RDC Lease shall not be a Permitted Encumbrance. Seller shall use good faith efforts to cure such Title Defects and shall have a period of not more than sixty (60) days after Seller's receipt of the Title Objection Notice within which to cure any such Title Defects (the "Title Cure Period"). Seller agrees that after the Effective Date, it shall not permit or suffer encumbrance of the Premises with any liens, easements, leases, or other encumbrances. On or before the Closing, Seller shall remove at its sole cost any matters affecting the title to the Premises suffered or created by or consented to by Seller, whether voluntarily or involuntarily, after the Effective Date that are not approved in writing by Buyer. If Seller fails to cure any Title Defects within the Title Cure Period, then Buyer shall elect, by written notice to Seller on or before ten (10) days from the expiration of the Title Cure Period, either (i) to accept title to the Premises subject to such uncured Title Defects without reduction of the purchase price and without any liability on the part of Seller therefor, in which case such Title Defects shall be Permitted Encumbrances, or (ii) to terminate this Agreement, whereupon the Deposit immediately shall be returned to Buyer and neither party shall have any further obligations under this Agreement, except for provisions that expressly survive termination. In the event that Buyer does not timely elect either option (i) or (ii) above, Buyer shall be deemed to have elected option (i).

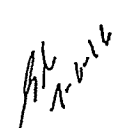
4. BUYER'S INSPECTION AND INVESTIGATIONS CONTINGENCY. Buyer or its agents may enter onto the Premises at any time after the date of this Agreement until the Closing, subject to compliance with the conditions below in this paragraph 4, in order to conduct surveys, engineering studies, soil studies, and such other investigations of the Premises as Buyer elects. Following the exercise of any of Buyer's inspection rights hereunder, Buyer promptly shall use reasonable efforts to restore any portion of the Premises disturbed to its condition prior to disturbance. Buyer shall indemnify and hold Seller harmless for all claims, damages, causes of action, judgments, penalties, fines, costs and expenses, including without limitation attorneys', paralegals' and expert witnesses' fees and court costs, incurred by Seller in connection with the exercise by Buyer or its employees, agents, or contractors, of the investigation and inspection rights contained in this paragraph except for pre-existing conditions and matters



resulting from Seller's negligence, which indemnity shall survive the Closing or any termination of this Agreement. Buyer also intends to investigate the zoning and other land use restrictions on the Premises, which investigations may include discussions with City of Portland officials, and investigate the feasibility of development of the Premises. In the event that Buyer is not satisfied with any of Buyer's inspections or other investigations of the Premises or the potential development of the Premises, in Buyer's sole discretion, Buyer shall so notify Seller in writing (which notice does not have to set forth the reasons for termination) within [REDACTED] days from the Effective Date (the "Inspection Contingency Period"), whereupon this Agreement shall automatically terminate, and the Deposit promptly shall be returned to Buyer, and thereafter, neither party shall have any further obligations under this Agreement, except for indemnities and other provisions that expressly survive termination. In the event that Buyer does not terminate this Agreement by the expiration of the Inspection Contingency Period, Buyer shall be deemed to have waived the foregoing inspection contingency. In the event that Buyer terminates this Agreement pursuant to this Section 4, Buyer shall deliver to Seller simultaneously with such termination notice copies of all reports, studies, plans, surveys, title insurance commitments, and other matters prepared by or for Buyer in connection with its inspections and investigations.

Buyer shall coordinate all due diligence that requires physical inspection or investigation on the Premises with Seller and have such on-site work performed when RDC is not open to the public and only after Seller approves by email the scope, time, and manner of any physical inspection or investigation on the Property, such approval not to be unreasonably withheld, conditioned, or delayed. All of Buyer's due diligence reports relating to the Premises will be owned by Buyer. Buyer shall have such reports certified to Seller, or provide Seller with a reliance letter from the consultant producing such reports, and deliver copies of such reports to Seller, all to the end that Seller may rely on such reports in the event that Buyer does not proceed with the purchase of the Premises. Seller shall not use or disclose the contents of any such report unless the Agreement is terminated or the Closing otherwise fails to occur. Buyer shall obtain from those due diligence consultants conducting on-site investigations confidentiality agreements reasonably satisfactory to Seller, for the benefit of Seller and RDC, the parties acknowledging that RDC's business could be adversely impacted if the potential sale of the Premises became known to RDC's employees or the public.

5. SELLER DELIVERABLES. Within five (5) days of the Effective Date, Seller shall deliver to Buyer the following: (i) a copy of any surveys and plans of the Premises; (ii) any Phase I or Phase II Environmental

A handwritten signature in black ink, appearing to be "H. A. Wilk", is located in the bottom right corner of the page.

Site Assessments; (iii) copies of any soils engineering reports, all to the extent such items are in Seller's possession or control that are in effect on the date of this Agreement (together, the "Seller Deliverables"). For purposes of this paragraph, "control" means in the possession of a person who Seller has contractually engaged to provide services to Seller. Buyer acknowledges and agrees that (a) the Seller Deliverables are being provided by Seller to Buyer as a courtesy, and therefore, Seller makes no representation or warranty regarding the accuracy and/or completeness of the Seller Deliverables, and (b) Buyer and any person to whom Buyer provides the Seller Deliverables shall rely on the same at their own risk.

Buyer agrees, acknowledges and represents that except as specifically set forth in this Agreement, Buyer is entering into this Agreement and shall perform all of its obligations hereunder and consummate the transaction contemplated by this Agreement solely in reliance on and as a result of Buyer's own investigations and efforts (including Buyer's inspection of the Premises and such other investigations, examinations and inspections as Buyer has chosen to make or has made) and at Buyer's sole risk, cost and expense, including, without limitation, the risk that Buyer's inspection of the Premises and such other investigations, examinations and inspections may not reveal any or all adverse or existing conditions, aspects or attributes of the Premises. Buyer acknowledges that Seller has afforded, and, during the Inspection Contingency Period, shall afford, Buyer the opportunity for full and complete investigation, examination and inspection of the Land. Buyer acknowledges that this paragraph was a negotiated part of this Agreement and serves as an essential component of consideration for the same. Without limiting the generality of the foregoing, the parties specifically acknowledge that Buyer has had, and, during the Inspection Contingency Period shall have, an opportunity to fully inspect the Premises, including, but not limited to, the physical condition of the Premises (including all environmental concerns), and the purchase price has been negotiated to eliminate all claims except those arising under representations, warranties or agreements contained in this Agreement, whether known or unknown, relating to the condition of the Premises as of the date of this Agreement and all aspects and attributes thereof, including, without limitation, all environmental matters. Buyer acknowledges and agrees that Seller has made and shall make no representation or warranty with respect to the Premises, except as expressly set forth in this Agreement. The Premises shall be sold and conveyed "AS IS, WHERE IS" without representation or warranty of any kind except as otherwise explicitly set forth herein.

6. BUYER APPROVALS CONTINGENCY. Buyer's obligation to close on the purchase of the

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Premises shall be conditioned upon Buyer's receipt of all necessary, final and unappealable, land-use approvals (the "Approvals") for Buyer's intended development of the Premises (the "Development") by [REDACTED]. Buyer shall notify Seller of the Approvals required for the Development by [REDACTED], which notification shall include Buyer's estimate of the milestone dates to obtain the Approvals. In the event that Buyer is unable to obtain the Approvals by [REDACTED], Buyer's approvals contingency deadline automatically shall be extended to [REDACTED], provided that Buyer continues to make good faith effort to obtain the Approvals. In the event that Buyer is unable to obtain the Approvals (or Buyer's earlier determines in its sole discretion that the Approvals are unlikely to be obtained) by [REDACTED] or [REDACTED], if the Approvals deadline is extended as provided above (as such date is determined, the "Approvals Contingency Expiration"), Buyer shall so notify Seller in writing on or before the Approvals Contingency Expiration whereupon this Agreement shall automatically terminate, and the Deposit shall be delivered by Escrow Agent to Seller and thereafter neither party shall have any further obligations under this Agreement, except for indemnities and other provisions that expressly survive termination. Seller agrees to cooperate with Buyer is applying for and seeking any Approvals, such cooperation to include joining as the land owner in any applications for Approvals, provided that Seller shall not be obligated to incur any material out-of-pocket expense to provide such cooperation.

7. CLOSING: DEED. The closing shall take place on the business day that is closest to sixty (60) days from the Approvals Contingency Expiration at 10:00 a.m., at the offices of Bernstein Shur, 100 Middle Street, Portland, Maine, or at such other time and place as Seller and Buyer may mutually agree upon in writing (as determined, the "Closing"). At the Closing, Seller shall execute and deliver to Buyer, or Buyer's nominee, against payment of the balance of the purchase price, a Quitclaim Deed with Covenant for the Premises in accordance with the Short Form Deeds Act, 33 M.R.S.A. 761 et seq. (the "Deed"). Seller also shall execute and deliver to Buyer at the Closing the following: a customary and reasonable title insurance Seller's Affidavit regarding persons in possession and mechanics' liens; a 1099-S data form, a FIRPTA affidavit; REW-3; W-9 form; an underground storage tank affidavit to comply with 38 M.R.S.A. § 563(6); evidence of Seller's existence and authority to satisfy the customary seller authority requirements for issuance of an owner's title insurance policy; a real estate transfer tax declaration of value form; and a settlement statement.

8. REPRESENTATIONS.

- (a) Except as actually known to Buyer prior to Closing as a result of Buyer's investigations of the

GA
1-6-16

Land, Seller represents and warrants to Buyer as follows, which representations and warranties, and the restatement thereof at Closing, shall survive Closing for a period of one (1) year:

(i) Seller has the legal right, power and authority to enter into this Agreement and to perform all of its obligations hereunder, and the execution and delivery of this Agreement and the performance by Seller of its obligations hereunder will not conflict with, or result in breach of any regulation, order, judgment, injunction or decree of any court or governmental authority or any agreement or instrument to which Seller is a party or by which it is bound.

(ii) There are no tenancies, occupancies or licenses affecting the Premises, except for the RDC Lease.

(b) Buyer has the legal right, power and authority to enter into this Agreement and to perform all of its obligations hereunder, and the execution and delivery of this Agreement and the performance by Buyer of its obligations hereunder will not conflict with, or result in breach of any regulation, order, judgment, injunction or decree of any court or governmental authority or any agreement or instrument to which Buyer is a party or by which it is bound.

9. AFFIRMATIVE COVENANTS OF SELLER. Seller agrees, pending closing, that:

(a) Seller shall pay, when due, all taxes and assessments of every type or nature levied or assessed against the Premises and any valid lien against the Premises.

(b) Seller (i) shall not commit or suffer waste and (ii) shall materially comply with all laws, ordinances, regulations, covenants, conditions and restrictions affecting the Premises and will not suffer or permit any material violation thereof.

10. ADJUSTMENTS, PRORATIONS AND CLOSING COSTS.

(a) Real estate taxes and municipal assessments shall be prorated as of the Closing on the basis of the latest available tax bill.

(b) The Maine real estate transfer tax shall be paid equally by Seller and Buyer in accordance with 36 M.R.S.A. Section 4641-A.

(c) The recording fee for the deed of conveyance and any expenses related to any financing for Buyer in connection with the purchase of the Premises shall be paid by Buyer.

Handwritten signature/initials

(d) A portion of the purchase price shall be withheld at the Closing by Buyer if required by 36 M.R.S.A. § 5250-A.

11. POSSESSION. Seller shall deliver possession of the Premises to Buyer at the Closing, free of all leases, tenancies or occupancies, including without limitation the RDC Lease. Seller or RDC may remove from the Premises any and all equipment, fixtures and improvements provide that no debris or waste therefrom remains on the Premises and none of RDC's hazardous, toxic, or special materials inventory or wastes remain on the Premises. RDC shall have the right to occupy the Premises for the operation of its business until the Closing.

12. DEFAULT; REMEDIES. In the event that Buyer fails to close hereunder for a reason other than the default of Seller, Seller may terminate this Agreement by written notice to Buyer and thereupon Seller shall be entitled to the Deposit as Seller's sole and exclusive remedy for Buyer's breach, and Escrow Agent shall be authorized to disburse the Deposit to Seller. Seller and Buyer acknowledge and agree that the damages for Buyer's breach of this Agreement are difficult to calculate and that the Deposit is a reasonable estimate of such damages. In the event that Seller breaches this Agreement for a reason other than the default of Buyer, Buyer shall be entitled to either (i) terminate this Agreement by written notice to the Seller, in which case Buyer shall be entitled to a return of the Deposit and Escrow Agent shall be authorized to disburse the Deposit to Buyer or (ii) pursue the remedy of specific performance. In the event of litigation regarding breach of this Agreement by either party, the party who obtains a final, un-appealable judgment in its favor shall be entitled to collect its reasonable attorneys' and paralegals' fees and court costs from the other party.

13. BROKERAGE/ESCROW AGENT. Seller and Buyer each represent to the other that they have not dealt or had contact with any broker in connection with this transaction other than Malone Commercial. Seller shall pay Malone Commercial a commission equal to [REDACTED] of the purchase price at the Closing, and Buyer shall pay Malone Commercial a commission equal to [REDACTED] of the purchase price at the Closing.

14. MISCELLANEOUS.

(a) Time. Time is of the essence hereof.

(b) Notices. Except as expressly provided to the contrary in this Agreement, all notices,

Handwritten signature/initials

demands and other communications hereunder shall be in writing and shall be given by electronic mail: if to Seller:

William Moody ([REDACTED]) and Mike Pearce (mpearce@pearcedow.com), and if to Buyer: Gordon Reger ([REDACTED]) and Tom Hanson (thanson@bssn.com), with a copy of such notice to Seller or Buyer at their addresses set forth in the preamble to this Agreement sent by certified mail, return receipt requested. Notices and communications of any kind shall never be sent to Bill Moody or anyone else at RDC or care of the RDC address. All notices shall be deemed to have been duly given if the electronic mail time stamp is prior to the expiration date and time specified herein. Attorneys are authorized to give notices on behalf of their clients. Either party may change the notice electronic mail addresses and certified mail notice addresses for purposes of this subparagraph by giving the other party notice of the new address in the manner described herein.

(c) Assignment. Buyer's rights under this Agreement may not be assigned without Seller's prior written approval, which approval shall be conditioned on Seller being satisfied that Buyer's assignee has in Seller's opinion the financial ability to acquire the Premises; notwithstanding the foregoing, Buyer may assign this Agreement to any entity of which Reger Holdings, LLC or Gordon Reger or his family or some combination thereof are the controlling principals without Seller consent, but with notice to the Seller. Buyer shall remain liable under this Agreement notwithstanding any such assignment. This Agreement will inure to the benefit of and bind the respective successors and assigns of Seller and Buyer.

(d) 1031 Exchange. Seller may elect to perform an IRC §1031 tax deferred exchange. Buyer agrees to cooperate in such an exchange and to sign the documents customarily used in such an exchange, provided that such documents do not modify the terms and conditions of this Agreement or impose additional liabilities or obligations on Buyer.

(e) Entire Agreement. This Agreement constitutes the entire agreement between Seller and Buyer with respect to the sale of the Premises, and there are no representations, warranties, agreements or understandings between the parties except as set forth herein.

(f) Construction. This Agreement shall be governed by and construed in accordance with the laws of Maine, without taking into account choice of law principles. If any provision of this Agreement is determined to be invalid or unenforceable, it shall not affect the validity or enforcement of the remaining provisions hereof.

(g) Confidentiality. Seller, Buyer and Escrow Agent agree not to disclose the terms, conditions or existence of this Agreement to any persons except lawyers, accountants, financial advisors, lenders,

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appraisers, and consultants to the parties. The terms and conditions of a certain Confidentiality Agreement by and between Seller, RDC, Reger Holdings, LLC and Gordon Reger dated May 27, 2016 (the "CA"), are incorporated by reference. It shall not be a breach of this provision or the CA for Seller or its consultants to discuss the development of the Premises with City of Portland officials or to submit applications for Approvals to the City of Portland pursuant to Buyer's Approvals Contingency.

(h) Counterpart Execution. This Agreement may be executed in one or more counterpart signatures, and together the signed counterparts shall be deemed to be a fully-executed contract.

IN WITNESS WHEREOF, Seller and Buyer have executed this Agreement as of the date first above written.

WITNESS:

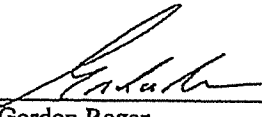
Seller: Milliken Smith Bock, LLC

By:

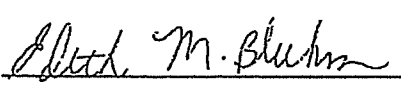
William Moody
Its duly-authorized Manager

Buyer: Deering Property Development LLC

By:



Gordon Reger
Its duly-authorized Manager



Malone Commercial Brokers as Escrow Agent

By:

Joseph Malone

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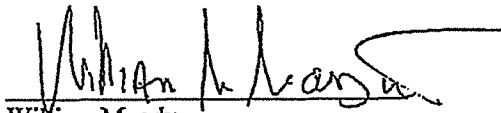
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IN WITNESS WHEREOF, Seller and Buyer have executed this Agreement as of the date first above written.

WITNESS:

Seller: Milliken Smith Bock, LLC



By: 
William Moody
Its duly-authorized Manager

Buyer: Deering Property Development LLC

By: _____
Gordon Reger
Its duly-authorized Manager

Malone Commercial Brokers as Escrow Agent

By: _____
Joseph Malone

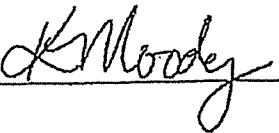
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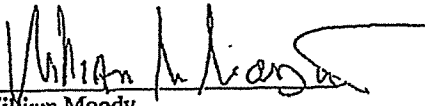
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WITNESS:

Seller: Milliken Smith Bock, LLC



By:



William Moody
Its duly-authorized Manager

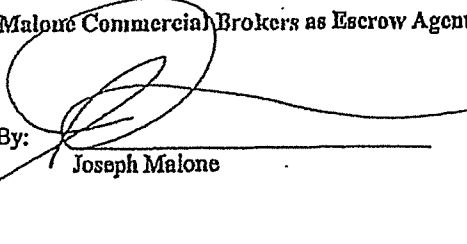
Buyer: Deering Property Development LLC

By:

Gordon Reger
Its duly-authorized Manager

Malone Commercial Brokers as Escrow Agent

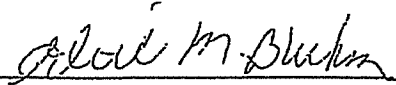
By:



Joseph Malone

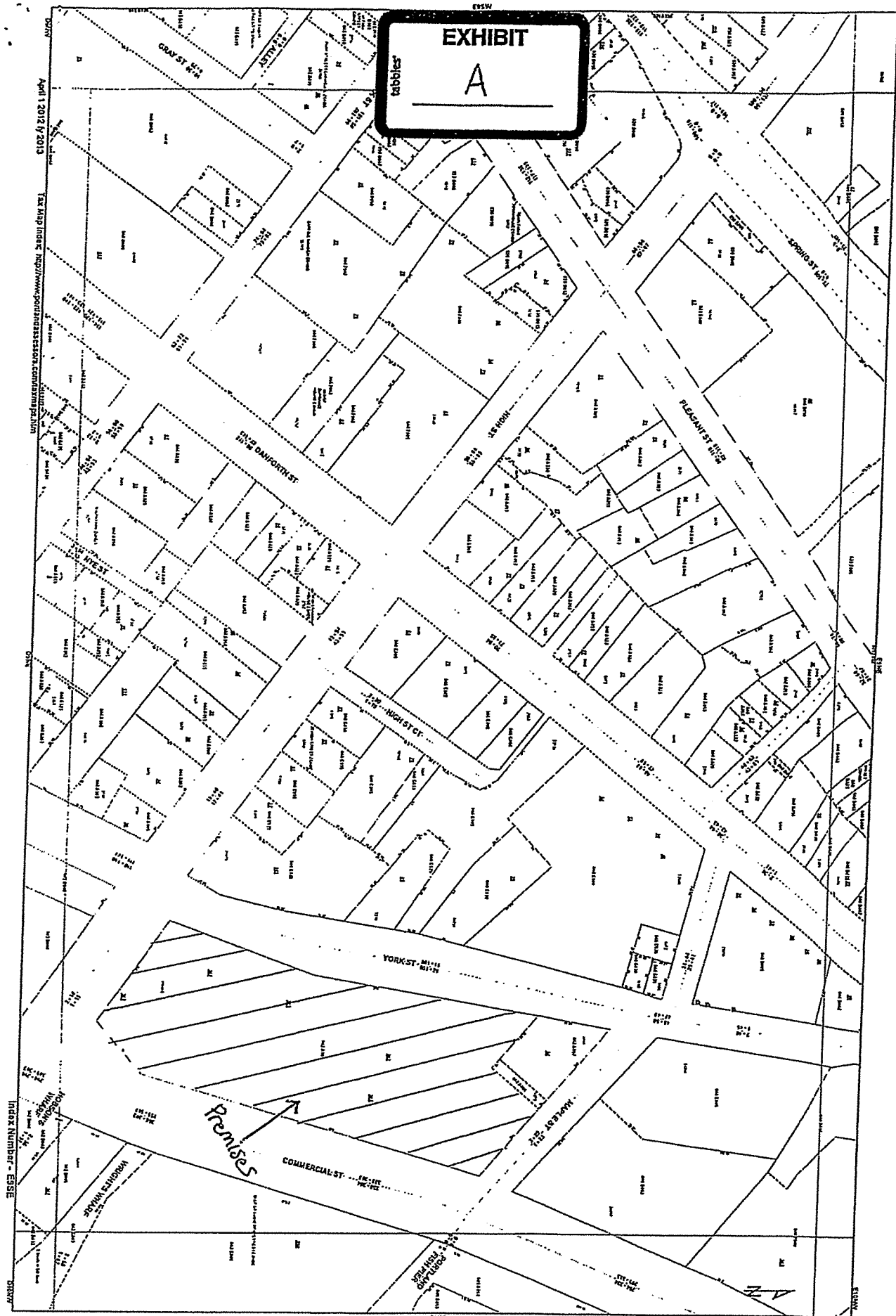
Reger Holdings, LLC hereby joins this Agreement, jointly and severally with Buyer, with respect to Buyer's obligations under this Agreement.

Reger Holdings, LLC



By:


Gordon Reger
Its duly-authorized Manager



EXHIBIT

A

Premises

Index Number - ESSE

SITE PLAN APPLICATION
383 COMMERCIAL STREET
WRITTEN SUBMISSION C – STATE/FEDERAL APPROVALS

STATE OF MAINE SITE LOCATION OF DEVELOPMENT ACT, CHAPTER 500 STORMWATER, AND TRAFFIC MOVEMENT PERMITS ARE REQUIRED FOR THIS PROJECT. THESE WILL BE SUBMITTED TO AND REVIEWED BY THE CITY INDER DELEGATED REVIEW AUTHORITY.

THERE ARE NO FEDERAL PERMITS REQUIRED.

SITE PLAN APPLICATION
383 COMMERCIAL STREET
WRITTEN SUBMISSION S2 – ZONING ASSESSMENT

THE PROJECT IS LOCATED WITHIN THE B5b ZONING DISTRICT , AND CONFORMS TO THE PURPOSE OF THE DISTRICT – TO REDEVELOP UNDERDEVELOPED LOTS WITH DENSER, MIXED USES THAT RELY ON SHARED INFRASTRUCTURE, INCLUDING SERVICE ALLEYS, PARKING LOTS, PUBLIC TRANSPORTATION FACILITIES, STORMWATER MANAGEMENT, AND DRIVEWAYS.

THE RETAIL, RESIDENTIAL , SURFACE PARKING AND PARKING GARAGE USES ARE ALL PERMITTED USES IN THE B5b DISTRICT.

IN THE B5b DISTRICT THERE ARE NO DIMENSIONAL REQUIREMENTS FOR LOT SIZE, STREET FRONTAGE, LOT COVERAGE NOR MINIMUM YARD SETBACKS. THE PROJECT CONFORMS TO THE REQUIREMENT OF A MAXIMUM FRONT YARD SETBACK OF 10 FEET.

THE AVERAGE FINISH GRADE AT THE BUILDING PERIMETER IS CALCULATED AS FOLLOWS “
ELEV 15.00 CORNER OF COMMERCIAL/ HIGH STREETS
ELEV 30.00 CORNER OF HIGH / YORK STREETS
ELEV 27.00 AT NW BUILDING CORNER/ YORK STREET
ELEV. 14.00 AT NE BUILDING CORNER / MAPLE STREET
ELEV. 12.00 CORNER OF MAPLE / COMMERCIAL STREET

ADDING THE ABOVE = 98 FEET DIVIDED BY FIVE DATA POINTS = 19.6 AVERAGE FINISH GRADE
MAXIMUM BUILDING HEIGHT = $19.60 + 65.00 = 84.60$ FEET
PROPOSED BUILDING HEIGHT = 84.00 FEET

THE PROJECT WILL CONFORM TO ALL OF THE PERFORMANCE STANDARDS IN THE B5b DISTRICT, AS STIPULATED IN ZONING SECTION 14 - 230.5.

ARCHETYPE HAS DESIGNED A BUILDING THAT COMPLIMENTS THE COMMERCIAL STREET CORRIDOR AND IS ENGAGED IN A REVIEW PROCESS WITH THE HP BOARD. A PUBLIC ACCESS WALKWAY WILL TRAVERSE THE SITE FROM YORK STREET TO COMMERCIAL STREET, LOCATED BETWEEN THE PHASE 1 AND PHASE 2 RESIDENTIAL TOWERS.

WITH RESPECT TO OFF STREET PARKING , 1 SPACE PER 275 UNITS = 275 SPACES. AT 1 PER 200 AFTER 2,000 SF, 104 SPACES ARE REQUIRED FOR RETAIL USES. $275 + 104 = 379$ SPACES REQUIRED ; 390 SPACES ARE PROPOSED. REQUIRED BICYCLE PARKING WILL BE PROVIDED IN THE TWO PLAZA SPACES ON COMMERCIAL STREET, AND WITHIN THE STORAGE AREAS ON THE TWO GARAGE LEVELS. TWO OFF STREET LOADING AREAS ARE PROPOSED, ONE ON MAPLE STREET AND ONE AT COMMERCIAL STREET.

SITE PLAN APPLICATION
383 COMMERCIAL STREET
WRITTEN SUBMISSION E – EASEMENTS

THERE ARE NO EXISTING OR PROPOSED EASEMENT AREAS RELATING TO THIS PROJECT .

SITE PLAN APPLICATION
383 COMMERCIAL STREET
WRITTEN SUBMISSION F - WAIVERS

1 . THE APPLICANT DOES NOT ANTICIPATE THAT ANY WAIVERS WILL BE REQUESTED.

SITE PLAN APPLICATION
383 COMMERCIAL STREET
WRITTEN SUBMISSION G- FINANCIAL AND TECHNICAL CAPABILITY

THE APPLICANT'S FINANCIAL AND TECHNICAL CAPABILITY IS EVIDENCED BY THE ATTACHED LETTER FROM ITS FINANCING PARTNER. ARCHETYPE PA HAS BEEN RETAINED AS PROJECT ARCHITECT, SEBAGO TECHNICS HAS BEEN RETAINED AS THE LANDSCAPE ARCHITECT / CIVIL ENGINEER.

THE APPLICANT HAS DEMONSTRATED ITS TECHNICAL ABILITY EVIDENCED BY ITS SUCCESSFUL COMPLETION OF THE BAY HOUSE, A MIXED USE RETAIL / RESIDENTIAL PROJECT WITH A PARKING GARAGE; AND SEAPORT LOFTS, A RESIDENTIAL PROJECT ; BOTH OF THESE ARE LOCATED IN THE INDIA STREET PROJECT.

ARCHETYPE IS AN EXPERIENCED PROFESSIONAL ARCHITECTURE AND PLANNING FIRM LOCATED ON THE PORTLAND WATERFRONT. THEIR STAFF, HEADED BY PRINCIPAL DAVID LLOYD, HAVE EXTENSIVE DESIGN TALENT AND KNOWLEDGE OF BUILDING CONSTRUCTION REQUIREMENTS.

SEBAGO TECHNICS, INC. IS PROVIDING LANDSCAPE ARCHITECTURE AND CIVIL ENGINEERING SERVICES FOR THE PROJECT. SEBAGO IS THE DESIGN FIRM OF RECORD FOR THE BAY HOUSE, SEAPORT LOFTS, MAINE MEDICAL CENTER, WHOLE FOODS , AND SEVERAL ADDITIONAL PROJECTS IN PORTLAND, INCLUDING PROJECTS FOR THE CITY .



**Newmark Grubb
Knight Frank**

December 22, 2016

Mrs. Barbara Barhydt
Portland Planning Staff
Portland City Hall
389 Congress Street
Portland, ME 04101

RE: Commercial Street in Portland

Dear Mrs. Barhydt:

I'm writing regarding the future development of Commercial Street in Portland being proposed by Reger Holdings. Our firm NGKF and my prior firm has acted as a financing intermediary for Reger Holdings for the past 15 years on numerous projects from condominiums to industrial. In the last 3 years alone, we arranged the financing for over \$100 million of development in Maine, Massachusetts and South Carolina. One example locally was the Bay House Condominiums in Downtown Portland; a \$20 million dollar construction loan arranged with a Boston Bank that had a very successful sellout.

NGKF Debt group in Boston has the capacity to finance large development projects thru our long term relationships. We also have access to sources thru our owner BGC Partners (NYSE: BGCP) and our proprietary lending platforms in Canter Commercial and Berkeley Point Capital.

Reger Holdings is a third generation well respected real estate company with numerous holdings and experience. The company is run and spearheaded by Mr. Gordon Reger. Our dealing with him and his firm have always been handled in a first class manner. As a result, we would highly recommend Reger Holdings for the development of Commercial Street.

If I can be of any assistance in your decision, please do not hesitate to give me a call. Thank you.

Regards,

David M. Douvadjian



Head of Mortgage Banking

New England

(617) 863-8388

ddouvadjian@ngkf.com

SITE PLAN APPLICATION
383 COMMERCIAL STREET
WRITTEN SUBMISSION H- BOUNDARY SURVEY

THE BOUNDARY SURVEY HAS BEEN COMPLETED AND IS SUBMITTED AS PLAN SUBMISSION – PLAN 2.

SITE PLAN APPLICATION
383 COMMERCIAL STREET
WRITTEN SUBMISSION J – TRAFFIC STUDY

THE APPLICANT HAS COMPLETED A TRIP GENERATION BASED UPON THE ITE TRIP GENERATION MANUAL, WHICH IS ATTACHED. THE PROJECT WILL REQUIRE A TRAFFIC MOVEMENT PERMIT IN THE 100 TO 200 TRIP CATEGORY.

ONCE THE PROJECT HAS BEEN ASSIGNED THE APPLICANT WILL MEET WITH APPROPRIATE CITY STAFF TO DEVELOP THE DATA REQUESTED PRIOR TO A FORMAL SCOPING MEETING.

SEBAGO

T E C H N I C S

CIVIL ENGINEERING • SURVEYING • LANDSCAPE ARCHITECTURE

Memorandum

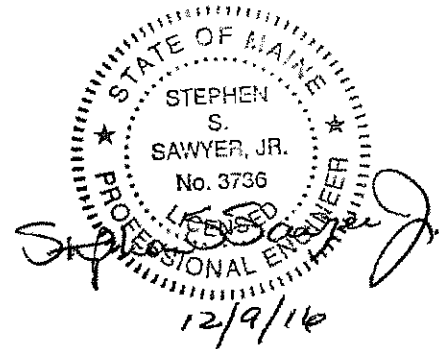
16324

To: Will Conway

From: Steve Sawyer/Derek Caldwell

Date: December 9, 2016

Subject: Trip Generation
383 Commercial Street Development



Per your request, we have completed Trip Generation calculations for the proposed retail and condominium project located at 383 Commercial Street in Portland, Maine. It is our understanding that the proposed development will include 22,691 square feet of retail at ground level on Commercial Street and a total of 275 condominium units on the second thru fifth floors. The project will also include a 390-space parking garage. 197 of these spaces will be accessed by an entrance on Maple Street and 193 will be accessed by an entrance on York Street.

Trip Generation

Using the 9th Edition of ITE's Trip Generation Manual we have estimated the following trip generation shown within Tables 1 and 2 located on the following page. The retail spaces and condominiums have ITE land uses of 826 – Specialty Retail Center and 230 – Residential Condominium/Townhouse, respectively. The proposed full build development includes 22,691 square feet of retail space and 275 condominium units.

Table 1: Trip Generation
Land Use 826 – Specialty Retail Center
(22,691 Square Feet)

Time Period	Trip Generation Rate (trips/1,000 square feet)	Total Trips	Entering	Exiting
Weekday (Daily)	44.32/KSF	1006	503	503
AM Peak Hour of Adjacent Street (7-9 AM)	0/KSF ^A	0	0	0
PM Peak Hour of Adjacent Street (4-6 PM)	2.71/KSF	61	27	34
AM Peak Hour of Generator	6.84/KSF	155	68	87
PM Peak Hour of Generator	5.01/KSF	114	50	64
Saturday (Daily)	41.04/KSF	934	477	457
Saturday Peak Hour of Generator	6.49/KSF ^B	147	65	82
Sunday (Daily)	10.43/KSF	464	232	232
Sunday Peak Hour of Generator	1.32/KSF ^B	72	36	36

- A. Trip generation estimate not available for AM Hour of Adjacent Street. It is assumed that this land use will not produce trips during this time period.
- B. Trip Generation data for Saturday Peak and Sunday Peak is not provided. Rate calculated by a ratio of the weekend and weekday daily rates to find peak hourly rate

Table 2: Trip Generation
Land Use 230 – Residential Condominium/Townhouse
(275 Units)

Time Period	Trip Generation Formula	Total Trips	Entering	Exiting
Weekday (Daily)	$\ln(T) = 0.87 \ln(X) + 2.46$	1350	775	775
AM Peak Hour of Adjacent Street (7-9 AM)	$\ln(T) = 0.80 \ln(X) + 0.26$	116	20	96
PM Peak Hour of Adjacent Street (4-6 PM)	$\ln(T) = 0.82 \ln(X) + 0.15$	138	92	46
AM Peak Hour of Generator	$\ln(T) = 0.82 \ln(X) + 0.32$	116	72	54
PM Peak Hour of Generator	$T = 0.34(X) + 35.87$	129	83	47
Saturday (Daily)	$T = 1.62(X) - 427.91$	1424	712	712
Saturday Peak Hour of Generator	$T = 0.29(X) + 42.63$	122	66	56
Sunday (Daily)	$T = 1.13(X) - 357.24$	1218	609	609
Sunday Peak Hour of Generator	$T = 0.23(X) + 50.01$	113	55	58

* T=No. of Trips, X=No. of Dwelling Units (275)

Due to the downtown location of this development, we believe a number of the new external trips will be taken by walking and public transit to and from the development. We calculated the amount of expected external trips to be made by these modes of transportation using two methods. The first method used was the Environmental Protection Agency (EPA) Mixed-Use Trip Generation Model. This model utilizes data from the land use of the development and employment data of the surrounding area to arrive at a percentage of trips to be made by walking as well as public transit. In tangent with the report a Microsoft Excel file was developed by the firm Fehr & Peers that calculates the internal capture, walking, and public transit use data for the subject project using the EPA Model. A copy of this spreadsheet is attached. For this project, the estimated external trips taken by walking is 15% and the amount by public transit to be 2%, for a total reduction in external trips of 17%. The second method was to use data from the U.S. Census Bureau's American Community Survey 2009-2013 5 Year Estimates (census tract geography). This data lists the percentage each mode of transportation used for commuting in each respective census tract. In this data, it is seen that the project site is on the border between two tracts. The tract the project site is located in lists the percentage of commuters walking to work as 45.9% and the adjacent tract lists the percentage as 23.8%.

Based on this information and the above mentioned EPA Model, we applied a reduction of 20% in external trips due to walking and transit. Table 3 shows the resulting external trips generated by the proposed development. These values are calculated by summing of the trip generation values of each land use found in Tables 1 and 2. This value is then reduced by 20% to account for the external trips to be completed by walking and transit.

Table 3: Trip Generation
Gross External Vehicle Trips

Time Period	ITE Land Use 812 – Building Materials and Lumber Store	ITE Land Use 813 – Office	ITE Land Use 814 – Retail
Weekday (Daily)	2045	1023	1023
AM Peak Hour of Adjacent Street (7-9 AM)	93	16	77
PM Peak Hour of Adjacent Street (4-6 PM)	150	36	64
AM Peak Hour of Generator	213	72	145
PM Peak Hour of Generator	195	110	88
Saturday (Daily)	1002	511	511
Saturday Peak Hour of Generator	116	175	111
Sunday (Daily)	1345	673	673
Sunday Peak Hour of Generator	148	73	75

Furthermore, we calculated the existing trips from the former Rufus Deering Lumber site in order to establish a trip credit. This trip credit is subtracted from the above calculated gross external vehicle trips in order to establish the Net External Vehicle Trips for the proposed development. ITE Land use 812 – Building Materials and Lumber Store was used for this calculation. The gross floor area of the former building was found to be 6,028 square feet. Table 4 shows the results of the prior site use trip generation calculation.

Table 4: Trip Generation
Land Use 812 –Building Materials and Lumber Store
(6,028 Sq. Ft.)

Time Period	Trip Generation Rate (Trips/1,000 square feet)	Total Trips	Entering	Exiting
Weekday (Daily)	45.16/KSF	274	137	137
AM Peak Hour of Adjacent Street (7-9 AM)	1.60/KSF	16	11	5
PM Peak Hour of Adjacent Street (4-6 PM)	4.49/KSF	27	13	14
AM Peak Hour of Generator	4.16/KSF	25	14	11
PM Peak Hour of Generator	5.56/KSF	34	17	17
Saturday (Daily)	51.60/KSF	313	156	156
Saturday Peak Hour of Generator	9.58/KSF	58	30	28
Sunday (Daily)	24.50/KSF	148	74	74
Sunday Peak Hour of Generator	4.57/KSF	28	12	15

Conclusions

Table 5 shows the Total Net External Trips expected from the development. These totals are calculated by subtracting the estimated trip generation for the prior land use found in Table 4 from the gross external trips shown in Table 3. The AM Peak Hour of the Generator is shown to have the highest value of external trips with 192. We believe this is a conservative number as the AM Peak Hour of the condominiums and the AM Peak Hour of the retail are not expected to occur simultaneously. The Peak Hour of traffic associated with the condominium land use is expected to occur during the Peak Hour of the adjacent roadways. Regardless, though, it appears from our calculations that the Project will require a MaineDOT Traffic Movement Permit in the 100 to 200 trip category.

Table 5: Trip Generation
Total Net External Trips

Time Period	Total Trips	Entering	Exiting
Weekday (Daily)	1772	886	886
AM Peak Hour of Adjacent Street (7-9 AM)	77	5	72
PM Peak Hour of Adjacent Street (4-6 PM)	132	83	50
AM Peak Hour of Generator	190	14	174
PM Peak Hour of Generator	151	90	71
Saturday (Daily)	1590	795	795
Saturday Peak Hour of Generator	156	75	81
Sunday (Daily)	1196	598	598
Sunday Peak Hour of Generator	1201	61	60

Attachments:

EPA Model Spreadsheet

MIXED USE TRIP GENERATION MODEL V4 - RESULTS



MODEL APPLICATION - ALL TRIPS

	Daily				AM Peak Hour				PM Peak Hour			
	HBW	HBO	NHB	Total	HBW	HBO	NHB	Total	HBW	HBO	NHB	Total
	854	1025	387	2266	149	69	8	225	117	80	41	238
Baseline # of External Trips (ITE Model)												
% External Trip Reduction (predicted by MXD Model)												
Internal Capture	3.42%	1.96%	2.34%	2.58%	3.42%	1.96%	2.34%	2.94%	3.42%	1.96%	2.34%	2.74%
Walking External	3.53%	24.69%	19.08%	15.82%	3.53%	24.69%	19.08%	10.57%	3.53%	24.69%	19.08%	13.39%
Transit External	3.23%	1.82%	2.86%	2.52%	3.23%	1.82%	2.86%	2.78%	3.23%	1.82%	2.86%	2.69%
# of Trips Reduced (predicted by MXD Model)												
Internal Capture	29	20	9	58	5	1	0	7	4	2	1	7
Walking External	29	248	72	349	5	17	1	23	4	19	8	31
Transit External	27	18	11	56	5	1	0	6	4	1	1	6
MXD Model # of Vehicle Trips	769	738	295	1803	134	49	6	189	105	58	31	194
Results												
External Vehicle Trips					Total Trips Reduced							
Baseline	2,266	1,803	20%		HBW	HBO	NHB	Total	HBW	HBO	NHB	Total
Daily	2,266	1,803	20%		Daily	85	286	92	463			
AM Peak Hour	225	189	16%		AM Peak Hour	15	19	2	36			
PM Peak Hour	238	194	18%		PM Peak Hour	12	22	10	44			

MODEL APPLICATION - TRIP ENDS ASSOCIATED WITH HOUSES IN THE PROJECT ONLY

	Daily				AM Peak Hour				PM Peak Hour			
	HBW	HBO	NHB	Total	HBW	HBO	NHB	Total	HBW	HBO	NHB	Total
	259	819	182	1260	49	56	4	109	31	61	17	109
Baseline # of External Trips (ITE Model)												
% External Trip Reduction (predicted by MXD Model)												
Internal Capture	3.42%	1.96%	2.34%	2.31%	3.42%	1.96%	2.34%	2.63%	3.42%	1.96%	2.34%	2.43%
Walking External	3.53%	24.69%	19.08%	19.58%	3.53%	24.69%	19.08%	15.08%	3.53%	24.69%	19.08%	17.92%
Transit External	3.23%	1.82%	2.86%	2.25%	3.23%	1.82%	2.86%	2.48%	3.23%	1.82%	2.86%	2.37%
# of Trips Reduced (predicted by MXD Model)												
Internal Capture	9	16	4	29	2	1	0	3	1	1	0	3
Walking External	9	158	34	241	2	14	1	16	1	15	3	19
Transit External	8	15	5	28	2	1	0	3	1	1	0	3
Adjusted # (MXD Model) of Vehicle Trips generated by Project Residences	233	550	139	962	44	40	3	87	28	44	13	85
Results												
External Vehicle Trips												
Baseline	1,260	962	24%									
Daily	1,260	962	24%									
AM Peak Hour	109	87	20%									
PM Peak Hour	109	85	22%									



**MaineDOT
Traffic Movement Permit Application
Sections 1-6**

**383 Commercial Street
Portland, Maine 04104**

Applicant:
Deering Property Development, LLC
2730 Transit Road
West Seneca, New York 14224

Prepared By:
Sebago Technics, Inc.
75 John Roberts Road, Suite 1A
South Portland, Maine 04106

March 15, 2017



March 15, 2017
16324

Ms. Barbara Barhydt
Development Review Manager
City of Portland
389 Congress Street
Portland, Maine 04101

383 Commercial Street Development – Traffic Movement Permit Application Sections 1-6

Dear Barbara:

Sebago Technics is working with Deering Property Development, LLC on a mixed-use development at 383 Commercial Street. The proposed development is to include a total of 290 condominium units and 25,263 square feet of retail space. This project is proposed to be constructed over three phases.

The included Traffic Movement Permit (TMP) Application is for the proposed full build development and intended to accompany the previously submitted Master Plan Application (PEZ.2017-005). A Level III Site Plan application is being submitted separately for Phase One of the Project. This phase will not require a TMP due to generating less than 100 trips.

Please do not hesitate to contact me should you require additional information or have any questions. We look forward to the opportunity to meet with you in the future at the formal scoping meeting.

Sincerely,

SEBAGO TECHNICS, INC.

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

Derek H. Caldwell, P.E.
Traffic Engineer
Sebago Technics, Inc.

DHC/Ilg
Enc.

Table of Contents

Traffic Movement Permit Application

Notice of Intent to File

Abutter's List and Map

Section 1	Site and Traffic Information
Section 2	Traffic Accidents
Section 3	Development Entrances and Exits
Section 4	Title, Right, or Interest
Section 5	Public or Private Right-of-Ways
Section 6	Construction Schedule
Appendix	Site Plan Locus Map Trip Distribution Figure Trip Assignment Figure Sight Distance Plan Crash Data

Department of Transportation
Traffic Engineering Division
16 State House Station
Augusta, Maine 04333
Telephone: 207-287-3775

FOR MDOT USE
ID #

1/2000

Total Fees:

Date: Received

PERMIT APPLICATION - TRAFFIC
TRAFFIC MOVEMENT PERMIT, 23 M.R.S.A. § 704 - A

Please type or print:

This application is for:

Traffic 100-200 PCE's
Traffic 200+ PCE's X

Name of Applicant: Deering Property Development, LLC

Address: 2730 Transit Road West Seneca, NY 14224 Telephone: (413) 244-9092

Name of local contact or agent: Derek H. Caldwell, P.E. Sebago Technics, Inc.

Address: 75 John Roberts Road Suite 1A South Portland, ME 04106 Telephone: (207) 200-2100

Name and type of development: 383 Commercial Street, Mixed Use – Retail and Residential
Condominiums, and structured Parking.

Location of development including road, street, or nearest route number: 383 Commercial Street (Route
1A)

City/Town/Plantation: Portland, County: Cumberland, Tax Map #42, Lot #A01

Do you want a consolidated review with DEP pursuant to 23 M.R.S.A. § 704-A (7)? Yes No X

Was this development started prior to obtaining a traffic permit? NO

Is the project located in an area designated as a growth area (as defined in M.R.S.A. title 30 - A, chapter 187)?
Yes X No

Is this project located within a compact area of an urban compact municipality? Yes X No

Is this development or any portion of the site currently subject to state or municipal enforcement action?
 No

Existing DEP or MDOT permit number (if applicable): N/A

Name(s) of DOT staff person(s) contacted concerning this application: Tom Errico, P.E., City of Portland
Traffic Review Engineer

Name(s) of DOT staff person(s) present at the scoping meeting for 200+ applications:

1/2000

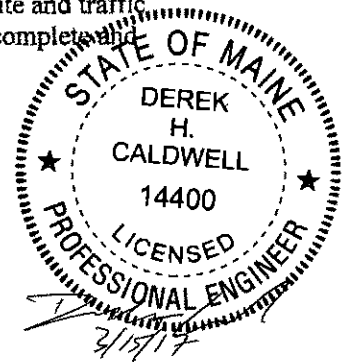
CERTIFICATION

The traffic engineer responsible for preparing this application and/or attaching pertinent site and traffic information hereto, by signing below, certifies that the application for traffic approval is complete and accurate to the best of his/her knowledge.

Signature: [Signature] Re/Cert/Lic No.: 14400

Name (print): Derek H. Caldwell, P.E.

Date: 3/15/17



If the signature below is not the applicant's signature, attach letter of agent authorization signed by applicant.

"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 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. I am aware there are significant penalties for submitting false information, including the possibility of fine and imprisonment."

[Signature] 3/15/17
Signature of applicant Date

NOTICE OF INTENT TO FILE

Please take notice that

Deering Property Development, LLC
2730 Transit Road
West Seneca, NY 14224
(413) 244-9092

is intending to file a Traffic Movement Permit application with the Maine Department of Transportation pursuant to the provisions of 23 M.R.S.A. § 704 - A on or about

March 15, 2017

The application is for

A mixed-use development on the site of the former Rufus Deering Lumber Company at 383 Commercial Street in Portland. The development will consist of 290 residential condominium units and 25,263 square feet of retail space, including an indoor parking structure. The site will be served by a proposed entrances on York Street and Maple Street. New trips generated by the development will consist of 210 new trip ends during the AM Peak Hour and 176 new trip ends during the PM Peak Hour. Construction and occupancy are anticipated in 2018.

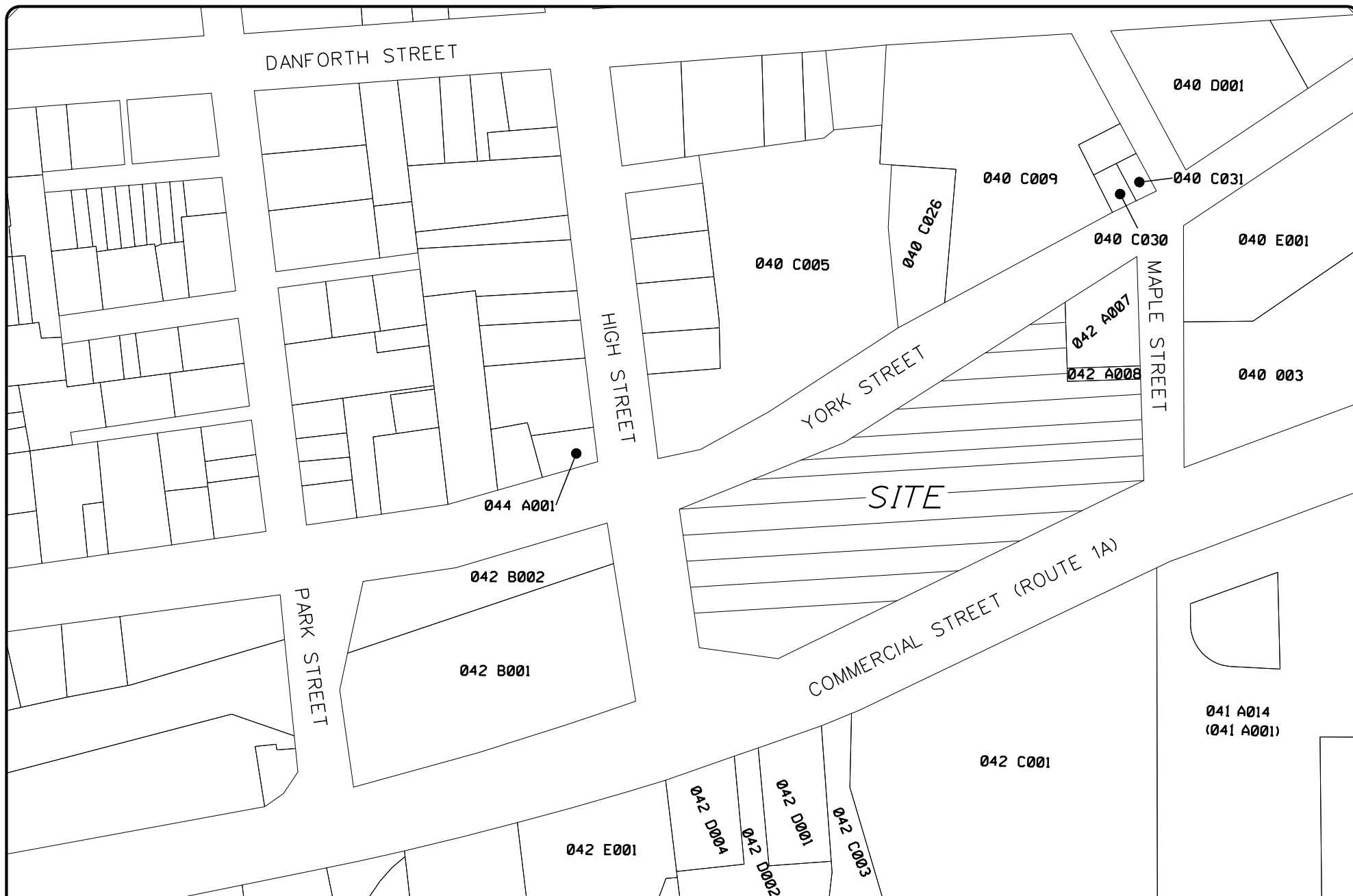
at the following location:

383 Commercial Street
Portland, ME

A request for a public hearing 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. 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 Transportation Division office (Scarborough) during normal working hours. A copy of the application may also be seen at the municipal offices in Portland, Maine.

Written public comments may be sent to the Department of Transportation, Traffic Engineering Division, 16 State House Station, Augusta, Maine 04333.



SEBAGO
TECHNICS

WWW.SEBAGOTECHNICS.COM

75 John Roberts Rd. Suite 1A South Portland, ME 04106
250 Goddard Rd. Suite B Lewiston, ME 04240
Tel. 207-200-2100 Tel. 207-783-5656

ABUTTERS MAP OF: 383 COMMERCIAL STREET

LOCATION:
383 COMMERCIAL STREET (ROUTE 1A)
PORTLAND, MAINE

FOR: DEERING PROPERTY MANAGEMENT, LLC
2730 TRANSIT ROAD
WEST SENECA, NY 14224

SCALE: 1"=150'

DATE: 01/23/2017

SHEET:
1 OF 1

Map-Book-LOT	PROPERTY LOCATION	OWNER NAME	MAILING ADDRESS	CITY	STATE	ZIP
040 C005001	101 YORK ST	101 YORK STREET LLC	PO BOX 207	PORTLAND	ME	04112
040 C026001	75 YORK ST	75 YORK STREET LLC	75 YORK ST	PORTLAND	ME	04101
040 C031001	53 YORK ST	CASTINE 53 LLC	152 COMMERCIAL ST	SUNNYVALE	CA	94086
040 E001001	40 YORK ST	BROWN J B & SONS	PO BOX 207	PORTLAND	ME	04112
040 E003001	311 COMMERCIAL ST CONDO 1	JR SEELY COMPANY LLC	24 CHRISTOPHER TOPPI DR	SOUTH PORTLAND	ME	04106
040 E003002	311 COMMERCIAL ST CONDO 2	BANKS, MICHAEL D	190 US ROUTE 1 BOX 122	FALMOUTH	ME	04106
040 E003003	311 COMMERCIAL ST CONDO 3	SMITH JANEW W TRUSTEE	7 MAPLE ST # 3	PORTLAND	ME	04101
040 E003004	311 COMMERCIAL ST CONDO 4	LEVIN-MARTIN MINDY F & ROGER L MARTIN JTS	220 S 31ST AVE # 3302	OMAHA	NE	68131
040 E003005	311 COMMERCIAL ST CONDO 5	TAYLOR-CHIARELLO, ROBIN	7 MAPLE ST # 5	PORTLAND	ME	04101
040 E003006	311 COMMERCIAL ST CONDO 6	JR SEELY COMPANY LLC	24 CHRISTOPHER TOPPI DR	SOUTH PORTLAND	ME	04106
040 E003007	311 COMMERCIAL ST CONDO 7	KRUITHOFF CATHERINE H & WAYNE A KRUITOFF TRUSTEE	7 MAPLE ST # 7	PORTLAND ME	ME	04101
040 E003008	311 COMMERCIAL ST CONDO 8	JR SEELY COMPANY LLC	24 CHRISTOPHER TOPPI DR	SOUTH PORTLAND	ME	04106
040 E003009	311 COMMERCIAL ST CONDO 9	KROON THOMAS J & MARIANNE M KROON TRUSTEES	7 MAPLE ST # 9	PORTLAND	ME	04101
040 E003010	311 COMMERCIAL ST CONDO 10	NSD 10-7 MAPLE LLC	819 GATEMORE RD	BRYN MAWR	PA	19010
040 E003011	311 COMMERCIAL ST CONDO 11	CLANCY, PAUL	3431 NW 103 RD DR	GAINESVILLE	FL	32606
040 E003012	311 COMMERCIAL ST CONDO 12	PIPER ,JOHN M & REBECCA A WEI JTS	7 MAPLE ST # 12	PORTLAND	ME	04101
040 E003013	311 COMMERCIAL ST CONDO 13	PARDI, KATHLEEN A	7 MAPLE ST # 13	PORTLAND	ME	04101
040 E003014	311 COMMERCIAL ST CONDO 14	SIMARK ACQUISITIONS LLC	9725 WOODS DR # 1905	SKOKIE	IL	60077
040 E00300H	311 COMMERCIAL ST CONDO H	JBB HOSPITALITY I LLC	15 MAIN ST STE 210	FREEPORT	ME	04032
040 E00300R	311 COMMERCIAL ST CONDO R	TIQA LEGACY LLC	327 COMMERCIAL ST	PORTLAND	ME	04101
041 A001001	1 PORTLAND FISH PIER	CITY OF PORTLAND	389 CONGRESS ST	PORTLAND	ME	04101
041 A001002	1 PORTLAND FISH PIER	VESSEL SERVICES INC	PORTLAND FISH PIER	PORTLAND	ME	04101
042 A007001	54 YORK ST	RUFUS DEERING COMPANY	383 COMMERCIAL ST	PORTLAND	ME	04101
042 B001001	393 COMMERCIAL ST	420 FORE LLC	PO BOX 4894	PORTLAND	ME	04112
042 C001001	344 COMMERCIAL ST	GULF OF MAINE PROPERTIES INC.	350 COMMERCIAL ST	PORTLAND	ME	04101
042 C003001	378 COMMERCIAL ST	GULF OF MAINE RESEARCH INSTITUTE	350 COMMERCIAL ST	PORTLAND	ME	04101
042 D001001	382 COMMERCIAL ST	GULF OF MAINE PROPERTIES INC.	350 COMMERCIAL ST	PORTLAND	ME	04101
042 D002001	390 COMMERCIAL ST	HOBSON PIER INC	PO BOX 924	PORTLAND	ME	04104
042 D004001	390 COMMERCIAL ST	RAND, REBECCA B	3 PINE GROVE WAY	FALMOUTH	ME	04105
044 A001001	20 HIGH ST	FERNALD, SETH W	20 HIGH ST	PORTLAND	ME	04101

Section 1 – Site and Traffic Information

A.) Site Plan

Deering Property Management, LLC is proposing to develop the 2.586 acre lot bounded by Commercial Street to the east, High Street to the south, York Street to the west and Maple Street to the north in Portland, Maine. The site is generally level and at similar elevation with Commercial Street and Maple Street and below the elevation of High and York Streets. The site features a stone masonry retaining wall along the westerly boundary and a granite block retaining wall along the southerly boundary. See attached site plan.

B.) Existing and Proposed Uses

The development area was formerly the site of the Rufus Deering Lumber Company at 383 Commercial Street in Portland, Maine. The company has closed permanently as of December 1, 2016. The site included a two story office structure and four separate enclosed materials storage areas. The site had access via entrance only and exit only drives on Commercial Street approximately 260 feet and 100 feet north of the intersection with High Street, respectively. The site also had a gated driveway onto Maple Street.

The applicant proposes to construct a six story structure in three phases that includes 25,263 square feet of retail space and 290 condominium units. The retail is proposed on the first level with access along Commercial Street and 5 floors of residential units above. Within the structure, there will also be a 384-space two level parking garage. The two levels are not to be connected. The first level of the garage will have 193 spaces and be accessed by an entrance on Maple Street. The second level of the garage will have 191 spaces and be accessed by an entrance on York Street.

C.) Site and Vicinity Boundaries

The site is bordered by Commercial Street to the east, High Street to the south, York Street to the west, and Maple street to the north. The northwest corner of the site is adjacent to the existing Baxter Academy Building, which is to remain.

After discussions with City of Portland staff, the Study Area will include the following intersections in addition to the project access points:

- Maple Street and Commercial Street
- Maple Street and York Street
- York Street and High Street
- High Street and Commercial Street
- Commercial Street and Park Street

The attached locus map shows the project site in relation to the surrounding area.

D.) Proposed Uses in the Vicinity of the Proposed Development

Within the vicinity as described above, the following developments proposed by others and not as yet built but will generate additional traffic have been identified:

- York Street Mixed Used Development – Intersection of High Street and York Street.

According to a trip generation forecast conducted by Gorrill Palmer in August, 2015, this development will generate new trips as follows:

1. AM Peak Hour of Generator – 93 Trips
2. AM Peak Hour of Adjacent Street – 65 Trips
3. PM Peak Hour of Generator - 83 Trips
4. PM Peak Hour of Adjacent Street – 31 Trips.

Due to no traffic movement permit being obtained for this development, anticipated traffic routing information is not available.

E.) Trip Generation

Using the 7th Edition of ITE's Trip Generation Manual we have estimated the following trip generation shown within Tables 1 and 2 located on the following page. The retail spaces and condominiums have ITE land uses of 826 – Specialty Retail Center and 230 – Residential Condominium/Townhouse, respectively. The proposed full build development includes 25,263 square feet of retail space and 290 condominium units.

Table 1: Trip Generation
Land Use 826 – Specialty Retail Center
(25,263 Square Feet)

Time Period	Trip Generation Rate (trips/ 1,000 square feet)	Total Trips	Entering	Exiting
Weekday (Daily)	44.32/KSF	1120	560	560
AM Peak Hour of Adjacent Street (7-9 AM)	0/KSF ^A	0	0	0
PM Peak Hour of Adjacent Street (4-6 PM)	2.71/KSF	68	30	38
AM Peak Hour of Generator	6.84/KSF	173	76	97
PM Peak Hour of Generator	5.02/KSF	127	56	71
Saturday (Daily)	42.04/KSF	1062	531	531
Saturday Peak Hour of Generator	6.49/KSF ^B	164	72	92
Sunday (Daily)	20.43/KSF	516	258	258
Sunday Peak Hour of Generator	3.32/KSF ^B	80	40	40

- A. Trip generation estimate not available for AM Hour of Adjacent Street. It is assumed that this land use will not produce trips during this time period.
- B. Trip Generation data for Saturday Peak and Sunday Peak is not provided. Rate calculated by a ratio of the weekend and weekday daily rates to find peak hourly rate

Table 2: Trip Generation
Land Use 230 – Residential Condominium/Townhouse
(290 Units)

Time Period	Trip Generation Formula	Total Trips	Entering	Exiting
Weekday (Daily)	$\ln(T) = 0.87 \ln(X) + 2.46$	1624	812	812
AM Peak Hour of Adjacent Street (7-9 AM)	$\ln(T) = 0.80 \ln(X) + 0.26$	121	21	100
PM Peak Hour of Adjacent Street (4-6 PM)	$\ln(T) = 0.82 \ln(X) + 0.15$	144	97	47
AM Peak Hour of Generator	$\ln(T) = 0.82 \ln(X) + 0.32$	121	23	98
PM Peak Hour of Generator	$T = 0.34 (X) + 35.87$	134	86	48
Saturday (Daily)	$T = 3.62(X) + 427.93$	1624	812	812
Saturday Peak Hour of Generator	$T = 0.29(X) + 42.63$	127	69	58
Sunday (Daily)	$T = 3.13(X) + 357.26$	1265	633	632
Sunday Peak Hour of Generator	$T = 0.23(X) + 50.01$	117	57	60

- **T=No. of Trips, X=No. of Dwelling Units (290)**

Due to the downtown location of this development, we believe a number of the new external trips will be taken by walking and public transit to and from the development. We calculated the amount of expected external trips to be made by these modes of transportation using two methods. The first method was the Environmental Protection Agency (EPA) Mixed-Use Trip Generation Model. This model utilizes data from the land use of the development and employment data of the surrounding area to arrive at a percentage of trips to be made by walking as well as public transit. In tangent with the report a Microsoft Excel file was developed by the firm Fehr & Peers that calculates the internal capture, walking, and public transit use data for the subject project using the EPA Model. A copy of this spreadsheet is attached. For this project, the estimated external trips taken by walking is 15% and the amount by public transit to be 2%, for a total reduction in external trips of 17%. The second method was to use data from the U.S. Census Bureau's American Community Survey 2009-2013 5 Year Estimates (census tract geography). This data lists the percentage each mode of transportation used for commuting in

each respective census tract. In this data, it is seen that the project site is on the border between two tracts. The tract the project site is located in lists the percentage of commuters walking to work as 45.9% and the adjacent tract lists the percentage as 23.8%.

Based on this information and the above mentioned EPA Model, we applied a conservative reduction of 20% in external trips due to walking and transit. Table 3 shows the resulting external trips generated by the proposed development. These values are calculated by summing of the trip generation values of each land use found in Tables 1 and 2. This value is then reduced by 20% to account for the external trips to be completed by walking and transit.

Table 3: Trip Generation
Gross External Vehicle Trips

Time Period	Total Trips	Entering	Exiting
Weekday (Daily)	2195	1098	1098
AM Peak Hour of Adjacent Street (7-9 AM)	97	16	80
PM Peak Hour of Adjacent Street (4-6 PM)	170	101	69
AM Peak Hour of Generator	235	79	156
PM Peak Hour of Generator	209	113	96
Saturday (Daily)	2032	1016	1016
Saturday Peak Hour of Generator	233	113	120
Sunday (Daily)	1425	713	712
Sunday Peak Hour of Generator	157	78	79

Furthermore, we calculated the existing trips from the former Rufus Deering Lumber site in order to establish a trip credit. This trip credit is subtracted from the above calculated gross external vehicle trips in order to establish the Net External Vehicle Trips for the proposed development. ITE Land use 812 – Building Materials and Lumber Store was used for this calculation. The gross floor area of the former building was found to be 6,028 square feet. Table 4 shows the results of the prior site use trip generation calculation.

Table 4: Trip Generation
Land Use 812 –Building Materials and Lumber Store
(6,028 Sq. Ft.)

Time Period	Trip Generation Rate (trips/ 1,000 square feet)	Total Trips	Entering	Exiting
Weekday (Daily)	45.16/KSF	272	136	136
AM Peak Hour of Adjacent Street (7-9 AM)	2.60/KSF	16	11	5
PM Peak Hour of Adjacent Street (4-6 PM)	4.49/KSF	27	13	14
AM Peak Hour of Generator	4.16/KSF	25	14	11
PM Peak Hour of Generator	5.56/KSF	34	17	17
Saturday (Daily)	51.60/KSF	312	156	156
Saturday Peak Hour of Generator	9.58/KSF	58	30	28
Sunday (Daily)	24.50/KSF	148	74	74
Sunday Peak Hour of Generator	4.57/KSF	27	12	15

Table 5 shows the Total Net External Trips expected from the development. These totals are calculated by subtracting the estimated trip generation for the prior land use found in Table 4 from the gross external trips shown in Table 3.

Table 5: Trip Generation
Total Net External Trips

Time Period	Total Trips	Entering	Exiting
Weekday (Daily)	1923	961	961
AM Peak Hour of Adjacent Street (7-9 AM)	81	6	75
PM Peak Hour of Adjacent Street (4-6 PM)	143	89	54
AM Peak Hour of Generator	210	65	145
PM Peak Hour of Generator	176	97	78
Saturday (Daily)	1721	860	860
Saturday Peak Hour of Generator	175	83	92
Sunday (Daily)	1278	639	639
Sunday Peak Hour of Generator	129	65	64

F.) Trip Distribution

Access to the site will be via the two access locations described above in Section 1.B... It is assumed that traffic entering and exiting the site will be split evenly between the two proposed access points. Traffic was distributed from the access points based upon AADT volumes from the *2015 Maine Transportation Count Book* at multiple locations on Commercial Street and York Street in the vicinity of the site. Approximately 8% of traffic is projected to be distributed to/from York Street to the north, 25% to/from Commercial Street to the north, 28% to/from Commercial Street to the south, and 39% to/from York Street to the south. The attached figure shows the anticipated trip distribution from the site driveways.

G.) Trip Assignment

Trip assignment was completed using the previously mentioned volumes from the *2015 Maine Transportation Count Book* at multiple locations on Commercial Street and York Street in the vicinity of the site. It is assumed that all traffic travelling to and from Commercial Street will

utilize Maple Street to reach both driveways. The attached figure shows the anticipated trip assignment during both the AM and PM Peak hour of the adjacent street.

Section 2 – Traffic Accidents

The most recent 3-year crash history (2013-2015) was obtained from MaineDOT for the intersections and roadway links in the vicinity of the project site. Intersections and roadway links are considered to be High Crash Locations (HCL's) if they have a Critical Rate Factor (CRF) greater than 1.0 and have minimum of 8 accidents in a three-year period. Four locations within the project Study Area have been identified as HCL's. A summary of this information is presented below and the MaineDOT Summary Report is contained in the Appendix.

Intersections

Node	Description	# of Crashes	CRF	HCL
16784	Commercial Street & High Street	10	1.41	Yes
16785	Commercial Street & Maple Street	4	0.60	No
16783	Commercial Street & Park Street	20	2.32	Yes
18980	Maple Street & York Street	2	0.73	No
18529	High Street & York Street	9	0.64	No

Roadway Segments

Link	Description	# of Crashes	CRF	HCL
16783-16784	Commercial Street – Park to High	9	1.34	Yes
16784-16785	Commercial Street – High to Maple	13	1.40	Yes
16785-18980	Maple Street	4	5.03	No
18529-18980	York Street	1	0.14	No
16784-18529	High Street	1	0.60	No

Section 3 – Development Entrances and Exits

- A.) Access to the full-build development is proposed by two separate entrances.

One drive will provide access to Maple Street at a point approximately 110 feet northwest of the intersection with Commercial Street. This entrance will provide direct access to the first level of the parking garage. This entrance is proposed to be 28 feet wide - including one 13 foot ingress lane, one 13 foot egress lane, and a 1 foot curb offset on both sides. The drive is to be constructed of concrete.

The other drive will provide access to York Street at a point approximately 475 feet north of the intersection with High Street. This entrance will provide direct access to the second level of the parking garage. This entrance is proposed to be 28 feet wide and include one 13 foot ingress lane, one 13 foot egress lane, and a 1 foot curb offset on both sides. The drive is to be constructed of concrete.

During Phase One of construction, prior to full build out of the parking garage, access to at-grade parking will be provided by one of the existing drives onto Commercial Street. The remaining existing drives will be closed. This existing drive is approximately 25 feet wide. Commercial Street at this location is approximately 90 feet wide with on-street angle parking present on both sides of the roadway.

- B.) Maple Street is a functionally classified local two-way roadway oriented in a northwesterly/southeasterly direction. The roadway is 35 feet wide and contains no pavement markings. There is brick sidewalk present on both sides of the roadway. The posted speed limit is 25 miles per hour. On-street parking is currently permitted on both sides of the roadway. The segment on which the entrance is proposed is approximately 275 feet in length between Commercial Street and York Street. Both ends of this segment have stop control at each respective intersection. Due to this short segment length, sight distance of the drive will be limited to each adjacent intersection. Sight distance is measured to be to the intersection with Commercial Street when looking to the right from the proposed access drive, a distance of approximately 110 feet, and to the intersection with York Street when looking to the left, a distance of approximately 160 feet. Sight distance could also be limited if cars are parked on the southwesterly side of the road. Immediately to the northwest of the proposed entrance there is an existing driveway in which the property line travels thru the center of. This drive is presently used by the Baxter Academy Building. On the opposite side of Maple Street there is an existing 27 foot wide drive which provides access to parking at the adjacent Courtyard Marriott Hotel.

York Street is a functionally classified local two-way roadway oriented in a north-south direction. The roadway is approximately 45 feet wide consisting of one travel lane in each direction

separated by a double yellow center line. On-street parking is prohibited on the eastern side of the road and permitted on the western side. There is sidewalk on both sides of the roadway. The posted speed limit of York Street is 25 miles per hour. Sight distance is measured to be to the intersection of High Street when looking left from the proposed access point, a distance of 450 feet, and to the intersection with Danforth Street when looking right, a distance of approximately 600'. These distances exceed the minimum value of 200 feet for a 25 mile per hour roadway. On the opposite side of the road from the proposed entrance location there is an existing driveway which provides access to a private parking lot.

Commercial Street at this location is a two lane urban minor arterial oriented in a generally north-south direction. The roadway is approximately 90 feet wide consisting of one travel lane in each direction separated by a double yellow centerline and on-street angle parking on both sides of the roadway. The posted speed limit of Commercial Street is 30 miles per hour. Sight distance is measured to be to the intersection with High Street when looking to the right, a distance of 300 feet. Sight distance looking to the left was measured to be 300 feet.

The attached plan shows the sight distance measurements completed on January 23rd, 2017.

Section 4 – Title, Right, or Interest

A Deed for the parcel comprising the proposed development follows.

PURCHASE AND SALE AGREEMENT

This Purchase and Sale Agreement ("Agreement") is made and entered into as of this 8TH day of July 2016 (the "Effective Date"), by and between Milliken Smith Block, LLC, a Maine limited liability company with a mailing address of c/o William M. Moody Jr., 5 High Street, Yarmouth, ME., 04096 ("Seller") and Deering Property Development LLC, a Maine limited liability company with a mailing address of 2730 Transit Road, West Seneca, New York 14224 Attn: Gordon Reger ("Buyer").

In consideration of the mutual covenants and promises hereinafter set forth, Seller and Buyer agree as follows:

1. PREMISES. Seller agrees to sell and Buyer agrees to purchase, on the terms and conditions contained in this Agreement, the approximately 110,000 square foot parcel of land located at or near 383 Commercial Street in Portland, Cumberland County, Maine, and bounded by Commercial Street, High Street, York Street, and Maple Street, and all other improvements remaining thereon on the date of Closing and all rights and easements appurtenant thereto (together, the "Premises"). The Premises is approximately depicted on Exhibit A attached hereto and shown on Tax Map 42, Block A as Lot 1. The Premises does not include the building currently occupied by the Charter School and related land located on the northwest corner of the block described above and depicted on Tax Map 42, Block A as Lot 7, and the related 15-foot wide passageway depicted on Tax Map 42, Block A as Lot 8 (together, the "Charter School Property"). The Premises does not include the lumber business currently operated on the Premises by Rufus Deering Lumber Company ("RDC") pursuant to a lease by and between Seller and RDC (the "RDC Lease").

2. PURCHASE PRICE Subject to any adjustments and prorations hereinafter described, the purchase price for the Premises shall be [REDACTED] Dollars per square foot of land area in the Premises, which would be [REDACTED] (\$ [REDACTED]) based on the estimated land area of 110,000 square feet, to be paid by immediately-available funds at the Closing. The actual purchase price paid by Buyer at Closing shall be calculated using the foregoing price per square foot and the actual land area of the Premises as determined according to an ALTA/NSPS survey of the Premises performed by a reputable surveyor, which Buyer agrees to obtain at Buyer's expense.

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Promptly upon full execution of this Agreement, Buyer shall deliver to Malone Commercial ("Escrow Agent"), an earnest money deposit (the "Deposit") in the amount of [REDACTED] U.S. Dollars (\$ [REDACTED]), as security for Buyer's performance under this Agreement. The Deposit shall be held in escrow by Escrow Agent pursuant to this Agreement. Upon the expiration of the initial 60-day Inspection Contingency Period, unless Buyer has terminated this Agreement, the Deposit shall become non-refundable.

If Buyer has not terminated this Agreement by the expiration of the Inspection Contingency Period and not terminated this agreement pursuant to Buyer's Approvals Contingency in Paragraph 6 below, Buyer shall make the following monthly payments, all of which payments shall be nonrefundable (except in the event of a Seller default) and included in the definition of Deposit:

(a) Beginning on or before ninety (90) days from the Effective Date and continuing on or before the first day of each month until [REDACTED] Buyer shall deliver to Escrow Agent [REDACTED] Dollars (\$ [REDACTED]) per month, prorated for any portion of a month.

(b) Beginning [REDACTED], and continuing on or before the first day of each month until [REDACTED] Buyer shall deliver to Escrow Agent [REDACTED] Dollars (\$ [REDACTED]) per month, prorated for any portion of a month.

(c) Beginning [REDACTED], and continuing on or before the first day of each month until the Approvals Contingency Period Expiration, Buyer shall deliver to Escrow Agent [REDACTED] Dollars (\$ [REDACTED]) per month, prorated for any portion of a month.

Buyer shall not be in default of this Agreement for failure to make any of the Deposit payments above unless and until Buyer fails to make such payment within seven (7) days of when due. All of the Deposit shall be credited towards the purchase price at the Closing or otherwise disbursed in accordance with this Agreement.

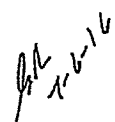
3. TITLE. Seller shall convey the Premises to Buyer at the Closing in fee simple, subject to the Permitted Encumbrances (as defined below), but free and clear of all liens, except for liens for real estate taxes not yet due and payable. Seller may, at the time of delivery of the deed, use the purchase proceeds or any portion thereof to clear the title of liens and encumbrances that are not Permitted Encumbrances, including without limitation consideration for the early termination of the RDC lease, provided that all instruments so procured are delivered simultaneously with the delivery of the deed.

Within sixty (60) days of the Effective Date (the "Title Review Period"), Buyer shall notify Seller in

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writing (the "Title Objection Notice") of matters of record at the Cumberland County Registry of Deeds adversely affecting title to the Premises that are objectionable to Buyer in Buyer's sole discretion ("Title Defects"). Buyer shall be deemed to have waived the right to object to any matter affecting title as of the Effective Date, excluding any mortgage, tax lien, mechanics' lien, judgment lien, or other liens encumbering the Premises (for which no title objection is required), if Buyer fails to specifically identify such matters in the Title Objection Notice (each matter not objected to being a "Permitted Encumbrance"). The RDC Lease shall not be a Permitted Encumbrance. Seller shall use good faith efforts to cure such Title Defects and shall have a period of not more than sixty (60) days after Seller's receipt of the Title Objection Notice within which to cure any such Title Defects (the "Title Cure Period"). Seller agrees that after the Effective Date, it shall not permit or suffer encumbrance of the Premises with any liens, easements, leases, or other encumbrances. On or before the Closing, Seller shall remove at its sole cost any matters affecting the title to the Premises suffered or created by or consented to by Seller, whether voluntarily or involuntarily, after the Effective Date that are not approved in writing by Buyer. If Seller fails to cure any Title Defects within the Title Cure Period, then Buyer shall elect, by written notice to Seller on or before ten (10) days from the expiration of the Title Cure Period, either (i) to accept title to the Premises subject to such uncured Title Defects without reduction of the purchase price and without any liability on the part of Seller therefor, in which case such Title Defects shall be Permitted Encumbrances, or (ii) to terminate this Agreement, whereupon the Deposit immediately shall be returned to Buyer and neither party shall have any further obligations under this Agreement, except for provisions that expressly survive termination. In the event that Buyer does not timely elect either option (i) or (ii) above, Buyer shall be deemed to have elected option (i).

4. BUYER'S INSPECTION AND INVESTIGATIONS CONTINGENCY. Buyer or its agents may enter onto the Premises at any time after the date of this Agreement until the Closing, subject to compliance with the conditions below in this paragraph 4, in order to conduct surveys, engineering studies, soil studies, and such other investigations of the Premises as Buyer elects. Following the exercise of any of Buyer's inspection rights hereunder, Buyer promptly shall use reasonable efforts to restore any portion of the Premises disturbed to its condition prior to disturbance. Buyer shall indemnify and hold Seller harmless for all claims, damages, causes of action, judgments, penalties, fines, costs and expenses, including without limitation attorneys', paralegals' and expert witnesses' fees and court costs, incurred by Seller in connection with the exercise by Buyer or its employees, agents, or contractors, of the investigation and inspection rights contained in this paragraph except for pre-existing conditions and matters



resulting from Seller's negligence, which indemnity shall survive the Closing or any termination of this Agreement. Buyer also intends to investigate the zoning and other land use restrictions on the Premises, which investigations may include discussions with City of Portland officials, and investigate the feasibility of development of the Premises. In the event that Buyer is not satisfied with any of Buyer's inspections or other investigations of the Premises or the potential development of the Premises, in Buyer's sole discretion, Buyer shall so notify Seller in writing (which notice does not have to set forth the reasons for termination) within [REDACTED] days from the Effective Date (the "Inspection Contingency Period"), whereupon this Agreement shall automatically terminate, and the Deposit promptly shall be returned to Buyer, and thereafter, neither party shall have any further obligations under this Agreement, except for indemnities and other provisions that expressly survive termination. In the event that Buyer does not terminate this Agreement by the expiration of the Inspection Contingency Period, Buyer shall be deemed to have waived the foregoing inspection contingency. In the event that Buyer terminates this Agreement pursuant to this Section 4, Buyer shall deliver to Seller simultaneously with such termination notice copies of all reports, studies, plans, surveys, title insurance commitments, and other matters prepared by or for Buyer in connection with its inspections and investigations.

Buyer shall coordinate all due diligence that requires physical inspection or investigation on the Premises with Seller and have such on-site work performed when RDC is not open to the public and only after Seller approves by email the scope, time, and manner of any physical inspection or investigation on the Property, such approval not to be unreasonably withheld, conditioned, or delayed. All of Buyer's due diligence reports relating to the Premises will be owned by Buyer. Buyer shall have such reports certified to Seller, or provide Seller with a reliance letter from the consultant producing such reports, and deliver copies of such reports to Seller, all to the end that Seller may rely on such reports in the event that Buyer does not proceed with the purchase of the Premises. Seller shall not use or disclose the contents of any such report unless the Agreement is terminated or the Closing otherwise fails to occur. Buyer shall obtain from those due diligence consultants conducting on-site investigations confidentiality agreements reasonably satisfactory to Seller, for the benefit of Seller and RDC, the parties acknowledging that RDC's business could be adversely impacted if the potential sale of the Premises became known to RDC's employees or the public.

5. SELLER DELIVERABLES. Within five (5) days of the Effective Date, Seller shall deliver to Buyer the following: (i) a copy of any surveys and plans of the Premises; (ii) any Phase I or Phase II Environmental

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Site Assessments; (iii) copies of any soils engineering reports, all to the extent such items are in Seller's possession or control that are in effect on the date of this Agreement (together, the "Seller Deliverables"). For purposes of this paragraph, "control" means in the possession of a person who Seller has contractually engaged to provide services to Seller. Buyer acknowledges and agrees that (a) the Seller Deliverables are being provided by Seller to Buyer as a courtesy, and therefore, Seller makes no representation or warranty regarding the accuracy and/or completeness of the Seller Deliverables, and (b) Buyer and any person to whom Buyer provides the Seller Deliverables shall rely on the same at their own risk.

Buyer agrees, acknowledges and represents that except as specifically set forth in this Agreement, Buyer is entering into this Agreement and shall perform all of its obligations hereunder and consummate the transaction contemplated by this Agreement solely in reliance on and as a result of Buyer's own investigations and efforts (including Buyer's inspection of the Premises and such other investigations, examinations and inspections as Buyer has chosen to make or has made) and at Buyer's sole risk, cost and expense, including, without limitation, the risk that Buyer's inspection of the Premises and such other investigations, examinations and inspections may not reveal any or all adverse or existing conditions, aspects or attributes of the Premises. Buyer acknowledges that Seller has afforded, and, during the Inspection Contingency Period, shall afford, Buyer the opportunity for full and complete investigation, examination and inspection of the Land. Buyer acknowledges that this paragraph was a negotiated part of this Agreement and serves as an essential component of consideration for the same. Without limiting the generality of the foregoing, the parties specifically acknowledge that Buyer has had, and, during the Inspection Contingency Period shall have, an opportunity to fully inspect the Premises, including, but not limited to, the physical condition of the Premises (including all environmental concerns), and the purchase price has been negotiated to eliminate all claims except those arising under representations, warranties or agreements contained in this Agreement, whether known or unknown, relating to the condition of the Premises as of the date of this Agreement and all aspects and attributes thereof, including, without limitation, all environmental matters. Buyer acknowledges and agrees that Seller has made and shall make no representation or warranty with respect to the Premises, except as expressly set forth in this Agreement. The Premises shall be sold and conveyed "AS IS, WHERE IS" without representation or warranty of any kind except as otherwise explicitly set forth herein.

6. BUYER APPROVALS CONTINGENCY. Buyer's obligation to close on the purchase of the

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Premises shall be conditioned upon Buyer's receipt of all necessary, final and unappealable, land-use approvals (the "Approvals") for Buyer's intended development of the Premises (the "Development") by [REDACTED]. Buyer shall notify Seller of the Approvals required for the Development by [REDACTED], which notification shall include Buyer's estimate of the milestone dates to obtain the Approvals. In the event that Buyer is unable to obtain the Approvals by [REDACTED], Buyer's approvals contingency deadline automatically shall be extended to [REDACTED], provided that Buyer continues to make good faith effort to obtain the Approvals. In the event that Buyer is unable to obtain the Approvals (or Buyer's earlier determines in its sole discretion that the Approvals are unlikely to be obtained) by [REDACTED] or [REDACTED], if the Approvals deadline is extended as provided above (as such date is determined, the "Approvals Contingency Expiration"), Buyer shall so notify Seller in writing on or before the Approvals Contingency Expiration whereupon this Agreement shall automatically terminate, and the Deposit shall be delivered by Escrow Agent to Seller and thereafter neither party shall have any further obligations under this Agreement, except for indemnities and other provisions that expressly survive termination. Seller agrees to cooperate with Buyer is applying for and seeking any Approvals, such cooperation to include joining as the land owner in any applications for Approvals, provided that Seller shall not be obligated to incur any material out-of-pocket expense to provide such cooperation.

7. CLOSING: DEED. The closing shall take place on the business day that is closest to sixty (60) days from the Approvals Contingency Expiration at 10:00 a.m., at the offices of Bernstein Shur, 100 Middle Street, Portland, Maine, or at such other time and place as Seller and Buyer may mutually agree upon in writing (as determined, the "Closing"). At the Closing, Seller shall execute and deliver to Buyer, or Buyer's nominee, against payment of the balance of the purchase price, a Quitclaim Deed with Covenant for the Premises in accordance with the Short Form Deeds Act, 33 M.R.S.A. 761 et seq. (the "Deed"). Seller also shall execute and deliver to Buyer at the Closing the following: a customary and reasonable title insurance Seller's Affidavit regarding persons in possession and mechanics' liens; a 1099-S data form, a FIRPTA affidavit; REW-3; W-9 form; an underground storage tank affidavit to comply with 38 M.R.S.A. § 563(6); evidence of Seller's existence and authority to satisfy the customary seller authority requirements for issuance of an owner's title insurance policy; a real estate transfer tax declaration of value form; and a settlement statement.

8. REPRESENTATIONS.

- (a) Except as actually known to Buyer prior to Closing as a result of Buyer's investigations of the

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Land, Seller represents and warrants to Buyer as follows, which representations and warranties, and the restatement thereof at Closing, shall survive Closing for a period of one (1) year:

(i) Seller has the legal right, power and authority to enter into this Agreement and to perform all of its obligations hereunder, and the execution and delivery of this Agreement and the performance by Seller of its obligations hereunder will not conflict with, or result in breach of any regulation, order, judgment, injunction or decree of any court or governmental authority or any agreement or instrument to which Seller is a party or by which it is bound.

(ii) There are no tenancies, occupancies or licenses affecting the Premises, except for the RDC Lease.

(b) Buyer has the legal right, power and authority to enter into this Agreement and to perform all of its obligations hereunder, and the execution and delivery of this Agreement and the performance by Buyer of its obligations hereunder will not conflict with, or result in breach of any regulation, order, judgment, injunction or decree of any court or governmental authority or any agreement or instrument to which Buyer is a party or by which it is bound.

9. AFFIRMATIVE COVENANTS OF SELLER. Seller agrees, pending closing, that:

(a) Seller shall pay, when due, all taxes and assessments of every type or nature levied or assessed against the Premises and any valid lien against the Premises.

(b) Seller (i) shall not commit or suffer waste and (ii) shall materially comply with all laws, ordinances, regulations, covenants, conditions and restrictions affecting the Premises and will not suffer or permit any material violation thereof.

10. ADJUSTMENTS, PRORATIONS AND CLOSING COSTS.

(a) Real estate taxes and municipal assessments shall be prorated as of the Closing on the basis of the latest available tax bill.

(b) The Maine real estate transfer tax shall be paid equally by Seller and Buyer in accordance with 36 M.R.S.A. Section 4641-A.

(c) The recording fee for the deed of conveyance and any expenses related to any financing for Buyer in connection with the purchase of the Premises shall be paid by Buyer.

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(d) A portion of the purchase price shall be withheld at the Closing by Buyer if required by 36 M.R.S.A. § 5250-A.

11. POSSESSION. Seller shall deliver possession of the Premises to Buyer at the Closing, free of all leases, tenancies or occupancies, including without limitation the RDC Lease. Seller or RDC may remove from the Premises any and all equipment, fixtures and improvements provide that no debris or waste therefrom remains on the Premises and none of RDC's hazardous, toxic, or special materials inventory or wastes remain on the Premises. RDC shall have the right to occupy the Premises for the operation of its business until the Closing.

12. DEFAULT; REMEDIES. In the event that Buyer fails to close hereunder for a reason other than the default of Seller, Seller may terminate this Agreement by written notice to Buyer and thereupon Seller shall be entitled to the Deposit as Seller's sole and exclusive remedy for Buyer's breach, and Escrow Agent shall be authorized to disburse the Deposit to Seller. Seller and Buyer acknowledge and agree that the damages for Buyer's breach of this Agreement are difficult to calculate and that the Deposit is a reasonable estimate of such damages. In the event that Seller breaches this Agreement for a reason other than the default of Buyer, Buyer shall be entitled to either (i) terminate this Agreement by written notice to the Seller, in which case Buyer shall be entitled to a return of the Deposit and Escrow Agent shall be authorized to disburse the Deposit to Buyer or (ii) pursue the remedy of specific performance. In the event of litigation regarding breach of this Agreement by either party, the party who obtains a final, un-appealable judgment in its favor shall be entitled to collect its reasonable attorneys' and paralegals' fees and court costs from the other party.

13. BROKERAGE/ESCROW AGENT. Seller and Buyer each represent to the other that they have not dealt or had contact with any broker in connection with this transaction other than Malone Commercial. Seller shall pay Malone Commercial a commission equal to [REDACTED] of the purchase price at the Closing, and Buyer shall pay Malone Commercial a commission equal to [REDACTED] of the purchase price at the Closing.

14. MISCELLANEOUS.

(a) Time. Time is of the essence hereof.

(b) Notices. Except as expressly provided to the contrary in this Agreement, all notices,

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demands and other communications hereunder shall be in writing and shall be given by electronic mail: if to Seller:

William Moody ([REDACTED]) and Mike Pearce (mpearce@pearcedow.com), and if to Buyer: Gordon Reger ([REDACTED]) and Tom Hanson (thanson@bssn.com), with a copy of such notice to Seller or Buyer at their addresses set forth in the preamble to this Agreement sent by certified mail, return receipt requested. Notices and communications of any kind shall never be sent to Bill Moody or anyone else at RDC or care of the RDC address. All notices shall be deemed to have been duly given if the electronic mail time stamp is prior to the expiration date and time specified herein. Attorneys are authorized to give notices on behalf of their clients. Either party may change the notice electronic mail addresses and certified mail notice addresses for purposes of this subparagraph by giving the other party notice of the new address in the manner described herein.

(c) Assignment. Buyer's rights under this Agreement may not be assigned without Seller's prior written approval, which approval shall be conditioned on Seller being satisfied that Buyer's assignee has in Seller's opinion the financial ability to acquire the Premises; notwithstanding the foregoing, Buyer may assign this Agreement to any entity of which Reger Holdings, LLC or Gordon Reger or his family or some combination thereof are the controlling principals without Seller consent, but with notice to the Seller. Buyer shall remain liable under this Agreement notwithstanding any such assignment. This Agreement will inure to the benefit of and bind the respective successors and assigns of Seller and Buyer.

(d) 1031 Exchange. Seller may elect to perform an IRC §1031 tax deferred exchange. Buyer agrees to cooperate in such an exchange and to sign the documents customarily used in such an exchange, provided that such documents do not modify the terms and conditions of this Agreement or impose additional liabilities or obligations on Buyer.

(e) Entire Agreement. This Agreement constitutes the entire agreement between Seller and Buyer with respect to the sale of the Premises, and there are no representations, warranties, agreements or understandings between the parties except as set forth herein.

(f) Construction. This Agreement shall be governed by and construed in accordance with the laws of Maine, without taking into account choice of law principles. If any provision of this Agreement is determined to be invalid or unenforceable, it shall not affect the validity or enforcement of the remaining provisions hereof.

(g) Confidentiality. Seller, Buyer and Escrow Agent agree not to disclose the terms, conditions or existence of this Agreement to any persons except lawyers, accountants, financial advisors, lenders,

Handwritten signature/initials

appraisers, and consultants to the parties. The terms and conditions of a certain Confidentiality Agreement by and between Seller, RDC, Reger Holdings, LLC and Gordon Reger dated May 27, 2016 (the "CA"), are incorporated by reference. It shall not be a breach of this provision or the CA for Seller or its consultants to discuss the development of the Premises with City of Portland officials or to submit applications for Approvals to the City of Portland pursuant to Buyer's Approvals Contingency.

(h) Counterpart Execution. This Agreement may be executed in one or more counterpart signatures, and together the signed counterparts shall be deemed to be a fully-executed contract.

IN WITNESS WHEREOF, Seller and Buyer have executed this Agreement as of the date first above written.

WITNESS:

Seller: Milliken Smith Bock, LLC

By: _____

William Moody
Its duly-authorized Manager

Buyer: Deering Property Development LLC

By: _____

Gordon Reger
Its duly-authorized Manager

Malone Commercial Brokers as Escrow Agent

By: _____

Joseph Malone

appraisers, and consultants to the parties. The terms and conditions of a certain Confidentiality Agreement by and between Seller, RDC, Reger Holdings, LLC and Gordon Reger dated May 27, 2016 (the "CA"), are incorporated by reference. It shall not be a breach of this provision or the CA for Seller or its consultants to discuss the development of the Premises with City of Portland officials or to submit applications for Approvals to the City of Portland pursuant to Buyer's Approvals Contingency.

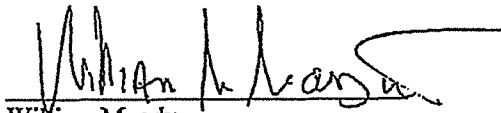
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WITNESS:

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By: 
William Moody
Its duly-authorized Manager

Buyer: Deering Property Development LLC

By: _____
Gordon Reger
Its duly-authorized Manager

Malone Commercial Brokers as Escrow Agent

By: _____
Joseph Malone

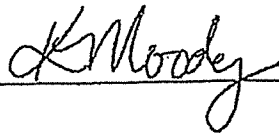
appraisers, and consultants to the parties. The terms and conditions of a certain Confidentiality Agreement by and between Seller, RDC, Reger Holdings, LLC and Gordon Reger dated May 27, 2016 (the "CA"), are incorporated by reference. It shall not be a breach of this provision or the CA for Seller or its consultants to discuss the development of the Premises with City of Portland officials or to submit applications for Approvals to the City of Portland pursuant to Buyer's Approvals Contingency.

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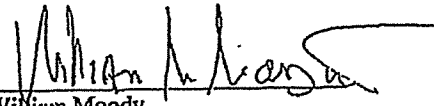
IN WITNESS WHEREOF, Seller and Buyer have executed this Agreement as of the date first above written.

WITNESS:

Seller: Milliken Smith Bock, LLC



By:



William Moody
Its duly-authorized Manager

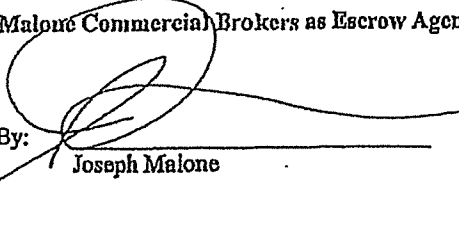
Buyer: Deering Property Development LLC

By:

Gordon Reger
Its duly-authorized Manager

Malone Commercial Brokers as Escrow Agent

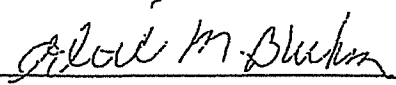
By:



Joseph Malone

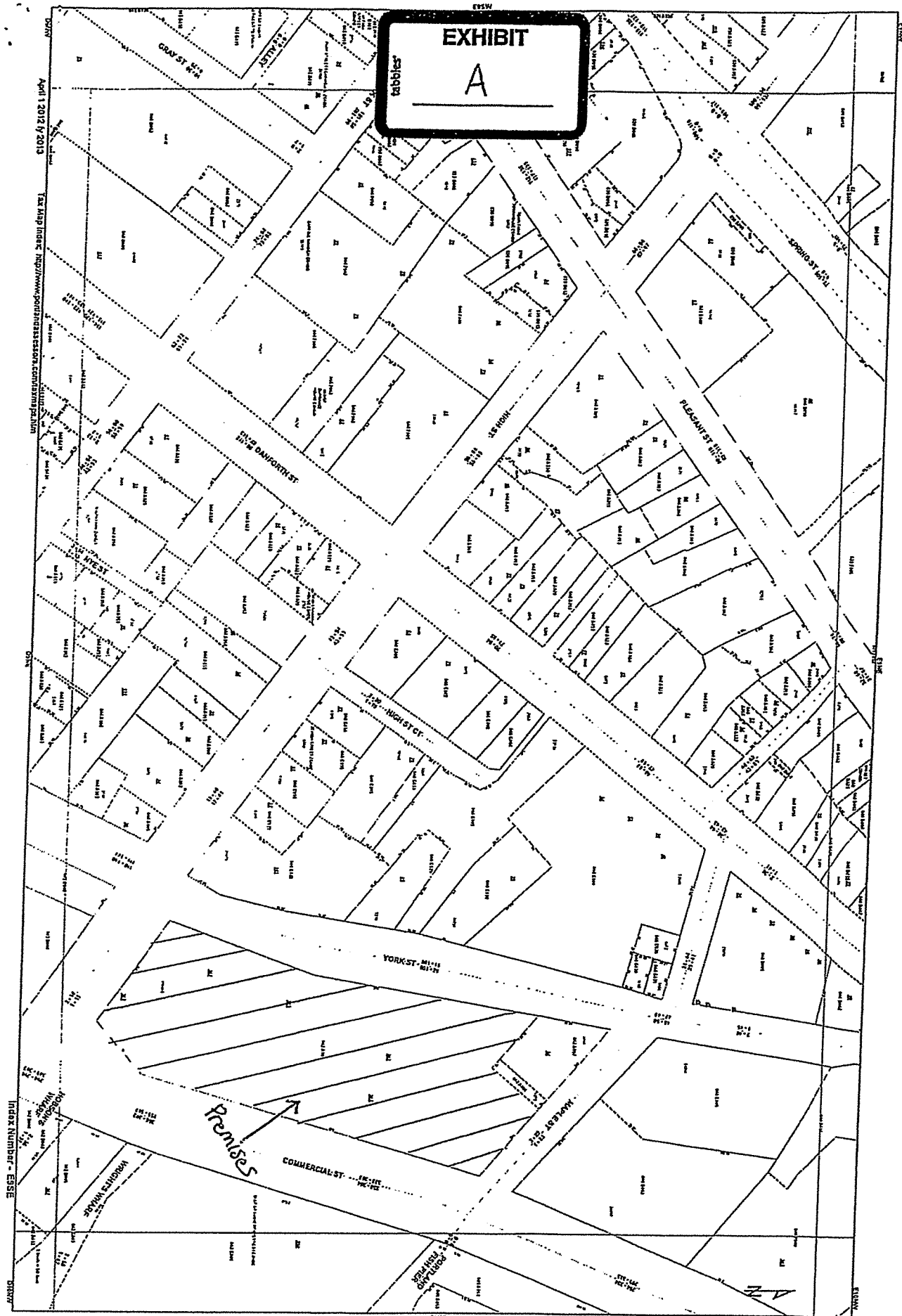
Reger Holdings, LLC hereby joins this Agreement, jointly and severally with Buyer, with respect to Buyer's obligations under this Agreement.

Reger Holdings, LLC



By:


Gordon Reger
Its duly-authorized Manager



EXHIBIT

A

tabbles

Premises

Index Number - ESSE

Section 5 – Public or Private Rights-of-Way

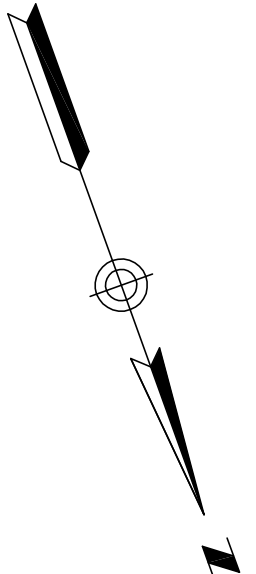
There are no public or private Rights-of-Way across the proposed development period.

Section 6 – Construction Schedule

Construction is scheduled to begin in 2017, with full build out of all three phases currently scheduled to be completed over 7 years.

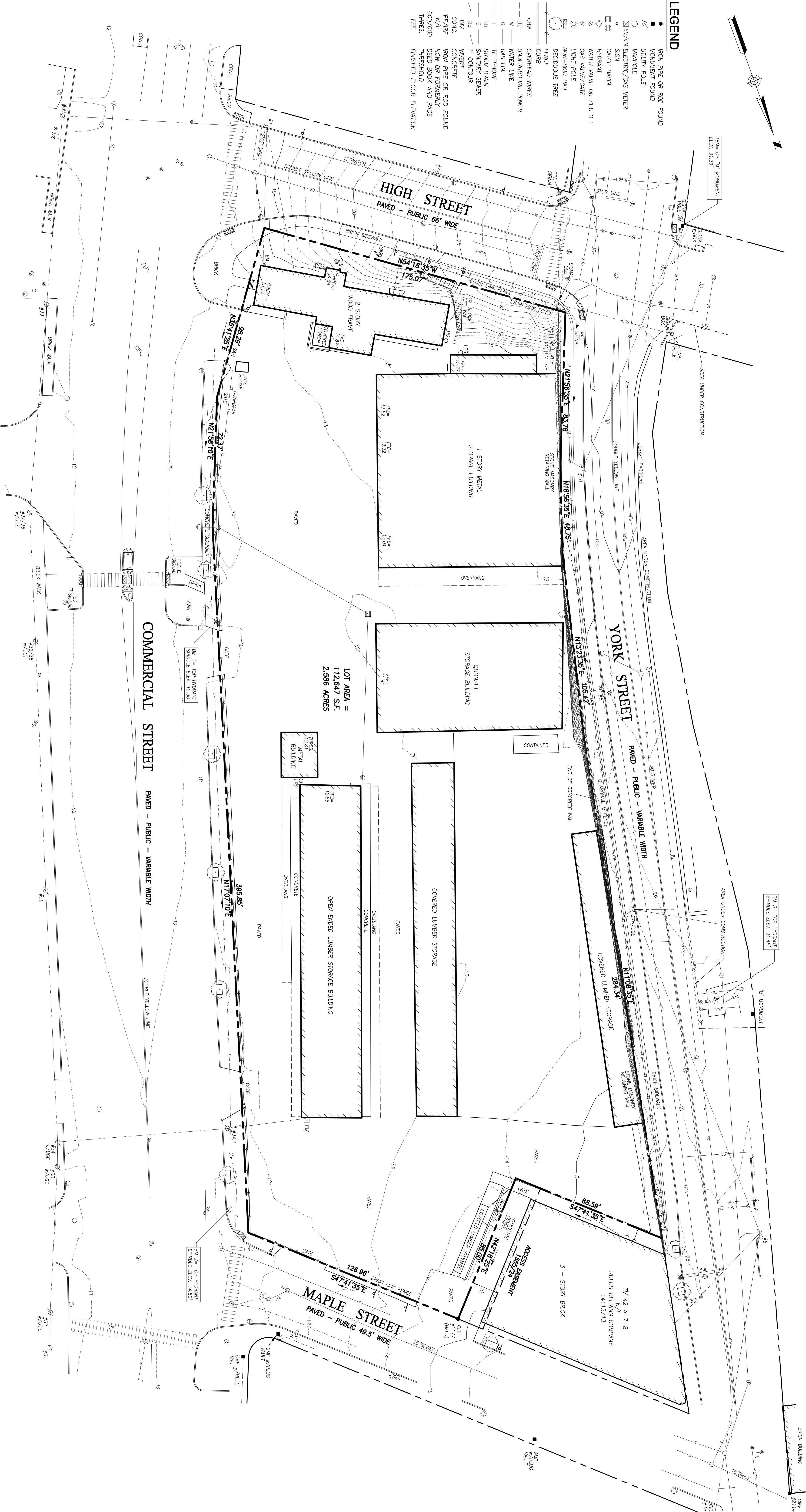
Appendix

Site Plan



LEGEND

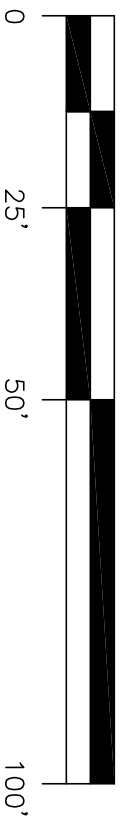
- IRON PIPE OR ROD FOUND
- MONUMENT FOUND
- UTILITY POLE
- MANHOLE
- EV/GM ELECTRIC/GAS METER
- SIGN
- CATCH BASIN
- HYDRANT
- WATER VALVE OR SHUTOFF
- GAS VALVE GATE
- LIGHT POLE
- NON-SOLID PAD
- DECIDUOUS TREE
- FENCE
- CURB
- OVERHEAD WIRES
- UNDERGROUND POWER
- WATER LINE
- GAS LINE
- TELEPHONE
- STORM DRAIN
- SANITARY SEWER
- 1' CONTOUR
- INVERT
- CONC.
- CONCRETE
- IRON PIPE OR ROD FOUND
- N/F
- NOW OR FORMERLY
- DEED BOOK AND PAGE
- THRESHOLD
- FINISHED FLOOR ELEVATION



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 UTILITIES IN THE AREA. THE SURVEYOR DOES NOT WARRANT THAT 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-DISSAFE AT LEAST THREE BUSINESS DAYS BEFORE PERFORMING ANY CONSTRUCTION. DUE TO OSHA GOVERNED SPACE REQUIREMENTS, ALL INVERTS AND PIPE SIZES MUST BE VERIFIED PRIOR TO ANY CONSTRUCTION.

GRAPHIC SCALE



PLAN REFERENCES

- "PLAN OF LAND ON COMMERCIAL, HIGH, YORK, & MAPLE STREETS, PORTLAND, MAINE FOR RUFUS DEERING COMPANY," BY OWEN HASKELL, INC. DATED JANUARY 9, 1989.
- STANDARD BOUNDARY SURVEY FOR WILLIAM J. DOWD LOCATED IN PORTLAND, MAINE* BY D.A. MAYFIELD, JR. DATED NOVEMBER, 1987.
- "ALTA/ACSM LAND TITLE SURVEY ON HIGH, DANFORTH, MAPLE, & YORK STREETS MADE FOR J.B. BROWN & SONS," BY OWEN HASKELL, INC. DATED DECEMBER 3, 2013.

GENERAL NOTES

- OWNER OF RECORD: WILLIEN SMITH BLOCK, LLC
TAX MAP 42 BLOCK A LOT 1
C.C.R.D. BOOK 22473 PAGE 307
- BEARINGS ARE TRUE NORTH BASED ON PLAN REFERENCE 1.
- ELEVATIONS ARE BASED ON 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.

DATE _____

JOHN W. SWAN, PLS NO. 10328

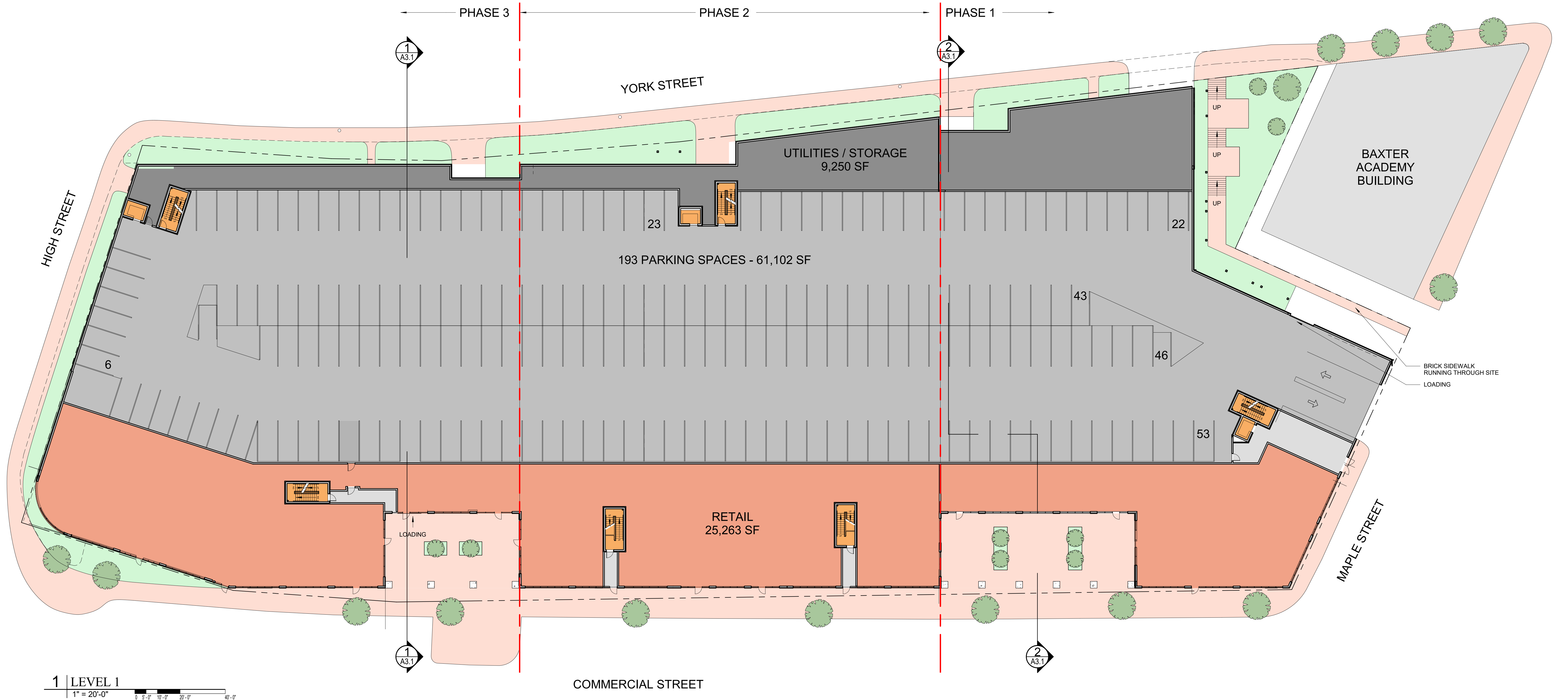
CONFIDENTIAL

BOUNDARY & TOPOGRAPHIC SURVEY ON COMMERCIAL STREET, PORTLAND, MAINE MADE FOR BERNSTEIN SHUR

OWEN HASKELL, INC.

PROFESSIONAL LAND SURVEYORS

Drawn By	SDG	Date	Job No.
Trace By	JLW	SEPT. 6, 2016	2016-245P
Check By	JWS	Scale	Dwg. No.
Book No.	1149	1" = 25'	1



OVERALL PROJECT GROSS SQUARE FOOTAGES	
LEVEL 1	99,154 GSF
LEVEL 2	99,154 GSF
LEVEL 3	73,665 GSF
LEVEL 4	73,665 GSF
LEVEL 5	73,665 GSF
LEVEL 6	71,180 GSF +
	490,483 GSF

OVERALL PROJECT	
RETAIL:	25,263 SF
PARKING:	121,398 SF (384 SPACES)
RES. UNITS:	260,411 SF (290 UNITS)
	(6) 3-BR UNITS
	(114) 2-BR UNITS
	(129) 1-BR UNITS
	(41) EFF - UNITS

PHASE 1	
LEV. 1	29,321 GSF
LEV. 2	29,321 GSF
LEV. 3	20,103 GSF
LEV. 4	20,103 GSF
LEV. 5	20,103 GSF
LEV. 6	<u>19,535 GSF +</u>
	138,486 GSF

PHASE 1	
RETAIL:	6,219 SF
PARKING:	34,544 SF (82 SPACES)
RES. UNITS:	72,310 SF (82 UNITS)
	(33) 2-BR UNITS
	(28) 1-BR UNITS
	(21) EFF - UNITS

PHASE 2	
LEV. 1	36,284 GSF
LEV. 2	36,284 GSF
LEV. 3	30,214 GSF
LEV. 4	30,214 GSF
LEV. 5	30,214 GSF
LEV. 6	<u>29,342 GSF +</u>
	192,552 GSF

PHASE 2	
RETAIL:	9,619 SF
PARKING:	44,044 SF (152 SPACES)
RES. UNITS:	106,365 SF (114 UNITS)
	(6) 3-BR UNITS
	(44) 2-BR UNITS
	(56) 1-BR UNITS
	(8) EFF - UNITS

PHASE 3	
LEV. 1	33,549 GSF
LEV. 2	33,549 GSF
LEV. 3	23,348 GSF
LEV. 4	23,348 GSF
LEV. 5	23,348 GSF
LEV. 6	<u>22,303 GSF +</u>
	159,445 GSF

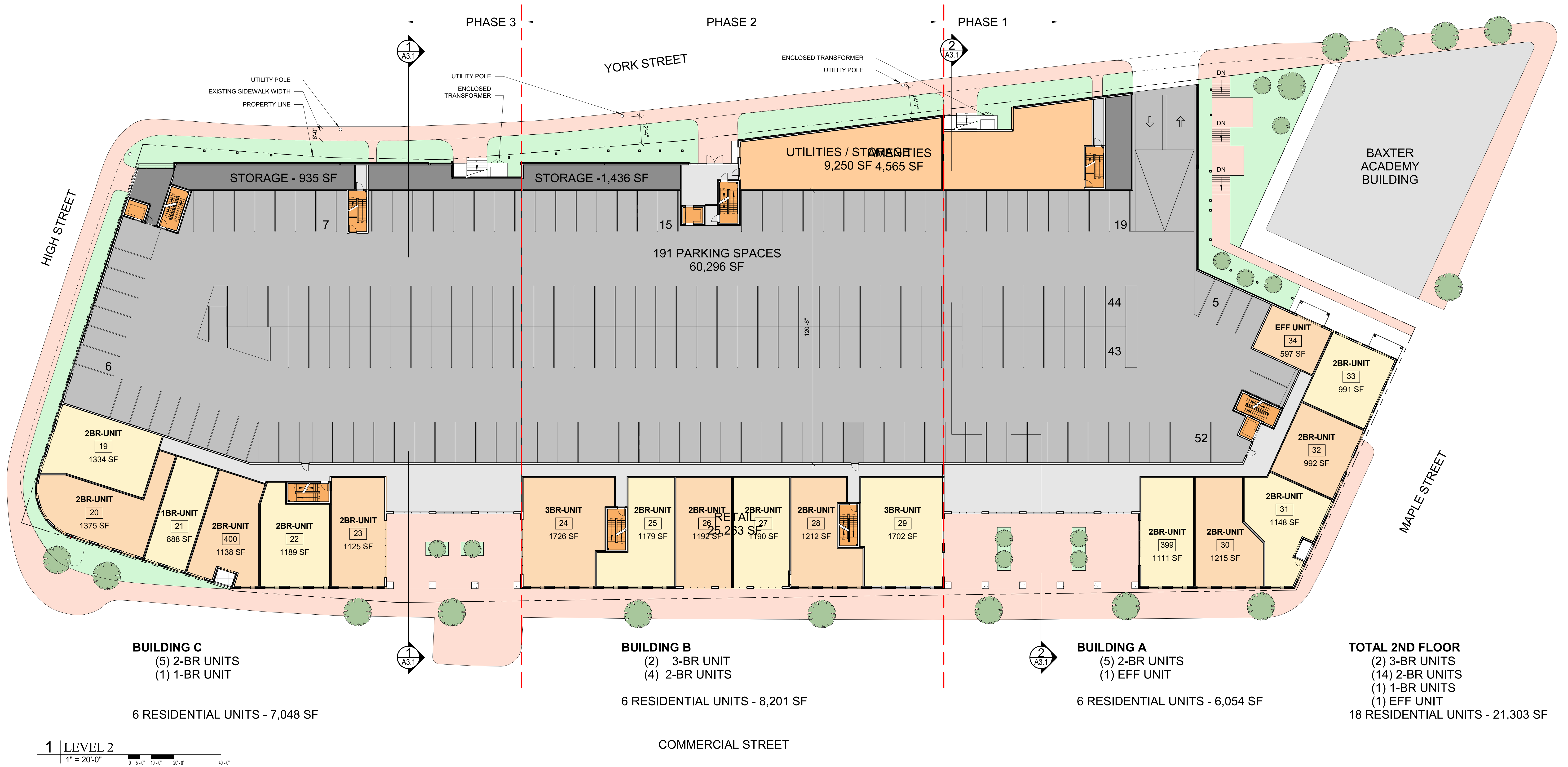
PHASE 3	
RETAIL:	9,425 SF
PARKING:	42,808 SF (156 SPACES)
RES. UNITS:	81,736 SF (94 UNITS)
	(37) 2-BR UNITS
	(45) 1-BR UNITS
	(12) EFF - UNITS

383 COMMERCIAL STREET

Portland, Maine

MARCH 2, 2017

A1.1



383 COMMERCIAL STREET

Portland, Maine

MARCH 2, 2017

A1.2

Locus Map



WWW.SEBAGOTECHNICS.COM

75 John Roberts Rd. - Suite 1A
South Portland, ME 04106
Tel. 207-200-2100

250 Goddard Rd. - Suite B
Lewiston, ME 04240
Tel. 207-783-5656

LOCUS MAP OF 383 COMMERCIAL STREET

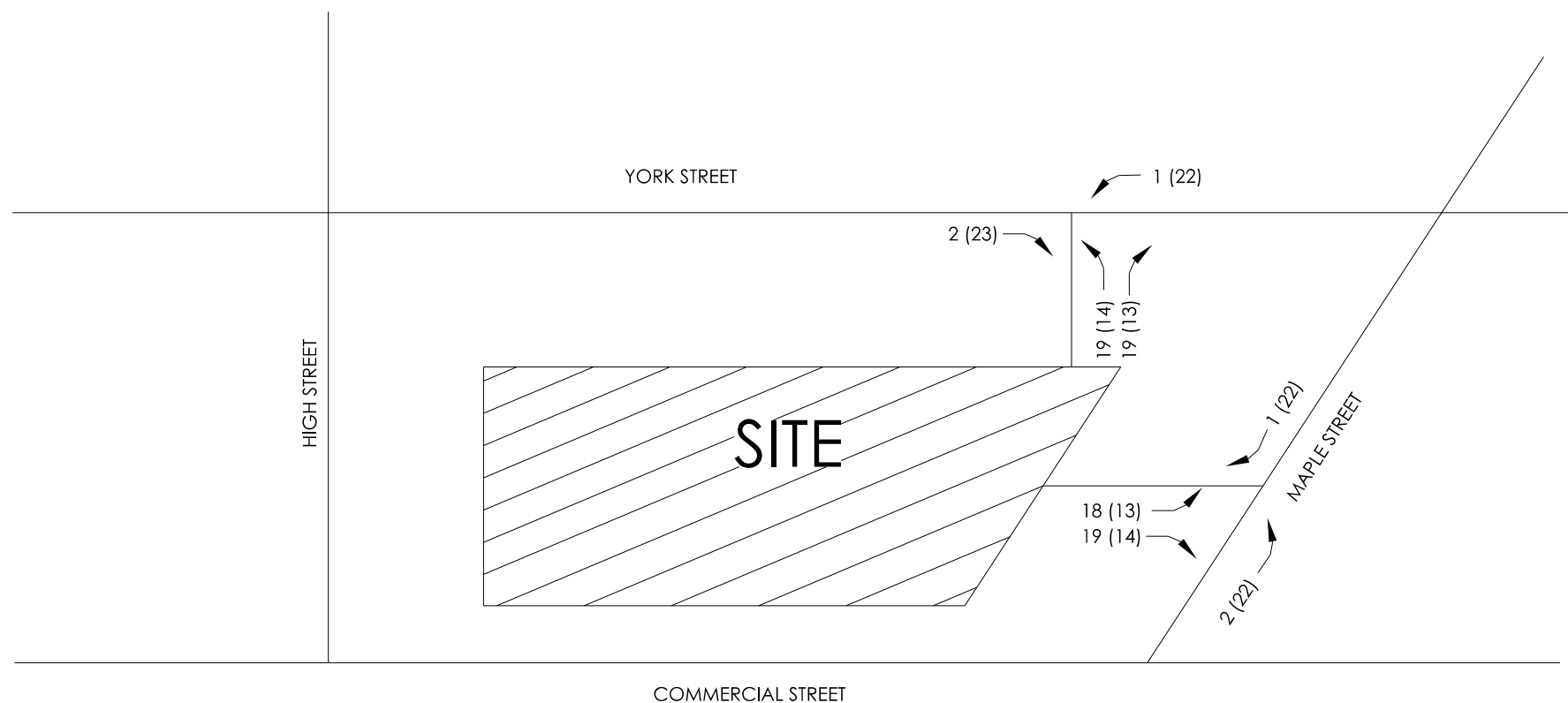
LOCATION:
383 COMMERCIAL STREET (ROUTE 1A)
PORTLAND, ME 04104

FOR:
DEERING PROPERTY MANAGEMENT, LLC
2730 TRANSIT ROAD
WEST SENECA, NY 14224

SCALE: 1" = 0.1 miles

DATE: 01/24/2017

Trip Distribution Figure



KEY

XX AM PEAK HOUR
(XX) PM PEAK HOUR



75 John Roberts Rd. - Suite 1A
South Portland, ME 04106
Tel. 207-200-2100

250 Goddard Rd. - Suite B
Lewiston, ME 04240
Tel. 207-783-5656

TRIP DISTRIBUTION 383 COMMERCIAL STREET DEVELOPMENT

LOCATION: 383 COMMERCIAL STREET
PORTLAND, MAINE

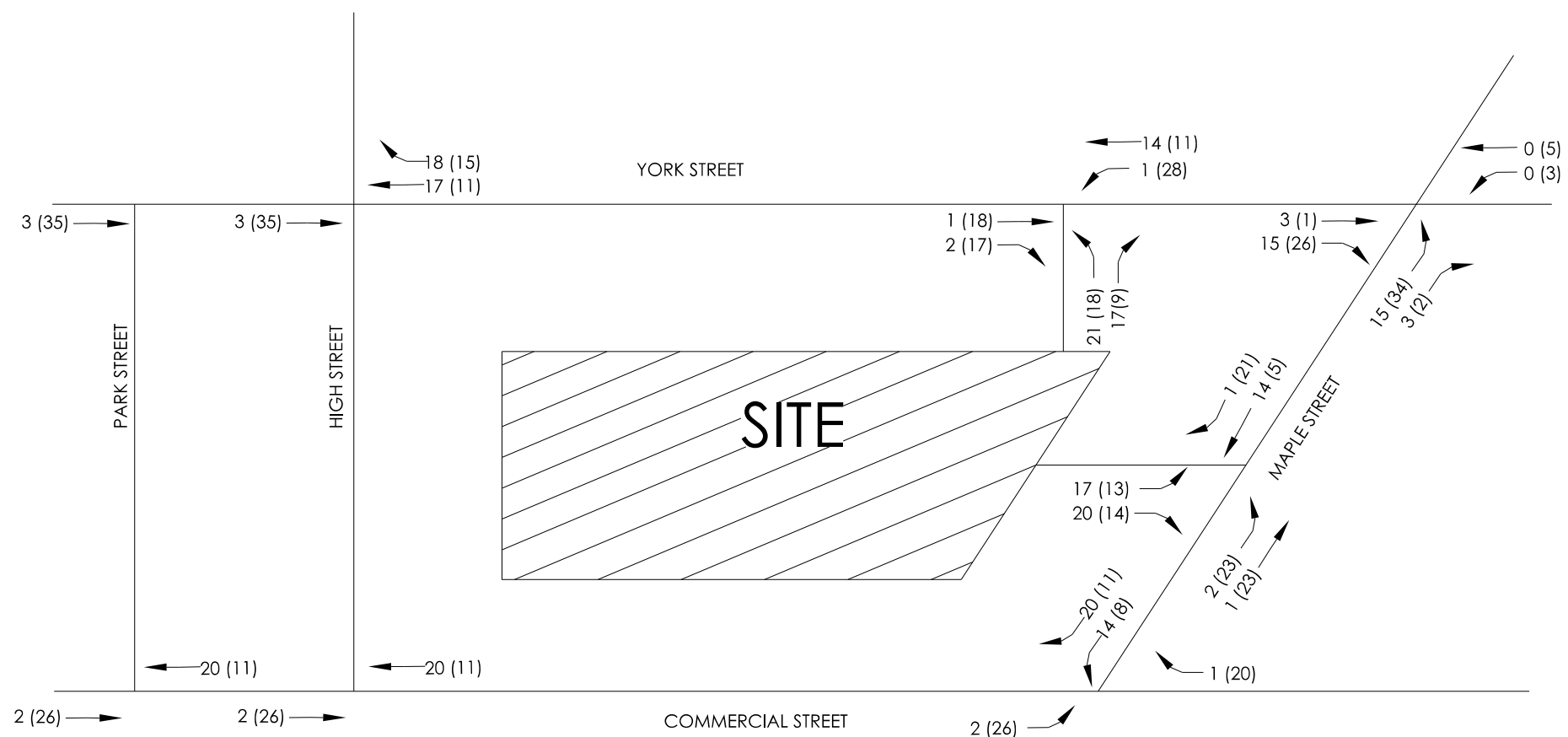
FOR: DEERING PROPERTY MANAGEMENT, LLC
2730 TRANSIT ROAD
WEST SENECA, NEW YORK 14224

SCALE: N.T.S.

DATE: 03/10/2017

FIGURE:
1 OF 1

Trip Assignment Figure



KEY

XX AM PEAK HOUR
(XX) PM PEAK HOUR



75 John Roberts Rd. - Suite 1A
South Portland, ME 04106
Tel. 207-200-2100

250 Goddard Rd. - Suite B
Lewiston, ME 04240
Tel. 207-783-5656

TRIP ASSIGNMENT
383 COMMERCIAL STREET DEVELOPMENT

LOCATION: 383 COMMERCIAL STREET
PORTLAND, MAINE

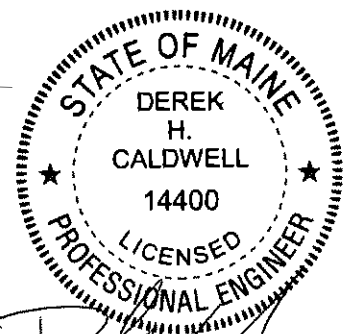
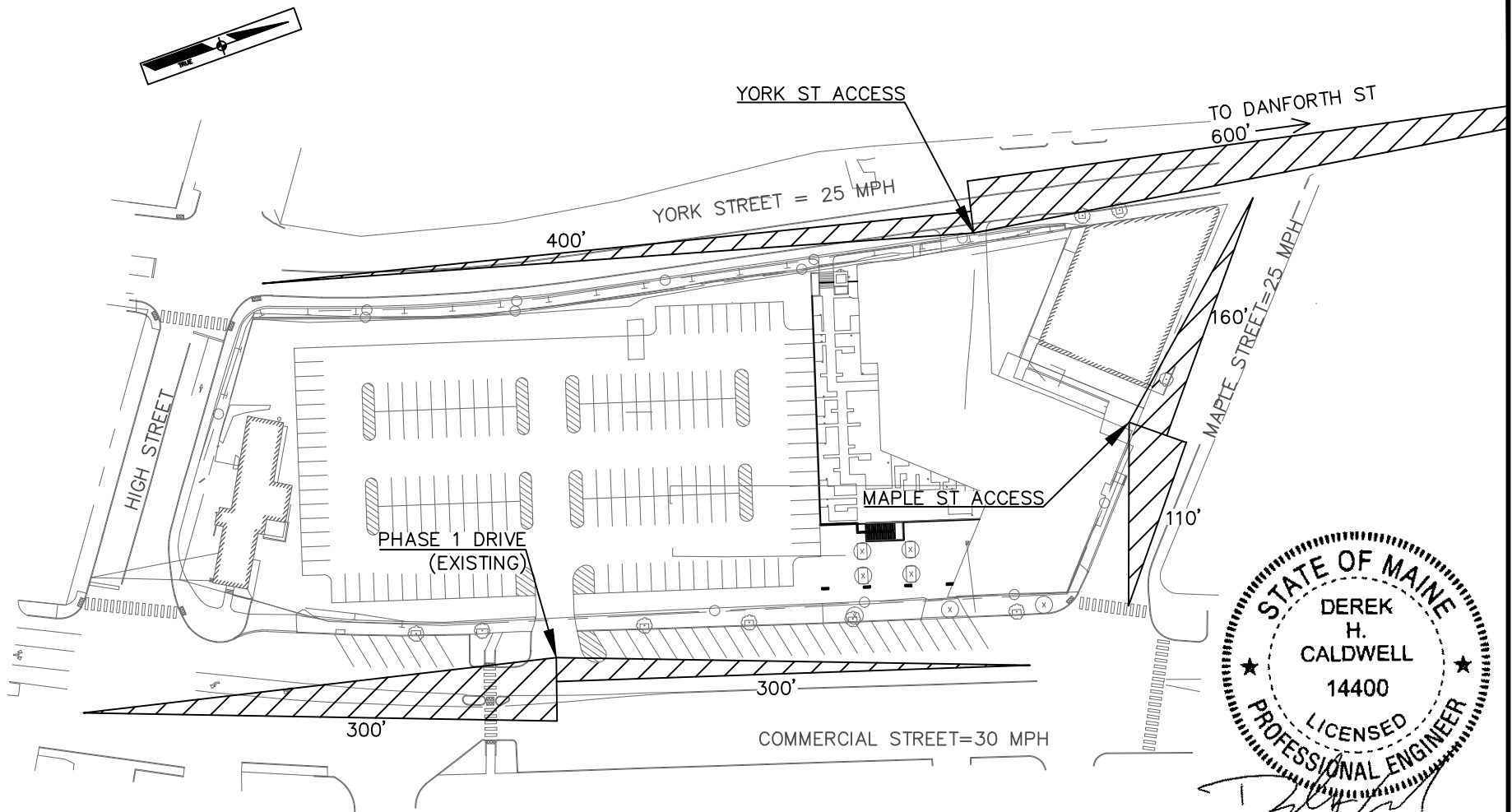
FOR: DEERING PROPERTY MANAGEMENT, LLC
2730 TRANSIT ROAD
WEST SENECA, NEW YORK 14224

SCALE: N.T.S.

DATE: 03/10/2017

FIGURE:
1 OF 1

Sight Distance Plan



[Signature]
 2/15/17
 *FOR SIGHT DISTANCE ONLY

*FOR SIGHT DISTANCE ONLY. SITE PLAN BY OTHERS.



75 John Roberts Rd. Suite 1A South Portland, ME 04106 Tel. 207-200-2100
 250 Goddard Rd. Suite B Lewiston, ME 04240 Tel. 207-783-5656
WWW.SEBAGOTECHNICS.COM

SIGHT DISTANCE MEASUREMENTS OF 383 COMMERCIAL STREET

LOCATION:
 383 COMMERCIAL STREET (ROUTE 1A)
 PORTLAND, MAINE

FOR: DEERING PROPERTY MANAGEMENT, LLC
 2730 TRANSIT ROAD
 WEST SENECA, NY 14224

SCALE: 1"=100'

DATE: 01/24/2017

SHEET:
 1 OF 1

Crash Data

Crash Summary Report

Report Selections and Input Parameters

REPORT SELECTIONS

☒ Crash Summary I ☐ Section Detail ☒ Crash Summary II ☐ 1320 Public ☐ 1320 Private ☒ 1320 Summary

REPORT DESCRIPTION

York St area

REPORT PARAMETERS

Year 2013, Start Month 1 through Year 2015 End Month: 12

Route: 0001A	Start Node: 16784 End Node: 16785	Start Offset: 0 End Offset: 0	☐ Exclude First Node ☐ Exclude Last Node
Route: 0560475	Start Node: 16785 End Node: 18980	Start Offset: 0 End Offset: 0	☒ Exclude First Node ☐ Exclude Last Node
Route: 3200508	Start Node: 18980 End Node: 18529	Start Offset: 0 End Offset: 0	☒ Exclude First Node ☐ Exclude Last Node
Route: 0560365	Start Node: 16784 End Node: 18529	Start Offset: 0 End Offset: 0	☒ Exclude First Node ☒ Exclude Last Node

Crash Summary I

Nodes														
Node	Route - MP	Node Description	U/R	Total Crashes	K	Injury A	Crashes B	C	PD	Percent Injury	Annual M Ent-Veh	Crash Rate	Critical Rate	CRF
16784	0001A - 11.14	Int of COMMERCIAL ST HIGH ST	2	10	0	0	0	2	8	20.0	6.819	0.49	0.35	1.41
												Statewide Crash Rate:	0.15	
16785	0001A - 11.26	Int of COMMERCIAL ST MAPLE ST	2	4	0	0	0	2	2	50.0	6.273	0.21	0.35	0.00
												Statewide Crash Rate:	0.15	
18980	0560475 - 0.07	0509400 POR,MAPLE,YORK ST.	2	2	0	0	0	0	2	0.0	2.038	0.33	0.45	0.00
												Statewide Crash Rate:	0.14	
18529	3200508 - 0.24	Int of HIGH ST YORK ST	9	11	0	0	1	2	7	30.0	4.827	0.76	1.19	0.00
												Statewide Crash Rate:	0.67	
Study Years: 3.00		NODE TOTALS:		27	0	0	1	6	19	25.9	19.957	0.45	0.44	1.02

Crash Summary I

Sections																												
Start Node	End Node	Element	Offset Begin - End	Route - MP	Section Length	U/R	Total Crashes	K	Injury A	Crashes B	Crashes C	PD	Percent Injury	Annual HMVM	Crash Rate	Critical Rate	CRF											
16784	16785	3116402	0 - 0.12	0001A - 11.14 US 1A	0.12	2	13	0	0	0	3	10	23.1	0.00736	588.97	419.83	1.40											
Int of COMMERCIAL ST HIGH ST															Statewide Crash Rate: 198.31													
16785	18980	192461	0 - 0.07	0560475 - 0 RD INV 05 60475	0.07	2	4	0	0	0	0	4	0.0	0.00016	8283.37	1646.42	5.03											
Int of COMMERCIAL ST MAPLE ST															Statewide Crash Rate: 384.18													
18529	18980	194048	0 - 0.14	3200508 - 0.10 RD INV 3200508	0.14	2	1	0	0	0	0	1	0.0	0.00280	119.14	875.73	0.00											
Int of HIGH ST YORK ST															Statewide Crash Rate: 384.18													
16784	18529	3115419	0 - 0.05	0560365 - 0 RD INV 05 60365	0.05	2	1	0	0	0	0	0	0.0	0.00076	439.90	739.20	0.00											
Int of COMMERCIAL ST HIGH ST															Statewide Crash Rate: 198.31													
Study Years:		3.00		Section Totals:		0.38		19		0		0		3		15		15.8		0.01107		571.91		455.47		1.26		
Grand Totals:					0.38		46		0		0		1		9		34		21.7		0.01107		1384.63		596.07		2.32	

Crash Summary

Section Details

Start Node	End Node	Element	Offset Begin - End	Route - MP	Total Crashes	K	Injury Crashes				Crash Report	Crash Date	Crash Mile Point	Injury Degree
							A	B	C	PD				
16784	16785	3116402	0 - 0.12	0001A - 11.14	13	0	0	0	3	10	2013-18804	08/02/2013	11.15	PD
											2015-21518	07/26/2015	11.16	C
											2015-8837	03/09/2015	11.16	PD
											2015-16251	06/02/2015	11.19	PD
											2015-41542	09/13/2015	11.21	C
											2015-2402	01/21/2015	11.21	PD
											2013-26150	10/22/2013	11.21	PD
											2014-7699	03/07/2014	11.21	PD
											2013-4469	02/15/2013	11.22	PD
											2014-1756	01/13/2014	11.23	PD
											2015-21604	07/27/2015	11.23	PD
											2014-14614	05/28/2014	11.24	PD
											2013-4035	02/15/2013	11.25	C
											16785	18980	192461	0 - 0.07
2015-4344	02/03/2015	0.04	PD											
2013-24880	10/04/2013	0.05	PD											
2015-45726	10/19/2015	0.06	PD											
18529	18980	194048	0 - 0.14	3200508 - 0.10	1	0	0	0	0	1	2014-12456	04/29/2014	0.12	PD
16784	18529	3115419	0 - 0.05	0560365 - 0	1	0	0	0	0	0	2015-5667	02/11/2015	0.01	
Totals:					19	0	0	0	3	15				

Crash Summary II - Characteristics

Crashes by Day and Hour

	AM											Hour of Day											PM												
Day Of Week	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	Un	Tot									
SUNDAY	0	1	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	3									
MONDAY	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	1	0	0	0	1	0	0	1	0	5									
TUESDAY	0	0	0	0	0	0	0	1	2	1	0	2	0	1	2	1	1	2	0	0	0	0	0	0	0	13									
WEDNESDAY	0	0	0	0	0	0	0	0	0	0	0	1	0	0	2	1	1	0	1	0	0	0	0	0	0	6									
THURSDAY	0	1	0	0	0	0	0	0	2	0	0	0	1	0	0	0	1	1	0	0	0	0	0	0	0	6									
FRIDAY	0	0	0	0	0	0	0	1	0	2	0	2	1	1	0	0	0	0	1	1	0	0	0	0	0	9									
SATURDAY	0	0	0	0	0	0	0	0	0	1	0	0	2	0	0	0	0	0	0	0	0	1	0	0	0	4									
Totals	0	2	0	0	0	0	0	2	5	6	0	6	4	2	4	2	4	3	2	1	1	1	0	1	0	46									

Vehicle Counts by Type

Unit Type	Total	Unit Type	Total
1-Passenger Car	45	23-Bicyclist	3
2-(Sport) Utility Vehicle	21	24-Witness	5
3-Passenger Van	3	25-Other	2
4-Cargo Van (10K lbs or Less)	0	Total	99
5-Pickup	14		
6-Motor Home	0		
7-School Bus	1		
8-Transit Bus	0		
9-Motor Coach	0		
10-Other Bus	0		
11-Motorcycle	0		
12-Moped	0		
13-Low Speed Vehicle	0		
14-Autocycle	0		
15-Experimental	0		
16-Other Light Trucks (10,000 lbs or Less)	1		
17-Medium/Heavy Trucks (More than 10,000 lbs)	4		
18-ATV - (4 wheel)	0		
20-ATV - (2 wheel)	0		
21-Snowmobile	0		
22-Pedestrian	0		

Crash Summary II - Characteristics

Crashes by Driver Action at Time of Crash

Driver Action at Time of Crash	Dr 1	Dr 2	Dr 3	Dr 4	Dr 5	Other	Total
No Contributing Action	21	23	2	0	0	0	46
Ran Off Roadway	0	1	0	0	0	0	1
Failed to Yield Right-of-Way	6	5	0	0	0	0	11
Ran Red Light	0	0	0	0	0	0	0
Ran Stop Sign	0	0	0	0	0	0	0
Disregarded Other Traffic Sign	0	0	0	0	0	0	0
Disregarded Other Road Markings	0	0	0	0	0	0	0
Exceeded Posted Speed Limit	0	0	0	0	0	0	0
Drove Too Fast For Conditions	0	1	0	0	0	0	1
Improper Turn	2	0	0	0	0	0	2
Improper Backing	2	4	0	0	0	0	6
Improper Passing	1	3	0	0	0	0	4
Wrong Way	0	0	0	0	0	0	0
Followed Too Closely	4	4	0	0	0	0	8
Failed to Keep in Proper Lane	3	0	0	0	0	0	3
Operated Motor Vehicle in Erratic, Reckless, Careless, Negligent or Aggressive Manner	1	0	0	0	0	0	1
Swerved or Avoided Due to Wind, Slippery Surface, Motor Vehicle, Object, Non-Motorist in Roadway	0	0	0	0	0	0	0
Over-Correcting/Over-Steering	1	0	0	0	0	0	1
Other Contributing Action	2	0	0	0	0	0	2
Unknown	0	0	0	0	0	0	0
Total	43	41	2	0	0	0	86

Crashes by Apparent Physical Condition And Driver

Apparent Physical Condition	Dr 1	Dr 2	Dr 3	Dr 4	Dr 5	Other	Total
Apparently Normal	42	40	2	0	0	3	87
Physically Impaired or Handicapped	0	0	0	0	0	0	0
Emotional(Depressed, Angry, Disturbed, etc.)	0	0	0	0	0	0	0
Ill (Sick)	0	1	0	0	0	0	1
Asleep or Fatigued	0	0	0	0	0	0	0
Under the Influence of Medications/Drugs/Alcohol	1	0	0	0	0	0	1
Other	0	0	0	0	0	0	0
Total	43	41	2	0	0	3	89

Driver Age by Unit Type

Age	Driver	Bicycle	SnowMobile	Pedestrian	ATV	Total
09-Under	0	0	0	0	0	0
10-14	0	0	0	0	0	0
15-19	3	0	0	0	0	3
20-24	9	0	0	0	0	9
25-29	12	0	0	0	0	12
30-39	18	0	0	0	0	18
40-49	17	0	0	0	0	17
50-59	13	0	0	0	0	13
60-69	11	0	0	0	0	11
70-79	3	0	0	0	0	3
80-Over	2	0	0	0	0	2
Unknown	3	3	0	0	0	6
Total	91	3	0	0	0	94

Crash Summary II - Characteristics

Most Harmful Event			
Most Harmful Event	Total	Most Harmful Event	Total
1-Overturn / Rollover	0	38-Other Fixed Object (wall, building, tunnel, etc.)	0
2-Fire / Explosion	0	39-Unknown	0
3-Immersion	0	40-Gate or Cable	0
4-Jackknife	0	41-Pressure Ridge	0
5-Cargo / Equipment Loss Or Shift	0	Total	89
6-Fell / Jumped from Motor Vehicle	0		
7-Thrown or Falling Object	0		
8-Other Non-Collision	0		
9-Pedestrian	0		
10-Pedalcycle	0		
11-Railway Vehicle - Train, Engine	0		
12-Animal	0		
13-Motor Vehicle in Transport	78		
14-Parked Motor Vehicle	11		
15-Struck by Falling, Shifting Cargo or Anything Set in Motion by Motor Vehicle	0		
16-Work Zone / Maintenance Equipment	0		
17-Other Non-Fixed Object	0		
18-Impact Attenuator / Crash Cushion	0		
19-Bridge Overhead Structure	0		
20-Bridge Pier or Support	0		
21-Bridge Rail	0		
22-Cable Barrier	0		
23-Culvert	0		
24-Curb	0		
25-Ditch	0		
26-Embankment	0		
27-Guardrail Face	0		
28-Guardrail End	0		
29-Concrete Traffic Barrier	0		
30-Other Traffic Barrier	0		
31-Tree (Standing)	0		
32-Utility Pole / Light Support	0		
33-Traffic Sign Support	0		
34-Traffic Signal Support	0		
35-Fence	0		
36-Mailbox	0		
37-Other Post Pole or Support	0		

Traffic Control Devices		
Traffic Control Device	Total	
1-Traffic Signals (Stop & Go)	9	
2-Traffic Signals (Flashing)	1	
3-Advisory/Warning Sign	1	
4-Stop Signs - All Approaches	0	
5-Stop Signs - Other	10	
6-Yield Sign	0	
7-Curve Warning Sign	0	
8-Officer, Flagman, School Patrol	0	
9-School Bus Stop Arm	0	
10-School Zone Sign	1	
11-R.R. Crossing Device	0	
12-No Passing Zone	0	
13-None	24	
14-Other	0	
Total	46	

Injury Data		
Severity Code	Injury Crashes	Number Of Injuries
K	0	0
A	0	0
B	1	1
C	9	11
PD	34	0
Total	44	12

Road Character	
Road Grade	Total
1-Level	31
2-On Grade	13
3-Top of Hill	0
4-Bottom of Hill	2
5-Other	0
Total	46

Light	
Light Condition	Total
1-Daylight	34
2-Dawn	1
3-Dusk	1
4-Dark - Lighted	9
5-Dark - Not Lighted	0
6-Dark - Unknown Lighting	0
7-Unknown	1
Total	46

Crash Summary II - Characteristics

Crashes by Year and Month

Month	2013	2014	2015	Total
JANUARY	1	1	1	3
FEBRUARY	2	1	3	6
MARCH	1	1	2	4
APRIL	0	1	1	2
MAY	0	2	0	2
JUNE	1	2	1	4
JULY	1	1	3	5
AUGUST	1	1	0	2
SEPTEMBER	1	0	2	3
OCTOBER	5	1	1	7
NOVEMBER	0	1	3	4
DECEMBER	2	2	0	4
Total	15	14	17	46

Report is limited to the last 10 years of data.

Crash Summary II - Characteristics

Crashes by Crash Type and Type of Location

Crash Type	Straight Road	Curved Road	Three Leg Intersection	Four Leg Intersection	Five or More Leg Intersection	Driveways	Bridges	Interchanges	Other	Parking Lot	Private Way	Cross Over	Railroad Crossing	Total
Object in Road	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rear End / Sideswipe	14	0	10	7	0	4	0	0	0	0	0	0	0	35
Head-on / Sideswipe	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Intersection Movement	0	0	4	2	0	1	0	0	0	0	0	0	0	7
Pedestrians	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Train	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Went Off Road	0	0	0	1	0	0	0	0	0	0	0	0	0	1
All Other Animal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bicycle	0	0	1	2	0	0	0	0	0	0	0	0	0	3
Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jackknife	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rollover	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fire	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Submersion	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Thrown or Falling Object	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bear	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Deer	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Moose	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Turkey	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	14	0	15	12	0	5	0	0	0	0	0	0	0	46

Crash Summary II - Characteristics

Crashes by Weather, Light Condition and Road Surface

Weather Light	Dry	Ice/Frost	Mud, Dirt, Gravel	Oil	Other	Sand	Slush	Snow	Unknown	Water (Standing, Moving)	Wet	Total
Blowing Sand, Soil, Dirt												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Blowing Snow												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Clear												
Dark - Lighted	4	0	0	0	0	0	0	0	0	0	1	5
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	1	0	0	0	0	0	0	0	0	0	0	1
Daylight	18	0	0	0	0	0	0	2	0	0	2	22
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	1	0	0	1
Cloudy												
Dark - Lighted	2	0	0	0	0	0	0	0	0	0	0	2
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	3	0	0	0	0	0	0	2	0	0	3	8
Dusk	1	0	0	0	0	0	0	0	0	0	0	1
Unknown	0	0	0	0	0	0	0	0	0	0	0	0

Crash Summary II - Characteristics

Crashes by Weather, Light Condition and Road Surface

Weather Light	Dry	Ice/Frost	Mud, Dirt, Gravel	Oil	Other	Sand	Slush	Snow	Unknown	Water (Standing, Moving)	Wet	Total
Fog, Smog, Smoke												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Other												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Rain												
Dark - Lighted	1	0	0	0	0	0	0	0	0	0	1	2
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	4	4
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Severe Crosswinds												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0

Crash Summary II - Characteristics

Crashes by Weather, Light Condition and Road Surface

Weather Light	Dry	Ice/Frost	Mud, Dirt, Gravel	Oil	Other	Sand	Slush	Snow	Unknown	Water (Standing, Moving)	Wet	Total
Sleet, Hail (Freezing Rain or Drizzle)												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Snow												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	30	0	0	0	0	0	0	4	1	0	0	46

Crash Summary Report

Report Selections and Input Parameters

REPORT SELECTIONS

☒ Crash Summary I ☐ Section Detail ☒ Crash Summary II ☐ 1320 Public ☐ 1320 Private ☒ 1320 Summary

REPORT DESCRIPTION

Rt 1A

REPORT PARAMETERS

Year 2013, Start Month 1 through Year 2015 End Month: 12

Route: 0001A

Start Node: 16783

Start Offset: 0

☐ Exclude First Node

End Node: 16784

End Offset: 0

☒ Exclude Last Node

Crash Summary I

Nodes															
Node	Route - MP	Node Description		U/R	Total Crashes	K	Injury A	Crashes B	Crashes C	PD	Percent Injury	Annual M Ent-Veh	Crash Rate	Critical Rate	CRF
16783	0001A - 11.06	Int of COMMERCIAL ST	PARK ST	2	20	0	0	2	2	16	20.0	8.867	0.75	0.32	2.32
													Statewide Crash Rate: 0.15		
Study Years:	3.00	NODE TOTALS:			20	0	0	2	2	16	20.0	8.867	0.75	0.32	2.32

Crash Summary I

Sections																	
Start Node	End Node	Element	Offset Begin - End	Route - MP	Section Length	U/R	Total Crashes	K	Injury A	Crashes B	Crashes C	PD	Percent Injury	Annual HMVM	Crash Rate	Critical Rate	CRF
16783	16784	3116401	0 - 0.08	0001A - 11.06	0.08	2	9	0	1	0	0	8	11.1	0.00479	625.85	465.78	1.34
Int of COMMERCIAL ST PARK ST				US 1A											Statewide Crash Rate: 198.16		
Study Years: 3.00				Section Totals:	0.08		9	0	1	0	0	8	11.1	0.00479	625.85	465.78	1.34
				Grand Totals:	0.08		29	0	1	2	2	24	17.2	0.00479	2016.63	634.09	3.18

Crash Summary

Section Details

Start Node	End Node	Element	Offset Begin - End	Route - MP	Total Crashes	K	Injury Crashes				Crash Report	Crash Date	Crash Mile Point	Injury Degree
							A	B	C	PD				
16783	16784	3116401	0 - 0.08	0001A - 11.06	9	0	1	0	0	8	2014-8599	03/14/2014	11.07	PD
											2013-36076	11/26/2013	11.08	PD
											2015-8353	03/01/2015	11.08	PD
											2015-10385	03/22/2015	11.11	PD
											2013-27351	11/04/2013	11.12	PD
											2015-3113	01/28/2015	11.12	PD
											2015-49315	11/25/2015	11.13	A
											2015-17700	06/17/2015	11.13	PD
											2013-13820	06/09/2013	11.13	PD
											Totals:			

Crash Summary II - Characteristics

Crashes by Day and Hour

	AM											Hour of Day											PM												
Day Of Week	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	Un	Tot									
SUNDAY	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	1	0	0	1	0	0	4									
MONDAY	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	2									
TUESDAY	0	0	0	0	0	0	0	1	1	0	2	0	1	1	0	0	1	1	0	0	0	0	0	0	0	8									
WEDNESDAY	0	0	0	0	0	0	0	1	0	0	1	1	1	1	0	0	0	1	1	0	1	0	1	0	0	9									
THURSDAY	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	2									
FRIDAY	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2									
SATURDAY	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	2									
Totals	0	0	0	0	0	0	0	2	2	0	6	2	3	3	0	1	3	2	1	1	1	0	2	0	0	29									

Vehicle Counts by Type

Unit Type	Total	Unit Type	Total
1-Passenger Car	33	23-Bicyclist	0
2-(Sport) Utility Vehicle	7	24-Witness	3
3-Passenger Van	1	25-Other	1
4-Cargo Van (10K lbs or Less)	0	Total	60
5-Pickup	8		
6-Motor Home	0		
7-School Bus	0		
8-Transit Bus	0		
9-Motor Coach	0		
10-Other Bus	0		
11-Motorcycle	0		
12-Moped	0		
13-Low Speed Vehicle	0		
14-Autocycle	0		
15-Experimental	0		
16-Other Light Trucks (10,000 lbs or Less)	0		
17-Medium/Heavy Trucks (More than 10,000 lbs)	5		
18-ATV - (4 wheel)	0		
20-ATV - (2 wheel)	0		
21-Snowmobile	0		
22-Pedestrian	2		

Crash Summary II - Characteristics

Crashes by Driver Action at Time of Crash

Driver Action at Time of Crash	Dr 1	Dr 2	Dr 3	Dr 4	Dr 5	Other	Total
No Contributing Action	14	11	0	0	0	0	25
Ran Off Roadway	0	0	0	0	0	0	0
Failed to Yield Right-of-Way	3	6	0	0	0	0	9
Ran Red Light	0	0	0	0	0	0	0
Ran Stop Sign	0	1	0	0	0	0	1
Disregarded Other Traffic Sign	0	0	0	0	0	0	0
Disregarded Other Road Markings	0	0	0	0	0	0	0
Exceeded Posted Speed Limit	0	0	0	0	0	0	0
Drove Too Fast For Conditions	0	1	0	0	0	0	1
Improper Turn	1	1	0	0	0	0	2
Improper Backing	0	0	0	0	0	0	0
Improper Passing	0	0	0	0	0	0	0
Wrong Way	0	0	0	0	0	0	0
Followed Too Closely	6	3	0	0	0	0	9
Failed to Keep in Proper Lane	0	0	0	0	0	0	0
Operated Motor Vehicle in Erratic, Reckless, Careless, Negligent or Aggressive Manner	0	2	0	0	0	0	2
Swerved or Avoided Due to Wind, Slippery Surface, Motor Vehicle, Object, Non-Motorist in Roadway	0	0	0	0	0	0	0
Over-Correcting/Over-Steering	0	0	0	0	0	0	0
Other Contributing Action	1	0	0	0	0	0	1
Unknown	2	1	0	0	0	0	3
Total	27	26	0	0	0	0	53

Crashes by Apparent Physical Condition And Driver

Apparent Physical Condition	Dr 1	Dr 2	Dr 3	Dr 4	Dr 5	Other	Total
Apparently Normal	27	25	0	0	0	2	54
Physically Impaired or Handicapped	0	0	0	0	0	0	0
Emotional(Depressed, Angry, Disturbed, etc.)	0	0	0	0	0	0	0
Ill (Sick)	0	0	0	0	0	0	0
Asleep or Fatigued	0	0	0	0	0	0	0
Under the Influence of Medications/Drugs/Alcohol	0	0	0	0	0	0	0
Other	0	1	0	0	0	0	1
Total	27	26	0	0	0	2	55

Driver Age by Unit Type

Age	Driver	Bicycle	SnowMobile	Pedestrian	ATV	Total
09-Under	0	0	0	0	0	0
10-14	0	0	0	0	0	0
15-19	3	0	0	0	0	3
20-24	5	0	0	0	0	5
25-29	7	0	0	0	0	7
30-39	9	0	0	0	0	9
40-49	7	0	0	0	0	7
50-59	11	0	0	0	0	11
60-69	6	0	0	0	0	6
70-79	2	0	0	0	0	2
80-Over	2	0	0	0	0	2
Unknown	3	0	0	2	0	5
Total	55	0	0	2	0	57

Crash Summary II - Characteristics

Most Harmful Event			
Most Harmful Event	Total	Most Harmful Event	Total
1-Overturn / Rollover	0	38-Other Fixed Object (wall, building, tunnel, etc.)	0
2-Fire / Explosion	0	39-Unknown	0
3-Immersion	0	40-Gate or Cable	0
4-Jackknife	0	41-Pressure Ridge	0
5-Cargo / Equipment Loss Or Shift	0	Total	53
6-Fell / Jumped from Motor Vehicle	0		
7-Thrown or Falling Object	0		
8-Other Non-Collision	2		
9-Pedestrian	1		
10-Pedalcycle	0		
11-Railway Vehicle - Train, Engine	0		
12-Animal	0		
13-Motor Vehicle in Transport	50		
14-Parked Motor Vehicle	0		
15-Struck by Falling, Shifting Cargo or Anything Set in Motion by Motor Vehicle	0		
16-Work Zone / Maintenance Equipment	0		
17-Other Non-Fixed Object	0		
18-Impact Attenuator / Crash Cushion	0		
19-Bridge Overhead Structure	0		
20-Bridge Pier or Support	0		
21-Bridge Rail	0		
22-Cable Barrier	0		
23-Culvert	0		
24-Curb	0		
25-Ditch	0		
26-Embankment	0		
27-Guardrail Face	0		
28-Guardrail End	0		
29-Concrete Traffic Barrier	0		
30-Other Traffic Barrier	0		
31-Tree (Standing)	0		
32-Utility Pole / Light Support	0		
33-Traffic Sign Support	0		
34-Traffic Signal Support	0		
35-Fence	0		
36-Mailbox	0		
37-Other Post Pole or Support	0		

Traffic Control Devices		
Traffic Control Device	Total	
1-Traffic Signals (Stop & Go)	0	
2-Traffic Signals (Flashing)	0	
3-Advisory/Warning Sign	0	
4-Stop Signs - All Approaches	2	
5-Stop Signs - Other	20	
6-Yield Sign	0	
7-Curve Warning Sign	0	
8-Officer, Flagman, School Patrol	0	
9-School Bus Stop Arm	0	
10-School Zone Sign	0	
11-R.R. Crossing Device	0	
12-No Passing Zone	0	
13-None	7	
14-Other	0	
Total	29	

Injury Data		
Severity Code	Injury Crashes	Number Of Injuries
K	0	0
A	1	1
B	2	2
C	2	2
PD	24	0
Total	29	5

Road Character	
Road Grade	Total
1-Level	11
2-On Grade	14
3-Top of Hill	0
4-Bottom of Hill	4
5-Other	0
Total	29

Light	
Light Condition	Total
1-Daylight	26
2-Dawn	0
3-Dusk	0
4-Dark - Lighted	3
5-Dark - Not Lighted	0
6-Dark - Unknown Lighting	0
7-Unknown	0
Total	29

Crash Summary II - Characteristics

Crashes by Year and Month

Month	2013	2014	2015	Total
JANUARY	0	1	2	3
FEBRUARY	3	0	1	4
MARCH	0	2	3	5
APRIL	0	1	0	1
MAY	0	0	1	1
JUNE	2	0	1	3
JULY	0	1	0	1
AUGUST	1	2	0	3
SEPTEMBER	0	1	0	1
OCTOBER	2	0	0	2
NOVEMBER	2	1	1	4
DECEMBER	1	0	0	1
Total	11	9	9	29

Report is limited to the last 10 years of data.

Crash Summary II - Characteristics

Crashes by Crash Type and Type of Location

Crash Type	Straight Road	Curved Road	Three Leg Intersection	Four Leg Intersection	Five or More Leg Intersection	Driveways	Bridges	Interchanges	Other	Parking Lot	Private Way	Cross Over	Railroad Crossing	Total
Object in Road	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rear End / Sideswipe	3	0	10	0	0	2	0	0	0	0	0	0	0	15
Head-on / Sideswipe	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Intersection Movement	0	0	9	0	0	1	0	0	0	0	0	0	0	10
Pedestrians	1	0	1	0	0	0	0	0	0	0	0	0	0	2
Train	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Went Off Road	0	0	0	0	0	1	0	0	0	0	0	0	0	1
All Other Animal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bicycle	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jackknife	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rollover	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fire	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Submersion	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Thrown or Falling Object	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bear	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Deer	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Moose	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Turkey	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	5	0	20	0	0	4	0	0	0	0	0	0	0	29

Crash Summary II - Characteristics

Crashes by Weather, Light Condition and Road Surface

Weather Light	Dry	Ice/Frost	Mud, Dirt, Gravel	Oil	Other	Sand	Slush	Snow	Unknown	Water (Standing, Moving)	Wet	Total
Blowing Sand, Soil, Dirt												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Blowing Snow												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Clear												
Dark - Lighted	2	0	0	0	0	0	0	0	0	0	0	2
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	16	0	0	0	0	0	0	1	0	0	1	18
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Cloudy												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	3	0	0	0	0	0	0	0	0	0	1	4
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0

Crash Summary II - Characteristics

Crashes by Weather, Light Condition and Road Surface

Weather Light	Dry	Ice/Frost	Mud, Dirt, Gravel	Oil	Other	Sand	Slush	Snow	Unknown	Water (Standing, Moving)	Wet	Total
Fog, Smog, Smoke												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Other												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Rain												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	1	1
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Severe Crosswinds												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0

Crash Summary II - Characteristics

Crashes by Weather, Light Condition and Road Surface

Weather Light	Dry	Ice/Frost	Mud, Dirt, Gravel	Oil	Other	Sand	Slush	Snow	Unknown	Water (Standing, Moving)	Wet	Total
Sleet, Hail (Freezing Rain or Drizzle)												
Dark - Lighted	0	0	0	0	0	0	0	1	0	0	0	1
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Snow												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	3	0	0	0	3
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	21	0	0	0	0	0	0	5	0	0	0	29

SITE PLAN APPLICATION
383 COMMERCIAL STREET
WRITTEN SUBMISSION K – NATURAL FEATURES

THERE ARE NO SIGNIFICANT NATURAL FEATURES ON THIS SITE .

SITE PLAN APPLICATION
383 COMMERCIAL STREET
WRITTEN SUBMISSION L – STORMWATER MANAGEMENT

THE EXISTING 2.58 ACRE SITE IS ALMOST ENTIRELY OCCUPIED BY EXISTING BUILDINGS AND PAVED AREAS, EXCEPT FOR THE AREA IMMEDIATELY ADJACENT TO HIGH STREET. THE POST – DEVELOPMENT IMPERVIOUS AREA WILL BE APPROXIMATELY THE SAME AS THE EXISTING CONDITION.

AS REQUIRED BY THE CITY TECHNICAL STANDARDS , 50 % OF THE REDEVELOPED IMPERVIOUS AREAS WILL BE COLLECTED AND TREATMENT WILL BE PROVIDED MEETING MDEP CHAPTER 500 STANDARDS. TREATMENT WILL BE PROVIDED USING SUBSURFACE STORMTECH CHAMBERS BELOW THE GROUND LEVEL PARKING GRADE. DURING PHASE ONE AND PHASE TWO, 50 % OF THE SURFACE PARKING AREAS WILL BE TREATED USING AN UNDERDRAINED SOIL FILTER POND.

IN ACCORDANCE WITH A MEETING WITH BRAD ROLAND, THE STORM DRAIN OUTFALL FROM PHASE ONE WILL BE DIRECTED TO THE MUNICIPAL SYSTEM IN MAPLE STREET, WHICH EVENTUALLY CROSSES COMMERCIAL STREET AND DAYLIGHTS TO THE FORE RIVER.

THE STORM DRAIN OUTFALL FROM PHASE TWO AND THREE WILL BE DIRECTED TO THE MUNICIPAL SYSTEM IN HIGH STREET, WHICH EVENTUALLY CROSSES COMMERCIAL STREET AND DAYLIGHTS TO THE FORE RIVER.

A SCHEMATIC DESIGN FOR THE STORMWATER INFRASTRUCTURE IS INCLUDED IN PLAN SUBMISSION – PLAN 6 – UTILITY PLAN AND PLAN SUBMISSION – PLAN 5D – PHASE ONE SITE PLAN .

SITE PLAN APPLICATION
383 COMMERCIAL STREET
WRITTEN SUBMISSION M – CITY MASTER PLANS

THERE ARE NO CITY MASTER PLANS RELATED TO THIS SITE .

SITE PLAN APPLICATION
383 COMMERCIAL STREET
WRITTEN SUBMISSION N - UTILITIES

THIS PROJECT WILL BE SERVED WITH WATER SUPPLY FROM THE PORTLAND WATER DISTRICT – AN ABILITY TO SERVE LETTER IS PENDING .

PUBLIC SEWER WILL BE PROVIDED BY THE CITY OF PORTLAND – A WASTEWATER CAPACITY APPLICATION IS ATTACHED.

ELECTRICAL SERVICE WILL BE PROVIDED BY CENTRAL MAINE POWER, NATURAL GAS WILL BE SERVED BY UNITIL, PHONE AND DATA WILL BE PROVIDED BY FAIRPOINT AND TIME WARNER CABLE.

EXISTING UTILITIES ARE EXPECTED TO BE ADEQUATE TO SERVE THE PROJECT WITHOUT UPGRADES OR OFF – SITE IMPROVEMENTS.

SITE PLAN APPLICATION
383 COMMERCIAL STREET
WRITTEN SUBMISSION O- SOLID WASTE

NORMAL HOUSEHOLD WASTE WILL BE GENERATED AT A RATE OF 915 CUBIC YARDS PER MONTH. ALL CONSTRUCTION DEBRIS AND HOUSEHOLD WASTES WILL BE TRANSPORTED TO AN APPROVED SOLID WASTE HANDLING FACILITY.

SITE PLAN APPLICATION
383 COMMERCIAL STREET
WRITTEN SUBMISSION P - FIRE

THE PORTLAND FIRE DEPARTMENT CHECKLIST AND REQUESTED INFORMATION WILL BE SUBMITTED
FOR THE LEVEL III SITE PLAN APPLICATION FOR PHASE ONE .

SITE PLAN APPLICATION
383 COMMERCIAL STREET
WRITTEN SUBMISSION Q – DESIGN REVIEW

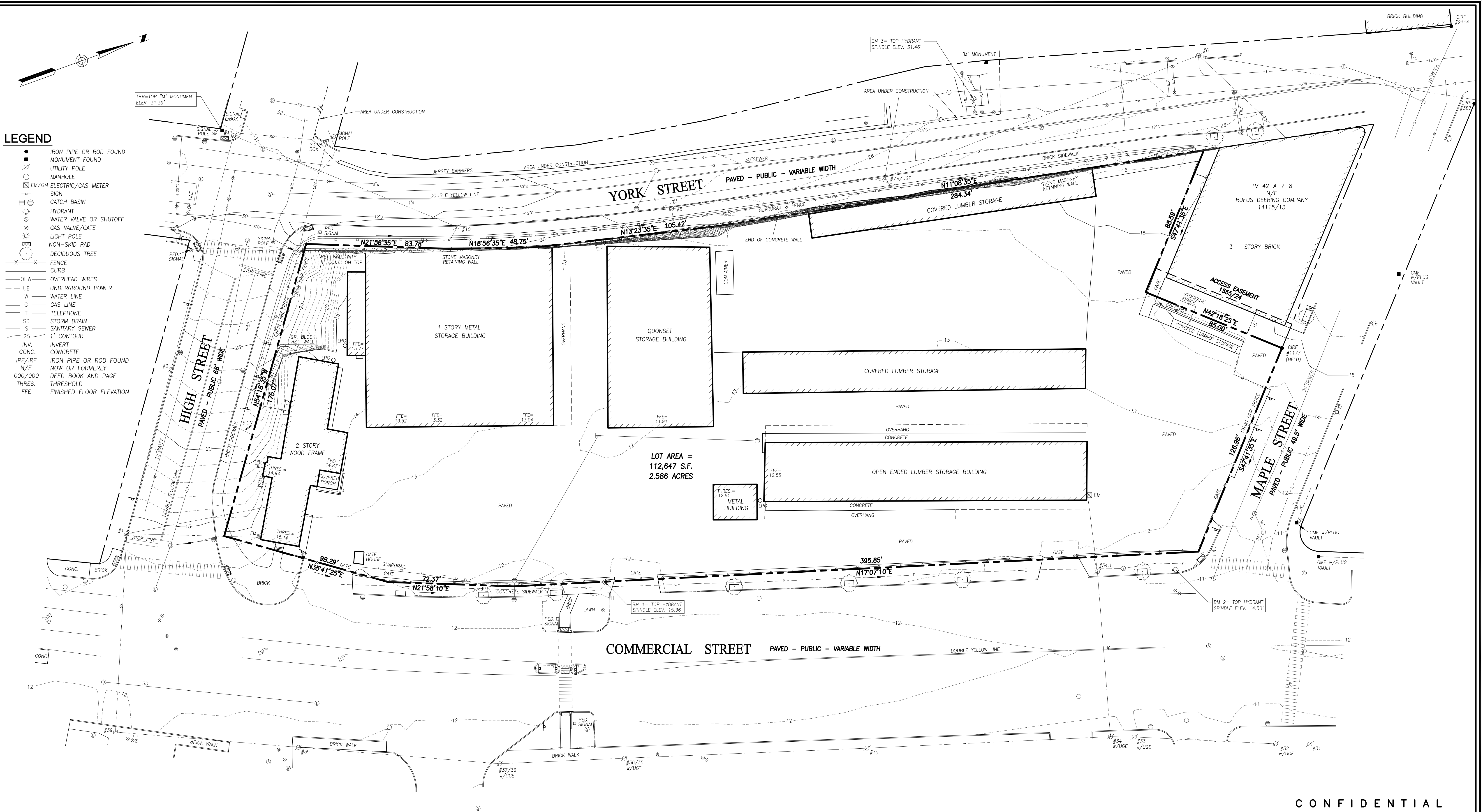
DESIGN REVIEW IS NOT REQUIRED FOR THIS PROJECT, HOWEVER, THE HISTORIC PRESERVATION BOARD WILL REVIEW THE BUILDING DESIGN, CONCURRENTLY WITH THE PLANNING DEPARTMENT REVIEW.

SITE PLAN APPLICATION
383 COMMERCIAL STREET
WRITTEN SUBMISSION SI – SCHOOL CAPACITY IMPACT

THE APPLICANT EXPECTS THE DEMOGRAPHIC POULATION OF 383 COMMERCIAL STREET RESIDENCES WILL BE SIMILAR TO RESIDENTIAL UNITS SOLD AT THE BAY HOUSE AND INDIA / NEWBURY RESIDENCES. IN THOSE PROJECTS , 108 UNITS HAVE BEEN SOLD AND THERE IS ONE SCHOOL AGED CHILD. WITH A TOTAL OF 275 UNITS, THE 383 COMMERCIAL STREET PROJECT CAN BE EXPECTED TO GENERATE THREE SCHOOL AGED CHILDREN, AND WILL NOT HAVE AN ADVERSE IMPACT ON THE SCHOOL SYSTEM.

LEGEND

- IRON PIPE OR ROD FOUND
- MONUMENT FOUND
- UTILITY POLE
- MANHOLE
- EM/GM ELECTRIC/GAS METER
- SIGN
- CATCH BASIN
- HYDRANT
- WATER VALVE OR SHUTOFF
- GAS VALVE/GATE
- LIGHT POLE
- NON-SKID PAD
- DECIDUOUS TREE
- FENCE
- CURB
- OHW OVERHEAD WIRES
- UE UNDERGROUND POWER
- W WATER LINE
- G GAS LINE
- T TELEPHONE
- SD STORM DRAIN
- S SANITARY SEWER
- 25 1' CONTOUR
- INV. INVERT
- CONC. CONCRETE
- IPF/IRF IRON PIPE OR ROD FOUND NOW OR FORMERLY
- N/F DEED BOOK AND PAGE
- 000/000 THRESHOLD
- FFE FINISHED FLOOR ELEVATION



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 ON COMMERCIAL, HIGH, YORK, & MAPLE STREETS, PORTLAND, MAINE FOR RUFUS DEERING COMPANY," BY OWEN HASKELL, INC. DATED JANUARY 9, 1989.
- STANDARD BOUNDARY SURVEY FOR WILLIAM J. DOWD LOCATED IN PORTLAND, MAINE," BY D.A. MAXFIELD, JR. DATED NOVEMBER, 1987.
- "ALTA/ACSM LAND TITLE SURVEY ON HIGH, DANFORTH, MAPLE, & YORK STREETS MADE FOR J.B. BROWN & SONS," BY OWEN HASKELL, INC. DATED DECEMBER 3, 2013.

GENERAL NOTES

- OWNER OF RECORD: MILLIKEN SMITH BLOCK LLC
TAX MAP 42 BLOCK A LOT 1
C.C.R.D. BOOK 22473 PAGE 307
- BEARINGS ARE TRUE NORTH BASED ON PLAN REFERENCE 1.
- ELEVATIONS ARE BASED ON 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.

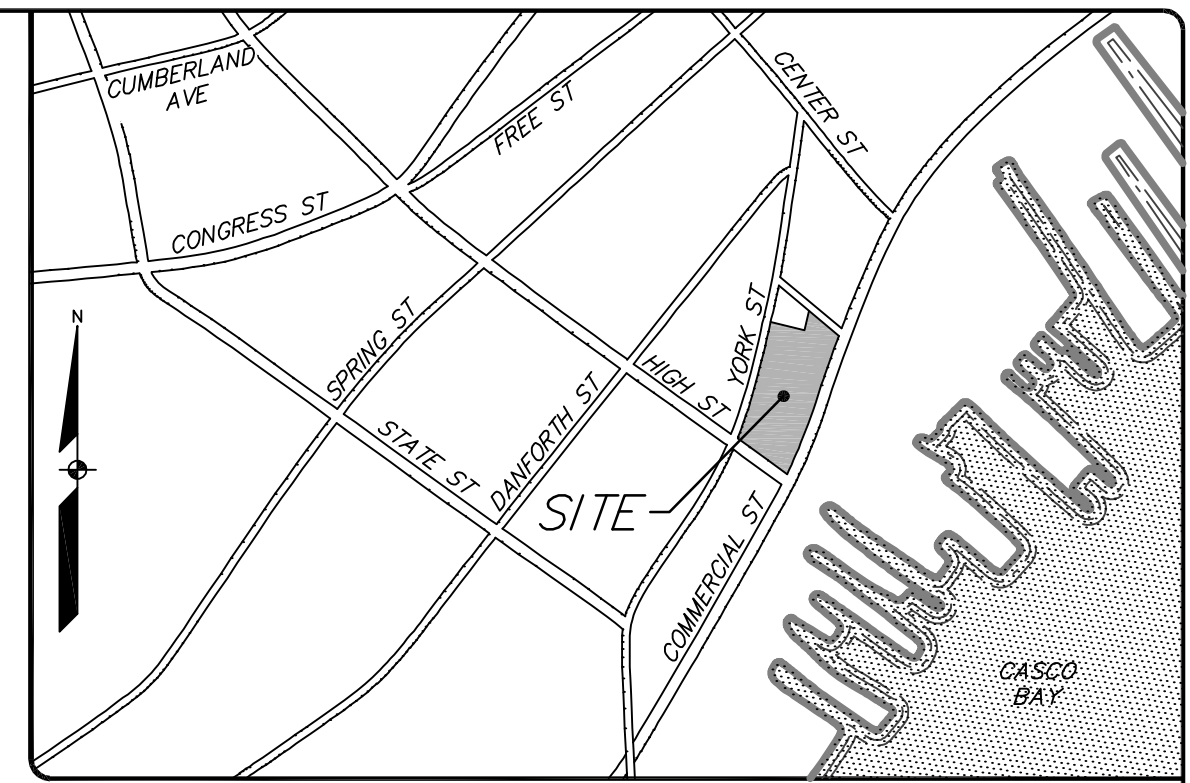
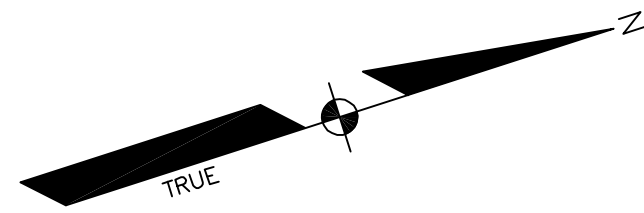
DATE

JOHN W. SWAN, PLS NO. 1038

CONFIDENTIAL

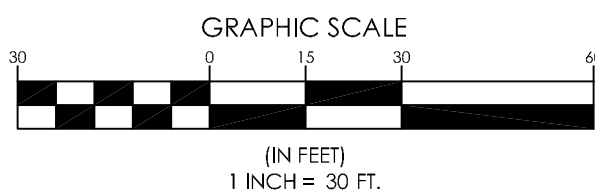
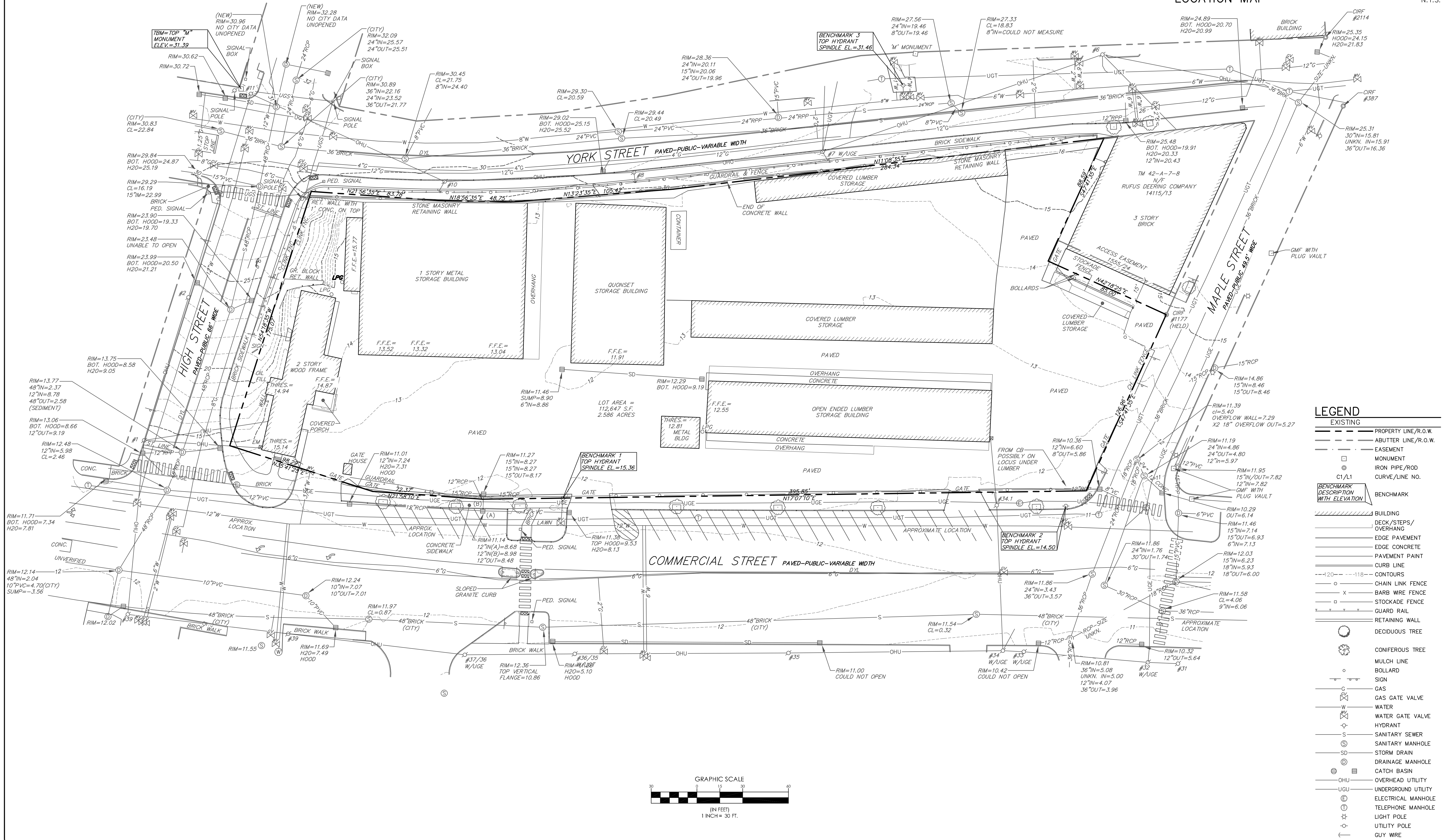
BOUNDARY & TOPOGRAPHIC SURVEY
ON
COMMERCIAL STREET, PORTLAND, MAINE
MADE FOR
BERNSTEIN SHUR
100 MIDDLE STREET, P.O. BOX 9729, PORTLAND, ME

OWEN HASKELL, INC. PROFESSIONAL LAND SURVEYORS 390 U.S. ROUTE ONE, FALMOUTH, ME 04105 (207) 774-0424		
Drawn By SDG	Date	Job No.
Trace By JLW	SEPT. 6, 2016	2016-245P
Check By JWS	Scale	Drwg. No.
Book No. 1149	1" = 25'	1



LOCATION MAP

N.T.S.



LEGEND	
EXISTING	
	PROPERTY LINE/R.O.W.
	ABUTTER LINE/R.O.W.
	EASEMENT
	MONUMENT
	IRON PIPE/ROD
	CURVE/LINE NO.
	BENCHMARK
	BUILDING
	DECK/STEPS/OVERHANG
	EDGE PAVEMENT
	EDGE CONCRETE
	PAVEMENT PAINT
	CURB LINE
	CONTOURS
	CHAIN LINK FENCE
	BARB WIRE FENCE
	STOCKADE FENCE
	GUARD RAIL
	RETAINING WALL
	DECIDUOUS TREE
	CONIFEROUS TREE
	MULCH LINE
	BOLLARD
	SIGN
	GAS
	GAS GATE VALVE
	WATER
	WATER GATE VALVE
	HYDRANT
	SANITARY SEWER
	SANITARY MANHOLE
	STORM DRAIN
	SANITARY MANHOLE
	CATCH BASIN
	OVERHEAD UTILITY
	UNDERGROUND UTILITY
	ELECTRICAL MANHOLE
	TELEPHONE MANHOLE
	LIGHT POLE
	UTILITY POLE
	GUY WIRE

DESIGNED	CHECKED
RLM	WTC
A. RLM 03/22/17 SUBMIT LEVEL III APPLICATION TO CITY	
REV. BY:	DATE:
STATUS:	
THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM SEBAGO TECHINCS, INC. ANY ALTERATIONS AUTHORIZED OR OTHERWISE, SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO SEBAGO TECHINCS, INC.	

SEBAGO TECHINCS
WWW.SEBAGOTECHINCS.COM
75 John Roberts Rd. Suite B
South Portland, ME 04106
Tel: 207-200-9100 Tel: 207-783-5656

EXISTING CONDITIONS PLAN
OF:
383 COMMERCIAL STREET
PORTLAND, MAINE
FOR:
DEERING PROPERTY MANAGEMENT, LLC
2730 TRANSIT ROAD
WEST SENEC, NEW YORK

PROJECT NO.	SCALE
16324	1" = 30'

SHEET 2 OF 13

16324EC-0.dwg, TAB: 16324EC-0



Legend

Water Service Line

Water Main

Storm Main

Sewer Main

Parcels

Neighborhood Context Map

OF:

383 Commercial Street

Portland, ME

FOR:

Deering Property Management, LLC

2730 Transit Road

West Seneca, NY

DATE

3-22-2017

SCALE

1 in = 50 ft

SHEET 1 OF 1

Rufus Deering Site

SEBAGO

TECHNICS

79 Main Street, Suite 1A

Portland, ME 04101

207-288-2100

200 Congress St., Suite 10

Portland, ME 04101

207-781-8600

WWW.SEBAGOTECHNICS.COM

JOB NUMBER

10346

DRAWN BY:

ZEB

STATUS:

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

REV:

BY:

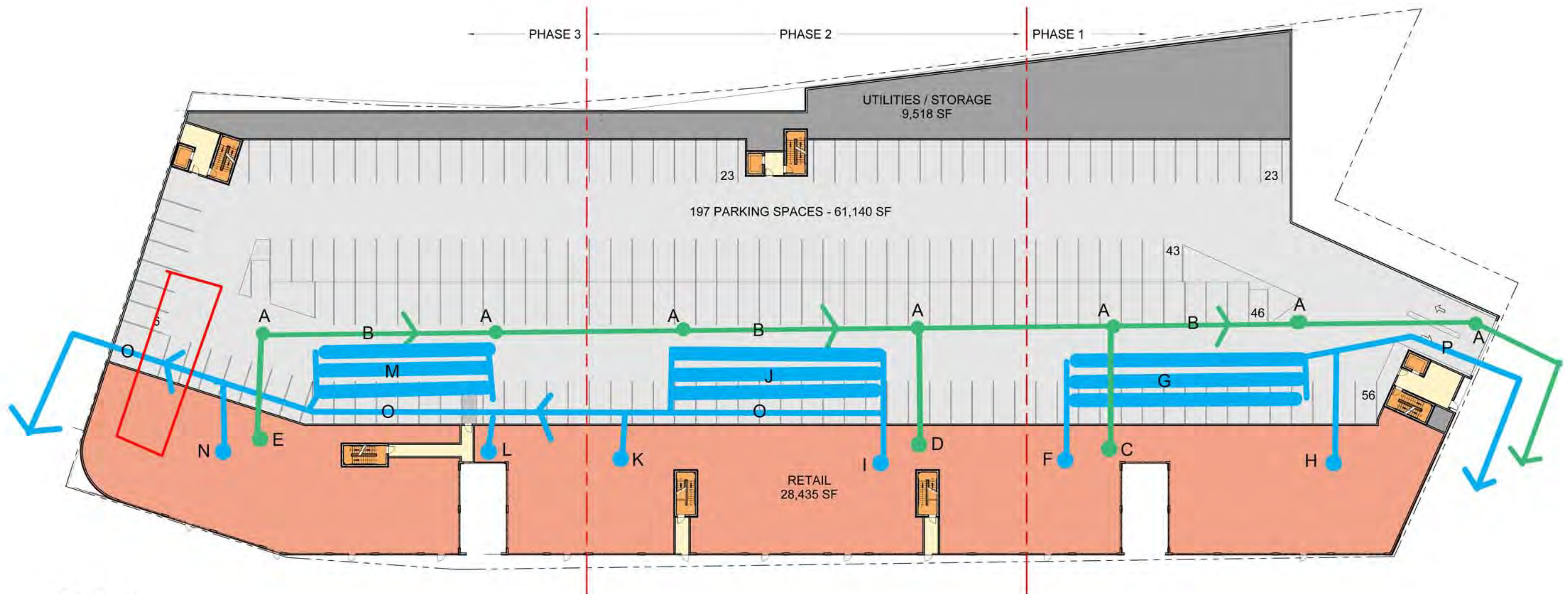
DATE:

DATA SOURCES

2015 Orthoimagery

Portland Parcels 2013

Utilities from PWD



LEGEND :

- A. Oil/ Grit Separator
- B. Sanitary lateral - all sanitary to Maple Street - possibly add grease traps for restaurants ?
- C. Phase 1 sanitary down from above
- D. Phase 2 sanitary down from above
- E. Phase 3 sanitary down from above
- F. 50% of Phase 1 roof drains down from above
- G. Subsurface storm chambers
- H. 50 % of Phase 1 roof drains down from above

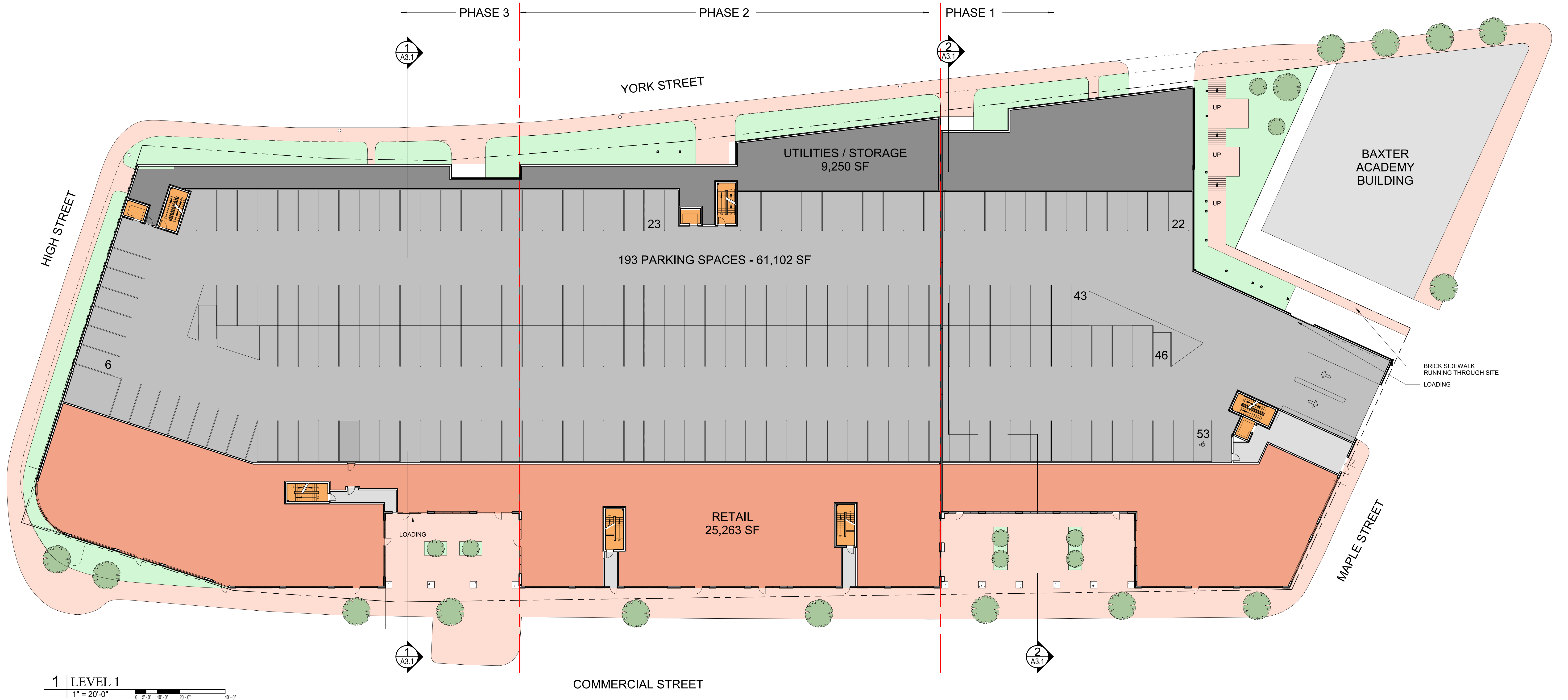
- I. 50% of Phase 2 roof drains down from above
- J. Subsurface storm chambers
- K. 50% of Phase 2 roof drains down from above
- L. 50% of Phase 3 roof drains down from above
- M. Subsurface storm chambers
- N. 50 % of Phase 3 roof drains down from above
- O. Phase 2 and 3 storm outfall to High Street- remove existing 2 story building at High Street in Phase 2
- P. Phase 1 storm outfall to Maple Street

CONCEPT FOR SANITARY AND STORM DRAINS 245 COMMERCIAL STREET

Portland, Maine

OCT. 5, 2016

A1.1



OVERALL PROJECT GROSS SQUARE FOOTAGES	
LEVEL 1	99,154 GSF
LEVEL 2	99,154 GSF
LEVEL 3	73,665 GSF
LEVEL 4	73,665 GSF
LEVEL 5	73,665 GSF
LEVEL 6	71,180 GSF +
	490,483 GSF

OVERALL PROJECT	
RETAIL:	25,263 SF
PARKING:	121,398 SF (384 SPACES)
RES. UNITS:	260,411 SF (290 UNITS)
	(6) 3-BR UNITS
	(114) 2-BR UNITS
	(129) 1-BR UNITS
	(41) EFF - UNITS

PHASE 1	
LEV. 1	29,321 GSF
LEV. 2	29,321 GSF
LEV. 3	20,103 GSF
LEV. 4	20,103 GSF
LEV. 5	20,103 GSF
LEV. 6	19,535 GSF +
	138,486 GSF

PHASE 1	
RETAIL:	6,219 SF
PARKING:	34,544 SF (82 SPACES)
RES. UNITS:	72,310 SF (82 UNITS)
	(33) 2-BR UNITS
	(28) 1-BR UNITS
	(21) EFF - UNITS

PHASE 2	
LEV. 1	36,284 GSF
LEV. 2	36,284 GSF
LEV. 3	30,214 GSF
LEV. 4	30,214 GSF
LEV. 5	30,214 GSF
LEV. 6	29,342 GSF +
	192,552 GSF

PHASE 2	
RETAIL:	9,619 SF
PARKING:	44,044 SF (152 SPACES)
RES. UNITS:	106,365 SF (114 UNITS)
	(6) 3-BR UNITS
	(44) 2-BR UNITS
	(56) 1-BR UNITS
	(8) EFF - UNITS

PHASE 3	
LEV. 1	33,549 GSF
LEV. 2	33,549 GSF
LEV. 3	23,348 GSF
LEV. 4	23,348 GSF
LEV. 5	23,348 GSF
LEV. 6	22,303 GSF +
	159,445 GSF

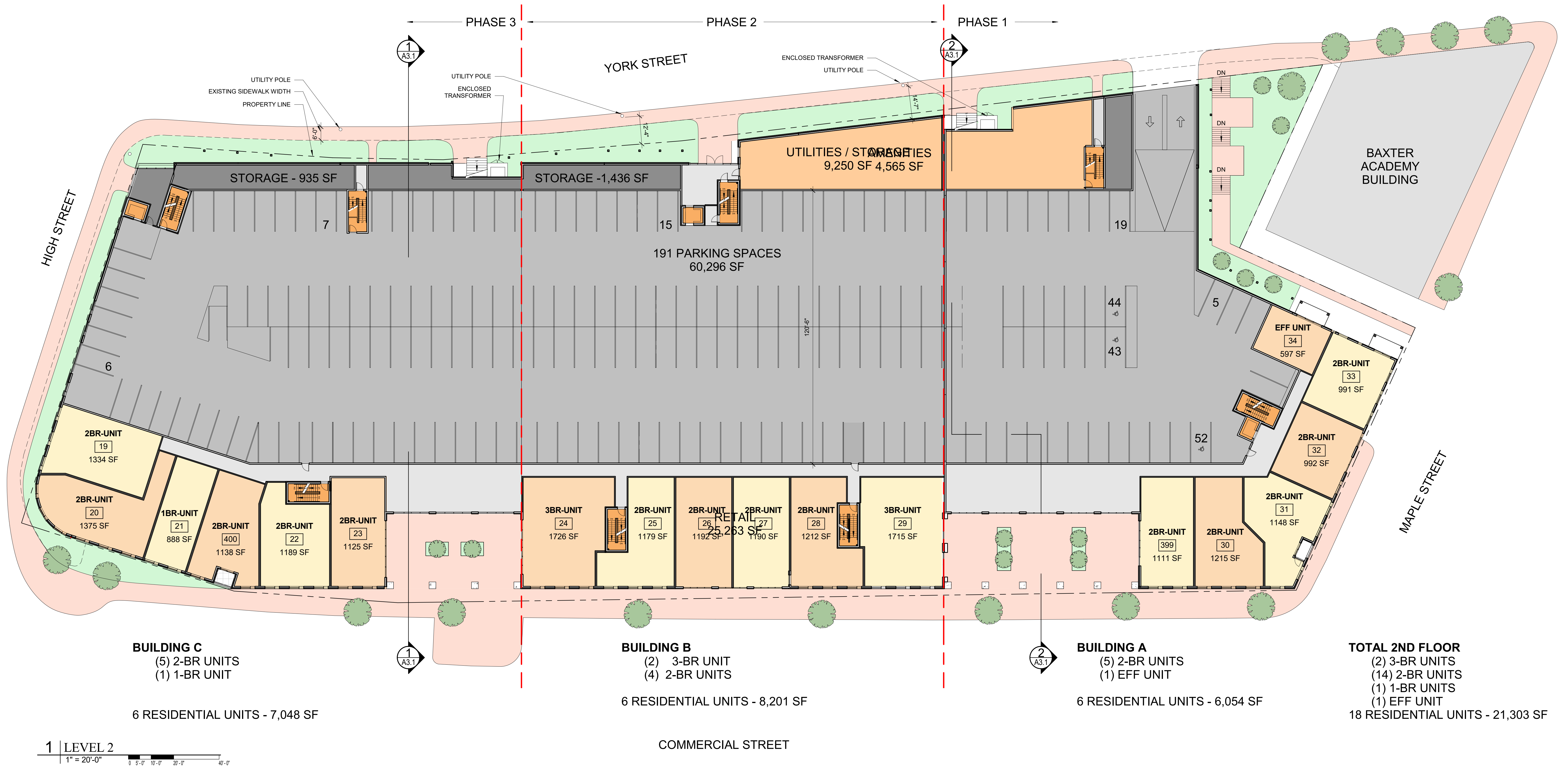
PHASE 3	
RETAIL:	9,425 SF
PARKING:	42,808 SF (156 SPACES)
RES. UNITS:	81,736 SF (94 UNITS)
	(37) 2-BR UNITS
	(45) 1-BR UNITS
	(12) EFF - UNITS

383 COMMERCIAL STREET

Portland, Maine

MAR 22, 2017

A1.1



MAR 22, 2017

A1.2



383 COMMERCIAL STREET

Portland, Maine

MAR 22, 2017

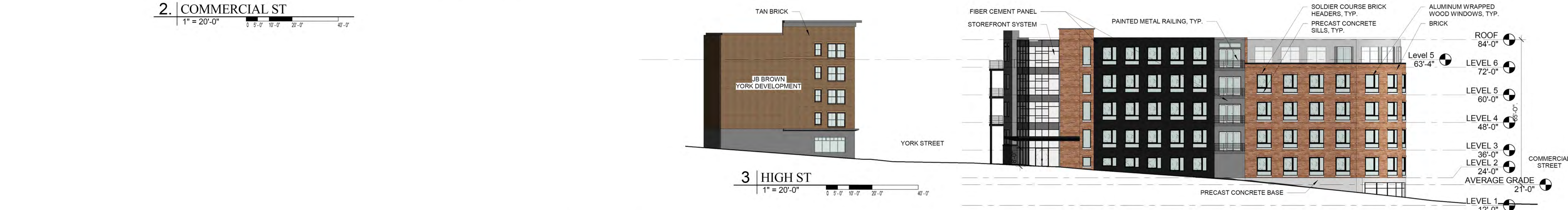


1 | MAPLE ST
1" = 20'-0"

GENERAL NOTES:
1. AVERAGE GRADE BY DEFINITION: 4 CORNER AVERAGE GRADE - NW 30' + NE 27' + SE 12' + SW 15' = 84' / 4 = 21'- 0" (AVERAGE GRADE)
2. BUILDING HEIGHT: THE VERTICAL MEASUREMENT FROM AVERAGE GRADE TO HIGHEST POINT OF THE ROOF BEAMS = 65' - 0"



2. | COMMERCIAL ST
1" = 20'-0"



3 | HIGH ST
1" = 20'-0"



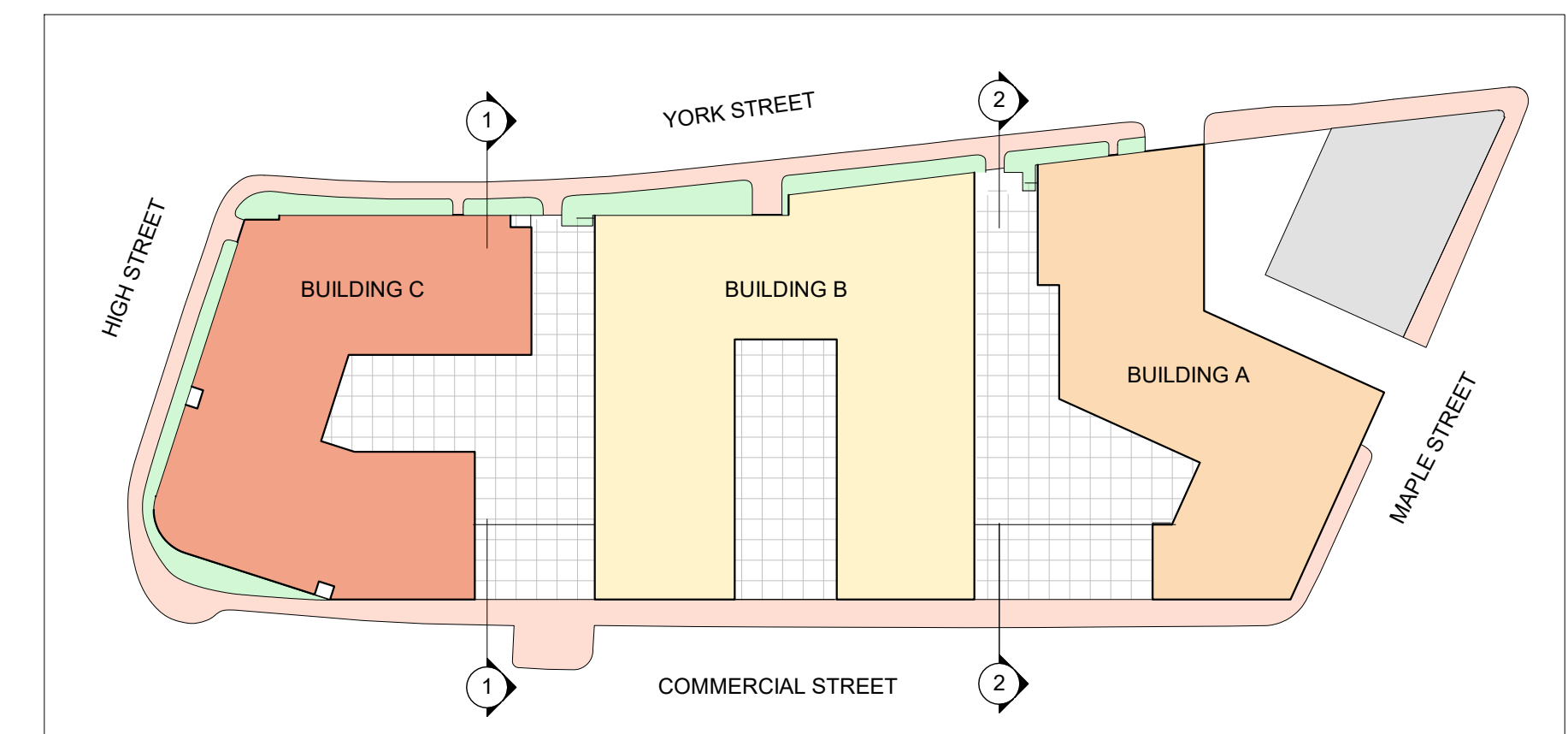
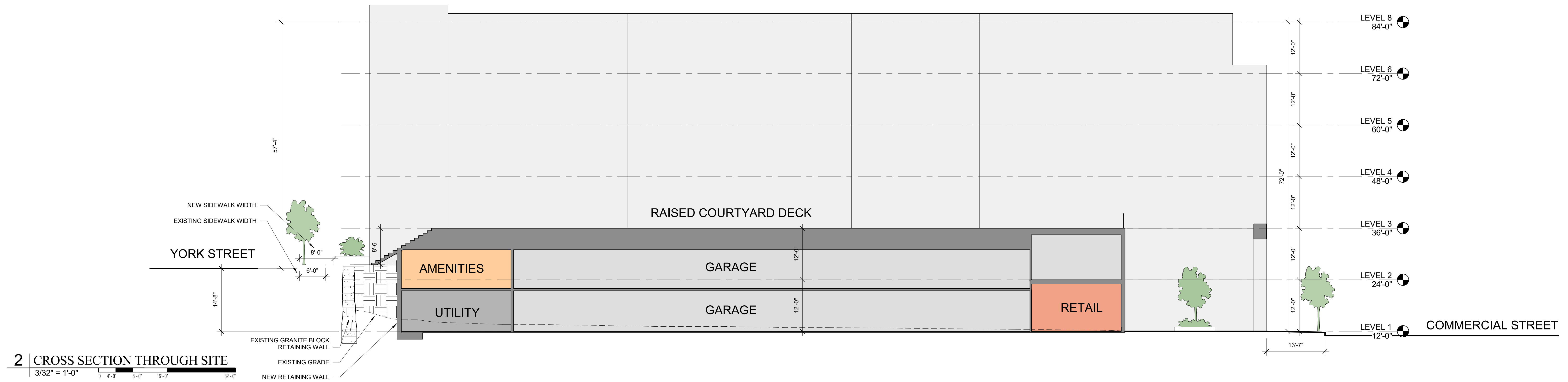
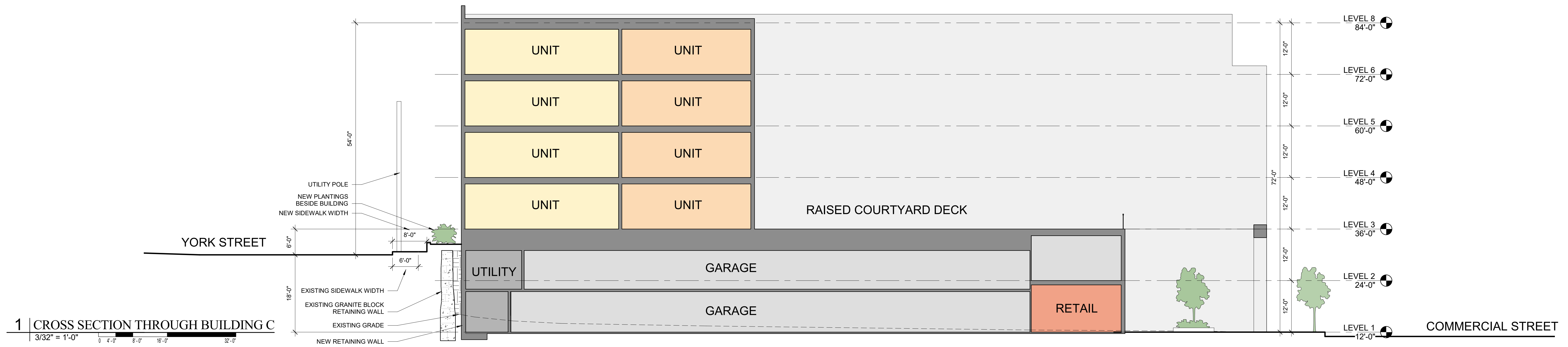
4 | YORK STREET
1" = 20'-0"

383 COMMERCIAL STREET

Portland, Maine

MAR 27, 2017

A2.1



383 COMMERCIAL STREET

Portland, Maine

MAR 22, 2017

A3.1











383 Commercial Street

Portland, Maine

February 2017













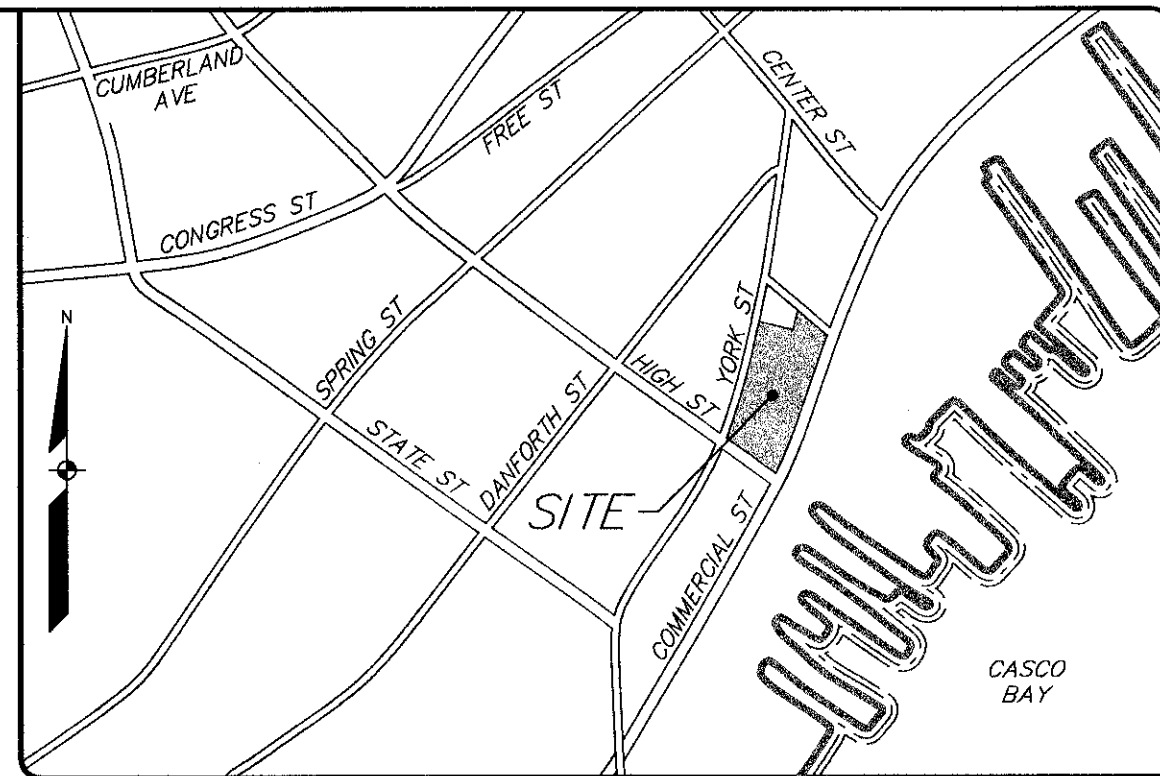
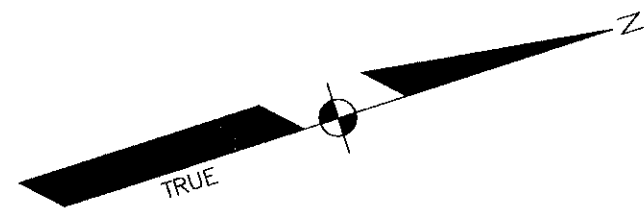






383 Commercial Street

Portland, Maine



LOCATION MAP

N.T.S.

DESIGNED	CHECKED
WTC	WTC

REV: BT: 12/28/16	DATE: 12/28/16	STATUS: FOR REVIEW
THIS SHEET IS NOT BE USED FOR ANY ALTERATIONS WITHOUT WRITTEN PERMISSION FROM SEBAGO TECHNICS, INC. ANY ALTERATIONS AUTHORIZED BY OWNER, SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO SEBAGO TECHNICS, INC.		

SEBAGO
TECHNICS

WWW.SEBAGOTECHNICS.COM
75 John Roberts Rd.
Suite 1A
South Portland, ME 04106
Tel: 207-232-2100

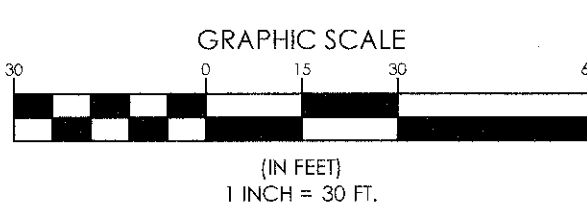
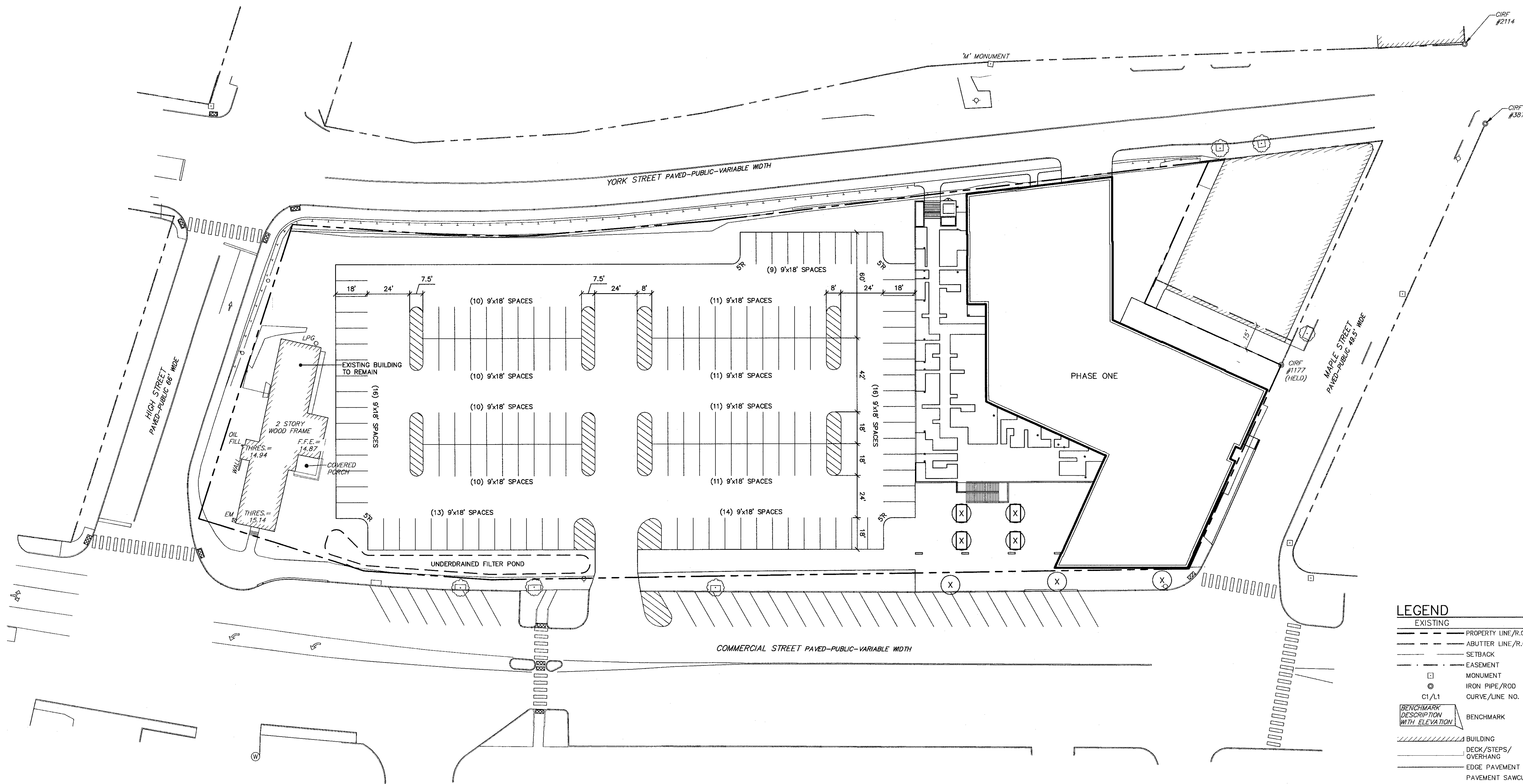
250 Goddard Rd.
Suite B
Lewiston, ME 04240
Tel: 207-752-5858

PHASE 1 SITE PLAN
OF:
383 COMMERCIAL STREET
PORTLAND, MAINE

FOR:
DEERING PROPERTY MANAGEMENT, LLC
2730 TRANST ROAD
WEST SENECOA, NEW YORK

PROJECT NO.	SCALE
16324	1" = 30'

SHEET 4 OF 4



LEGEND	
EXISTING	PROPOSED
---	PROPERTY LINE/R.O.W.
---	ABUTTER LINE/R.O.W.
---	SETBACK
---	EASEMENT
□	MONUMENT
○	IRON PIPE/ROD
○	CURVE/LINE NO.
○	C1/L1
○	BENCHMARK
○	BENCHMARK DESCRIPTION WITH ELEVATION
---	BUILDING
---	DECK/STEPS/OVERHANG
---	EDGE PAVEMENT
---	PAVEMENT SAWCUT
---	EDGE CONCRETE
---	PAVEMENT PAINT
---	CURB LINE
---	CHAIN LINK FENCE
---	STOCKADE FENCE
---	GUARD RAIL
---	RETAINING WALL
○	DECIDUOUS TREE
○	CONIFEROUS TREE
○	BOLLARD
○	SIGN

COMMERCIAL STREET



1 | LEVEL 1 - phase 1
3/32" = 1'-0"

Date: MAR 2, 2017

Scale: 3/32" = 1'-0"

FIRST FLOOR PLAN

Revisions:

Project:

383 COMMERCIAL STREET

Portland, Maine

Architect:

ARCHETYPE
architects

48 Union Wharf Portland, Maine 04101
(207) 772-6022 ARCHETYPE@ARCHETYPEPA.COM

Consultant:

Prepared For:

Owner

A1.01



1 LEVEL 2 - phase 1
3/32" = 1'-0"

A1.02		SECOND FLOOR PLAN		Revisions:		Project:		Architect:		Consultant:		Prepared For:		Owner	
Date:	MAR 2, 2017	Scale:	3/32" = 1'-0"			383 COMMERCIAL STREET		ARCHETYPE architects							
						Portland, Maine		48 Union Wharf Portland, Maine 04101							
								(207) 772-6022							
								ARCHETYPE@ARCHETYPEPA.COM							



BUILDING A - 3RD FLOOR
18 RESIDENTIAL UNITS - 16,542 SF

1 | LEVELS 3 THROUGH 5
3/32" = 1'-0"

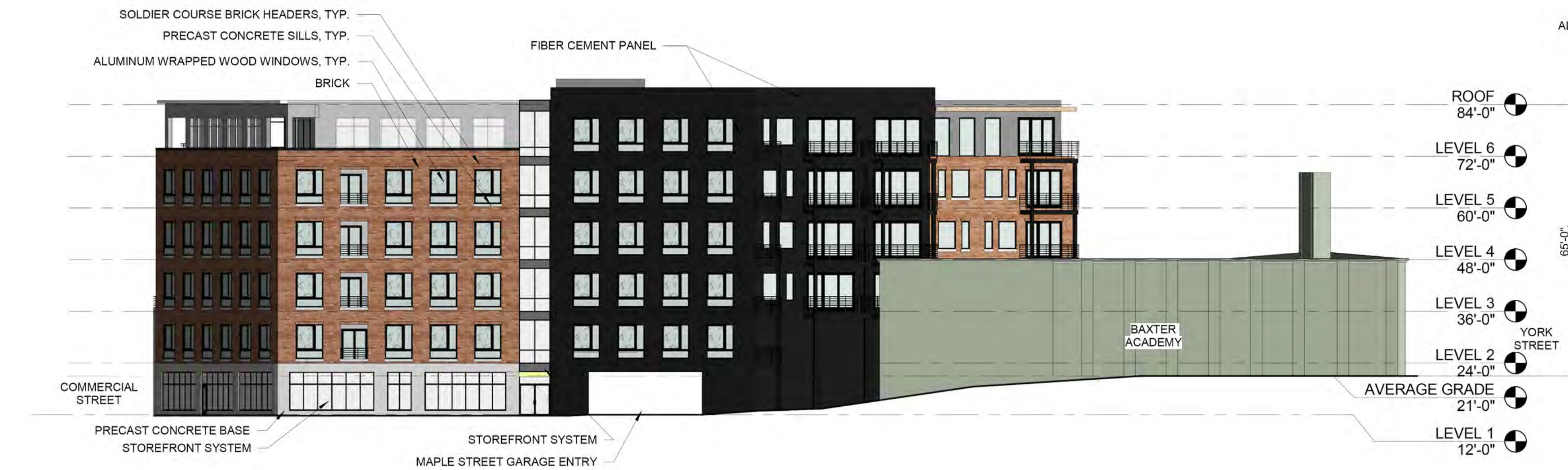
Date: MAR 14, 2017		Scale: 3/32" = 1'-0"		Revisions:	
THIRD FLOOR PLAN		Project: 383 COMMERCIAL STREET		Architect: ARCHETYPE architects 48 Union Wharf Portland, Maine 04101 (207) 772-6022 ARCHETYPE@ARCHETYPEPA.COM	
A1.03		Consultant:		Prepared For: Owner	
Portland, Maine		York Street		Commercial Street	



Date: MAR 14, 2017	Scale: 3/32" = 1'-0"	Revisions:	Project: 383 COMMERCIAL STREET PORTLAND, MAINE	Architect: ARCHETYPE architects 48 Union Wharf Portland, Maine 04101 (207) 772-6022 ARCHETYPE@ARCHETYPEPA.COM	Consultant:	Prepared For:
					Owner	

FOURTH FLOOR PLAN

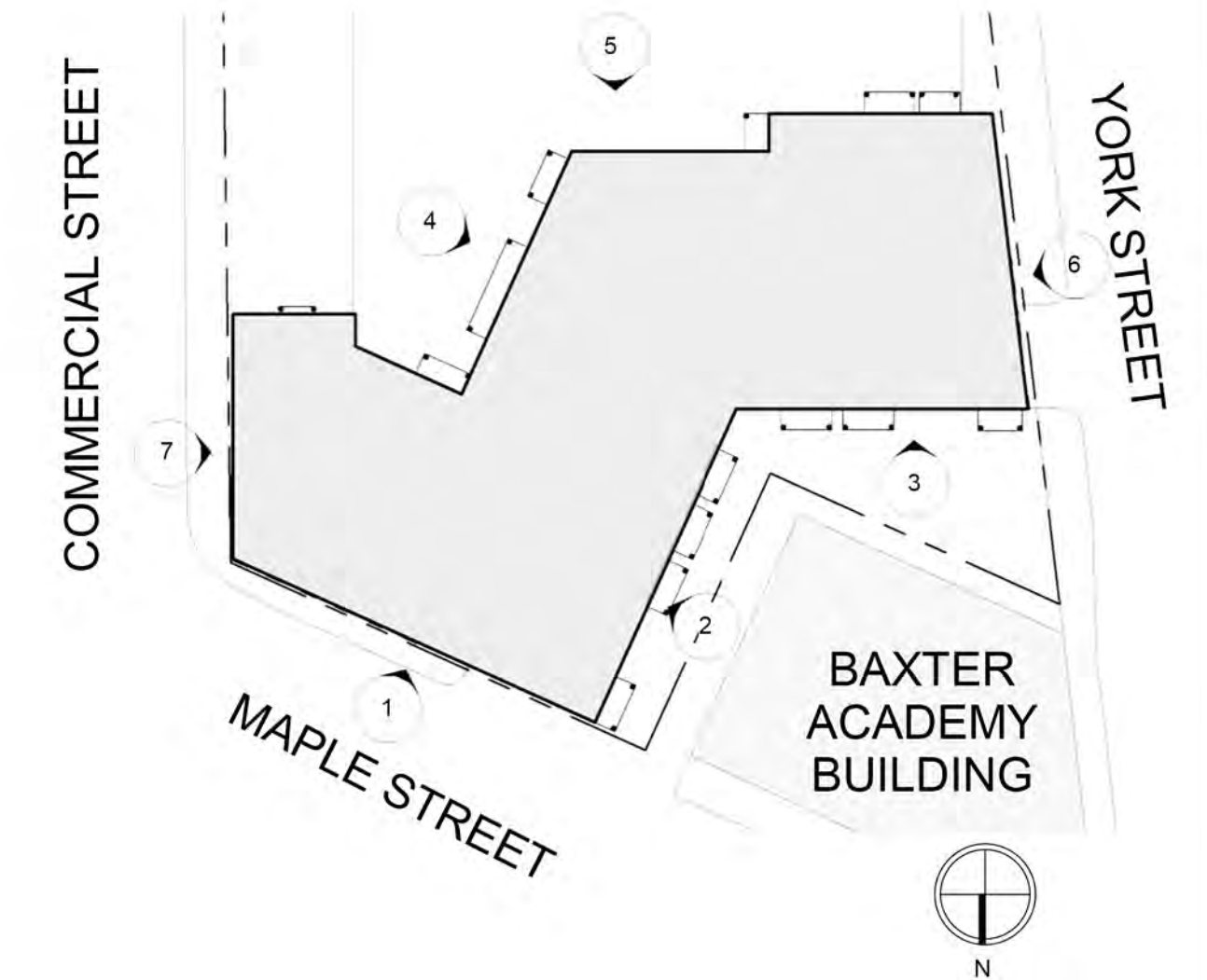
A1.04



1 | PHASE 1 - MAPLE ST ELEVATION
1" = 20'-0"



2 | PHASE 1 - WEST ELEVATION
1" = 20'-0"



GENERAL NOTES:
1. AVERAGE GRADE BY DEFINITION: 4 CORNER AVERAGE GRADE - NW 30' + NE 27' + SE 12' + SW 15' = 84' / 4 = 21'-0" (AVERAGE GRADE)
2. BUILDING HEIGHT: THE VERTICAL MEASUREMENT FROM AVERAGE GRADE TO HIGHEST POINT OF THE ROOF BEAMS = 65' - 0"



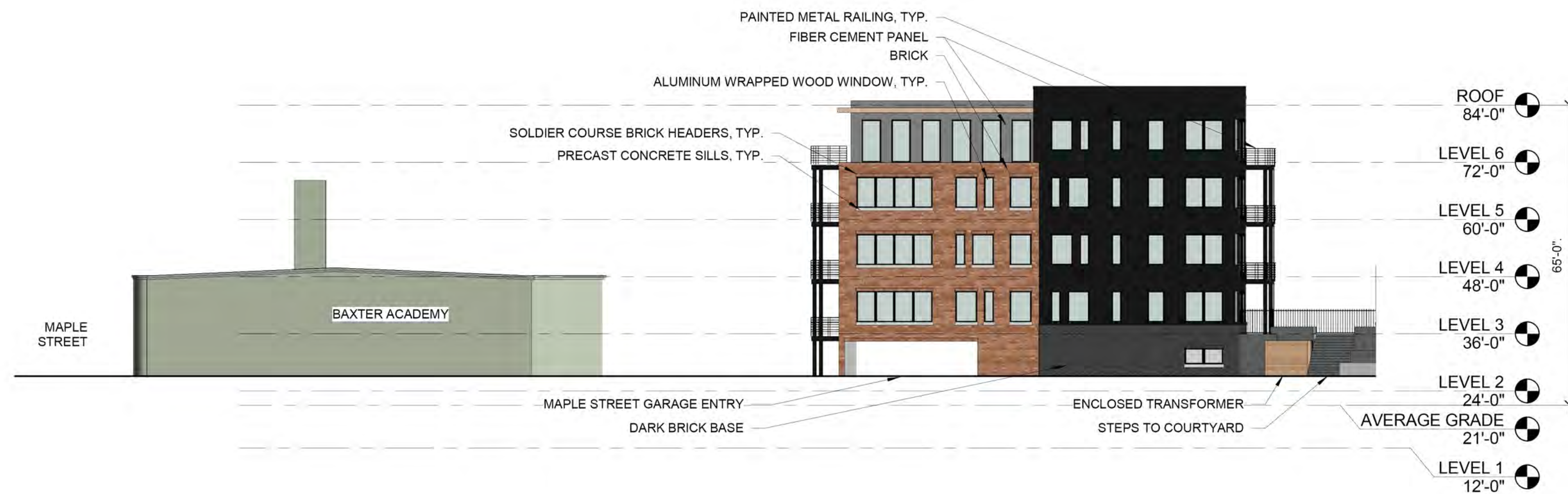
3 | PHASE 1 - EAST ELEVATION
1" = 20'-0"



4 | PHASE 1 - SOUTH EAST ELEVATION
1" = 20'-0"



5 | PHASE 1 - SOUTH ELEVATION
1" = 20'-0"



6 | PHASE 1 - YORK ST ELEVATION
1" = 20'-0"



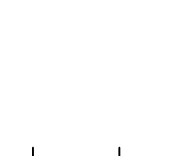
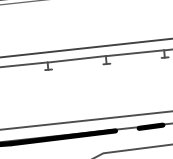
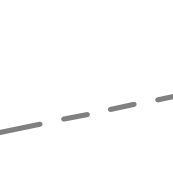
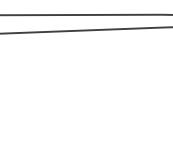
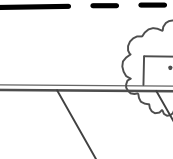
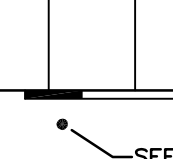
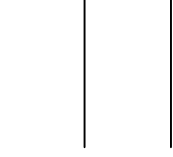
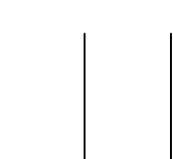
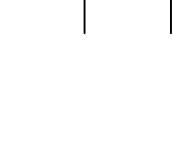
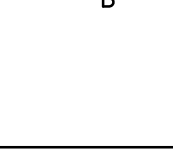
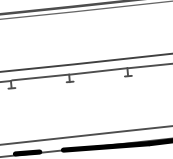
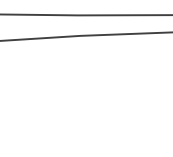
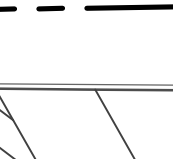
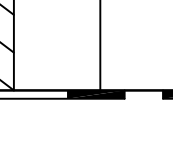
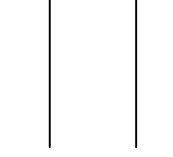
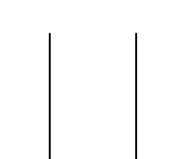
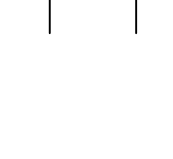
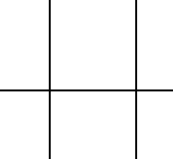
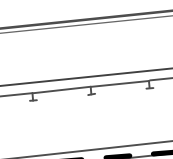
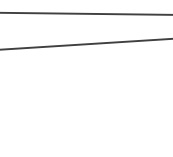
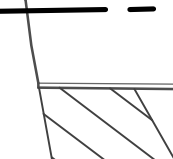
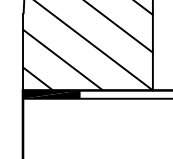
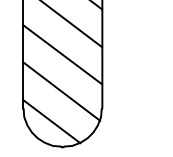
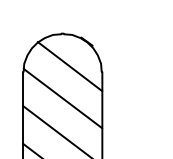
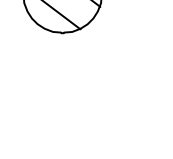
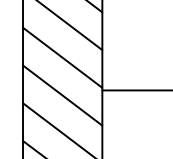
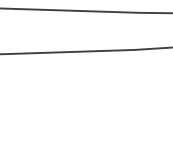
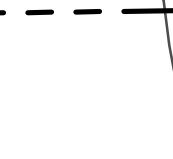
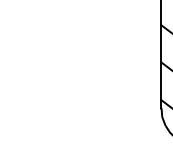
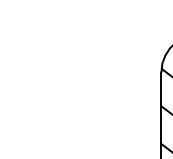
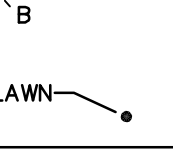
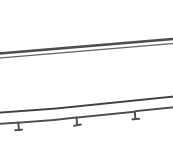
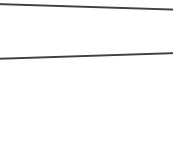
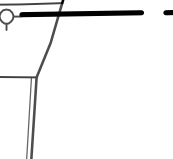
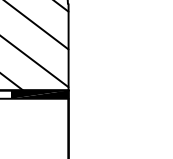
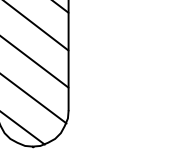
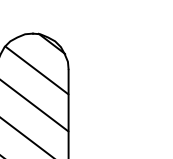
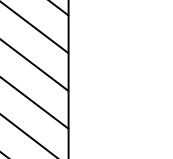
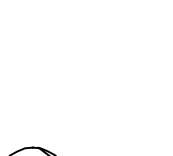
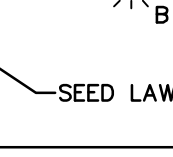
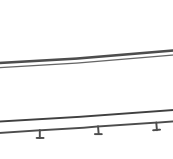
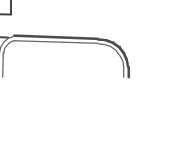
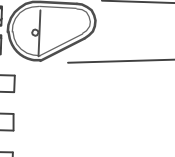
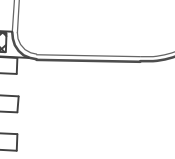
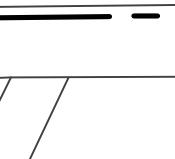
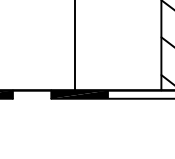
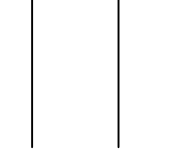
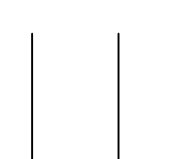
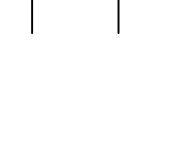
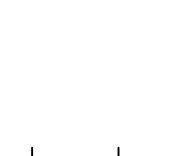
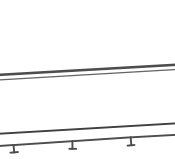
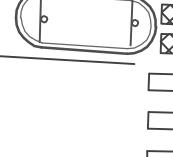
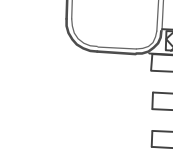
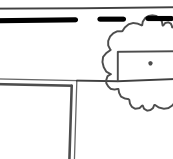
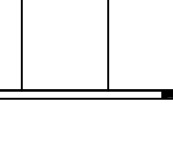
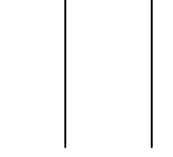
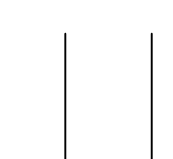
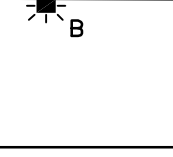
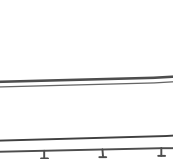
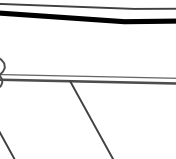
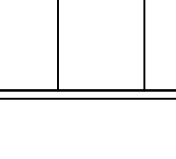
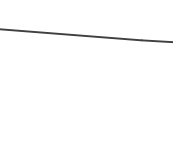
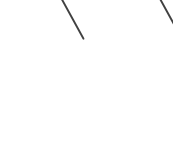
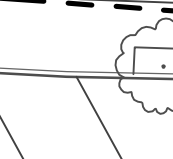
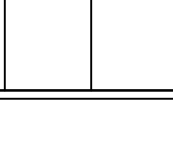
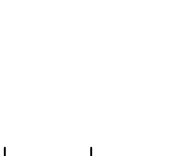
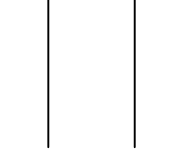
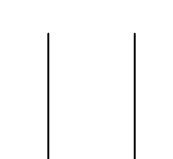
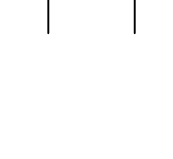
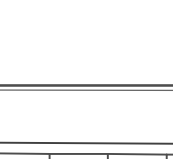
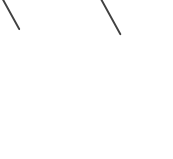
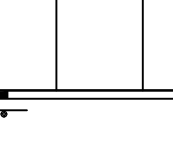
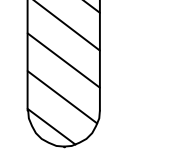
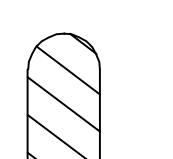
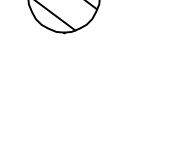
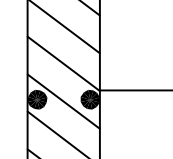
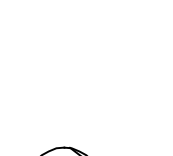
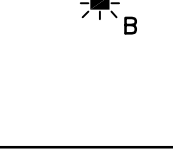
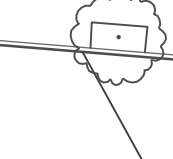
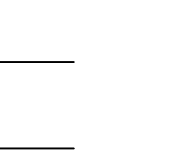
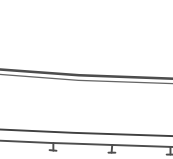
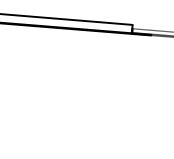
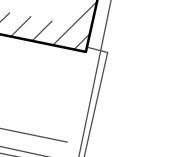
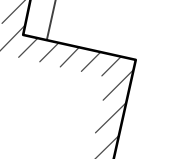
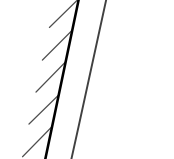
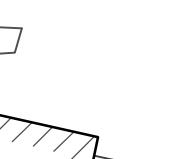
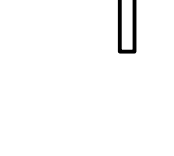
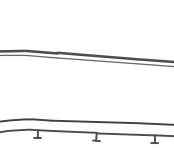
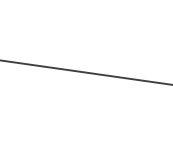
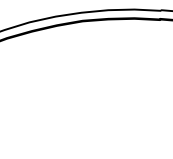
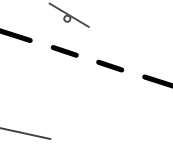
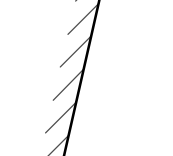
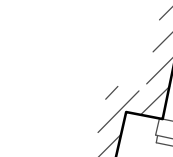
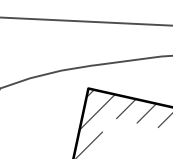
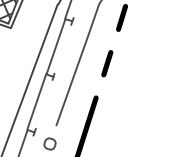
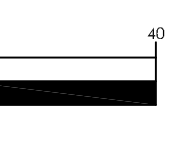
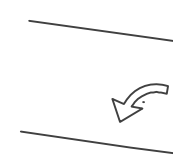
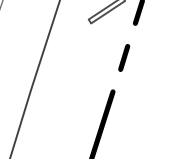
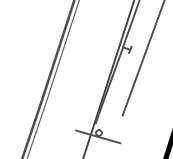
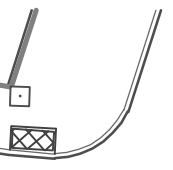
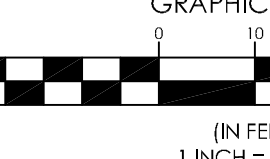
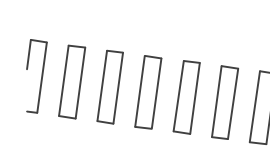
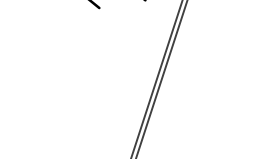
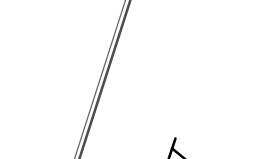
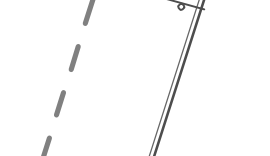
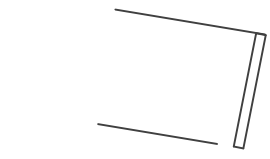
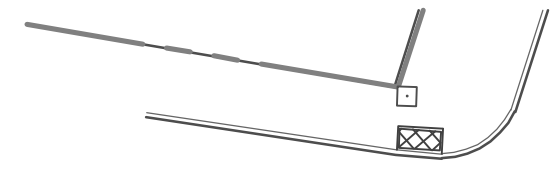
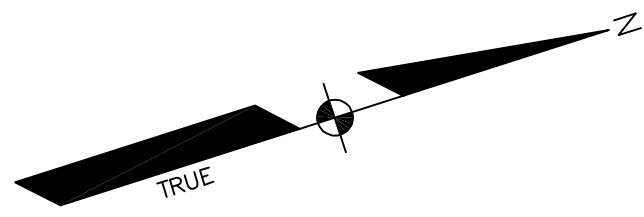
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1" = 20'-0"

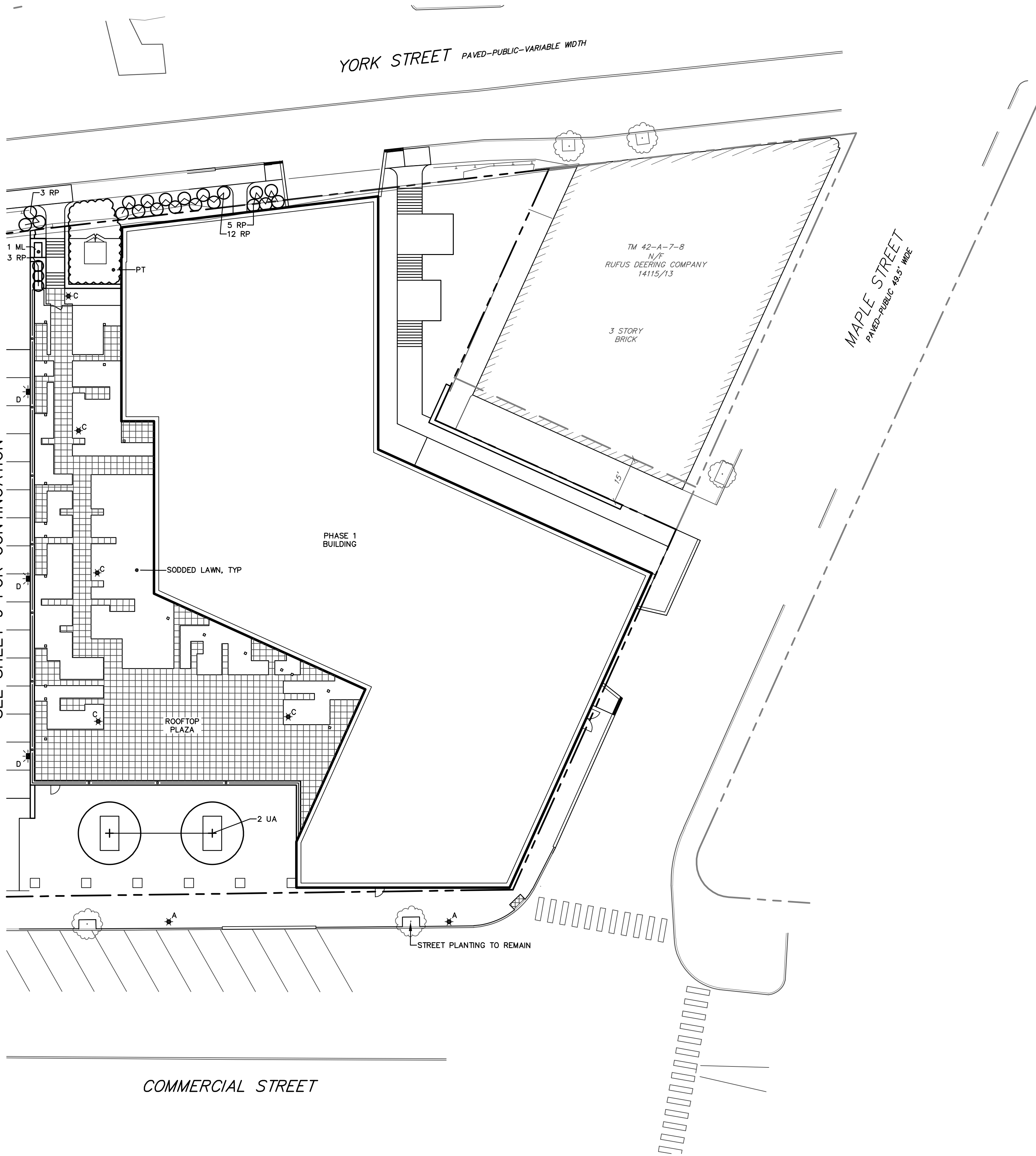
383 COMMERCIAL STREET

Portland, Maine

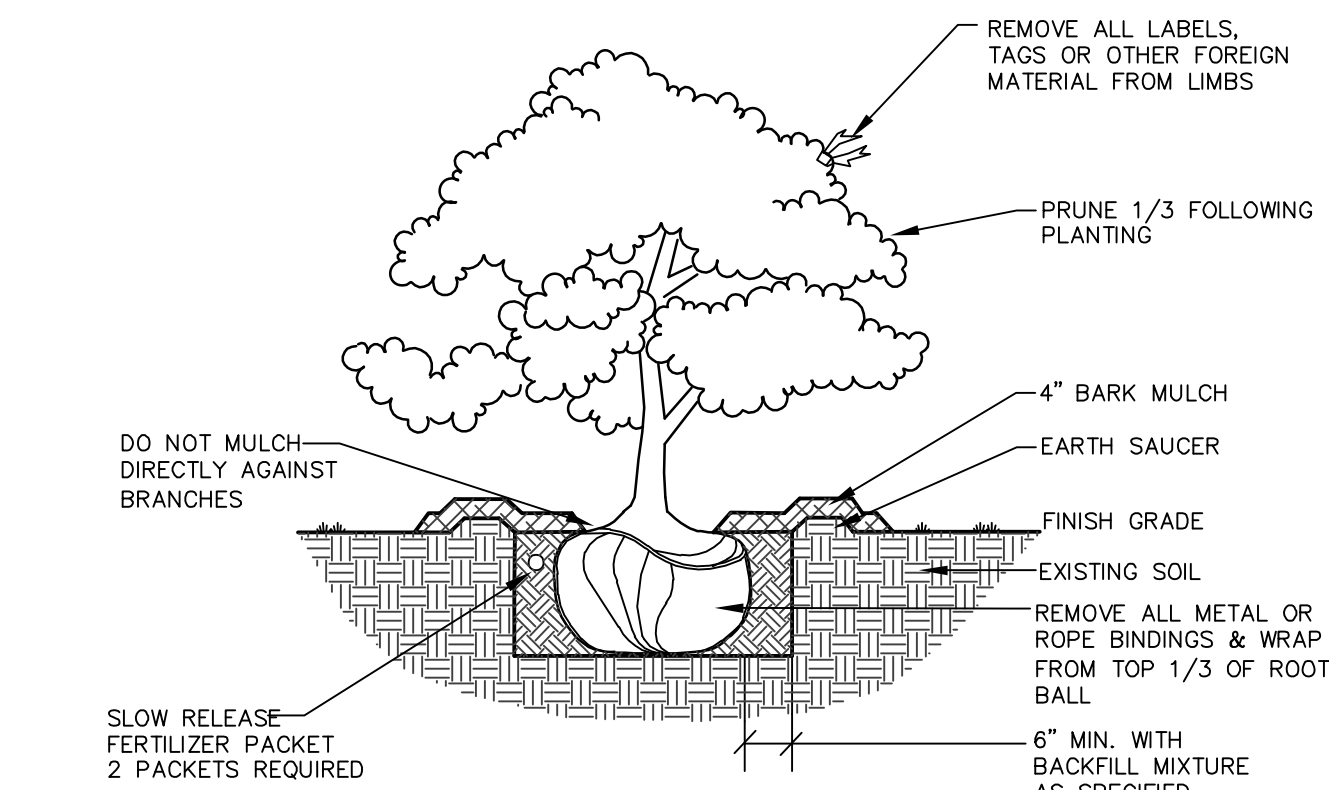
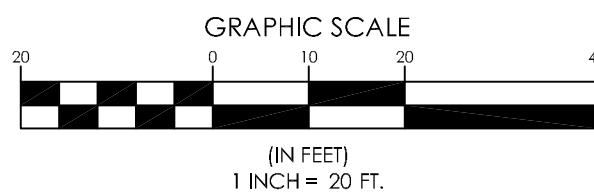
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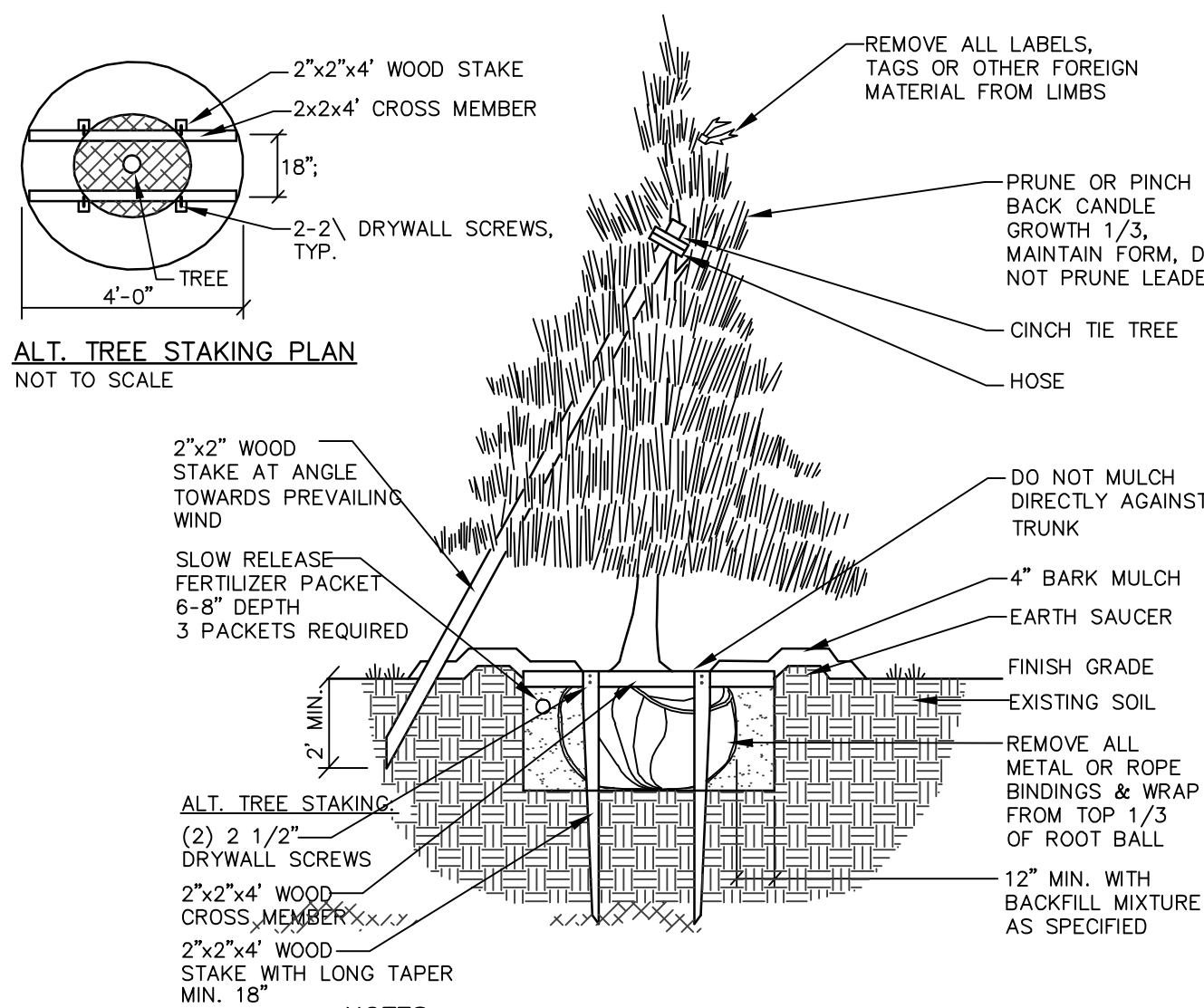




EXISTING	PROPOSED
—	PROPERTY LINE/R.O.W.
—	ABUTMENT LINE/R.O.W.
	BUILDING
—	DECK/STEPS/ OVERHANG
—	EDGE PAVEMENT
—	PAVEMENT SAWCUT
—	EDGE CONCRETE
—	PAVEMENT PAINT
—	CURB LINE
○	CHAIN LINK FENCE
—	STOCKADE FENCE
—	GUARD RAIL
—	RETAINING WALL
●	DECIDUOUS TREE
●	CONIFEROUS TREE
—	BOLLARD
—	SIGN
●	DECIDUOUS TREE
●	CONIFEROUS TREE



NOT TO SCALE



EVERGREEN TREES

NOT TO SCALE

UNDER 2" CALIPER OR
UNDER 8' IN HEIGHT

7'-0" IN HEIGHT & UNDER

1. PLANT QUANTITIES SHOWN ON PLANT LISTS ARE FOR CONVENIENCE TO THE CONTRACTOR ONLY. THE CONTRACTOR IS RESPONSIBLE FOR ALL PLANT MATERIAL INSTALLATION AS SHOWN ON PLANS.
2. SIZE AND GRADING STANDARDS OF PLANT MATERIALS SHALL CONFORM TO THE LATEST EDITION OF "U.S.A. STANDARD FOR NURSERY STOCK," BY THE AMERICAN ASSOCIATION OF NURSERYMEN, INC.
3. ALL PLANT MATERIAL SHALL BE FREE FROM INSECTS AND DISEASE.
4. 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 BY THE OWNER.
5. PLANT MATERIAL SHALL BE GUARANTEED FOR A PERIOD OF ONE YEAR BY THE CONTRACTOR AND A PERIOD OF TWO YEARS THEREAFTER BY THE OWNER FROM DATE OF INSTALLATION. DURING THE ONE YEAR GUARANTEE PERIOD, DEAD PLANT MATERIAL SHALL BE REPLACED AT NO COST TO THE OWNER. AT THE END OF THE ONE YEAR PERIOD, THE CONTRACTOR SHALL OBTAIN FINAL ACCEPTANCE FROM THE OWNER.
6. ALL GRASS, OTHER VEGETATION AND DEBRIS SHALL BE REMOVED FROM ALL PLANTING AREAS PRIOR TO PLANTING.
7. EXISTING TREES TO BE PRESERVED WILL BE PROTECTED DURING CONSTRUCTION AND SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR.
8. THE LANDSCAPE CONTRACTOR IS ADVISED OF THE PRESENCE OF THE 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, CURBS, ETC. DAMAGED IN PERFORMANCE OF THIS JOB AT NO ADDITIONAL COST TO THE OWNER.
9. ALL SHRUB BEDS SHALL BE MULCHED WITH 3" CLEAN SHREDED DARK BROWN BARK MULCH.
10. THE CONTRACTOR SHALL PROVIDE 4" LOAM FOR ALL AREAS TO BE SODDED OR SEEDED. PLANTING AREAS SHALL RECEIVE 12" ROLLED THICKNESS OF LOAM. THE LANDSCAPE CONTRACTOR SHALL COORDINATE SUBGRADE PREPARATION WITH THE GENERAL CONTRACTOR PRIOR TO PLACING LOAM.
11. 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 (AND MUNICIPAL AUTHORITY, IF APPLICABLE) PRIOR TO INSTALLATION ON SITE.
12. WHERE INDICATED ON PLAN, PLANTING SOIL MIXTURE FOR PERENNIAL AND ANNUAL FLOWER 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.

KEY	BOTANICAL NAME/COMMON NAME	SIZE/COMMENTS
UA	ULMUS A. 'VALLEY FORGE'/VALLEY FORGE ELM	3" CALIPER
ML	MAGNOLIA X. 'LEONARD MESSEL'/MAGNOLIA	6'-8' CLUMP
RP	RHODODENDRON P.JM 'COMPACTA'/RHODODENDRON	NO. 5 CONTAINER
PT	PACHYSANDRA TERMINALIS/JAPANESE SPURGE	FLATS, PLANTED 6' O.C.

[illegible]

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T E C H N I C S
WWW.SEBAGOTECHNICS.COM

75 John Roberts Rd.
Suite 1A
South Portland, ME 04106
Tel. 207-200-2100

250 Goddard Rd.
Suite B
Lewiston, ME 04240
Tel. 207-783-5656

LANDSCAPE PLAN
OF:
383 COMMERCIAL STREET
383 COMMERCIAL STREET
PORTLAND, MAINE
FOR:
DEERING PROPERTY MANAGEMENT, LLC
2730 TRANSIT ROAD
WEST SENECA, NEW YORK

PROJECT NO.	SCALE
16324	1" = 20'

WILLIAM T. CONWAY, RLA 108

16324L.dwg. TAB: L-2





Memorandum

Planning and Urban Development Department

Planning Division

To: Chair Boepple and Members of the Portland Planning Board
From: Shukria Wiar, Planner
Date: June 9, 2017
Re: Knight Farms Subdivision (Nine Lots), 1728 Washington Avenue
Greenlight Enterprises, LLC
Preliminary Review
Project #: 2017-058 **CBL:** 351-A-003
Meeting Date: June 13, 2017

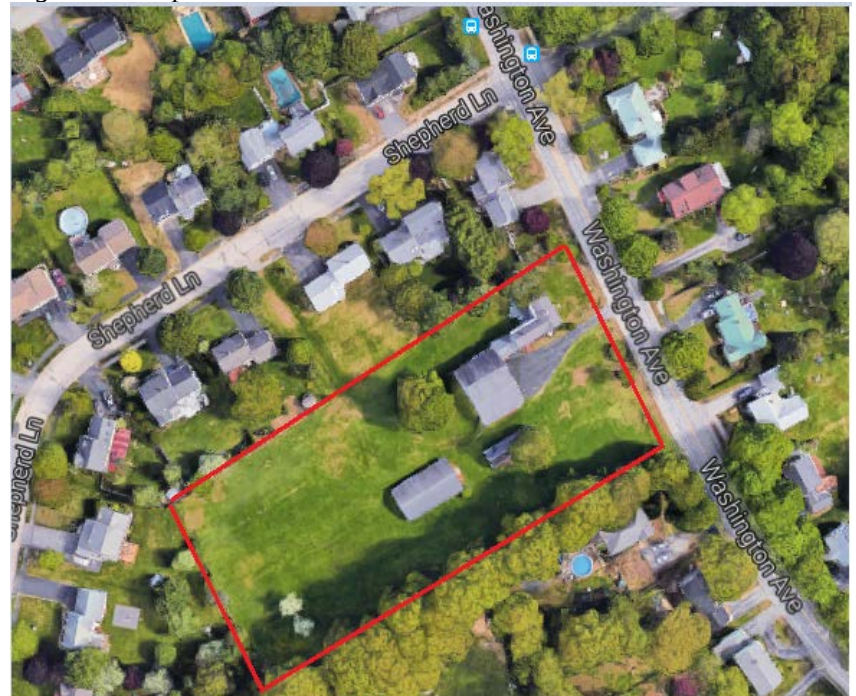
I. INTRODUCTION

Greenlight Enterprises, LLC is proposing a nine-lot single-family subdivision on land along outer Washington Avenue. The site includes an existing house at 1728 Washington Avenue that will remain and be a separate lot (Lot #9). As part of the development, a street will be constructed, with a 50' right-of-way (ROW), to the City Standards including the installation of underground utility services, granite curbs, lighting, sidewalks and street trees. The Planning Board is being requested to review the application under Portland's Subdivision Ordinance.

Of the total site of 2.15 acres, approximately two thirds of the property, is in the Residential R-3 zone including the frontage on Washington Avenue and the south property line, with the rest within the Residential R-2 zone.

A total of 134 notices were sent out to neighbors and interested parties within Portland, and the public notice appeared in the June 5th and June 6th, 2017 editions of the *Portland Press-Herald*.

Figure 1: Proposed Site



Applicant: Greenlight Enterprises, LLC
Consultants: Robert McSorley, Sebago Technics

II. REQUIRED REVIEWS

<i>Waiver Requests</i>	<i>Applicable Standards</i>
Sidewalk Waiver	Section 14-498 8a
<i>Review</i>	<i>Applicable Standards</i>
Subdivision (creation of 3 or lots)	Section 14-497

III. PROJECT DATA

Existing Zoning	Residential R-2 and R-3		
Existing Use	Single-family home		
Proposed Use	Nine single-family lots		
Parcel Size	2.15 acres		
	<i>Existing</i>	<i>Proposed</i>	<i>Net Change</i>
Impervious Surface Area	10,010 SF	35,270 SF	25,260 SF
Building Footprint	7,447 SF	15,268 SF (All the proposed homes)	7,821 SF
Number of Residential Units	One Lot	9 New Lots	8 Lots
Proposed Bedroom Mix	Three-bedroom homes		
Estimated Cost of Project	\$230,000		

IV. EXISTING CONDITIONS

The 2.15 acres tract of land is located on outer Washington Avenue, just south of Shepherd Lane. The site is



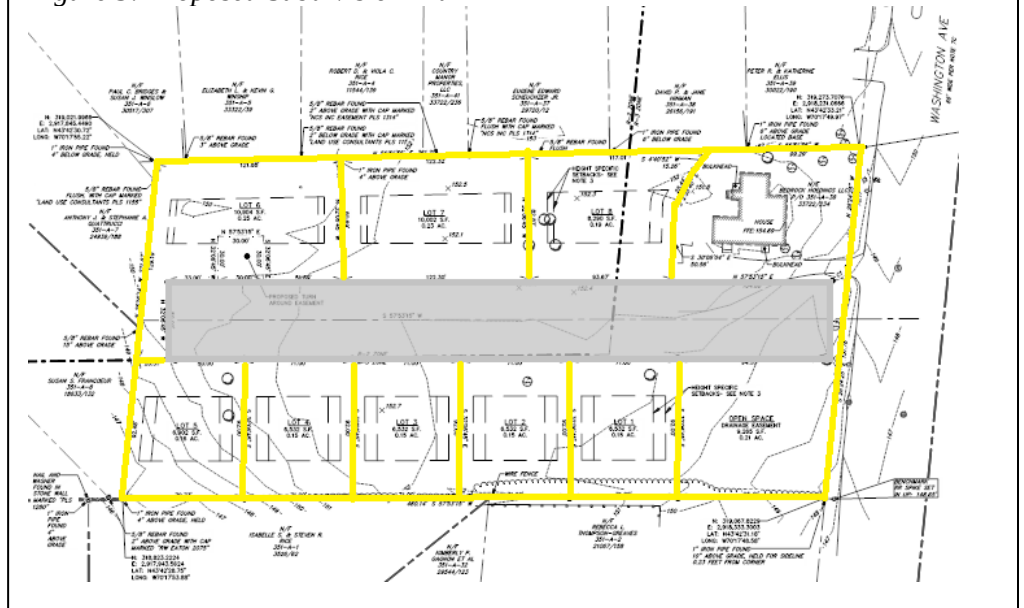
partially developed land consisting of grass land cover. The site currently has an existing farmhouse on the property, which will remain on a standalone lot. There was an existing barn and outbuildings that were removed a few weeks ago. The

development site abuts Washington Avenue to the east, and single family residential structures to the north, south and west.

V. PROPOSED DEVELOPMENT

The applicant has submitted a preliminary application with a sketch plan (Attachments B and Plan 3) and requested a preliminary review prior to developing the details of the subdivision. The lots will be between 6,500 and 10,000 sq. ft. to meet the requirements the two zones. The applicant has confirmed that the existing structure and garage on the isolated Lot #9 at the eastern end of the parcel is intended to remain. This lot is included in the review as it was originally owned in conjunction with part of the land in the proposed subdivision area, and under State law it must be included in the review.

Figure 3: Proposed Subdivision Plan



A new drive totaling almost 450 linear feet is proposed to provide access to the new lots, with its entrance onto Washington Avenue, which need to be accepted as public road by the City of Portland. The proposed new lots will be served by a water main and sanitary sewer in Washington Avenue. The applicant is proposing a sidewalk and esplanade on one side of the proposed access drive. The applicant has requested a waiver (though not yet submitted an analysis in relation to the sidewalk waiver criteria) for the sidewalk on the other side of the access drive (Attachment I).

A stormwater analysis has been submitted that states the proposals indicate one area where stormwater management systems could be located. This area will also serve an area of open space for the subdivision. Future management and maintenance of this area has not been discussed.

VI. PUBLIC COMMENT

The Planning Division received one request for information about the project, and received two written comments (Attachment 4). The main concerns of these comments are the green space, used by the neighborhood, will be eliminated and the increase in traffic.

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

a. The owner of the property is Greenlight Enterprises LLC. The applicant has provided a copy of a quitclaim deed, recorded at the Cumberland County Registry of Deeds (Book 33874 Page 149), which demonstrates their right, title and interest in the property.

b. The estimated cost of the development is \$230,000. The applicant has submitted a letter from Machias Saving Bank, dated March 13, 2017, as demonstration of their financial and technical capacity to complete the proposed development.

VIII. ZONING ANALYSIS

The proposed subdivision is within the Residential R-2 and R-3 zones. This is considered a nine-lot subdivision with one lot of "open space" that is not intended for development of residential structures. This open space lot is not counted in the number of subdivisions. All lots proposing to be development are meeting the minimum lot size, minimum street frontage, and lot width. Each lot has the potential to meet all of the other setback requirements, parking requirements, lot coverage requirements, and building height. When a building permit comes in for the construction on the individual lots, it must meet all the zone requirements.

IX. SUBDIVISION PLAT AND RECORDING PLAT REQUIREMENTS (Section 14-496)

The final submission need to submit a subdivision plat that address the requirements of the subdivision ordinance. The final plat will need to be revised to reflect any waivers and conditions of approval that relate to the subdivision plan. Any waivers granted must be recorded at the Registry of Deeds within 90 days of a Planning Board decision.

X. SUBDIVISION REVIEW (14-497(a). Review Criteria; 14-198. Technical and Design Standards; & 14-499. Required Improvements)

1. Will Not Result in Undue Water and Air Pollution (Section 14-497 (a) 1), and Will Not Result in Undue Soil Erosion (Section 14-497 (a) 4)

The site will be served by public water located within Washington Avenue. This will be reviewed at the final plan stage when additional information is available. The additional information will need to address the comments of the Fire Department where they have implications for the road design (e.g. installation of fire hydrants, turnaround) and lot layout.

2. Sufficient Water Available (Section 14-497 (a) 2 and 3)

The applicant has not provided a letter from the Portland Water District confirming the district's ability to serve the proposed project. This will need to be part of the final submission.

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

The proposal includes a proposed street that starts at a new intersection with Washington Avenue and dead ends with a turnaround near the boundary to the north. The Fire Department has reviewed the layout of the turnaround and states “[t]he proposed turnaround appears to not be able to accommodate a Fire Dept. ladder truck. Please provide documentation that there will be sufficient turning radius for a ladder truck”. The access drive has been designed to meet City of Portland standards with a paved travel way of 28 feet in width. The Fire Department has indicated that 28 feet is needed for emergency access.

The applicant submitted a Traffic Generation Assessment (Attachment L) which projects 76.56 daily vehicle trips, 6.16 AM peak hour trips, and 8.16 PM peak hour trips from the proposed subdivision. The City’s Traffic Engineering Reviewer Tom Errico has commented (Attachment 1):

The applicant has conducted a trip generation estimate and less than 10 peak hour trips will be generated by the project. This level of traffic would not be expected to create traffic or safety deficiencies.

The project is not expected to generate significant traffic volumes or have a major impact on existing or proposed public roads.

Mr. Errico has identified other transportation impact that applicant will need to address as part of the final plan, see below:

- *A detailed construction management plan for activities that impact Washington Avenue traffic and pedestrians shall be provided.*
- *The applicant shall provide sight distance information at the new intersection with Washington Avenue.*
- *he City has been implementing traffic calming recommendations along Washington Avenue over a number of years and I need to review conditions in the vicinity of the project and whether any specific actions or monetary contributions are required by the applicant.*

Sidewalk Requirement

The applicant is proposing a sidewalk on Washington Avenue on the development side from Shepherd Street (north of the proposed road) but is not one along the south of the road. A sidewalk is also proposed only on the north of the proposed street, not on both sides. The Subdivision Ordinance includes a number of provisions that the applicant will need to consider carefully as the final plans are being developed, Section 14-498 8a:

Sidewalks and curbs: Sidewalks shall be constructed on each side of each street in accordance with article III of chapter 25. Sidewalks to be used by pedestrians are to be so located as to minimize contacts with normal automotive traffic, with preference given to interior walks away from streets in common open space in block interiors.

The Traffic Engineer and DPS have commented (Attachments 1 and 2) that the applicant should be have the sidewalk on the new city street on the south side instead of the north side. One of the reason for the change is the street lighting are being proposed on the south side and for safety reasons, the sidewalk should be on the same side. Mr. Errico also states that there is greater number of houses on the south side; below are his comments in regard to the sidewalk:

- *It is suggested that the sidewalk be located on the south side of the proposed roadway given the greater number of housing lots on the south side.*
- *Greater detail is required for the sidewalk connection to Shepherd Lane as it relates to utility location and impacts. I also continue to review general pedestrian safety and connectivity.*

Mr. Errico also stated that the applicant would need to address the sidewalk waiver criteria both in respect to the sidewalks on proposed street and well as on Washington Avenue:

- *The sidewalk waiver request shall comply with the City’s sidewalk waiver criteria.*

- *A sidewalk waiver request is required for the property frontage on Washington Avenue towards the south.*
4. *Will Provide for Adequate Sanitary Sewer and Stormwater Disposal (Section 14-497 (a) 6), and Will Not Cause an Unreasonable Burden on Municipal Solid Waste and Sewage (Section 14-497 (a) 7)*

The applicant has submitted a wastewater capacity application to the Department of Public Services requesting confirmation of adequate sewer capacity (Attachment B). A letter from DPS confirming sewer capacity has been included as a condition of approval. Since the road will be built to City standards and accepted by the City Council, solid waste and snow removal will then be handled by the City.

Under Section 5 of the City of Portland Technical Manual, a Level III development project is required to submit a stormwater management plan pursuant to the regulations of MaineDEP Chapter 500 Stormwater Management Rules, including conformance with the Basic, General, and Flooding Standards. The MDEP Chapter 500 rules describe stormwater management requirements for new development projects. The City's Peer Engineering Review (Attachment 2) is general at this stage because the stormwater analysis has not yet been submitted. However, the reviewer has noted:

1. *We offer the following comments [pursuant the MDEP Chapter 500 regulations]:*
 - a) *Basic Standard: The Applicant has provided notes, and details to address erosion and sediment control requirements, inspection and maintenance requirements, and good housekeeping practices in accordance with Appendix A, B, & C of MaineDEP Chapter 500. The locations of proposed sediment barriers should be included on the plans.*
 - b) *General Standard: The Applicant has proposed to install an underdrained soil filter to provide treatment for the subdivision. This system will provide adequate treatment for the subdivision. We have the following comments on the stormwater design:*
 - *Please clarify the locations of the vertical orifice openings on the outlet control structure.*
 - *The soil filter's emergency spillway is modeled with an elevation of 149. It appears based on the grading plan, that this elevation is closer to 147.5. Based on the model, the peak water elevation in the 100-year storm will not reach this elevation, and the outlet will serve only emergency conditions in the event that the outlet control structure becomes plugged. The Applicant should provide additional permanent stabilization (i.e. a turf reinforcement matting) at the emergency spillway, or confirm that in an emergency flow situation (i.e. model the 25-year storm with no flow exiting via the OCS) that the velocity existing via the spillway will not be at erosive levels.*
 - *As noted during the May 23, 2017 meeting with the Applicant, concern has been expressed by neighbors and staff on the scale and location of the underdrain soil filter. We understand that the site constraints limit the location and type of stormwater treatment features that may be utilized for the subdivision. The Applicant should be prepared to discuss these constraints and the alternatives considered with the Planning Board. We also recommend that the Applicant consider additional landscaping to provide buffering at the street.*
 - c) *Flooding Standard: The proposed underdrained soil filter will provide for flood control within the subdivision.*
2. *The City of Portland Department of Public Works has reviewed the proposed utility plan for the new roadway. As designed, the stormwater system does not meet the City's Technical Standards and is unacceptable. The stormwater system should be constructed with a storm drain system in the middle third of the road (per figure I-4 in the City's Technical Manual <http://portlandmaine.gov/756/City-Codes-Ordinances-Regulations-Maps>), with drain manholes at either end of the run. Stormwater services from the individual properties (foundation drains, roof drains, or any other field inlets or*

stormwater connections) should be to the stormdrain main in the street and not to the underdrains installed at the curb lines.

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

The proposal site is not within an historic district. It is in a neighborhood surrounded by a single family and some two family residential types. Since the parcel is an open field, the proposed lots do not impact the natural beauty of the area or adversely affect any significant wildlife habitat, rare or irreplaceable natural areas, or any public access to the shoreline.

The ordinance requires submission to include a preliminary landscape plan, and staff have advised the applicant that tree saves are generally sought for subdivisions. This parcel is an open field and not forested but there are mature trees along the southern boundary that will need to be saved as part of this development. A more detailed landscape and tree save plan will need to be prepared for the final submission. The applicant is proposing to twenty-two street trees. Tree save proposals should address the need for buffering between the subdivision and the surrounding existing homes.

The proposed subdivision includes a total of 9,265 sq ft of open space, located along Washington Avenue and is co-located with the proposed stormwater management or “drainage easement” area. The maintenance and management of this open space area needs to be clarified in the context of the Subdivision Ordinance (14-498):

(i) *Public open space:*

1. *In all subdivisions open space may be provided for parks, recreational and other public areas. Where no public open space or recreational areas exist in close proximity to the subdivision, or where a lack of such areas in the subdivision would require its disapproval under section 14-497(a), general requirements, the Planning Board may require provision of land for park or recreational purposes. Such lands may be designated for public or private ownership in accordance with the conditions stated in this section, subject to the approval of the Planning Board.*

If a tract or parcel is designed or intended to be owned and used in common for recreational or other public or semipublic purposes and such intent is so designated on the subdivision plat, appropriate documents in form approved by the corporation counsel shall be submitted to the Planning Board. Such documents shall clearly:

- a. *Set forth the nature of the permanent organization under which common ownership is to be established, including its purpose; how it shall be governed and administered; the provisions made for permanent care and maintenance of the common property for its share of the cost of administering and maintaining such common property;*
- b. *Set forth the extent of common interest held by the owner of each individual parcel in the tract held in common with others.*

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

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

Housing: A Livable City

State Goals: To encourage and promote affordable decent, housing opportunities for all Maine citizens

Local Goals:

- Increase, preserve, and modify the overall supply of housing City-wide to meet the needs, preferences and financial capabilities of all Portland households.
- Encourage additional contextually-appropriate housing density in and proximate to neighborhood centers, concentrations of services, and transit nodes and corridors as a means of supporting complete neighborhoods.
- Pursue policies to enable people who work in Portland to have the option to live in Portland.
- Encourage quality, sustainable design in new housing development.

Goals from Future Strategies:

9. Adopt Affordable Housing

- Pursue new opportunities for increased energy efficiency, increased densities, mixed incomes, and greater connectivity to surrounding neighborhoods.

7. Financial Capability (Section 14-497 (a) 10)

As noted above, the applicant has submitted a letter from Machias Saving Bank indicating the intent to finance the project.

8. Wetland and Groundwater Impacts, Flood-Prone Area

There are no anticipated impacts to wetlands and groundwater supplies, and is located in a flood-prone area.

VII NEXT STEPS (PRIOR TO FINAL PLAN SUBMISSION)

1. Submit draft Subdivision Plat
2. Submit Stormwater analysis and Management Plan
3. Submit Landscape Plan to include treesaves
4. Clarify maintenance and management of open space and stormwater systems
5. Submit sidewalk waiver addressing sidewalk waiver criteria
6. Submit Neighborhood Meeting Certificate
7. Address the staff review, Memo and Planning Board comments

ATTACHMENTS:

Attachments to Memorandum

1. Traffic Engineering (Tom Errico) comments 05.26.2017
2. Peer Engineering Review comments (Lauren Swett) 05.26.2017
3. Fire Department (Capt. Keith Gautreau) comments 06.08.2017
4. Public Comment
PC1 - Sean Fitzpatrick 5.03.17
PC2 - 1728 Washington Ave 5.6.2017

Applicant's Submittal

- A. Cover Letter, dated March 2017
- B. Section 1. Application Forms
- C. Section 2. Location Map
- D. Section 3. Tax Map
- E. Section 4. Right, Title and Interest
- F. Section 5. Statement of State and Federal Permits
- G. Section 6. Zoning Assessment
- H. Section 7. Summary of Existing-Proposed Easements
- I. Section 8. Waiver Requests
- J. Section 9. Evidence of Financial and Technical Ability
- K. Section 10. Construction Management Plan
- L. Section 11. Statement of Traffic Generation
- M. Section 12. Summary of Significant Natural Features
- N. Section 13. Stormwater Management Plan
- O. Section 14. Statement of Project Consistency with City Master Plans
- P. Section 15. Ability to Serve Letters
- Q. Section 16. Statement of Solid Waste Generation
- R. Section 17. NFPA Fire Department Standards
- S. Section 18. Assessment of Consistency with Design Standards
- T. Section 19. Soils Report
- U. Section 20. City of Portland authorization letter
- V. Section 20. Site-Subdivision Plans

W. Section 21. Neighborhood Meeting Documentation

Plans

1. C1. Cover Sheet
2. C2. Existing Conditions Plan
3. C3. Subdivision Plan
4. C4. Grading & Utility Plan
5. C5. Profile
6. C6. Details Sheet 1
7. C7. Details Sheet 2
8. C8. Details Sheet 3
9. C9. Pre Dev Watershed Plan
10. C10. Post Dev Watershed Plan



Shukria Wiar <shukriaw@portlandmaine.gov>

1728 Washington Avenue - Preliminary Traffic Comments

Tom Errico <thomas.errico@tylin.com>

Fri, May 26, 2017 at 9:56 AM

To: Shukria Wiar <shukriaw@portlandmaine.gov>

Cc: "kas@portlandmaine.gov" <kas@portlandmaine.gov>, Jeremiah Bartlett <JBartlett@portlandmaine.gov>, Lauren Swett <lswett@woodardcurran.com>, "Jeff Tarling (JST@portlandmaine.gov)" <JST@portlandmaine.gov>

Hi Shukria – The following presents the preliminary traffic comments following a review of the application materials.

- The applicant has conducted a trip generation estimate and less than 10 peak hour trips will be generated by the project. This level of traffic would not be expected to create traffic or safety deficiencies.
- A detailed construction management plan for activities that impact Washington Avenue traffic and pedestrians shall be provided.
- The sidewalk waiver request shall comply with the City's sidewalk waiver criteria.
- It is suggested that the sidewalk be located on the south side of the proposed roadway given the greater number of housing lots on the south side.
- The applicant shall provide sight distance information at the new intersection with Washington Avenue.
- A sidewalk waiver request is required for the property frontage on Washington Avenue towards the south.
- The City has been implementing traffic calming recommendations along Washington Avenue over a number of years and I need to review conditions in the vicinity of the project and whether any specific actions or monetary contributions are required by the applicant.
- Greater detail is required for the sidewalk connection to Sheperd Lane as it relates to utility location and impacts. I also continue to review general pedestrian safety and connectivity.

If you have any questions, please contact me.

Best regards,

Thomas A. Errico, PE

Senior Associate

Traffic Engineering Director

TYLIN INTERNATIONAL

12 Northbrook Drive

Falmouth, ME 04105

+1.207.781.4721 main

+1.207.347.4354 direct

+1.207.400.0719 mobile

+1.207.781.4753 fax

thomas.errico@tylin.com

Visit us online at www.tylin.com

Twitter | Facebook | LinkedIn | Google+

"One Vision, One Company"

MEMORANDUM



TO: Shukria Wiar, Planner
FROM: Lauren Swett, P.E.
DATE: May 26, 2017
RE: 1728 Washington Ave – Knight Farm Subdivision – Level III Site Plan

Woodard & Curran has reviewed the Level III Site Plan Application for the Knight Farm Subdivision located at 1728 Washington Avenue in Portland. The property is being subdivided for the construction of 8 single-family house lots with a new road to be accepted by the City of Portland.

Documents Reviewed by Woodard & Curran

- Level III Site Plan Application and attachments, dated March 13, 2017, prepared by Sebago Technics, on behalf of Greenlight Enterprises, LLC.
- Engineering Plans, dated March 14, 2017, prepared by Sebago Technics, on behalf of Greenlight Enterprises, LLC.

Comments

- 1) The City of Portland requires that all Level III site plan applications submit a stormwater management plan pursuant to the regulations of MaineDEP Chapter 500 Stormwater Management Rules, including conformance with the Basic, General, and Flooding Standards (Technical Manual, Section 5. II. Applicability in Portland. C. a. and City of Portland Code of Ordinances Sec. 14-526 site plan standards (b). 3. b.). We offer the following comments:
 - a) Basic Standard: The Applicant has provided notes, and details to address erosion and sediment control requirements, inspection and maintenance requirements, and good housekeeping practices in accordance with Appendix A, B, & C of MaineDEP Chapter 500. The locations of proposed sediment barriers should be included on the plans.
 - b) General Standard: The Applicant has proposed to install an underdrained soil filter to provide treatment for the subdivision. This system will provide adequate treatment for the subdivision. We have the following comments on the stormwater design:
 - Please clarify the locations of the vertical orifice openings on the outlet control structure.
 - The soil filter's emergency spillway is modeled with an elevation of 149. It appears based on the grading plan, that this elevation is closer to 147.5. Based on the model, the peak water elevation in the 100-year storm will not reach this elevation, and the outlet will serve only emergency conditions in the event that the outlet control structure becomes plugged. The Applicant should provide additional permanent stabilization (i.e. a turf reinforcement matting) at the emergency spillway, or confirm that in an emergency flow situation (i.e. model the 25-year storm with no flow exiting via the OCS) that the velocity existing via the spillway will not be at erosive levels.
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 - c) Flooding Standard: The proposed underdrained soil filter will provide for flood control within the subdivision.
- 2) The City of Portland Department of Public Works has reviewed the proposed utility plan for the new roadway. As designed, the stormwater system does not meet the City's Technical Standards and is unacceptable. The stormwater system should be constructed with a storm drain system in the middle third of the road (per figure I-4 in the City's Technical Manual <http://portlandmaine.gov/756/City-Codes->



[Ordinances-Regulations-Maps](#)), with drain manholes at either end of the run. Stormwater services from the individual properties (foundation drains, roof drains, or any other field inlets or stormwater connections) should be to the stormdrain main in the street and not to the underdrains installed at the curb lines.

- 3) As discussed during the May 23 meeting with the Applicant, the City would like the sidewalk layout adjusted to move the 5' sidewalk with 6' esplanade to the opposite side of the street. The lights should be on the same side as the sidewalk, and the electrical lines for the lights should be under the sidewalk. Trees should be installed on both sides of the street as shown, with the trees in the esplanade installed such that there is no conflict with the electrical lines.

MEMORANDUM

To: FILE
From: Shukria Wiar
Subject: Application ID: 2017-058
Date: 6/8/2017

Comments Submitted by: Keith Gautreau/Fire on 6/8/2017

Premises Identification

The main entrance of the building must be the address for the property. This should be consistent with 911, tax assessor, Inspections Division and future mailing address.

Street addresses shall be marked on the structure and shall be as approved by the City E-911 Addressing Officer.

If the building entry faces a different street, both the street name and number should be large enough to read from the street.

Address numbers must be a minimum of 6 inches high.

The number should be in Arabic numerals rather than spelled out (for example, "130" instead of "One Hundred and Thirty").

Color: Addresses should be in a color that contrasts with the background.

Whenever possible, should be illuminated.

Provide additional address signs at entrances to the property when the building address is not legible from the public street.

Comments Submitted by: Keith Gautreau/Fire on 6/8/2017

The width of the proposed road is acceptable to Fire Dept. for emergency vehicle access.

Comments Submitted by: Keith Gautreau/Fire on 6/8/2017

The proposed turnaround appears to not be able to accomodate a Fire Dept. ladder truck. Please provide documentation that there will be sufficient turning radius for a ladder truck.

Comments Submitted by: Keith Gautreau/Fire on 6/8/2017

The existing hydrant located just north of the proposed new street will be with in acceptable distance to the end of the road.



MEMORANDUM

TO: Shukria Wiar, Planner
FROM: Lauren Swett, P.E.
DATE: May 26, 2017
RE: 1728 Washington Ave – Knight Farm Subdivision – Level III Site Plan

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[Ordinances-Regulations-Maps](#)), with drain manholes at either end of the run. Stormwater services from the individual properties (foundation drains, roof drains, or any other field inlets or stormwater connections) should be to the stormdrain main in the street and not to the underdrains installed at the curb lines.

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SITE PLAN APPLICATION

**To
City of Portland**

For

**Knight Farm Subdivision
Abner Lane
Portland, ME 04103**

Prepared for

Greenlight Enterprises, LLC
P.O. Box 963
Gray, ME 04039

March 2017

Site Plan Application

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- Site Plan Application
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- Maine Historic Preservation Commission (MHPC)
- Maine Inland Fisheries and Wildlife (MIFW)
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Section 19. Soils Report

Section 20. Site/Subdivision Plans



March 13, 2017
16533

Barbara Barhydt, Development Review Manager
City of Portland
Planning and Urban Development Department
389 Congress Street
Portland, Maine 04101

Re: Site Plan Submittal – Knight Farm Subdivision
1728 Washington Avenue, Portland, ME, Map 351, Lot A003001

Dear Barbara:

On behalf of our client, Greenlight Enterprises, LLC, we are pleased to submit the enclosed Level III Site Plan Application for the above referenced project. Greenlight Enterprises, LLC proposes to subdivide the property for the construction of 8 single-family house lots. A separate lot has been designated for the existing farmhouse.

The property is located on the easterly side of Washington Avenue and is approximately 2.15 acres. Approximately two thirds of the property is in the R-3 Residential Zoning District of Portland including the frontage on Washington Avenue and the south property line, with the balance of the 2.15-acre lot within the R-2 Residential Zoning District. Development of the property will require the construction of a street, with a 50' right-of-way (ROW), to the City of Portland Standards including the installation of underground utility services, granite curbs, lighting, sidewalks and street trees.

As depicted on the enclosed plan set, the applicant proposed to develop 8 new single family lots. The existing farmhouse on the property will remain on a standalone lot. The existing barn and outbuildings will be removed.

The City Zoning ordinance allows the request for a waiver of sidewalk construction. As such, the applicant is requesting elimination of the sidewalk on one side of the right-of-way. A sidewalk is proposed on the northerly side of the new roadway with an extension of the sidewalk along Washington Avenue to connect to the existing sidewalk on Shepherd Lane. Justification for the waiver is included within the application submission.

The site will be served by public water supplied by Portland Water District and the City's combined sewer system located within Washington Avenue. Underground electric service is proposed to extend from an existing pole on Washington Avenue. A gas main is proposed to extend through the new roadway from the existing main in Washington Avenue.

If you have any questions, relative to this submission, do not hesitate to contact me. Thank you for your time relative to our application.

Sincerely,

SEBAGO TECHNICS, INC.

A handwritten signature in black ink, appearing to read 'R. McSorley', with a horizontal line drawn through the middle of the signature.

Robert A. McSorley, P.E.
Senior Project Manager

RAM:llg
Enc.

cc: Ron Goddard, Greenlight Enterprises, LLC

Section 1. Application Forms

- Site Plan Application
- Site Plan Checklist



Level III – Preliminary and Final Site Plans Development Review Application Portland, Maine

Planning and Urban Development Department
Planning Division

Portland's Planning and Urban Development Department coordinates the development review process for site plan, subdivision and other applications under the City's Land Use Code. Attached is the application form for a Level III: Preliminary or Final Site Plan. Please note that Portland has delegated review from the State of Maine for reviews under the Site Location of Development Act, Chapter 500 Stormwater Permits, and Traffic Movement Permits

Level III: Site Plan Development includes:

- New structures with a total floor area of 10,000 sf or more except in Industrial Zones.
- New structures with a total floor area of 20,000 sf or more in Industrial Zones.
- New temporary or permanent parking area(s) or paving of existing unpaved parking areas for more than 75 vehicles.
- Building addition(s) with a total floor area of 10,000 sf or more (cumulatively within a 3 year period) except in Industrial Zones.
- Building addition(s) with a total floor area of 20,000 sf or more in Industrial Zones.
- A change in the use of a total floor area of 20,000 sf or more in any existing building (cumulatively within a 3 year period).
- Multiple family development (3 or more dwelling units) or the addition of any additional dwelling unit if subject to subdivision review.
- Any new major or minor auto business in the B-2 or B-5 Zone, or the construction of any new major or minor auto business greater than 10,000 sf of building area in any other permitted zone.
- Correctional prerelease facilities.
- Park improvements: New structures greater than 10,000 sf and/or facilities encompassing 20,000 sf. ft. or more (excludes rehabilitation or replacement of existing facilities); new nighttime outdoor lighting of sports, athletic or recreation facilities not previously illuminated.
- Land disturbance of 3 acres or more (includes stripping, grading, grubbing, filling or excavation).

Portland's development review process and requirements are outlined in the Land Use Code (Chapter 14) which is available on our website:

Land Use Code: <http://me-portland.civicplus.com/DocumentCenter/Home/View/1080>

Design Manual: <http://me-portland.civicplus.com/DocumentCenter/View/2355>

Technical Manual: <http://me-portland.civicplus.com/DocumentCenter/View/2356>

Planning Division

Fourth Floor, City Hall

389 Congress Street

p.m. (207) 874-8719

planning@portlandmaine.gov

Office Hours

Monday thru Friday

8:00 a.m. – 4:30 p.m.

PROJECT NAME:

Knight Farm Subdivision

PROPOSED DEVELOPMENT ADDRESS:

1728 Washington Avenue

PROJECT DESCRIPTION:

The Applicant is proposing an 8 lot residential subdivision. The existing colonial farmhouse was recently divided from the subdivision parcel.

CHART/BLOCK/LOT: 351 A003001 PRELIMINARY PLAN _____ (date)
 _____ FINAL PLAN 3/13/17 (date)

CONTACT INFORMATION:

Applicant – must be owner, Lessee or Buyer Name: Ron Goddard Business Name, if applicable: Greenlight Enterprises, LLC Address: P.O. Box 963 City/State : Gray, Maine Zip Code: 04039	Applicant Contact Information Work # Home# Cell # 207-730-2103 Fax# e-mail: rgoddard71@yahoo.com
Owner – (if different from Applicant) Name: Same as Above Address: City/State : Zip Code:	Owner Contact Information Work # Home# Cell # Fax# e-mail:
Agent/ Representative Name: Sebago Technics, Inc, c/o Robert A. McSorley, PE Address: 75 John Roberts Road, Suite 1A City/State : South Portland, ME Zip Code: 04106	Agent/Representative Contact information Work # 207-200-2074 Cell # 207-939-1809 e-mail: rmcsorley@sebagotechnics.com
Billing Information Name: Address: City/State : Zip Code:	Billing Information Work # Cell # Fax# e-mail:

Engineer Name: Sebago Technics, Inc, c/o Robert A. McSorley, PE Address: 75 John Roberts Road, Suite 1A City/State : South Portland, ME Zip Code: 04106	Engineer Contact Information Work # 207-200-2074 Cell # 207-939-1809 Fax# 207-856-2206 e-mail: rmcSorley@sebagotechnics.com
Surveyor Name: Sebago Technics, Inc, c/o Matthew W. Ek, PLS Address: Same as Above City/State : Zip Code:	Surveyor Contact Information Work # 207-200-2058 Cell # Fax# 207-856-2206 e-mail: mek@sebagotechnics.com
Architect Name: Address: City/State : Zip Code:	Architect Contact Information Work # Cell # Fax# e-mail:
Attorney Name: Address: City/State : Zip Code:	Attorney Contact Information Work # Cell # Fax# e-mail:
Designated person/person(s) for uploading to e-Plan: Name: Robert A. McSorley, P.E. e-mail: rmcSorley@sebagotechnics.com Name: Glissen Havu, E.I. e-mail: ghavu@sebagotechnics.com Name: e-mail:	

APPLICATION FEES:

Level III Development (check applicable reviews) ☒ Less than 50,000 sq. ft. (\$750.00) ☐ 50,000 - 100,000 sq. ft. (\$1,000) ☐ 100,000 – 200,000 sq. ft. (\$2,000) ☐ 200,000 – 300,000 sq. ft. (\$3,000) ☐ over 300,000 sq. ft. (\$5,000) ☐ Parking lots over 11 spaces (\$1,000) ☐ After-the-fact Review (\$1,000.00 plus applicable application fee) Plan Amendments (check applicable reviews) ☐ Planning Staff Review (\$250) ☐ Planning Board Review (\$500) The City invoices separately for the following: • Notices (\$.75 each) • Legal Ad (% of total Ad) • Planning Review (\$50.00 hour) • Legal Review (\$75.00 hour) Third party review is assessed separately. Any outside reviews or analysis requested from the Applicant as part of the development review, are the responsibility of the Applicant and are separate from any application or invoice fees.	Other Reviews (check applicable reviews) ☐ Traffic Movement (\$1,000) ☒ Stormwater Quality (\$250) ☒ Subdivisions (\$500 + \$25/lot) # of Lots 8 x \$25/lot = <u>200</u> ☐ Site Location (\$3,500, except for residential projects which shall be \$200/lot) # of Lots x \$200/lot = ☐ Other ☐ Change of Use ☐ Flood Plain ☐ Shoreland ☐ Design Review ☐ Housing Replacement ☐ Historic Preservation
--	---

INSTRUCTIONS FOR ELECTRONIC SUBMISSION:

Please refer to the application checklist (attached) for a detailed list of submission requirements.

1. Fill out the application completely and e-mail the **application only** to planning@portlandmaine.gov (Please be sure to designate a person who will be responsible for uploading documents and drawings.) This step will generate the project ID number for your project.
2. An invoice for the application fee will be e-mail to you. Payments can be made on-line at [Pay Your Invoice](#), by mail or in person at City Hall, 4th Floor. Please reference the Application Number when submitting your payment which is located in the upper left hand corner of the invoice.
3. The designated person responsible for uploading documents and drawings will receive an email from epplan@portlandmaine.gov with an invitation into the project. At this time, you will upload all corresponding documents and plans into the project. For first time users you will receive a temporary password which you must change on entry. Make note of your username and password for any future projects.

Reminder: Before the project can move forward, the application fee shall be paid in full and all required documents and drawings shall be uploaded into e-plan correctly.

4. Follow the link below (Applying Online Instructions) for step by step instructions on how to do the following:
Tab 1 - Setting up the appropriate compatibility settings for your PC and getting started in e-plan.
Tab 2 - Preparing your drawings, documents and photos for uploading using the correct naming conventions
Tab 3 - Preparing and uploading revised drawings and documents

[Applying Online Instructions](#)

5. When ready, upload your files and documents into the following folders:
"Application Submittal – Drawings"
"Application Submittal – Documents"

6. Once a preliminary check has been made of the submittal documents and drawings, staff will move them to permanent folders labeled Drawings and Documents. As the process evolves you will be able to log in and see markups, comments and upload revisions as requested into these folders.

APPLICANT SIGNATURE:

By digitally signing the attached document(s), you are signifying your understanding this is a legal document and your electronic signature is considered a **legal signature** per Maine state law.

I hereby certify that I am the Owner of record of the named property, or that the owner of record authorizes the proposed work and that I have been authorized by the owner to make this application as his/her authorized agent. I agree to conform to all applicable laws of this jurisdiction. In addition, if a permit for work described in this application is issued, I certify that the Planning Authority and Code Enforcement's authorized representative shall have the authority to enter all areas covered by this permit at any reasonable hour to enforce the provisions of the codes applicable to this permit.

This application is for a Level III Site Plan review. It is not a permit to begin construction. An approved site plan, a Performance Guarantee, Inspection Fee, Building Permit, and associated fees will be required prior to construction. Other Federal, State or local permits may be required prior to construction, which are the responsibility of the applicant to obtain.

Signature of Applicant: 	Date: 3/13/17
--	----------------------

who's signature?

PROJECT DATA

(The following information is required where applicable, in order complete the application)

Total Site Area	93,637 sq. ft.
Proposed Total Disturbed Area of the Site	91,912 sq. ft.
(If the proposed disturbance is greater than one acre, then the applicant shall apply for a Maine Construction General Permit (MCGP) with DEP and a Stormwater Management Permit, Chapter 500, with the City of Portland)	
Impervious Surface Area	
Impervious Area (Total Existing)	10,010 sq. ft.
Impervious Area (Total Proposed)	35,270 sq. ft.
Building Ground Floor Area and Total Floor Area	
Building Footprint (Total Existing)	7,447 sq. ft.
Building Footprint (Total Proposed)	Approximately 15,268 sq. ft.
Building Floor Area (Total Existing)	Unknown sq. ft.
Building Floor Area (Total Proposed)	Unknown sq. ft.
Zoning	
Existing	Residential R-2 & R-3
Proposed, if applicable	N/A
Land Use	
Existing	Vacant Remaining Land
Proposed	8 lot residential subdivision
Residential, if applicable	
# of Residential Units (Total Existing)	0
# of Residential Units (Total Proposed)	8
# of Lots (Total Proposed)	8
# of Affordable Housing Units (Total Proposed)	0
Proposed Bedroom Mix	
# of Efficiency Units (Total Proposed)	0
# of One-Bedroom Units (Total Proposed)	0
# of Two-Bedroom Units (Total Proposed)	0
# of Three-Bedroom Units (Total Proposed)	8
Parking Spaces	
# of Parking Spaces (Total Existing)	0
# of Parking Spaces (Total Proposed)	0
# of Handicapped Parking Spaces (Total Proposed)	0
Bicycle Parking Spaces	
# of Bicycle Spaces (Total Existing)	0
# of Bicycle Spaces (Total Proposed)	0
Estimated Cost Of Project	\$230,000.00

PRELIMINARY PLAN (Optional) - Level III Site Plan			
Applicant Checklist	Planner Checklist	# of Copies	GENERAL WRITTEN SUBMISSIONS CHECKLIST
☐	☐	1	Completed application form
☐	☐	1	Application fees
☐	☐	1	Written description of project
☐	☐	1	Evidence of right, title and interest.
☐	☐	1	Evidence of state and/or Federal approval, if applicable.
☐	☐	1	Written assessment of proposed project's compliance with applicable zoning requirements
☐	☐	1	Summary of existing and/or proposed easements, covenants, public or private rights-of-way, or other burdens on the site
☐	☐	1	Written requests for waivers from site plan and/or technical standards, if applicable.
☐	☐	1	Evidence of financial and technical ability
☐	☐	1	Traffic analysis (may be preliminary, in nature, during the preliminary plan phase).
☐	☐	1	Written summary of significant natural features located on the site.
☐	☐	1	Written summary of project's consistency with related city master plans.
☐	☐	1	Neighborhood Meeting Material (refer to page 13 of this application.)
Applicant Checklist	Planner Checklist	# of Copies	SITE PLAN SUBMITTAL CHECKLIST
☐	☐	1	Boundary Survey meeting the requirements of Section 13 of the City of Portland Technical Manual.
☐	☐	1	Preliminary Site Plan Including the following: (*information provided may be preliminary in nature during preliminary plan phase):
☐	☐		Proposed grading and contours;
☐	☐		Existing structures with distances from property line;
☐	☐		Proposed site layout and dimensions for all proposed structures (including piers, docks or wharves in Shoreland Zone), paved areas, and pedestrian and vehicle access ways;
☐	☐		Preliminary design of proposed stormwater management in accordance Section 5 of the Technical Manual (note that Portland has a separate applicability section);
☐	☐		Preliminary infrastructure improvements;
☐	☐		Preliminary Landscape Plan in accordance with Section 4 of the Technical Manual;
☐	☐		Location of significant natural features (including wetlands, ponds, watercourses, floodplains, significant wildlife habitats and fisheries or other important natural features) located on the site as defined in Section 14-526 (b)(1);
☐	☐		Proposed buffers and preservation measures for significant natural features, as defined in Section 14-526 (b) (1);
☐	☐		Location , dimensions and ownership of easements, public or private rights of way, both existing and proposed;
☐	☐		Exterior building elevations.

FINAL PLAN (Optional) - Level III Site Plan			
Applicant Checklist	Planner Checklist	# of Copies	GENERAL WRITTEN SUBMISSIONS CHECKLIST (* If applicant chooses to submit a Preliminary Plan, then the * items were submitted for that phase and only updates are required)
☒	☐	1	* Completed application form
☒	☐	1	* Application fees
☒	☐	1	* Written description of project
☒	☐	1	* Evidence of right, title and interest.
☒	☐	1	* Evidence of state and/or Federal approval, if applicable.
☒	☐	1	* Written assessment of proposed project's specific compliance with applicable zoning requirements
☒	☐	1	* Summary of existing and/or proposed easements, covenants, public or private rights-of-way, or other burdens on the site
☒	☐	1	* Evidence of financial and technical ability
☒	☐	1	Construction management plan
☒	☐	1	A traffic study and other applicable transportation plans in accordance with Section 1 of the technical Manual, where applicable.
☒	☐	1	Written summary of significant natural features located on the site (Section 14-526 (b) (a))
☒	☐	1	Stormwater management plan and stormwater calculations
☒	☐	1	Written summary of project's consistency with related city master plans
☒	☐	1	Evidence of utility capacity to serve
☒	☐	1	Written summary of solid waste generation and proposed management of solid waste.
☒	☐	1	A code summary referencing NFPA 1 and all Fire Department technical standards
☒	☐	1	Where applicable, an assessment of the development's consistency with any applicable design standards contained in Section 14-526 and in the City of Portland Design Manual.
☐	☐	1	Manufacturer's verification that HVAC and manufacturing equipment meets applicable state and federal emissions requirements. N/A

Applicant Checklist	Planner Checklist	# of Copies	SITE PLAN SUBMISSIONS CHECKLIST (* If applicant chooses to submit a Preliminary Plan, then the * items were submitted for that phase and only updates are required)
☒	☐	1	Boundary Survey meeting the requirements of Section 13 of the City of Portland Technical Manual.
		1	Final Site Plans including the following:
☒	☐		Existing and proposed structures, as applicable, and distance from property line (including location of proposed piers, docks or wharves if in Shoreland Zone);
☒	☐		Existing and proposed structures on parcels abutting site;
☒	☐		All streets and intersections adjacent to the site and any proposed geometric modifications to those streets or intersections;
☒	☐		Location, dimensions and materials of all existing and proposed driveways, vehicle and pedestrian access ways, and bicycle access ways, with corresponding curb lines;
☒	☐		Engineered construction specifications and cross-sectional drawings for all proposed driveways, paved areas, sidewalks;
☐	☐		Location and dimensions of all proposed loading areas including turning templates for applicable design delivery vehicles; N/A
☐	☐		Existing and proposed public transit infrastructure with applicable dimensions and engineering specifications; N/A
☐	☐		Location of existing and proposed vehicle and bicycle parking spaces with applicable dimensional and engineering information; N/A
☒	☐		Location of all snow storage areas and/or a snow removal plan;
☐	☐		A traffic control plan as detailed in Section 1 of the Technical Manual; N/A
☐	☐		Proposed buffers and preservation measures for significant natural features, where applicable, as defined in Section 14-526(b)(1); N/A
☐	☐		Location and proposed alteration to any watercourse; N/A
☐	☐		A delineation of wetlands boundaries prepared by a qualified professional as detailed in Section 8 of the Technical Manual; N/A
☐	☐		Proposed buffers and preservation measures for wetlands; N/A
☐	☐		Existing soil conditions and location of test pits and test borings; N/A
☒	☐		Existing vegetation to be preserved, proposed site landscaping, screening and proposed street trees, as applicable;
☒	☐		A stormwater management and drainage plan, in accordance with Section 5 of the Technical Manual;
☒	☐		Grading plan;
☒	☐		Ground water protection measures;
☒	☐		Existing and proposed sewer mains and connections;

- Continued on next -
page -

☒	☐	Location of all existing and proposed fire hydrants and a life safety plan in accordance with Section 3 of the Technical Manual;
☒	☐	Location, sizing, and directional flows of all existing and proposed utilities within the project site and on all abutting streets;
☒	☐	Location and dimensions of off-premises public or publicly accessible infrastructure immediately adjacent to the site;
☐	☐	Location and size of all on site solid waste receptacles, including on site storage containers for recyclable materials for any commercial or industrial property; N/A
☐	☐	Plans showing the location, ground floor area, floor plans and grade elevations for all buildings; N/A
☐	☐	A shadow analysis as described in Section 11 of the Technical Manual, if applicable; N/A
☐	☐	A note on the plan identifying the Historic Preservation designation and a copy of the Application for Certificate of Appropriateness, if applicable, as specified in Section Article IX, the Historic Preservation Ordinance; N/A
☐	☐	Location and dimensions of all existing and proposed HVAC and mechanical equipment and all proposed screening, where applicable; N/A
☐	☐	An exterior lighting plan in accordance with Section 12 of the Technical Manual; N/A
☐	☐	A signage plan showing the location, dimensions, height and setback of all existing and proposed signs; N/A
☒	☐	Location, dimensions and ownership of easements, public or private rights of way, both existing and proposed.



**PORTLAND FIRE DEPARTMENT
SITE REVIEW
FIRE DEPARTMENT CHECKLIST**



A separate drawing[s] shall be provided as part of the site plan application for the Portland Fire Department's review.

1. Name, address, telephone number of applicant
2. Ron Goddard (Greenlight Enterprises, LLC), P.O. Box 963, Gray, ME 04039, 207-730-2103
3. Name address, telephone number of architect
N/A
4. Proposed uses of any structures [NFPA and IBC classification]
5. Vacant remaining land
6. Square footage of all structures [total and per story]
Total: 13,500 SF; Lots 1-5 and Lot 8 proposed 1,500 SF structures; Lots 6 & 7 proposed 2,250 SF structures.
7. Elevation of all structures
Maximum of 2 stories.
8. Proposed fire protection of all structures
 - ***As of September 16, 2010 all new construction of one and two family homes are required to be sprinkled in compliance with NFPA 13D. This is required by City Code. (NFPA 101 2009 ed.)***
9. Hydrant locations
Existing Hydrant adjacent to property.
10. Water main[s] size and location
Existing 6-inch main in Washington Avenue, Proposed 4-inch main in new road.
11. Access to all structures [min. 2 sides]
Access to 3 sides
12. A code summary shall be included referencing NFPA 1 and all fire department. Technical standards.
See Section 17.

Some structures may require Fire flows using annex H of NFPA 1

CITY OF PORTLAND WASTEWATER CAPACITY APPLICATION

Department of Public Services,
55 Portland Street,
Portland, Maine 04101-2991



Bradley Roland, P.E.,
Water Resources Division

Date: February 9, 2017

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

Site Address: 1728 Washington Avenue

Chart Block Lot Number: 351 A003001

Proposed Use: 8 lot residential subdivision

Previous Use: Vacant remaining land

Existing Sanitary Flows: 270 GPD

Existing Process Flows: GPD

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

12" clay sewer in Washington Avenue

Site Category

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

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

2. Please, Submit Contact Information.

City Planner's Name: TBD Phone: TBD

Owner/Developer Name: Greenlight Enterprises, LLC

Owner/Developer Address: P.O. Box 963, Gray, Maine 04039

Phone: 207-730-2103 Fax: E-mail: rgoddard71@yahoo.com

Engineering Consultant Name: Sebago Technics, Inc, c/o Robert A. McSorley, PE

Engineering Consultant
Address: 75 John Roberts Road, Suite 1A, South Portland, Maine 04106-6963

Phone: 207-200-2074 Fax: 207-856-2206 E-mail: rmcsorley@sebagotechnics.com

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

3. Please, Submit Domestic Wastewater Design Flow Calculations.

Estimated Domestic Wastewater Flow Generated: 2,430 GPD

Peaking Factor/ Peak Times: 2,430 GPD / 16 hrs/day / 60 min/hr X 5.8 = 15 GPM, Typical Residential

Specify the source of design guidelines: (i.e. ☒ "Handbook of Subsurface Wastewater Disposal in Maine,"

☐ "Plumbers and Pipe Fitters Calculation Manual," ☐ Portland Water District Records, ☐ Other (specify)

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

4. Please, Submit External Grease Interceptor Calculations.

Total Drainage Fixture Unit (DFU) Values:	N/A
Size of External Grease Interceptor:	N/A
Retention Time:	N/A
Peaking Factor/ Peak Times:	N/A

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

5. Please, Submit Industrial Process Wastewater Flow Calculations

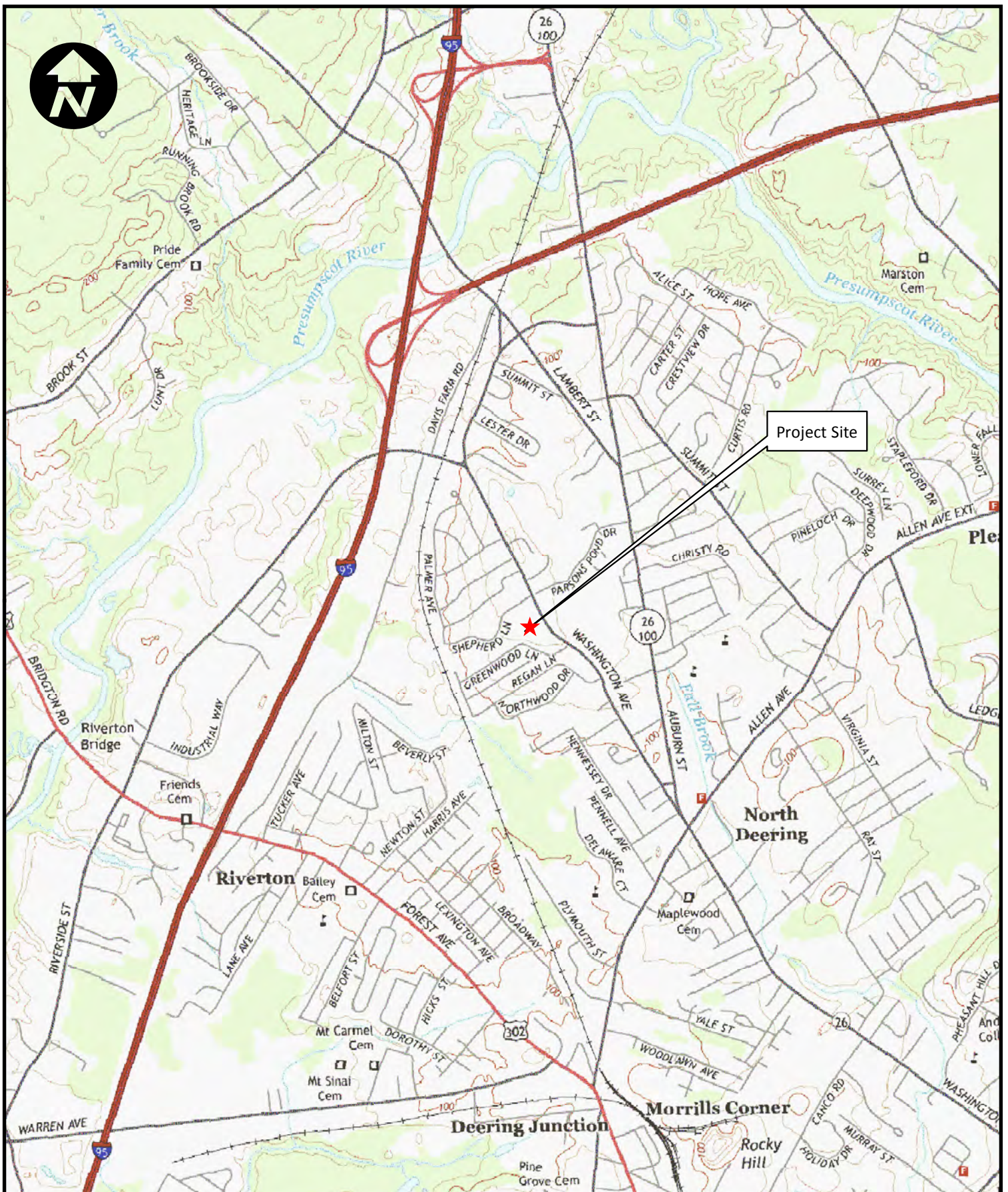
Estimated Industrial Process Wastewater Flows Generated:			N/A	GPD
Do you currently hold Federal or State discharge permits?	Yes	☐	No	☐
Is the process wastewater termed categorical under CFR 40?	Yes	☐	No	☐
OSHA Standard Industrial Code (SIC):	N/A	http://www.osha.gov/oshstats/sicser.html		
Peaking Factor/Peak Process Times:	N/A			

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 below, or attached, as a separate sheet.

Notes, Comments or Calculation

Section 2. Location Map



 75 John Roberts Rd. - Suite 1A South Portland, ME 04106 Tel. 207-200-2100 250 Goddard Rd. - Suite B Lewiston, ME 04240 Tel. 207-783-5656	Site Location Map of: 1728 Washington Ave		SCALE: 1" = 2,000'
	LOCATION: 1728 Washington Avenue Portland, Maine	DATE: 2/8/2017 INFORMATION: USGS Quadrangle Portland West	

Section 3. Tax Map





Section 4. Right, Title and Interest (Deed)

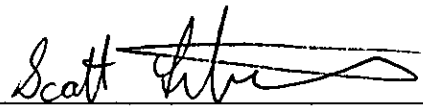
QUITCLAIM DEED WITH COVENANT

KNOW ALL PERSONS BY THESE PRESENTS, That BEDROCK HOLDINGS LLC, a Maine limited liability company with a mailing address of P.O. Box 963, Gray, Maine 04039, grants to GREENLIGHT ENTERPRISES LLC, a Maine limited liability company with a mailing address of P.O. Box 963, Gray, Maine 04039, with Quitclaim Covenant, all of its right, title and interest in a certain lot or parcel of land, with the improvements thereon, in the City of Portland, County of Cumberland, and State of Maine, and more particularly in Schedule A attached hereto and incorporated herein by this reference.

WITNESS my hand and seal this 10 day of March, 2017.

BEDROCK HOLDINGS LLC

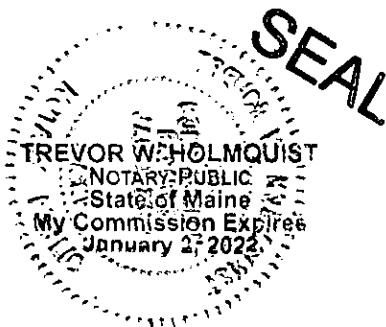

Witness
Printed Name Amanda Betts

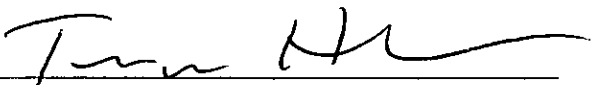

By: Scott L. Liberty
Its President

STATE OF MAINE
CUMBERLAND, ss.

10 March, 2017

Personally appeared before me on this day the above-named Scott A. Liberty, President of Bedrock Holdings LLC, and acknowledged the foregoing instrument to be his free act and deed in his said capacity and the free act and deed of said Bedrock Holdings LLC.




Notary Public/Attorney-at-Law
Printed name: Trevor W Holmquist
My commission expires: 01/02/2022

SCHEDULE A

A certain lot or parcel of land, with the buildings thereon, on the southeasterly side of Washington Avenue, in the City of Portland, County of Cumberland, State of Maine bounded and described as follows:

Beginning at a point on the southeasterly sideline of Washington Avenue, at the northerly corner of land now or formerly of Rebecca L. Thompson-Greaves as described in deed recorded at the Cumberland County Registry of Deeds in Book 21067, Page 158, said point being S57°-53'-15"W, 0.23 feet from a 1 inch iron pipe 10 inches above grade;

Thence S57°-53'-15"W, along land of Rebecca L. Thompson-Greaves and land now or formerly of Isabelle S. & Steven R. Rice as described in deed recorded at the Cumberland County Registry of Deeds in Book 3526, Page 62, a distance of 460.14 feet to a 1 inch iron pipe found 4 inches above grade in a stone wall and land now or formerly of Susan S. Francoeur as described in deed recorded at the Cumberland County Registry of Deeds in Book 18633, Page 132;

Thence N26°-16'-14"W, along land of Susan S. Francoeur, land now or formerly of Anthony J. & Stephanie A. Quattrucci as described in deed recorded at the Cumberland County Registry of Deeds in Book 24939, Page 188, and land now or formerly of Paul C. Bridges & Susan J. Winslow as described in deed recorded at the Cumberland County Registry of Deeds in Book 30517, Page 307, a distance of 221.67 feet to a 1 inch iron pipe found 4 inches below grade;

Thence N56°-51'-56"E, along land of Paul C. Bridges & Susan J. Winslow, land now or formerly of Elizabeth L. & Kevin G. Winship as described in deed recorded at the Cumberland County Registry of Deeds in Book 33322, Page 39, land now or formerly of Robert D. & Viola C. Rice as described in deed recorded at the Cumberland County Registry of Deeds in Book 11544, Page 139, land now or formerly of Country Manor Properties, LLC as described in deed recorded at the Cumberland County Registry of Deeds in Book 33722, Page 236, land now or formerly of Eugene Edward Scheuchzer Jr. as described in deed recorded at the Cumberland County Registry of Deeds in Book 29720, Page 12, and land now or formerly of David P. & Jane Hinman as described in deed recorded at the Cumberland County Registry of Deeds in Book 26156, Page 191, a distance of 361.21 feet to an iron rod to be set and remaining land of Bedrock Holdings LLC;

Thence S04°-40'-52"W, along remaining land Bedrock Holdings LLC, a distance of 15.26 feet to an iron rod to be set;

Thence S02°-55'-40"E, along remaining land of Bedrock Holdings LLC, a distance of 25.44 feet to an iron rod to be set;

Thence S30°-06'-04"E, along remaining land of Bedrock Holdings LLC, a distance of 50.56 feet to an iron rod to be set;

Thence N57°-53'-15"E, along remaining land of Bedrock Holdings LLC, a distance of 104.88 feet to an iron rod to be set at a point of curvature;

Thence along a tangent curve concave to the northwest and along remaining land of Bedrock Holdings LLC as defined by the following curve data: having a radius of 10.00 feet, an arc length of 14.71 feet, and a chord which bears N15°-44'-25"E, 13.42 feet, to an iron rod to be set on the southwesterly sideline of Washington Avenue;

Thence S26°-24'25"E, along Washington Avenue, a distance of 151.76 feet to the point of beginning. Containing 2.15 acres, more or less.

The above bearings refer to Grid North, Maine State Plane Coordinate System, West Zone 1802-NAD 83.

The above described iron rods to be set are 5/8th inch rebar with plastic survey caps marked "STI PLS 2513 NH RLS 1003"

Reference is made to a plan entitled "**Existing Conditions Survey of 1728 Washington**" dated November 16, 2016, and last revised on February 15, 2017 by Sebago Technics Inc.

Being a portion of the premises conveyed to Bedrock Holdings LLC by Deed of Personal Representative dated December 23, 2016 and recorded in the Cumberland County Registry of Deeds in Book 33722, Page 234.

Received
Recorded Register of Deeds
Mar 10, 2017 02:38:41P
Cumberland County
Nancy A. Lane

Section 5. Statement of State and Federal Permits/Agency Letters

- Maine Historic Preservation Commission (MHPC)
- Maine Inland Fisheries and Wildlife (MIFW)
- Maine Natural Areas Program (MNAP)

Statement of State and Federal Permits

The proposed project will create 0.81 acres of non-vegetated surface and therefore is not subject to the State of Maine Stormwater Law.

The project will not disturb any jurisdictional waters of the state (wetlands); therefore, project is not subject to State or Federal review of wetland impacts.

Copies of letters from other State of Maine agencies are enclosed.



February 8, 2017
16533

Ms. Lisa St. Hilaire
Maine Natural Areas Program
93 State House Station
Augusta, ME 04333-0093

Maine Natural Areas Program Review
1728 Washington Avenue
Portland, Maine

Dear Ms. St. Hilaire:

On behalf of our client, Bedrock Holdings LLC, we are currently in the process of filing a site plan application to the City of Portland. As part of this submittal, a review of the proposed site by the Maine Natural Areas Program for any lands that support rare and endangered plants, rare natural communities and ecosystems, and other natural communities and ecosystems is needed.

The site is identified as Lot A3 on City of Portland Tax Map 351. The property is approximately 2.37± acre parcel located on the west side of Washington Avenue approximately 0.5 miles south of the intersection of Washington Avenue with Riverside Street. The site is currently a single family colonial farmhouse with barns and outbuildings. The proposed development will subdivide the parcel into 9 residential lots. The existing farmhouse will remain on lot 9; however the barns and outbuildings will be removed.

The coordinates for this project are as follows:

Latitude:	43°42'32.51"N	Or	UTM	Zone 19T
Longitude:	70°17'50.46"W		Northing:	4840374
			Easting:	395479

For your reference, a copy of the USGS quadrangle and a plan depicting the proposed development have been enclosed. At your earliest convenience, please review and forward your findings. If you have any questions on this project, please do not hesitate to contact me at ghavu@sebagotechnics.com or on my direct line at (207) 200-2090. Thank you for your time and consideration.

Sincerely,

SEBAGO TECHNICS, INC.

A handwritten signature in black ink that reads "Glissen Havu".

Glissen Havu
Civil Engineer

GJH/Ilg
Enc.



PAUL R. LePAGE
GOVERNOR

STATE OF MAINE
DEPARTMENT OF AGRICULTURE, CONSERVATION & FORESTRY
93 STATE HOUSE STATION
AUGUSTA, MAINE 04333

WALTER E. WHITCOMB
COMMISSIONER

February 28, 2017

Glissen Havu
Sebago Technics
75 John Roberts Road, Suite 1A
South Portland, ME 04106

Via email: ghavu@sebagotechnics.com

Re: Rare and exemplary botanical features in proximity to: 9-lot residential subdivision, 1728 Washington Avenue, Portland, Maine

Dear Ms. Havu:

I have searched the Natural Areas Program's Biological and Conservation Data System files in response to your request received February 8, 2017 for information on the presence of rare or unique botanical features documented from the vicinity of the project in Portland, Maine. Rare and unique botanical features include the habitat of rare, threatened, or endangered plant species and unique or exemplary natural communities. Our review involves examining maps, manual and computerized records, other sources of information such as scientific articles or published references, and the personal knowledge of staff or cooperating experts.

Our official response covers only botanical features. For authoritative information and official response for zoological features you must make a similar request to the Maine Department of Inland Fisheries and Wildlife, 284 State Street, Augusta, Maine 04333.

According to the information currently in our Biological and Conservation Data System files, there are no rare botanical features documented specifically within the project area. Based on the information in our files and the landscape context of this project, there is a low probability that rare or significant botanical features occur at this project location.

This finding is available and appropriate for preparation and review of environmental assessments, but it is not a substitute for on-site surveys. Comprehensive field surveys do not exist for all natural areas in Maine, and in the absence of a specific field investigation, the Maine Natural Areas Program cannot provide a definitive statement on the presence or absence of unusual natural features at this site.

The Natural Areas Program is continuously working to achieve a more comprehensive database of exemplary natural features in Maine. We would appreciate the contribution of any information obtained should you decide to do field work. The Natural Areas Program welcomes coordination with individuals or organizations proposing environmental alteration, or conducting environmental assessments. If, however, data provided by the Natural Areas Program are to be published in any form, the Program should be informed at the outset and credited as the source.

MOLLY DOCHERTY, DIRECTOR
MAINE NATURAL AREAS PROGRAM



PHONE: (207) 287-8044
FAX: (207) 287-8040
WWW.MAINE.GOV/DACF/MNAP

The Natural Areas Program has instituted a fee structure of \$75.00 an hour to recover the actual cost of processing your request for information. You will receive an invoice for \$150.00 for two hours of our services.

Thank you for using the Natural Areas Program in the environmental review process. Please do not hesitate to contact me if you have further questions about the Natural Areas Program or about rare or unique botanical features on this site.

Sincerely,



Don Cameron | Ecologist | Maine Natural Areas Program
207-287-8041 | don.s.cameron@maine.gov



February 8, 2017
16533

Kirk F. Mohny, Director
Maine Historic Preservation Commission
55 Capitol Street
65 State House Station
Augusta, ME 04333-0065

**Re: Site Plan Submittal – 1728 Washington Avenue
Portland, Maine**

Dear Mr. Mohny:

On behalf of our client, Bedrock Holdings LLC, we are currently in the process of filing a site plan application to the City of Portland. As part of this submittal, a review of the proposed site by the Maine Historic Preservation Commission for any known historical sites, structures or archeological sites is required.

The site is identified as Lot A3 on City of Portland Tax Map 351. The property is a parcel of approximately 2.37± acres located on the west side of Washington Avenue approximately 0.5 miles south of the intersection of Washington Avenue with Riverside Street. The site is currently a single family colonial farmhouse with barns and outbuildings. The proposed development will subdivide the parcel into 9 residential lots. The existing farmhouse will remain on lot 9; however the barns and outbuildings will be removed.

For your reference, a copy of the USGS quadrangle and a plan depicting the proposed development have been enclosed. Also enclosed are photos of the farmhouse and outbuildings on site and a copy of the Historic Building/Structure Form. At your earliest convenience, please review and forward your findings. If you have any questions on this project, please do not hesitate to contact me at ghavu@sebagotechnics.com or on my direct line at (207) 200-2090. Thank you for your time and consideration.

Sincerely,

SEBAGO TECHNICS, INC.

A handwritten signature in black ink that reads "Glissen Havu".

Glissen Havu, E.I.
Civil Engineer

GJH/llg
Enc.

Glissen Havu

From: Mohney, Kirk <Kirk.Mohney@maine.gov>
Sent: Monday, February 27, 2017 3:14 PM
To: Glissen Havu
Subject: Site Plan Submittal - 1728 Washington Ave, MHPC #0194-17

Project: MHPC #0194-17 -- Proposed Subdivision, 1728 Washington Street
Town: Portland, ME

Dear Ms. Havu,

In response to your recent request, I have reviewed the information received February 10, 2017 to initiate consultation on the above referenced project. It is our understanding that your request is in preparation for filing a site plan application to the City of Portland.

The subject property is not presently listed in the National Register of Historic Places. However, we have no record in our files that the house and its associated outbuildings have ever been evaluated to determine if they are eligible for listing in the National Register. If you would like the Commission to make such an evaluation, the following additional information will need to be furnished in hard copy to us:

- Photographs of the interior of the house that show existing architectural features such as stair railings, window and door surrounds, doors, mantelpieces, etc.;
- Photographs of the interior of the barn; and
- Any historical information about the property including approximate construction dates of the buildings, and the function of the outbuildings.

If you have any questions regarding this matter, please do not hesitate to contact me.

Sincerely,

Kirk F. Mohney
Director
Maine Historic Preservation Commission



February 8, 2017
16533

John Perry, Environmental Coordinator
Maine Department of Inland Fisheries & Wildlife
41 State House Station
284 State Street
Augusta, ME 04333-0041

Department of Inland Fisheries and Wildlife Review
1728 Washington Avenue
Portland, Maine

Dear Mr. Perry:

On behalf of our client, Bedrock Holdings LLC, we are currently in the process of filing a site plan application to the City of Portland. As part of this submittal, a review of the proposed site by the Maine Department of Inland Fisheries and Wildlife for any lands that support rare, threatened and endangered species, designated essential and significant wildlife habitats, and fisheries habitat is required.

The site is identified as Lot A3 on City of Portland Tax Map 351. The property is a parcel of approximately 2.37± acres located on the west side of Washington Avenue approximately 0.5 miles south of the intersection of Washington Avenue with Riverside Street. The site is currently a single family colonial farmhouse with barns and outbuildings. The proposed development will subdivide the parcel into 9 residential lots. The existing farmhouse will remain on lot 9; however the barns and outbuildings will be removed.

The coordinates for this project are as follows:

Latitude:	43°42'32.51"N	Or	UTM	Zone 19T
Longitude:	70°17'50.46"W		Northing:	4840374
			Easting:	395479

For your reference, a copy of the USGS quadrangle and a plan depicting the proposed development have been enclosed. At your earliest convenience, please review and forward your findings. If you have any questions on this project, please do not hesitate to contact me at ghavu@sebagotechnics.com or on my direct line at (207) 200-2090. Thank you for your time and consideration.

Sincerely,

SEBAGO TECHNICS, INC.

A handwritten signature in black ink that reads "Glissen Havu".

Glissen Havu, E.I.
Civil Engineer

GJH/Ilg
Enc.



PAUL R. LEPAGE
GOVERNOR

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

CHANDLER E. WOODCOCK
COMMISSIONER

February 23, 2017

Glissen Havu
Sebago Technics, Inc.
75 John Roberts Road, Suite 1A
South Portland, ME 04106-6963

RE: Information Request - 1728 Washington Avenue Development, Portland

Dear Glissen:

Per your request received February 10, 2017, we have reviewed current Maine Department of Inland Fisheries and Wildlife (MDIFW) information for known locations of Endangered, Threatened, and Special Concern species; designated Essential and Significant Wildlife Habitats; and fisheries habitat concerns within the vicinity of the *1728 Washington Avenue Development Project* in Portland. For purposes of this review, we are assuming the project will include tree removal.

Our Department has not mapped any Essential or Significant Wildlife Habitats or fisheries habitats that would be directly affected by your project.

Endangered, Threatened, and Special Concern Species

Bats

Of the eight species of bats that occur in Maine, the three *Myotis* species are protected under Maine's Endangered Species Act (MESA) and are afforded special protection under 12 M.R.S §12801 - §12810. The three *Myotis* species include little brown bat (*M. lucifugus*, State Endangered); northern long-eared bat (*M. septentrionalis*, State Endangered); and eastern small-footed bat (*M. leibii*, State Threatened). The five remaining bat species are listed as Special Concern: big brown bat (*Eptesicus fuscus*); red bat (*Lasiurus borealis*), hoary bat (*Lasiurus cinereus*), silver-haired bat (*Lasionycteris noctivagans*), and tri-colored bat (*Perimyotis subflavus*).

While a comprehensive statewide inventory for bats has not been completed, it is likely that several of these species occur within the project area during migration and/or the breeding season. We recommend that you contact the U.S. Fish and Wildlife Service--Maine Fish and Wildlife Complex (Wende Mahaney, 207-902-1569) for further guidance, as the northern long-eared bat is also listed as a Threatened Species under the Federal Endangered Species Act. Otherwise, our Agency does not anticipate significant impacts to any of the bat species as a result of this project.

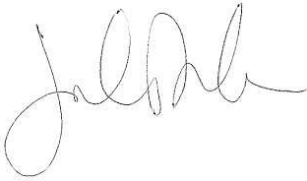
It is possible that some of these bat species could occupy the structure(s) in the project review area. Unless there is a threat to human health and safety, we recommend that construction or demolition work on bat-occupied portions of the structure not occur between June 1 and August 15, when young bats are still unable to fly and would likely die without parental care. For more information on preventing conflicts with bats, we recommend following the "Preventing Conflicts" guidelines found [here](#)¹. The

installation of a one-way exclusion device may be necessary to prevent re-entry of bats into the structure after July 31 (see bat exclusion recommendations in the above website link).

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

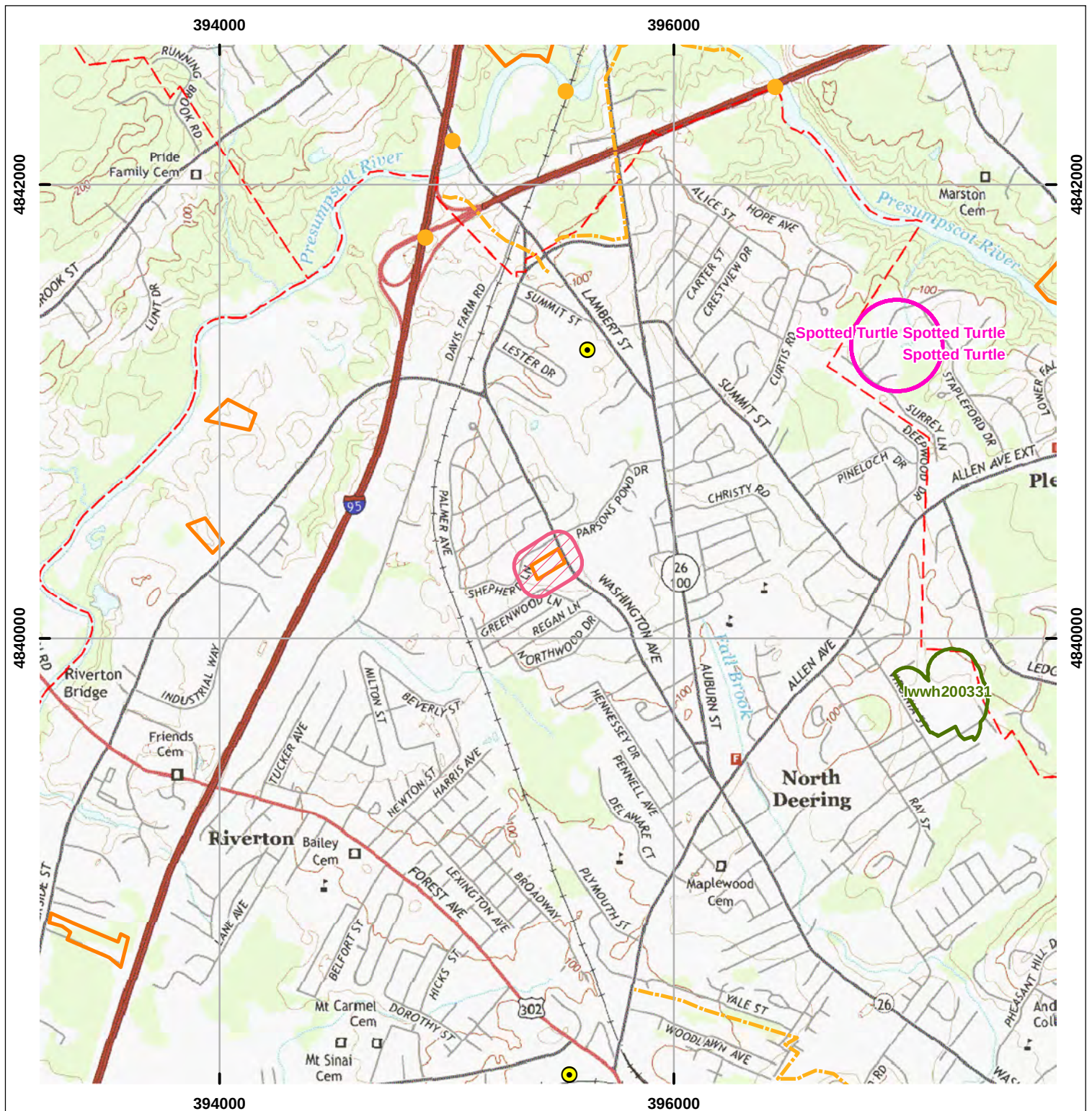
Please feel free to contact my office if you have any questions regarding this information, or if I can be of any further assistance.

Best regards,

A handwritten signature in black ink, appearing to read 'John Maclaine', with a stylized, cursive script.

John Maclaine
Biologist

¹“Living with Wildlife: Bats.” Maine Department of Inland Fisheries and Wildlife.
https://www1.maine.gov/ifw/wildlife/human/lww_information/bats.html

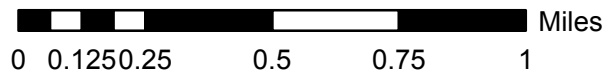


Environmental Review of Fish and Wildlife Observations and Priority Habitats

Project Name: Portland, 1728 Washington Ave development (Version 1)



Maine Department of
Inland Fisheries and Wildlife



Projection: UTM, NAD83, Zone 19N

Date: 2/18/2017

- | | | |
|--------------------|-------------------------------|--|
| ProjectPoints | Deer Winter Area | Roseate Tern |
| ProjectLines | LUPC p-fw | Piping Plover/Least Tern |
| ProjectPolys | Cooperative DWAs | Aquatic ETSc (2.5 mi review) |
| ProjectSearchAreas | Seabird Nesting Islands | Rare Mussels (5 mi review) |
| | Shorebird Areas | Maine Heritage Fish Waters |
| | Inland Waterfowl/Wading Bird | Arctic Charr Habitat |
| | Shoreland Zoning_lwwh | E. Brook Trout Joint Venture Subwatershed Classification |
| | Tidal Waterfowl/Wading Bird | Redfin Pickerel/Swamp Darter Habitats (buffer100ft) |
| | Significant Vernal Pools | Special Concern-occupied habitats(100ft buffer) |
| | Environmental Review Polygons | Wild Lake Trout Habitats |



Section 6. Zoning Assessment

Zoning Assessment

The project site is bisected by a zone delineation for the residential zones R-2 and R-3. The lots have been situated such that all of the lots south of the proposed roadway are within the R-3 residential zone. Lots 6 and 7 are entirely located within the R-2 residential zone. Lot 8 is divided by the R-2 and R-3 zone line. As such, the lot has been sized to meet the minimum lot size requirement for both zones based on the percentage of the lot that lies in each zone. Other zoning requirements are as follows:

R-2 Zone Dimensional Requirements – Lots 6 & 7		
	Required	Proposed
Minimum Lot Size	10,000 SQ FT	> 10,000 SQ FT
Minimum Street Frontage	50 FT	> 50 FT
Minimum Front Yard	25 FT	25 FT
Minimum Side Yard: 1 & 1 ½ Story	12 FT	TBD
2 Story	14 FT	TBD
2 ½ Story	16 FT	TBD
Minimum Rear Yard	25 FT	25 FT
Maximum Building Height	35 F	< 35 FT
Maximum Lot Coverage	20 %	< 20%
Minimum Side Yard Side Street	20 FT	N/A
Minimum Lot Width	65 FT	> 65 FT

*See ordinance for more particular information

R-3 Zone Dimensional Requirements – Lot 1 - 5		
	Required	Proposed
Minimum Lot Size	6,500 SQ FT	> 6,500 SQ FT
Minimum Street Frontage	50 FT	> 50 FT
Minimum Front Yard	25 FT	25 FT
Minimum Side Yard: 1 & 1 ½ Story	8 FT	TBD
2 Story	14 FT	TBD
2 ½ Story	16 FT	TBD
Minimum Rear Yard	25 FT	25 FT
Maximum Building Height	35 FT	< 35 FT
Maximum Lot Coverage	35 %	< 35%
Minimum Side Yard Side Street	20 FT	N/A
Minimum Lot Width	65 FT	> 65 FT

R-2/R-3 Zone Dimensional Requirements – Lot 8		
	Required	Proposed
Minimum Lot Size	10,000/6,500 SQ FT	8,287 SQ FT
Minimum Street Frontage	50 FT	50 FT
Minimum Front Yard	25 FT	25 FT
Minimum Side Yard: 1 & 1 ½ Story	12/8 FT	TBD
2 Story	14 FT	TBD
2 ½ Story	16 FT	TBD
Minimum Rear Yard	25 FT	25 FT
Maximum Building Height	35 FT	> 35 FT
Maximum Lot Coverage	20 % / 35 %	TBD
Minimum Side Yard Side Street	20 FT	N/A
Minimum Lot Width	65 FT	93.67 FT

Lot 8 is split between both the R2 and R3 zones. The area calculations for Lot 8 are as follows: 3,197 SF is in the R3 zone with a 6,500 SF requirement, being 49.18 % of the lot requirement. 5,093 SF of Lot 8 is in the R2 zone with a 10,000 SF requirement, being 50.93% of the required lot area which calculates to a total of 100.11% lot requirement as directed by the City Zoning Administrator. The front and rear setbacks for Lot 8 are the same in each zone. The side setbacks for each zone shall meet the standards for each zone.

Section 7. Existing/Proposed Easements

Existing/Proposed Easements

There are no known existing and no proposed easements within the project site.

Section 8. Waiver Requests

Waiver Requests

The applicant requests the followings waiver:

1. Land Use Code, Chapter 14, Article 4, Sec. 14-498, Subsection 8, Paragraph A:

“Sidewalks shall be constructed on each side of each street in accordance with article III of chapter 25. Sidewalks to be used by pedestrians are to be so located as to minimize contacts with normal automotive traffic, with preference given to interior walks away from streets in common open space in block interiors.”

A sidewalk is proposed on the north side of the street as well as extending north along Washington Avenue and connecting to the existing sidewalk on Shepherd Lane. The applicant requests a waiver from constructing a sidewalk on the south side of the new public street.

2. The justifications for this waiver are: The proposed street is a 440 foot dead end street that provides no interconnection with other existing sidewalks.
3. Only 9 lots are proposed to front on the proposed street.
4. The project proposes a connection to the existing sidewalk system of the neighborhood by constructing a sidewalk along Washington Avenue to Shepherd Lane.

Section 9. Evidence of Financial and Technical Ability

Evidence of Financial and Technical Ability**A. Prior Experience**

The applicant for the development of this project is Greenlight Enterprises, LLC. The applicant has permitted and/or constructed a number of development projects within Cumberland County in Maine, including the following:

Granite Ridge – 12 lot subdivision; New Gloucester, Maine

Stave Mill – 10 lot subdivision; Gray, Maine

High View – 8 lot subdivision; New Gloucester, Maine

Hillside – 12 lot subdivision; New Gloucester, Maine

Crystal Clean Car Wash; Gray, Maine

McDonald's; Gray, Maine

Ace Hardware; New Gloucester, Maine

Housing Associates Development Company – 20 multi family dwellings;

B. Financial Capacity

A letter of commitment to fund from Funding Agency is attached, as well as a certificate of good standing.

C. Personnel

Greenlight Enterprises, LLC has retained Sebago Technics, Inc., a consulting engineering firm, to assist in the engineering, land planning and permitting of the development. A brief history of Sebago Technics along with qualifications of some of Sebago Technic's key personnel is attached.

Sebago Technics, Inc.Technical Ability

Sebago Technics has been retained to perform the civil engineering, stormwater management, and sediment and erosion control design for the proposed project. The technical phase of this project includes the preparation of a detailed grading design, taking into account hydrological considerations and stormwater management. The permitting phase of this project consists of the preparation of all state and local application packages and coordination throughout the entire review process from initial submission to final approval.

Company Background

The firm was established in 1981. The company as a whole has grown to approximately 50 professionals. The firm consists of civil/site engineers, surveyors, landscape architects, soil scientist, and computer-aided design drafting technicians. Sebago Technics, Inc. provides a full-range of technical assistance to developers, contractors and municipalities in the areas of commercial, residential and industrial developments.

Key Personnel**Matthew W. Ek, PLS, LLS – Director of Survey/GIS Advancement, and Project Manager**

A Registered Land Surveyor, he joined the firm in 1994. His expertise in boundary and topographic surveying provides comprehensive land planning and design services to clients.

Rob McSorley, PE - Senior Project Manager

A Registered Professional Engineer, he joined the firm in 2006 as a Senior Project Manager. His 31 years of practice in consulting engineering firms provides the required experience to allow for effective project management.

State of Maine



Department of the Secretary of State

I, the Secretary of State of Maine, certify that according to the provisions of the Constitution and Laws of the State of Maine, the Department of the Secretary of State is the legal custodian of the Great Seal of the State of Maine which is hereunto affixed and that the paper to which this is attached is a true copy from the records of this Department.

In testimony whereof, I have caused the Great Seal of the State of Maine to be hereunto affixed. Given under my hand at Augusta, Maine, this fourteenth day of March 2017.



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

Matthew Dunlap
Secretary of State

Additional Addresses

Legal Name	Title	Name	Charter #	Status
GREENLIGHT ENTERPRISES LLC	Registered Agent	JOHN H BRANSON	20161089DC	GOOD STANDING
Home Office Address (of foreign entity)		Other Mailing Address		
		482 CONGRESS STREET SUITE 304 PORTLAND, ME 04101		



Experienced people. Exceptional service.

March 13, 2017

Re: Greenlight Enterprises, LLC

Matthew Ek, PLS, LLS
Director of Survey / GIS Advancement
Sebago Technics
75 John Roberts Rd, Suite 1A
South Portland, ME 04106

Mr. Ek:

This letter is to notify you that Greenlight Enterprises, LLC has the financial capacity to complete the project known as "Knight Farm Subdivision" located at Abner Lane, Portland, Maine. If I can be of further assistance or if you need any additional information please do not hesitate to contact me at (207) 990-5914 or (207) 949-1974.

Sincerely,

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

Andrew C. Dorr
Vice President
Business Banking

ACD/tlg

Section 10. Construction Management Plan

Construction Management Plan

The project will be managed by Greenlight Enterprises, LLC.

Estimated construction time:	3 Months
Erosion Control Measures Placed:	Week 1
Site clearing and grubbing	Week 2
Construction of road subbase for access	Week 3
Stormwater management area construction	Week 4 – Week 9
Utility Improvements and roadway construction	Week 5 – Week 9
Road base and binder coarse.....	Week 10 – Week 11
Sidewalks.....	Week 12
Start final seeding on prepared areas (during growing season)	Week 10
Biweekly monitoring of vegetative growth	Week 12
Re-seeding of areas, if needed.....	Week 12
Removal of erosion control devices.....	Upon Final Project Completion

Section 11. Statement of Traffic Generation

Statement of Traffic Generation

According to the Trip Generation Manual, 7th Edition, published by the Institute of Transportation Engineers (ITE), the propose use of the project would be Single Family Detached Housing (210). The generation rates for this used is 9.57, 0.77 & 1.02 for the average daily trips, AM peak trips and PM peak trips respectively. The 8 lot subdivision would be expected to generate 76.56 average daily trips, 6.16 AM peak hour trips and 8.16 PM peak hour trips. Accordingly, the resulting traffic is not expected to have a significant impact on the surrounding thoroughfares.

Section 12. Summary of Significant Natural Features

Summary of Significant Natural Features

See Section 5 containing copies of letters requesting review and responses from the Maine Inland Fisheries and Wildlife and Maine Natural Areas Program.

Section 13. Stormwater Management Plan



STORMWATER MANAGEMENT PLAN

for

**Knight Farm Subdivision
Portland, Maine**

Prepared for

Greenlight Enterprises, LLC
P.O. Box 963
Gray, ME 04039

March 2017

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Attachments

Attachment A: Stormwater Quality Calculations

Attachment B: HydroCAD Output-Pre-Development / Post Development TR-20 Model

Attachment C: Inspection, Maintenance, and Housekeeping Plan

STORMWATER MANAGEMENT PLAN

**1728 Washington Avenue
Portland, Maine**

Executive Summary

Greenlight Enterprises, LLC is submitting plans to develop within a 2.15 acre parcel off Washington Avenue into an 8 lot subdivision. The existing farmhouse will remain as a standalone lot. The existing barns and out-buildings will be removed. The property is shown as Lot A-3 on City of Portland Tax Map 351.

The development will create approximately 1.52 acres of new non-vegetated surface and 2.11 acres of new developed area as defined by the Maine Department of Environmental Protection (MDEP).

Roughly 18% of the site, is directly tributary to the combined sewer collection system in Washington Avenue. An additional 41% of the site is tributary to a ditch along the west side of Washington Avenue which eventually enters the combined sewer collection system through a downstream catch basin. The remaining 41% of the site, drains toward the western boundary of the site. As the proposed development is classified by the City of Portland as a Level III development, the site is required to comply with MaineDEP chapter 500 Standards, per Chapter 5 of City of Portland Technical Manual.

The project has been designed to provide treatment for 99.2% of the new non-vegetated area and 85.8% of the new developed area, which exceeds the required treatment level of Table 1 contained in MaineDEP Chapter 500, Section 4.C.(2)(a)(iii) amended date August 12, 2015. Treatment is achieved utilizing a grassed underdrained soil filter. Best Management Practices (BMPs) have been designed and sized in accordance with criteria published in Chapter 500 BMP's Technical Design Manual.

The project is within the watershed for Fall Brook, an urban impaired stream. This project does not trigger the Urban Impaired Stream Standard; however, the project discharges to a system within Washington Avenue that is a combined sewer system. Because of the combined sewer system is the only discharge available for the project, the project's detention system has been designed to meet the pre-construction discharge rates through the 100 year event.

STORMWATER MANAGEMENT PLAN

Knight Farm Subdivision Portland, Maine

I. Introduction

This Stormwater Management Plan has been prepared to address the potential impacts associated with this project due to the proposed modification in stormwater runoff characteristics. The stormwater management controls that are outlined in this plan have been designed to best suit the proposed development and to comply with applicable regulatory requirements.

II. Existing Conditions

The project site is currently a colonial farmhouse with various outbuildings with primarily grass land cover comprising of 2.15 acres in Portland.

Land Cover: The site is partially developed land consisting of grass land cover. The development site abuts Washington Avenue to the east, and single family residential structures to the north, south and west.

Site Topography: 18% of the site drains to an existing catch basin which is tied to the combined sewer collection system in Washington Avenue. An additional 41% of the site drains to a ditch along the west side of Washington Avenue and eventually into the combined sewer collection system through a downstream catch basin. The remaining 41% drains to the western boundary of the site.

Slopes on site range from 1% to 30% in eastern portion of the site, relatively flat along the central portion of the site, and steepen to 5% to 10% slopes along the southwestern portion of the site.

Surface Water Features: A portion of the site drains to an existing combined sewerage system within Washington Avenue. This collection system flows to the East End Wastewater Treatment Plant and once treated is discharged into Casco Bay.

Soils: Soil characteristics were obtained from the Soil Conservation Service (SCS) Medium Intensity Soil Survey of Cumberland County. Soils identified on the site (or within close proximity) are identified below in Table 1. These soil boundaries are identified on the attached watershed maps.

Table 1 – Proximity Soil Types and Characteristics			
Soil Type	Symbol	HSG	K Factor
Hinckley loamy sand	HIB	A	0.17

The K factor is an erodibility index that relates each soil family based on a slight erosion potential of 0.10 to a high erosion potential of 0.64. An index number, greater than 0.32, indicates that a high level of erosion control measures must be taken in order to control erosion of this soil. The Hydrologic Soil Group (HSG) designation is based on a rating of the relative permeability of a soil, with Group “A” being extremely permeable such as coarse sand, to Group “D” having low permeability such as clay.

Historic Flooding: The Federal Emergency Management Agency (FEMA) lists the project site as Zone X, “Areas of 500 year flood based on the published Flood Insurance Rate Map (FEMA Community Panel Number 230051 0002C, dated December 8, 1998).

III. Proposed Development

The Applicant is proposing an 8 lot residential subdivision. The existing colonial farmhouse will remain as a standalone lot. The 8 new residential lots will be established along a 450-foot long roadway to be accepted as public road by the City of Portland.

Alterations to Land Cover: Completion of the proposed project will result in the creation of 1.52 acres of non-vegetated area and 2.11 acres of developed area.

IV. Downstream Ponds and Waterbodies

A majority of the project site is within the watershed for Fall Brook which is listed by the Maine Department of Environmental Protection as urban impaired stream.

V. Regulatory Requirements

A. City of Portland, Maine

The proposed development is classified as a Level III development and must comply with Section 5 of the City of Portland’s Technical Manual stating that this development “shall be required to submit a Stormwater Management Plan pursuant to the regulations of the MDEP Chapter 500 Stormwater Management Rules, including Basic, General and Flooding Standards. The MDEP Chapter 500

rules describe stormwater management requirements for new development projects.

The following sections describe how this project will address these stormwater management performance standards.

Basic Standards: These standards include various erosion and sedimentation controls, inspection and maintenance procedures, and general housekeeping requirements. These performance standards are addressed in the Erosion and Sedimentation Control Plan on Plan Sheet 6 of 8 and in the Inspection, Maintenance, and Housekeeping Plan attached in Attachment C. Please refer to these documents for more detailed information.

General Standards: This standard presents minimum treatment thresholds for new non-vegetated areas and new developed areas to be treated by stormwater Best Management Practices (BMPs). General Standard BMPs have been defined by the MDEP and are described thoroughly in their publication “Stormwater Management for Maine: Best Management Practices Manual”. Volume III of this manual contains additional information and sizing requirements for the treatment measures proposed for the proposed development.

Urban Impaired Stream Standard: This standard requires a payment of a compensation fee or mitigation of a project’s impact by treating, reducing, or eliminating an off-site or on-site pre-development imperious stormwater source.

Flooding Standards: The MDEP requires that projects creating impervious areas greater than three (3) acres, or developed areas greater than twenty (20) acres address various flooding standards. The proposed project will not exceed the MDEP thresholds, but is required to meet the flooding standards for the City of Portland. The development will be designed to “detain, retain or result in the infiltration of stormwater from 24-hour storms of the 2-year, 10-year, and 25-year frequencies such that the peak flows of stormwater from the project site do not exceed the peak flows of stormwater prior to undertaking the project.” A detailed stormwater model has been provided to demonstrate compliance with these standards.

VI. Stormwater Management BMPs

In order to meet the applicable regulations, the project will utilize a grassed underdrained soil filter located adjacent to the roadway. The BMP location is indicated on the attached plans.

A grassed underdrained soil filter must detain a runoff volume equal to 1" times the tributary impervious area and 0.4" times the tributary landscaped areas. The surface area of the system must be at least equal to 5% the impervious area and 2% of the landscaped area. Pre-treatment of the runoff must be provided by a sediment forebay, adequately sized to retain the anticipated winter sanding load. The runoff volume shall be discharged over a period of time not less than 24 hours and not greater than 48 hours.

The areas treated by this BMP are summarized in the stormwater treatment calculations attached in Attachment A: Stormwater Quality Calculations.

VII. Peak Flow Analysis

This section has been prepared to discuss the proposed modifications to peak flow rates as a result of the development.

A. Modeling Technique

In order to evaluate drainage characteristics in pre and post-development conditions, a quantitative analysis was performed to determine peak rates of runoff for the 2, 10, 25 and 100-year storm events. Runoff calculations were performed following the methodology outlined in the USDA Soil Conservation Service's "Urban Hydrology for Small Watersheds, Technical Release #55" and HydroCAD Stormwater Modeling System Software. A 24-hour, SCS Type III storm distribution for the 2, 10, 25 and 100-year storm frequencies were used for analysis.

The 24-hour rainfall values utilized in the hydrologic model for Southeast Cumberland County are as follows:

Table 2 - Storm Frequency Precipitation (in./24 hr)	
2-year	3.1
10-year	4.6
25-year	5.8
100-year	8.1

*Appendix H, MDEP Chapter 500, amended date Aug 12, 2015

B. Drainage Characteristics (Pre and Post-Development Watershed Delineation)

Two watershed study points (SP1 and SP2) were established to evaluate the pre-development and post-development peak runoff conditions for compliance with the Flooding Standard.

SP1 is located at the south eastern property boundary which is the limit of the site's contribution into the existing combined sewerage collection system. This study point combined the flow from the site into the existing catch basin on Washington Avenue as well as the runoff flowing into the ditch along the western side of Washington Avenue which ultimately flows into the combined sewerage system.

SP2 is located along the western boundary of the property. The runoff from the western boundary enters the Presumpscot River Watershed.

C. Pre-Development

SP1: SP1 has 2 drainage areas tributary to it; subareas 1S and 2S. Subarea 1S represents the portion of the site containing the farmhouse, most of the paved driveway, and the surrounding landscaped area which is tributary to the catch basin on the west side of Washington Avenue. Subarea 2S represents the area containing the majority of the barn as well as both of the outbuildings. This area drains to a ditch along the western boundary of Washington Avenue and eventually enters the combined sewerage system through a downstream catch basin.

SP2: SP2 is located at the western property line where drainage crosses the property line in the southwest portion of the site.

Subarea 1S represents the north east portion of the site which is mainly comprised of the existing farmhouse and the existing driveway. This area is directly tributary to the existing catch basin in Washington Avenue. The footprint of the farmhouse remains the same in both pre- and post- development conditions, however the existing garage and barn will be demolished and the existing driveway will be removed, the existing driveway location will be the approximate location of the new proposed public road. A new driveway will be constructed to the farmhouse, from the new public road.

Subarea 2S represents the south eastern and central part of the site which currently drains to a ditch along the western side of Washington Avenue. This area contains a portion of the barn and two other outbuildings which will all be removed in the post-development condition.

Subarea 3S represents the western section of the site which is currently an undeveloped open field.

D. Post-Development

Pre-development subarea 1S has been divided into two subareas. Subarea 10S represents the portion of the site which contains the majority of the existing farmhouse and a small portion of the new proposed roadway which will drain to the existing catch basin in Washington Avenue. Subarea 12S represents the portion of pre-development area 1S, which has been regraded such that any runoff will discharge into the proposed grassed underdrained soil filter.

Pre-development subarea 2S has been divided into two subareas. Subarea 20S represents the portion of pre-development area 2S which will drain to the proposed grassed underdrained soil filter. This includes the majority of the proposed roadway, 4 driveways, and 3 of the proposed buildings. Subarea 23S is a small portion of the development which will drain towards the southern property boundary.

Subarea 3S in pre-development represented the area which drained to the western property boundary. This area has been divided into two subareas in post-development. Subarea 32S represents the portion of pre-development area 3S which will drain to the proposed grassed underdrained soil filter. This includes a portion of the proposed roadway, 4 driveways, and 4 of the proposed buildings. The remaining area is represented by subarea 30S which will drain to the outside borders of the property similar to pre-development conditions. In both pre- and post- development conditions this area is entirely landscaped with no impervious.

E. Comparison

The watershed areas and times of concentration of the post-development watersheds vary from the existing conditions based on the proposed site development and grading. Table 3 summarizes the results of the hydrologic analysis of the project under pre-development and post-development conditions.

Table 3 – Stormwater Runoff Summary Table Pre-Development vs. Post-Development												
Study Point	Total Watershed Area (Ac)		Percent Impervious		Peak Rates of Runoff (cfs)							
					2-year		10-year		25-year		100-year	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post
SP1	1.44	2.18	26%	38%	0.04	0.06	0.30	0.30	0.89	0.89	2.57	2.57
SP2	0.93	0.19	0%	0%	0.00	0.00	0.02	0.00	0.14	0.03	0.87	0.18

As depicted in the above table, post-development peak runoff rates at study point one will be at or below pre-development levels for the 10-year 25-year and 100 year storm events. There is a minor increase in the peak runoff rate for the 2-year storm event, at Study Point 1, which is anticipated to be 0.02 cfs greater than the pre-development rate. The only discharge during the 2 year event is through the under drain system which has a minimum sized bleeder (1.25"). As stated previously, the detention system has been designed through the 100 year storm event to account for the combined sewer of Washington Avenue. The post-development condition for study point 2 is at or below pre-development rates for all storm events, due the 80% reduction in area.

VIII. Water Quality Analysis

To achieve the required water quality treatment, a grassed underdrained soil filter is proposed to treat the majority of the development. The grassed underdrained soil filter has been designed and sized in accordance with the current Maine DEP Stormwater Best Management Practices handbook. Note that the existing landscaped portions of the standalone lot has been included in the treatment calculations.

The development has been designed to provide water quality treatment through implementation of approved BMP's which provide for an impervious area treatment percentage of 99.2% and a developed area treatment percentage of 85.8%, which exceeds the required treatment levels of 95% and 80%, respectively, in accordance with MaineDEP Chapter 500, Section 4.C.(2)(a)(iii) amended date August 12, 2015.

Water Quality Volumes, BMP sizing volume calculations, and other supporting calculations are attached to this report.

X. Conclusions

The proposed development has been designed to meet the requirements of the City of Portland's Stormwater Technical Standards. The stormwater management system will treat 99.2% of the created impervious surface and 85.8% of the total developed area. The peak flow rates have been controlled to the greatest extent practical to be at pre-development levels. An anticipated increase of 0.02 cfs at Study Point 1 during the 2-year storm event is expected, but will not cause an unreasonable adverse effect on downstream the City's combined sewer system. Additionally, erosion and sedimentation controls have been outlined to prevent unreasonable impacts on the site and to the surrounding environment.

Prepared by,

SEBAGO TECHNICS, INC.



Robert A. McSorley, P.E.
Senior Project Manager



Glissen Havu, E.I.
Civil Engineer

RAM

March 14, 2017

Attachment A

Stormwater Quality Calculations

Table 1: MDEP GENERAL STANDARD CALCULATIONS

Knight Farm Subdivision, Portland

Job #16533

*

AREA ID	WATERSHED SIZE (S.F.)	EXISTING ONSITE IMPERVIOUS AREA (S.F.)	NEW ONSITE IMPERVIOUS AREA (S.F.)	EXISTING ONSITE LANDSCAPED AREA (S.F.)	NEW ONSITE LANDSCAPED AREA (S.F.)	NET NEW DEVELOPED AREA (S.F.)	NET EXISTING DEVELOPED AREAS (S.F.)	TREATMENT PROVIDED?	IMPERVIOUS AREA TREATED (S.F.)	LANDSCAPED AREA TREATED* (S.F.)	DEVELOPED AREA TREATED (S.F.)	TREATMENT BMP
1S	18,554	4,877		13,677			18,554					
2S	42,050	5,133		36,917			42,050					
3S	42,693			42,693			42,693					
Subtotal	103,297	10,010		93,287			103,297					
10S	7,876	1,401	660		5,815	6,475	1,401	NO	0	0	0	
12S	10,678	368	3,697		6,613	10,310	368	YES	4,065	6,613	10,678	
20S	40,524		15,927		24,597	40,524	0	YES	15,927	24,597	40,524	
23S	1,526				1,526	1,526	0	NO	0	0	0	
30S	6,749				6,749	6,749	0	NO	0	0	0	
32S	35,943		14,986		20,957	35,943	0	YES	14,986	20,957	35,943	
Subtotal (S.F.)	103,297	1,769	35,270	0	66,257	101,527	1,769		34,978	52,167	87,145	

0.81

1.52

2.33

TOTAL NEW IMPERVIOUS AREA (S.F.)	35,270	TOTAL DEVELOPED AREA (S.F.)	101,527
TOTAL IMPERVIOUS AREA RECEIVING TREATMENT (S.F.)	34,978	TOTAL DEV. AREA RECEIVING TREATMENT (S.F.)	87,145
% OF IMPERVIOUS AREA RECEIVING TREATMENT	99.2%	% OF DEV. AREA RECEIVING TREATMENT	85.8%

SEBAGO TECHNICS, INC.

75 John Roberts Road Suite 1A

South Portland, Maine 04106

Tel. (207) 200-2100

JOB 16533

SHEET NO.

1

OF

1

CALCULATED BY

GJH

DATE

1/27/2017

FILE NAME

PRINT DATE

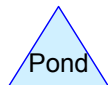
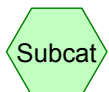
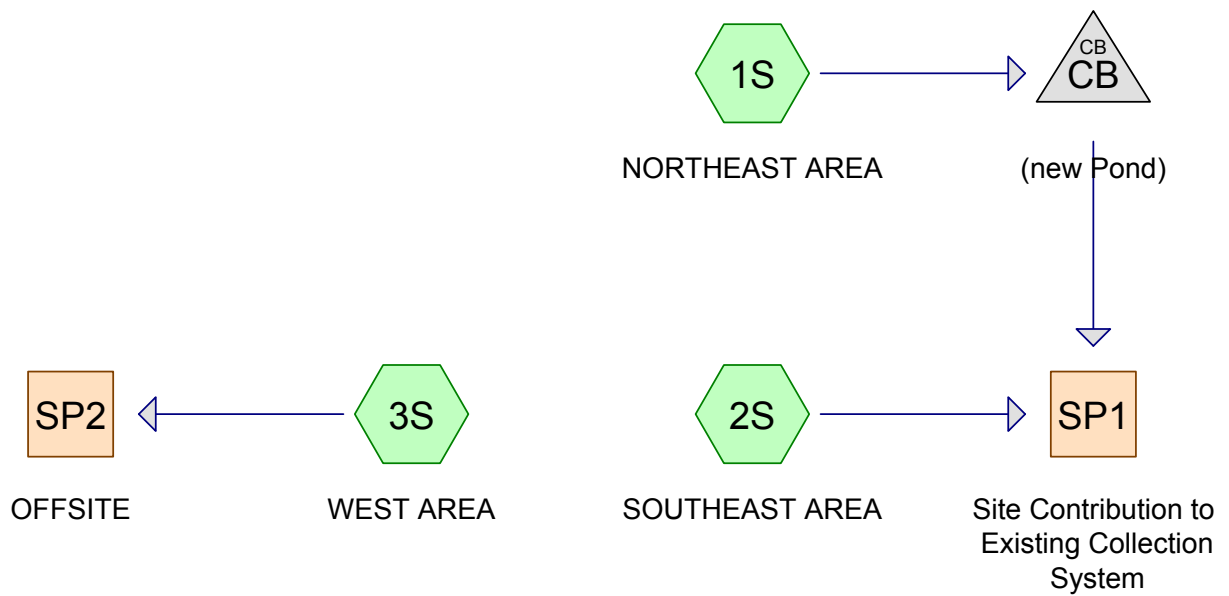
3/9/2017

UNDERDRAINED SOIL FILTER											
Task:	Calculate water quality volume per MDEP chapter 500 regulations										
References	1. Maine DEP Chapter 500, Section 4.B.(2)(b) a. "must detain a runoff volume equal to 1.0 inch times the subcatchment's impervious area plus 0.4 inch times the subcatchment's landscaped area" 2. Maine DEP Best Management Practices Stormwater Manual, Section 7.1 a. "surface should represent 5% of impervious area and 2% of landscaped area"										
Tributary to Underdrained Filter											
Landscaped Area	52,167.00	SF									
Impervious Area	34,978.00	SF									
Minimum Surface Area											
Required	(2% X Landscaped + 5% X Impervious)										
Total Landscaped Area	52,167.00	SF	Area	1,043.3	SF						
Total Impervious Area	34,978.00	SF	Area	1,748.9	SF						
Required Minimum Surface Area			2,792.2		SF						
Provided Surface Area			2,842.0		SF						
Channel Protection Volume (CPV)											
Required	(0.4" X Landscaped + 1.0" X Impervious)										
Landscaped Area	52,167.00	SF	Volume	1,738.9							
Impervious Area	34,978.00	SF	Volume	2,914.8							
CPV Required			4,653.7		CF	0.107	AF				
Provided CPV			4,654.0		CF	(Elevation 143.75 to 145.12)					
Sediment Pre-Treatment											
Per Reference 2, Chapter 7.13		"Pretreatment devices shall be provided to minimize discharge of sediment to the soil filter"									
Annual Sediment Load:	50 cubic feet per acre per year of sanded area										
Area to be sanded:	19462	SF									
Sediment Volume	22	CF									
Provided	28	CF	6 Inch Deep Forebay		with area of		55	sf			

Attachment B

HydroCAD Output

Predevelopment



Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
2.101	39	>75% Grass cover, Good, HSG A (1S, 2S, 3S)
0.059	98	Paved parking, HSG A (1S, 2S)
0.171	98	Roofs, HSG A (1S, 2S)
0.040	30	Woods, Good, HSG A (2S)
2.371	45	TOTAL AREA

Soil Listing (all nodes)

Area (acres)	Soil Group	Subcatchment Numbers
2.371	HSG A	1S, 2S, 3S
0.000	HSG B	
0.000	HSG C	
0.000	HSG D	
0.000	Other	
2.371		TOTAL AREA

16533-PRE

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

Printed 3/8/2017

Page 4

Time span=5.00-50.00 hrs, dt=0.05 hrs, 901 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment1S: NORTHEAST AREA Runoff Area=18,554 sf 26.29% Impervious Runoff Depth=0.22"
Tc=6.0 min CN=55 Runoff=0.04 cfs 0.008 af

Subcatchment2S: SOUTHEAST AREA Runoff Area=42,050 sf 12.21% Impervious Runoff Depth=0.05"
Flow Length=303' Tc=11.4 min CN=46 Runoff=0.01 cfs 0.004 af

Subcatchment3S: WEST AREA Runoff Area=42,693 sf 0.00% Impervious Runoff Depth=0.00"
Flow Length=153' Tc=6.2 min CN=39 Runoff=0.00 cfs 0.000 af

Reach SP1: Site Contribution to Avg. Flow Depth=0.08' Max Vel=1.13 fps Inflow=0.04 cfs 0.012 af
12.0" Round Pipe n=0.013 L=152.0' S=0.0047 '/' Capacity=2.45 cfs Outflow=0.04 cfs 0.012 af

Reach SP2: OFFSITE Inflow=0.00 cfs 0.000 af
Outflow=0.00 cfs 0.000 af

Pond CB: (new Pond) Peak Elev=140.43' Inflow=0.04 cfs 0.008 af
12.0" Round Culvert n=0.013 L=22.0' S=0.0100 '/' Outflow=0.04 cfs 0.008 af

Total Runoff Area = 2.371 ac Runoff Volume = 0.012 af Average Runoff Depth = 0.06"
90.31% Pervious = 2.142 ac 9.69% Impervious = 0.230 ac

Summary for Subcatchment 1S: NORTHEAST AREA

Runoff = 0.04 cfs @ 12.35 hrs, Volume= 0.008 af, Depth= 0.22"

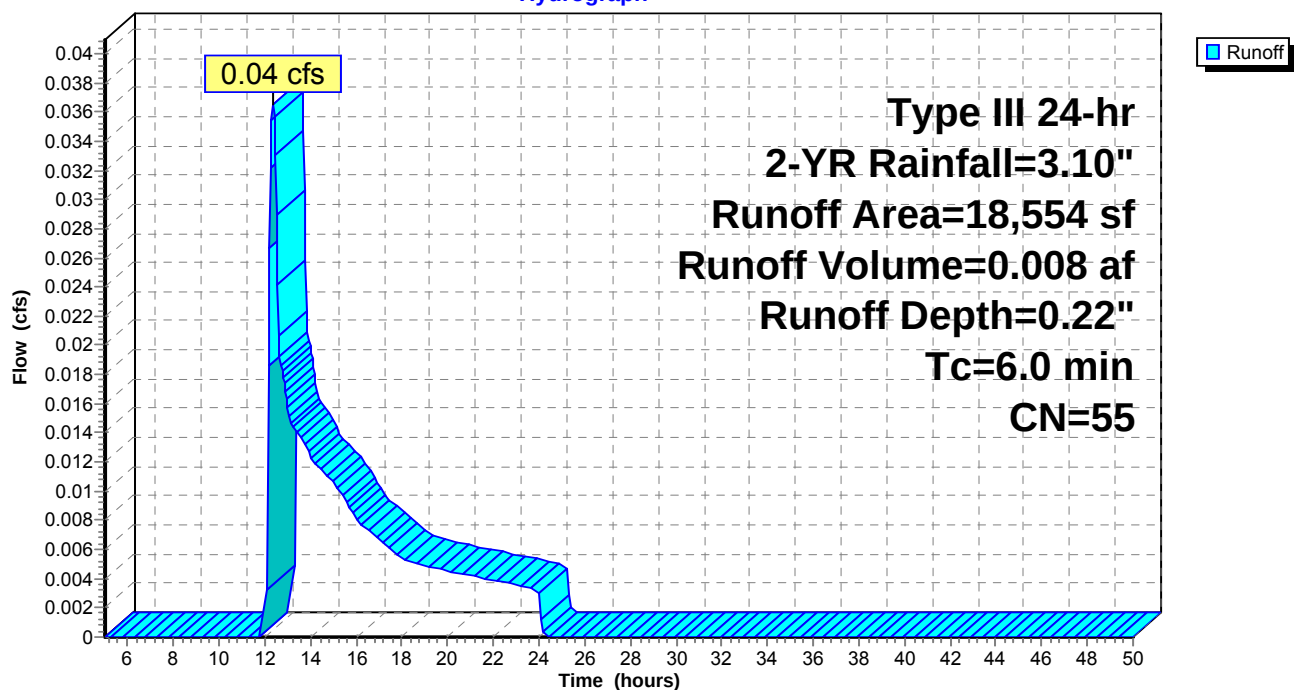
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-50.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-YR Rainfall=3.10"

Area (sf)	CN	Description
2,652	98	Roofs, HSG A
2,225	98	Paved parking, HSG A
13,677	39	>75% Grass cover, Good, HSG A
18,554	55	Weighted Average
13,677		73.71% Pervious Area
4,877		26.29% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, <6 Minutes

Subcatchment 1S: NORTHEAST AREA

Hydrograph



Summary for Subcatchment 2S: SOUTHEAST AREA

Runoff = 0.01 cfs @ 15.37 hrs, Volume= 0.004 af, Depth= 0.05"

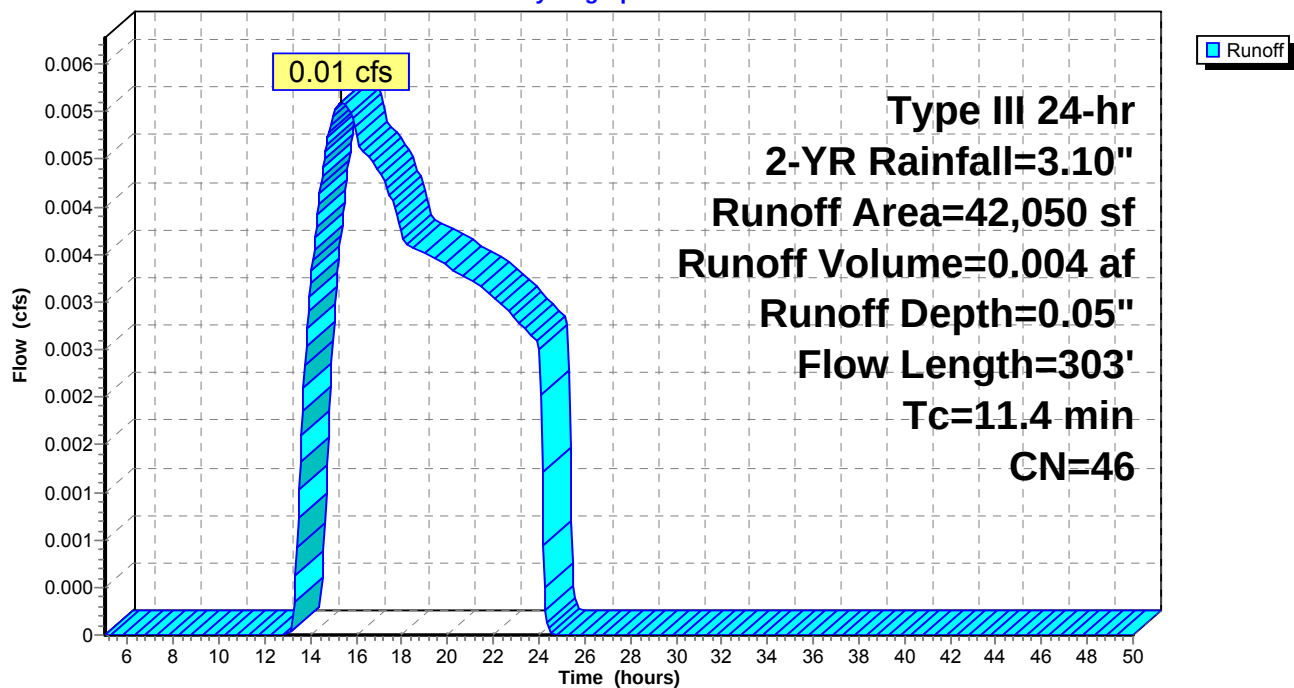
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-50.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-YR Rainfall=3.10"

Area (sf)	CN	Description
4,795	98	Roofs, HSG A
339	98	Paved parking, HSG A
35,160	39	>75% Grass cover, Good, HSG A
1,756	30	Woods, Good, HSG A
42,050	46	Weighted Average
36,916		87.79% Pervious Area
5,134		12.21% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.4	50	0.0115	0.13		Sheet Flow, A-B Range n= 0.130 P2= 3.10"
3.4	155	0.0115	0.75		Shallow Concentrated Flow, B-C Short Grass Pasture Kv= 7.0 fps
1.6	98	0.0200	0.99		Shallow Concentrated Flow, C-D Short Grass Pasture Kv= 7.0 fps
11.4	303	Total			

Subcatchment 2S: SOUTHEAST AREA

Hydrograph



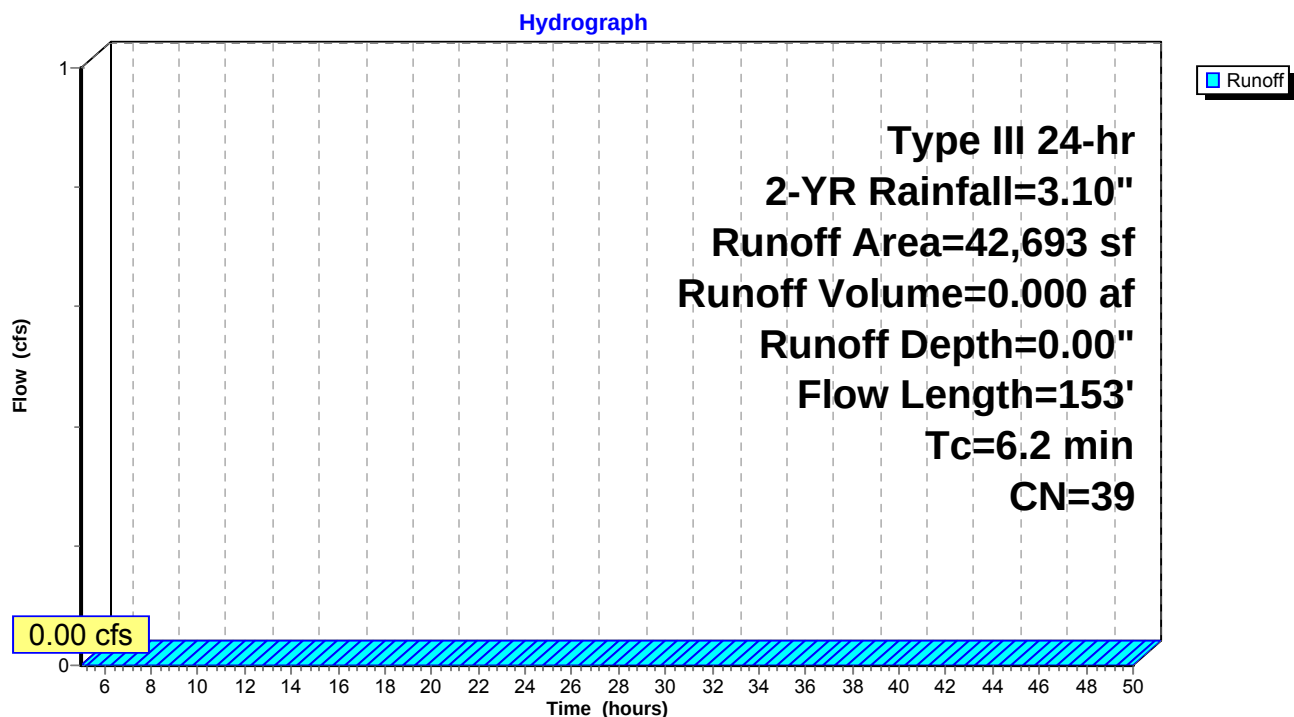
Summary for Subcatchment 3S: WEST AREA

Runoff = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-50.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-YR Rainfall=3.10"

Area (sf)	CN	Description
42,693	39	>75% Grass cover, Good, HSG A
42,693		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.9	47	0.0200	0.16		Sheet Flow, A-B
					Range n= 0.130 P2= 3.10"
1.3	106	0.0400	1.40		Shallow Concentrated Flow, B-C
					Short Grass Pasture Kv= 7.0 fps
6.2	153	Total			

Subcatchment 3S: WEST AREA

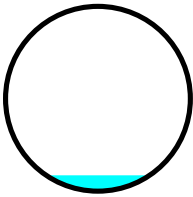
Summary for Reach SP1: Site Contribution to Existing Collection System

Inflow Area = 1.391 ac, 16.52% Impervious, Inflow Depth = 0.10" for 2-YR event
 Inflow = 0.04 cfs @ 12.35 hrs, Volume= 0.012 af
 Outflow = 0.04 cfs @ 12.42 hrs, Volume= 0.012 af, Atten= 1%, Lag= 3.9 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-50.00 hrs, dt= 0.05 hrs
 Max. Velocity= 1.13 fps, Min. Travel Time= 2.2 min
 Avg. Velocity= 0.76 fps, Avg. Travel Time= 3.3 min

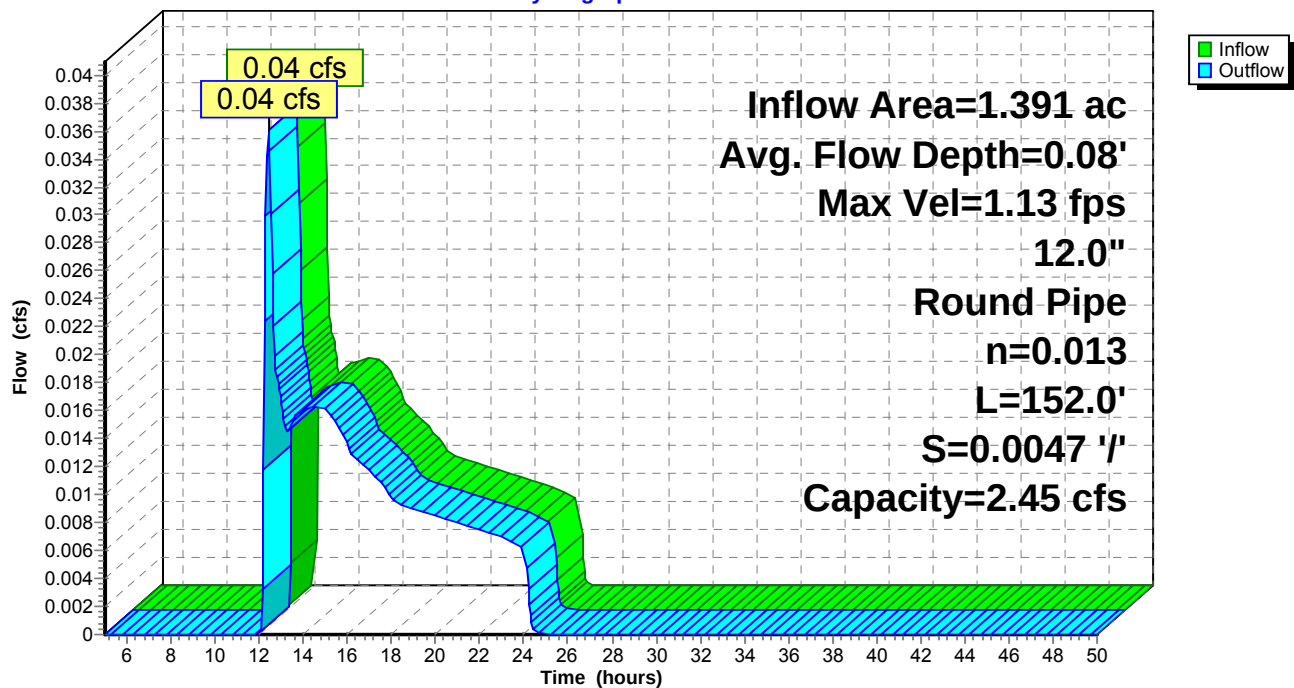
Peak Storage= 5 cf @ 12.38 hrs
 Average Depth at Peak Storage= 0.08'
 Bank-Full Depth= 1.00' Flow Area= 0.8 sf, Capacity= 2.45 cfs

12.0" Round Pipe
 n= 0.013 Clay tile
 Length= 152.0' Slope= 0.0047 '/'
 Inlet Invert= 139.12', Outlet Invert= 138.40'



Reach SP1: Site Contribution to Existing Collection System

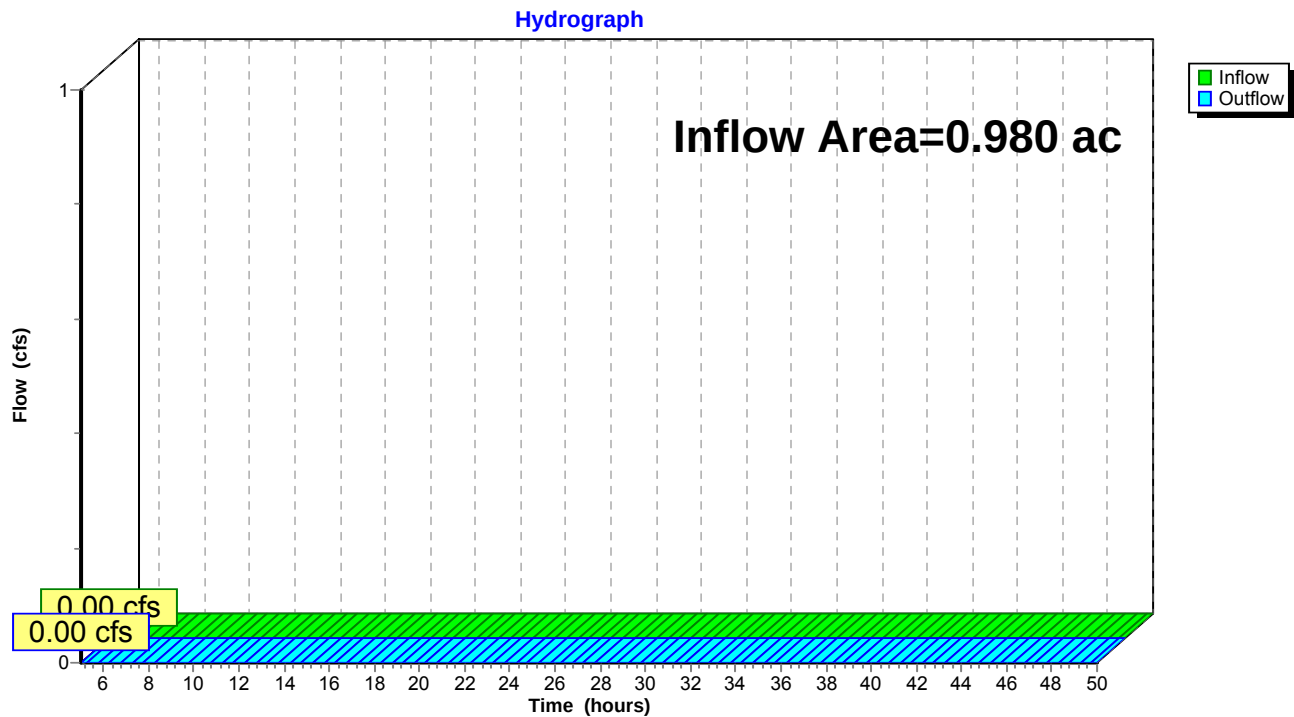
Hydrograph



Summary for Reach SP2: OFFSITE

Inflow Area = 0.980 ac, 0.00% Impervious, Inflow Depth = 0.00" for 2-YR event
Inflow = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af
Outflow = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-50.00 hrs, dt= 0.05 hrs

Reach SP2: OFFSITE

Summary for Pond CB: (new Pond)

Inflow Area = 0.426 ac, 26.29% Impervious, Inflow Depth = 0.22" for 2-YR event
 Inflow = 0.04 cfs @ 12.35 hrs, Volume= 0.008 af
 Outflow = 0.04 cfs @ 12.35 hrs, Volume= 0.008 af, Atten= 0%, Lag= 0.0 min
 Primary = 0.04 cfs @ 12.35 hrs, Volume= 0.008 af

Routing by Stor-Ind method, Time Span= 5.00-50.00 hrs, dt= 0.05 hrs

Peak Elev= 140.43' @ 12.35 hrs

Flood Elev= 146.58'

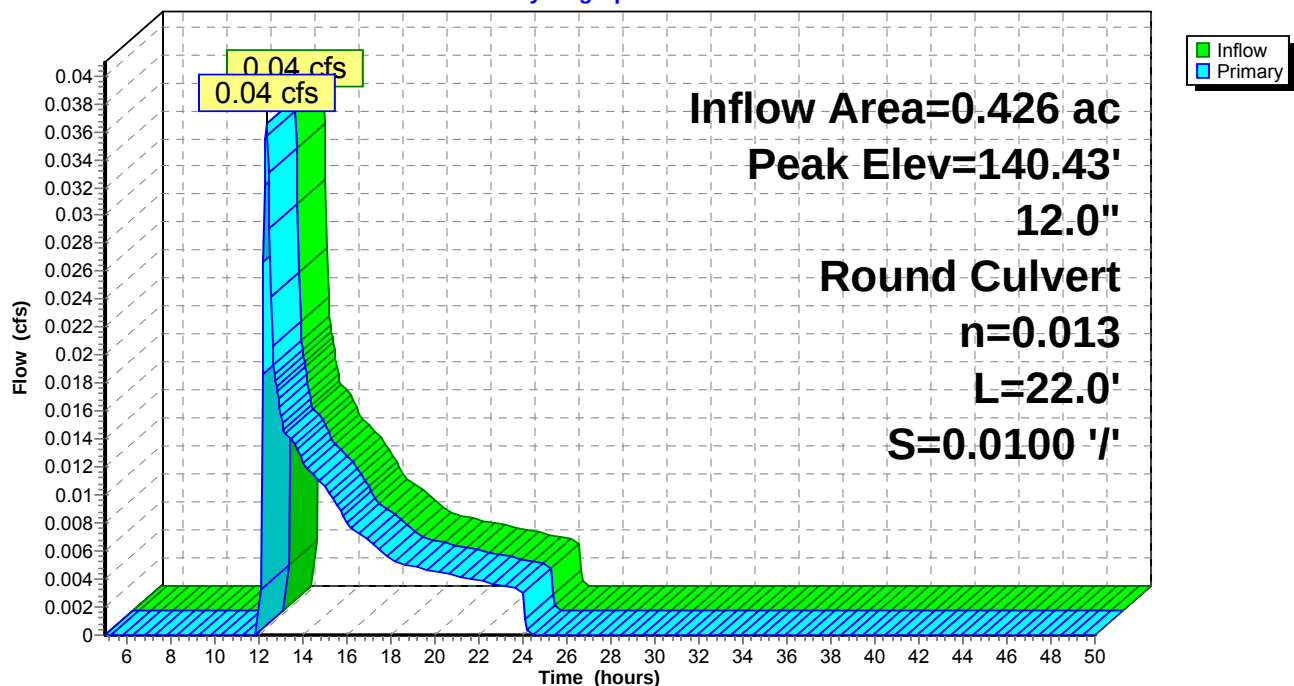
Device	Routing	Invert	Outlet Devices
#1	Primary	140.34'	12.0" Round Culvert L= 22.0' RCP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 140.34' / 140.12' S= 0.0100 '/ Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.03 cfs @ 12.35 hrs HW=140.43' (Free Discharge)

1=Culvert (Barrel Controls 0.03 cfs @ 1.37 fps)

Pond CB: (new Pond)

Hydrograph



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

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Page 11

Time span=5.00-50.00 hrs, dt=0.05 hrs, 901 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment1S: NORTHEAST AREA Runoff Area=18,554 sf 26.29% Impervious Runoff Depth=0.79"
Tc=6.0 min CN=55 Runoff=0.29 cfs 0.028 af

Subcatchment2S: SOUTHEAST AREA Runoff Area=42,050 sf 12.21% Impervious Runoff Depth=0.36"
Flow Length=303' Tc=11.4 min CN=46 Runoff=0.14 cfs 0.029 af

Subcatchment3S: WEST AREA Runoff Area=42,693 sf 0.00% Impervious Runoff Depth=0.13"
Flow Length=153' Tc=6.2 min CN=39 Runoff=0.02 cfs 0.010 af

Reach SP1: Site Contribution to Avg. Flow Depth=0.24' Max Vel=2.13 fps Inflow=0.30 cfs 0.057 af
12.0" Round Pipe n=0.013 L=152.0' S=0.0047 '/' Capacity=2.45 cfs Outflow=0.30 cfs 0.057 af

Reach SP2: OFFSITE Inflow=0.02 cfs 0.010 af
Outflow=0.02 cfs 0.010 af

Pond CB: (new Pond) Peak Elev=140.62' Inflow=0.29 cfs 0.028 af
12.0" Round Culvert n=0.013 L=22.0' S=0.0100 '/' Outflow=0.29 cfs 0.028 af

Total Runoff Area = 2.371 ac Runoff Volume = 0.067 af Average Runoff Depth = 0.34"
90.31% Pervious = 2.142 ac 9.69% Impervious = 0.230 ac

16533-PRE

Prepared by Microsoft

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

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Page 12

Summary for Subcatchment 1S: NORTHEAST AREA

Runoff = 0.29 cfs @ 12.12 hrs, Volume= 0.028 af, Depth= 0.79"

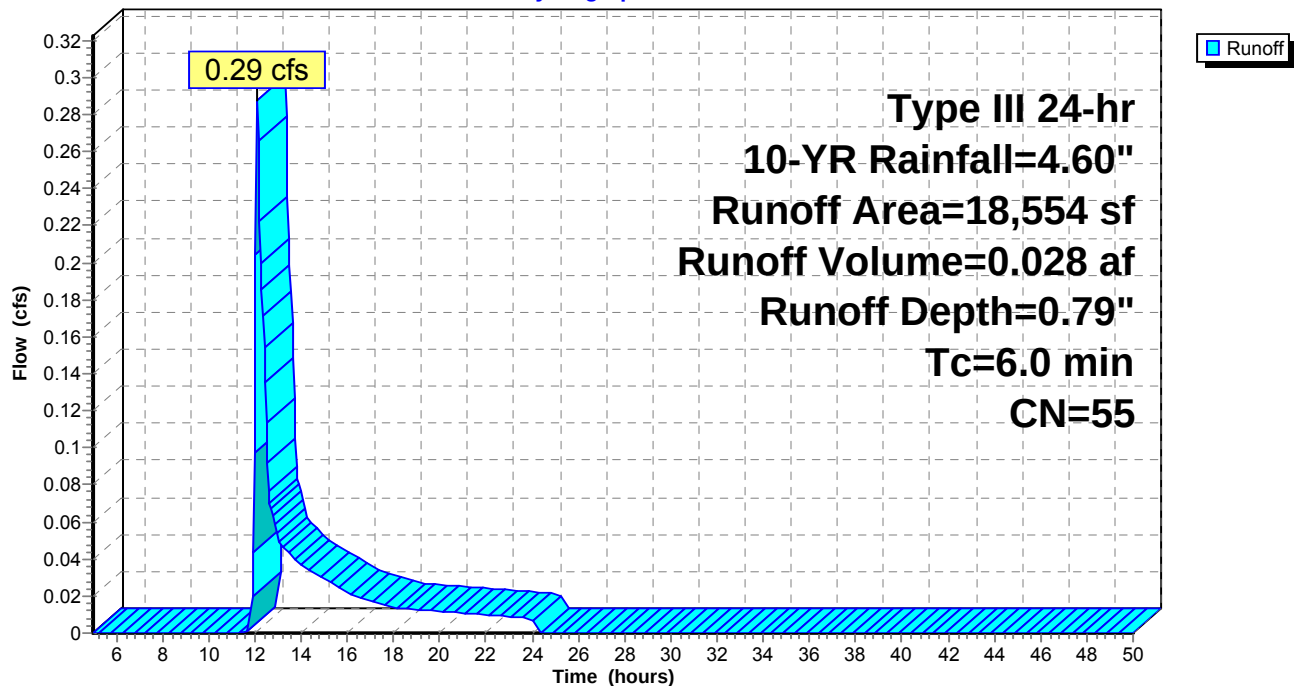
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-50.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-YR Rainfall=4.60"

Area (sf)	CN	Description
2,652	98	Roofs, HSG A
2,225	98	Paved parking, HSG A
13,677	39	>75% Grass cover, Good, HSG A
18,554	55	Weighted Average
13,677		73.71% Pervious Area
4,877		26.29% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, <6 Minutes

Subcatchment 1S: NORTHEAST AREA

Hydrograph



Summary for Subcatchment 2S: SOUTHEAST AREA

Runoff = 0.14 cfs @ 12.42 hrs, Volume= 0.029 af, Depth= 0.36"

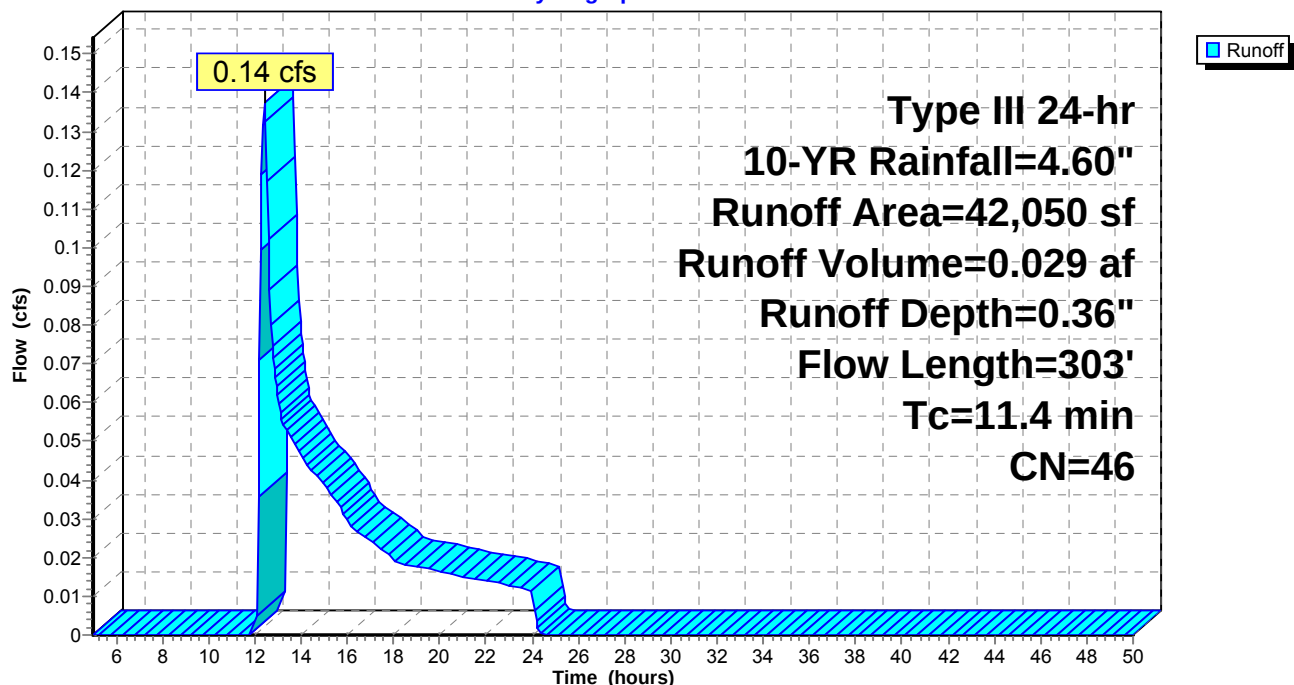
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-50.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-YR Rainfall=4.60"

Area (sf)	CN	Description
4,795	98	Roofs, HSG A
339	98	Paved parking, HSG A
35,160	39	>75% Grass cover, Good, HSG A
1,756	30	Woods, Good, HSG A
42,050	46	Weighted Average
36,916		87.79% Pervious Area
5,134		12.21% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.4	50	0.0115	0.13		Sheet Flow, A-B Range n= 0.130 P2= 3.10"
3.4	155	0.0115	0.75		Shallow Concentrated Flow, B-C Short Grass Pasture Kv= 7.0 fps
1.6	98	0.0200	0.99		Shallow Concentrated Flow, C-D Short Grass Pasture Kv= 7.0 fps
11.4	303	Total			

Subcatchment 2S: SOUTHEAST AREA

Hydrograph



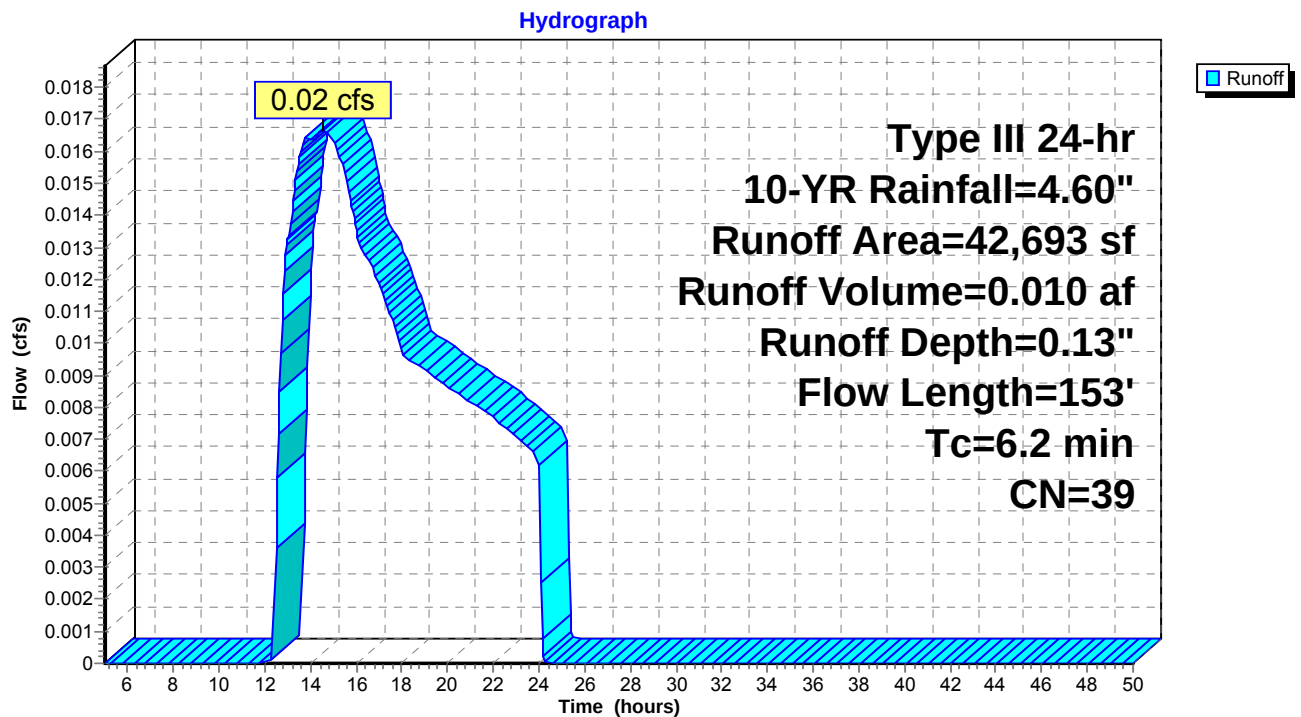
Summary for Subcatchment 3S: WEST AREA

Runoff = 0.02 cfs @ 14.57 hrs, Volume= 0.010 af, Depth= 0.13"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-50.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-YR Rainfall=4.60"

Area (sf)	CN	Description
42,693	39	>75% Grass cover, Good, HSG A
42,693		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.9	47	0.0200	0.16		Sheet Flow, A-B
1.3	106	0.0400	1.40		Shallow Concentrated Flow, B-C
					Short Grass Pasture Kv= 7.0 fps
6.2	153	Total			

Subcatchment 3S: WEST AREA

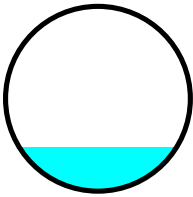
Summary for Reach SP1: Site Contribution to Existing Collection System

Inflow Area = 1.391 ac, 16.52% Impervious, Inflow Depth = 0.49" for 10-YR event
 Inflow = 0.30 cfs @ 12.31 hrs, Volume= 0.057 af
 Outflow = 0.30 cfs @ 12.34 hrs, Volume= 0.057 af, Atten= 0%, Lag= 1.9 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-50.00 hrs, dt= 0.05 hrs
 Max. Velocity= 2.13 fps, Min. Travel Time= 1.2 min
 Avg. Velocity= 1.16 fps, Avg. Travel Time= 2.2 min

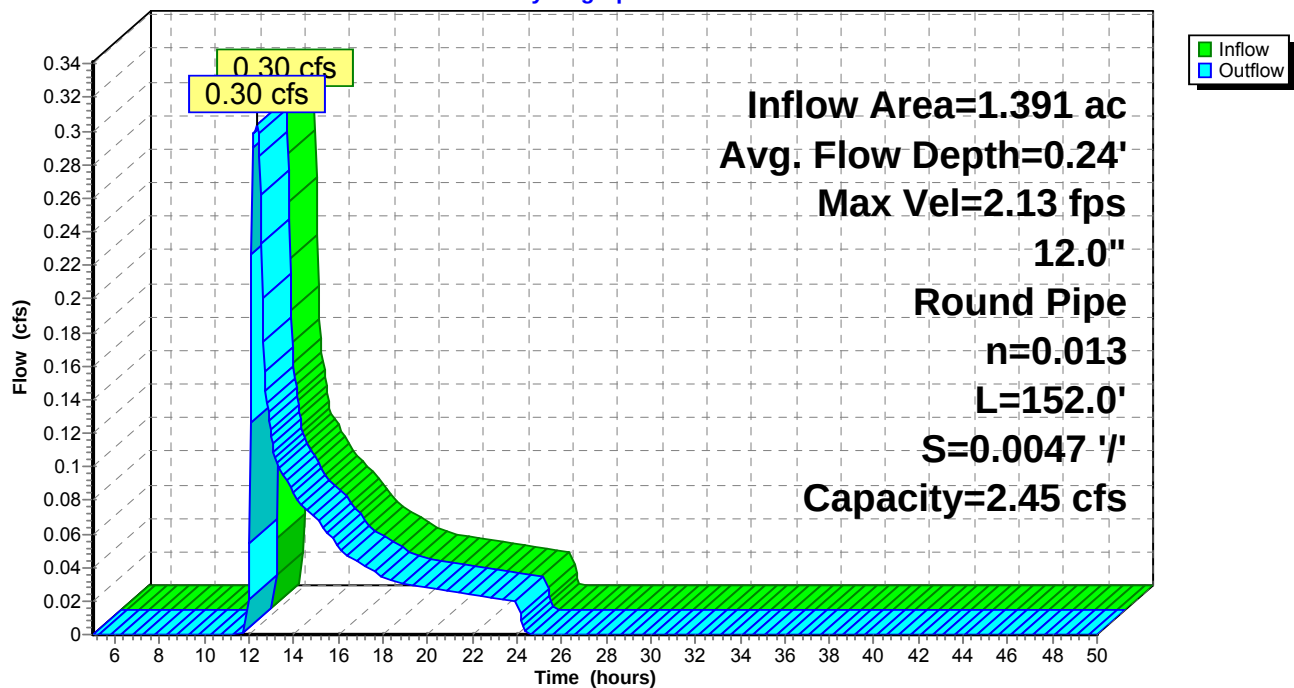
Peak Storage= 22 cf @ 12.16 hrs
 Average Depth at Peak Storage= 0.24'
 Bank-Full Depth= 1.00' Flow Area= 0.8 sf, Capacity= 2.45 cfs

12.0" Round Pipe
 n= 0.013 Clay tile
 Length= 152.0' Slope= 0.0047 '/'
 Inlet Invert= 139.12', Outlet Invert= 138.40'



Reach SP1: Site Contribution to Existing Collection System

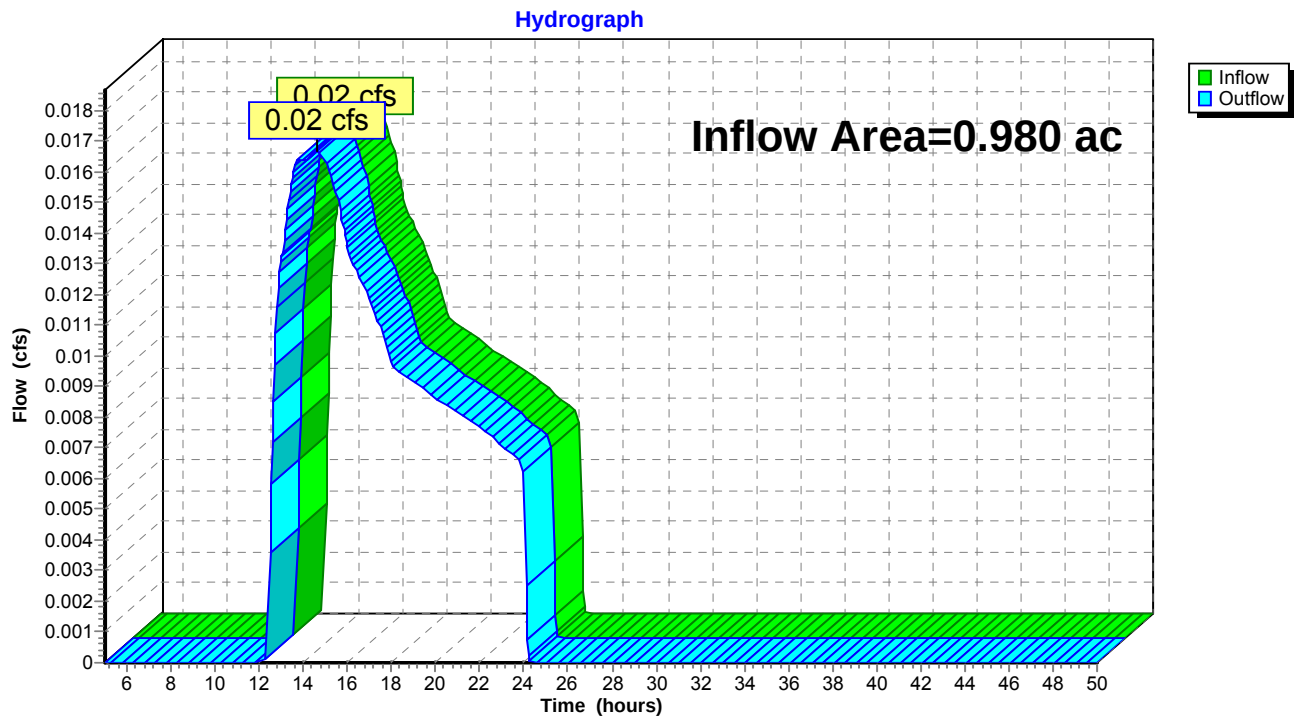
Hydrograph



Summary for Reach SP2: OFFSITE

Inflow Area = 0.980 ac, 0.00% Impervious, Inflow Depth = 0.13" for 10-YR event
Inflow = 0.02 cfs @ 14.57 hrs, Volume= 0.010 af
Outflow = 0.02 cfs @ 14.57 hrs, Volume= 0.010 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-50.00 hrs, dt= 0.05 hrs

Reach SP2: OFFSITE

Summary for Pond CB: (new Pond)

Inflow Area = 0.426 ac, 26.29% Impervious, Inflow Depth = 0.79" for 10-YR event
 Inflow = 0.29 cfs @ 12.12 hrs, Volume= 0.028 af
 Outflow = 0.29 cfs @ 12.12 hrs, Volume= 0.028 af, Atten= 0%, Lag= 0.0 min
 Primary = 0.29 cfs @ 12.12 hrs, Volume= 0.028 af

Routing by Stor-Ind method, Time Span= 5.00-50.00 hrs, dt= 0.05 hrs

Peak Elev= 140.62' @ 12.12 hrs

Flood Elev= 146.58'

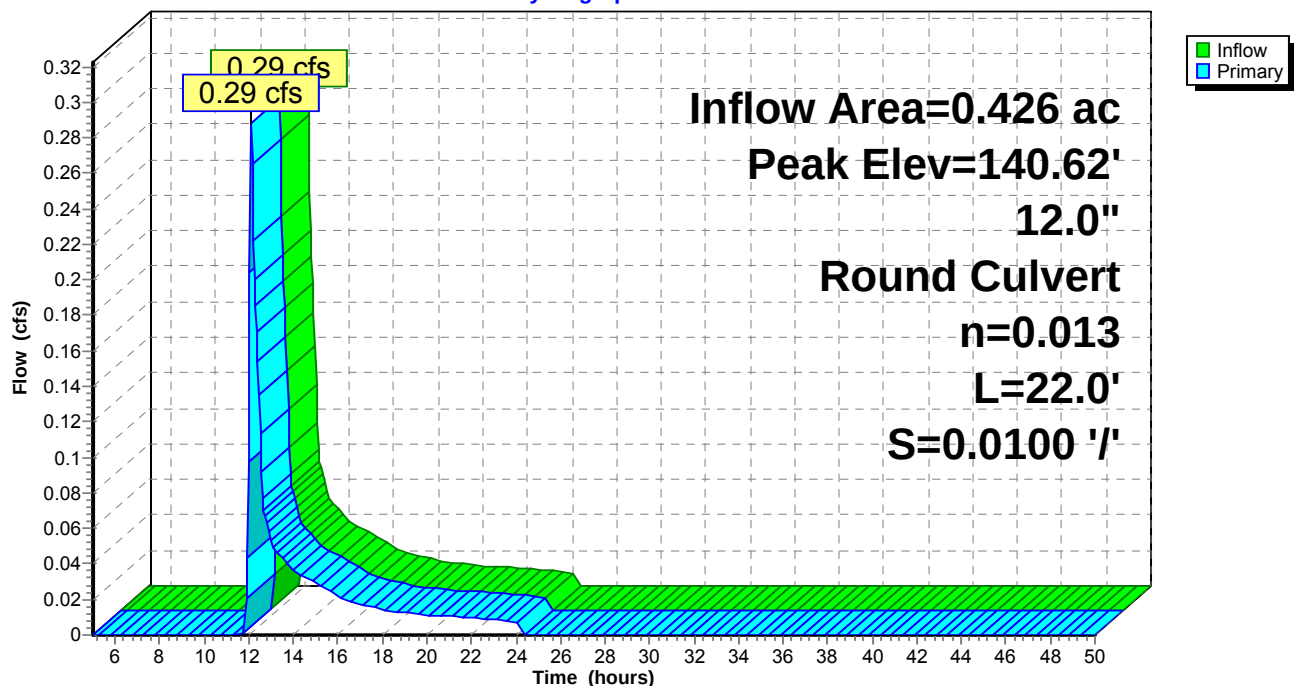
Device	Routing	Invert	Outlet Devices
#1	Primary	140.34'	12.0" Round Culvert L= 22.0' RCP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 140.34' / 140.12' S= 0.0100 '/ Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.28 cfs @ 12.12 hrs HW=140.61' (Free Discharge)

↑ **1=Culvert** (Barrel Controls 0.28 cfs @ 2.38 fps)

Pond CB: (new Pond)

Hydrograph



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

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Time span=5.00-50.00 hrs, dt=0.05 hrs, 901 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment1S: NORTHEAST AREA Runoff Area=18,554 sf 26.29% Impervious Runoff Depth=1.40"
Tc=6.0 min CN=55 Runoff=0.61 cfs 0.050 af

Subcatchment2S: SOUTHEAST AREA Runoff Area=42,050 sf 12.21% Impervious Runoff Depth=0.78"
Flow Length=303' Tc=11.4 min CN=46 Runoff=0.44 cfs 0.063 af

Subcatchment3S: WEST AREA Runoff Area=42,693 sf 0.00% Impervious Runoff Depth=0.39"
Flow Length=153' Tc=6.2 min CN=39 Runoff=0.14 cfs 0.032 af

Reach SP1: Site Contribution to Avg. Flow Depth=0.42' Max Vel=2.89 fps Inflow=0.91 cfs 0.113 af
12.0" Round Pipe n=0.013 L=152.0' S=0.0047 '/' Capacity=2.45 cfs Outflow=0.89 cfs 0.113 af

Reach SP2: OFFSITE Inflow=0.14 cfs 0.032 af
Outflow=0.14 cfs 0.032 af

Pond CB: (new Pond) Peak Elev=140.76' Inflow=0.61 cfs 0.050 af
12.0" Round Culvert n=0.013 L=22.0' S=0.0100 '/' Outflow=0.61 cfs 0.050 af

Total Runoff Area = 2.371 ac Runoff Volume = 0.145 af Average Runoff Depth = 0.73"
90.31% Pervious = 2.142 ac 9.69% Impervious = 0.230 ac

Summary for Subcatchment 1S: NORTHEAST AREA

Runoff = 0.61 cfs @ 12.11 hrs, Volume= 0.050 af, Depth= 1.40"

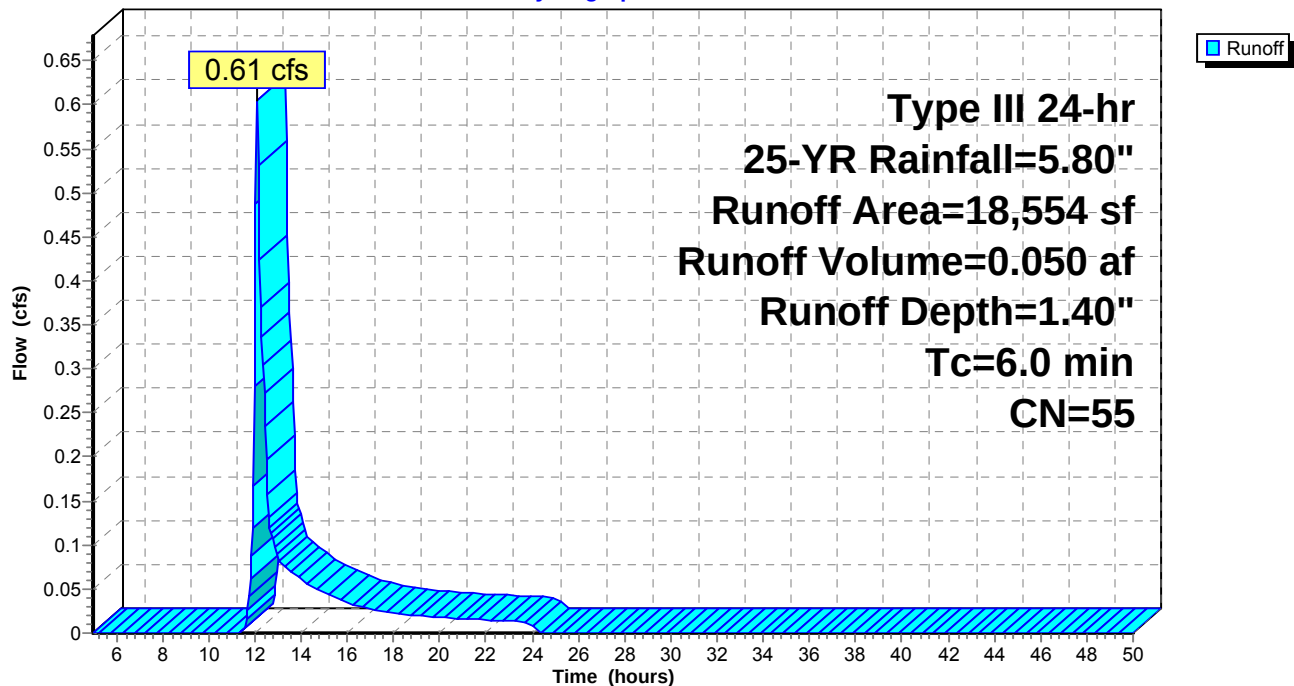
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-50.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YR Rainfall=5.80"

Area (sf)	CN	Description
2,652	98	Roofs, HSG A
2,225	98	Paved parking, HSG A
13,677	39	>75% Grass cover, Good, HSG A
18,554	55	Weighted Average
13,677		73.71% Pervious Area
4,877		26.29% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, <6 Minutes

Subcatchment 1S: NORTHEAST AREA

Hydrograph



Summary for Subcatchment 2S: SOUTHEAST AREA

Runoff = 0.44 cfs @ 12.23 hrs, Volume= 0.063 af, Depth= 0.78"

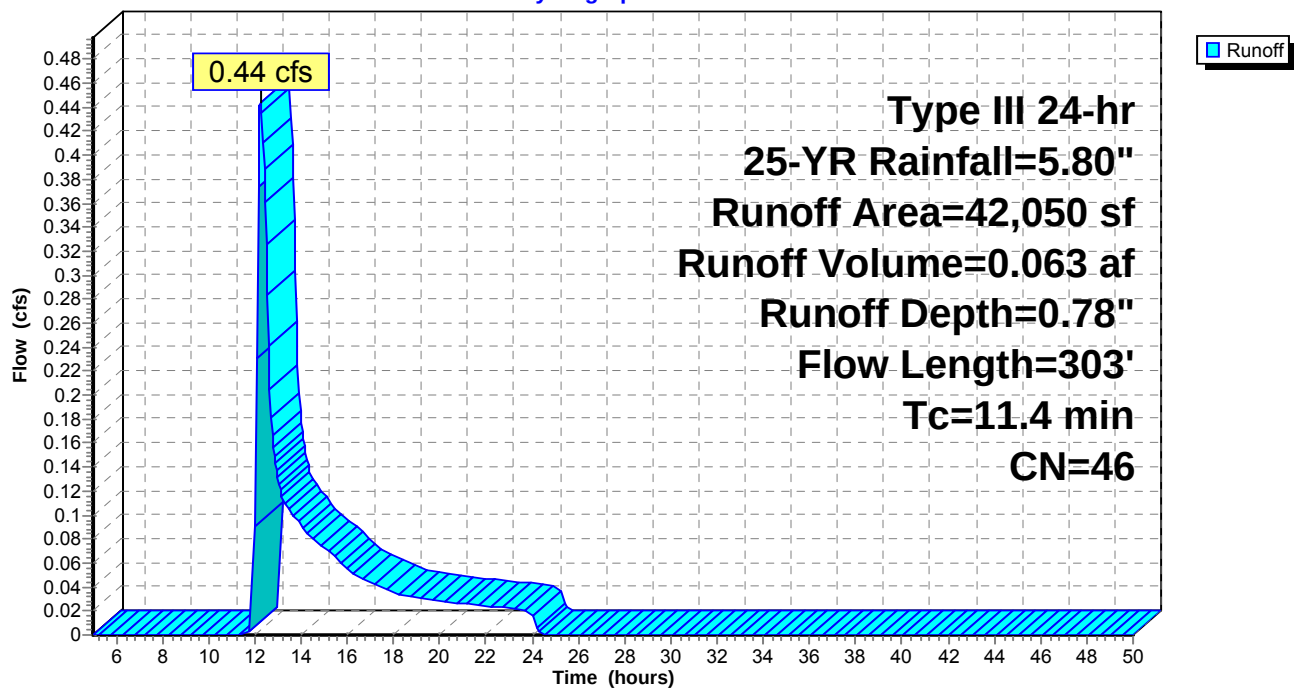
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-50.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YR Rainfall=5.80"

Area (sf)	CN	Description
4,795	98	Roofs, HSG A
339	98	Paved parking, HSG A
35,160	39	>75% Grass cover, Good, HSG A
1,756	30	Woods, Good, HSG A
42,050	46	Weighted Average
36,916		87.79% Pervious Area
5,134		12.21% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.4	50	0.0115	0.13		Sheet Flow, A-B Range n= 0.130 P2= 3.10"
3.4	155	0.0115	0.75		Shallow Concentrated Flow, B-C Short Grass Pasture Kv= 7.0 fps
1.6	98	0.0200	0.99		Shallow Concentrated Flow, C-D Short Grass Pasture Kv= 7.0 fps
11.4	303	Total			

Subcatchment 2S: SOUTHEAST AREA

Hydrograph



Summary for Subcatchment 3S: WEST AREA

Runoff = 0.14 cfs @ 12.37 hrs, Volume= 0.032 af, Depth= 0.39"

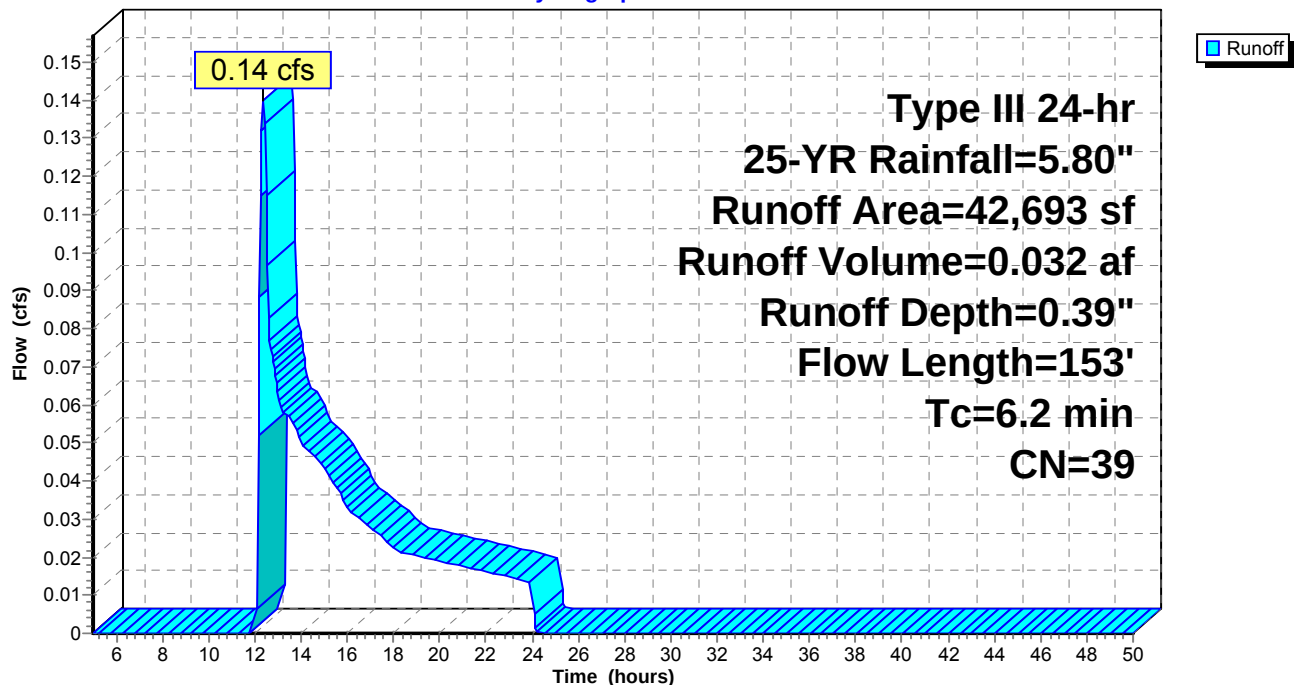
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-50.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YR Rainfall=5.80"

Area (sf)	CN	Description
42,693	39	>75% Grass cover, Good, HSG A
42,693		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.9	47	0.0200	0.16		Sheet Flow, A-B Range n= 0.130 P2= 3.10"
1.3	106	0.0400	1.40		Shallow Concentrated Flow, B-C Short Grass Pasture Kv= 7.0 fps
6.2	153	Total			

Subcatchment 3S: WEST AREA

Hydrograph



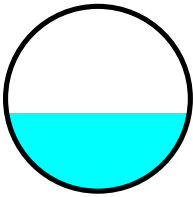
Summary for Reach SP1: Site Contribution to Existing Collection System

Inflow Area = 1.391 ac, 16.52% Impervious, Inflow Depth = 0.97" for 25-YR event
 Inflow = 0.91 cfs @ 12.16 hrs, Volume= 0.113 af
 Outflow = 0.89 cfs @ 12.19 hrs, Volume= 0.113 af, Atten= 2%, Lag= 1.9 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-50.00 hrs, dt= 0.05 hrs
 Max. Velocity= 2.89 fps, Min. Travel Time= 0.9 min
 Avg. Velocity= 1.36 fps, Avg. Travel Time= 1.9 min

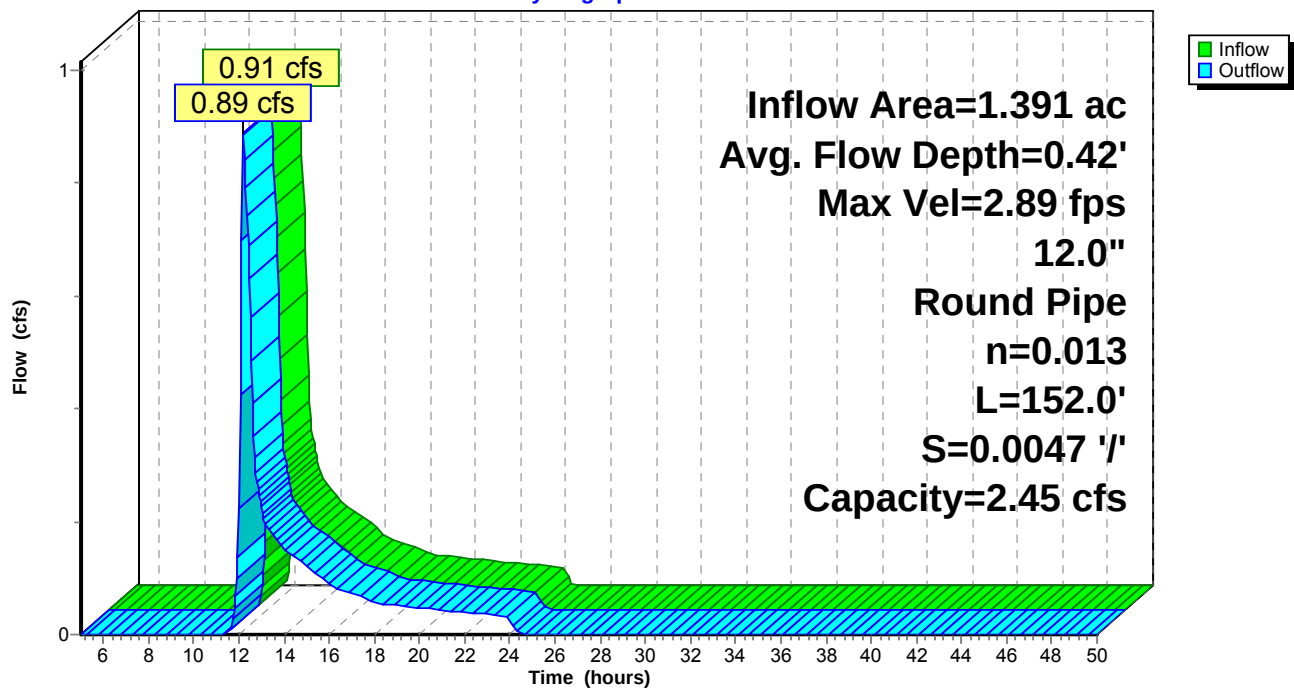
Peak Storage= 48 cf @ 12.17 hrs
 Average Depth at Peak Storage= 0.42'
 Bank-Full Depth= 1.00' Flow Area= 0.8 sf, Capacity= 2.45 cfs

12.0" Round Pipe
 n= 0.013 Clay tile
 Length= 152.0' Slope= 0.0047 '/'
 Inlet Invert= 139.12', Outlet Invert= 138.40'



Reach SP1: Site Contribution to Existing Collection System

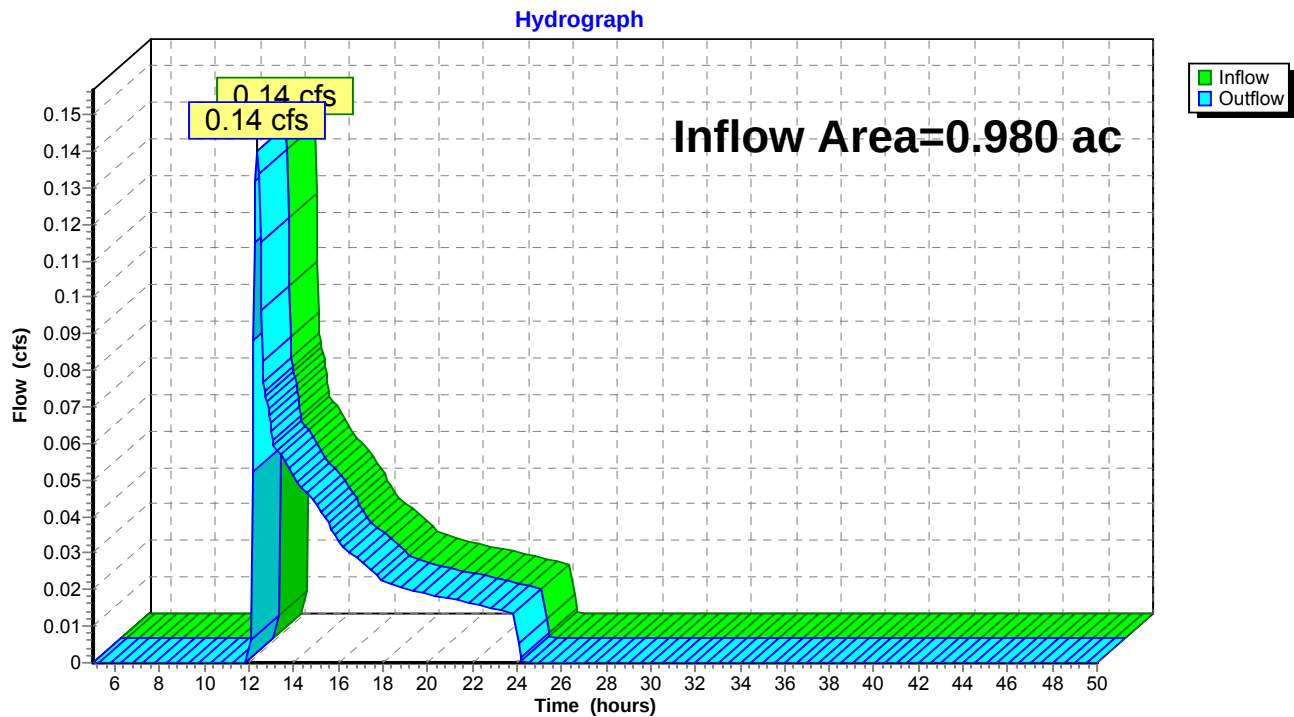
Hydrograph



Summary for Reach SP2: OFFSITE

Inflow Area = 0.980 ac, 0.00% Impervious, Inflow Depth = 0.39" for 25-YR event
Inflow = 0.14 cfs @ 12.37 hrs, Volume= 0.032 af
Outflow = 0.14 cfs @ 12.37 hrs, Volume= 0.032 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-50.00 hrs, dt= 0.05 hrs

Reach SP2: OFFSITE

Summary for Pond CB: (new Pond)

Inflow Area = 0.426 ac, 26.29% Impervious, Inflow Depth = 1.40" for 25-YR event
 Inflow = 0.61 cfs @ 12.11 hrs, Volume= 0.050 af
 Outflow = 0.61 cfs @ 12.11 hrs, Volume= 0.050 af, Atten= 0%, Lag= 0.0 min
 Primary = 0.61 cfs @ 12.11 hrs, Volume= 0.050 af

Routing by Stor-Ind method, Time Span= 5.00-50.00 hrs, dt= 0.05 hrs

Peak Elev= 140.76' @ 12.11 hrs

Flood Elev= 146.58'

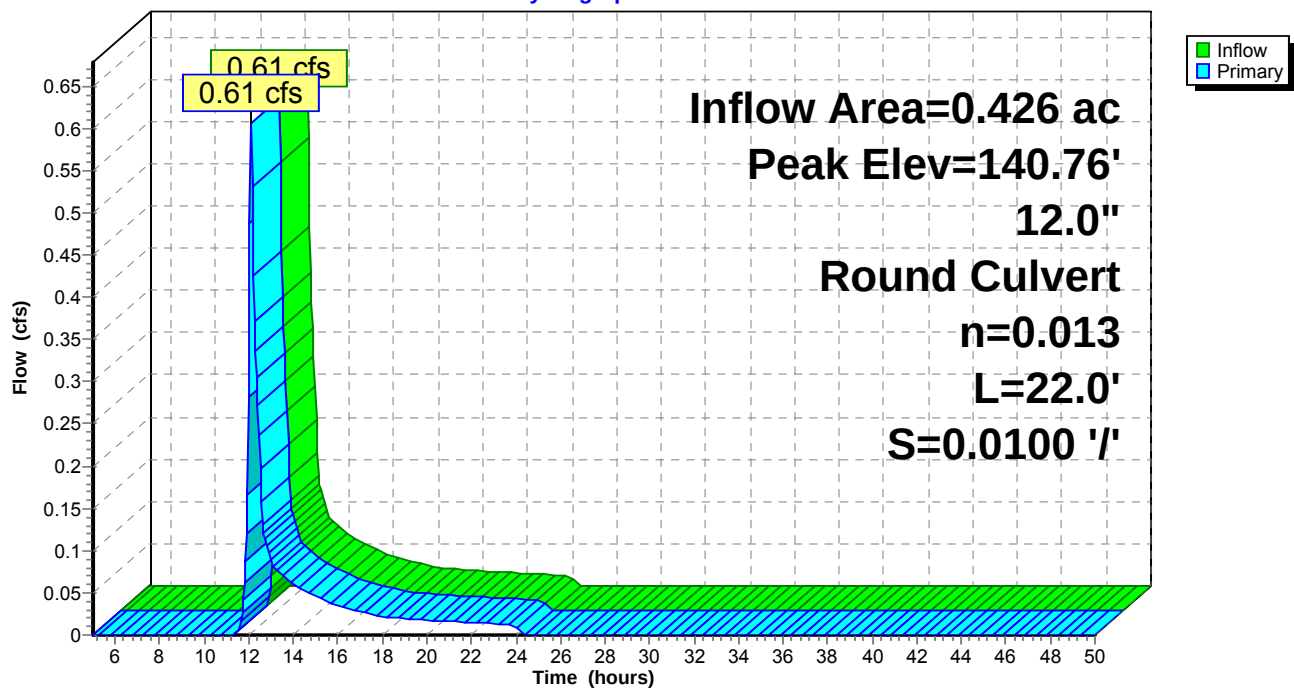
Device	Routing	Invert	Outlet Devices
#1	Primary	140.34'	12.0" Round Culvert L= 22.0' RCP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 140.34' / 140.12' S= 0.0100 '/ Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.59 cfs @ 12.11 hrs HW=140.76' (Free Discharge)

↑ **1=Culvert** (Barrel Controls 0.59 cfs @ 2.84 fps)

Pond CB: (new Pond)

Hydrograph



16533-PRE*Type III 24-hr 100-YR Rainfall=8.10"*

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Time span=5.00-50.00 hrs, dt=0.05 hrs, 901 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment1S: NORTHEAST AREA Runoff Area=18,554 sf 26.29% Impervious Runoff Depth=2.85"
Tc=6.0 min CN=55 Runoff=1.35 cfs 0.101 af

Subcatchment2S: SOUTHEAST AREA Runoff Area=42,050 sf 12.21% Impervious Runoff Depth=1.89"
Flow Length=303' Tc=11.4 min CN=46 Runoff=1.51 cfs 0.152 af

Subcatchment3S: WEST AREA Runoff Area=42,693 sf 0.00% Impervious Runoff Depth=1.20"
Flow Length=153' Tc=6.2 min CN=39 Runoff=0.87 cfs 0.098 af

Reach SP1: Site Contribution to Avg. Flow Depth=0.89' Max Vel=3.56 fps Inflow=2.61 cfs 0.253 af
12.0" Round Pipe n=0.013 L=152.0' S=0.0047 '/' Capacity=2.45 cfs Outflow=2.57 cfs 0.253 af

Reach SP2: OFFSITE Inflow=0.87 cfs 0.098 af
Outflow=0.87 cfs 0.098 af

Pond CB: (new Pond) Peak Elev=141.01' Inflow=1.35 cfs 0.101 af
12.0" Round Culvert n=0.013 L=22.0' S=0.0100 '/' Outflow=1.35 cfs 0.101 af

Total Runoff Area = 2.371 ac Runoff Volume = 0.351 af Average Runoff Depth = 1.78"
90.31% Pervious = 2.142 ac 9.69% Impervious = 0.230 ac

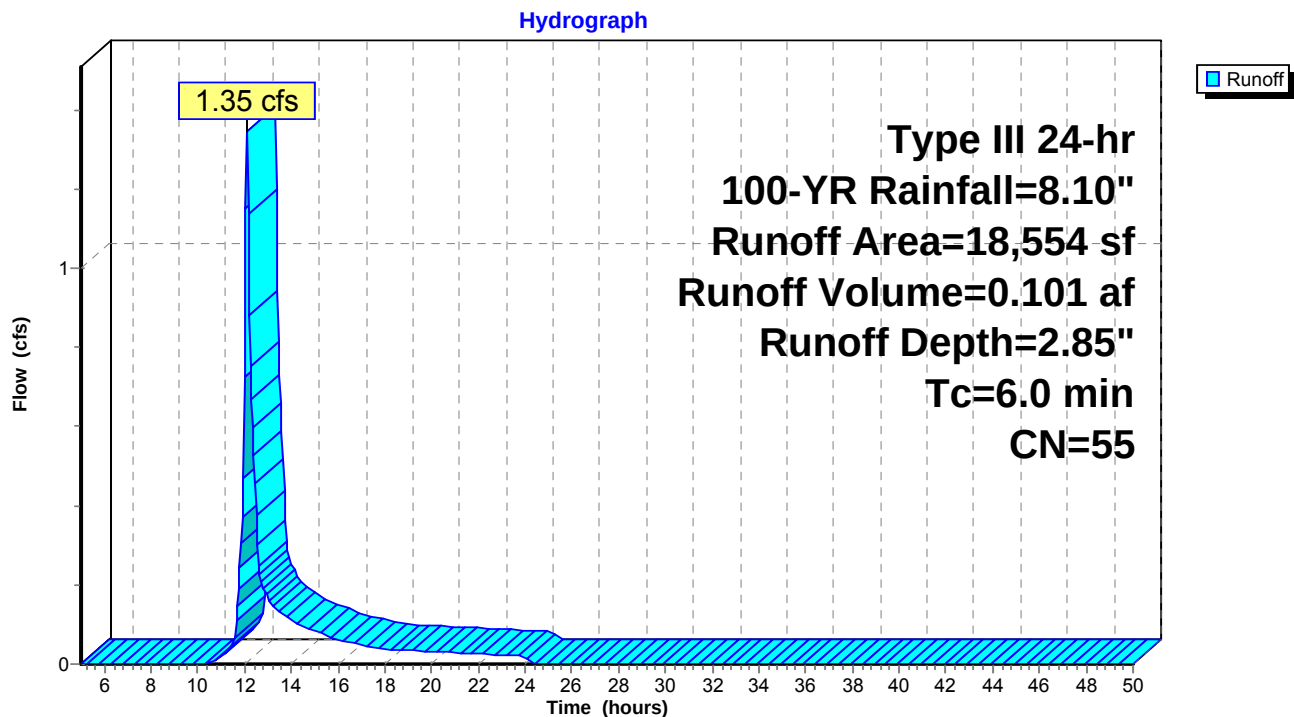
Summary for Subcatchment 1S: NORTHEAST AREA

Runoff = 1.35 cfs @ 12.10 hrs, Volume= 0.101 af, Depth= 2.85"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-50.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-YR Rainfall=8.10"

Area (sf)	CN	Description
2,652	98	Roofs, HSG A
2,225	98	Paved parking, HSG A
13,677	39	>75% Grass cover, Good, HSG A
18,554	55	Weighted Average
13,677		73.71% Pervious Area
4,877		26.29% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, <6 Minutes

Subcatchment 1S: NORTHEAST AREA

Summary for Subcatchment 2S: SOUTHEAST AREA

Runoff = 1.51 cfs @ 12.18 hrs, Volume= 0.152 af, Depth= 1.89"

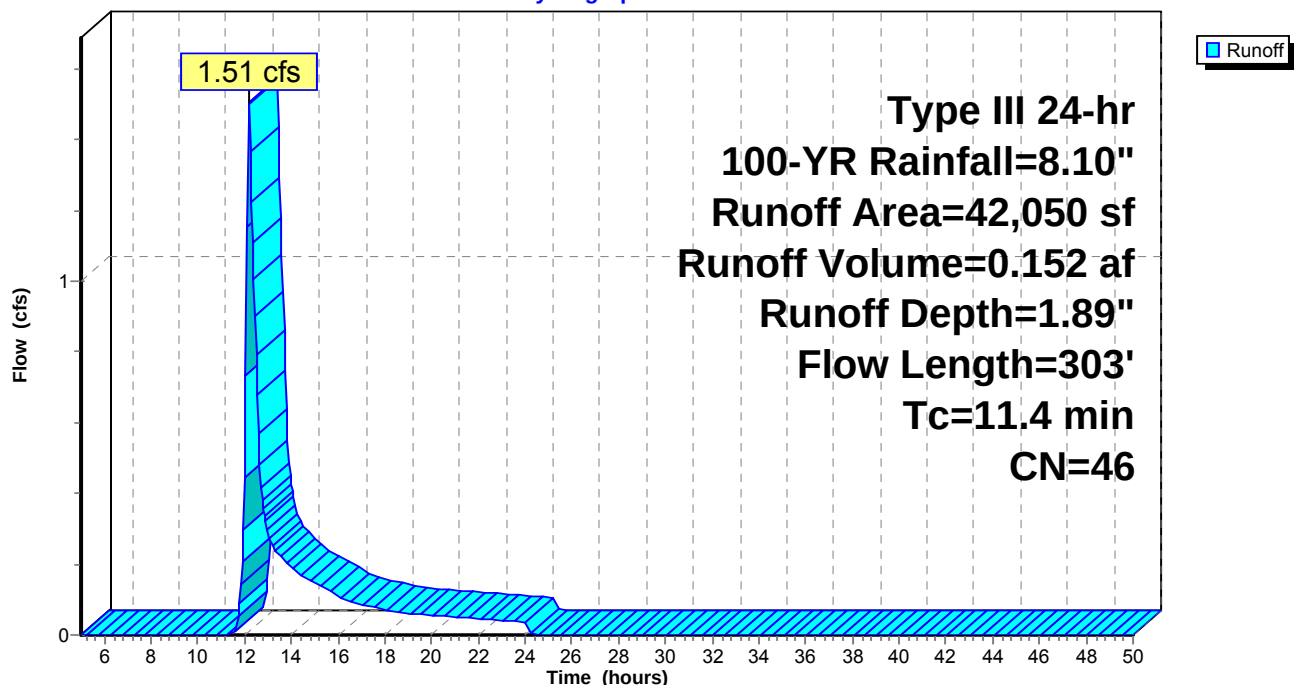
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-50.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-YR Rainfall=8.10"

Area (sf)	CN	Description
4,795	98	Roofs, HSG A
339	98	Paved parking, HSG A
35,160	39	>75% Grass cover, Good, HSG A
1,756	30	Woods, Good, HSG A
42,050	46	Weighted Average
36,916		87.79% Pervious Area
5,134		12.21% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.4	50	0.0115	0.13		Sheet Flow, A-B Range n= 0.130 P2= 3.10"
3.4	155	0.0115	0.75		Shallow Concentrated Flow, B-C Short Grass Pasture Kv= 7.0 fps
1.6	98	0.0200	0.99		Shallow Concentrated Flow, C-D Short Grass Pasture Kv= 7.0 fps
11.4	303	Total			

Subcatchment 2S: SOUTHEAST AREA

Hydrograph



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Type III 24-hr 100-YR Rainfall=8.10"

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Summary for Subcatchment 3S: WEST AREA

Runoff = 0.87 cfs @ 12.13 hrs, Volume= 0.098 af, Depth= 1.20"

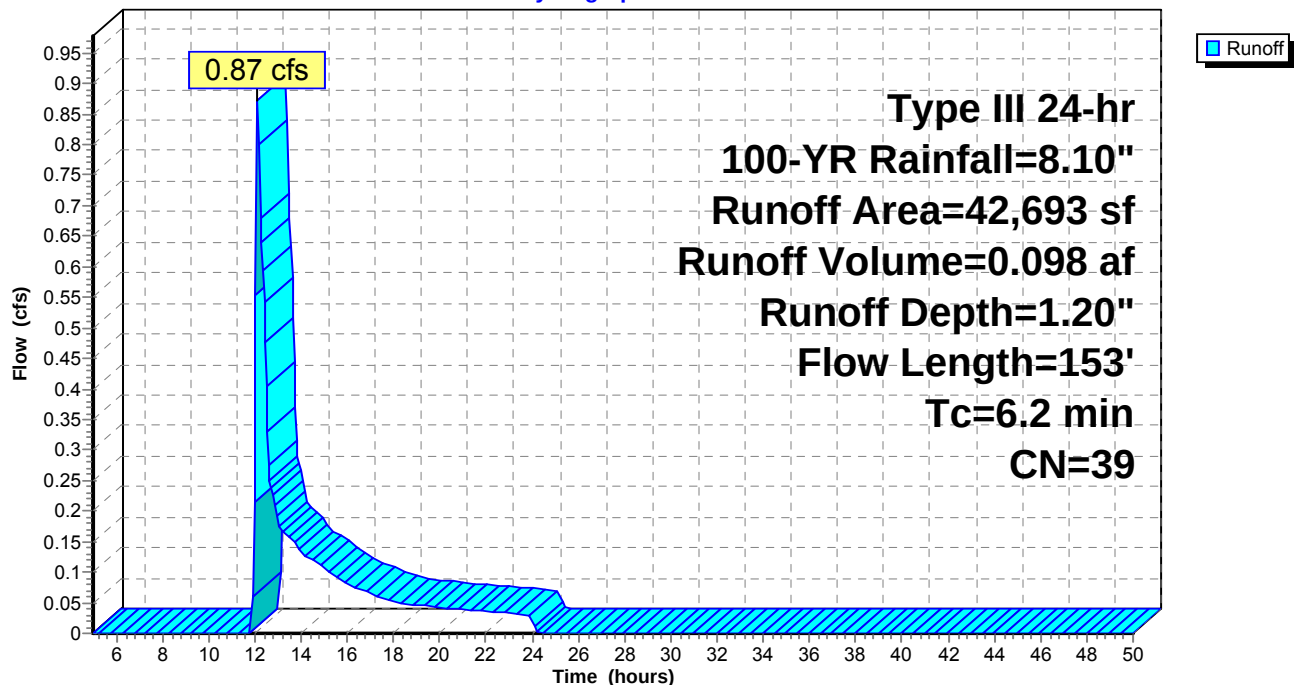
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-50.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-YR Rainfall=8.10"

Area (sf)	CN	Description
42,693	39	>75% Grass cover, Good, HSG A
42,693		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.9	47	0.0200	0.16		Sheet Flow, A-B Range n= 0.130 P2= 3.10"
1.3	106	0.0400	1.40		Shallow Concentrated Flow, B-C Short Grass Pasture Kv= 7.0 fps
6.2	153	Total			

Subcatchment 3S: WEST AREA

Hydrograph



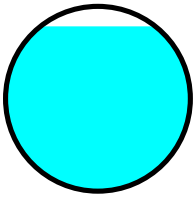
Summary for Reach SP1: Site Contribution to Existing Collection System

Inflow Area = 1.391 ac, 16.52% Impervious, Inflow Depth = 2.19" for 100-YR event
 Inflow = 2.61 cfs @ 12.14 hrs, Volume= 0.253 af
 Outflow = 2.57 cfs @ 12.17 hrs, Volume= 0.253 af, Atten= 1%, Lag= 1.6 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-50.00 hrs, dt= 0.05 hrs
 Max. Velocity= 3.56 fps, Min. Travel Time= 0.7 min
 Avg. Velocity= 1.61 fps, Avg. Travel Time= 1.6 min

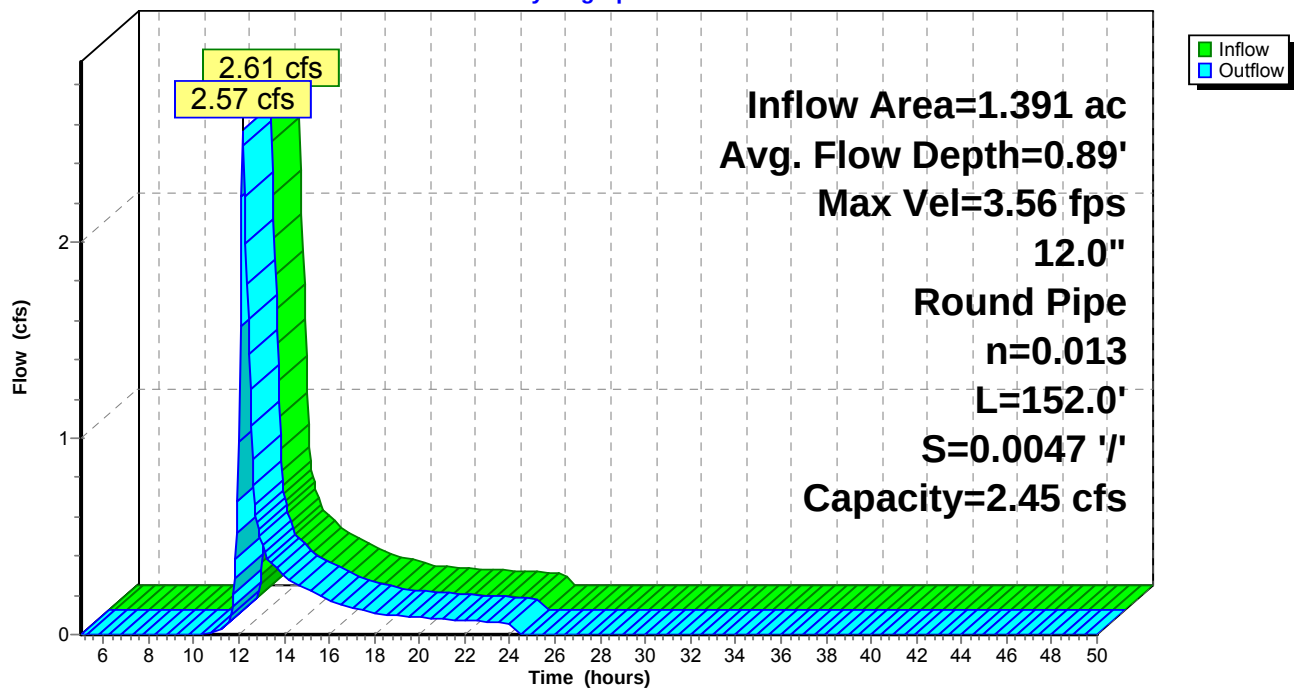
Peak Storage= 112 cf @ 12.15 hrs
 Average Depth at Peak Storage= 0.89'
 Bank-Full Depth= 1.00' Flow Area= 0.8 sf, Capacity= 2.45 cfs

12.0" Round Pipe
 n= 0.013 Clay tile
 Length= 152.0' Slope= 0.0047 '/'
 Inlet Invert= 139.12', Outlet Invert= 138.40'



Reach SP1: Site Contribution to Existing Collection System

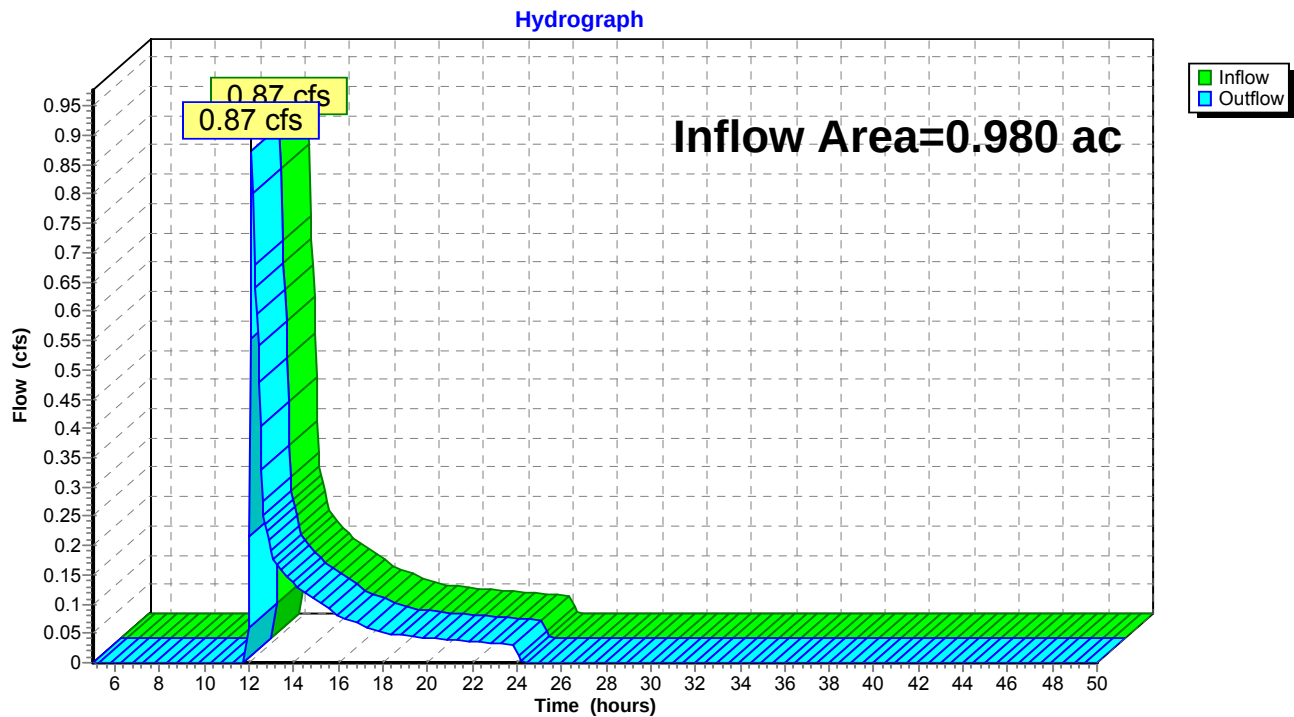
Hydrograph



Summary for Reach SP2: OFFSITE

Inflow Area = 0.980 ac, 0.00% Impervious, Inflow Depth = 1.20" for 100-YR event
Inflow = 0.87 cfs @ 12.13 hrs, Volume= 0.098 af
Outflow = 0.87 cfs @ 12.13 hrs, Volume= 0.098 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-50.00 hrs, dt= 0.05 hrs

Reach SP2: OFFSITE

Summary for Pond CB: (new Pond)

Inflow Area = 0.426 ac, 26.29% Impervious, Inflow Depth = 2.85" for 100-YR event
 Inflow = 1.35 cfs @ 12.10 hrs, Volume= 0.101 af
 Outflow = 1.35 cfs @ 12.10 hrs, Volume= 0.101 af, Atten= 0%, Lag= 0.0 min
 Primary = 1.35 cfs @ 12.10 hrs, Volume= 0.101 af

Routing by Stor-Ind method, Time Span= 5.00-50.00 hrs, dt= 0.05 hrs

Peak Elev= 141.01' @ 12.10 hrs

Flood Elev= 146.58'

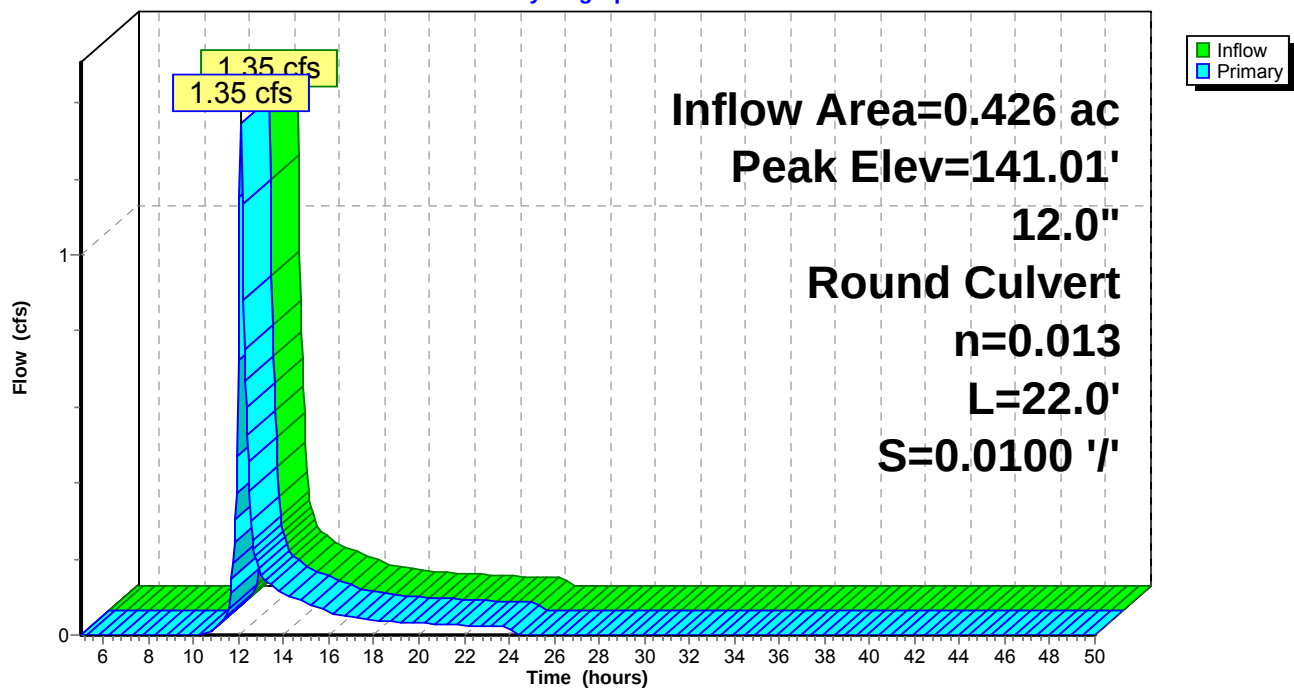
Device	Routing	Invert	Outlet Devices
#1	Primary	140.34'	12.0" Round Culvert L= 22.0' RCP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 140.34' / 140.12' S= 0.0100 '/ Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=1.34 cfs @ 12.10 hrs HW=141.01' (Free Discharge)

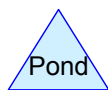
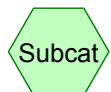
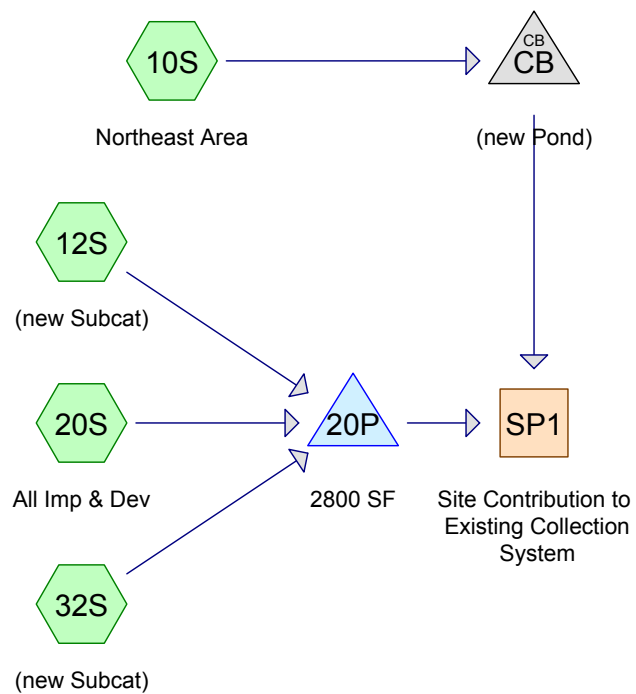
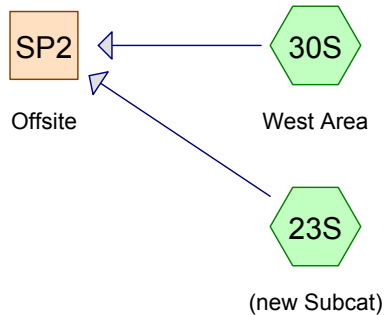
↑1=Culvert (Barrel Controls 1.34 cfs @ 3.38 fps)

Pond CB: (new Pond)

Hydrograph



Postdevelopment



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Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.565	49	50-75% Grass cover, Fair, HSG A (20S)
0.956	39	>75% Grass cover, Good, HSG A (10S, 12S, 23S, 30S, 32S)
0.041	98	Existing Impervious (10S, 12S)
0.100	98	New Impervious (10S, 12S)
0.254	98	Paved parking, HSG A (20S)
0.171	98	Pavement (32S)
0.173	98	Roofs (32S)
0.112	98	Unconnected roofs, HSG A (20S)
2.371	63	TOTAL AREA

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Soil Listing (all nodes)

Area (acres)	Soil Group	Subcatchment Numbers
1.887	HSG A	10S, 12S, 20S, 23S, 30S, 32S
0.000	HSG B	
0.000	HSG C	
0.000	HSG D	
0.485	Other	10S, 12S, 32S
2.371		TOTAL AREA

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

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Time span=5.00-50.00 hrs, dt=0.05 hrs, 901 points
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
 Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment10S: Northeast Area	Runoff Area=7,876 sf 26.17% Impervious Runoff Depth=0.20" Tc=6.0 min CN=54 Runoff=0.01 cfs 0.003 af
Subcatchment12S: (new Subcat)	Runoff Area=10,678 sf 38.07% Impervious Runoff Depth=0.40" Tc=6.0 min CN=61 Runoff=0.07 cfs 0.008 af
Subcatchment20S: All Imp & Dev	Runoff Area=40,524 sf 39.30% Impervious Runoff Depth=0.68" Tc=6.0 min CN=68 Runoff=0.62 cfs 0.053 af
Subcatchment23S: (new Subcat)	Runoff Area=1,526 sf 0.00% Impervious Runoff Depth=0.00" Tc=6.0 min CN=39 Runoff=0.00 cfs 0.000 af
Subcatchment30S: West Area	Runoff Area=6,749 sf 0.00% Impervious Runoff Depth=0.00" Tc=6.0 min CN=39 Runoff=0.00 cfs 0.000 af
Subcatchment32S: (new Subcat)	Runoff Area=35,943 sf 41.69% Impervious Runoff Depth=0.51" Tc=6.0 min CN=64 Runoff=0.36 cfs 0.035 af
Reach SP1: Site Contribution to	Avg. Flow Depth=0.10' Max Vel=1.29 fps Inflow=0.06 cfs 0.099 af
12.0" Round Pipe n=0.013 L=152.0' S=0.0047 '/' Capacity=2.45 cfs	Outflow=0.06 cfs 0.099 af
Reach SP2: Offsite	Inflow=0.00 cfs 0.000 af Outflow=0.00 cfs 0.000 af
Pond 20P: 2800 SF	Peak Elev=144.52' Storage=2,412 cf Inflow=1.04 cfs 0.096 af Primary=0.05 cfs 0.096 af Secondary=0.00 cfs 0.000 af Outflow=0.05 cfs 0.096 af
Pond CB: (new Pond)	Peak Elev=140.39' Inflow=0.01 cfs 0.003 af 12.0" Round Culvert n=0.013 L=22.0' S=0.0100 '/' Outflow=0.01 cfs 0.003 af

Total Runoff Area = 2.371 ac Runoff Volume = 0.099 af Average Runoff Depth = 0.50"
64.14% Pervious = 1.521 ac 35.86% Impervious = 0.850 ac

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

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Summary for Subcatchment 10S: Northeast Area

Runoff = 0.01 cfs @ 12.38 hrs, Volume= 0.003 af, Depth= 0.20"

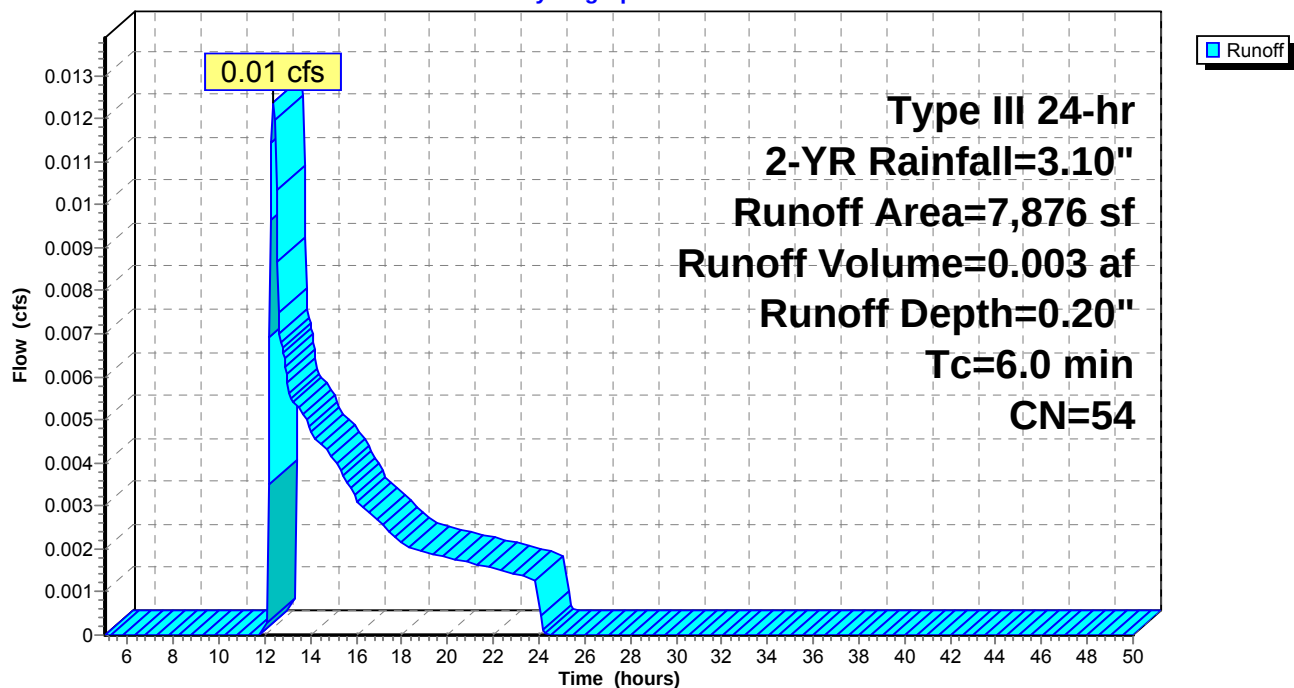
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-50.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-YR Rainfall=3.10"

	Area (sf)	CN	Description
*	1,401	98	Existing Impervious
*	660	98	New Impervious
	5,815	39	>75% Grass cover, Good, HSG A
	7,876	54	Weighted Average
	5,815		73.83% Pervious Area
	2,061		26.17% Impervious Area

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

Subcatchment 10S: Northeast Area

Hydrograph



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

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Summary for Subcatchment 12S: (new Subcat)

Runoff = 0.07 cfs @ 12.14 hrs, Volume= 0.008 af, Depth= 0.40"

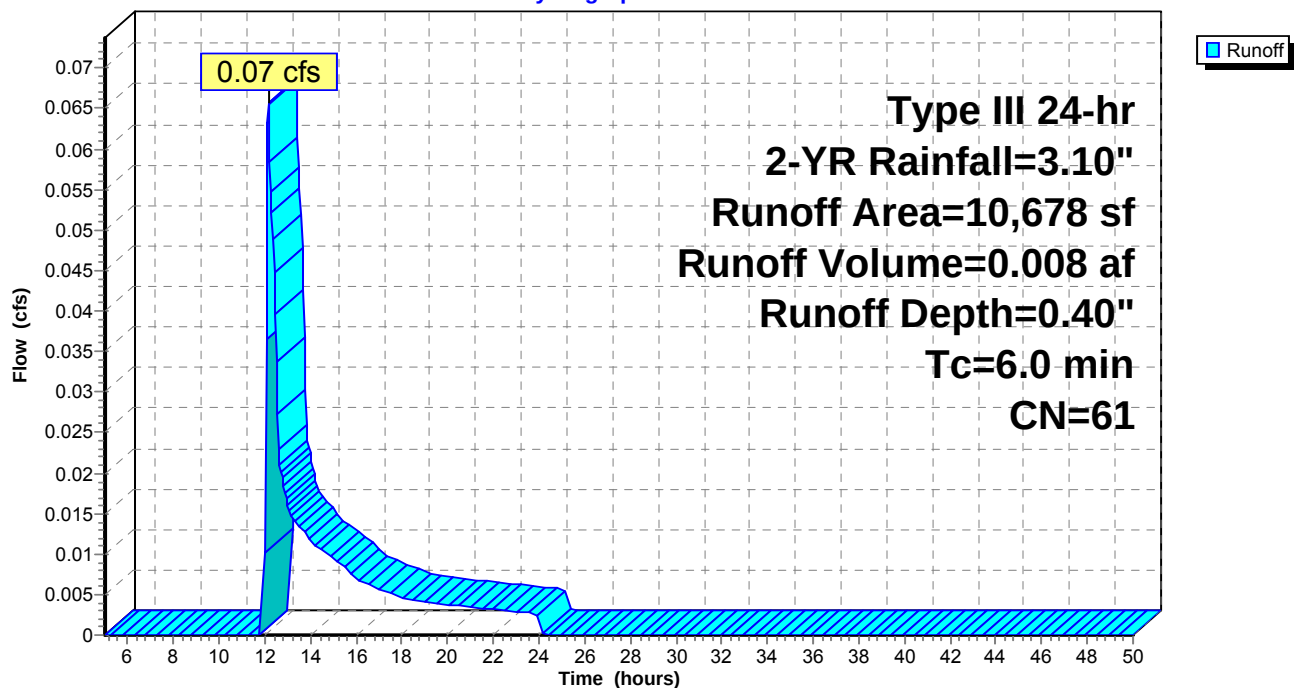
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-50.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-YR Rainfall=3.10"

	Area (sf)	CN	Description
*	368	98	Existing Impervious
*	3,697	98	New Impervious
	6,613	39	>75% Grass cover, Good, HSG A
	10,678	61	Weighted Average
	6,613		61.93% Pervious Area
	4,065		38.07% Impervious Area

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

Subcatchment 12S: (new Subcat)

Hydrograph



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

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Summary for Subcatchment 20S: All Imp & Dev

Runoff = 0.62 cfs @ 12.11 hrs, Volume= 0.053 af, Depth= 0.68"

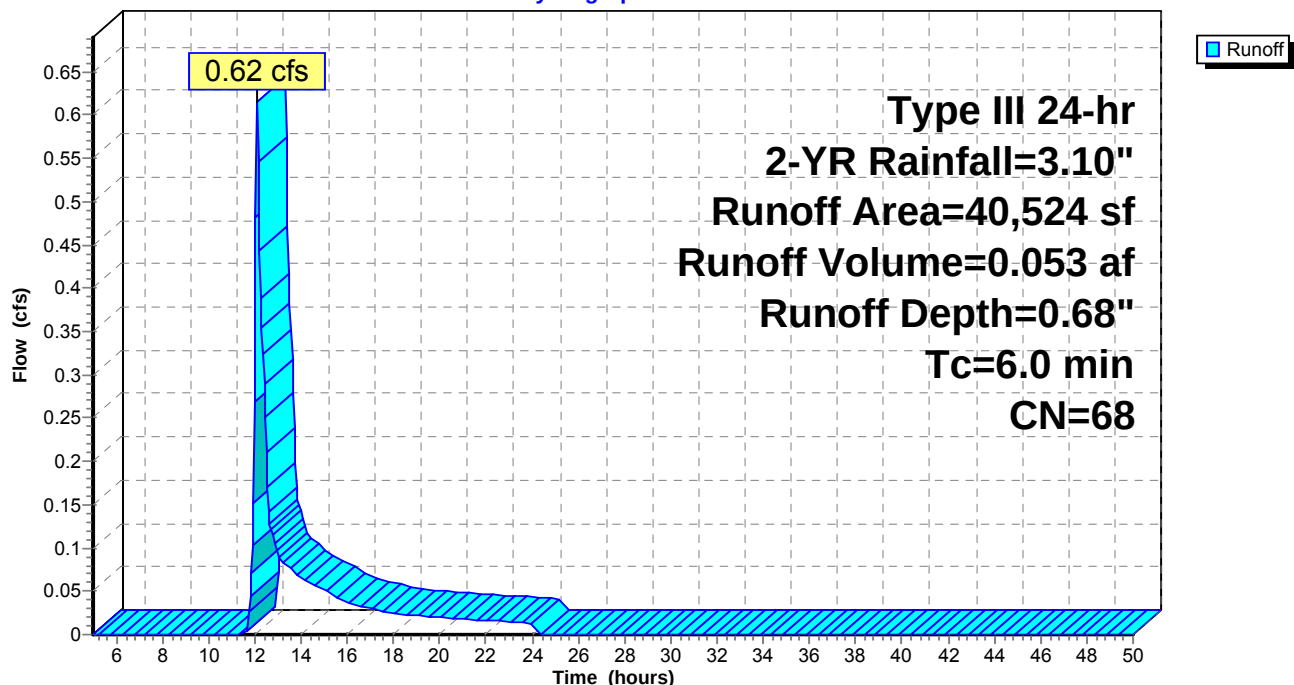
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-50.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-YR Rainfall=3.10"

Area (sf)	CN	Description
11,061	98	Paved parking, HSG A
4,866	98	Unconnected roofs, HSG A
24,597	49	50-75% Grass cover, Fair, HSG A
40,524	68	Weighted Average
24,597		60.70% Pervious Area
15,927		39.30% Impervious Area
4,866		30.55% Unconnected

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

Subcatchment 20S: All Imp & Dev

Hydrograph



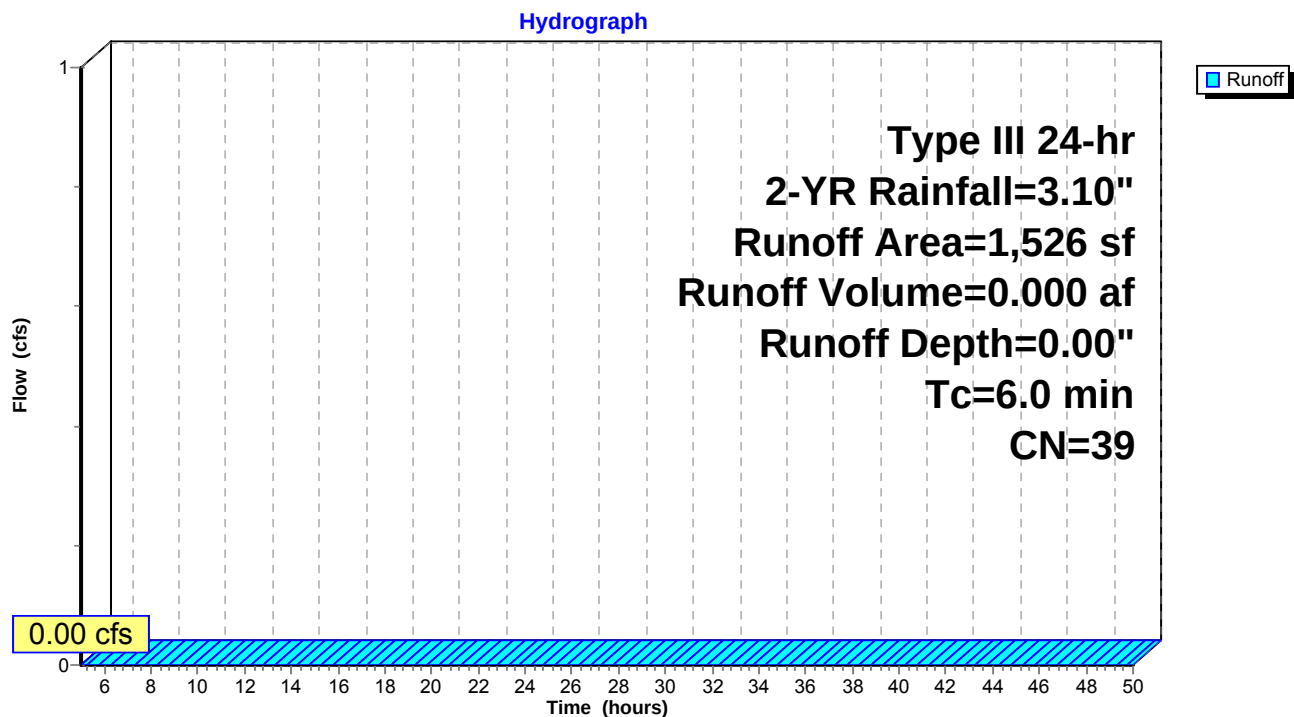
Summary for Subcatchment 23S: (new Subcat)

Runoff = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-50.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-YR Rainfall=3.10"

Area (sf)	CN	Description
1,526	39	>75% Grass cover, Good, HSG A
1,526		100.00% Pervious Area

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

Subcatchment 23S: (new Subcat)

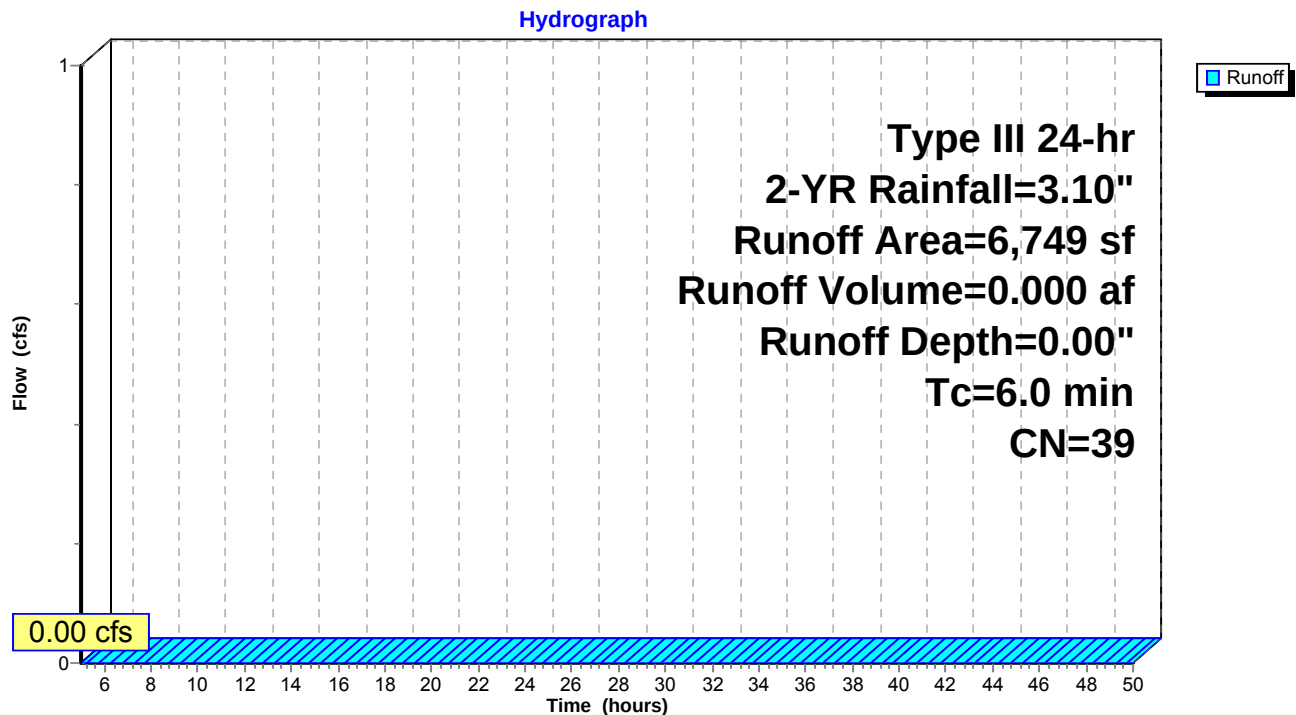
Summary for Subcatchment 30S: West Area

Runoff = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-50.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-YR Rainfall=3.10"

Area (sf)	CN	Description
6,749	39	>75% Grass cover, Good, HSG A
6,749		100.00% Pervious Area

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

Subcatchment 30S: West Area

Summary for Subcatchment 32S: (new Subcat)

Runoff = 0.36 cfs @ 12.12 hrs, Volume= 0.035 af, Depth= 0.51"

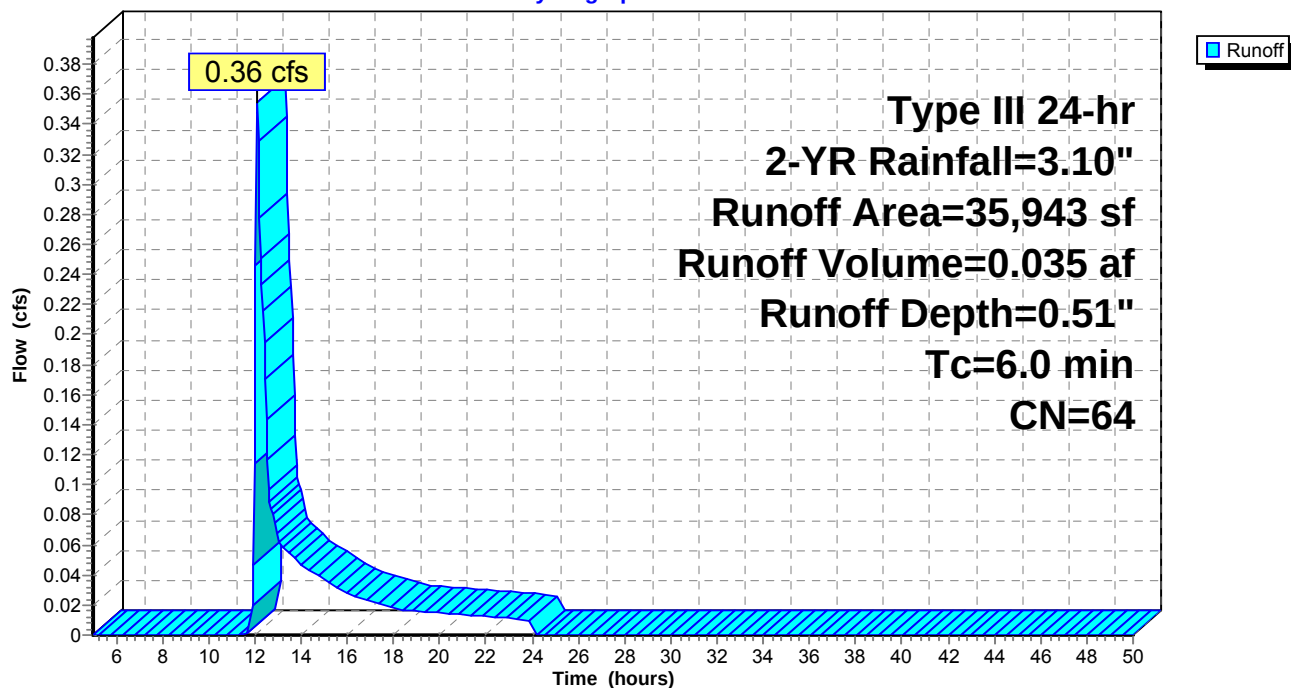
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-50.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-YR Rainfall=3.10"

	Area (sf)	CN	Description
*	7,432	98	Pavement
*	7,554	98	Roofs
	20,957	39	>75% Grass cover, Good, HSG A
	35,943	64	Weighted Average
	20,957		58.31% Pervious Area
	14,986		41.69% Impervious Area

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

Subcatchment 32S: (new Subcat)

Hydrograph



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

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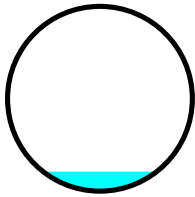
Summary for Reach SP1: Site Contribution to Existing Collection System

Inflow Area = 2.181 ac, 38.98% Impervious, Inflow Depth = 0.55" for 2-YR event
Inflow = 0.06 cfs @ 12.39 hrs, Volume= 0.099 af
Outflow = 0.06 cfs @ 12.45 hrs, Volume= 0.099 af, Atten= 0%, Lag= 3.4 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-50.00 hrs, dt= 0.05 hrs
Max. Velocity= 1.29 fps, Min. Travel Time= 2.0 min
Avg. Velocity= 1.05 fps, Avg. Travel Time= 2.4 min

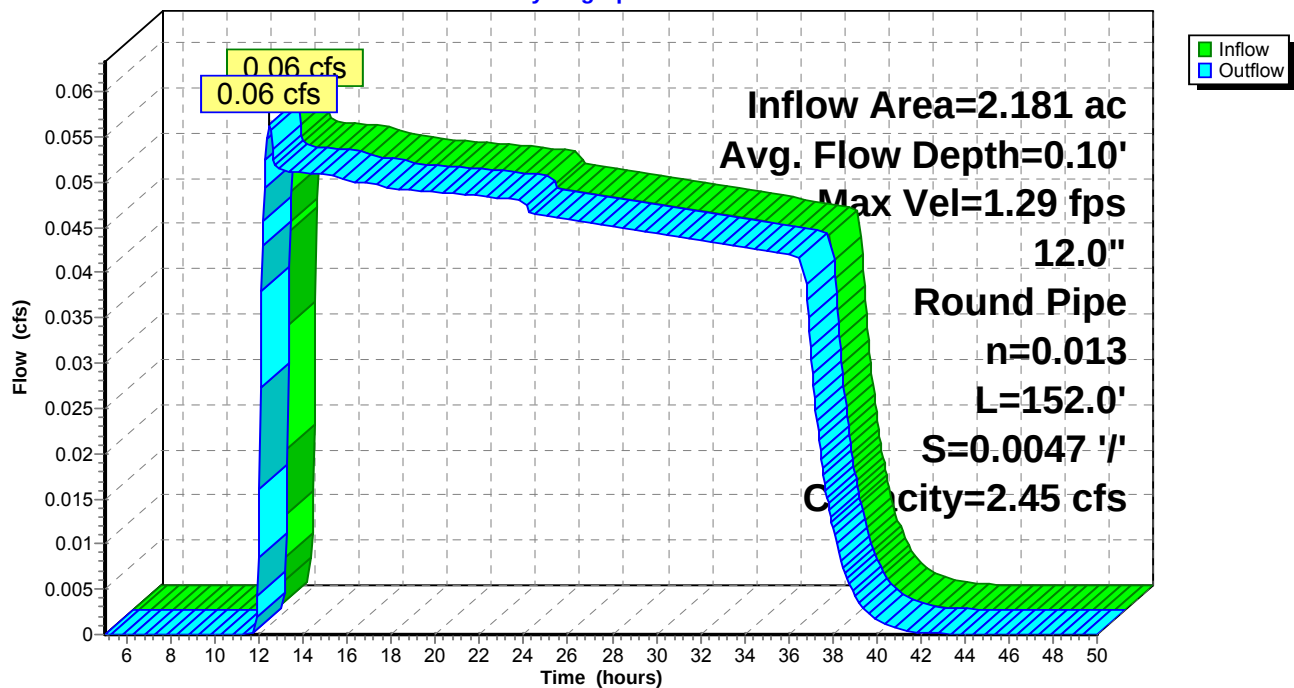
Peak Storage= 7 cf @ 12.42 hrs
Average Depth at Peak Storage= 0.10'
Bank-Full Depth= 1.00' Flow Area= 0.8 sf, Capacity= 2.45 cfs

12.0" Round Pipe
n= 0.013 Clay tile
Length= 152.0' Slope= 0.0047 '/'
Inlet Invert= 139.12', Outlet Invert= 138.40'



Reach SP1: Site Contribution to Existing Collection System

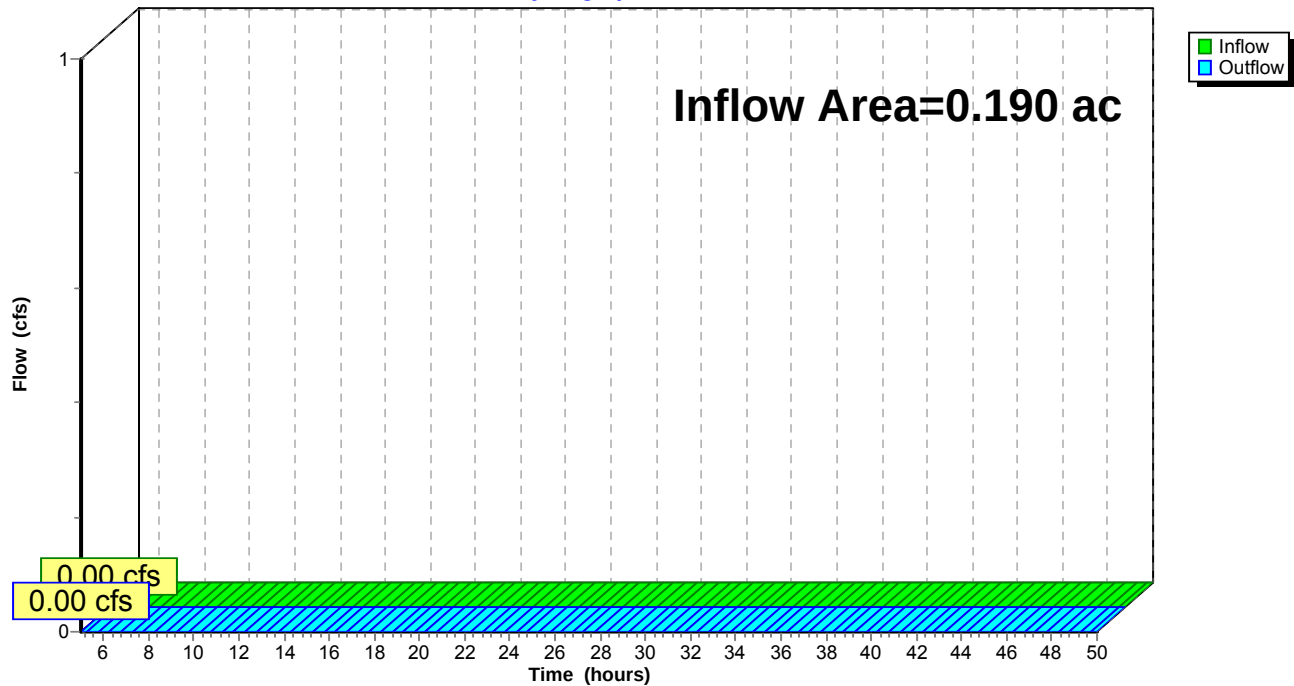
Hydrograph



Summary for Reach SP2: Offsite

Inflow Area = 0.190 ac, 0.00% Impervious, Inflow Depth = 0.00" for 2-YR event
Inflow = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af
Outflow = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-50.00 hrs, dt= 0.05 hrs

Reach SP2: Offsite**Hydrograph**

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

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Summary for Pond 20P: 2800 SF

Inflow Area = 2.001 ac, 40.14% Impervious, Inflow Depth = 0.58" for 2-YR event
 Inflow = 1.04 cfs @ 12.11 hrs, Volume= 0.096 af
 Outflow = 0.05 cfs @ 17.92 hrs, Volume= 0.096 af, Atten= 95%, Lag= 348.2 min
 Primary = 0.05 cfs @ 17.92 hrs, Volume= 0.096 af
 Secondary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 5.00-50.00 hrs, dt= 0.05 hrs
 Peak Elev= 144.52' @ 17.92 hrs Surf.Area= 3,452 sf Storage= 2,412 cf

Plug-Flow detention time= 579.8 min calculated for 0.096 af (100% of inflow)
 Center-of-Mass det. time= 580.3 min (1,475.4 - 895.1)

Volume	Invert	Avail.Storage	Storage Description
#1	143.75'	25,953 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
143.75	2,843	0	0
144.00	3,016	732	732
145.00	3,855	3,436	4,168
146.00	4,601	4,228	8,396
147.00	5,404	5,003	13,398
148.00	6,263	5,834	19,232
149.00	7,179	6,721	25,953

Device	Routing	Invert	Outlet Devices
#1	Primary	140.75'	12.0" Round Culvert L= 54.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 140.75' / 138.86' S= 0.0350 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf
#2	Device 1	141.25'	1.0" Vert. Orifice/Grate C= 0.600
#3	Device 1	144.93'	5.5" W x 6.5" H Vert. Orifice/Grate C= 0.600
#4	Device 1	146.56'	18" Nyloplast 18" Domed Structure Head (feet) 0.00 0.05 0.10 0.15 0.20 0.25 0.30 0.35 0.37 0.40 0.45 0.50 Disch. (cfs) 0.000 0.200 0.500 0.800 1.400 1.900 2.500 3.100 3.500 3.600 3.800 4.000
#5	Secondary	149.00'	12.0' long x 6.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.37 2.51 2.70 2.68 2.68 2.67 2.65 2.65 2.65 2.65 2.66 2.66 2.67 2.69 2.72 2.76 2.83

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

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Primary OutFlow Max=0.05 cfs @ 17.92 hrs HW=144.52' (Free Discharge)

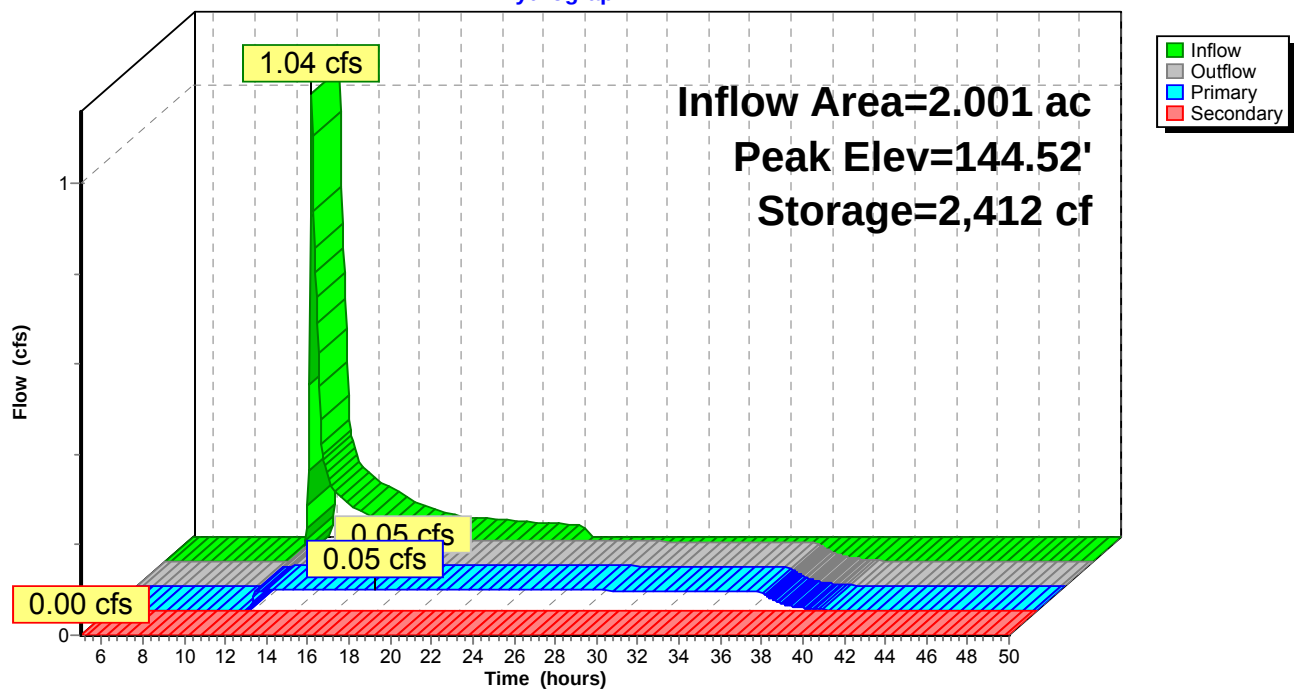
- 1=Culvert (Passes 0.05 cfs of 6.84 cfs potential flow)
- 2=Orifice/Grate (Orifice Controls 0.05 cfs @ 8.65 fps)
- 3=Orifice/Grate (Controls 0.00 cfs)
- 4=18" Nyloplast 18" Domed Structure (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 5.00 hrs HW=143.75' (Free Discharge)

- 5=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond 20P: 2800 SF

Hydrograph



Summary for Pond CB: (new Pond)

Inflow Area = 0.181 ac, 26.17% Impervious, Inflow Depth = 0.20" for 2-YR event
 Inflow = 0.01 cfs @ 12.38 hrs, Volume= 0.003 af
 Outflow = 0.01 cfs @ 12.38 hrs, Volume= 0.003 af, Atten= 0%, Lag= 0.0 min
 Primary = 0.01 cfs @ 12.38 hrs, Volume= 0.003 af

Routing by Stor-Ind method, Time Span= 5.00-50.00 hrs, dt= 0.05 hrs

Peak Elev= 140.39' @ 12.38 hrs

Flood Elev= 146.58'

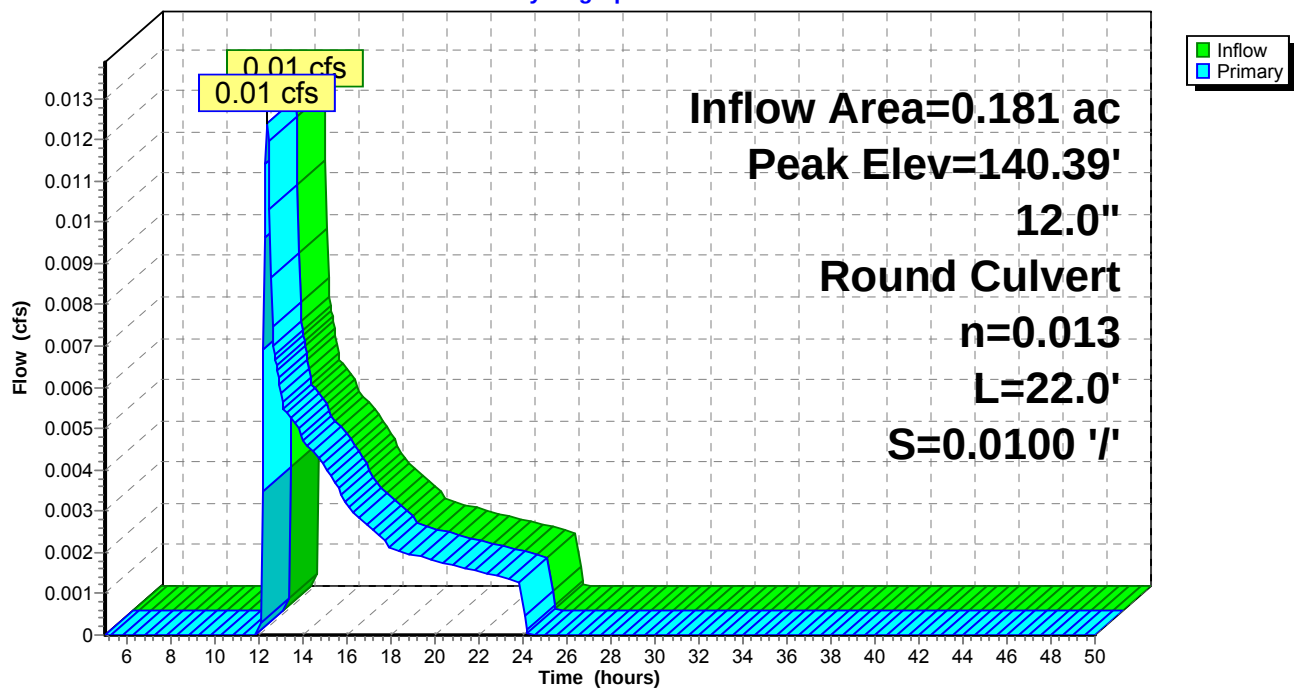
Device	Routing	Invert	Outlet Devices
#1	Primary	140.34'	12.0" Round Culvert L= 22.0' RCP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 140.34' / 140.12' S= 0.0100 '/ Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.01 cfs @ 12.38 hrs HW=140.39' (Free Discharge)

↑ **1=Culvert** (Barrel Controls 0.01 cfs @ 0.98 fps)

Pond CB: (new Pond)

Hydrograph



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

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Time span=5.00-50.00 hrs, dt=0.05 hrs, 901 points
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
 Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment10S: Northeast Area	Runoff Area=7,876 sf 26.17% Impervious Runoff Depth=0.73" Tc=6.0 min CN=54 Runoff=0.11 cfs 0.011 af
Subcatchment12S: (new Subcat)	Runoff Area=10,678 sf 38.07% Impervious Runoff Depth=1.14" Tc=6.0 min CN=61 Runoff=0.28 cfs 0.023 af
Subcatchment20S: All Imp & Dev	Runoff Area=40,524 sf 39.30% Impervious Runoff Depth=1.60" Tc=6.0 min CN=68 Runoff=1.65 cfs 0.124 af
Subcatchment23S: (new Subcat)	Runoff Area=1,526 sf 0.00% Impervious Runoff Depth=0.13" Tc=6.0 min CN=39 Runoff=0.00 cfs 0.000 af
Subcatchment30S: West Area	Runoff Area=6,749 sf 0.00% Impervious Runoff Depth=0.13" Tc=6.0 min CN=39 Runoff=0.00 cfs 0.002 af
Subcatchment32S: (new Subcat)	Runoff Area=35,943 sf 41.69% Impervious Runoff Depth=1.33" Tc=6.0 min CN=64 Runoff=1.17 cfs 0.091 af
Reach SP1: Site Contribution to	Avg. Flow Depth=0.24' Max Vel=2.11 fps Inflow=0.30 cfs 0.249 af
12.0" Round Pipe n=0.013 L=152.0' S=0.0047 '/'	Capacity=2.45 cfs Outflow=0.30 cfs 0.249 af
Reach SP2: Offsite	Inflow=0.00 cfs 0.002 af Outflow=0.00 cfs 0.002 af
Pond 20P: 2800 SF	Peak Elev=145.22' Storage=5,037 cf Inflow=3.10 cfs 0.239 af Primary=0.28 cfs 0.238 af Secondary=0.00 cfs 0.000 af Outflow=0.28 cfs 0.238 af
Pond CB: (new Pond)	Peak Elev=140.51' Inflow=0.11 cfs 0.011 af 12.0" Round Culvert n=0.013 L=22.0' S=0.0100 '/' Outflow=0.11 cfs 0.011 af

Total Runoff Area = 2.371 ac Runoff Volume = 0.252 af Average Runoff Depth = 1.27"
64.14% Pervious = 1.521 ac 35.86% Impervious = 0.850 ac

Summary for Subcatchment 10S: Northeast Area

Runoff = 0.11 cfs @ 12.12 hrs, Volume= 0.011 af, Depth= 0.73"

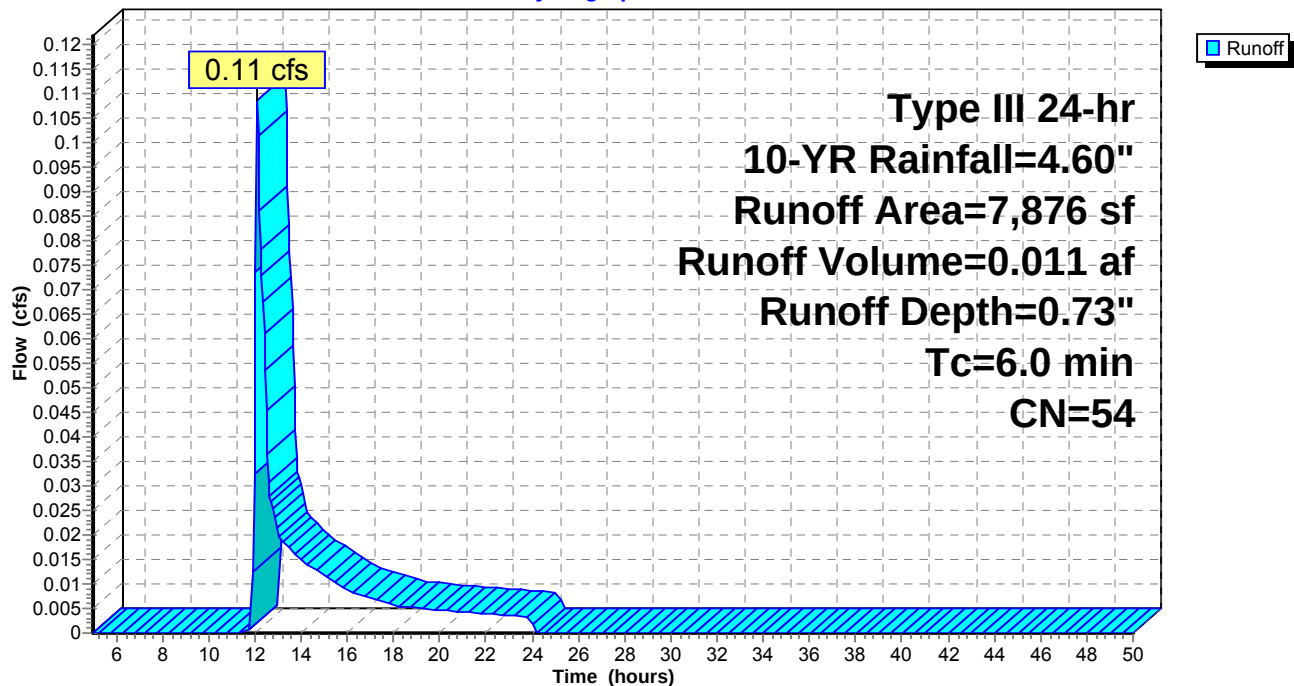
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-50.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-YR Rainfall=4.60"

	Area (sf)	CN	Description
*	1,401	98	Existing Impervious
*	660	98	New Impervious
	5,815	39	>75% Grass cover, Good, HSG A
	7,876	54	Weighted Average
	5,815		73.83% Pervious Area
	2,061		26.17% Impervious Area

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

Subcatchment 10S: Northeast Area

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

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Summary for Subcatchment 12S: (new Subcat)

Runoff = 0.28 cfs @ 12.11 hrs, Volume= 0.023 af, Depth= 1.14"

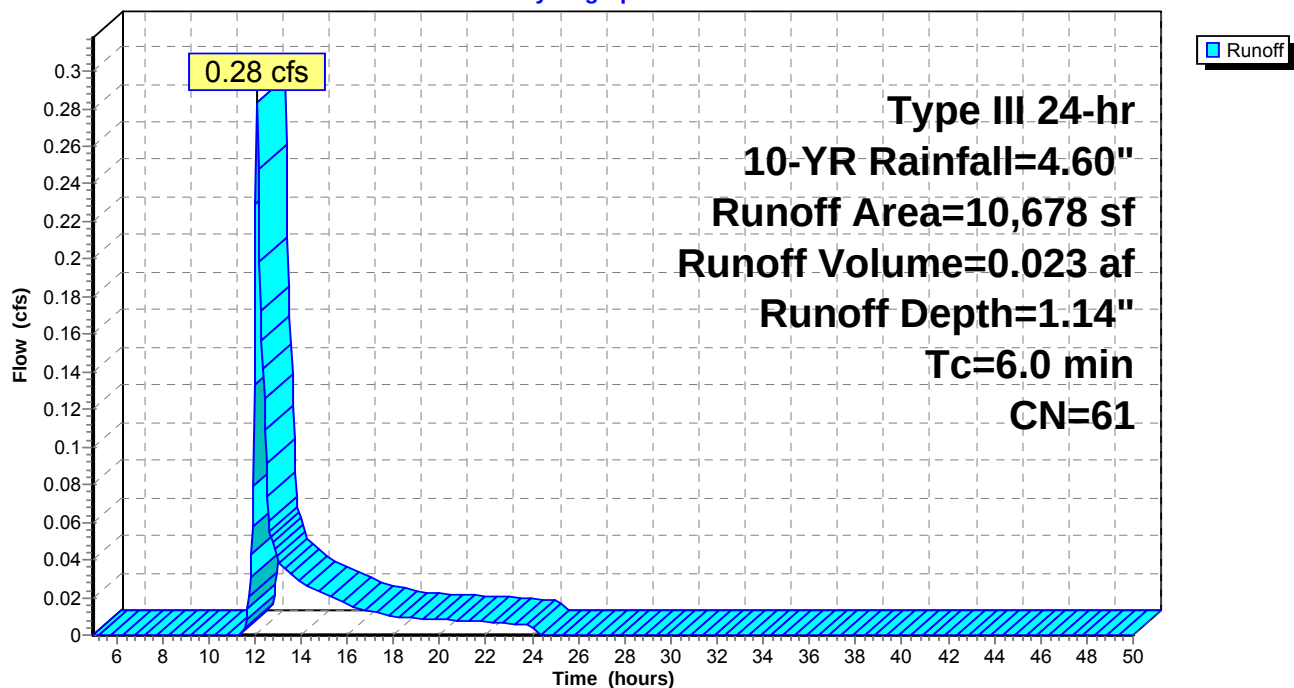
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-50.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-YR Rainfall=4.60"

	Area (sf)	CN	Description
*	368	98	Existing Impervious
*	3,697	98	New Impervious
	6,613	39	>75% Grass cover, Good, HSG A
	10,678	61	Weighted Average
	6,613		61.93% Pervious Area
	4,065		38.07% Impervious Area

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

Subcatchment 12S: (new Subcat)

Hydrograph



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

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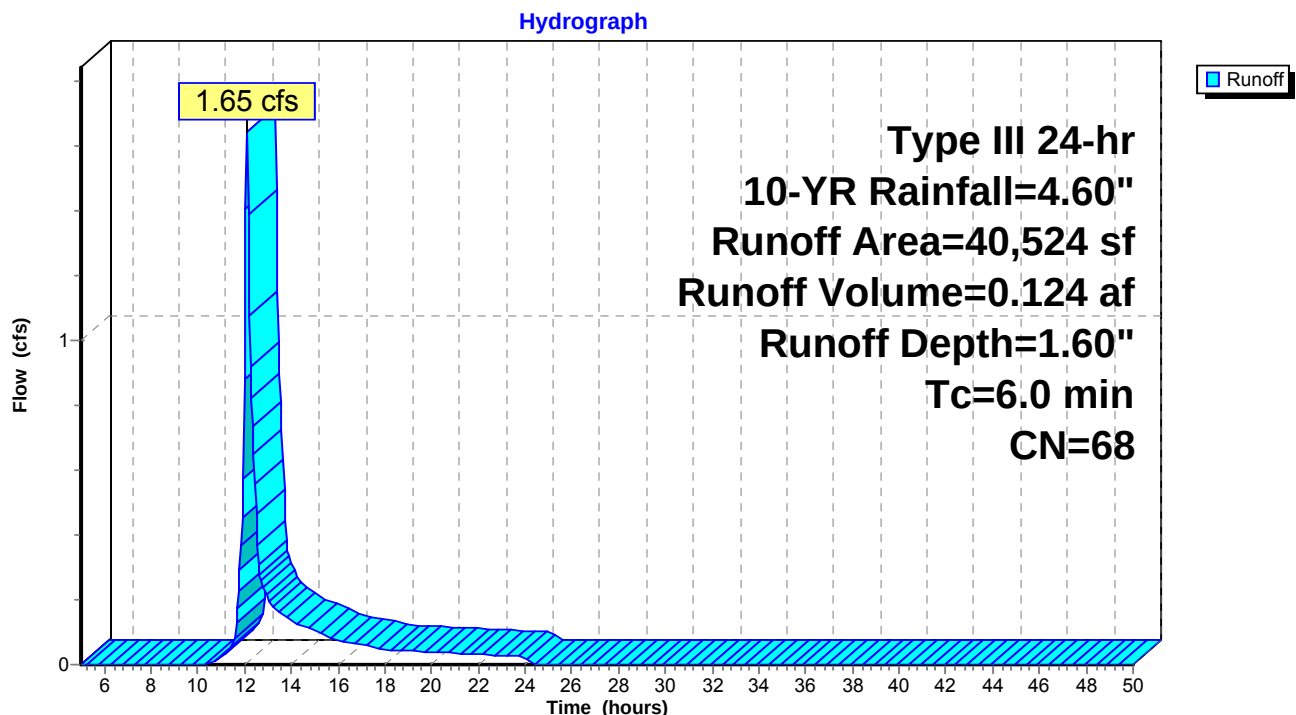
Summary for Subcatchment 20S: All Imp & Dev

Runoff = 1.65 cfs @ 12.10 hrs, Volume= 0.124 af, Depth= 1.60"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-50.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-YR Rainfall=4.60"

Area (sf)	CN	Description
11,061	98	Paved parking, HSG A
4,866	98	Unconnected roofs, HSG A
24,597	49	50-75% Grass cover, Fair, HSG A
40,524	68	Weighted Average
24,597		60.70% Pervious Area
15,927		39.30% Impervious Area
4,866		30.55% Unconnected

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

Subcatchment 20S: All Imp & Dev

Summary for Subcatchment 23S: (new Subcat)

Runoff = 0.00 cfs @ 14.58 hrs, Volume= 0.000 af, Depth= 0.13"

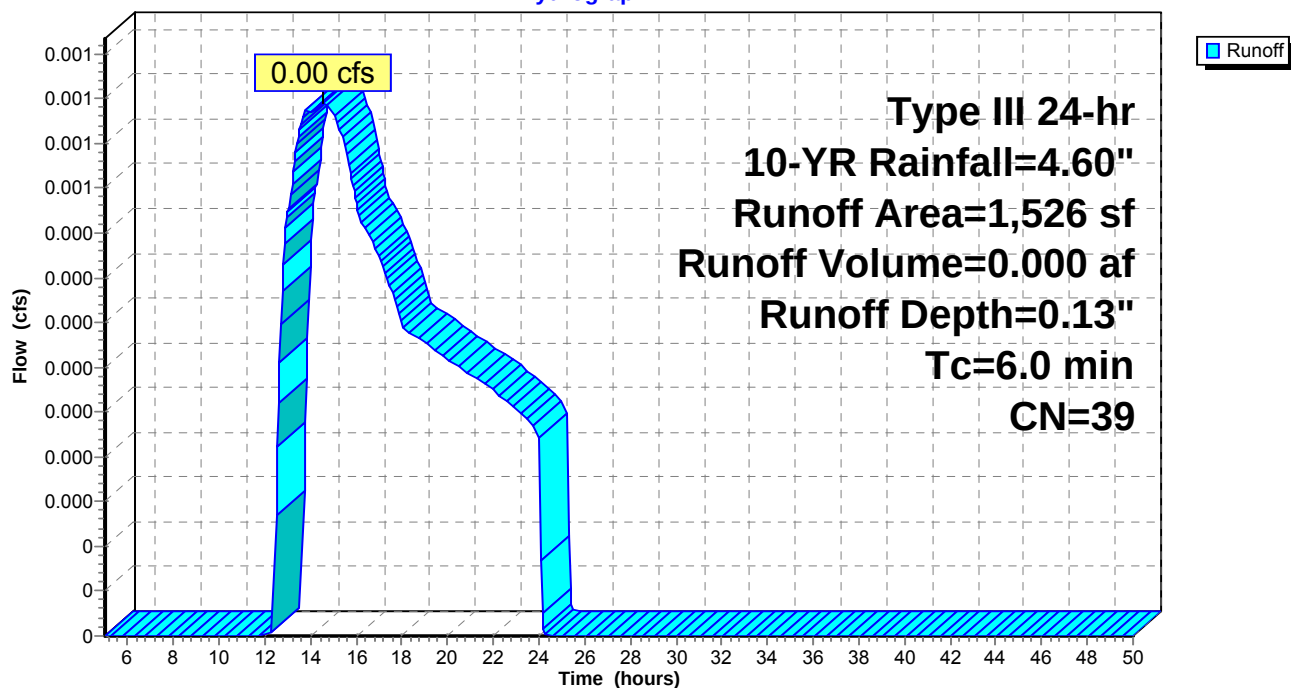
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-50.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-YR Rainfall=4.60"

Area (sf)	CN	Description
1,526	39	>75% Grass cover, Good, HSG A
1,526		100.00% Pervious Area

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

Subcatchment 23S: (new Subcat)

Hydrograph



Summary for Subcatchment 30S: West Area

Runoff = 0.00 cfs @ 14.58 hrs, Volume= 0.002 af, Depth= 0.13"

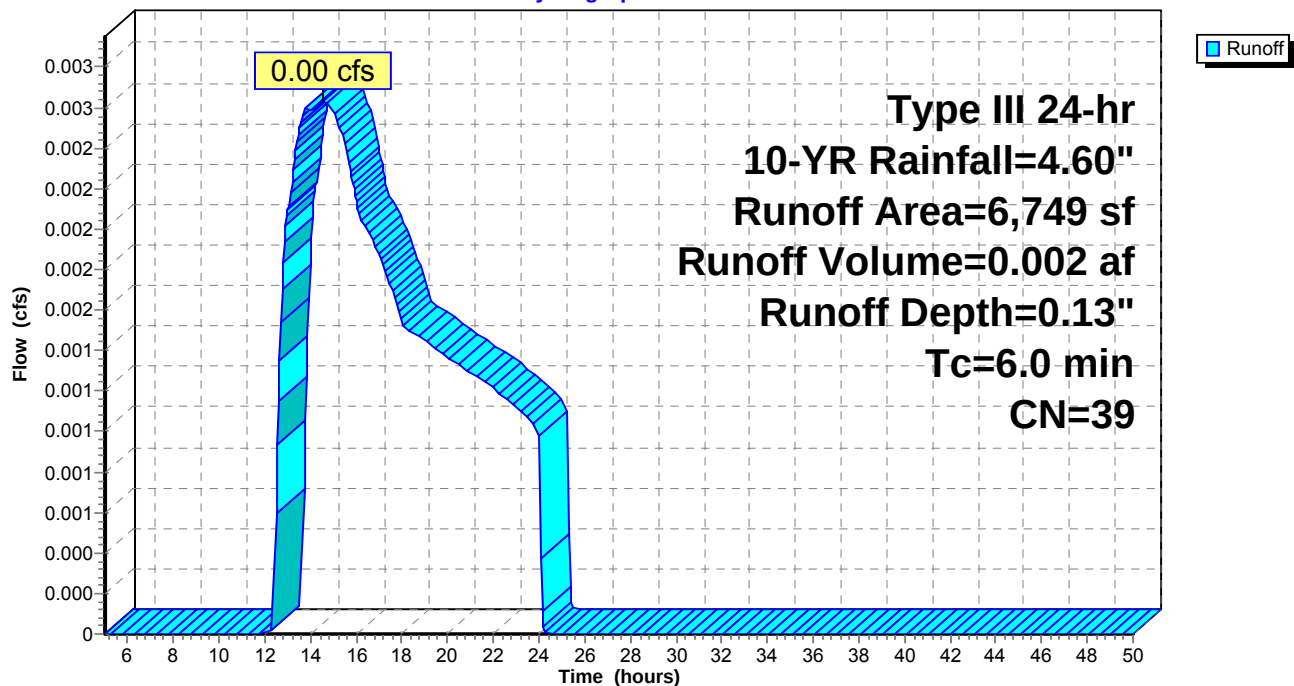
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-50.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-YR Rainfall=4.60"

Area (sf)	CN	Description
6,749	39	>75% Grass cover, Good, HSG A
6,749		100.00% Pervious Area

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

Subcatchment 30S: West Area

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

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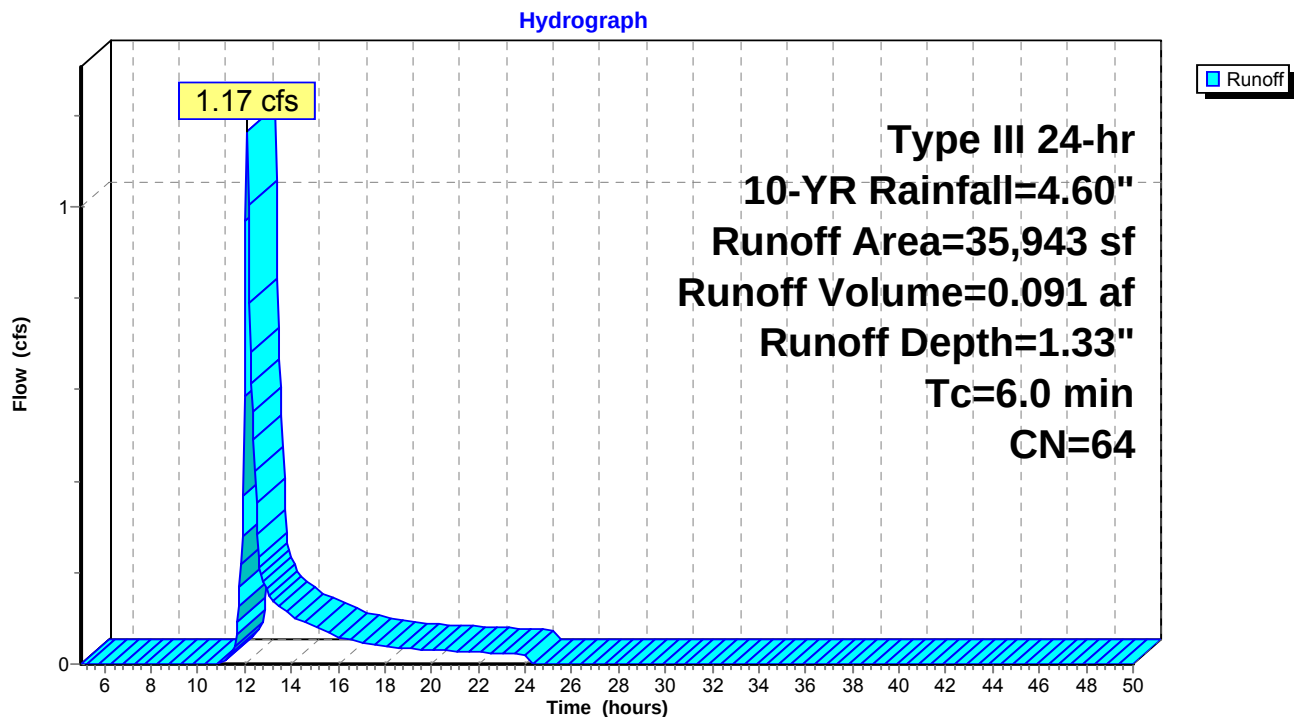
Summary for Subcatchment 32S: (new Subcat)

Runoff = 1.17 cfs @ 12.10 hrs, Volume= 0.091 af, Depth= 1.33"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-50.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-YR Rainfall=4.60"

	Area (sf)	CN	Description
*	7,432	98	Pavement
*	7,554	98	Roofs
	20,957	39	>75% Grass cover, Good, HSG A
	35,943	64	Weighted Average
	20,957		58.31% Pervious Area
	14,986		41.69% Impervious Area

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

Subcatchment 32S: (new Subcat)

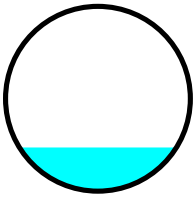
Summary for Reach SP1: Site Contribution to Existing Collection System

Inflow Area = 2.181 ac, 38.98% Impervious, Inflow Depth > 1.37" for 10-YR event
 Inflow = 0.30 cfs @ 13.80 hrs, Volume= 0.249 af
 Outflow = 0.30 cfs @ 13.83 hrs, Volume= 0.249 af, Atten= 0%, Lag= 2.1 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-50.00 hrs, dt= 0.05 hrs
 Max. Velocity= 2.11 fps, Min. Travel Time= 1.2 min
 Avg. Velocity= 1.32 fps, Avg. Travel Time= 1.9 min

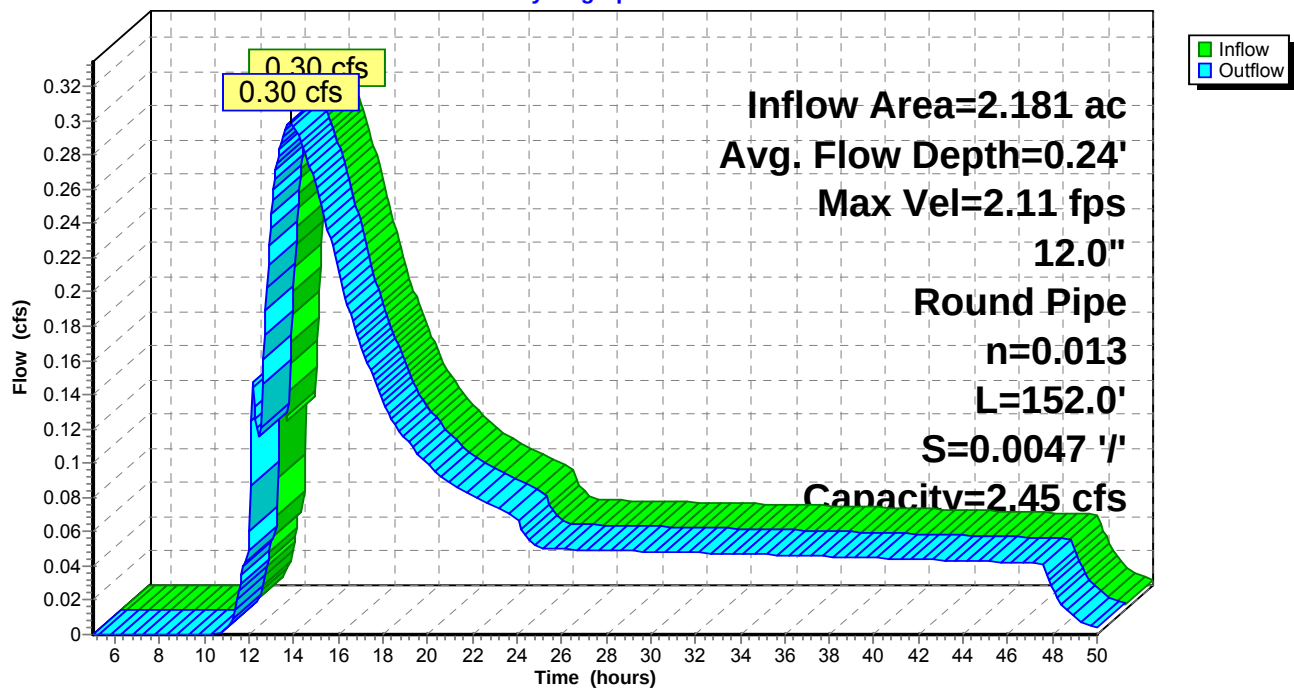
Peak Storage= 21 cf @ 13.81 hrs
 Average Depth at Peak Storage= 0.24'
 Bank-Full Depth= 1.00' Flow Area= 0.8 sf, Capacity= 2.45 cfs

12.0" Round Pipe
 n= 0.013 Clay tile
 Length= 152.0' Slope= 0.0047 '/'
 Inlet Invert= 139.12', Outlet Invert= 138.40'



Reach SP1: Site Contribution to Existing Collection System

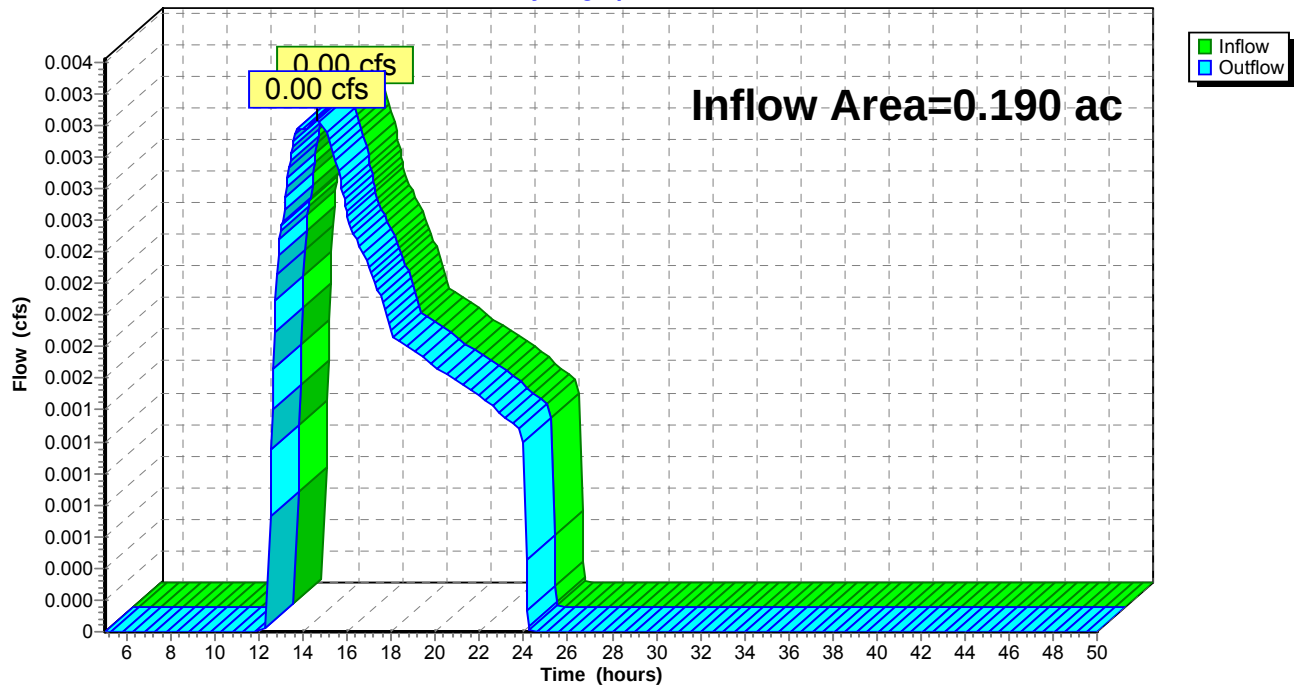
Hydrograph



Summary for Reach SP2: Offsite

Inflow Area = 0.190 ac, 0.00% Impervious, Inflow Depth = 0.13" for 10-YR event
Inflow = 0.00 cfs @ 14.58 hrs, Volume= 0.002 af
Outflow = 0.00 cfs @ 14.58 hrs, Volume= 0.002 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-50.00 hrs, dt= 0.05 hrs

Reach SP2: Offsite**Hydrograph**

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

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Summary for Pond 20P: 2800 SF

Inflow Area = 2.001 ac, 40.14% Impervious, Inflow Depth = 1.43" for 10-YR event
 Inflow = 3.10 cfs @ 12.10 hrs, Volume= 0.239 af
 Outflow = 0.28 cfs @ 13.84 hrs, Volume= 0.238 af, Atten= 91%, Lag= 104.3 min
 Primary = 0.28 cfs @ 13.84 hrs, Volume= 0.238 af
 Secondary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 5.00-50.00 hrs, dt= 0.05 hrs
 Peak Elev= 145.22' @ 13.84 hrs Surf.Area= 4,020 sf Storage= 5,037 cf

Plug-Flow detention time= 584.5 min calculated for 0.238 af (100% of inflow)
 Center-of-Mass det. time= 583.8 min (1,448.0 - 864.1)

Volume	Invert	Avail.Storage	Storage Description
#1	143.75'	25,953 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
143.75	2,843	0	0
144.00	3,016	732	732
145.00	3,855	3,436	4,168
146.00	4,601	4,228	8,396
147.00	5,404	5,003	13,398
148.00	6,263	5,834	19,232
149.00	7,179	6,721	25,953

Device	Routing	Invert	Outlet Devices
#1	Primary	140.75'	12.0" Round Culvert L= 54.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 140.75' / 138.86' S= 0.0350 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf
#2	Device 1	141.25'	1.0" Vert. Orifice/Grate C= 0.600
#3	Device 1	144.93'	5.5" W x 6.5" H Vert. Orifice/Grate C= 0.600
#4	Device 1	146.56'	18" Nyloplast 18" Domed Structure Head (feet) 0.00 0.05 0.10 0.15 0.20 0.25 0.30 0.35 0.37 0.40 0.45 0.50 Disch. (cfs) 0.000 0.200 0.500 0.800 1.400 1.900 2.500 3.100 3.500 3.600 3.800 4.000
#5	Secondary	149.00'	12.0' long x 6.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.37 2.51 2.70 2.68 2.68 2.67 2.65 2.65 2.65 2.65 2.66 2.66 2.67 2.69 2.72 2.76 2.83

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

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Primary OutFlow Max=0.28 cfs @ 13.84 hrs HW=145.22' (Free Discharge)

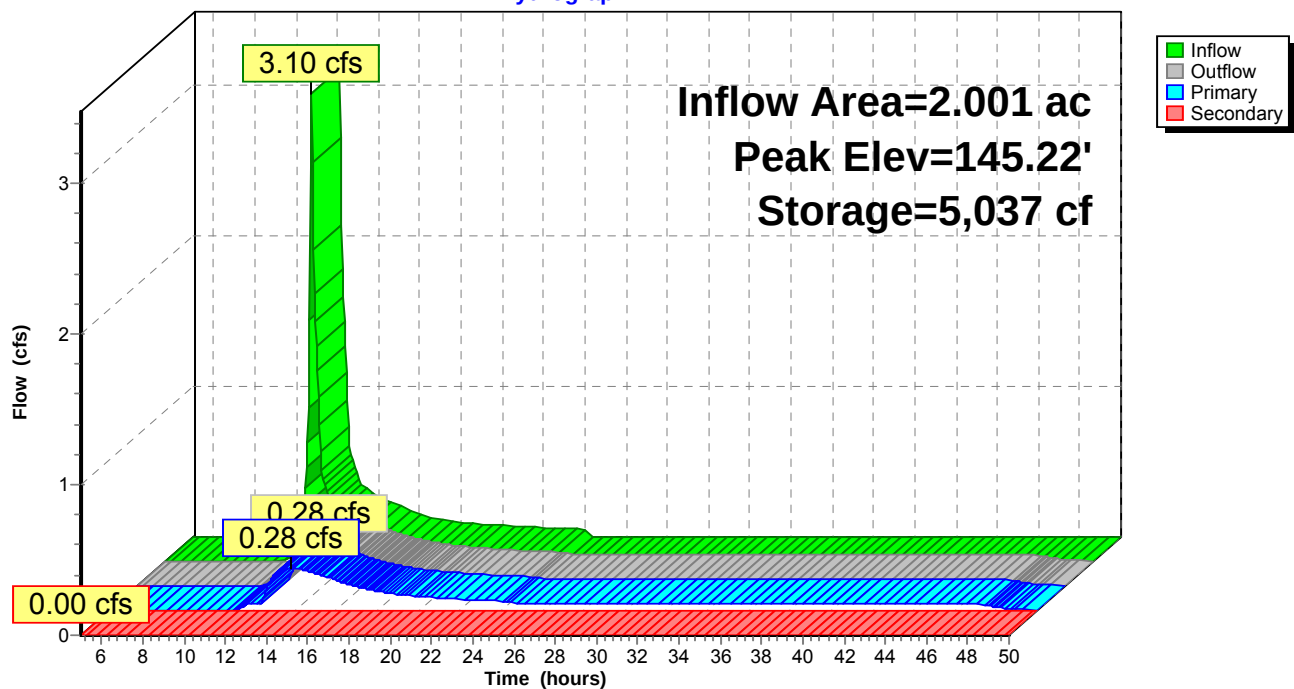
- 1=Culvert (Passes 0.28 cfs of 7.54 cfs potential flow)
- 2=Orifice/Grate (Orifice Controls 0.05 cfs @ 9.54 fps)
- 3=Orifice/Grate (Orifice Controls 0.23 cfs @ 1.73 fps)
- 4=18" Nyloplast 18" Domed Structure (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 5.00 hrs HW=143.75' (Free Discharge)

- 5=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond 20P: 2800 SF

Hydrograph



Summary for Pond CB: (new Pond)

Inflow Area = 0.181 ac, 26.17% Impervious, Inflow Depth = 0.73" for 10-YR event
 Inflow = 0.11 cfs @ 12.12 hrs, Volume= 0.011 af
 Outflow = 0.11 cfs @ 12.12 hrs, Volume= 0.011 af, Atten= 0%, Lag= 0.0 min
 Primary = 0.11 cfs @ 12.12 hrs, Volume= 0.011 af

Routing by Stor-Ind method, Time Span= 5.00-50.00 hrs, dt= 0.05 hrs

Peak Elev= 140.51' @ 12.12 hrs

Flood Elev= 146.58'

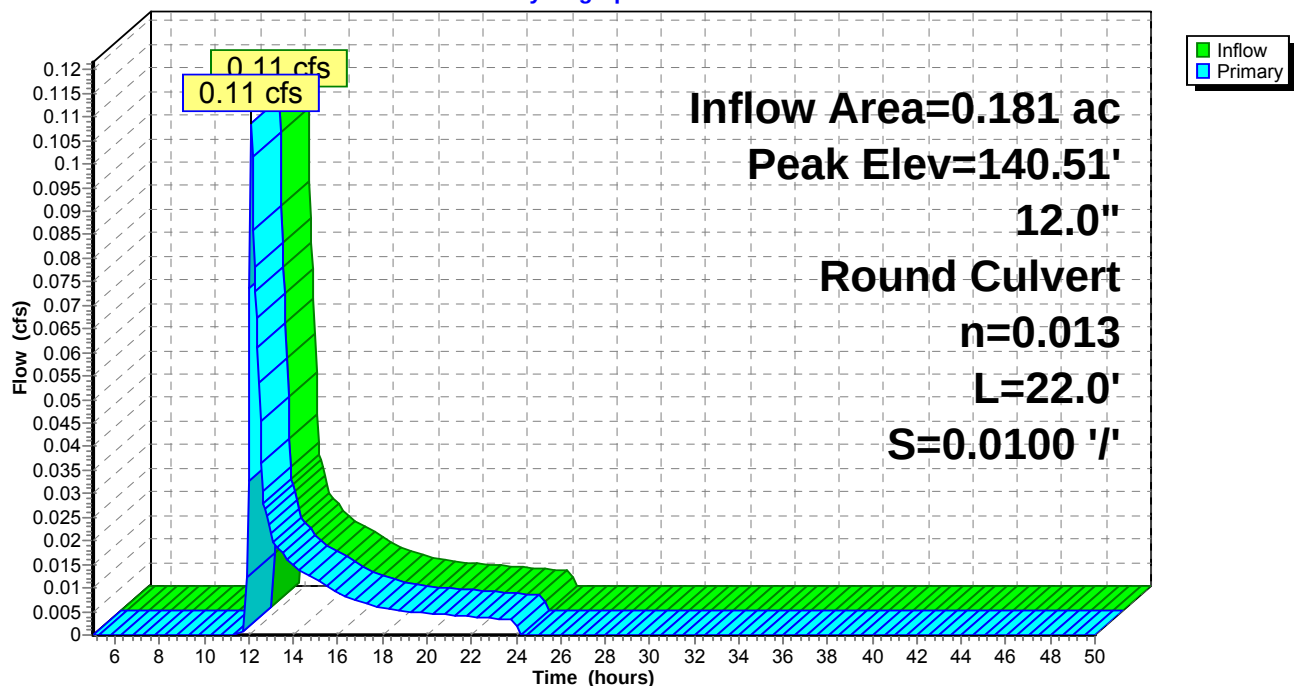
Device	Routing	Invert	Outlet Devices
#1	Primary	140.34'	12.0" Round Culvert L= 22.0' RCP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 140.34' / 140.12' S= 0.0100 '/ Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.10 cfs @ 12.12 hrs HW=140.50' (Free Discharge)

↑ **1=Culvert** (Barrel Controls 0.10 cfs @ 1.86 fps)

Pond CB: (new Pond)

Hydrograph



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

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Time span=5.00-50.00 hrs, dt=0.05 hrs, 901 points
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
 Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment10S: Northeast Area	Runoff Area=7,876 sf 26.17% Impervious Runoff Depth=1.33" Tc=6.0 min CN=54 Runoff=0.24 cfs 0.020 af
Subcatchment12S: (new Subcat)	Runoff Area=10,678 sf 38.07% Impervious Runoff Depth=1.87" Tc=6.0 min CN=61 Runoff=0.50 cfs 0.038 af
Subcatchment20S: All Imp & Dev	Runoff Area=40,524 sf 39.30% Impervious Runoff Depth=2.47" Tc=6.0 min CN=68 Runoff=2.61 cfs 0.191 af
Subcatchment23S: (new Subcat)	Runoff Area=1,526 sf 0.00% Impervious Runoff Depth=0.39" Tc=6.0 min CN=39 Runoff=0.01 cfs 0.001 af
Subcatchment30S: West Area	Runoff Area=6,749 sf 0.00% Impervious Runoff Depth=0.39" Tc=6.0 min CN=39 Runoff=0.02 cfs 0.005 af
Subcatchment32S: (new Subcat)	Runoff Area=35,943 sf 41.69% Impervious Runoff Depth=2.12" Tc=6.0 min CN=64 Runoff=1.95 cfs 0.146 af
Reach SP1: Site Contribution to	Avg. Flow Depth=0.42' Max Vel=2.87 fps Inflow=0.89 cfs 0.395 af
12.0" Round Pipe n=0.013 L=152.0' S=0.0047 '/'	Capacity=2.45 cfs Outflow=0.89 cfs 0.395 af
Reach SP2: Offsite	Inflow=0.03 cfs 0.006 af Outflow=0.03 cfs 0.006 af
Pond 20P: 2800 SF	Peak Elev=145.64' Storage=6,797 cf Inflow=5.06 cfs 0.376 af Primary=0.84 cfs 0.375 af Secondary=0.00 cfs 0.000 af Outflow=0.84 cfs 0.375 af
Pond CB: (new Pond)	Peak Elev=140.59' Inflow=0.24 cfs 0.020 af 12.0" Round Culvert n=0.013 L=22.0' S=0.0100 '/' Outflow=0.24 cfs 0.020 af

Total Runoff Area = 2.371 ac Runoff Volume = 0.402 af Average Runoff Depth = 2.03"
64.14% Pervious = 1.521 ac 35.86% Impervious = 0.850 ac

Summary for Subcatchment 10S: Northeast Area

Runoff = 0.24 cfs @ 12.11 hrs, Volume= 0.020 af, Depth= 1.33"

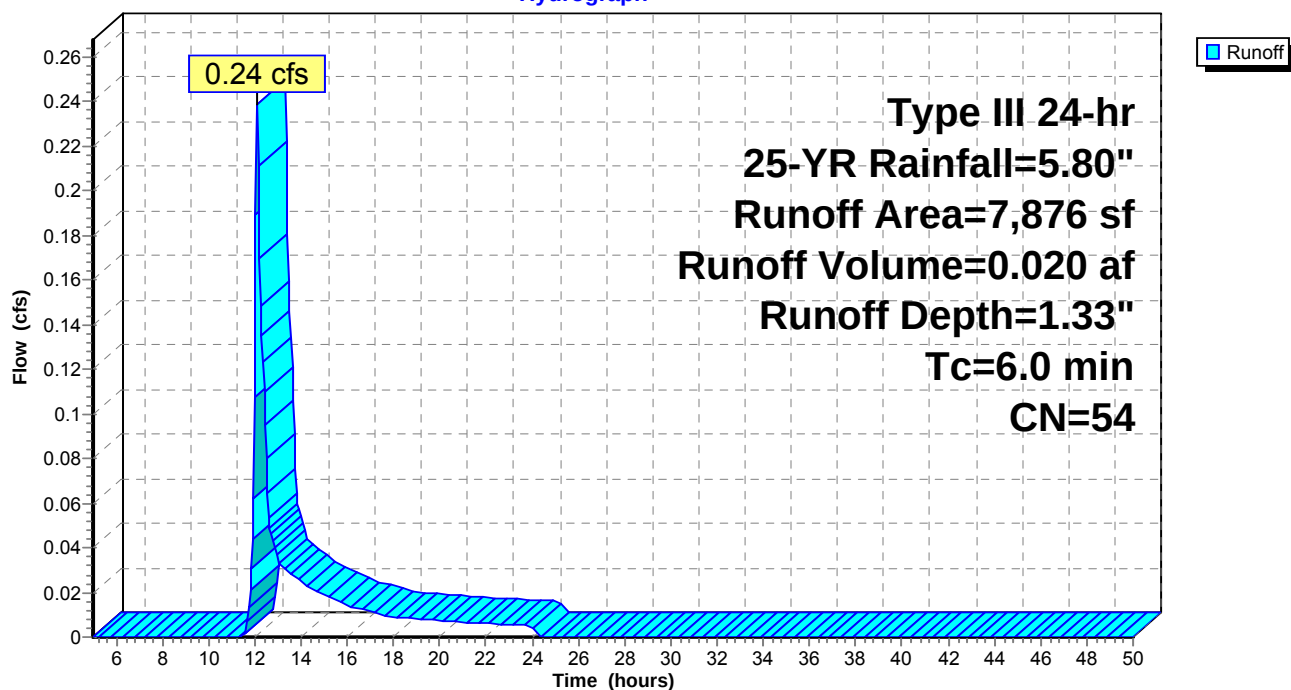
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-50.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YR Rainfall=5.80"

	Area (sf)	CN	Description
*	1,401	98	Existing Impervious
*	660	98	New Impervious
	5,815	39	>75% Grass cover, Good, HSG A
	7,876	54	Weighted Average
	5,815		73.83% Pervious Area
	2,061		26.17% Impervious Area

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

Subcatchment 10S: Northeast Area

Hydrograph



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

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Summary for Subcatchment 12S: (new Subcat)

Runoff = 0.50 cfs @ 12.10 hrs, Volume= 0.038 af, Depth= 1.87"

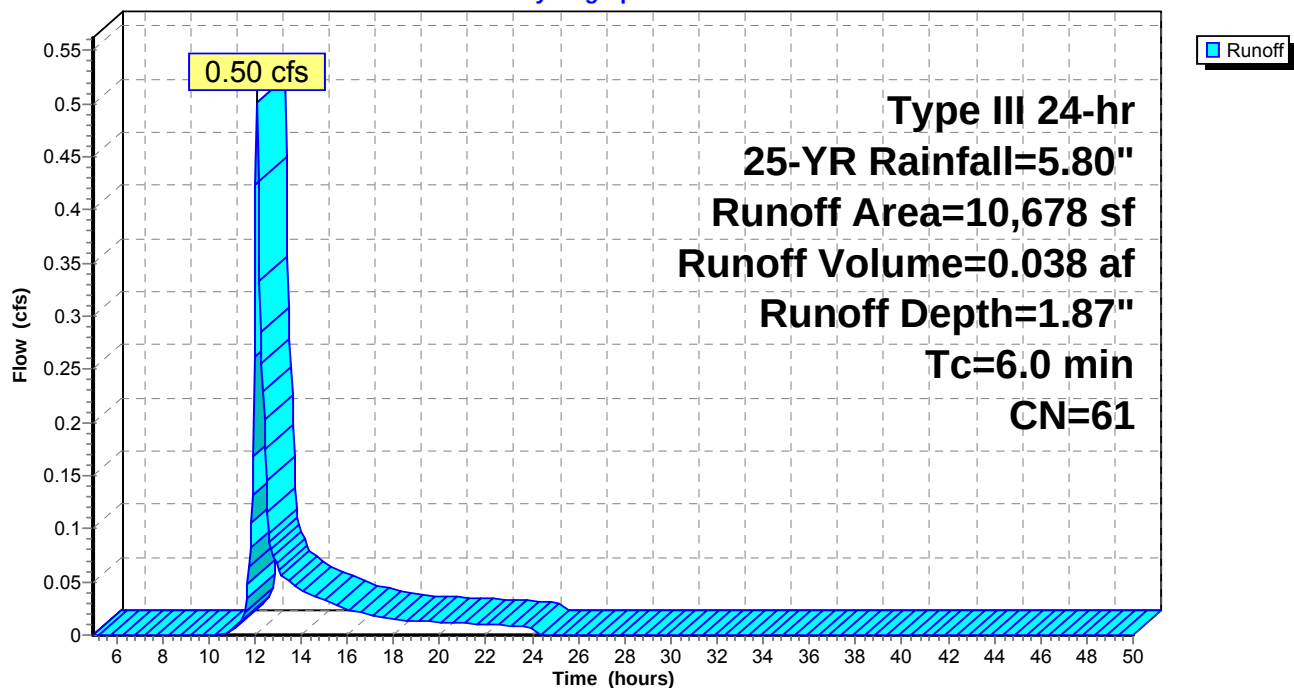
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-50.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YR Rainfall=5.80"

	Area (sf)	CN	Description
*	368	98	Existing Impervious
*	3,697	98	New Impervious
	6,613	39	>75% Grass cover, Good, HSG A
	10,678	61	Weighted Average
	6,613		61.93% Pervious Area
	4,065		38.07% Impervious Area

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

Subcatchment 12S: (new Subcat)

Hydrograph



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

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Summary for Subcatchment 20S: All Imp & Dev

Runoff = 2.61 cfs @ 12.10 hrs, Volume= 0.191 af, Depth= 2.47"

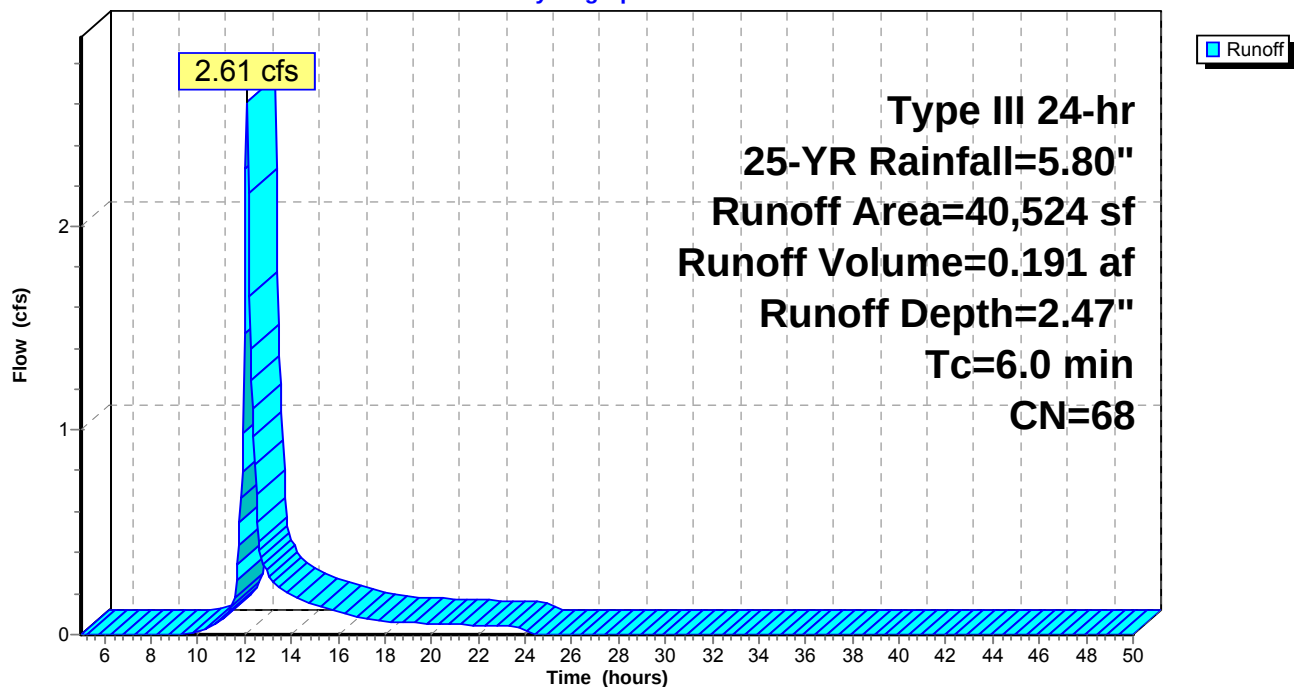
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-50.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YR Rainfall=5.80"

Area (sf)	CN	Description
11,061	98	Paved parking, HSG A
4,866	98	Unconnected roofs, HSG A
24,597	49	50-75% Grass cover, Fair, HSG A
40,524	68	Weighted Average
24,597		60.70% Pervious Area
15,927		39.30% Impervious Area
4,866		30.55% Unconnected

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

Subcatchment 20S: All Imp & Dev

Hydrograph



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

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Summary for Subcatchment 23S: (new Subcat)

Runoff = 0.01 cfs @ 12.37 hrs, Volume= 0.001 af, Depth= 0.39"

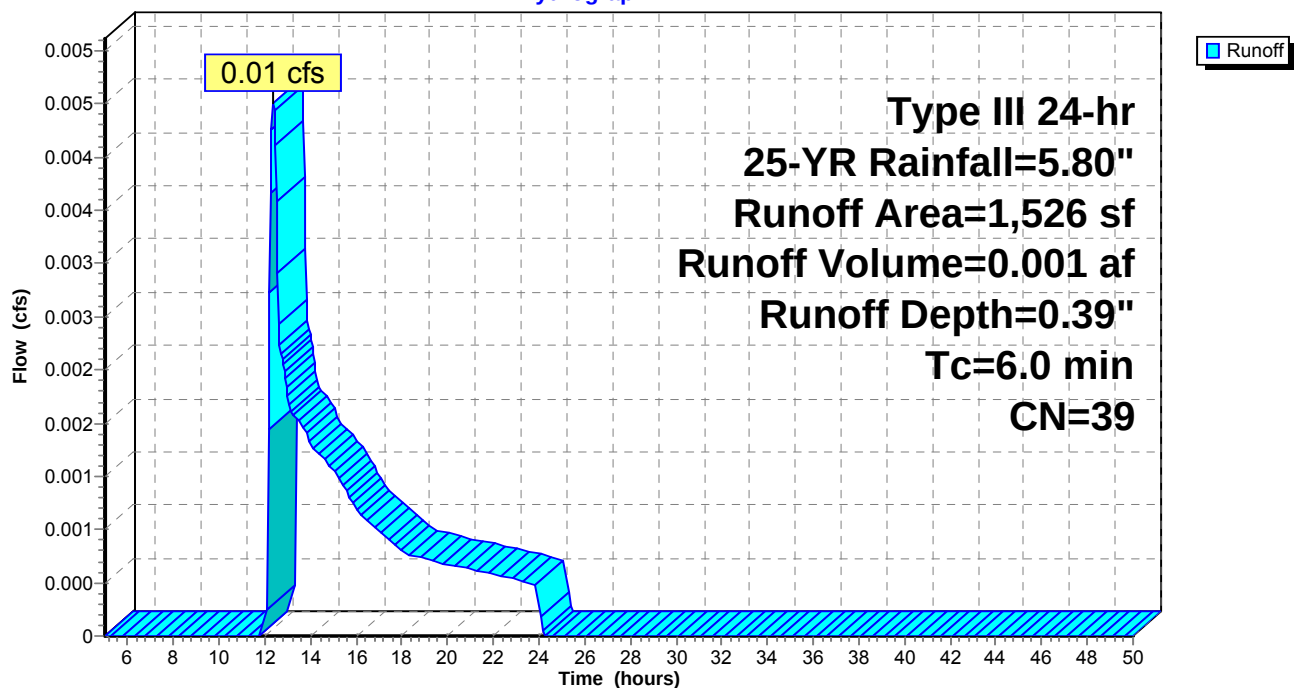
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-50.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YR Rainfall=5.80"

Area (sf)	CN	Description
1,526	39	>75% Grass cover, Good, HSG A
1,526		100.00% Pervious Area

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

Subcatchment 23S: (new Subcat)

Hydrograph



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

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Summary for Subcatchment 30S: West Area

Runoff = 0.02 cfs @ 12.37 hrs, Volume= 0.005 af, Depth= 0.39"

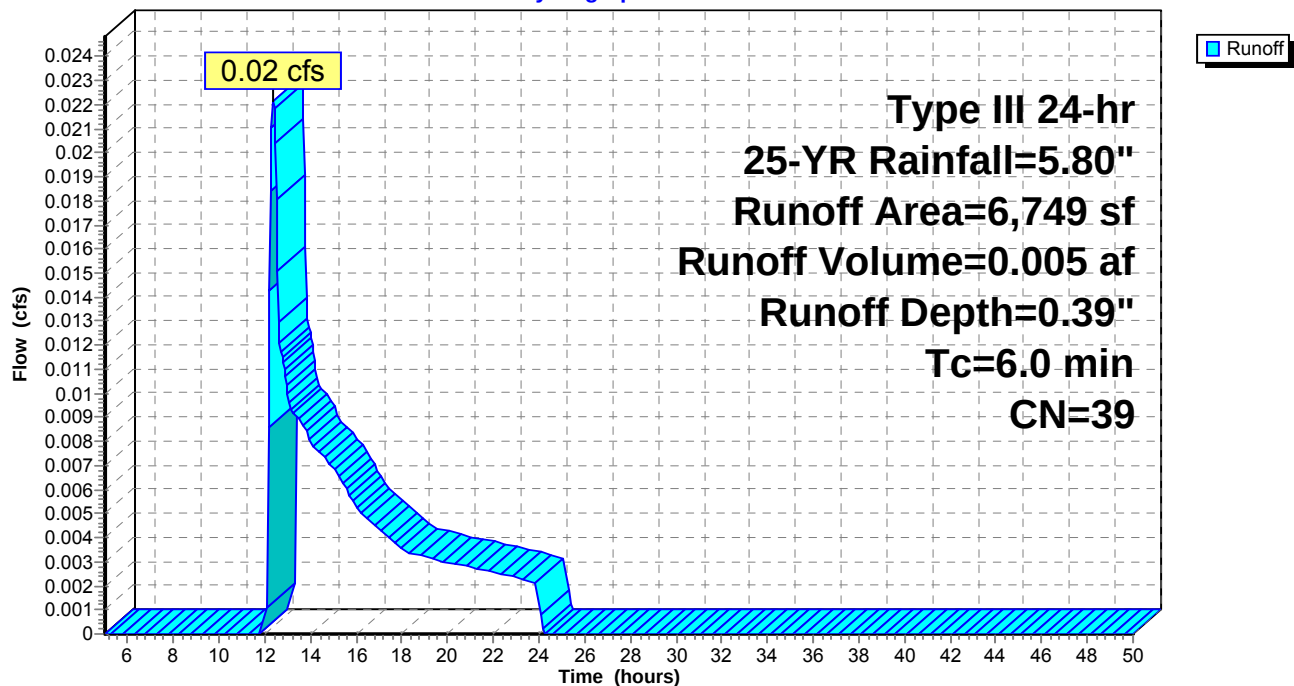
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-50.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YR Rainfall=5.80"

Area (sf)	CN	Description
6,749	39	>75% Grass cover, Good, HSG A
6,749		100.00% Pervious Area

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

Subcatchment 30S: West Area

Hydrograph



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

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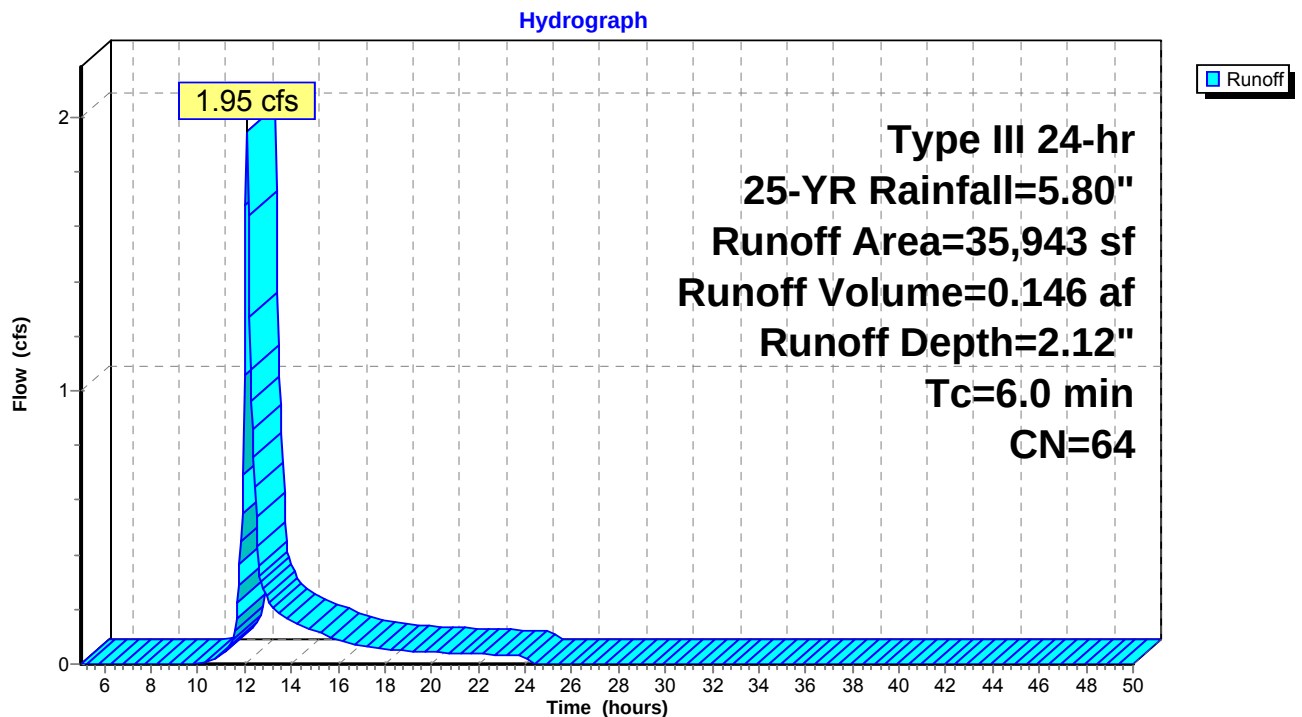
Summary for Subcatchment 32S: (new Subcat)

Runoff = 1.95 cfs @ 12.10 hrs, Volume= 0.146 af, Depth= 2.12"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-50.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YR Rainfall=5.80"

	Area (sf)	CN	Description
*	7,432	98	Pavement
*	7,554	98	Roofs
	20,957	39	>75% Grass cover, Good, HSG A
	35,943	64	Weighted Average
	20,957		58.31% Pervious Area
	14,986		41.69% Impervious Area

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

Subcatchment 32S: (new Subcat)

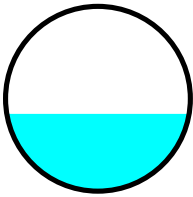
Summary for Reach SP1: Site Contribution to Existing Collection System

Inflow Area = 2.181 ac, 38.98% Impervious, Inflow Depth > 2.17" for 25-YR event
 Inflow = 0.89 cfs @ 12.54 hrs, Volume= 0.395 af
 Outflow = 0.89 cfs @ 12.57 hrs, Volume= 0.395 af, Atten= 0%, Lag= 1.8 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-50.00 hrs, dt= 0.05 hrs
 Max. Velocity= 2.87 fps, Min. Travel Time= 0.9 min
 Avg. Velocity= 1.42 fps, Avg. Travel Time= 1.8 min

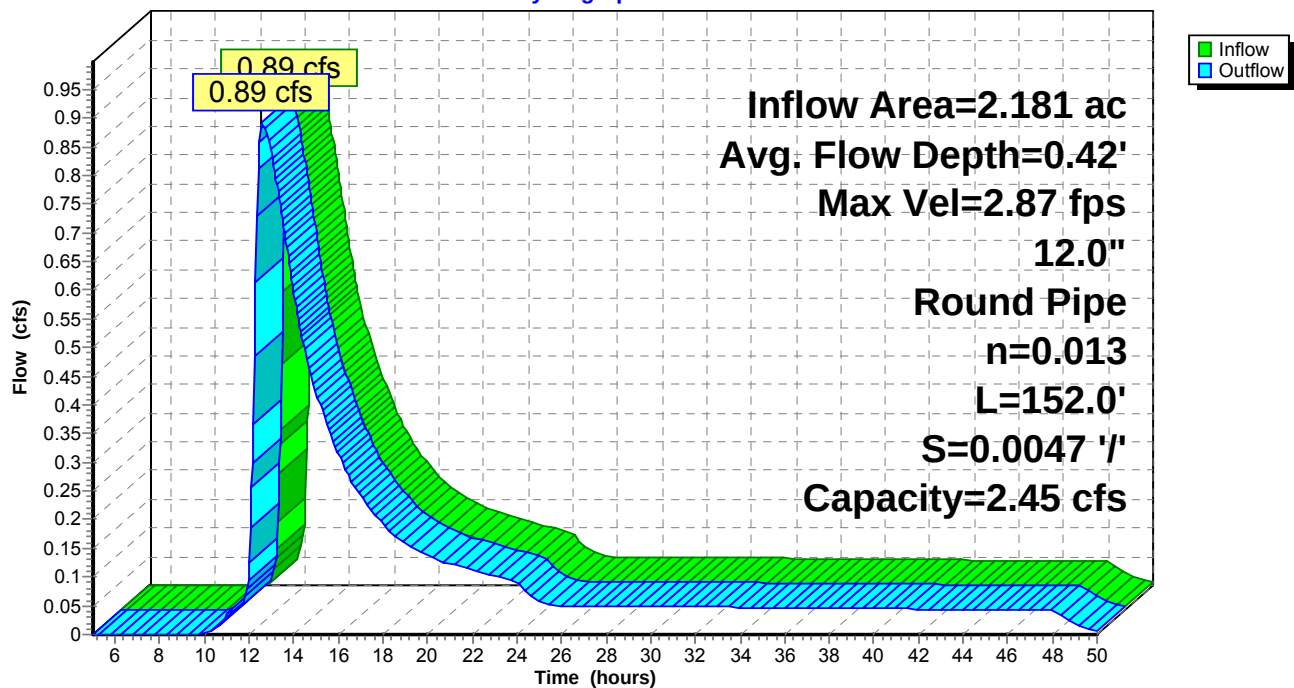
Peak Storage= 47 cf @ 12.55 hrs
 Average Depth at Peak Storage= 0.42'
 Bank-Full Depth= 1.00' Flow Area= 0.8 sf, Capacity= 2.45 cfs

12.0" Round Pipe
 n= 0.013 Clay tile
 Length= 152.0' Slope= 0.0047 '/'
 Inlet Invert= 139.12', Outlet Invert= 138.40'



Reach SP1: Site Contribution to Existing Collection System

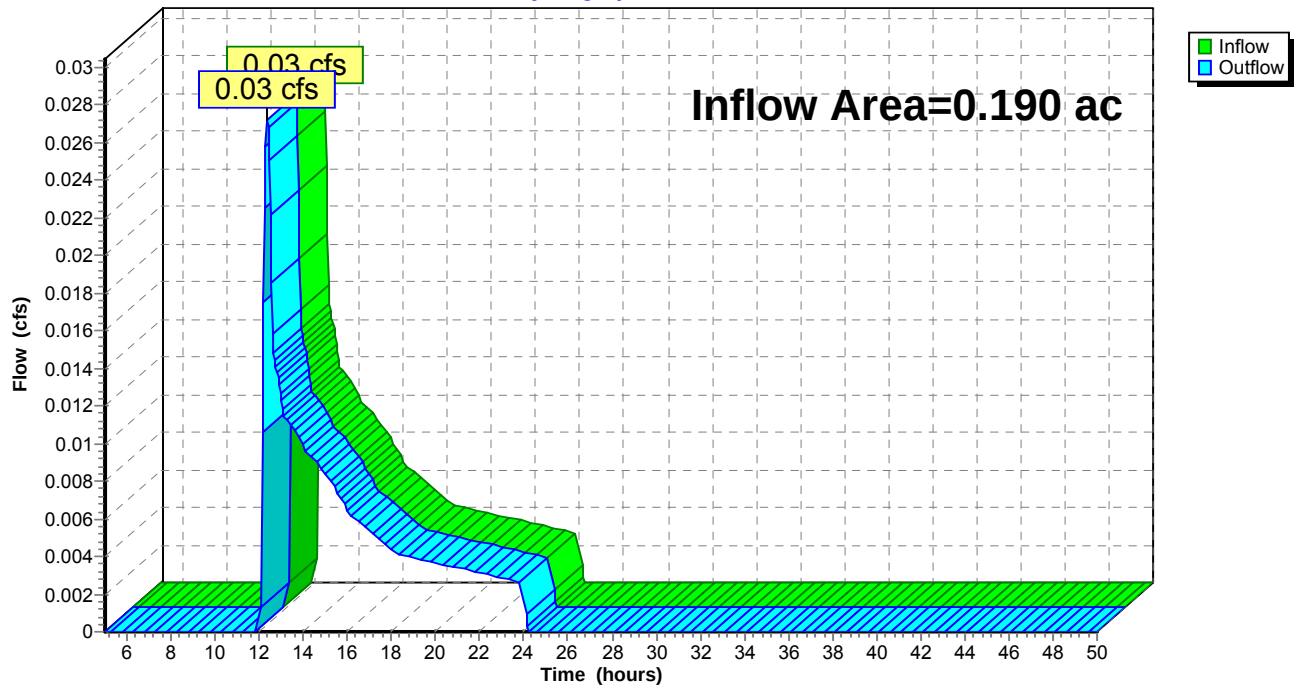
Hydrograph



Summary for Reach SP2: Offsite

Inflow Area = 0.190 ac, 0.00% Impervious, Inflow Depth = 0.39" for 25-YR event
Inflow = 0.03 cfs @ 12.37 hrs, Volume= 0.006 af
Outflow = 0.03 cfs @ 12.37 hrs, Volume= 0.006 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-50.00 hrs, dt= 0.05 hrs

Reach SP2: Offsite**Hydrograph**

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

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Summary for Pond 20P: 2800 SF

Inflow Area = 2.001 ac, 40.14% Impervious, Inflow Depth = 2.25" for 25-YR event
 Inflow = 5.06 cfs @ 12.10 hrs, Volume= 0.376 af
 Outflow = 0.84 cfs @ 12.65 hrs, Volume= 0.375 af, Atten= 84%, Lag= 32.9 min
 Primary = 0.84 cfs @ 12.65 hrs, Volume= 0.375 af
 Secondary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 5.00-50.00 hrs, dt= 0.05 hrs
 Peak Elev= 145.64' @ 12.65 hrs Surf.Area= 4,334 sf Storage= 6,797 cf

Plug-Flow detention time= 401.7 min calculated for 0.375 af (100% of inflow)
 Center-of-Mass det. time= 402.2 min (1,252.5 - 850.3)

Volume	Invert	Avail.Storage	Storage Description
#1	143.75'	25,953 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
143.75	2,843	0	0
144.00	3,016	732	732
145.00	3,855	3,436	4,168
146.00	4,601	4,228	8,396
147.00	5,404	5,003	13,398
148.00	6,263	5,834	19,232
149.00	7,179	6,721	25,953

Device	Routing	Invert	Outlet Devices
#1	Primary	140.75'	12.0" Round Culvert L= 54.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 140.75' / 138.86' S= 0.0350 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf
#2	Device 1	141.25'	1.0" Vert. Orifice/Grate C= 0.600
#3	Device 1	144.93'	5.5" W x 6.5" H Vert. Orifice/Grate C= 0.600
#4	Device 1	146.56'	18" Nyloplast 18" Domed Structure Head (feet) 0.00 0.05 0.10 0.15 0.20 0.25 0.30 0.35 0.37 0.40 0.45 0.50 Disch. (cfs) 0.000 0.200 0.500 0.800 1.400 1.900 2.500 3.100 3.500 3.600 3.800 4.000
#5	Secondary	149.00'	12.0' long x 6.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.37 2.51 2.70 2.68 2.68 2.67 2.65 2.65 2.65 2.65 2.66 2.66 2.67 2.69 2.72 2.76 2.83

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

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Primary OutFlow Max=0.84 cfs @ 12.65 hrs HW=145.64' (Free Discharge)

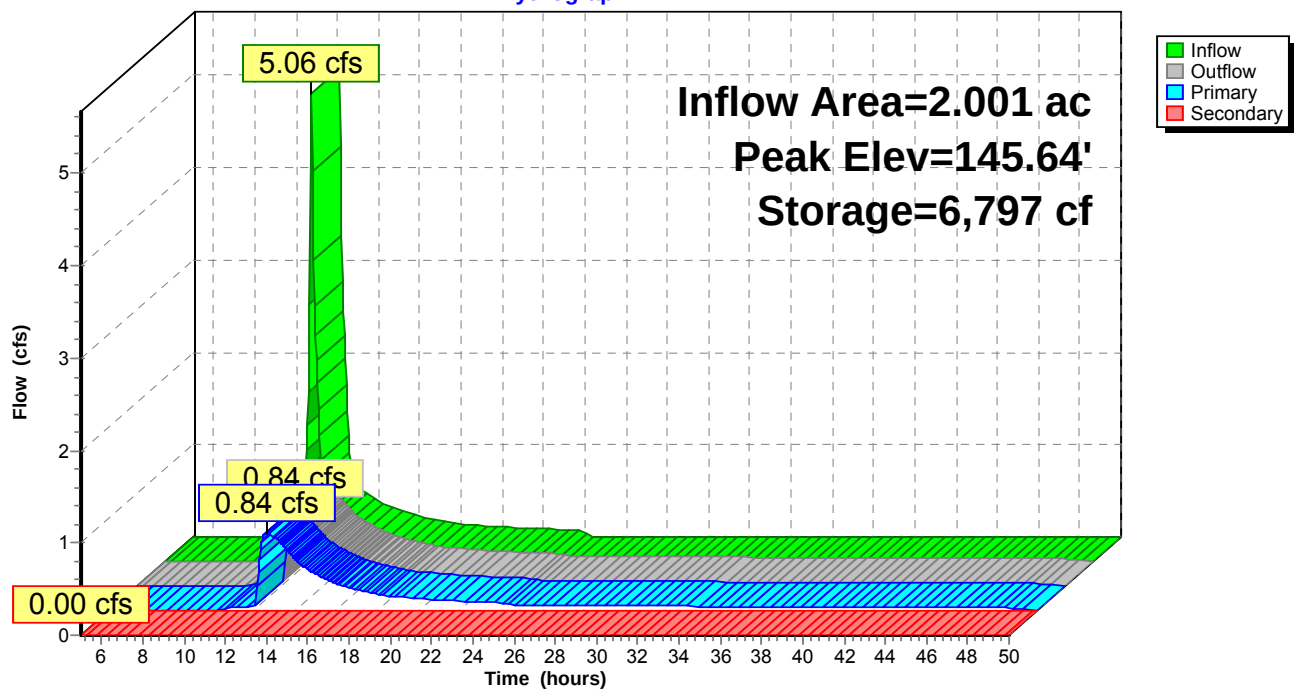
- 1=Culvert (Passes 0.84 cfs of 7.93 cfs potential flow)
- 2=Orifice/Grate (Orifice Controls 0.05 cfs @ 10.04 fps)
- 3=Orifice/Grate (Orifice Controls 0.78 cfs @ 3.14 fps)
- 4=18" Nyloplast 18" Domed Structure (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 5.00 hrs HW=143.75' (Free Discharge)

- 5=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond 20P: 2800 SF

Hydrograph



Summary for Pond CB: (new Pond)

Inflow Area = 0.181 ac, 26.17% Impervious, Inflow Depth = 1.33" for 25-YR event
 Inflow = 0.24 cfs @ 12.11 hrs, Volume= 0.020 af
 Outflow = 0.24 cfs @ 12.11 hrs, Volume= 0.020 af, Atten= 0%, Lag= 0.0 min
 Primary = 0.24 cfs @ 12.11 hrs, Volume= 0.020 af

Routing by Stor-Ind method, Time Span= 5.00-50.00 hrs, dt= 0.05 hrs

Peak Elev= 140.59' @ 12.11 hrs

Flood Elev= 146.58'

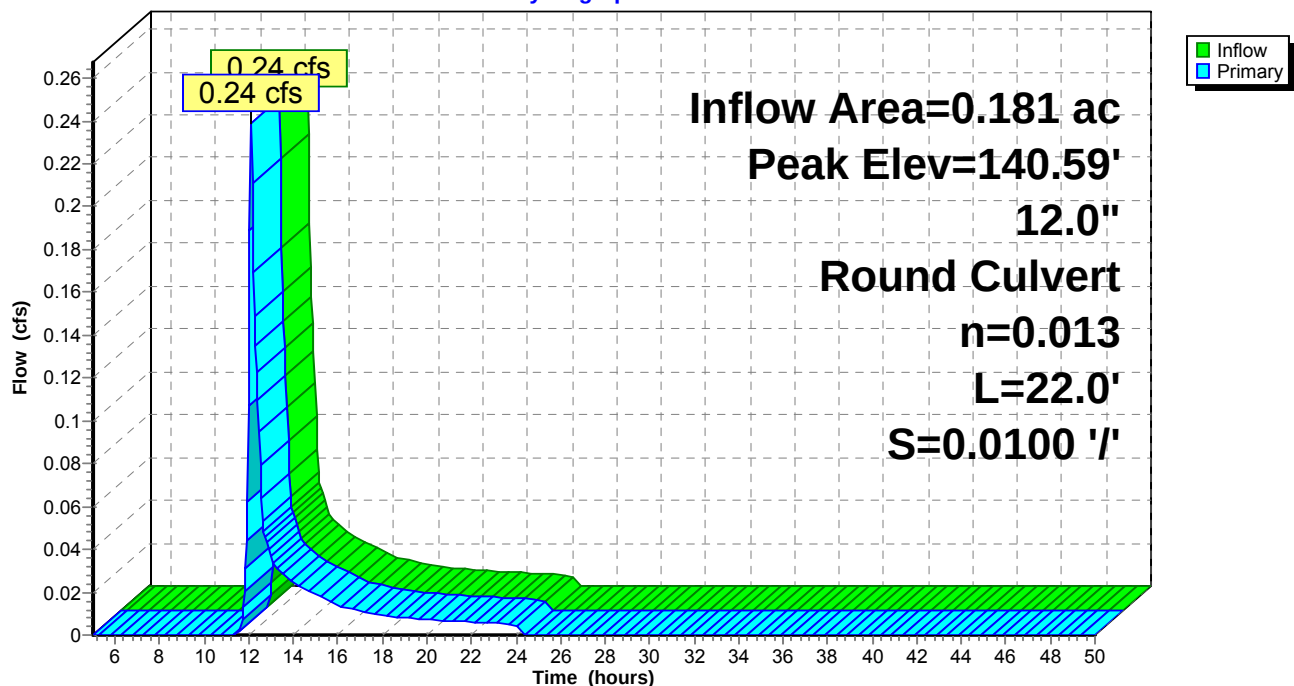
Device	Routing	Invert	Outlet Devices
#1	Primary	140.34'	12.0" Round Culvert L= 22.0' RCP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 140.34' / 140.12' S= 0.0100 '/ Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.23 cfs @ 12.11 hrs HW=140.59' (Free Discharge)

↑ **1=Culvert** (Barrel Controls 0.23 cfs @ 2.29 fps)

Pond CB: (new Pond)

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Type III 24-hr 100-YR Rainfall=8.10"

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Time span=5.00-50.00 hrs, dt=0.05 hrs, 901 points
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
 Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment10S: Northeast Area	Runoff Area=7,876 sf 26.17% Impervious Runoff Depth=2.74" Tc=6.0 min CN=54 Runoff=0.55 cfs 0.041 af
Subcatchment12S: (new Subcat)	Runoff Area=10,678 sf 38.07% Impervious Runoff Depth=3.52" Tc=6.0 min CN=61 Runoff=0.98 cfs 0.072 af
Subcatchment20S: All Imp & Dev	Runoff Area=40,524 sf 39.30% Impervious Runoff Depth=4.32" Tc=6.0 min CN=68 Runoff=4.62 cfs 0.335 af
Subcatchment23S: (new Subcat)	Runoff Area=1,526 sf 0.00% Impervious Runoff Depth=1.20" Tc=6.0 min CN=39 Runoff=0.03 cfs 0.004 af
Subcatchment30S: West Area	Runoff Area=6,749 sf 0.00% Impervious Runoff Depth=1.20" Tc=6.0 min CN=39 Runoff=0.14 cfs 0.015 af
Subcatchment32S: (new Subcat)	Runoff Area=35,943 sf 41.69% Impervious Runoff Depth=3.86" Tc=6.0 min CN=64 Runoff=3.65 cfs 0.265 af
Reach SP1: Site Contribution to	Avg. Flow Depth=1.00' Max Vel=3.56 fps Inflow=2.69 cfs 0.713 af
12.0" Round Pipe n=0.013 L=152.0' S=0.0047 '/'	Capacity=2.45 cfs Outflow=2.57 cfs 0.713 af
Reach SP2: Offsite	Inflow=0.18 cfs 0.019 af Outflow=0.18 cfs 0.019 af
Pond 20P: 2800 SF	Peak Elev=146.73' Storage=11,944 cf Inflow=9.25 cfs 0.672 af Primary=2.52 cfs 0.671 af Secondary=0.00 cfs 0.000 af Outflow=2.52 cfs 0.671 af
Pond CB: (new Pond)	Peak Elev=140.74' Inflow=0.55 cfs 0.041 af 12.0" Round Culvert n=0.013 L=22.0' S=0.0100 '/' Outflow=0.55 cfs 0.041 af

Total Runoff Area = 2.371 ac Runoff Volume = 0.733 af Average Runoff Depth = 3.71"
64.14% Pervious = 1.521 ac 35.86% Impervious = 0.850 ac

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Type III 24-hr 100-YR Rainfall=8.10"

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Summary for Subcatchment 10S: Northeast Area

Runoff = 0.55 cfs @ 12.10 hrs, Volume= 0.041 af, Depth= 2.74"

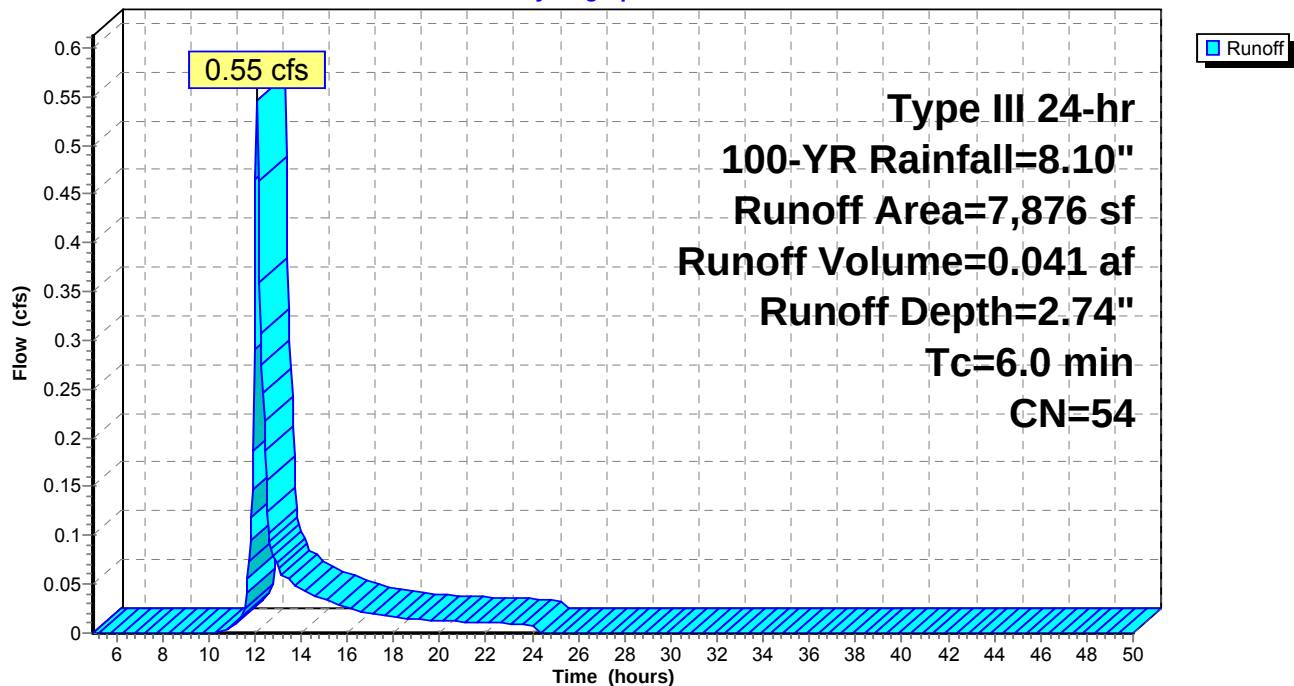
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-50.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-YR Rainfall=8.10"

	Area (sf)	CN	Description
*	1,401	98	Existing Impervious
*	660	98	New Impervious
	5,815	39	>75% Grass cover, Good, HSG A
	7,876	54	Weighted Average
	5,815		73.83% Pervious Area
	2,061		26.17% Impervious Area

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

Subcatchment 10S: Northeast Area

Hydrograph



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Type III 24-hr 100-YR Rainfall=8.10"

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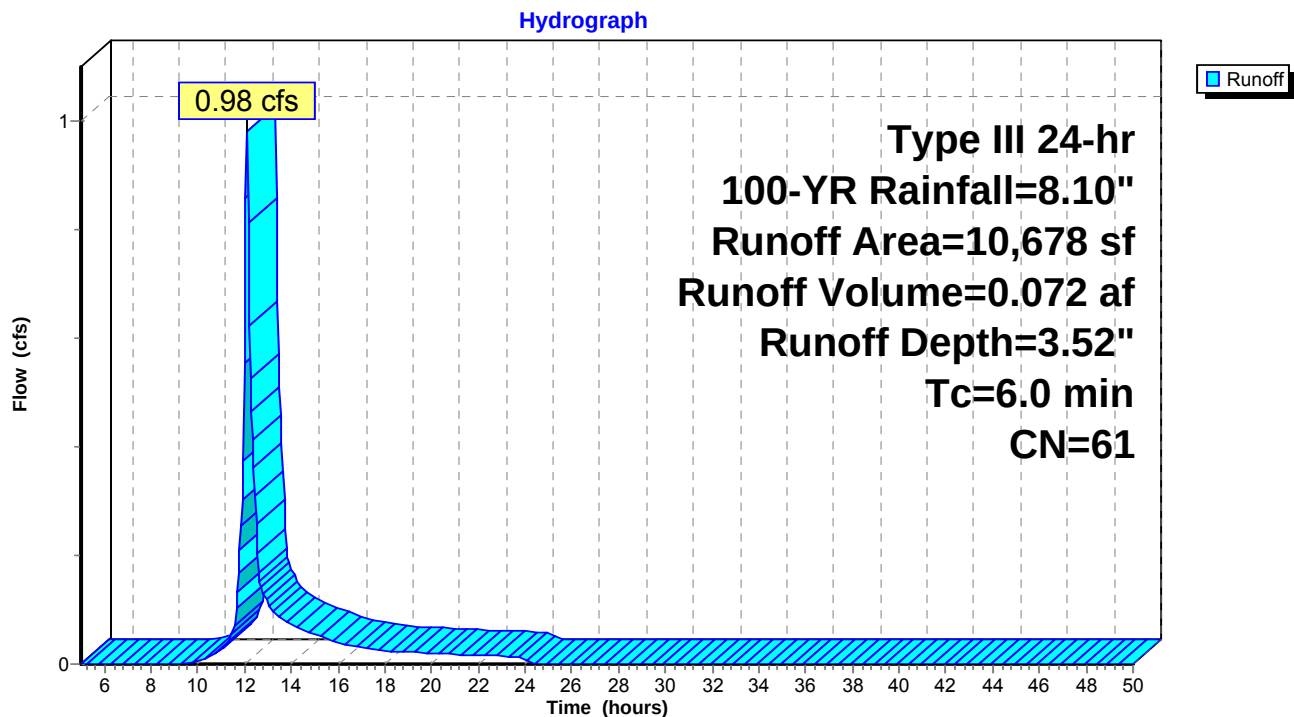
Summary for Subcatchment 12S: (new Subcat)

Runoff = 0.98 cfs @ 12.10 hrs, Volume= 0.072 af, Depth= 3.52"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-50.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-YR Rainfall=8.10"

	Area (sf)	CN	Description
*	368	98	Existing Impervious
*	3,697	98	New Impervious
	6,613	39	>75% Grass cover, Good, HSG A
	10,678	61	Weighted Average
	6,613		61.93% Pervious Area
	4,065		38.07% Impervious Area

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

Subcatchment 12S: (new Subcat)

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Type III 24-hr 100-YR Rainfall=8.10"

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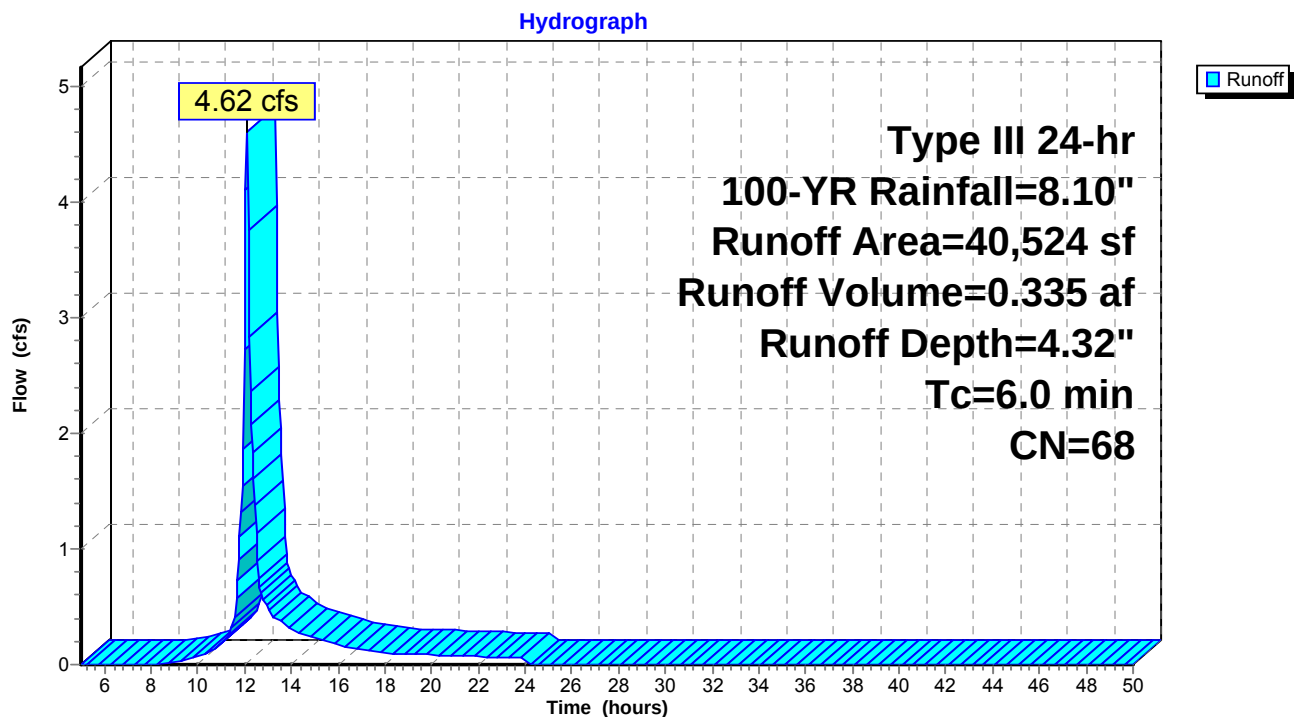
Summary for Subcatchment 20S: All Imp & Dev

Runoff = 4.62 cfs @ 12.09 hrs, Volume= 0.335 af, Depth= 4.32"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-50.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-YR Rainfall=8.10"

Area (sf)	CN	Description
11,061	98	Paved parking, HSG A
4,866	98	Unconnected roofs, HSG A
24,597	49	50-75% Grass cover, Fair, HSG A
40,524	68	Weighted Average
24,597		60.70% Pervious Area
15,927		39.30% Impervious Area
4,866		30.55% Unconnected

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

Subcatchment 20S: All Imp & Dev

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Type III 24-hr 100-YR Rainfall=8.10"

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Summary for Subcatchment 23S: (new Subcat)

Runoff = 0.03 cfs @ 12.12 hrs, Volume= 0.004 af, Depth= 1.20"

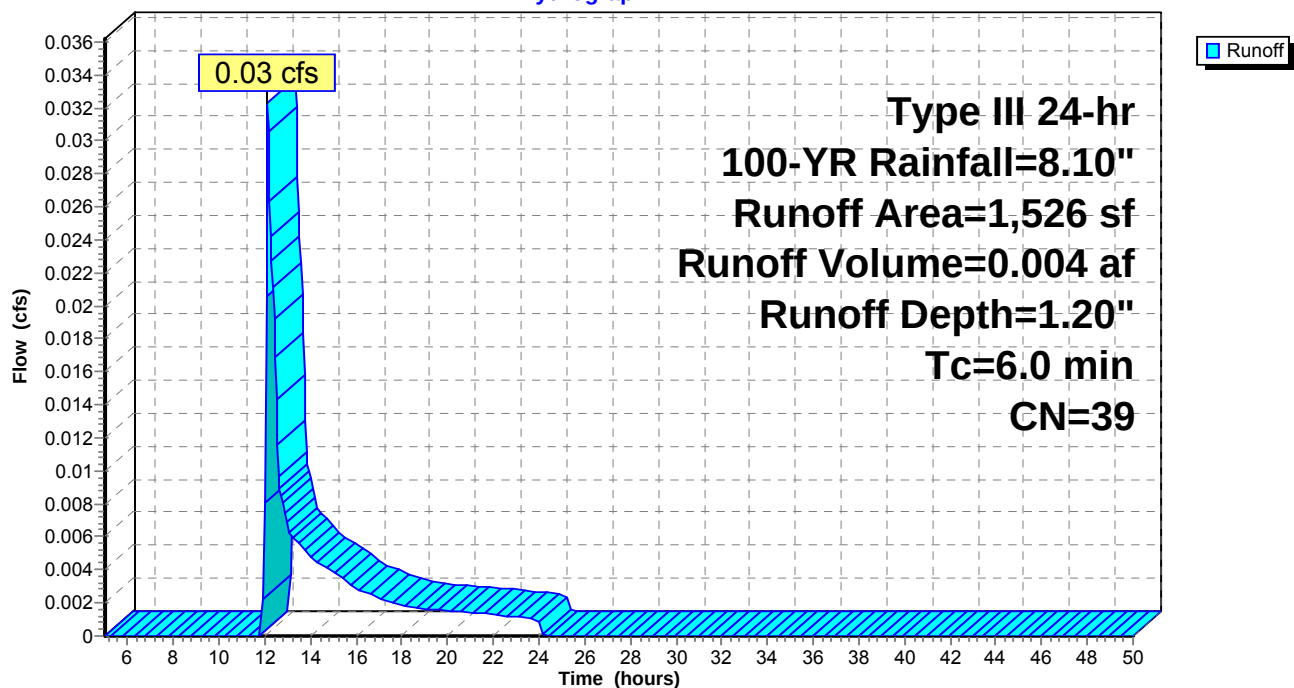
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-50.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-YR Rainfall=8.10"

Area (sf)	CN	Description
1,526	39	>75% Grass cover, Good, HSG A
1,526		100.00% Pervious Area

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

Subcatchment 23S: (new Subcat)

Hydrograph



Summary for Subcatchment 30S: West Area

Runoff = 0.14 cfs @ 12.12 hrs, Volume= 0.015 af, Depth= 1.20"

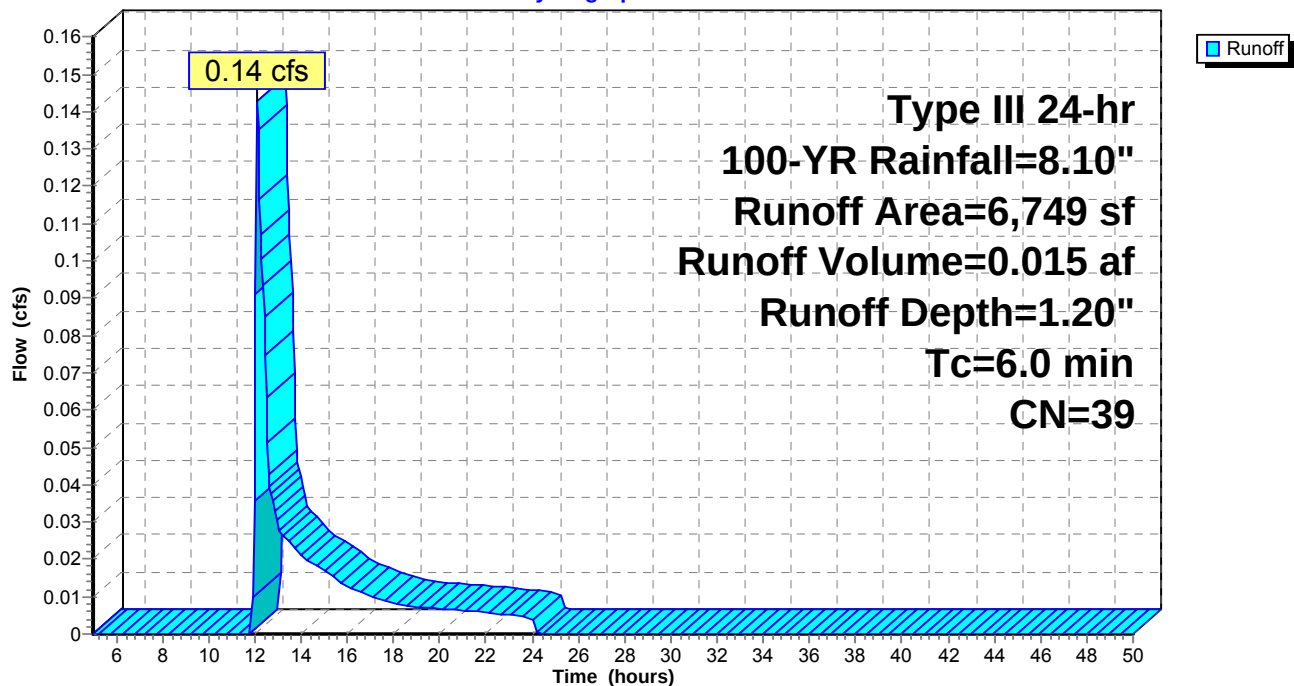
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-50.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-YR Rainfall=8.10"

Area (sf)	CN	Description
6,749	39	>75% Grass cover, Good, HSG A
6,749		100.00% Pervious Area

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

Subcatchment 30S: West Area

Hydrograph



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Type III 24-hr 100-YR Rainfall=8.10"

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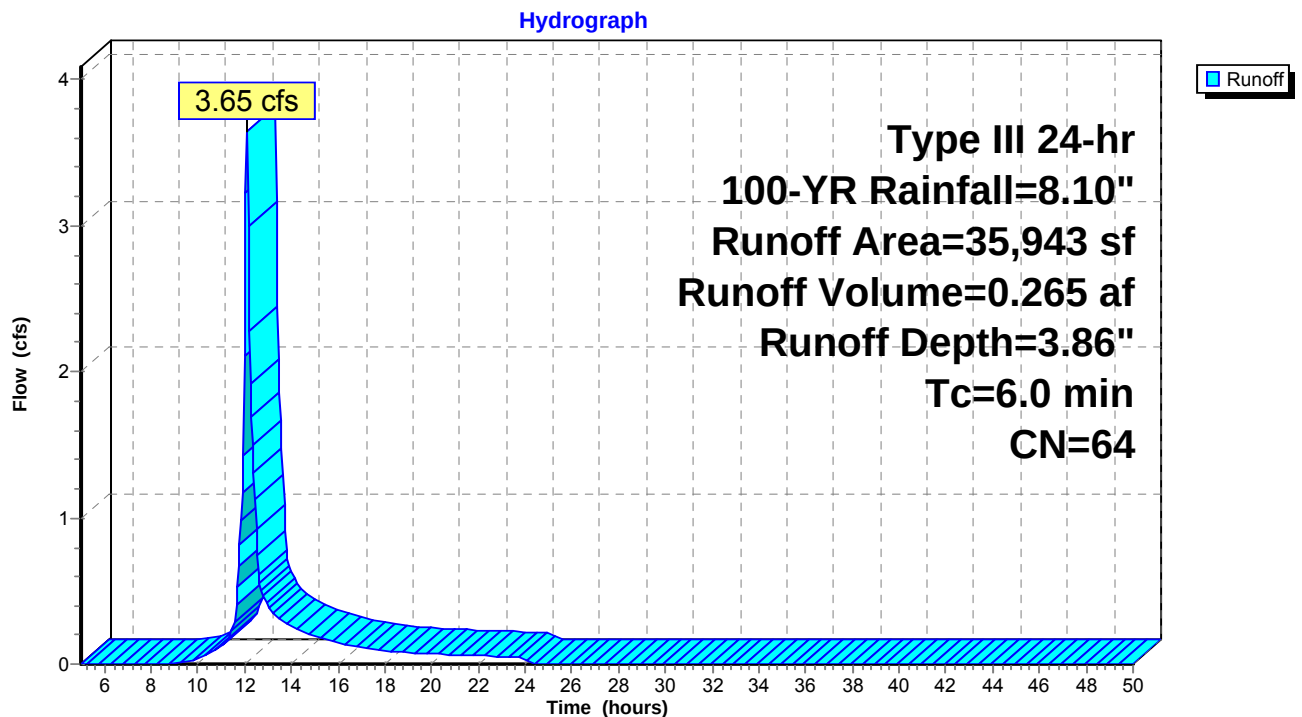
Summary for Subcatchment 32S: (new Subcat)

Runoff = 3.65 cfs @ 12.09 hrs, Volume= 0.265 af, Depth= 3.86"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-50.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-YR Rainfall=8.10"

	Area (sf)	CN	Description
*	7,432	98	Pavement
*	7,554	98	Roofs
	20,957	39	>75% Grass cover, Good, HSG A
	35,943	64	Weighted Average
	20,957		58.31% Pervious Area
	14,986		41.69% Impervious Area

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

Subcatchment 32S: (new Subcat)

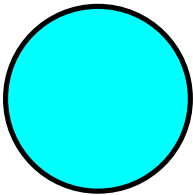
Summary for Reach SP1: Site Contribution to Existing Collection System

Inflow Area = 2.181 ac, 38.98% Impervious, Inflow Depth > 3.92" for 100-YR event
 Inflow = 2.69 cfs @ 12.47 hrs, Volume= 0.713 af
 Outflow = 2.57 cfs @ 12.59 hrs, Volume= 0.713 af, Atten= 4%, Lag= 7.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-50.00 hrs, dt= 0.05 hrs
 Max. Velocity= 3.56 fps, Min. Travel Time= 0.7 min
 Avg. Velocity= 1.53 fps, Avg. Travel Time= 1.7 min

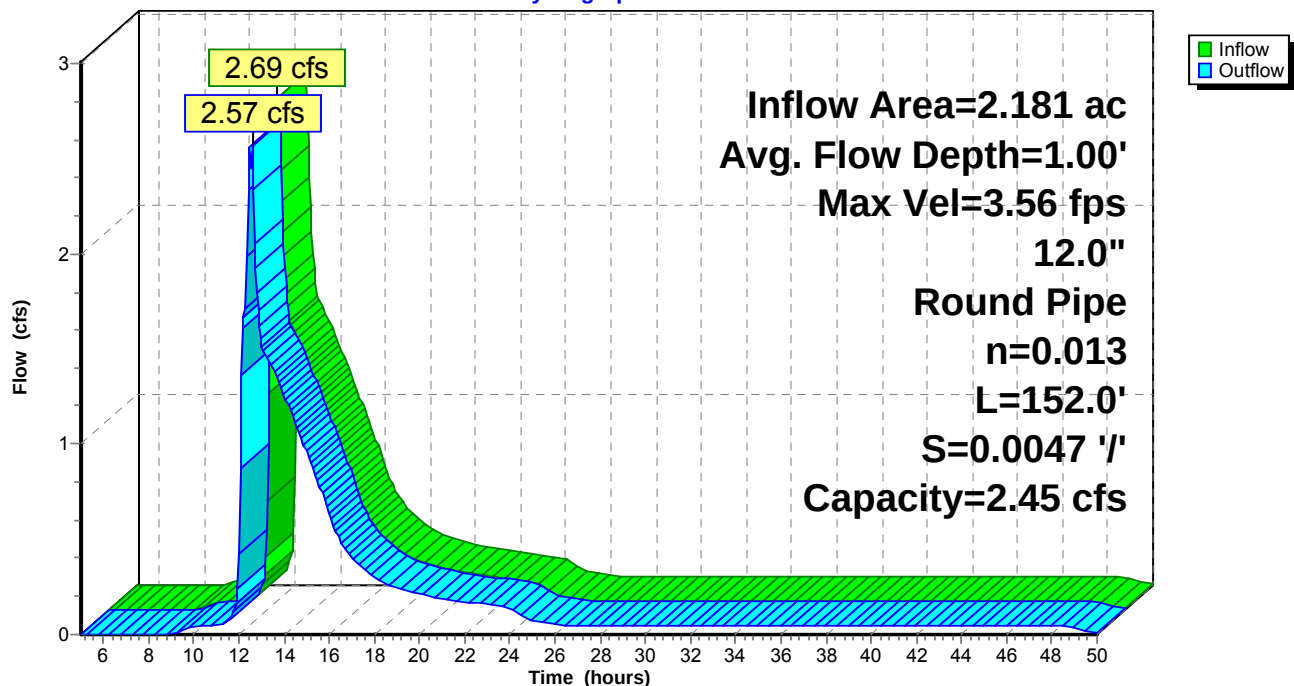
Peak Storage= 120 cf @ 12.53 hrs
 Average Depth at Peak Storage= 1.00'
 Bank-Full Depth= 1.00' Flow Area= 0.8 sf, Capacity= 2.45 cfs

12.0" Round Pipe
 n= 0.013 Clay tile
 Length= 152.0' Slope= 0.0047 '/
 Inlet Invert= 139.12', Outlet Invert= 138.40'



Reach SP1: Site Contribution to Existing Collection System

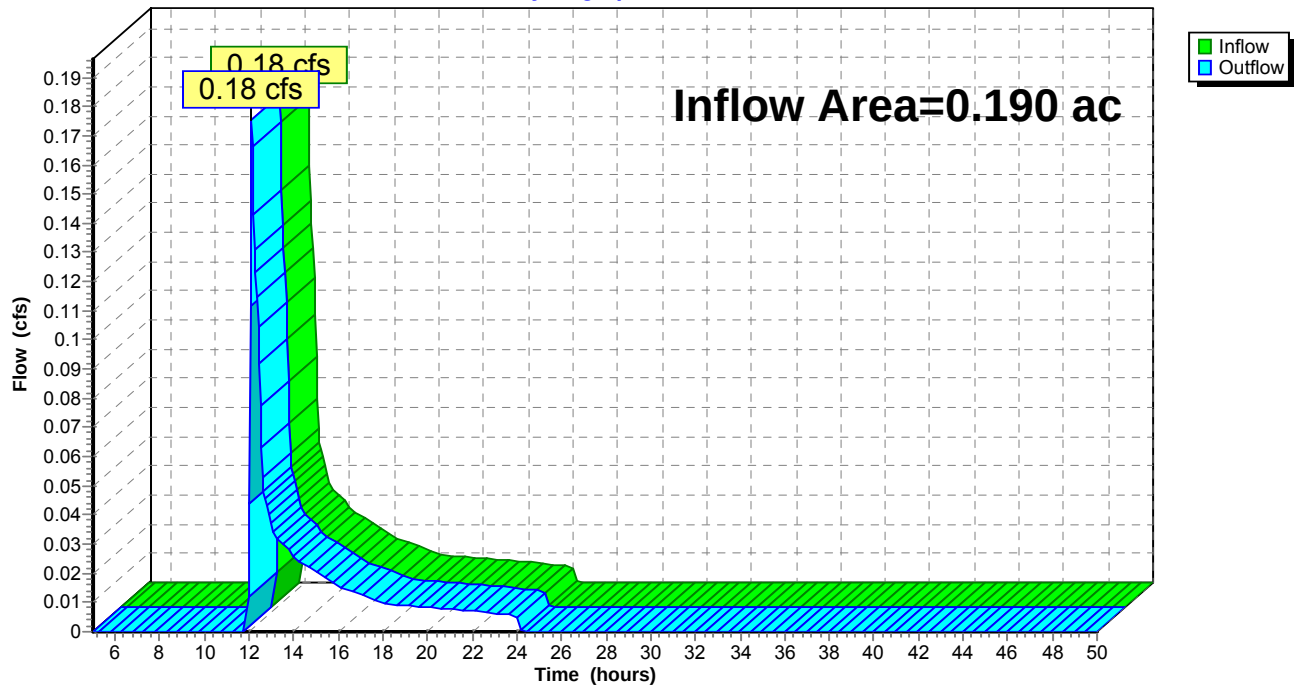
Hydrograph



Summary for Reach SP2: Offsite

Inflow Area = 0.190 ac, 0.00% Impervious, Inflow Depth = 1.20" for 100-YR event
Inflow = 0.18 cfs @ 12.12 hrs, Volume= 0.019 af
Outflow = 0.18 cfs @ 12.12 hrs, Volume= 0.019 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-50.00 hrs, dt= 0.05 hrs

Reach SP2: Offsite**Hydrograph**

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Type III 24-hr 100-YR Rainfall=8.10"

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Summary for Pond 20P: 2800 SF

Inflow Area = 2.001 ac, 40.14% Impervious, Inflow Depth = 4.03" for 100-YR event
 Inflow = 9.25 cfs @ 12.09 hrs, Volume= 0.672 af
 Outflow = 2.52 cfs @ 12.48 hrs, Volume= 0.671 af, Atten= 73%, Lag= 23.4 min
 Primary = 2.52 cfs @ 12.48 hrs, Volume= 0.671 af
 Secondary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 5.00-50.00 hrs, dt= 0.05 hrs
 Peak Elev= 146.73' @ 12.48 hrs Surf.Area= 5,183 sf Storage= 11,944 cf

Plug-Flow detention time= 262.8 min calculated for 0.671 af (100% of inflow)
 Center-of-Mass det. time= 263.4 min (1,096.7 - 833.4)

Volume	Invert	Avail.Storage	Storage Description
#1	143.75'	25,953 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
143.75	2,843	0	0
144.00	3,016	732	732
145.00	3,855	3,436	4,168
146.00	4,601	4,228	8,396
147.00	5,404	5,003	13,398
148.00	6,263	5,834	19,232
149.00	7,179	6,721	25,953

Device	Routing	Invert	Outlet Devices
#1	Primary	140.75'	12.0" Round Culvert L= 54.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 140.75' / 138.86' S= 0.0350 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf
#2	Device 1	141.25'	1.0" Vert. Orifice/Grate C= 0.600
#3	Device 1	144.93'	5.5" W x 6.5" H Vert. Orifice/Grate C= 0.600
#4	Device 1	146.56'	18" Nyloplast 18" Domed Structure Head (feet) 0.00 0.05 0.10 0.15 0.20 0.25 0.30 0.35 0.37 0.40 0.45 0.50 Disch. (cfs) 0.000 0.200 0.500 0.800 1.400 1.900 2.500 3.100 3.500 3.600 3.800 4.000
#5	Secondary	149.00'	12.0' long x 6.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.37 2.51 2.70 2.68 2.68 2.67 2.65 2.65 2.65 2.65 2.66 2.66 2.67 2.69 2.72 2.76 2.83

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Type III 24-hr 100-YR Rainfall=8.10"

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Primary OutFlow Max=2.50 cfs @ 12.48 hrs HW=146.72' (Free Discharge)

1=Culvert (Passes 2.50 cfs of 8.85 cfs potential flow)

2=Orifice/Grate (Orifice Controls 0.06 cfs @ 11.22 fps)

3=Orifice/Grate (Orifice Controls 1.47 cfs @ 5.93 fps)

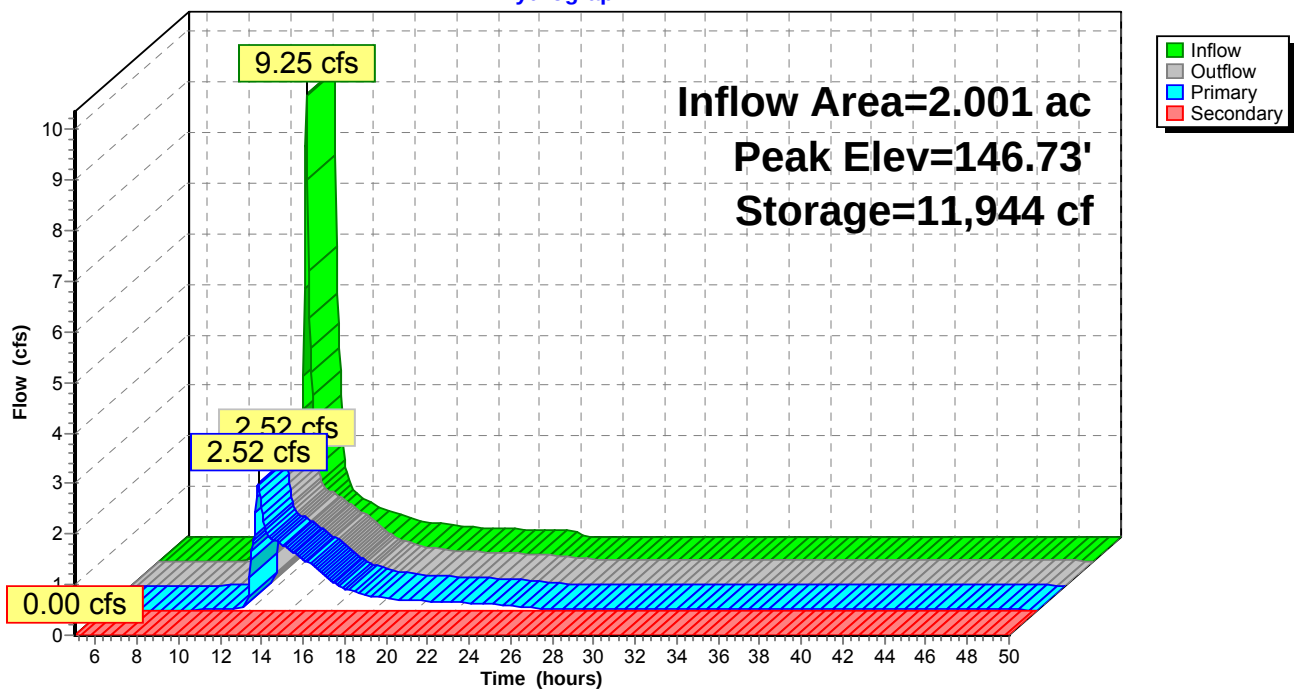
4=18" Nyloplast 18" Domed Structure (Custom Controls 0.96 cfs)

Secondary OutFlow Max=0.00 cfs @ 5.00 hrs HW=143.75' (Free Discharge)

5=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond 20P: 2800 SF

Hydrograph



Summary for Pond CB: (new Pond)

Inflow Area = 0.181 ac, 26.17% Impervious, Inflow Depth = 2.74" for 100-YR event
 Inflow = 0.55 cfs @ 12.10 hrs, Volume= 0.041 af
 Outflow = 0.55 cfs @ 12.10 hrs, Volume= 0.041 af, Atten= 0%, Lag= 0.0 min
 Primary = 0.55 cfs @ 12.10 hrs, Volume= 0.041 af

Routing by Stor-Ind method, Time Span= 5.00-50.00 hrs, dt= 0.05 hrs

Peak Elev= 140.74' @ 12.10 hrs

Flood Elev= 146.58'

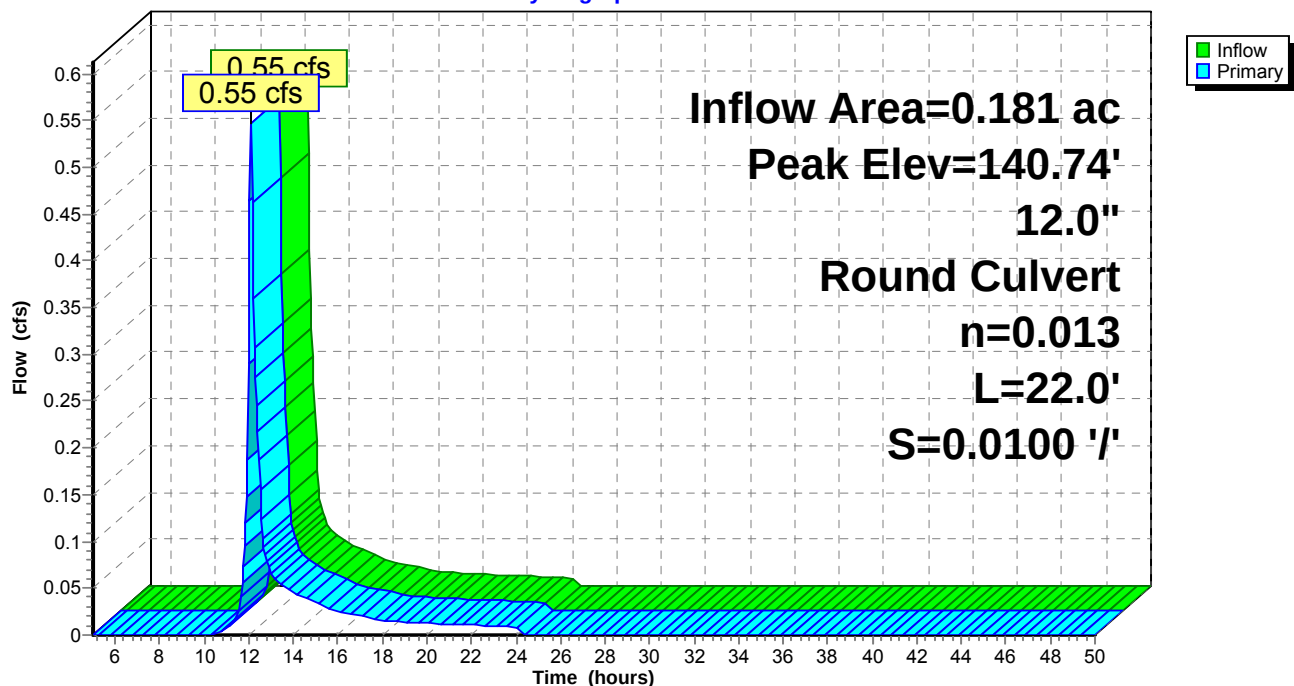
Device	Routing	Invert	Outlet Devices
#1	Primary	140.34'	12.0" Round Culvert L= 22.0' RCP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 140.34' / 140.12' S= 0.0100 '/ Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.54 cfs @ 12.10 hrs HW=140.74' (Free Discharge)

↑1=Culvert (Barrel Controls 0.54 cfs @ 2.78 fps)

Pond CB: (new Pond)

Hydrograph



Attachment C

Inspection, Maintenance and Housekeeping Plan

INSPECTION, MAINTENANCE AND HOUSEKEEPING PLAN

Knight Farm Subdivision Portland, ME

Introduction

During construction, Greenlight Enterprises, LLC will be the responsible party for maintaining construction BMP's. Upon completion of the proposed development, a homeowners' association will be the responsible party for maintaining the stormwater management system. The responsible party shall schedule maintenance of all stormwater management structures, the establishment of any contract services required to implement the program, and the keeping of records and maintenance logbook.

Records of all inspections and maintenance work accomplished must be kept on file and retained for a minimum 5-year time span. The maintenance logbook will be made available to the Maine Department of Environmental Protection (MDEP) and the City of Portland upon request. At a minimum, the appropriate and relevant activities for each of the stormwater management systems will be performed on the prescribed schedule.

The following plan outlines the anticipated inspection, maintenance, and housekeeping procedures for the erosion and sedimentation controls as well as stormwater management devices for the project site. Also, this plan outlines several housekeeping requirements that shall be followed during and after construction. These procedures should be followed in order to ensure the intended function of the designed measures and to prevent unreasonable adverse impacts to the surrounding environment.

The procedures outlined in the Inspection, Maintenance, and Housekeeping Plan is provided as an overview of the anticipated practices to be used on this site. In some instances, additional measures may be required due to unexpected conditions. For additional details on any of the erosion and sedimentation control measures or stormwater management devices to be utilized on this project, refer to the most recently revised edition of the "Maine Erosion and Sedimentation Control BMP" manual and/or the "Stormwater Management for Maine: Best Management Practices" manual as published by the MDEP.

During Construction

1. **Inspection:** During the construction process, it is the Contractor's responsibility to comply with the inspection and maintenance procedures outlined in this section. These responsibilities include inspecting disturbed and impervious areas, erosion control measures, materials storage areas that are exposed to precipitation, and locations where vehicles enter or exit the site. These areas shall

be inspected at least once a week as well as before and after a storm event, and prior to completing permanent stabilization measures. A person with knowledge of erosion and stormwater control, including the standards and conditions in any applicable permits, shall conduct the inspections.

2. **Maintenance:** All measures shall be maintained in an effective operating condition until areas are permanently stabilized. If Best Management Practices (BMPs) need to be maintained or modified, additional BMPs are necessary, or other corrective action is needed, implementation must be completed within seven (7) calendar days and prior to any storm event (rainfall).
3. **Documentation:** A log summarizing the inspections and any corrective action taken must be maintained on-site. The log must include the name(s) and qualifications of the person making the inspections, the date(s) of the inspections, and major observations about the operation and maintenance of erosion and sedimentation controls, material storage areas, and vehicle access points to the site. Major observations must include BMPs that need maintenance, BMPs that failed to operate as designed or proved inadequate for a particular location, and locations where additional BMPs are needed. For each BMP requiring maintenance, BMP needing replacement, and location needing additional BMPs, note in the log the corrective action taken and when it was taken.

The log must be made accessible to the appropriate regulatory agency upon request. The permittee shall retain a copy of the log for a period of at least three (3) years from the completion of permanent stabilization.

4. **Specific Inspection and Maintenance Tasks:** The following is a list of erosion control and stormwater management measures and the specific inspection and maintenance tasks to be performed during construction.

A. Sediment Barriers:

- Hay bale barriers, silt fences, and filter berms shall be inspected immediately after each rainfall and at least daily during prolonged rainfall.
- If the fabric on silt fence or filter barrier should decompose or become ineffective prior to the end of the expected usable life and the barrier is still necessary, it shall be replaced.
- Sediment deposits should be removed after each storm event. They must be removed before deposits reach approximately one-half the height of the barrier.
- Filter berms shall be reshaped as needed.
- Any sediment deposits remaining in place after the silt fence or filter barrier is no longer required should be dressed to conform to the existing grade, prepared, and seeded.

B. Riprap Materials:

- Once a riprap installation has been completed, it should require very little maintenance. It

shall, however, be inspected periodically to determine if high flows have caused scour beneath the riprap or dislodged any of the stone.

C. Erosion Control Blankets:

- Inspect these reinforced areas semi-annually and after significant rainfall events for slumping, sliding, seepage, and scour. Pay close attention to unreinforced areas adjacent to the erosion control blankets, which may experience accelerated erosion.
- Review all applicable inspection and maintenance procedures recommended by the specific blanket manufacturer. These tasks shall be included in addition to this plan.

D. Temporary Storm Drain Inlet Protection:

- The inlet protection structure shall be inspected before each rain event and repaired as necessary.
- Sediment shall be removed and the storm drain sediment barrier restored to its original dimensions when the sediment has accumulated to half of the design depth of the trap.
- Structures shall be removed upon permanent stabilization of the tributary area.
- Upon removal of the structure, all accumulated sediments downstream of the structure shall be cleaned from the storm drain system.

E. Stabilized Construction Entrances/Exits:

- The exit shall be maintained in a condition that will prevent tracking of sediment onto public rights-of-way.
- When the control pad becomes ineffective, the stone shall be removed along with the collected soil material. The entrance should then be reconstructed.
- Areas that have received mud-tracking or sediment deposits shall be swept or washed. Washing shall be done on an area stabilized with aggregate, which drains into an approved sediment-trapping device (not into storm drains, ditches, or waterways).

F. Temporary Seed and Mulch:

- Mulched areas should be inspected after rain events to check for rill erosion.
- If less than 90% of the soil surface is covered by mulch, additional mulch shall be applied in bare areas.
- In applications where seeding and mulch have been applied in conjunction with erosion control blankets, the blankets must be inspected after rain events for dislocation or undercutting.
- Mulch shall continue to be reapplied until 95% of the soil surface has established temporary vegetative cover.

G. Stabilized Drainage Swales:

- Sediment accumulation in the swale shall be removed once the cross section of the swale is reduced by 25%.
- The swales shall be inspected after rainfall events. Any evidence of sloughing of the side slopes or channel erosion shall be repaired and corrective action should be taken to prevent reoccurrence of the problem.
- In addition to the stabilized lining of the channel (i.e. erosion control blankets), stone check dams may be needed to further reduce channel velocity.

5. **Housekeeping:** The following general performance standards apply to the proposed project.

- A. Spill Prevention: Controls must be used to prevent pollutants from being discharged from materials on-site, including storage practices to minimize exposure of the materials to stormwater, and appropriate spill prevention, containment, and response planning and implementation.
- B. Groundwater Protection: During construction, liquid petroleum products and other hazardous materials with the potential to contaminate groundwater may not be stored or handled in areas of the site draining to an infiltration area. An "infiltration area" is any area of the site that by design or as a result of soils, topography and other relevant factors, accumulates runoff that infiltrates into the soil. Dikes, berms, sumps, and other forms of secondary containment that prevent discharge to groundwater may be used to isolate portions of the site for the purposes of storage and handling of these materials.
- C. Fugitive Sediment and Dust: Actions must be taken to insure that activities do not result in noticeable erosion of soils or fugitive dust emissions during or after construction. Oil may not be used for dust control.
- D. Debris and Other Materials: Litter, construction debris, and chemicals exposed to stormwater must be prevented from becoming a pollutant source.
- E. Trench or Foundation Dewatering: Trench dewatering is the removal of water from trenches, foundations, cofferdams, ponds, and other areas within the construction area that retain water after excavation. In most cases, the collected water is heavily silted and hinders correct and safe construction practices. The collected water must be removed from the ponded area, either through gravity or pumping, and must be spread through natural wooded buffers or removed to areas that are specifically designed to collect the maximum amount of sediment possible, like a cofferdam sedimentation basin. Avoid allowing the water to flow over disturbed areas of the site. Equivalent measures may be taken if approved.

After Construction

1. **Inspection:** After construction, the owner or operator shall hire a qualified post-construction stormwater inspector to at least annually, inspect the BMPs, in accordance with all municipal and state inspection, cleaning and maintenance requirements of the approved post-construction stormwater management plan.
2. **Maintenance, and repair:** If a BMP requires maintenance, repair or replacement to function as intended by the approved post-construction stormwater management plan, the owner or operator shall take corrective actions to address the deficiency or deficiencies as soon as possible after the deficiency is discovered and shall provide a record of the deficiency and corrective actions to the Department of Public Services (DPS). The following is a list of permanent erosion control and stormwater management measures and the inspection, maintenance, and housekeeping tasks to be performed after construction.

A. Vegetated Areas:

- Inspect vegetated areas, particularly slopes and embankments, early in the growing season or after heavy rains to identify active or potential erosion problems.
- Replant bare areas or areas with sparse growth. Where rill erosion is evident, armor the area with an appropriate lining or divert the erosive flows to on-site areas able to withstand the concentrated flows.

B. Underdrained Grass Filter

- The inlet and outlet of the BMP shall be checked periodically to ensure that flow structures are not blocked by debris. Inspections should be conducted monthly during wet weather conditions from March to November.
- Debris and sediment buildup shall be removed from the forebay and basin upon reaching a 6-inch accumulation within the forebay and 2 inches within the basin, but not less than annually.
- Mowing of grass may be conducted semiannually to a height of no less than 6-inches, with hand held trimmers or push mowers
- Grass filters shall be inspected annually for erosion, destabilization of sideslopes, embankment settling and other signs of structural failure. Corrective action should be taken immediately upon identification of problems.
- Rototill top of filter bed when ponding exceeds 48 hours
- Replace top several inches of filter material when ponding exceeds 72 hours

C. Catch Basins:

- Inspect and, if required, clean-out catch basins at least once a year, preferably in early spring.
- Clean out must include the removal and legal disposal of accumulated sediments and debris at the bottom of the basin, at any inlet grates, at any inflow channels to the basin, and at any pipes between basins.

- 3. Annual Report:** The owner or operator or a qualified post-construction stormwater inspector hired by that person, shall, on or by June 30 of each year, provide a completed and signed certification that the person has inspected the BMPs and that they are adequately maintained and functioning as intended by the approved post-construction stormwater management plan, or that they require maintenance or repair, including the record of the deficiency and corrective actions taken.
- 4. Duration of Maintenance:** Perform maintenance as described and required for any associated permits unless and until the system is formally accepted by a municipality or quasi-municipal district, or is placed under the jurisdiction of a legally created association that will be responsible for the maintenance of the system. If a municipality or quasi-municipal district chooses to accept a stormwater management system, or a component of a stormwater system, it must provide a letter to the MDEP stating that it assumes responsibility for the system. The letter must specify the components of the system for which the municipality or district will assume responsibility, and that the municipality or district agrees to maintain those components of the system in compliance with MDEP standards. Upon such assumption of responsibility, and approval by the MDEP, the municipality, quasi-municipal district, or association becomes a co-permittee for this purpose only and must comply with all terms and conditions of the permit.

Attachments

Attachment 1 – Sample Stormwater Inspection and Maintenance Form
1728 Washington Avenue, Portland, Maine

Sample Stormwater Inspection and Maintenance Form

**1728 Washington Avenue
Portland, Maine
Attachment 1**

This log is intended to accompany the stormwater Inspection, Maintenance and Housekeeping Plan for the Portland Retirement Residence. The following items shall be checked, cleaned and maintained on a regular basis as specified in the Maintenance Plan and as described in the table below. This log shall be kept on file for a minimum of five (5) years and shall be available for review. Qualified personnel familiar with drainage systems and soils shall perform all inspections. Attached is a copy of the construction and post-construction maintenance logs.

Item	Maintenance Required & Frequency	Date Completed	Maintenance Personnel	Comments
Vegetated Areas	Inspect Slopes			
	Replant Bare Areas			
	Check after Major Storms			
Underdrained Grass Filter	Inspect inlets/outlets to ensure no blockage from debris			
	Inspect sideslopes annually for erosion, destabilization, and embankment settling.			
Catch Basins and Culverts	Remove accumulated sediment and debris			
	Sump depth			

Section 14. Statement of Project's Consistency with City Master Plan

Statement of Project’s Consistency with City Master Plans

There are no City of Portland Master Plans for the subject area.

Section 15. Ability to Serve Letters

- Portland Water District
- City of Portland Public Services – Sewer Division



February 7, 2017
16533

MEANS Group
Portland Water District
P.O. Box 3553
225 Douglass St.
Portland, ME 04102

Request for an Ability to Serve Determination
1728 Washington Avenue, Portland, ME

Dear MEANS Group:

On behalf of our client, Bedrock Holdings LLC, we are currently in the process of filing a site plan application to the City of Portland. As part of this submittal, a review of the Portland Water District's ability to provide water service is required.

The site is identified as Lot A3 on City of Portland Tax Map 351. The property is approximately 2.37± acre parcel located on the west side of Washington Avenue approximately 0.5 miles south of the intersection of Washington Avenue with Riverside Street. The site is currently a single family colonial farmhouse with barns and outbuildings. The proposed development will subdivide the parcel into 9 residential lots. The existing farmhouse will remain on lot 9; however the barns and outbuildings will be removed.

We anticipate a 4-inch diameter water main extension within the new 440-foot public road. It is our understanding that the main in Washington Avenue is a 6-inch diameter water main and a fire hydrant is located adjacent to the project site. The 8 lots that will be new construction will require new water service to provide both domestic usage and support a residential NFPA 13D sprinkler system. As we are in the initial stages of City approval, the flow and pressure requirements for the sprinkler systems are not known at this time. It is not anticipated that the existing farmhouse will require sprinkler protection. We request to continue usage of the existing service from Washington Avenue to serve the farmhouse.

If you have any questions on this project, please do not hesitate to contact me at ghavu@sebagotechnics.com or on my direct line at (207) 200-2090. Thank you for your time and consideration.

Sincerely,

SEBAGO TECHNICS, INC.

A handwritten signature in black ink that reads "Glissen Havu".

Glissen Havu, E.I.
Civil Engineer

GJH/Ilg
Enc.



February 8, 2017
16533

Bradley Roland, P.E.
City of Portland
Department of Public Services
55 Portland Street
Portland, ME 04101-2991

New Utility Service Assessment
1728 Washington Avenue, Portland, ME

Dear Mr. Roland:

On behalf of our client, Bedrock Holdings LLC, we are currently in the process of filing a site plan application to the City of Portland. As part of this submittal, a review of the City's ability to provide wastewater service is required. Enclosed is a copy of the City of Portland Wastewater Capacity Application.

The site is identified as Lot A3 on City of Portland Tax Map 351. The property is a parcel of approximately 2.37± acres located in on the west side of Washington Avenue approximately 0.5 miles south of the intersection of Washington Avenue with Riverside Street. The site is currently a single family colonial farmhouse with barns and outbuildings. The proposed development will subdivide the parcel into 9 residential lots. The existing farmhouse will remain on lot 9; however the barns and outbuildings will be removed.

Based on the Maine Subsurface Wastewater Disposal Rules, the design flow for a 3 bedroom single family dwelling unit is approximately 270 GPD. Therefore, the estimated total design flow for the 8 new residential lots is approximately 2,160 GPD.

Please provide a letter from the City confirming the ability of the existing public wastewater collection and treatment system to serve the proposed project. If you have any questions on this project, please do not hesitate to contact me at ghavu@sebagotechnics.com or on my direct line at (207) 200-2090. Thank you for your time and consideration.

Sincerely,

SEBAGO TECHNICS, INC.

A handwritten signature in black ink that reads "Glissen Havu".

Glissen Havu, E.I.
Civil Engineer

GJH/Ilg
Enc.

Section 16. Statement of Solid Waste Generation

Statement of Solid Waste Generation

A. Estimated Quantities of Solid Waste

The proposed 8-lot residential subdivision is expected to generate normal residential waste (assuming 2 ½ CY/month/unit) 20 CY/month. Each lot owner will be eligible to use the City's solid waste program.

B. Off-Site Disposal of Construction/Demolition Debris

Any material not suitable for on-site disposal will be source separated and transferred by a licensed non-hazardous waste transporter to a local construction material recycling facility.

Local waste management providers include:

- *Casella Waste Systems*, 87 Pleasant Hill Road, Scarborough
- *Troiano Waste*, 10 Filmike Way, South Portland

Local disposal sites include:

- Riverside Recycling Facility, Portland
- Community Recycling Center (CPRC Group), Scarborough

C. On-Site Disposal of Wood Waste/Land Clearing Debris

Stumps and grubblings will be chipped or ground on site. The grindings will be used for erosion control mulch whenever possible.

D. Special or Hazardous Waste

No Hazardous Waste will used or generated.

Section 17. NFPA 1/Fire Department Standards

NFPA 1/Fire Department Standards

Each of the proposed single family homes will be sprinkled in accordance with NFPA 13D guidelines. Furthermore, the site has been designed to meet the requirements of NFPA 1, Chapter 18 more specifically:

Section 18.2 Fire Department Access

The site provides a minimum of 28' wide of clear paved accessed access to entire developed portion of the property. A hammerhead turnaround has been provided at the end of the public roadway.

Section 18.3 Water Supplies

The project will connect to the existing 6" water main in Washington Avenue and extend a 4" main within the proposed roadway.

Section 18.4 Fire Flow Requirements for Buildings

One inch diameter water services to each building will provide adequate flow and pressure for fire protection and domestic flows.

Section 18.5 Fire Hydrants

An existing fire hydrant is located along the frontage of the existing farmhouse on the remaining land of the proposed subdivision.

Section 18. Assessment of Consistency with Design Standards

Assessment of Consistency with Design Standards

The following is an assessment of the conformance with the design standards contained in Section 14-526 and in the City of Portland Technical Manual.

1. Transportation Systems and Street Design Standards

1.1. Impact on Surrounding Street Systems

Based upon the anticipated generation of traffic from the proposed project and the peak traffic generated off the time of the roadway peaks, the project is not expected to have a significant impact on the adjacent streets and public ways.

1.2. Street Grades and Vertical Alignment

A new local public street is proposed as part of this project. The proposed street grade at the intersection with Washington Avenue is 2.8% for 26-feet up to a high point then continues down at 1.0% for 45-feet to a low point and up again to 1% for the remainder of the roadway. Vertical alignments for both the crest and sag vertical curves have been designed in accordance with the local street curve values presented in the City of Portland Technical Manual.

2. Sanitary Sewer and Storm Drain Design Standards

2.1. Manholes, Pipes and Catch Basins

Manholes, pipes and catch basins have been designed to meet the City of Portland Design Manual Standards. Manhole and catch basin details shown on Sheet 7 of 8 have been reviewed to meet the requirements shown on the Sanitary Sewer and Storm Drain Design Standards in Section II of the design manual. Pipe material for the sewer main has been specified as 8-inch diameter PVC SDR 35.

2.2. Building Sewer Laterals

The installation of backwater valves have been indicated on the plan as is required when connecting into a combined sewer system.

3. Public Safety Standards

3.1. Fire Hydrant Standards

The existing fire hydrant adjacent to the project site will be within 500-feet of all proposed structures.

3.2. Single and Town Family Residential Development

One-inch diameter water services are proposed to each single family house lot, which will provide adequate flow and pressure for domestic and residential fire protection.

3.3. Site Access Standards

As required, a turnaround has been designed at the end of the roadway. The turnaround design matches the Turnaround on Dead End Street detail in Section I of the Portland Design Manual.

4. Landscaping and Landscape Preservation Standards

4.1. Street Trees

At least two street trees per single family residential lot have been indicated on the Grading and Utility Plan (Sheet 4 of 8).

5. Portland Stormwater Management Standards and Maine DEP Chapter 500 Stormwater Management

5.1. See Section 13. Stormwater Management Plan. The stormwater BMPs have been designed per the Maine BMP manual as well as Maine DEP Chapter 500 standards.

Section 19. Soils Report

Hydrologic Soil Group—Cumberland County and Part of Oxford County, Maine
(1728 Washington Avenue)



MAP LEGEND

Area of Interest (AOI)

 Area of Interest (AOI)

Soils

Soil Rating Polygons

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

Soil Rating Lines

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

Soil Rating Points

 A
 A/D
 B
 B/D

 C
 C/D
 D
 Not rated or not available

Water Features

 Streams and Canals

Transportation

 Rails
 Interstate Highways
 US Routes
 Major Roads
 Local Roads

Background

 Aerial Photography

MAP INFORMATION

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

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

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

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

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

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

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

Soil Survey Area: Cumberland County and Part of Oxford County, Maine
Survey Area Data: Version 12, Sep 15, 2016

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jul 31, 2013—Aug 11, 2013

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Hydrologic Soil Group

Hydrologic Soil Group— Summary by Map Unit — Cumberland County and Part of Oxford County, Maine (ME005)				
Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
HIB	Hinckley loamy sand, 3 to 8 percent slopes	A	6.2	100.0%
Totals for Area of Interest			6.2	100.0%

Description

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

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

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

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

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

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

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

Rating Options

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher

Greenlight Enterprises, LLC
PO Box 963
Gray, Maine 04039

April 14, 2017

City of Portland
Planning Division
Fourth Floor, City Hall
389 Congress Street
Portland, Maine 04101

Knight Farm Subdivision

Dear Planning Staff:

I am requesting that you allow Sebago Technics, Inc. to represent me before the planners and planning board for the Knight Farm Subdivision application.

Sincerely,

A handwritten signature in black ink, appearing to be "David G.", written over the word "Sincerely,".

President,
Green Light Enterprises, LLC

Section 20. Site/Subdivision Plans



May 10, 2017
16533

Barbara Barhydt, Development Review Manager
City of Portland
Planning and Urban Development Department
389 Congress Street
Portland, Maine 04101

Re: Neighborhood Meeting Documentation
Site Plan – Knight Farm Subdivision, 1728 Washington Avenue, Portland, ME

Dear Barbara:

I, Robert A. McSorley, P.E., Sebago Technics, Inc., consultant for the applicant hereby attest that a neighborhood meeting was held on May 3, 2017 at 1728 Washington Avenue at 6:00 P.M.

I also attest that on April 17, 2017, invitations were mailed to the following:

1. All addresses on the mailing list provided by the Planning Division which includes property owners within 500 feet of the proposed development or within 1000 feet of a proposed industrial subdivision or industrial zone change.
2. Residents on the "interested parties" list.
3. A digital copy of the notice was also provided to the Planning Division (jmy@portlandmaine.gov, shukriaw@portlandmaine.gov, sgo@portlandmaine.gov and bab@portlandmaine.gov) and the assigned planner to be forwarded to those on the interested citizen list who receive e-mail notices.

Sincerely,

SEBAGO TECHNICS, INC.

A handwritten signature in black ink, appearing to read "R. McSorley", is written over a horizontal line.

Robert A. McSorley, P.E.
Senior Project Manager

5/10/17

RAM:llg

Attached to this statement are:

1. Copy of the invitation sent
2. Sign-in sheet
3. Meeting minutes
4. Copy of plan exhibited at neighborhood meeting



April 13, 2017
16533

Level III Site Plan – Neighborhood Meeting
Knight Farm Subdivision

Dear Neighbor:

Please join us for a neighborhood meeting to discuss our plans for a proposed 8 lot subdivision (see attached plan, reverse side of notice) located at 1728 Washington Avenue.

Meeting Location: Site – 1728 Washington Avenue

Meeting Date: May 3, 2017

Meeting Time: 6:00 P.M.

If you have any questions, please call Rob McSorley at Sebago Technics, 200-2074.

Sincerely,

A handwritten signature in black ink, appearing to read "Ron Goddard", with a stylized flourish extending from the end.

for

Ron Goddard
Green Light Enterprises, LLC

**Knight Farm Subdivision
1728 Washington Avenue
Portland, ME**

Neighborhood Meeting – May 3, 2017, 6:00 P.M.

#	Neighbors Name	Street Address
1	Low Guddard	1728 Washington Ave
2	MIKE WILSON	276 BRACKETT ST.
3	Stephanie Wood	89 Greenwood Ln.
4	Liz Winslow	32 Shepherd Ln.
5	Peg Samuels	15 Quaker Ln
6	Walt & Bob Rice	210 Shepherd Lane
7	Jane & David Inman	12 Shepherd Lane
8	RICK ROMANO	1731 WASHINGTON AVE
9	Tina Romano	1731 Washington Ave
10	Jill Tabbutt-Heary	1711 Washington Ave
11	ASTON POTTER	83 GREENWOOD LN
12	Anne Ackerman	52 Dole Dr
13	Stephanie Quattrucci	50 Shepherd Lane
14	Tony Quattrucci	50 Shepherd Lane
15	Bill & Robin Carter	1739 Wash Ave
16	Keth Derrig	1756 Washington Ave.
17	Chris Brown	82 Shepherd Lane
18		
19		
20		
21		
22		
23		
24		
25		

Memorandum

16533

To: City of Portland Planning Department

From: Robert A. McSorley, P.E.

Date: May 8, 2017

Subject: Neighborhood Meeting
Knight Farm Subdivision
1728 Washington Avenue, Portland, ME



On Wednesday, May 3, 2017, 6:00 P.M., the property owner/applicant representative along with Sebago Technics held a neighborhood meeting for the proposed project. This meeting was attended by several neighbors from throughout the neighborhood and adjacent to the proposed project (see attached attendance list). A rendered composite drawing of the proposed Subdivisions and Grading and Utility Plan was on display on a presentation board. The project was presented by Rob McSorley of Sebago Technics and the following questions and discussions below were asked/held.

As part of the questions, there was some discussion presented by an abutter that they have been attempting to have the City purchase and turn the property into a park. Also, it was mentioned that a couple of abutters have looked into developing the property and were told that the site could not be developed the way that they wanted to develop it. There was also discussion that the historical significance of the property had not been properly addressed and that the removal of the barn structure on the site was illegal development because the subdivision has not been approved. ***The proper demolition permits were obtained from the City prior to the demolition.*** It was also noted that the property had been on the market for about 2 years.

This is a list of the neighbor's questions and our responses during the Neighborhood meeting:

1. Is there going to be a public hearing? We were told that there would be no public hearing.

Yes, the project is a Level III Site plan which will have a public hearing before the Planning Board.

2. Will we be noticed for the Planning Board Hearing?

Yes, the city should be notifying all those who were notified for the neighborhood meeting.

3. What will happen to the split rail fence along the west property line (in bad shape)?

Need to confirm whose fence it is. If property owner's, will probably be taken down.

4. Will a new barrier be installed on the property line?

No barrier is proposed by the project. An owner of the single-family lot may elect to install a fence for privacy or to keep a dog in their yard.

5. Will the trees on the property be taken down?

Trees in middle of the property will be taken down; some of the trees along the perimeter of the project may remain.

6. Will you be replacing the trees that you take down?

Each lot on the property is required to plant two street trees as part of the development.

7. Is the project going to use green infrastructure practices?

The project will utilize an under drained soil filter for stormwater treatment.

8. Is there going to be any green preservation on the project?

There is no proposed preservation for the project.

9. Who will be building the lots? Will the lots be for sale?

There will be one builder selected for the project. The intent is not to sell lots but sell spec. homes or a development package for a lot.

10. What is the brown envelope on the plan (presentation drawing at the meeting)?

The light brown area is the potential area for building construction. Building will be limited to maximum lot coverage of the zoning ordinance and be wholly within that envelope.

11. Question about how the drainage/runoff will be affected at the southwest corner of the property (runoff to abutter lot)?

There is knoll on the property about 2/3 of the distance back from Washington Avenue from which a consideration amount of area drains off to the southwest. The proposed grading reduce the amount of area contributing to runoff in that direction with the lots regraded from runoff to be directed to the on-site treatment area.

12. What is the maximum height for the homes?

Designs for individual houses have not been completed at this time. The zoning ordinance allows a maximum height of 35'.

13. Will the houses have basements?

Most of the houses are intended to have basements but there could be homes that are slab on the grade and have no basement.

14. What are the setbacks?

The front and rear setbacks are 25' and the side setback will be 8' – 16' depending on the height of the home and which zoning district the house falls in.

15. Time frame to build and sell?

It is assumed that construction will begin after City approval and the necessary bonds or sureties are in place. The earthwork and construction of utilities, drainage and roadway will commence first. The developer intends to begin and probably build two homes at one time.

16. How far is end of street from end of subdivision?

Approximately 20' to 25'.

17. When will dumpster be emptied? It is full and refuse has been blowing out of it onto adjoining properties.

The property owner has stated that the dumpster currently on site for the removal of the barn will be emptied within the week. It has been emptied previously.

18. Has soil test been done? What if there are buried contaminants or high arsenic levels?

Soil testing has not been done; there may be testing on individual lots relative to the housed designs. It is not expected that there will be contaminated soils on the property. They will be dealt with appropriately if found.

19. Can the owner of the property begin cleaning up the property?

The property owner stated that he has been working on the cleanup as part of the restoration of the residence that will remain on the property.

20. Is the end of street configuration acceptable to the City? Why is it not a cul-de-sac?

The t-turnaround on the proposed subdivision plan is based upon the City's standards. The standards recognize that cul-de-sac are not possible in all situations.

21. Will the trees on the perimeter be removed?

The perimeter trees are expected to be retained as much as possible with the development.

22. Will the developer work with the neighbors and consider doing 4 large houses and have more green space?

Based upon the economics of the development and the need to meet City standards for the street and infrastructure, the development will not be feasible with less homes.

23. Why was the project named Knight Farm Subdivision? Will the developer consider renaming after the last owner?

The older deeds of the property were reviewed to determine an owner name when the property may have been operated as a farm. No.

24. What will the street name be?

The tentative street name is Abner Lane which will need to be approved by the City.

25. Questions and discussions relative to the pond.

Based upon inquiries about the pond, a discussion was held to explain the design of the pond, how it treats the stormwater, the detention of runoff for the different storm events (up to the 100 year event) and discussion on the slopes down to bottom.

26. Will the house be restored and be sold?

The house is currently under restoration by the owner who intends to continue to live in the house.

27. Will there be pressure problems with the water main?

We do not expect that there will be pressure problems. The mains through the neighborhood are looped and there is a 12" main that feed through the Parsons Pond

development. It is expected that the 6" main within this area of Washington Avenue will be replaced in the future because of its age and be replaced by at least an 8" main.

28. Will the houses be sprinkled? If the water line sufficient to provide for the sprinkler systems.

The houses will be sprinkled; the sprinkler requirements for residence structures are such that a smaller main is needed than a commercial project.

29. Will there be sidewalks? Will there be sidewalks along Washington Street?

There is intended to be a sidewalk on one side of the new street and a sidewalk is being proposed along Washington Avenue to connect to the sidewalk at Shepard's Lane.

30. Will all the utilities be underground?

Yes, that is a requirement of the subdivision development.

31. Is there any plans for the right-of-way that extends from the property to Shepard Lane?

None known of at this time.

32. Will the shed structures remain?

No the shed structures will be removed.

33. What will the price ranges for the houses be?

The pricing for the homes have not been determined; however, it is expected that the style and pricing will be similar to those on Shepard's Lane.

34. Has the zoning requirements been reviewed and the dimensional proportion of the structures been addressed (long dimension along right of way)?

The dimensional criteria will need to be addressed at the time of building permits.

35. Will there be a barricade at the end of the right-of-way?

Yes, there will be a guardrail. Abutter asked about vegetation; reply was that it will be looked at.

36. Discussions about the t-turnaround into lot.

One abutter wanted an explanation relative to the t-turnaround and how it relates to the lot. Recommended visiting True Street off Ocean Avenue to look at what it will be.

37. What is the process going forward?

We have submitted for site plan review and this is our required neighborhood meeting. We are awaiting staff and peer review comments. We expect that those will be received shortly and addressed. The project will have a public hearing before the Planning Board at which the project will be presented and discussed.

The neighborhood meeting was concluded at approximately 7:10 – 7:15.

5/03/2017

Sean M. Fitzpatrick, LMSW-cc

1719 Washington Ave

Portland, ME 04103

(802)922-5610

RE: Level III Subdivin Application # 2017-058

City of Portland

Planning Division

389 Congress Street

Portland, ME 04101

To whom it may concern;

I am writing in reference to the proposed 8-lot "Knight Farm" subdivision located at 1728 Washington Ave. Our family home is directly across the street from the proposed site of this development and what follows are our concerns regarding this project.

First, this development will destroy vital natural habitat from our North Deering neighborhood. This site has been used for decades by neighborhood children playing baseball and by wild birds, bats, owls and other wildlife. Simply developing the field will displace children and wildlife alike, while increasing urban density. Open spaces are crucial to the health of a community, both fostering human connection and supporting mental and physical well-being. Additionally, this new development will decrease stormwater retention and increase urban runoff, which is already a problem. North Deering is being rapidly developed and the City has a responsibility to maintain green spaces and develop recreational and natural resources for the residents of the North Deering neighborhood.

Secondly, I object to the creation of any new street off of Washington Ave. The corridor already experiences a tremendous amount of traffic and an enduring problem with speeding. This is an issue I have brought up with city council and our neighborhood association. It is outrageous to imagine another road servicing 9 new homes, with potentially 2-3 cars at each house. That's at least an additional 20-odd cars coming and going daily, adding to an already overcrowded roadway.

I understand that there is a need to develop new housing stock in the city and that this spot of land will likely be developed in some form. I respectfully urge the City Planning Division to please consider the natural environment, and community impact before moving forward with this project.

I can be reached at (802) 922- 5610, or seanmfitzpatrick@hotmail.com for follow up questions.

Sincerely,



Sean M. Fitzpatrick

Google Groups

1728 Washington Ave

Kevin Winship <coachwinship.fhs@gmail.com>

Jun 5, 2017 9:34 PM

Posted in group: **Planning Board**

We are writing to express our concerns over the planned subdivision at 1728 Washington Ave. We live at 32 Shepherd Ln, our backyard will board the new subdivision. I feel that the proposed development has too many lots for the amount of land that is there with no planned green space. The area to be developed has been a beautiful piece of land for as long as we can remember. To put 8 houses in that area would destroy a beautiful piece of green space that this area desperately needs and has been greatly appreciated by the neighborhood. We are very concerned that this big of a development will cause major inconveniences in the neighborhood due to of all the construction, including putting in a new road, sewer water and the houses being built. We are also concerned about increasing traffic on Washington Ave due to the possible new subdivision. Our biggest fear is that this development will effect the value of my house and the other houses on my street in a negative way.

I am hoping that the planning board denies this subdivision.

Thank you for hearing our concerns.

Kevin and Liz Winship
32 Shepherd Ln

KNIGHT FARM SUBDIVISION

1728 WASHINGTON AVE
PORTLAND, MAINE 04103

APPLICANT:
GREENLIGHT
ENTERPRISES, LLC
1728 WASHINGTON AVE.
PORTLAND, MAINE 04103

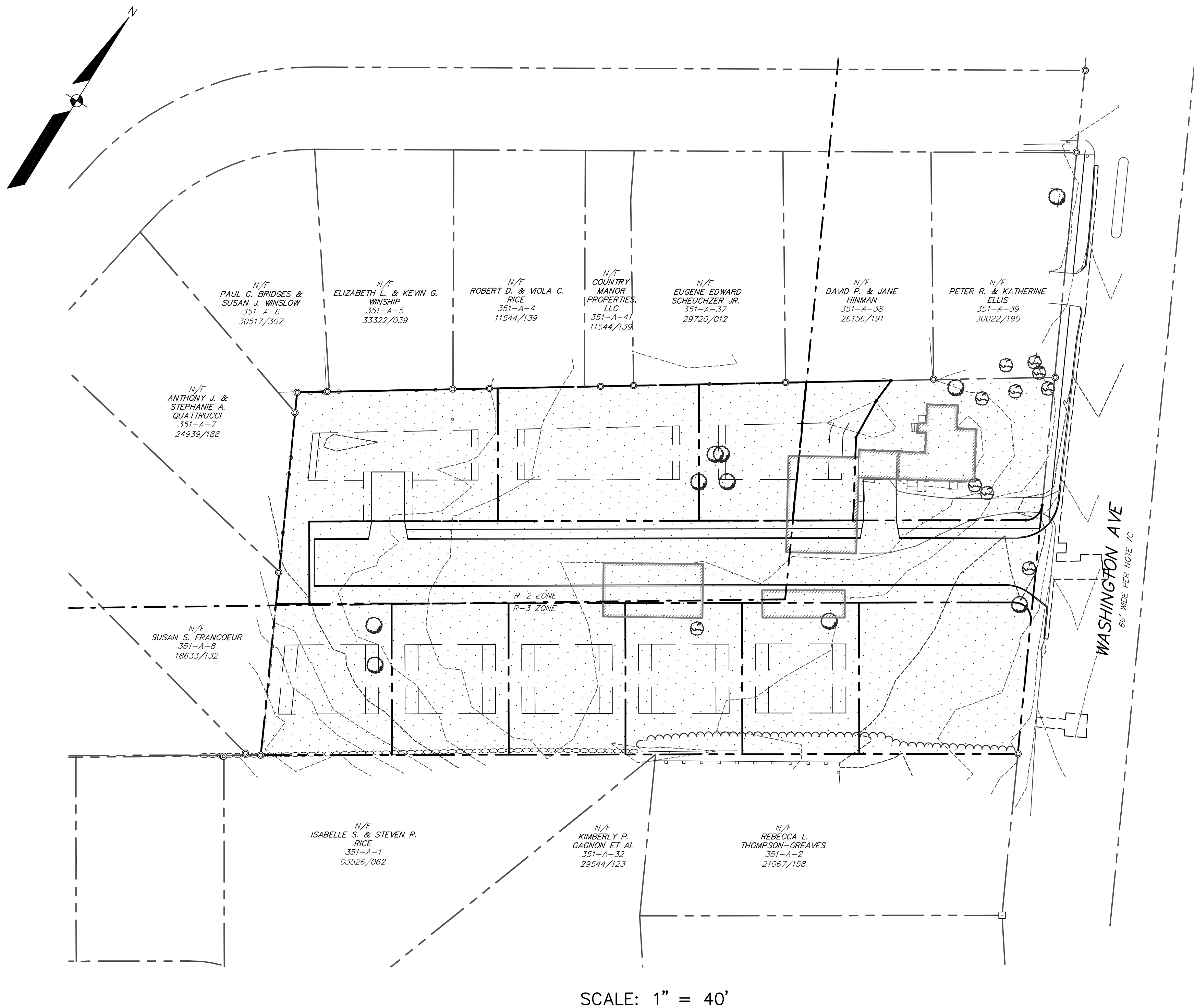
ENGINEER/SURVEYOR:

SEBAGO
TECHNICS

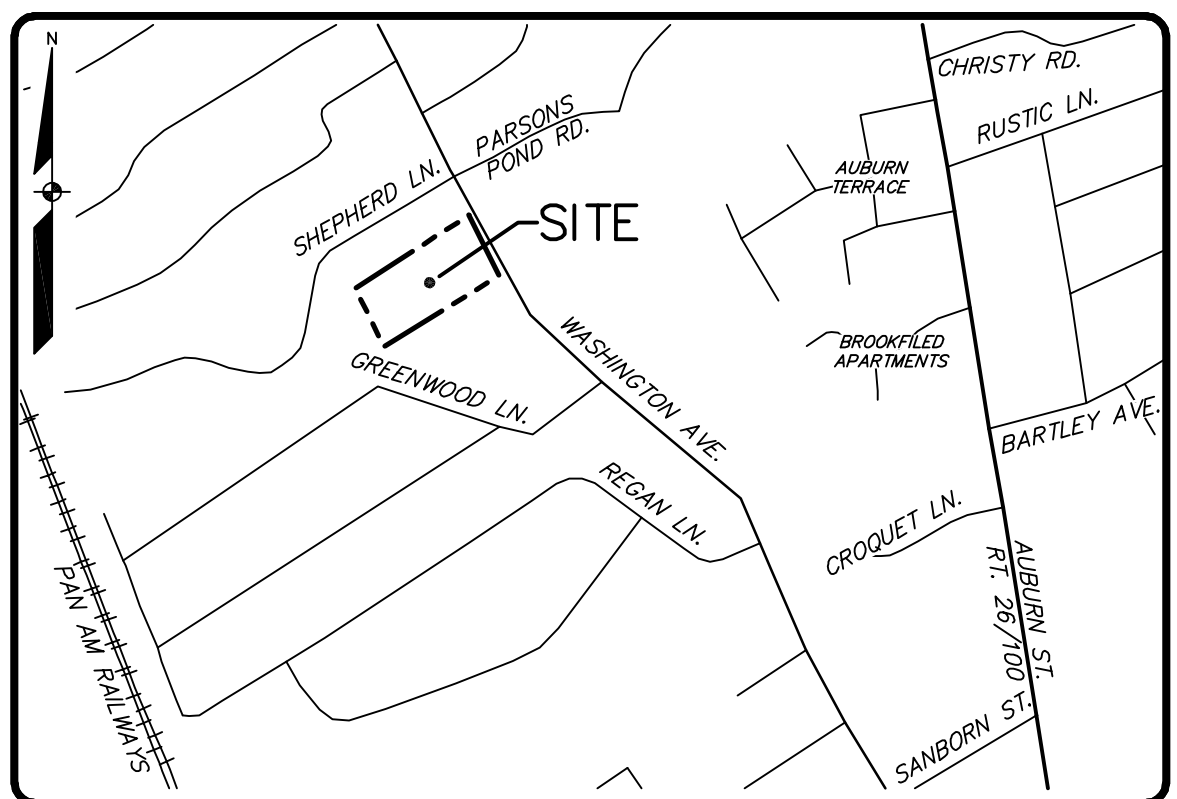
WWW.SEBAGOTECHNICS.COM

75 John Roberts Rd. Suite 1A
South Portland, ME 04106
Tel. 207-200-2100

250 Goddard Rd. Suite B
Lewiston, ME 04240
Tel. 207-783-5656



SCALE: 1" = 40'



LOCATION MAP

NTS

INDEX OF PLANS

SHEET NO.	SHEET TITLE
1	COVER SHEET
2	EXISTING CONDITIONS SURVEY
3	SUBDIVISION PLAN
4	GRADING AND UTILITY PLAN
5	PROFILE
6	DETAILS
7	DETAILS
8	DETAILS
1	PRE DEVELOPMENT WATERSHED PLAN
2	POST DEVELOPMENT WATERSHED PLAN

GENERAL NOTES:

- THE RECORD OWNER OF THE PARCEL IS GREENLIGHT ENTERPRISES LLC BY DEED DATED MARCH 10, 2017 AND RECORDED AT THE CUMBERLAND COUNTY REGISTRY OF DEEDS (CCRD) IN BOOK 33874, PAGE 149.
- THE PROPERTY IS SHOWN AS LOT 3, BLOCK A ON THE CITY OF PORTLAND TAX MAP 351 AND IS LOCATED IN THE R-2 AND R-3 RESIDENTIAL ZONES.
- SPACE AND BULK CRITERIA FOR THE R-2 AND R-3 ZONE ARE AS FOLLOWS:

MINIMUM LOT SIZE:	R-2	R-3
MINIMUM STREET FRONTAGE:	10,000 SQ FT	6,500 SQ FT
MINIMUM FRONT YARD:	50 FT	50 FT
MINIMUM SIDE YARD:	1 & 1 1/2 STORY 12 FT	8 FT
	2 STORY 14 FT	14 FT
MINIMUM REAR YARD:	2 1/2 STORY 16 FT	16 FT
	25 FT	25 FT
MAXIMUM BUILDING HEIGHT:	35 FT	35 FT
MAXIMUM LOT COVERAGE:	20 %	35 %
MINIMUM SIDE YARD SIDE STREET:	20 FT	20 FT
MINIMUM LOT WIDTH:	65 FT	65 FT

 - SEE ORDINANCE FOR MORE PARTICULAR INFORMATION.
- TOTAL AREA OF PARCEL IS APPROXIMATELY 2.15 ACRES.
- BOUNDARY AND TOPOGRAPHIC INFORMATION SHOWN HEREON IS BASED UPON A FIELD SURVEY PERFORMED BY SEBAGO TECHINCS INC. IN JANUARY OF 2017. THERE WAS LIMITED SNOW COVER BUT NO VISIBLE LEDGE WAS OBSERVED. THERE MAY BE SURFACE OR SHALLOW LEDGE ON THE PROPERTY.
- PLAN ORIENTATION IS GRID NORTH, MAINE STATE PLANE COORDINATE SYSTEM, WEST ZONE 1802-NAD83. ELEVATIONS DEPICTED HEREON ARE ON CITY DATUM, BASED ON BENCHMARK INFORMATION PROVIDED BY THE CITY OF PORTLAND.

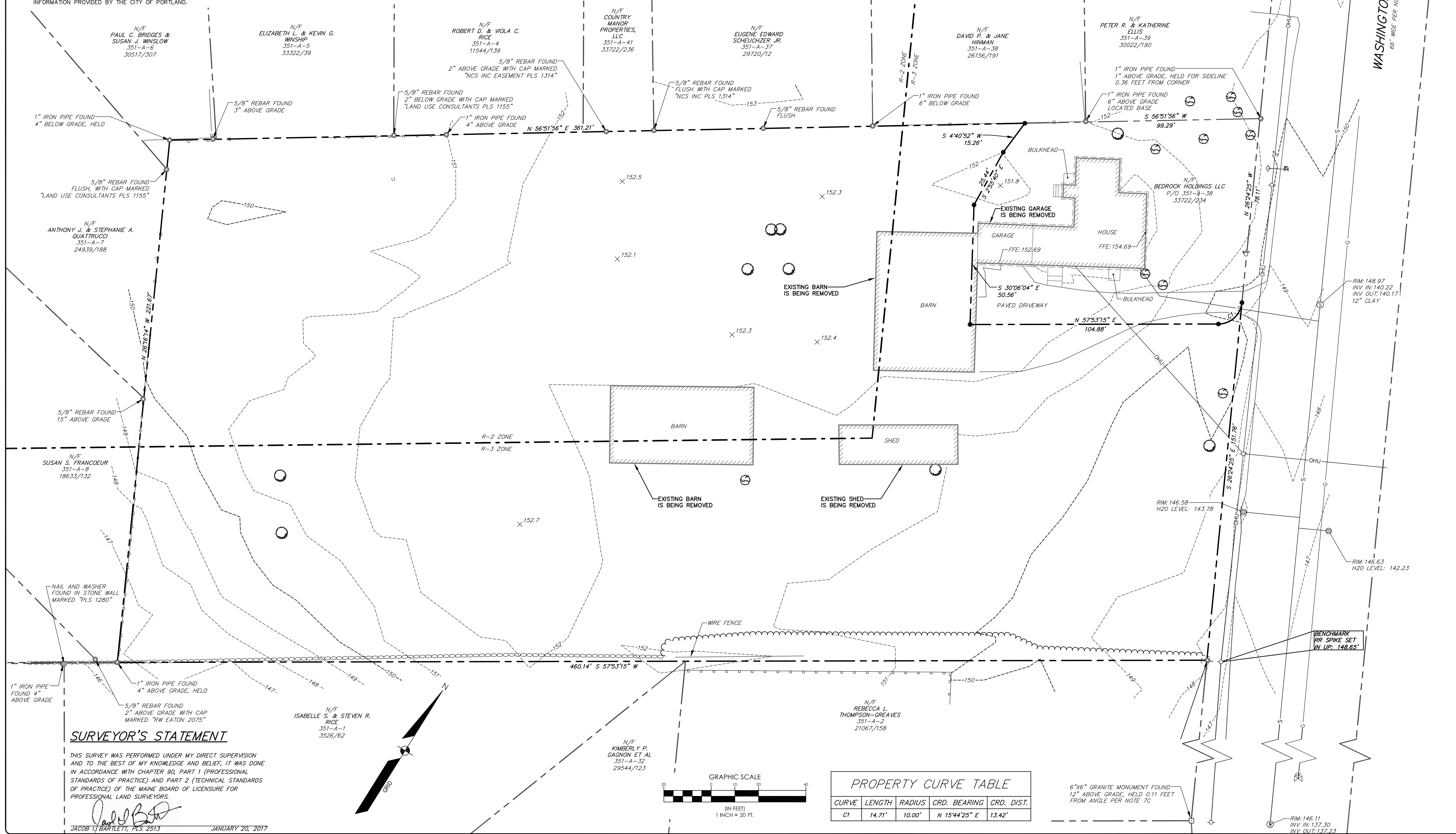
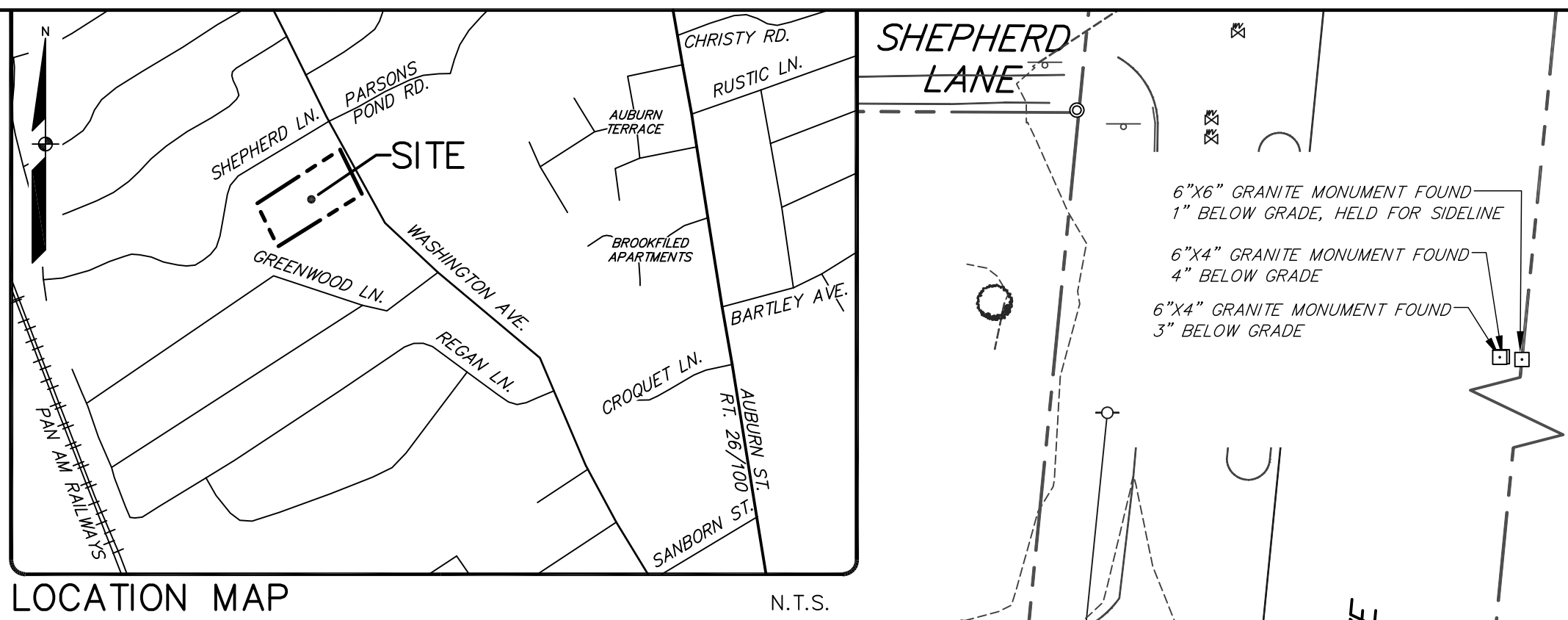
PLAN REFERENCES:

- "PLAN OF GREENWOOD ACRES MADE FOR ROBERT M. CHASE" DATED DECEMBER 12, 1967, BY J.P. BEAULIEU AND W.S. BOOTHBY AND RECORDED AT CORD IN PLAN BOOK 78, PAGE 13.
- "ORCHARD GREEN SUBDIVISION OFF SHEPHERD LANE PORTLAND, MAINE" DATED JUNE 8, 1993 BY LAND USE CONSULTANTS, INC. AND RECORDED AT CORD IN PLAN BOOK 193, PAGE 223.
- WASHINGTON AVENUE BLUE SHEETS, PAGES 28-29, FILED IN THE CITY OF PORTLAND PUBLIC WORKS DEPARTMENT ENGINEERING ARCHIVES.
- "BOUNDARY SURVEY 20 SHEPHERD LANE, PORTLAND, MAINE OWNER: CAROLYN SCHEUCHZER" DATED JUNE 4, 2008 BY NORTHEAST CIVIL SOLUTIONS INC. AND RECORDED AT CORD IN PLAN BOOK 212, PAGE 188.
- "REVISED PLAN OF LAND AT GREENWOOD ACRES MADE FOR ROBERT M. CHASE PORTLAND MAINE" DATED JULY 26, 1987 BY J.P. BEAULIEU AND W.S. BOOTHBY AND RECORDED AT CORD IN PLAN BOOK 75, PAGE 13.
- "EXISTING CONDITIONS SURVEY OF: JIMINO PROPERTY" DATED MARCH 22, 2016 BY SEBAGO TECHINCS INC.
- UTILITY INFORMATION DEPICTED HEREON IS COMPILED USING PHYSICAL EVIDENCE LOCATED IN THE FIELD. UTILITIES DEPICTED HEREON MAY NOT NECESSARILY REPRESENT ALL EXISTING UTILITIES. CONTRACTORS AND/OR DESIGNERS NEED TO CONTACT DIG-SAFE SYSTEMS, INC. (1-888-DIG-SAFE) AND FIELD VERIFY EXISTING UTILITIES PRIOR TO CONSTRUCTION AND/OR EXCAVATION.
- THE LOCUS PROPERTY AS DEPICTED HEREON DOES NOT FALL WITHIN A SPECIAL FLOOD HAZARD AREA AS DELINEATED ON THE FLOOD INSURANCE RATE MAP FOR PORTLAND, MAINE, CUMBERLAND COUNTY, COMMUNITY-PANEL NUMBER 230051-0002-C, HAVING AN EFFECTIVE DATE OF DECEMBER 8, 1998. THE LOCUS FALLS WITHIN AN AREA IDENTIFIED AS ZONE X, AREAS DETERMINED TO BE OUTSIDE 500-YEAR FLOOD PLAIN.
- THE SEWER LINE IS SHOWN ON THE LOCUS PROPERTY PER A PLAN PROVIDED BY THE CITY.

LEGEND

EXISTING	EXISTING
PROPERTY LINE/R.O.W.	CONTOURS
ABUTTER LINE/R.O.W.	SPOT GRADE
SETBACK	PICKET FENCE
REBAR TO BE SET	STOCKADE FENCE
MONUMENT	POST & RAIL FENCE
IRON PIPE/ROD	STONE WALL
CURVE/LINE NO.	DECIDUOUS TREE
ZONE LINE	SHRUB
BENCHMARK	FENCE POST
BENCHMARK DESCRIPTION WITH ELEVATION	GAS
BUILDING	WATER
DECK/STEPS	WATER GATE VALVE
OVERHANG	WATER SHUT OFF
EDGE PAVEMENT	HYDRANT
EDGE CONCRETE	SANITARY SEWER
CURB LINE	SANITARY MANHOLE
OHU	STORM DRAIN
UTILITY POLE	CATCH BASIN
GUY WIRE	PROPOSED PROPERTY LINE/R.O.W.
TREELINE	

LOCATION MAP



SURVEYOR'S STATEMENT

THIS SURVEY WAS PERFORMED UNDER MY DIRECT SUPERVISION AND TO THE BEST OF MY KNOWLEDGE AND BELIEF, IT WAS DONE IN ACCORDANCE WITH CHAPTER 90, PART 1 (PROFESSIONAL STANDARDS OF PRACTICE) AND PART 2 (TECHNICAL STANDARDS OF PRACTICE) OF THE MAINE BOARD OF LICENSURE FOR PROFESSIONAL LAND SURVEYORS.

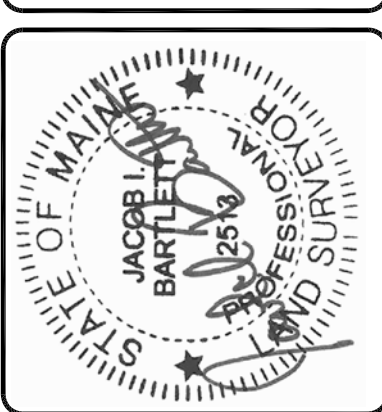
JACOB I. BARTLETT, PLS 2513

JANUARY 20, 2017

PROPERTY CURVE TABLE

CURVE	LENGTH	RADIUS	CRD. BEARING	CRD. DIST.
C1	14.71'	10.00'	N 15°44'25" E	13.42'

6"x6" GRANITE MONUMENT FOUND 12" ABOVE GRADE, HELD 0.11 FEET FROM ANGLE PER NOTE 7C



DESIGNED	CHECKED
JIB	MWE
C	JIB
B	JIB
A	JIB
REV:	BY: DATE: STATUS:
THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM SEBAGO TECHINCS, INC. ANY ALTERATIONS, AUTHORIZED OR OTHERWISE, SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO SEBAGO TECHINCS, INC.	

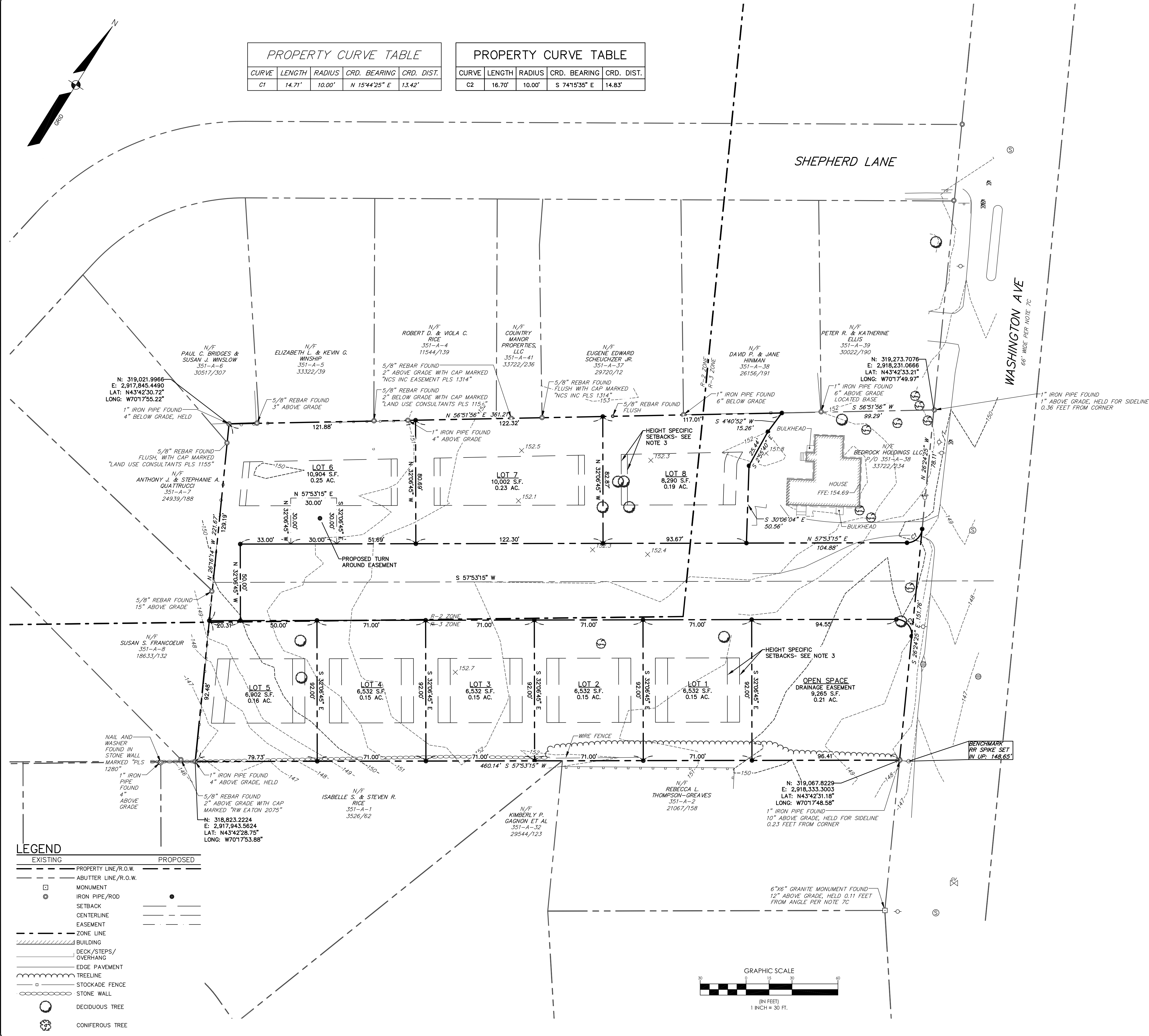
SEBAGO
TECHNICS
WWW.SEBAGOTECHNICS.COM
75 John Roberts Rd. 250 Ogdard Rd.
South Portland, ME 04106
Tel. 207-200-2100

EXISTING CONDITIONS SURVEY
OF:
KNIGHT FARM SUBDIVISION
1228 WASHINGTON AVE.
PORTLAND, MAINE 04103
FOR:
GREENLIGHT ENTERPRISES, LLC
1728 WASHINGTON AVE.
PORTLAND, MAINE 04103

RECORD OWNER:
GREENLIGHT ENTERPRISES, LLC
P.O. BOX 963
GRAY, MAINE 04039

PROJECT NO. 16533
SCALE 1" = 20'

SHEET 2 OF 8



PROPERTY CURVE TABLE				
CURVE	LENGTH	RADIUS	CRD. BEARING	CRD. DIST.
C1	14.71'	10.00'	N 15°44'25" E	13.42'

PROPERTY CURVE TABLE				
CURVE	LENGTH	RADIUS	CRD. BEARING	CRD. DIST.
C2	16.70'	10.00'	S 74°15'35" E	14.83'

LEGEND	
EXISTING	PROPOSED
—	PROPERTY LINE/R.O.W.
—	ABUTTER LINE/R.O.W.
□	MONUMENT
○	IRON PIPE/ROD
—	SETBACK
—	CENTERLINE
—	EASEMENT
---	ZONE LINE
	BUILDING
—	DECK/STEPS/ OVERHANG
—	EDGE PAVEMENT
~~~~~	TREELINE
—	STOCKADE FENCE
—	STONE WALL
○	DECIDUOUS TREE
⊗	CONIFEROUS TREE



LOCATION MAP

GENERAL NOTES:

- THE RECORD OWNER OF THE PARCEL IS GREENLIGHT ENTERPRISES LLC BY DEED DATED MARCH 10, 2017 AND RECORDED AT THE CUMBERLAND COUNTY REGISTRY OF DEEDS (CORD) IN BOOK 33874, PAGE 149.
- THE PROPERTY IS SHOWN AS LOT 3, BLOCK A ON THE CITY OF PORTLAND TAX MAP 351 AND IS LOCATED IN THE R-2 AND R-3 RESIDENTIAL ZONES.
- SPACE AND BULK CRITERIA FOR THE R-2 AND R-3 ZONE ARE AS FOLLOWS:

	R-2	R-3
MINIMUM LOT SIZE:	10,000 SQ FT	6,500 SQ FT
MINIMUM STREET FRONTAGE:	50 FT	50 FT
MINIMUM FRONT YARD:	25 FT	25 FT
MINIMUM SIDE YARD:	1 & 1 1/2 STORY 12 FT	8 FT
	2 STORY 14 FT	14 FT
	2 1/2 STORY 16 FT	16 FT
MINIMUM REAR YARD:	25 FT	25 FT
MAXIMUM BUILDING HEIGHT:	35 FT	35 FT
MAXIMUM LOT COVERAGE:	20 %	35 %
MINIMUM SIDE YARD SIDE STREET	20 FT	20 FT
MINIMUM LOT WIDTH	65 FT	80 FT

• SEE ORDINANCE FOR MORE PARTICULAR INFORMATION.
- TOTAL AREA OF PARCEL IS APPROXIMATELY 2.15 ACRES.
- BOUNDARY AND TOPOGRAPHIC INFORMATION SHOWN HEREON IS BASED UPON A FIELD SURVEY PERFORMED BY SEBAGO TECHINCS INC. IN JANUARY OF 2017. THERE WAS LIMITED SNOW COVER BUT NO VISIBLE LEDGE WAS OBSERVED. THERE MAY BE SURFACE OR SHALLOW LEDGE ON THE PROPERTY.
- PLAN ORIENTATION IS GRID NORTH, MAINE STATE PLANE COORDINATE SYSTEM, WEST ZONE 1802-NAD83. ELEVATIONS DEPICTED HEREON ARE ON CITY DATUM, BASED ON BENCHMARK INFORMATION PROVIDED BY THE CITY OF PORTLAND.
- PLAN REFERENCES:
  - "PLAN OF GREENWOOD ACRES MADE FOR ROBERT M. CHASE" DATED DECEMBER 12, 1967, BY J.P. BEAULIEU AND W.S. BOOTHBY AND RECORDED AT CORD IN PLAN BOOK 78, PAGE 13.
  - "ORCHARD GREEN SUBDIVISION OFF SHEPHERD LANE PORTLAND, MAINE" DATED JUNE 8, 1993 BY LAND USE CONSULTANTS, INC. AND RECORDED AT CORD IN PLAN BOOK 193, PAGE 223.
  - WASHINGTON AVENUE BLUE SHEETS, PAGES 28-29, FILED IN THE CITY OF PORTLAND PUBLIC WORKS DEPARTMENT ENGINEERING ARCHIVES.
  - "BOUNDARY SURVEY 20 SHEPHERD LANE, PORTLAND, MAINE OWNER: CAROLYN SCHEUCHZER" DATED JUNE 4, 2008 BY NORTHEAST CIVIL SOLUTIONS INC. AND RECORDED AT CORD IN PLAN BOOK 212, PAGE 188.
  - "REVISED PLAN OF LAND AT GREENWOOD ACRES MADE FOR ROBERT M. CHASE PORTLAND MAINE" DATED JULY 26, 1967 BY J.P. BEAULIEU AND W.S. BOOTHBY AND RECORDED AT CORD IN PLAN BOOK 75, PAGE 13.
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- THE SEWER LINE IS SHOWN ON THE LOCUS PROPERTY PER A PLAN PROVIDED BY THE CITY.
- WAIVERS:
  - THE APPLICANT REQUESTS A WAIVER OF THE LAND USE CODE, CHAPTER 14, ARTICLE 4, SEC 14-49B, SUBSECTION 8, PARAGRAPH A REQUIRING THE CONSTRUCTION OF SIDEWALKS IN A SUBDIVISION SETBACK.
- PROJECT IMPACTS:
  - TOTAL DISTURBED AREA: 2.11 ACRES
  - TOTAL IMPACTED WETLAND AREA: 0.00 SQ. FT.
- LOT 8 IS SPLIT BETWEEN BOTH THE R2 AND R3 ZONES. THE AREA CALCULATIONS FOR LOT 8 ARE AS FOLLOWS: 3,197 SF IS IN THE R3 ZONE WITH A 6,500 SF REQUIREMENT, BEING 49.18 % OF THE LOT REQUIREMENT. 5,093 S.F. OF LOT 8 IS IN THE R2 ZONE, WITH A 10,000 SF REQUIREMENT, BEING 50.93% OF THE REQUIRED LOT AREA WHICH CALCULATES TO A TOTAL OF 100.11% LOT REQUIREMENT AS DIRECTED BY THE CITY ZONING ADMINISTRATOR. THE FRONT AND REAR SETBACKS FOR LOT 8 ARE THE SAME IN EACH ZONE. THE SIDE SETBACKS FOR EACH ZONE SHALL MEET THE STANDARDS FOR EACH ZONE.

APPROVAL-  
CITY OF PORTLAND  
PLANNING BOARD

DATE	
_____	CHAIRPERSON
_____	
_____	
_____	
_____	
_____	
_____	
_____	
_____	

DESIGNED  
JIB

CHECKED  
MWE

PLANNING BOARD SUBMISSION

DATE: 3-14-17

STATUS: Awaiting Review

REV: BY: DATE: STATUS:

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

SEBAGO TECHINCS

WWW.SEBAGOTECHINCS.COM

75 John Roberts Rd.  
Suite 200  
South Portland, ME 04106  
Tel: 207-200-2100

250 Oodard Rd.  
South Portland, ME 04106  
Tel: 207-783-5656

SUBDIVISION PLAN

OF:

KNIGHT FARM SUBDIVISION

1728 WASHINGTON AVE.  
PORTLAND, MAINE 04103

FOR RECORD OWNER:

GREENLIGHT ENTERPRISES, LLC

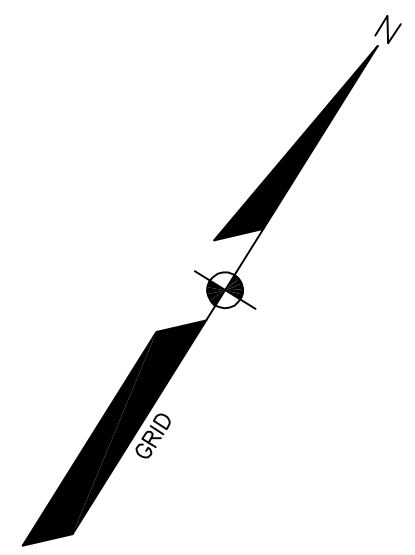
1728 WASHINGTON AVE.  
PORTLAND, MAINE 04103

PROJECT NO. 16533

SCALE 1" = 30'

SHEET 3 OF 8



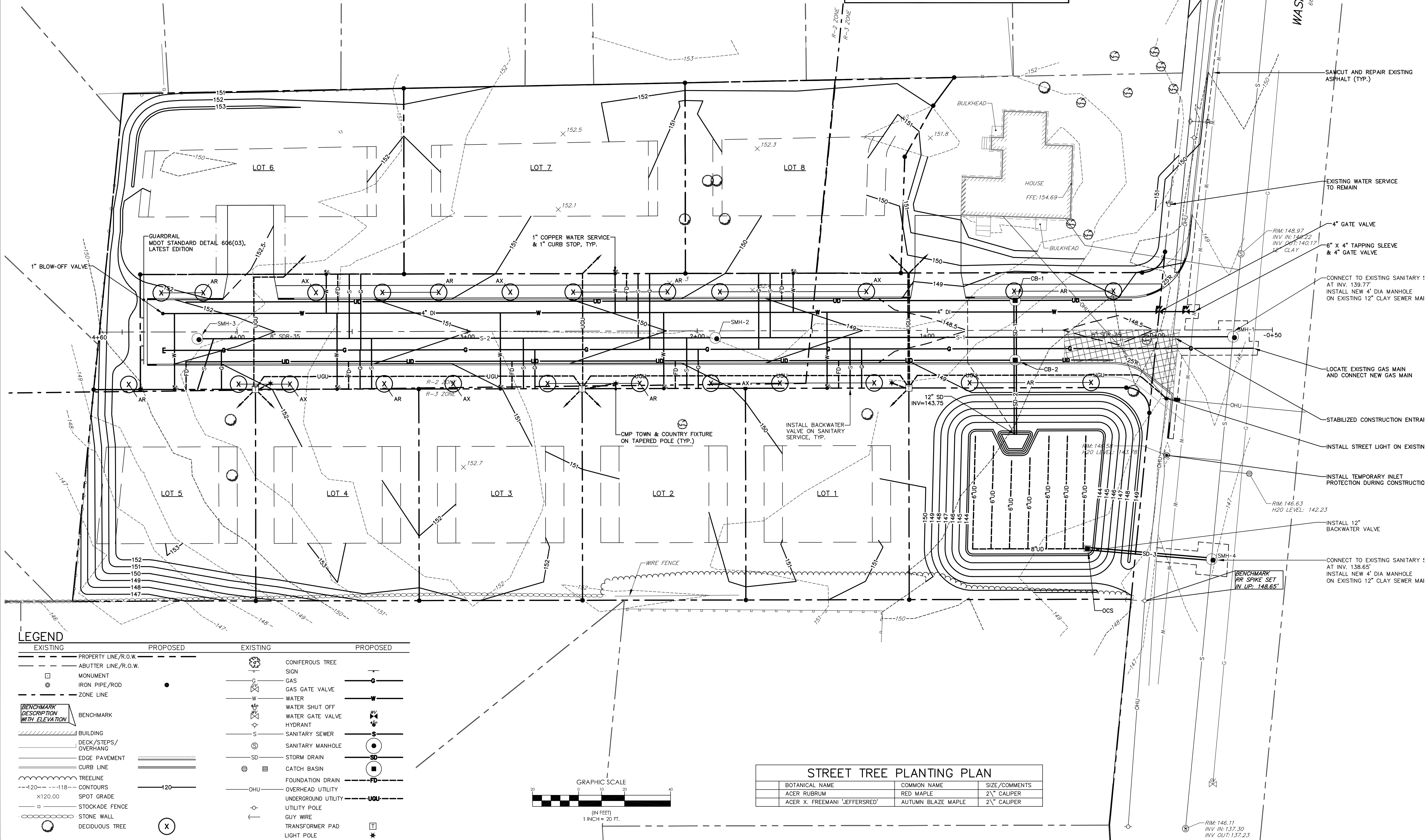
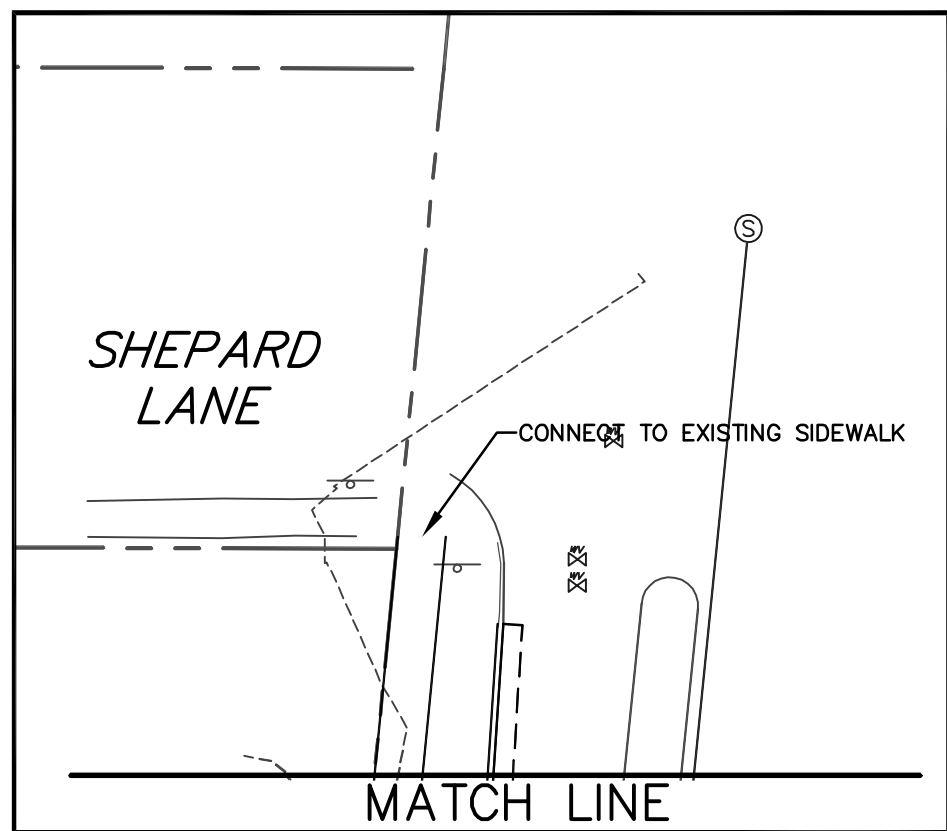


STORM DRAIN STRUCTURE DATA				
STRUCTURE	RIM	INV. IN	INV. OUT:	DIAM.
CB-1	148.01		144.05 (SD-1)	48"
CB-2	148.01	143.94 (SD-1)	143.84 (SD-2)	48"
OCS	146.56		140.75 (SD-3)	18"

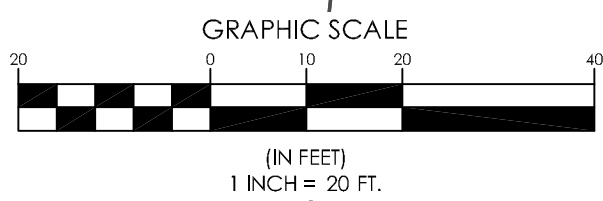
STORM DRAIN PIPE DATA			
NAME	SIZE	LENGTH	SLOPE
SD-1	12"	22'	0.500%
SD-2	12"	30'	0.297%
SD-3	12"	53'	3.555%

SANITARY SEWER STRUCTURE DATA				
STRUCTURE	RIM	INV. IN	INV. OUT:	DIAM.
SMH-1	148.35	140.05 (S-1)	139.77 (EXIST.)	48"
SMH-2	149.68	143.45 (S-2)	143.32 (S-1)	48"
SMH-3	151.93		146.76 (S-2)	48"
SMH-4	147.14	138.86 (SD-3)	138.65 (EXIST.)	48"

SANITARY SEWER PIPE DATA			
NAME	SIZE	LENGTH	SLOPE
S-1	8"	221'	1.479%
S-2	8"	221'	1.497%

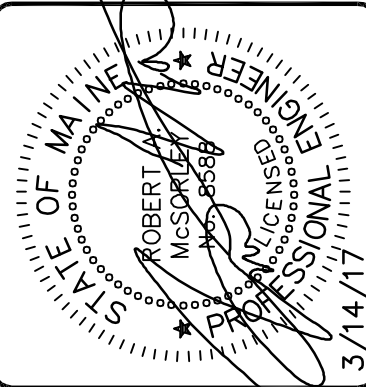


EXISTING		PROPOSED	
---	PROPERTY LINE/R.O.W.	---	PROPERTY LINE/R.O.W.
---	ABUTTER LINE/R.O.W.	---	ABUTTER LINE/R.O.W.
□	MONUMENT	□	MONUMENT
○	IRON PIPE/ROD	○	IRON PIPE/ROD
---	ZONE LINE	---	ZONE LINE
BENCHMARK DESCRIPTION WITH ELEVATION	BENCHMARK		
▬	BUILDING	▬	BUILDING
▬	DECK/STEPS/ OVERHANG	▬	DECK/STEPS/ OVERHANG
▬	EDGE PAVEMENT	▬	EDGE PAVEMENT
▬	CURB LINE	▬	CURB LINE
▬	TREELINE	▬	TREELINE
---	CONTOURS	---	CONTOURS
×	SPOT GRADE	×	SPOT GRADE
▬	STOCKADE FENCE	▬	STOCKADE FENCE
▬	STONE WALL	▬	STONE WALL
○	DECIDUOUS TREE	○	DECIDUOUS TREE
○	CONIFEROUS TREE	○	CONIFEROUS TREE
+	SIGN	+	SIGN
+	GAS	+	GAS
+	GAS GATE VALVE	+	GAS GATE VALVE
+	WATER	+	WATER
+	WATER SHUT OFF	+	WATER SHUT OFF
+	WATER GATE VALVE	+	WATER GATE VALVE
+	HYDRANT	+	HYDRANT
+	SANITARY SEWER	+	SANITARY SEWER
+	SANITARY MANHOLE	+	SANITARY MANHOLE
+	STORM DRAIN	+	STORM DRAIN
+	CATCH BASIN	+	CATCH BASIN
+	FOUNDATION DRAIN	+	FOUNDATION DRAIN
+	OVERHEAD UTILITY	+	OVERHEAD UTILITY
+	UNDERGROUND UTILITY	+	UNDERGROUND UTILITY
+	UTILITY POLE	+	UTILITY POLE
+	GUY WIRE	+	GUY WIRE
+	TRANSFORMER PAD	+	TRANSFORMER PAD
+	LIGHT POLE	+	LIGHT POLE



STREET TREE PLANTING PLAN		
BOTANICAL NAME	COMMON NAME	SIZE/COMMENTS
ACER RUBRUM	RED MAPLE	2" CALIPER
ACER X. FREEMANI 'JEFFERSRED'	AUTUMN BLAZE MAPLE	2" CALIPER

ROBERT A. MCSORELY, PE 8568



DESIGNED	CHECKED
GJH	RAM
PLANNING BOARD SUBMISSION	
A. GJH	3-14-17
REV. BY:	DATE:
STATUS:	
THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM SEBAGO TECHNIQUES, INC. ANY ALTERATIONS AUTHORIZED OR OTHERWISE, SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO SEBAGO TECHNIQUES, INC.	

**SEBAGO TECHNIQUES**

WWW.SEBAGOTECHNIQUES.COM

75 John Roberts Rd. Suite 1A  
South Portland, ME 04106  
Tel: 207-200-2100 Tel: 207-783-5656

GRADING AND UTILITY PLAN

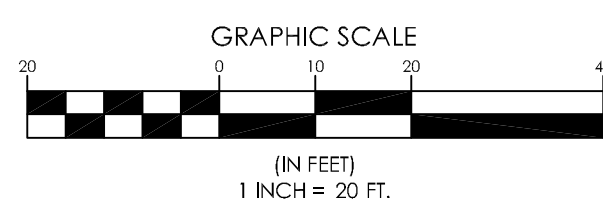
OF: KNIGHT FARM SUBDIVISION  
1728 WASHINGTON AVE  
PORTLAND, MAINE 04103

FOR: GREENLIGHT ENTERPRISES, LLC  
1728 WASHINGTON AVE  
PORTLAND, MAINE 04103

PROJECT NO.	SCALE
16533	1" = 20'

1653300.dwg TAB:50







## EROSION CONTROL MEASURES

### PRE-CONSTRUCTION PHASE

PRIOR TO CONSTRUCTION, PROPERLY INSTALL SEDIMENT BARRIERS AT THE DOWNGRADIENT EDGE OF ANY AREA TO BE DISTURBED AND ADJACENT TO ANY DRAINAGE CHANNELS WITHIN THE DISTURBED AREA. SEDIMENT BARRIERS SHOULD BE INSTALLED DOWNGRADIENT OF SOIL OR SEDIMENT STOCKPILES AND STORMWATER PREVENTED FROM RUNNING ONTO THE STOCKPILE. MAINTAIN THE SEDIMENT BARRIERS BY REMOVING ACCUMULATED SEDIMENT, OR REMOVING AND REPLACING THE BARRIER, UNTIL THE DISTURBED AREA IS PERMANENTLY STABILIZED. WHERE A DISCHARGE TO A STORM DRAIN INLET OCCURS, IF THE STORM DRAIN CARRIES WATER DIRECTLY TO A SURFACE WATER AND YOU HAVE AUTHORITY TO ACCESS THE STORM DRAIN INLET, YOU MUST INSTALL AND MAINTAIN PROTECTION MEASURES THAT REMOVE SEDIMENT FROM THE DISCHARGE.

PRIOR TO CONSTRUCTION, PROPERLY INSTALL A STABILIZED CONSTRUCTION ENTRANCE (SCE) AT ALL POINTS OF EGRESS FROM THE SITE. THE SCE IS A STABILIZED PAD OF AGGREGATE, UNDERLAIN BY A GEOTEXTILE FILTER FABRIC, USED TO PREVENT TRAFFIC FROM TRACKING MATERIAL AWAY FROM THE SITE ONTO PUBLIC ROWS. MAINTAIN THE SCE UNTIL ALL DISTURBED AREAS ARE STABILIZED.

PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL PREPARE A DETAILED SCHEDULE AND MARKED UP PLAN INDICATING AREAS AND COMPONENTS OF THE WORK AND KEY DATES SHOWING DATE OF DISTURBANCE AND COMPLETION OF THE WORK. THE CONTRACTOR SHALL SCHEDULE A PRE-CONSTRUCTION MEETING WITH THE MUNICIPAL STAFF. THREE COPIES OF THE SCHEDULE AND MARKED UP PLAN SHALL BE PROVIDED TO THE MUNICIPALITY THREE DAYS PRIOR TO THE SCHEDULED PRE-CONSTRUCTION MEETING. SPECIAL ATTENTION SHALL BE GIVEN TO THE 14 DAY LIMIT OF DISTURBANCE IN THE SCHEDULE ADDRESSING TEMPORARY AND PERMANENT VEGETATION MEASURES.

### CONSTRUCTION AND POST-CONSTRUCTION PHASE

#### DURING CONSTRUCTION

- INSPECTION AND CORRECTIVE ACTION:**  
INSPECT DISTURBED AND IMPERVIOUS AREAS, EROSION CONTROL MEASURES, MATERIALS STORAGE AREAS THAT ARE EXPOSED TO PRECIPITATION, AND LOCATIONS WHERE VEHICLES ENTER OR EXIT THE SITE. INSPECT THESE AREAS AT LEAST ONCE A WEEK AS WELL AS BEFORE AND WITHIN 24 HOURS AFTER A STORM EVENT (RAINFALL), AND PRIOR TO COMPLETING PERMANENT STABILIZATION MEASURES. A PERSON WITH KNOWLEDGE OF EROSION AND STORMWATER CONTROL, INCLUDING THE STANDARDS AND CONDITIONS IN THE PERMIT, SHALL CONDUCT THE INSPECTIONS.
- MAINTENANCE:**  
IF BEST MANAGEMENT PRACTICES (BMPs) NEED TO BE REPAIRED, THE REPAIR WORK SHOULD BE INITIATED UPON DISCOVERY OF THE PROBLEM BUT NO LATER THAN THE END OF THE NEXT WORKDAY. IF ADDITIONAL BMPs OR SIGNIFICANT REPAIR OF BMPs ARE NECESSARY, IMPLEMENTATION MUST BE COMPLETED WITHIN 7 CALENDAR DAYS AND PRIOR TO ANY STORM EVENT (RAINFALL). ALL MEASURES MUST BE MAINTAINED IN EFFECTIVE OPERATING CONDITION UNTIL AREAS ARE PERMANENTLY STABILIZED.
- DOCUMENTATION:**  
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 DEPARTMENT STAFF AND A COPY MUST BE PROVIDED UPON REQUEST. THE PERMITTEE SHALL RETAIN A COPY OF THE LOG FOR A PERIOD OF AT LEAST THREE YEARS FROM THE COMPLETION OF PERMANENT STABILIZATION.

#### POST-CONSTRUCTION

- PLAN:**  
CARRY OUT AN APPROVED INSPECTION AND MAINTENANCE PLAN THAT IS CONSISTENT WITH THE MINIMUM REQUIREMENTS OF THIS SECTION. THE PLAN MUST ADDRESS INSPECTION AND MAINTENANCE OF THE PROJECT'S PERMANENT EROSION CONTROL MEASURES AND STORMWATER MANAGEMENT SYSTEM. THIS PLAN MAY BE COMBINED WITH THE PLAN LISTED IN SECTION 2(A) OF THIS APPENDIX. SEE SECTION 7(C)(2) FOR SUBMISSION REQUIREMENTS.
- INSPECTION AND MAINTENANCE:**  
ALL MEASURES MUST BE MAINTAINED IN EFFECTIVE OPERATING CONDITION. A PERSON WITH KNOWLEDGE OF EROSION AND STORMWATER CONTROL, INCLUDING THE STANDARDS AND CONDITIONS IN THE PERMIT, SHALL CONDUCT THE INSPECTIONS. THE FOLLOWING AREAS, FACILITIES, AND MEASURES MUST BE INSPECTED AND IDENTIFIED DEFICIENCIES MUST BE CORRECTED. AREAS, FACILITIES, AND MEASURES OTHER THAN THOSE LISTED BELOW MAY ALSO REQUIRE INSPECTION ON A SPECIFIC SITE. INSPECTION OR MAINTENANCE TASKS OTHER THAN THOSE DISCUSSED BELOW MUST BE INCLUDED IN THE MAINTENANCE PLAN DEVELOPED FOR A SPECIFIC SITE.
- REGULAR MAINTENANCE:**  
CLEAR ACCUMULATIONS OF WINTER SAND IN PARKING LOTS AND ALONG ROADWAYS AT LEAST ONCE A YEAR, PREFERABLY IN THE SPRING. ACCUMULATIONS ON PAVEMENT MAY BE REMOVED BY PAVEMENT SWEEPING. ACCUMULATIONS OF SAND ALONG ROAD SHOULDERS MAY BE REMOVED BY GRADING EXCESS SAND TO THE PAVEMENT EDGE AND REMOVING IT MANUALLY OR BY A FRONT-END LOADER. GRADING OF GRAVEL SHOULDERS OF GRAVEL OR PAVED ROADS, MUST BE ROUTINELY PERFORMED TO ENSURE THAT STORMWATER DRAINS IMMEDIATELY OFF THE ROAD SURFACE TO ADJACENT BUFFER AREAS OR STABLE DITCHES, AND IS NOT IMPEDED BY ACCUMULATIONS OF GRADED MATERIAL ON THE ROAD SHOULDER OR BY EXCAVATION OF FALSE DITCHES IN THE SHOULDER. IF WATER BARS OR TOP-OF-CULVERTS ARE USED TO DIVERT RUNOFF FROM ROAD SURFACES, CLEAN-OUT ANY SEDIMENTS WITHIN OR AT THE OUTLET OF THESE STRUCTURES TO RESTORE THEIR FUNCTION.
- DOCUMENTATION:**  
KEEP A LOG (REPORT) SUMMARIZING INSPECTIONS, MAINTENANCE, AND ANY CORRECTIVE ACTIONS TAKEN. THE LOG MUST INCLUDE THE DATE ON WHICH EACH INSPECTION OR MAINTENANCE TASK WAS PERFORMED, A DESCRIPTION OF THE INSPECTION FINDINGS OR MAINTENANCE COMPLETED, AND THE NAME OF THE INSPECTOR OR MAINTENANCE PERSONNEL PERFORMING THE TASK. IF A MAINTENANCE TASK REQUIRES THE CLEAN-OUT OF SEDIMENTS AND DEBRIS, INDICATE WHERE THE SEDIMENT AND DEBRIS WAS DISPOSED AFTER REMOVAL. THE LOG MUST BE MADE ACCESSIBLE TO DEPARTMENT STAFF AND A COPY PROVIDED TO THE DEPARTMENT UPON REQUEST. THE PERMITTEE SHALL RETAIN A COPY OF THE LOG FOR A PERIOD OF AT LEAST FIVE YEARS FROM THE COMPLETION OF PERMANENT STABILIZATION.

### EROSION CONTROL APPLICATIONS & MEASURES

THE PLACEMENT OF EROSION CONTROL MEASURES SHALL BE COMPLETED IN ACCORDANCE WITH GUIDELINES ESTABLISHED WITHIN THE CURRENT MAINTENANCE AND CONSTRUCTION CHAPTER 500 RULES, THE DEPARTMENT'S BEST MANAGEMENT PRACTICES AND IN ACCORDANCE WITH THE EROSION CONTROL PLAN AND DETAILS IN THE PLAN SET. EROSION CONTROL MEASURES MUST BE IN PLACE BEFORE THE ACTIVITY BEGINS. MEASURES MUST REMAIN IN PLACE AND FUNCTIONAL UNTIL THE SITE IS PERMANENTLY STABILIZED. ADEQUATE AND TIMELY TEMPORARY AND PERMANENT STABILIZATION MEASURES MUST BE TAKEN.

- POLLUTION PREVENTION:**  
WHENEVER PRACTICABLE, NO DISTURBANCE ACTIVITIES SHOULD TAKE PLACE WITHIN 50 FEET OF ANY PROTECTED NATURAL RESOURCE. IF DISTURBANCE ACTIVITIES TAKE PLACE WITHIN 50 FEET OF ANY PROTECTED NATURAL RESOURCE, PERMETER EROSION CONTROLS MUST BE DOUBLED. IF DISTURBANCE ACTIVITIES TAKE PLACE LESS THAN 30 FEET FROM ANY PROTECTED NATURAL RESOURCE, AND STORMWATER DISCHARGES THROUGH THE DISTURBED AREAS TOWARD THE PROTECTED NATURAL RESOURCE, PERMETER EROSION CONTROLS MUST BE DOUBLED AND DISTURBED AREAS MUST BE TEMPORARILY OR PERMANENTLY STABILIZED WITHIN 48 HOURS.
- TEMPORARY MULCHING:**  
ALL DISTURBED AREAS SHALL BE MULCHED WITH MATERIALS SPECIFIED BELOW PRIOR TO ANY STORM EVENT. ALL DISTURBED AREAS NOT FINAL GRADED WITHIN 7 DAYS SHALL BE MULCHED. ALSO, AREAS, WHICH HAVE BEEN TEMPORARILY OR PERMANENTLY SEEDED, SHALL BE MULCHED IMMEDIATELY FOLLOWING SEEDING. EROSION CONTROL BLANKETS ARE RECOMMENDED TO BE USED AT THE BASE OF GRASSED WATERWAYS AND ON SLOPES GREATER THAN 15%. MULCH ANCHORING SHOULD BE USED ON SLOPES GREATER THAN 5% AFTER SEPTEMBER 15TH OF THE CONSTRUCTION YEAR (SEE WINTER EROSION CONTROL NOTES).  
TYPES OF MULCH:  
HAY OR STRAW: SHALL BE APPLIED AT A RATE OF 75 LBS/1,000 S.F. (1.5 TONS PER ACRE)  
EROSION CONTROL MIX: SHALL BE PLACED EVENLY AND MUST PROVIDE 100% SOIL COVERAGE. EROSION CONTROL MIX SHALL BE APPLIED SUCH THAT THE THICKNESS ON SLOPES 3:1 OR LESS IS 2 INCHES PLUS 1/2 INCH PER 20 FEET OF SLOPE UP TO 100 FEET. THE THICKNESS ON SLOPES BETWEEN 3:1 AND 2:1 SHALL BE 4 INCHES PLUS 1/2 INCH PER 20 FEET OF SLOPE UP TO 100 FEET. THIS SHALL NOT BE USED ON SLOPES GREATER THAN 2:1.  
EROSION CONTROL BLANKET: SHALL BE INSTALLED SUCH THAT CONTINUOUS CONTACT BETWEEN THE MAT AND THE SOIL IS OBTAINED. INSTALL BLANKETS AND STAPLE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
- SOIL STOCKPILES:**  
STOCKPILES OF SOIL OR SUBSOIL SHALL BE MULCHED WITH HAY OR STRAW AT A RATE OF 75 LBS/1,000 S.F. (1.5 TONS PER ACRE) OR WITH A FOUR-INCH LAYER OF WOOD WASTE EROSION CONTROL MIX. THIS WILL BE DONE WITHIN 24 HOURS OF STOCKING AND RE-ESTABLISHED PRIOR TO ANY RAINFALL. ANY SOIL STOCKPILE WILL NOT BE PLACED (EVEN COVERED WITH HAY OR STRAW) WITHIN 100 FEET FROM ANY NATURAL RESOURCES.
- NATURAL RESOURCES PROTECTION:**  
ANY AREAS WITHIN 100 FEET FROM ANY NATURAL RESOURCES, IF NOT STABILIZED WITH A MINIMUM OF 75% MATURE VEGETATION CATCH, SHALL BE STABILIZED USING TEMPORARY MULCHING (AS DESCRIBED IN PART 1 OF THIS SECTION) OR OTHER NON-ERODIBLE COVER WITHIN 48 HOURS OF EXPOSURE OR PRIOR TO ANY STORM EVENT. SEDIMENT BARRIERS (AS DESCRIBED IN PART 4 OF THIS SECTION) SHALL BE PLACED BETWEEN ANY NATURAL RESOURCE AND THE DISTURBED AREA. PROJECTS CROSSING THE NATURAL RESOURCE SHALL BE PROTECTED A MINIMUM DISTANCE OF 100 FEET ON EITHER SIDE FROM THE RESOURCE. IF DISTURBANCE TAKES PLACE LESS THAN 30 FEET FROM A PROTECTED RESOURCE AND STORMWATER DISCHARGES THROUGH THE DISTURBED AREAS TO THE RESOURCE, PERMETER EROSION CONTROLS MUST BE DOUBLED.
- SEDIMENT BARRIERS:**  
PRIOR TO THE BEGINNING OF ANY CONSTRUCTION, SEDIMENT BARRIERS SHALL BE STAKED ACROSS THE SLOPE(S), ON THE CONTOUR AT OR JUST BELOW THE LIMITS OF CLEARING OR GRUBBING, AND/OR JUST ABOVE ANY ADJACENT PROPERTY LINE OR WATERCOURSE TO PROTECT AGAINST CONSTRUCTION RELATED EROSION. SEDIMENT BARRIERS SHALL BE MAINTAINED BY THE CONTRACTOR UNTIL ALL EXPOSED SLOPES HAVE AT LEAST 85%-90% VIGOROUS PERENNIAL VEGETATIVE COVER TO PREVENT EROSION.  
SILT FENCE: SHALL BE INSTALLED PER THE DETAIL ON THE PLANS. THE EFFECTIVE HEIGHT OF THE FENCE SHALL NOT EXCEED 36 INCHES. IT IS RECOMMENDED THAT SILT FENCE BE REMOVED BY CUTTING THE FENCE MATERIALS AT GROUND LEVEL SO AS TO AVOID ADDITIONAL SOIL DISTURBANCE.  
HAY BALES: SHALL BE INSTALLED PER THE DETAIL ON THE PLANS. BALES SHALL BE WIRE-BOUND OR STRING-TIED AND THESE BINDINGS MUST REMAIN PARALLEL WITH THE GROUND SURFACE (AS DESCRIBED IN PART 1 OF THIS SECTION) OR OTHER NON-ERODIBLE COVER. BALES SHALL BE INSTALLED WITHIN A MINIMUM 4 INCH DEEP TRENCH LINE WITH ENDS OF ADJACENT BALES TIGHTLY ABUTTING ONE ANOTHER.  
EROSION CONTROL MIX: SHALL BE INSTALLED PER THE DETAIL ON THE PLANS. THE MIX SHALL CONSIST PRIMARILY OF ORGANIC MATERIAL AND COMB A WELL-GRADED MIXTURE OF PARTICLE SIZES AND MAY CONTAIN ROCKS LESS THAN 1 INCHES IN DIAMETER. THE MIX COMPOSITION SHALL MEET THE STANDARDS DESCRIBED WITHIN THE MDEP BEST MANAGEMENT PRACTICES. NO TRENCHING IS REQUIRED FOR INSTALLATION OF THIS BARRIER.  
CONTINUOUS CONTAINED BERM: SHALL BE INSTALLED PER THE DETAIL ON THE PLANS. THIS SEDIMENT BARRIER IS EROSION CONTROL MIX PLACED WITHIN A SYNTHETIC TUBULAR NETTING AND PERFORMS AS A STURDY SEDIMENT BARRIER THAT WORKS WELL ON HARD GROUND SUCH AS FROZEN CONDITIONS, TRAVELED AREAS OR PAVEMENT. NO TRENCHING IS REQUIRED FOR INSTALLATION OF THE BARRIER.
- TEMPORARY CHECK DAMS:**  
SHALL BE INSTALLED PER THE DETAIL ON THE PLANS. CHECK DAMS ARE TO BE PLACED WITHIN DITCHES/ SWALES AS SPECIFIED ON THE DESIGN PLANS IMMEDIATELY AFTER FINAL GRADING. CHECK DAMS SHALL BE 2 FEET HIGH. TEMPORARY CHECK DAMS MAY BE REMOVED ONLY AFTER THE ROADWAYS AND THE VEGETATED SWALE ARE ESTABLISHED WITH AT LEAST 85%-90% OF VIGOROUS PERENNIAL GROWTH. THE AREA BENEATH THE CHECK DAM MUST BE SEEDED AND MULCHED IMMEDIATELY AFTER REMOVAL OF THE CHECK DAM.

STONE CHECK DAMS: SHOULD BE CONSTRUCTED OF 2 TO 3 INCH STONE AND PLACED SUCH THAT COMPLETE COVERAGE OF THE SWALE IS OBTAINED AND THAT THE CENTER OF THE DAM IS 6 INCHES LOWER THAN THE OUTER EDGES.

HAY BALE CHECK DAMS: WE DO NOT RECOMMEND THE USE OF HAY BALES AS CHECK DAMS.

MANUFACTURED CHECK DAMS: MANUFACTURED CHECK DAMS, AS SPECIFIED IN THE DETAIL ON THE PLANS, MAY BE USED IF AUTHORIZED BY THE PROPER LOCAL, STATE OR FEDERAL REGULATING AGENCIES. THESE UNITS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

- STORMDRAIN INLET PROTECTION:**  
INLET PROTECTION SHALL BE PLACED AROUND A STORMDRAIN DROP INLET OR CURB INLET PRIOR TO PERMANENT STABILIZATION OF THE IMMEDIATE AND UPSTREAM DISTURBED AREAS. THEY SHALL BE CONSTRUCTED IN A MANNER THAT WILL FACILITATE CLEAN-OUT AND DISPOSAL OF TRAPPED SEDIMENTS AND MINIMIZE INTERFERENCE WITH CONSTRUCTION ACTIVITIES. ANY RESULTANT PONDING OF WATER FROM THE PROTECTION METHOD MUST NOT CAUSE EXCESSIVE INCONVENIENCE OR DAMAGE TO ADJACENT AREAS OR STRUCTURES.

HAY BALE DROP INLET PROTECTION: WE DO NOT RECOMMEND THE USE OF HAY BALES AS INLET PROTECTION.

CONCRETE BLOCK AND STONE INLET SEDIMENT FILTER (DROP OR CURB INLET): SHALL BE INSTALLED PER THE DETAIL ON THE PLANS. THE HEIGHT OF THE CONCRETE BLOCK BARRIER CAN VARY BUT MUST BE BETWEEN 12 AND 24 INCHES TALL. A MINIMUM OF 1 INCH CRUSHED STONE SHALL BE USED.

MANUFACTURED SEDIMENT BARRIERS AND FILTER (DROP OR CURB INLET): MANUFACTURED FILTERS, AS SPECIFIED IN THE DETAIL ON THE PLANS, MAY BE USED IF INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

- STABILIZED CONSTRUCTION EXIT:**  
PRIOR TO CLEARING AND/OR GRUBBING THE SITE A STABILIZED CONSTRUCTION ENTRANCE/EXIT SHALL BE CONSTRUCTED WHEREVER TRAFFIC WILL EXIT THE CONSTRUCTION SITE ONTO A PAVED ROADWAY IN ORDER TO MINIMIZE THE TRACKING OF SEDIMENT AND DEBRIS FROM THE CONSTRUCTION SITE ONTO PUBLIC ROADWAYS. THE ENTRANCES AND ADJACENT ROADWAY AREAS SHALL BE PERIODICALLY SWEEP OR WASHED TO FURTHER MINIMIZE THE TRACKING OF MUD, DUST OR DEBRIS FROM THE CONSTRUCTION AREA. A STABILIZED CONSTRUCTION EXITS SHALL BE CONSTRUCTED IN AREAS SPECIFIED ON THE PLANS AND AS DETAILED ON THE PLANS.
- DUST CONTROL:**  
DUST CONTROL DURING CONSTRUCTION SHALL BE ACHIEVED BY THE USE OF A WATERING TRUCK TO PERIODICALLY SPRINKLE THE EXPOSED ROADWAY AREAS AS NECESSARY TO REDUCE DUST DURING THE DRY MONTHS. APPLYING OTHER DUST CONTROL PRODUCTS SUCH AS CALCIUM CHLORIDE OR OTHER MANUFACTURED PRODUCTS ARE ALLOWED IF AUTHORIZED BY THE PROPER LOCAL, STATE AND/OR FEDERAL REGULATING AGENCIES. HOWEVER, IT IS THE CONTRACTOR'S ULTIMATE RESPONSIBILITY TO MITIGATE DUST AND SOIL LOSS FROM THE SITE.
- TEMPORARY VEGETATION:**  
TEMPORARY VEGETATION SHALL BE APPLIED TO DISTURBED AREAS THAT WILL NOT RECEIVE FINAL GRADING FOR PERIODS UP TO 12 MONTHS. THIS PROCEDURE SHOULD BE USED EXTENSIVELY IN AREAS ADJACENT TO NATURAL RESOURCES. SEEDED PREPARATION AND APPLICATION OF SEED SHALL BE CONDUCTED AS INDICATED IN THE PERMANENT VEGETATION SECTION OF THIS NARRATIVE. SPECIFIC SEEDS (FAST GROWING AND SHORT LIVING) SHALL BE SELECTED FROM THE MAINE EROSION AND SEDIMENT CONTROL BMP MANUAL DATED 3/2003 OR LATER. ALTERNATIVE EROSION CONTROL MEASURES SHOULD BE USED IF SEEDING CAN NOT BE DONE BEFORE SEPTEMBER 15TH OF THE CONSTRUCTION YEAR.
- PERMANENT VEGETATION:**  
REVEGETATION MEASURES SHALL COMMENCE IMMEDIATELY UPON COMPLETION OF FINAL GRADING OF AREAS TO BE LOAMED AND SEEDED. THE APPLICATION OF SEED SHALL BE CONDUCTED BETWEEN APRIL 1ST AND OCTOBER 1ST OF THE CONSTRUCTION YEAR, PLEASE REFER TO THE WINTER EROSION CONTROL NOTES FOR MORE DETAIL. REVEGETATION MEASURES SHALL CONSIST OF THE FOLLOWING:

#### SEEDBED PREPARATION:

- OUR (A) LAYER OF LOAM SHALL BE SPREAD OVER DISTURBED AREAS AND SMOOTHED TO A UNIFORM SURFACE. LOAM SHALL BE FREE OF SUBSOIL, CLAY LUMPS, STONES AND OTHER OBJECTS OVER 2 INCHES OR LARGER IN ANY DIMENSION, AND WITHOUT WEEDS, ROOTS OR OTHER OBJECTIONABLE MATERIAL.**
- SOILS TESTS SHALL BE TAKEN AT THE TIME OF SOIL STRIPPING TO DETERMINE FERTILIZATION REQUIREMENTS. SOILS TESTS SHALL BE TAKEN PROMPTLY AS TO NOT INTERFERE WITH THE 14-DAY LIMIT ON SOIL EXPOSURE. BASED UPON TEST RESULTS, SOIL AMENDMENTS SHALL BE INCORPORATED INTO THE SOIL PRIOR TO FINAL SEEDING. IN LIEU OF SOIL TESTS, SOIL AMENDMENTS MAY BE APPLIED AS FOLLOWS:**

ITEM	APPLICATION RATE
10-20-20 FERTILIZER (N-P205-K20 OR EQUAL)	18.4 LBS./1,000 S.F.
GROUND LIMESTONE (50% CALCIUM & MAGNESIUM OXIDE)	138 LBS./1,000 S.F.
- WORK LIME AND FERTILIZER INTO THE SOIL AS NEARLY AS PRACTICAL TO A DEPTH OF 4 INCHES WITH PROPER EQUIPMENT. ROLL THE AREA TO FIRM THE SEEDBED EXCEPT ON CLAY OR SILTY SOILS OR COARSE SAND.**

#### APPLICATION OF SEED:

- SEEDING SHALL BE CONDUCTED BETWEEN APRIL 1ST AND OCTOBER 1ST OF THE CONSTRUCTION YEAR. GENERALLY A SEED MIXTURE MAY BE APPLIED AS FOLLOWS: (MDEP SEED MIX 1 IS DISPLAYED)**

SEED TYPE	APPLICATION RATE
CREeping RED FESCUE	0.46 LBS/1,000 S.F. (20 LBS/ACRE)
REDTOP	0.05 LBS/1,000 S.F. (2 LBS/ACRE)
TALL FESCUE	0.46 LBS/1,000 S.F. (20 LBS/ACRE)
TOTAL:	0.97 LBS/1,000 S.F. (42 LBS/ACRE)
- NOTE: A SPECIFIC SEED MIXTURE SHOULD BE CHOSEN TO MATCH THE SOILS CONDITION OF THE SITE. VARIOUS AGENCIES CAN RECOMMEND SEED MIXTURES. MDEP RECOMMENDED SEED MIXTURES ARE IN THE EROSION AND SEDIMENT CONTROL BMP MANUAL DATED 3/2003 OR LATER.**
- HYDROSEEDING: SHALL BE CONDUCTED ON PREPARED AREAS WITH SLOPES LESS THAN 2:1. LIME AND FERTILIZER MAY BE APPLIED SIMULTANEOUSLY WITH THE SEED. RECOMMENDED SEEDING RATES MUST BE INCREASED BY 10% WHEN HYDROSEEDING.**
- MULCHING: SHALL COMMENCE IMMEDIATELY AFTER SEED IS APPLIED. REFER TO THE TEMPORARY MULCHING SECTION OF THIS NARRATIVE FOR DETAILS.**

#### SODDING:

FOLLOWING SEEDBED PREPARATION, SOD CAN BE APPLIED IN LIEU OF SEEDING IN AREAS WHERE IMMEDIATE VEGETATION IS MOST BENEFICIAL SUCH AS DITCHES, AROUND STORMWATER DROP INLETS AND AREAS OF AESTHETIC VALUE. SOD SHOULD BE LAID AT RIGHT ANGLES TO THE DIRECTION OF FLOW, STARTING AT THE LOWEST ELEVATION. SOD SHOULD BE ROLLED OR TAMPED DOWN TO EVEN OUT SURFACES AND TO PROPERLY ANCHOR THE SOD TO THE UNDERLYING SOIL. SOD SHOULD BE PROPERLY ANCHORED TO THE UNDERLYING SOIL IMMEDIATELY AFTER INSTALLATION. IN MOST CASES, SOD CAN BE ESTABLISHED BETWEEN APRIL 1ST AND NOVEMBER 15TH OF THE CONSTRUCTION YEAR, HOWEVER, REFER TO THE WINTER EROSION CONTROL NOTES FOR ANY ACTIVITIES AFTER OCTOBER 1ST.

#### TRENCH DEWATERING AND TEMPORARY STREAM DIVERSION:

WATER FROM CONSTRUCTION TRENCH DEWATERING OR TEMPORARY STREAM DIVERSION WILL PASS FIRST THROUGH A FILTER BAG OR SECONDARY CONTAINMENT STRUCTURE (E.G. HAY BALE LINED POOL) PRIOR TO DISCHARGE. THE DISCHARGE SITE SHALL BE SELECTED TO AVOID FLOODING AND SEDIMENT DISCHARGES TO A PROTECTED RESOURCE. IN NO CASE SHALL THE FILTER BAG OR CONTAINMENT STRUCTURE BE LOCATED WITHIN 100 FEET OF A PROTECTED NATURAL RESOURCE.

#### STANDARDS FOR TIMELY STABILIZATION:

STANDARD FOR THE TIMELY STABILIZATION OF DISTURBED SLOPES -- THE CONTRACTOR WILL CONSTRUCT AND STABILIZE STONE-COVERED SLOPES BY NOVEMBER 15. THE CONTRACTOR WILL SEED AND MULCH ALL SLOPES TO BE VEGETATED BY SEPTEMBER 15. THE MDEP WILL CONSIDER ANY AREA HAVING A GRADE GREATER THAN 8% (12.5H:1V) TO BE A SLOPE. IF THE CONTRACTOR FAILS TO STABILIZE ANY SLOPE TO BE VEGETATED BY SEPTEMBER 15, THEN THE CONTRACTOR WILL TAKE ONE OF THE FOLLOWING ACTIONS TO STABILIZE THE SLOPE FOR LATE FALL AND WINTER.

- STABILIZE THE SOIL WITH TEMPORARY VEGETATION AND EROSION CONTROL MATS --** BY OCTOBER 1 THE CONTRACTOR WILL SEED THE DISTURBED SLOPE WITH WINTER RYE AT A SEEDING RATE OF 3 POUNDS PER 1,000 SQUARE FEET AND APPLY EROSION CONTROL MATS OVER THE MULCHED SLOPE. THE CONTRACTOR WILL MONITOR GROWTH OF THE RYE OVER THE NEXT 30 DAYS. IF THE RYE FAILS TO GROW AT LEAST THREE INCHES OR COVER AT LEAST 75% OF THE DISTURBED SLOPE BY NOVEMBER 15, THEN THE APPLICANT WILL MULCH THE SLOPE WITH A LAYER OF EROSION CONTROL MIX AS DESCRIBED IN ITEM 2(C) OF THIS STANDARD OR WITH STONE RIPRAP AS DESCRIBED IN ITEM 2(D) OF THIS STANDARD.
- STABILIZE THE SLOPE WITH SOD --** THE CONTRACTOR WILL STABILIZE THE DISTURBED SLOPE WITH PROPERLY INSTALLED SOD BY NOVEMBER 15. PRIOR TO PLACING THE EROSION CONTROL MIX, THE APPLICANT WILL REMOVE ANY SNOW ACCUMULATION ON THE DISTURBED SLOPE. DO NOT USE EROSION CONTROL MIX TO STABILIZE SLOPES HAVING GRADES GREATER THAN 1H:1V OR HAVING GROUNDSWATER SEEPS ON THE SLOPE FACE.
- STABILIZE THE SLOPE WITH STONE RIPRAP --** THE CONTRACTOR WILL PLACE A SIX-INCH LAYER OF EROSION CONTROL MIX ON THE SLOPE BY NOVEMBER 15. PRIOR TO PLACING THE EROSION CONTROL MIX, THE APPLICANT WILL REMOVE ANY SNOW ACCUMULATION ON THE DISTURBED SLOPE. DO NOT USE EROSION CONTROL MIX TO STABILIZE SLOPES HAVING GRADES GREATER THAN 1H:1V OR HAVING GROUNDSWATER SEEPS ON THE SLOPE FACE.
- STABILIZE THE SLOPE WITH STONE RIPRAP --** THE CONTRACTOR WILL PLACE A LAYER OF STONE RIPRAP ON THE SLOPE BY NOVEMBER 15. THE APPLICANT WILL HIRE A REGISTERED PROFESSIONAL ENGINEER TO DETERMINE THE STONE SIZE NEEDED FOR STABILITY AND TO DESIGN A FILTER LAYER FOR UNDERNEATH THE RIPRAP.

STANDARD FOR THE TIMELY STABILIZATION OF DISTURBED SOILS -- BY SEPTEMBER 15 THE CONTRACTOR WILL SEED AND MULCH ALL DISTURBED SOILS ON AREAS HAVING A SLOPE LESS THAN 8%. IF THE CONTRACTOR FAILS TO STABILIZE THESE SOILS BY THIS DATE, THEN THE CONTRACTOR WILL TAKE ONE OF THE FOLLOWING ACTIONS TO STABILIZE THE SOIL FOR LATE FALL AND WINTER.

- STABILIZE THE SOIL WITH TEMPORARY VEGETATION --** BY OCTOBER 1 THE CONTRACTOR WILL SEED THE DISTURBED SOIL WITH WINTER RYE AT A SEEDING RATE OF 3 POUNDS PER 1000 SQUARE FEET, LIGHTLY MULCH THE SEEDED SOIL WITH HAY OR STRAW AT 75 POUNDS PER 1000 SQUARE FEET, AND ANCHOR THE MULCH WITH PLASTIC NETTING. THE APPLICANT WILL MONITOR GROWTH OF THE RYE OVER THE NEXT 30 DAYS. IF THE RYE FAILS TO GROW AT LEAST THREE INCHES OR COVER AT LEAST 75% OF THE DISTURBED SOIL BEFORE NOVEMBER 15, THEN THE APPLICANT WILL MULCH THE AREA FOR OVER-WINTER PROTECTION AS DESCRIBED IN ITEM 3(C) OF THIS STANDARD.
- STABILIZE THE SOIL WITH SOD --** THE APPLICANT WILL STABILIZE THE DISTURBED SOIL WITH PROPERLY INSTALLED SOD BY OCTOBER 1. PROPER INSTALLATION INCLUDES THE APPLICANT PINNING THE SOD ONTO THE SOIL WITH WIRE PINS, ROLLING THE SOD TO GUARANTEE CONTACT BETWEEN THE SOD AND UNDERLYING SOIL, AND WATERING THE SOD TO PROMOTE ROOT GROWTH INTO THE DISTURBED SOIL. THE APPLICANT WILL NOT USE LATE-SEASON SOD INSTALLATION TO STABILIZE SLOPES HAVING A GRADE GREATER THAN 33% (3H:1V).
- STABILIZE THE SOIL WITH MULCH --** BY NOVEMBER 15 THE APPLICANT WILL MULCH THE DISTURBED SOIL BY SPREADING HAY OR STRAW AT A RATE OF AT LEAST 150 POUNDS PER 1000 SQUARE FEET ON THE AREA SO THAT NO SOIL IS VISIBLE THROUGH THE MULCH. PRIOR TO APPLYING THE MULCH, THE APPLICANT WILL REMOVE ANY SNOW ACCUMULATION ON THE DISTURBED AREA. IMMEDIATELY AFTER APPLYING THE MULCH, THE APPLICANT WILL ANCHOR THE MULCH WITH PLASTIC NETTING TO PREVENT WIND FROM MOVING THE MULCH OFF THE DISTURBED SOIL.
- STABILIZE THE SOIL WITH EROSION CONTROL MIX --** BY NOVEMBER 15, PRIOR TO PLACING THE EROSION CONTROL MIX, THE APPLICANT WILL REMOVE ANY SNOW ACCUMULATION ON THE DISTURBED SLOPE.

### CONSTRUCTION SCHEDULE

SITE IMPROVEMENTS WILL MOST LIKELY BEGIN IN _____, DEPENDING UPON FINAL PROJECT APPROVAL. THE FOLLOWING SCHEDULE IS ANTICIPATED:

- |                                                                  | 3 MONTHS                      |
|------------------------------------------------------------------|-------------------------------|
| 1. ESTIMATED CONSTRUCTION TIME:                                  | WEEK 1                        |
| 2. EROSION CONTROL MEASURES PLACED                               | WEEK 2                        |
| 3. SITE CLEARING AND GRUBBING                                    | WEEK 3                        |
| 4. CONSTRUCTION OF ROAD SUBBASE FOR ACCESS                       | WEEK 4 - WEEK 9               |
| 5. STORMWATER MANAGEMENT AREA CONSTRUCTION                       | WEEK 5 - WEEK 9               |
| 6. UTILITY IMPROVEMENTS AND ROADWAY CONSTRUCTION                 | WEEK 10 - WEEK 11             |
| 7. ROAD BASE AND BINDER COARSE                                   | WEEK 12                       |
| 8. SIDEWALKS                                                     |                               |
| 9. START FINAL SEEDING ON PREPARED AREAS (DURING GROWING SEASON) | WEEK 10                       |
| 10. BIWEEKLY MONITORING OF VEGETATIVE GROWTH                     | WEEK 12                       |
| 11. RE-SEEDING OF AREAS, IF NEEDED                               | WEEK 12                       |
| 12. REMOVAL OF EROSION CONTROL DEVICES                           | UPON FINAL PROJECT COMPLETION |

* HOME CONSTRUCTION ON INDIVIDUAL LOTS MAY BEGIN ONCE THE ROADWAY BASE HAS BEEN SUFFICIENTLY CONSTRUCTED TO ALLOW VEHICLE ACCESS TO THE LOT(S). HOME CONSTRUCTION MAY CONTINUE BEYOND ESTIMATED COMPLETION DATE FOR ROADWAY CONSTRUCTION. DISTURBED AREAS ON INDIVIDUAL LOTS SHALL ALSO BE SUBJECT TO THE EROSION AND SEDIMENTATION CONTROL PROVISIONS CONTAINED HEREIN.

** DATES ARE SUBJECT TO CHANGE AT THE DISCRETION OF THE ENGINEER, DEPENDING ON CONSTRUCTION PROGRESS.

#### HOUSEKEEPING:

THE FOLLOWING GENERAL PERFORMANCE STANDARDS APPLY TO THE PROPOSED PROJECT.

- SPILL PREVENTION:**  
CONTROLS MUST BE USED TO PREVENT POLLUTANTS FROM CONSTRUCTION AND WASTE MATERIALS STORED ON SITE TO ENTER STORMWATER, WHICH INCLUDES STORAGE PRACTICES TO MINIMIZE EXPOSURE OF THE MATERIALS TO STORMWATER. THE SITE CONTRACTOR OR OPERATOR MUST DEVELOP, AND IMPLEMENT AS NECESSARY, APPROPRIATE SPILL PREVENTION, CONTAINMENT, AND RESPONSE PLANNING MEASURES.
- GROUNDWATER PROTECTION:**  
DURING CONSTRUCTION, LIQUID PETROLEUM PRODUCTS AND OTHER HAZARDOUS MATERIALS WITH THE POTENTIAL TO CONTAMINATE GROUNDWATER MAY NOT BE STORED OR HANDLED IN AREAS OF THE SITE DRAINING TO AN INFILTRATION AREA. AN "INFILTRATION AREA" IS ANY AREA OF THE SITE THAT BY DESIGN OR AS A RESULT OF SOILS, TOPOGRAPHY AND OTHER RELEVANT FACTORS ACCUMULATES RUNOFF THAT INFILTRATES INTO THE SOIL. DIKES, BERMS, SLUMPS, AND OTHER FORMS OF SECONDARY CONTAINMENT THAT PREVENT DISCHARGE TO GROUNDWATER MAY BE USED TO ISOLATE PORTIONS OF THE SITE FOR THE PURPOSES OF STORAGE AND HANDLING OF THESE MATERIALS. ANY PROJECT PROPOSING INFILTRATION OF STORMWATER MUST PROVIDE ADEQUATE PRE-TREATMENT OF STORMWATER PRIOR TO DISCHARGE OF STORMWATER TO THE INFILTRATION AREA, OR PROVIDE FOR TREATMENT WITHIN THE INFILTRATION AREA, IN ORDER TO PREVENT THE ACCUMULATION OF FINES, REDUCTION IN INFILTRATION RATE, AND CONSEQUENT FLOODING AND DESTABILIZATION.
- FUGITIVE SEDIMENT AND DUST:**  
FUGITIVE SEDIMENT AND DUST: MEASURES MUST BE TAKEN TO ENSURE THAT ACTIVITIES DO NOT RESULT IN NOTICEABLE EROSION OF SOILS OR FUGIOWATER. EROSION OF SOILS OR FUGIOWATER DURING OR AFTER CONSTRUCTION, OIL MAY NOT BE USED FOR DUST CONTROL, BUT OTHER WATER ADDITIVES MAY BE CONSIDERED AS NEEDED. A STABILIZED CONSTRUCTION ENTRANCE (SCE) SHOULD BE INCLUDED TO MINIMIZE TRACKING OF MUD AND SEDIMENT. IF OFF-SITE TRACKING OCCURS, PUBLIC ROADS SHOULD BE SWEEP IMMEDIATELY AND NO LESS THAN ONCE A WEEK AND PRIOR TO SIGNIFICANT STORM EVENTS. OPERATIONS DURING DRY MONTHS, THAT EXPERIENCE FUGITIVE DUST PROBLEMS, SHOULD WET DOWN UNPAVED ACCESS ROADS ONCE A WEEK OR MORE FREQUENTLY AS NEEDED WITH A WATER ADDITIVE TO SUPPRESS FUGITIVE SEDIMENT AND DUST.
- DEBRIS AND OTHER MATERIALS:**  
MINIMIZE THE EXPOSURE OF CONSTRUCTION DEBRIS, BUILDING AND LANDSCAPING MATERIALS, TRASH, FERTILIZERS, PESTICIDES, HERBICIDES, DETERGENTS, SANITARY WASTE AND OTHER MATERIALS TO PRECIPITATION AND STORMWATER RUNOFF. THESE MATERIALS MUST BE PREVENTED FROM BECOMING A POLLUTANT SOURCE.
- EXCAVATION DE-WATERING:**  
EXCAVATION DE-WATERING IS THE REMOVAL OF WATER FROM TRENCHES, FOUNDATIONS, COFFER DAMS, PONDS, AND OTHER AREAS WITHIN THE CONSTRUCTION AREA THAT REMAINS WATER AFTER EXCAVATION. IN MOST CASES THE COLLECTED WATER IS HEAVILY SILTED AND HINDERS CORRECT AND SAFE CONSTRUCTION PRACTICES. THE COLLECTED WATER REMOVED FROM THE PONDED AREA, EITHER THROUGH GRAVITY OR PUMPING, MUST BE SPREAD THROUGH NATURAL WOODED BUFFERS OR REMOVED TO AREAS THAT ARE SPECIFICALLY DESIGNED TO COLLECT THE MAXIMUM AMOUNT OF SEDIMENT POSSIBLE, LIKE A COFFERDAM SEDIMENTATION BASIN. AVOID ALLOWING THE WATER TO FLOW OVER DISTURBED AREAS OF THE SITE. EQUIVALENT MEASURES MAY BE TAKEN IF APPROVED BY THE DEPARTMENT.
- AUTHORIZED NON-STORMWATER DISCHARGES:**  
IDENTIFY AND PREVENT CONTAMINATION BY NON-STORMWATER DISCHARGES, WHERE ALLOWED NON-STORMWATER DISCHARGES EXIST. THEY MUST BE IDENTIFIED AND STEPS SHOULD BE TAKEN TO ENSURE THE IMPLEMENTATION OF APPROPRIATE POLLUTION PREVENTION MEASURES FOR THE NON-STORMWATER COMPONENT(S) OF THE DISCHARGE. AUTHORIZED NON-STORMWATER DISCHARGES ARE:  
DISCHARGES FROM FIREFIGHTING ACTIVITY; FIRE HYDRANT FLUSHINGS;  
VEHICLE WASHWATER (IF DETERGENTS ARE NOT USED AND WASHING IS LIMITED TO THE EXTERIOR OF VEHICLES (ENGINE, UNDERCARRIAGE AND TRANSMISSION WASHING IS PROHIBITED);  
DUST CONTROL RUNOFF IN ACCORDANCE WITH PERMIT CONDITIONS;  
ROUTINE EXTERNAL BUILDING WASH-DOWN, NOT INCLUDING SURFACE PAINT REMOVAL, THAT DOES NOT INVOLVE DETERGENTS;  
PAVEMENT WASHWATER (WHERE SPILLS/LEAKS OF TOXIC OR HAZARDOUS MATERIALS HAVE NOT OCCURRED, UNLESS ALL SPILLED MATERIAL HAS BEEN REMOVED) IF DETERGENTS ARE NOT USED;  
UNCONTAMINATED AIR CONDITIONING OR COMPRESSOR CONDENSATE;  
UNCONTAMINATED GROUNDWATER OR SPRING WATER;  
FOUNDATION OR FOOTER DRAIN-WATER WHERE FLOWS ARE NOT CONTAMINATED;  
UNCONTAMINATED EXCAVATION DEWATERING;  
POTABLE WATER SOURCES INCLUDING WASHLINE FLUSHINGS;  
LANDSCAPE IRRIGATION;

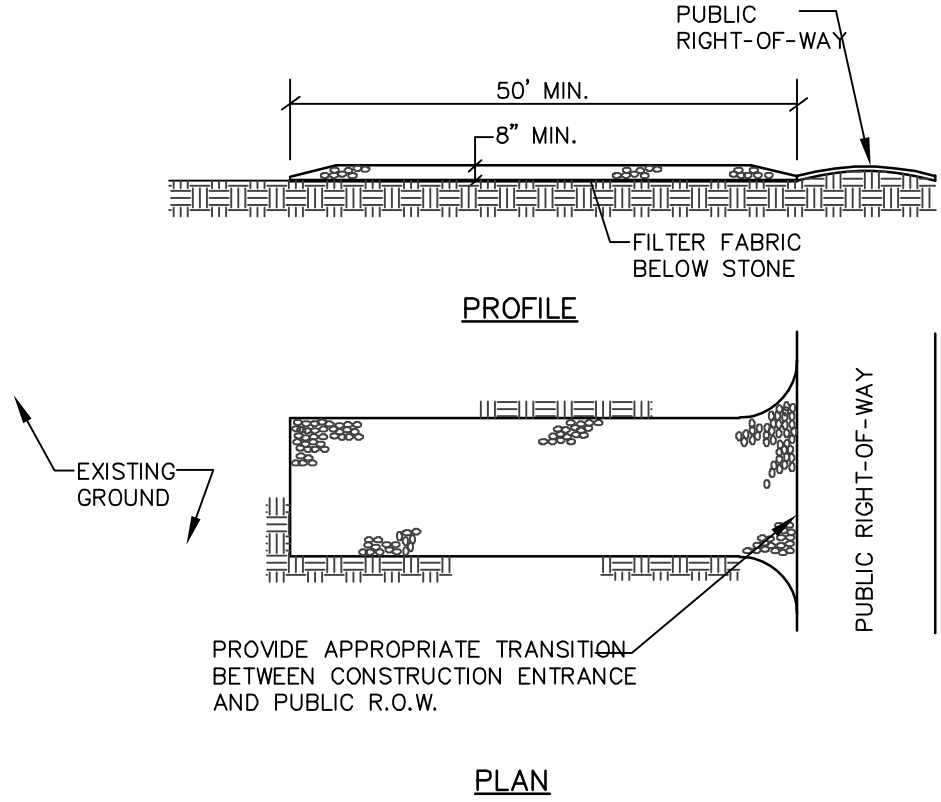
- UNAUTHORIZED NON-STORMWATER DISCHARGES:**  
THE DEP DOES NOT AUTHORIZE A DISCHARGE THAT IS MIXED WITH A SOURCE OF NON-STORMWATER, SPECIFICALLY, THE DEPARTMENT'S APPROVAL DOES NOT AUTHORIZE DISCHARGES OF THE FOLLOWING:  
WASTEWATER FROM THE WASH-OUT OR CLEAN-OUT OF CONCRETE, STUCCO, PAINT, FORM RELEASE OILS, CURING COMPOUNDS OR OTHER CONSTRUCTION MATERIALS;  
FUELS, OILS OR OTHER POLLUTANTS USED IN VEHICLE AND EQUIPMENT OPERATION AND MAINTENANCE;  
SOAPS, SOLVENTS, OR DETERGENTS USED IN VEHICLE AND EQUIPMENT WASHING;  
TOXIC OR HAZARDOUS SUBSTANCES FROM A SPILL OR OTHER RELEASE

#### NOTES:

- BURY THE TOP END OF THE MESH MATERIAL IN A 6" TRENCH AND BACKFILL AND TAMP TRENCHING SECURE END WITH STAPLES AT 6" SPACING, 4" DOWN FROM EXPOSED END.
- FLOW DIRECTION JOINTS TO HAVE UPPER END OF LOWER STRIP BURIED WITH UPPER LAYERS OVERLAPPED 4" AND STAPLED. OVERLAP B OVER A.
- LATERAL JOINTS TO HAVE 4" OVERLAP OF STRIPS. STAPLE 18" ON CENTER.
- STAPLE OUTSIDE LATERAL EDGE 2" ON CENTER.
- WIRE STAPLES TO BE MIN OF #11 WIRE 6" LONG AND 1-1/2" WIDE.
- USE NORTH AMERICAN GREEN DS 150 OR APPROVED EQUIVA.

### EROSION CONTROL BLANKET

NOT TO SCALE

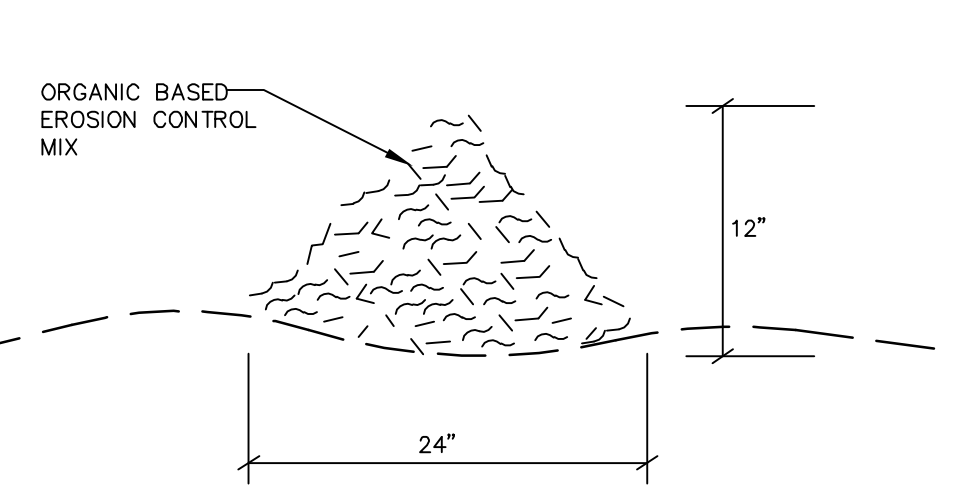


#### NOTES:

- STONE SIZE- AASHTO DESIGNATION M43, SIZE NO. 2 (2 1/2" TO 1 1/2"). USE CRUSHED STONE.
- LENGTH- AS SHOWN ON PLANS, MIN. 50 FEET.
- THICKNESS- NOT LESS THAN EIGHT (8) INCHES.
- WIDTH- NOT LESS THAN FULL WIDTH OF ALL POINT OF INGRESS OR EGRESS.
- MAINTENANCE- THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHT-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHT-OF-WAY MUST BE REMOVED IMMEDIATELY.

### STABILIZED CONSTRUCTION ENTRANCE

NOT TO SCALE



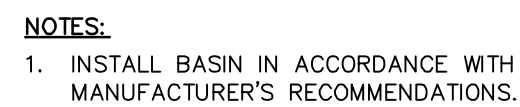
#### COMPOSITION

EROSION CONTROL MIX SHALL BE MANUFACTURED ON OR OFF THE PROJECT SITE SUCH THAT ITS COMPOSITION IS IN ACCORDANCE WITH THE MDEP MAINE EROSION AND SEDIMENT CONTROL BMP MANUAL, LAST REVISED 3/2003 OR LATER. IT MUST CONSIST PRIMARILY OF ORGANIC MATERIAL, SEPARATED AT THE POINT OF GENERATION, AND MAY INCLUDE SHREDDED BARK, CHIPS, OR OTHER NON-ERODIBLE MANUFACTURED PRODUCTS. WOOD AND BARK CHIPS, GROUND CONSTRUCTION DEBRIS OR REPROCESSED WOOD PRODUCTS WILL NOT BE ACCEPTABLE AS THE ORGANIC COMPONENT OF THE MIX.

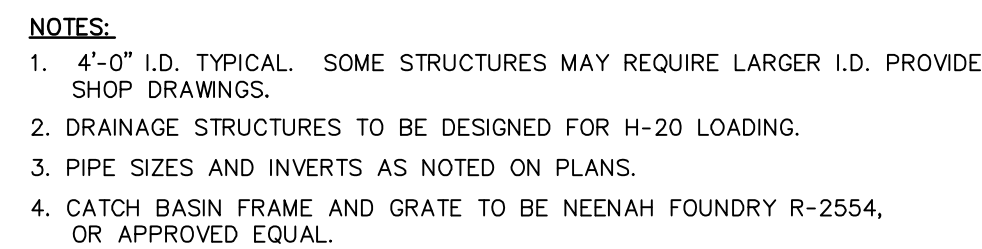
#### INSTALLATION:

- THE BARRIER MUST BE PLACED ACROSS THE SLOPE, ALONG THE CONTOUR.
- EXISTING GROUND SHALL BE PREPARED SUCH THAT THE BARRIER MAY LIE NEARLY FLAT ALONG THE GROUND TO AVOID THE CREATION OF VOIDS AND BRIDGES IN ORDER TO MINIMIZE THE POTENTIAL OF WASH OUTS UNDER THE BARRIER.
- THE BARRIER SHALL BE A MINIMUM OF 1 FOOT HIGH (AS MEASURED ON THE UPHILL SIDE) AND 2 FEET WIDE FOR SLOPES LESS THAN 5% IN GRADE AND SHALL BE WIDER TO ACCOMMODATE THE ADDITIONAL RUNOFF.
- EROSION CONTROL MIX CAN BE INSTALLED WHERE SILT FENCE IS ILLUSTRATED ON THE DESIGN PLANS, BUT IS NOT LIMITED TO THE FOLLOWING AREAS:

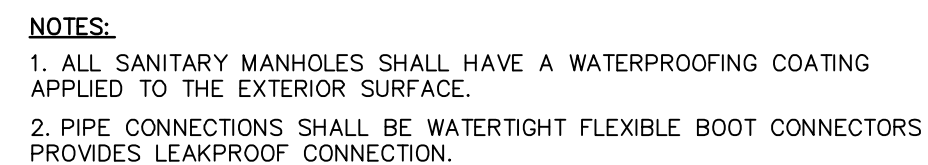




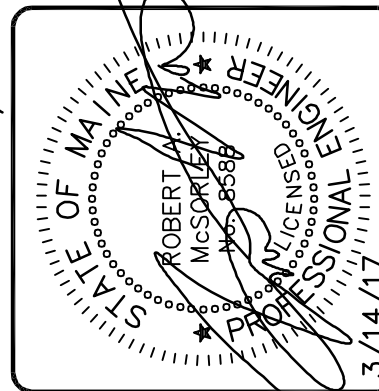
TYP. NYLOPLAST FIELD INLET



### TYPICAL CATCH BASIN



PRECAST MANHOLE



DESIGNED		CHECKED	
GJH		RAM	
		A	GJH
		REV:	BY:
		3-14-17	PLANNING BOARD SUBMISSION
		DATE:	STATUS:
		THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM SEBAGO TECHNICS, INC. ANY ALTERATIONS AUTHORIZED OR OTHERWISE, SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO SEBAGO TECHNICS, INC.	



DETAILS  
OF:  
KNIGHT FARM SUBDIVISION  
1728 WASHINGTON AVE.  
PORTLAND, MAINE 04103  
FOR:  
GREENLIGHT ENTERPRISES, LLC  
1728 WASHINGTON AVE.  
PORTLAND, MAINE 04103

PROJECT NO.	SCALE
16533	NTS

[ SHEET 7 OF 8

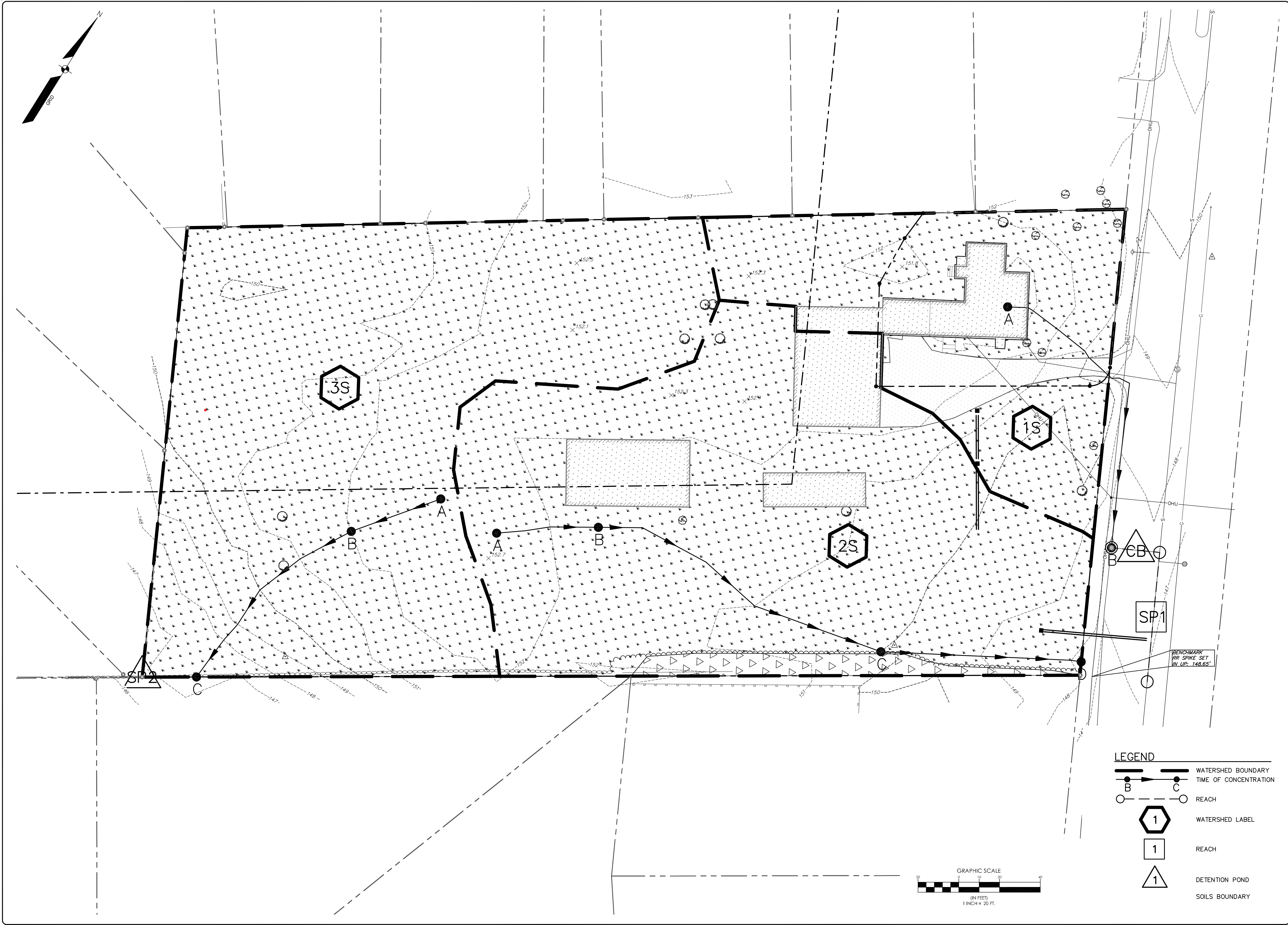






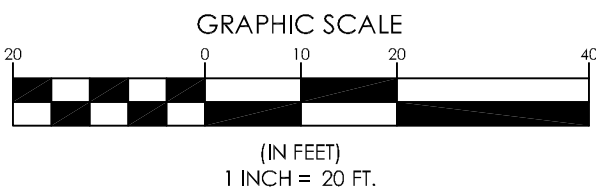






**LEGEND**

- WATERSHED BOUNDARY
- TIME OF CONCENTRATION
- REACH
- WATERSHED LABEL
- REACH
- DETENTION POND
- SOILS BOUNDARY



PRE DEVELOPMENT WATERSHED PLAN  
OF:  
KNIGHT FARM SUBDIVISION  
1728 WASHINGTON AVE  
PORTLAND, MAINE 04103  
FOR:  
GREENLIGHT ENTERPRISES, LLC  
1728 WASHINGTON AVE  
PORTLAND, MAINE 04103

PROJECT NO. 16533 SCALE 1" = 20'

SHEET 1 OF 2

SEBAGO TECHNICS  
WWW.SEAGOTECHNICS.COM  
75 John Roberts Rd. Suite B  
South Portland, ME 04106  
Tel: 207-200-2100 Tel: 207-783-5656

DESIGNED GJH CHECKED RAM  
A GJH 3-14-17 PLANNING BOARD SUBMISSION  
REV: BY: DATE: STATUS:  
THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM SEBAGO TECHNICS, INC. ANY ALTERATIONS AUTHORIZED OR OTHERWISE, SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO SEBAGO TECHNICS, INC.

ROBERT A. MCSORELY, PE 8568  
STATE OF MAINE  
PROFESSIONAL ENGINEER  
LICENSE NO. 10554  
3/14/17

165333NWP.dwg, TAB PRE



# **Memorandum**

## **Planning and Urban Development Department**

### **Planning Division**

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**To:** Elizabeth Boepple, Chair and Members of the Portland Planning Board

**From:** Nell Donaldson, Planner

**Date:** June 9, 2017

**Re:** **Recommendation to Table – 101 York Street Amended Subdivision Plat**

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In consultation with 101 York Street, LLC, the Planning Division requests that the Planning Board table the review of the 101 York Street amended subdivision plat to the public hearing planned for Thursday, June 22.