

CITY OF PORTLAND, MAINE

PLANNING BOARD



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

AGENDA PORTLAND PLANNING BOARD MEETING

The Planning Board will hold a remote meeting on Tuesday, October 12, 2021, 4:30 p.m. Due to the existence of an emergency or urgent issue, the Planning Board will conduct this meeting by remote methods/technology at the Zoom link provided below in accordance with the requirements of 1 M.R.S. section 403-B and the City Council's Remote Participation Policy.

Public comments will be taken for each item on the agenda during the allotted time and written comments should be submitted to hp@portlandmaine.gov or planningboard@portlandmaine.gov. Please note that the placement of this item on the agenda is subject to change. Please check the Agenda & Minutes Center prior to the meeting for the item's approximate start time.

When participating via Zoom, allow your computer to install the free Zoom app to get the best meeting experience. **For public comment, you will need to use the "raise your hand" feature. To raise your hand via the telephone, please hit *9. You will be un-muted by the moderator when it is time for public comment.** For more information on how to use Zoom, please go to: <https://www.portlandmaine.gov/remotepud>

ZOOM MEETING INSTRUCTIONS

You are invited to a Zoom webinar.

When: Oct 12, 2021 04:30 PM Eastern Time (US and Canada)

Topic: Planning Board Workshop and Public Hearing 10/12/2021

Please click the link below to join the webinar:

<https://us02web.zoom.us/j/83663365250>

Or One-tap mobile : US: +13126266799,,83663365250# or +19292056099,,83663365250#

Or Telephone: Dial(for higher quality, dial a number based on your current location): US: +1 312 626 6799 or +1 929 205 6099 or +1 301 715 8592 or +1 346 248 7799 or +1 669 900 6833 or +1 253 215 8782

Webinar ID: 836 6336 5250

International numbers available: <https://us02web.zoom.us/j/83663365250>

WORKSHOP - 4:30 PM

- i. Major Site Plan; 45 Forest Avenue; Redfern Properties, LLC., Applicant. (estimated time 4:30 – 6:00 p.m.) The Planning Board will hold a remote workshop to consider an application for a change of use at 45 Forest Avenue from commercial to residential to allow the conversion of the building to house 81 multi-family dwelling units within the subject building, which is six stories in height. The subject parcel totals 38,209 square feet, is zoned B-3 and B-3c Downtown Business, and is within the Congress Street Historic District.

PUBLIC HEARING - 6:00 PM

1. **ROLL CALL AND DECLARATION OF QUORUM**
2. **COMMUNICATION AND REPORTS**
3. **REPORT OF ATTENDANCE AT THE MEETING HELD ON SEPTEMBER 28, 2021**

Afternoon Workshop

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

50 Bedford Street: Dundon, Mazer, Silk, Smith and Stanley present; Chann and Dunfey absent.

Evening Hearing

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

4. REPORTS OF DECISIONS AT THE MEETING HELD ON SEPTEMBER 28, 2021

- i. Level III Site Plan and Subdivision, 126-128 North Street; Upright Properties, LLC, Applicant. Stanley moved and Smith seconded a motion to approve the reduction in required parking from nine to eight spaces. Vote 5-0, Chann and Dunfey absent.
- ii. Level III Site Plan and Subdivision; 33-37 Montreal Street; 37 Montreal Street, LLC., Applicant. Silk moved and Dundon seconded a motion to table the application to the December 14, 2021 Planning Board meeting. Vote 5-0, Chann and Dunfey absent.

5. NEW BUSINESS

- i. Major Site Plan and Subdivision; Winchester Drive (formerly known as 0 Dalton Street); Hammond House, LLC., Applicant. (estimated time 6:00 – 7:30 p.m.) The Planning Board will hold a remote public hearing to consider a plan by Hammond House, LLC for the development of a 48-unit Planned Residential Unit Development, along with associated site improvements, at Winchester Drive (formerly known as 0 Dalton Street). The subject parcels total 3.4 acres in size and are zoned R-5 Residential.
- ii. Level III and Subdivision Amendment; 75 Chestnut Street; 75 Chestnut Street, LLC., Applicant. (estimated time 7:30 p.m.) The Planning Board will hold a remote public hearing to consider an amendment to add two additional dwelling units, raising the total number of units from 52 to 54 units, at 75 Chestnut Street. No exterior changes to the building or to the development site are proposed via this amendment. This application was originally approved by the Planning Board as a 54-unit project on 12-13-16 as application #PEZ.2016.184, was subsequently amended on 4-17-18 to reduce the unit count from 54 to 52, and later received an amendment associated with Inclusionary Zoning compliance on 10-27-2020. The subject property is 21, 451 square feet in size and is zoned B-7 Mixed Development.

Memorandum

Planning and Urban Development Department



To: Chair Mazer & Members of the Planning Board
From: Charles Tetelman
Date: October 8, 2021
Re: 45 Forest Avenue; Major Site Plan and Inclusionary Zoning Conditional Use
Project ID: PL-001604-2021, CU-001648-2021, HPAR-001783-2021
CBL: 037 A001
Meeting Date: October 12, 2021



Existing zoning context of 45 Forest Avenue. Proposed new parcel shown in blue. *not exact

INTRODUCTION

Redfern Properties, LLC has submitted a Major Site Plan application and an Inclusionary Zoning Conditional Use application to redevelop the existing building located at 45 Forest Avenue into a multifamily residential building containing 81 dwelling units - 30 one-bedroom units and 51 studio units. As a change of use exceeding 20,000 square feet of floor area, this application is being referred to the Planning Board for compliance with Land Use Code Section 14.6, Site Plan Standards, and Section 18.2.3, Inclusionary Zoning Conditional Use Standards.

The Planning and Urban Development Department mailed 196 notices advertising this meeting to property owners within 500 feet of the site. A legal advertisement ran in the October 2nd and 3rd, 2021 editions of the *Portland Press Herald*.

I. REQUIRED REVIEWS

<i>Review</i>	<i>Applicable Standards</i>
Site Plan - Change of use >20,000 SF	Section 14.6
Inclusionary Zoning Conditional Use	Section 18.2.3
Historic Preservation	Section 14.17

II. PROJECT DATA

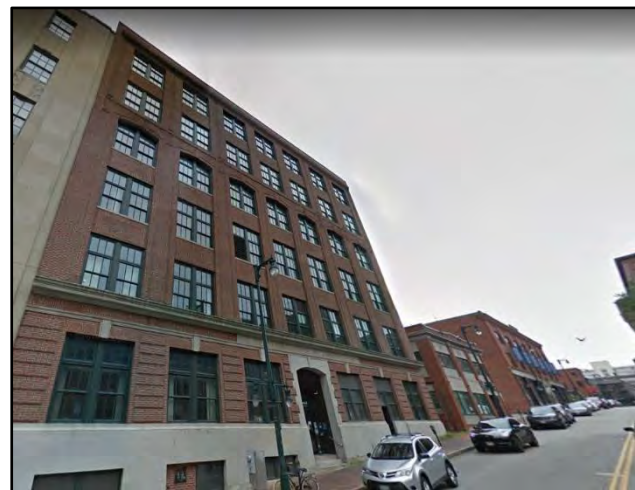
Existing Zoning	B-3, B-3c, Downtown Entertainment Overlay, Congress Street Historic District
Property Size	12,446
Existing Use	Commercial
Proposed Use	Residential

	<i>Existing</i>	<i>Proposed</i>	<i>Net Change</i>
Building Footprint	38,289	38,289	0
Building Floor Area	66,006	66,006	0
Impervious Surface Area	32,084	32,048	0
Parking Spaces	0	0	0
Bicycle Parking Spaces	0	32	32

III. BACKGROUND

Constructed in 1912, 45 Forest Avenue originally housed the New England Telephone and Telegraph Company. Over the next century, several telecommunications companies operated out of 45 Forest Avenue including, most recently, FairPoint Communications and Consolidated Communications. In 1997, the building owners installed a telecommunications tower at the top of the building.

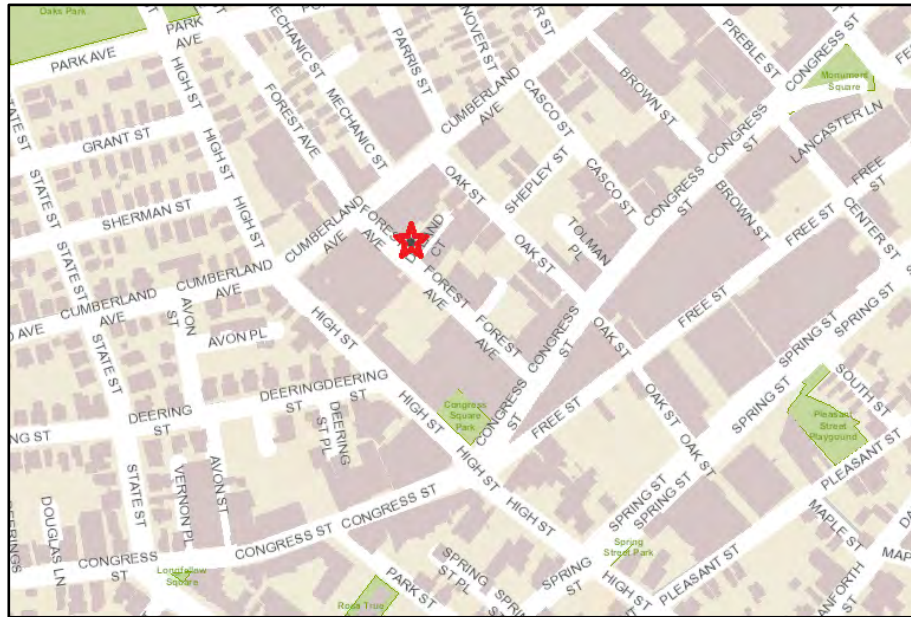
45 Forest Avenue has been occupied sporadically over the last three decades and the former owner has moved most operations into the neighboring building abutting Cumberland Avenue and Oak Street. Since 2018, the building has seen increasingly limited occupancy. There have been no major projects or changes at the location over the last five years; only minor changes related to signage have come before the City. After the sale and purchase of 45 Forest Avenue in 2021, the building became its own parcel.



45 Forest Avenue looking towards Congress Street

Cumberland Avenue and Oak Street are currently under moratorium and the Maine Department of Transportation will be paving Forest Avenue from Congress Street to Park Avenue in 2022.

IV. EXISTING CONDITIONS AND SURROUNDING AREA



A larger context surrounding 45 Forest Avenue

The subject property is comprised of a single parcel created following the purchase of the building by Redfern Properties, LLC. The section of parcel abutting Forest Avenue is addressed as 45 Forest Avenue. There is access to the rear of the building via Deland Court (private drive) and an entrance on Oak Street. The building of the proposed redevelopment project is bordered by Cumberland Avenue to the West, Oak Street to the North, and Congress Street to the East. Nearby High Street and Congress Street are both identified as priority corridors in the City's Comprehensive Plan. The adjacent buildings on Cumberland and Oak streets will continue to be owned and operated by Consolidated Communications. 39 Forest Avenue, neighboring 45 Forest Avenue on Deland Court, is the primary office for the City of Portland's Health and Human Services Department.

The New England Telephone and Telegraph Company constructed the current building at 45 Forest Avenue in 1912 and added two additional floors in 1924. The building housed the company's switchboard as well as offices for the Portland employees. The adjacent building at 55 Forest Avenue is designated a historic landmark by the City of Portland. Although 45 Forest Avenue is not a designated landmark, the building is still located in the Congress Street Historic District.



45 Forest Avenue, 1924

The structure is located in the B-3 and B-3c zones and is within the boundaries of the Downtown Entertainment Overlay Zone and the Congress Street Historic District. The area immediately surrounding 45 Forest Avenue represents the high-density mixed-use character of Downtown Portland with buildings rising above three or four stories. Although the design and styles of these structures vary, they all contribute to the diverse character of the downtown, representing different eras of architecture. The B-3

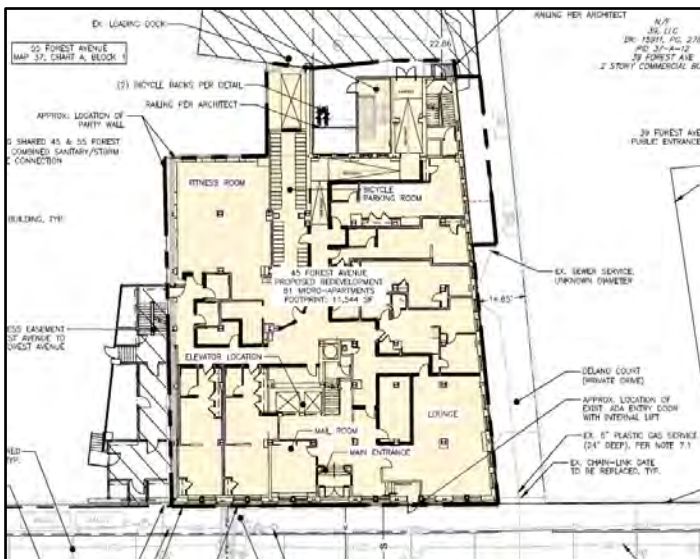
zone follows Congress Street and expands moving East. Moving towards the West End, the B-3 Zone narrows between the Parkside and West End R-6 Zones. These neighborhoods are predominantly smaller to mid-scale residential with limited commercial developments.

Forest Avenue connects to Congress Street near Congress Square Park. With a 15 minute walk to the Old Port and a 10 minute walk to the West End, 45 Forest Avenue has great access to downtown Portland. This includes proximity to a variety of services including offices, restaurants, entertainment, coffee shops, and retail stores. Even though the building is located in a commercially active part of Portland, there are significant residential developments in the surrounding neighborhood including Back Bay Tower and 409 Cumberland both located on Cumberland Avenue. Portland High School is a seven minute walk down Cumberland Avenue and Deering Oaks Park is an approximately five minute walk to the Northwest.

As the site is located close to the city's urban core, 45 Forest Avenue is highly accessible to public transit via most METRO Routes running on Congress Street and High Street. This also includes the South Portland Bus routes, Biddeford-Saco-OOB Transit lines, and the METRO Breeze lines. The METRO Pulse at Elm Street, the hub for greater Portland METRO service, is approximately seven minutes to the north.

V. PROPOSED DEVELOPMENT

The proposed Major Site Plan application would facilitate the redevelopment of the existing unused commercial building, including a change in use from commercial to residential. As proposed, 45 Forest Avenue will convert the existing 66,006 square feet of commercial space into 81 residential units ranging in size from 351 square feet to 785 square feet. These units will be a mix of one-bedroom units and studio units. This project also includes a variety of amenities on the first floor including a fitness room and a mail room. 21 of the residential units would be designated as workforce housing pursuant to the Inclusionary Zoning requirements in Section 18.2.3 (Attachment B). Previous occupants of the building had removed windows and installed vents and the applicant has proposed to restore the historical façade of the building as part of this redevelopment. No off-street vehicular parking is required for this project and none is proposed; however, 32 bicycle parking spaces will be provided.



45 Forest Avenue Site Plan showing First Floor of the redevelopment.



VI. RIGHT-TO-FEEL & INTEREST
45 Forest Avenue Floor Plan showing the residential

The applicant submitted a Purchase and Sale Agreement (Attachment 3) for 45 Forest Avenue between Consolidated Communications of Northern New England Company, LLC (Seller) and Redfern Properties, LLC (Purchaser) as evidence of right, title, and interest. It should be noted that there is an existing easement, now held by Consolidated Communications, on the entire property of 45 Forest Avenue. Additionally, the proposed project includes two new easements: 1) Emergency Egress Easement with 55 Forest Avenue; 2) Easement for access to the rear space behind the building with 55 Forest Avenue.

VII. FINANCIAL & TECHNICAL CAPACITY

Gorham Savings Bank Senior Vice President Nick Weightman submitted a Financial Capacity Letter (dated July 20, 2021) on behalf of Redfern Properties LLC stating the team has the necessary financial capacity for this project (Attachment 7).

The Applicant's team includes Acorn Engineering, Inc. and Ryan Senatore Architecture. Both groups have extensive experience in Portland including over 20 Major Site Plan projects. This experience indicates that the applicants have demonstrated adequate technical capacity (Attachment 8).

VIII. ZONING ANALYSIS

45 Forest Avenue is located in the B-3, B-3c, and Downtown Entertainment Overlay zones as well as the Congress Street Historic District. The proposed change of use, from commercial to residential, align with the intended purpose of the B-3 and B-3c zones. The B-3 and B-3c zones allow a variety of uses including residential housing, medical clinics, schools, commercial retail, restaurants, and hotels. However, B-3c is intended to promote the safety, quiet enjoyment, and general welfare of citizens residing in dense urban neighborhoods by decreasing conflicts between residential uses and loud late-night activities and therefore prohibits bars. Height is governed by the Downtown Height Overlay map. The maximum permitted height is up to 210 feet. The table below shows the dimensional standards required in Section 14.7.

Standard:	Required:	Proposed:
Lot Area	None	12,446 sq. ft.
Street Frontage (min.)	15 ft.	103 ft.
Front Setback (from all street frontages) (max.)	5 ft.	0 ft.
Rear Setback (min.)	None	22.86 ft.
Side Setback (min.)	None	0 ft.
Stepbacks (min.)	None	None
Structure Height (max.)	210 ft.	97.2 ft.
Lot Coverage (max.)	100%	92.8%
Impervious Surface Ratio (max.)	None	100%

IX. SITE PLAN REVIEW STANDARDS (Section 14.6)

The proposed development has been reviewed by staff for conformance with the relevant review standards of the City of Portland's Site Plan Ordinance, Section 14.6. (Staff Comments - Attachment A)

1. Transportation Standards (Section 14.6.1)

A. *Impact on surrounding street systems*

With no required off-street parking, the project will not have an impact on the vehicular circulation on surrounding streets.

B. Access and circulation

The development site features two private entrances to the paved space behind the building through a private drive off of Forest Avenue (Deland Court) and a private entrance on Oak Street. Both of these entrances are gated and the applicant will be replacing the fences and locks. As proposed, this space will be utilized for service vehicles and an access point for bicyclists and pedestrians. Staff have requested more information regarding the intended use of this area as well as the easement proposals associated with the space.

45 Forest Avenue provides direct pedestrian access on the frontage of the building. No improvements are depicted to the public sidewalk in front of the building along Forest Avenue. The Department of Public Works (DPW) requested for the applicant to note the extent of sidewalk reconstruction on a future set of plans and should include any areas of trenching.

C. Public transit access

The location of this building in a dense, urban part of Portland provides incredible access to public transit. There is a METRO bus stop on the end of Forest Avenue near Congress Street. Additionally, there are two transit shelters located at the intersection of Forest Avenue and Congress Street.

D. Parking

As there is no off-street vehicular parking requirements required for a change of use in the B-3 or B-3c zones, no vehicular parking is proposed. The proposed site includes 32 Bicycle Parking spaces and an allocated spot for storage. Staff and Peer Reviewers have requested additional information regarding bike rack detail and security of the storage room. In addition, staff have requested improved plans regarding snow storage and snow removal from the premises of the property.

E. Transportation Demand Management (TDM)

As a change of use in the B-3 and B-3c zones, the proposed project is exempt from providing parking. However, the applicant intends to implement TDM strategies and has provided a plan for reference (Attachment 20).

2. Environmental Quality Standards (Section 14.6.2)**A. Preservation of significant natural features**

There are no Significant Natural Features located on or near the site.

B. Landscape preservation

There are no proposed changes to the exterior of the site.

C. Site landscaping and buffers

Staff have requested more detail regarding the servicing area layout located behind the building. Staff requested the applicant provide fencing details. The solid waste receptacles and utility structures related to the building will be screened.

Multi-family residential developments are required to provide a minimum of one tree per unit. Where other alternatives to providing the required trees on-site is not feasible, a contribution for each required street tree may be made into the Tree Fund. Staff have made note to calculate the fee required to contribute to the Portland Tree Fund before a public hearing is scheduled.

D. Water quality/storm water management/erosion control

With limited changes to the site, most of the stormwater management features will be maintained as currently exists on the site and building. This redevelopment will not result in 1,000 square feet of new impervious surfaces, thus it falls below Chapter 500 requirements.

Staff have requested confirmation of ability to serve letters from appropriate utility sources. Staff have also requested additional information regarding the existing and proposed roof drain connections. An existing roof drain is shown at the rear of the building with a note to remove and replace. A new roof drain connection is shown at the front of the building, but no sizing is provided. Additionally, a 'potential' sewer connection is identified, but a specific size has not been identified.

Regarding erosion control details, reviewers noted that the ultratech drain guard proposed does not provide any protection for the curb inlets. Staff have requested applicants use a proprietary insert with curb inlet protection or include a detail for coir logs or similar erosion control measures to be used in conjunction.

3. Public Infrastructure and Community Safety Standards (Section 14.6.3)

A. Consistency with City Master Plans

The City of Portland's Comprehensive Plan identifies a lack of sufficient and suitable housing supply in the city. As it is located in a mixed-use zone, this redevelopment project provides increased housing opportunities, including workforce housing in Downtown Portland. Furthermore, additional dwelling units downtown supports the City's vision of complete neighborhoods, where residents have access to basic necessities of life, including housing, schools, food, open space, and other amenities and services within a walkable, bikeable distance. This type of diversity in housing is directly in-line with Portland's Plan 2030 and supports additional state and local goals including:

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 residents."

"Pursue policies to enable people who work in Portland to have the option to live in Portland."

"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."

B. Public safety and fire prevention

Public safety and fire will need to review and approve this project. Ongoing conversations regarding the emergency egress with 55 Forest Ave with the Permitting and Inspections office will continue post-workshop and are expected to be resolved prior to a public hearing.

C. Availability and capacity of public utilities

The City is requesting that utility ‘ability to serve’ letters be supplied by the applicant once they are available.

The City has also requested a copy of the two new proposed easements related to the emergency egress and exterior building with 55 Forest Avenue as well as an update to the existing easement already associated with the building.

4. Site Design Standards (Section 14.6.4)

A. Massing, ventilation, and wind impact

As a redevelopment of an existing building, this project will have no impact on massing, ventilation, or wind impact.

B. Shadows

Shadow impact analysis requirements do not apply to buildings in the B-3 zone. Additionally, in this case, the applicant is proposing to redevelop an existing building, with no changes to the building’s massing.

C. Snow and ice loading

Staff have requested that a Snow Storage Plan be provided (see Parking Standards above)

D. View corridors

45 Forest Avenue is not located within any View Corridors shown in the *Design Manual*.

E. Historic resources

45 Forest Avenue is located within the Congress Street Historic District and adjacent to the New England Telephone building located at 55 Forest Avenue. As proposed, the developers are focusing mostly on restoration work to the façade of the building. The design shows replacing windows, bricked windows, and vents with appropriate fittings to match historical exterior. This proposal is subject to Historic Preservation design review and is undergoing an administrative Historic Preservation review.

F. Exterior lighting

Staff have requested a Photometric Plan to be submitted for this site.

G. Noise and vibration

The applicant has stated the proposed HVAC system will be in line with relevant state and federal emissions requirements. Additionally, the system will be sited in a location away from abutters and screened.

H. Signage and wayfinding

Signage and wayfinding standards are not applicable to this development.

I. Zoning-related design standards

The proposed project is located within the Congress Street Historic District and will undergo an administrative Historic Preservation review.

X. NEIGHBORHOOD MEETING & PUBLIC COMMENT

The applicant held a neighborhood meeting, as required as part of this application, on September 28th, 2021 with two attendees (Attachments 21-24)

One public comment has been received by the Planning Department, (Attachment PC1).

XI. NEXT STEPS

1. Planning Board to provide preliminary comments and questions.
2. Continue to evaluate proposal against Site Plan Review standards.
3. Applicant to address Preliminary Review Comments and provide the following:
 - a. General
 - i. Updated Plans
 - ii. Provide Staff with final copies of existing easement changes and two new easements.
 - b. Transportation and Parking
 - i. Provide Snow Storage Plan
 - c. Site Design
 - i. Provide Ability to Serve Letters
4. Prepare Final Plan Submission
5. Schedule and Hold Planning Board Public Hearing

XII. ATTACHMENTS

Report Attachments

- A. Forest Ave. – 45 Preliminary Comments (9.27.21)
- B. Victoria Volent IZ Email

Applicant's Submittal

1. Cover Letter
2. Major Site Plan Application
3. Right, Title, & interest
4. Zoning Assessment
5. Easements
6. Waivers Table
7. Financial Capacity
8. Technical Capacity
9. Conformity With Land Use Ordinance
10. Stormwater Management Report
11. Erosion and Sedimentation Control Report
12. Fire Department Letter
13. Wastewater Capacity
14. Lighting
15. Arch Design Narrative
16. Utilities
17. Construction Management Report
18. Solid Waste Disposal
19. Parking Analysis
20. Transportation Demand Management

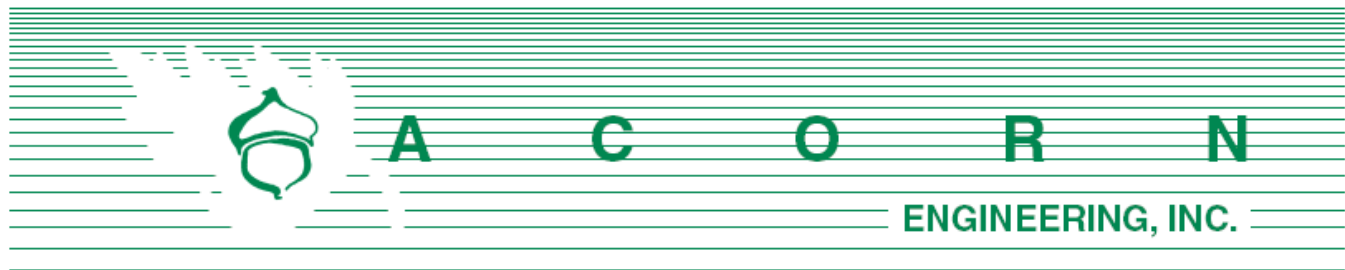
21. Neighborhood Certification Letter
22. Notification Letter
23. Sign in Sheet
24. Neighborhood Meeting Minutes

Plans

- Plan 1. Cover Page
- Plan 2. General Notes
- Plan 3. Existing Conditions Plan
- Plan 4. Site & Utility Plan
- Plan 5. Site Details
- Plan 6: Utility Details
- Plan 7: Erosion Control Notes
- Plan 8: Erosion Control Details
- Plan 9: Basement Plan
- Plan 10. First Floor Plan
- Plan 11. 2-6 Floor Plan
- Plan 12. South Elevation
- Plan 13. East Elevation
- Plan 14. North Elevation
- Plan 15. West Courtyard Elevation
- Plan 16. North Courtyard Elevation
- Plan 17. East Courtyard Elevation
- Plan 18. South Courtyard Elevation

Public Comment

- PC1. George Rheault 10-6-2021



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

July 15, 2021

Subject: Major Site Plan Application
Redevelopment of 45 Forest Avenue, Portland, Maine

Dear Christine Grimando:

On behalf of Redfern Properties LLC, we are pleased to submit the accompanying package of submission materials related to the proposed redevelopment project at 45 Forest Avenue (Chart 37, Block A, Lot 1). Portions of the parcel reside in the B-3 Downtown Business, B-3c Downtown Business, Downtown Entertainment Overlay & Congress Street Historic Districts. Also, of note, the existing building is a designated Historic Landmark identified as the "New England Telephone Building" by the City of Portland.

The project proposes to convert the existing abandoned commercial-use building into residential units which will include 81 micro-apartments, primarily on floors two through six, with ground floor occupied by a lobby, lounge, fitness areas, bike room & other miscellaneous amenities for the tenants. No site work is expected outside the limits of the existing building except for utility connections. Due to the change of use at the property exceeding 20,000-square feet, the project is subject to a Major Site Plan Development Application and approval from the Planning Board.

Redfern Properties, LLC and the design team look forward to your review of this project. If you have any questions regarding these materials or the completeness of the application materials, please do not hesitate to contact us.

Sincerely,

Peter F. Heil, P.E.
Project Manager
Acorn Engineering, Inc.

The following documents and drawings will be uploaded onto the City's electronic submission site per the procedure outlined in the application:

Documents:

- Section A: Cover Letter
- Section B: Major Site Plan Application & Checklist
- Section C: Right, Title, Interest
- Section D: Zoning Assessment
- Section E: Easements
- Section F: Waiver Table
- Section G: Financial Capacity
- Section H: Technical Capacity
- Section I: Conformity with Land Use Ordinance
- Section J: Stormwater Management Report
- Section K: Erosion & Sedimentation Control Report
- Section L: Fire Department Letter
- Section M: Wastewater Capacity
- Section N: Lighting
- Section O: Architectural Design Narrative
- Section P: Utility Cover
- Section Q: Construction Management Plan
- Section R: Solid Waste Disposal
- Section S: Parking Analysis
- Section T: Transportation Demand Management Plan

Drawings:

- Civil Site Plan Set, Dated 7/16/2021
- Architectural Plan Set, Dated 7/14/21



CITY OF PORTLAND
Planning & Urban Development Department

MAJOR SITE PLAN
GENERAL DOCUMENT AND DRAWINGS CHECKLIST

Please submit each document as a separate PDF file.
Please confirm by electronically checking the boxes in the left-hand column.

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

**At the time of application submission, please contact the Department of Public Works regarding E-911
addressing for your project.**

GENERAL APPLICATION DOCUMENTS

☒	NA	Project Description Cover letter with detailed project description
☒	NA	Completed Checklist (this document)
☒	NA	Evidence of Right, Title, and Interest Deeds, leases, or purchase and sales agreements
Yes	☒	Evidence of State or Federal Approvals Permits or letters of non-jurisdiction, if applicable
☒	NA	Zoning Assessment (see Zoning Assessment Table) Summary of compliance with use and dimensional standards of the land use code
☒	NA	Site Plan Standards Assessment (see Section 14.6 of the land use code) Summary of project compliance with site plan standards of the land use code
☒	NA	Summary of Existing and/or Proposed Easements or Covenants, applicable. Evidence of existing easements and any proposed easements, covenants, public or private rights-of-way
☒	NA	Waiver Requests (see Waiver Table) Written request for waiver describing request and compliance with applicable waiver standards
☒	NA	Financial Capability Letter or evidence from a financial institution or third party verifying financial capacity to undertake project
☒	NA	Technical Capability Evidence of technical capability of applicant and consultants – resumes and/or examples of past projects

MAJOR SITE PLAN STANDARDS AND SUBMISSION CHECKLIST

Provide assessment of compliance with standards and include
supplemental documentation, as applicable.
Please submit each document as a separate PDF file.

TRANSPORTATION		
Yes	☒ NA	Impact on Surrounding Street Systems (14-14.6.1(A)) Describe incremental volume of traffic impacts and mitigation measures. If needed
☒ Yes	NA	Access and Circulation (14-14.6.1(B)) Identify and describe the following: - Site access and internal circulation, including ADA access - Drive-up features, if applicable - Loading and servicing needs, routes, and geometry, providing turning templates for delivery vehicles, if applicable - Sidewalks and condition along street frontages and internal walkways - Engineered details for ADA ramps and public sidewalks, meeting sidewalk material policy and construction requirements (Technical Manual, Section 1)
Yes	☒ NA	Public Transit (14-14.6.1(C)), if applicable Identify and describe the following: Existing available transit service and proposed transit improvements, including design details, such as easement, pad base, and shelter
☒ Yes	NA	Off-Street Parking (14-14.6.1(D)), if applicable Identify and describe the following: - Proposed vehicular and bicycle parking supply (including ADA-compliant parking) in relation to applicable parking requirements in Article 19 of the land use code - Curb cut separation and parking layout (Technical Manual, Section 1) - Construction details for bicycle racks - Management plan for snow storage and removal
Yes	☒ NA	Transportation Demand Management (TDM) (14-14.6.1(E)), if applicable Provide TDM plan drafted in accordance with Technical Manual Section 1 requirements

ENVIRONMENTAL		
Yes	NA	Preservation of Significant Natural Features (14-14.6.2(A)), if applicable Identify and describe the following: • High and moderate value waterfowl and wading habitat • Aquifers (for Casco Bay Islands) • Waterbodies (including wetlands, watercourses, significant vernal pools and floodplains) • Proposed preservation areas and protection measures • Documentation from environmental compliance consultants and determinations from applicable state and federal agencies
Yes	NA	Landscape Preservation (14-14.6.2(B)) Identify and describe the following: • Measures to preserve trees, including within required zoning setbacks (Technical Manual, Section 4) • Measures to protect existing vegetation during construction
Yes	NA	Site Landscaping and Buffers (14-14.6.2(C)) Identify and describe the following: • Overall landscaping approach and consistency with standards • The use of screening and buffering of service areas and between non-residential and residential uses • Existing Heritage or Feature Trees on site and measures to preserve • Compliance with street tree requirements
Yes	NA	Water Quality, Stormwater Management, and Erosion Control (14-14.6.2(D)) Identify and describe the following: • Erosion and sedimentation control plan and measures • Evidence of compliance with Urban Impaired Stream Standards pursuant to DEP Chapter 500 stormwater law, as applicable • Subsurface sanitary sewage disposal and groundwater protection measures

PUBLIC INFRASTRUCTURE AND COMMUNITY SAFETY		
Yes	NA	Consistency with City Master Plans (14-14.6.3(A)) Describe proposed easements, rights and improvements to connect or continue off-premises public infrastructure, as applicable
Yes	NA	Public Safety and Fire Prevention (14-14.6.3(B)) Identify and describe the following: - Compliance with Crime Prevention through Environmental Design (CPTED) requirements (Technical Manual, Section 3) - Emergency vehicle access - Consistency with public safety standards (Technical Manual, Section 3)
Yes	NA	Availability and Adequacy of Public Utilities (14-14.6.3(C)) (Technical Manual, Sections 2 & 9) Identify and describe the following: - Electrical services, including providing underground services - Existing and proposed connections for public utilities and required public utility upgrades - Sewer line connections
SITE DESIGN		
Yes	NA	Massing, Ventilations and Wind Impact (14-14.6.4(A)) Identify and describe the following: - Wind and ventilation impacts on adjoining structures and/or adjacent public spaces, including wind study, if applicable - Bulk, location, or height impacts on adjoining structures
Yes	NA	Shadows (14-14.6.4(B)), if applicable Provide shadow analysis of impacts on publicly accessible open space (Technical Manual, Section 11)
Yes	NA	Snow and Ice Loading (14-14.6.4(C)) Describe building design measures to prevent snow and ice from loading or falling onto adjacent properties or public ways
Yes	NA	View Corridors (14-14.6.4(D)), if applicable Describe any protection of designated view corridors (Portland Design Manual, Appendix. 1)
Yes	NA	Historic Resources (14-14.6.4(E)), if applicable Identify and describe the following: - The site's status as a designated landmark, within a historic district or historic landscape district, or within 100 feet of any designated landmark, historic district, or historic landscape district - Compliance with standards for preservation and documentation of archaeological resources

Yes	NA	Exterior Lighting (14-14.6.4(F)) Describe how the proposed site lighting will adhere to photometrics requirements as it relates to light trespass and full cutoff fixture design, pursuant to Technical Manual Section 12
Yes	NA	Noise and Vibration (14-14.6.4(G)) Provide data on noise levels for HVAC and other mechanical equipment, such as design specifications, to demonstrate consistency with state and federal noise emissions requirements as well as City code
Yes	NA	Signage and Wayfinding (14-14.6.4(H)), if applicable - Provide signage plan showing the location, dimensions, height and setback of all existing and proposed signs - Provide drawings of all commercial and directional signage on site
Yes	NA	Zone-Related Design Standards (14-14.6.4(I)) Address any applicable design review standards by zone, including compliance with Design Manual

MAJOR SITE PLAN DRAWINGS CHECKLIST

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

All drawings must be submitted in a 24 x 36 sheet size.

BOUNDARY SURVEY (stamped by a Maine Licensed Surveyor and drawn as per Technical Manual Sec. 13)

SITE PLAN(S) (stamped by a Maine Licensed Professional Engineer) including:

All sheets – Include a title block with project title and the following information:

- Project street address
- Name and address of property owner & applicant
- Licensed design professional, incl firm that produced plans
- North arrow
- Date of preparation and revision history block
- Tax parcel (chart, block, and lot) number

Existing Conditions Plan with the following:

- Existing structures, with distance from primary building façade(s) to the property line
- Approximate location of structures on abutting properties
- All streets and intersections adjacent to the site
- Existing driveways, pedestrian ways, and bicycle infrastructure, including dimensions and materials
- Existing public transit infrastructure
- Existing vehicle & bicycle parking areas
- Existing utilities on site and within adjacent rights-of-way
- Existing grades (two-foot contours preferred)
- Location of water courses, wetlands, and vegetation, or other significant natural features
- Existing soil conditions and location of test pits and borings
- Zoning boundary lines, including overlays
- Location of all existing easements and rights-of-way

Proposed Site Plan with the following:

- Proposed structures, including distance from primary building façade(s) to property lines
- Ground floor area, and finished floor elevations for all buildings
- Any proposed geometric modifications to streets and intersections adjacent to site
- Location, dimensions and materials of all proposed driveways, vehicle, bicycle, & pedestrian access ways with corresponding curb lines
- Engineered specifications/ cross-sections for proposed driveways, sidewalks & paved areas
- Location and dimensions of proposed loading areas, including turning templates
- Proposed transit infrastructure with dimensions/ engineering specifications
- Location of vehicle and bicycle parking with dimensions and engineering specifications
- Location of all snow storage areas
- Exterior lighting (please see Technical Manual Sec. 12 for photometrics requirements)
- Location of fire hydrants

• Location of solid waste management receptacles • Location of all proposed HVAC and mechanical equipment, including proposed screening, where applicable • Location of proposed easements and rights-of-way, including dimensions • Please utilize color-coding and/or hatches and shading to delineate changes between the pre and post development condition as needed
UTILITY PLAN including:
• Proposed electrical infrastructure • Location, sizing and directional flows of all proposed sewer and stormwater infrastructure • Location and dimensions of off-premises public or publicly accessible infrastructure adjacent to site • Electric utility infrastructure
GRADING AND DRAINAGE PLAN including:
• Proposed grades • Proposed stormwater management measures meeting Technical Manual (Section 5) standards • Any proposed alteration of a watercourse or wetlands • Any groundwater protection measures • Proposed buffers and preservation measures for wetlands or significant natural features
LANDSCAPE PLAN including:
• Existing vegetation to be preserved and preservation measures • Proposed landscaping, screening, and street trees, including caliper widths for trees • Planting schedule, including street trees
ARCHITECTURAL PLANS AND RENDERINGS including:
• Exterior building elevations, color renderings, illustrations of all sides • Axonometric and street-level views for structures greater than three stories in height • Provide context drawings, if applicable (Design Manual, page 1) • Floor plans
CONSTRUCTION MANAGEMENT PLAN including:
• Specifics on traffic control, sidewalk sheds, and pedestrian rerouting • Include a drawing and written narrative
OTHER
• Details and cross-sections, as necessary

C. Right, Title, and Interest

Please refer to the attached Purchase and Sales Agreement demonstrating the Applicant's Right, Title, Interest.



PURCHASE AND SALE AGREEMENT

THIS PURCHASE AND SALE AGREEMENT (this “Agreement”) is made as of the ____ day of _____, 2021 (the “Effective Date”), by and between CONSOLIDATED COMMUNICATIONS OF NORTHERN NEW ENGLAND COMPANY, LLC, a Delaware limited liability company having a mailing address of 121 South 17th Street Mattoon IL 61938 (together with its affiliates and subsidiaries, collectively the “Seller”), and REDFERN PROPERTIES, LLC, a Maine limited liability company with a place of business in Portland, Maine (the “Purchaser,” and together with the Seller, the “Parties,” and each a “Party”).

RECITALS

WHEREAS, Seller is the owner of a certain parcel of real estate in the City of Portland, County of Cumberland, State of Maine, which parcel is more particularly described in Exhibit A attached hereto and incorporated herein by reference (the “Seller Property”); and

WHEREAS, the Seller Property is improved with multiple buildings, including the building and associated improvements having a street address of 45 Forest Avenue, in the current numbering thereof (the “45 Forest Property”), being a portion of the Seller Property, a preliminary sketch of the 45 Forest Property is attached as Exhibit B; and

WHEREAS, Seller desires to sell to Purchaser, and Purchaser desires to purchase from Seller, the 45 Forest Property (as the same is hereinafter further defined), each in accordance with and subject to the terms and conditions set forth in this Agreement; and

WHEREAS, the 45 Forest Property is subject to an Easement and Building Operating Agreement dated December 31, 1983 and recorded in the Cumberland County Registry of Deeds in Book 6368, Page 222, as the same has been amended and supplemented to date (the “Easement Agreement”); and

WHEREAS, Seller has agreed to use commercially reasonable best efforts to amend the Easement Agreement, including obtaining the consents of all parties to the Easement Agreement, all as set forth in this Agreement;

WHEREAS, as further material consideration for Seller’s willingness to enter into this Agreement, the Purchaser has agreed to incur all costs and expenses in connection with the separation of the 45 Forest Property from the balance of the Seller Property (the “Seller’s Retained Property”), all as set forth in this Agreement;

NOW THEREFORE, in consideration of the above Recitals, the mutual covenants and agreements herein set forth and the benefits to be derived therefrom, and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, Purchaser and Seller hereby agree as follows:

1. Purchase and Sale; Description. Subject to and in accordance with the terms and conditions set forth in this Agreement, Seller agrees to sell, and Purchaser agrees to buy, upon the terms set forth herein, the land that is improved with the building and associated improvements located at the 45 Forest Property, together with all appurtenant easements and rights of way, being a portion of the Seller Property, the precise description thereof shall be determined in accordance with Section 7(b) hereof (collectively, the "Premises").

2. Purchase Price.

(a) Subject to any adjustments and pro-rations described in this Agreement, the purchase price for the Premises is [REDACTED] (the "Purchase Price"), payable as follows:

(i) Initial Deposit. Purchaser shall deliver to Escrow Agent (as defined herein) the sum of [REDACTED] as an initial deposit (the "Initial Deposit") on the date of this Agreement, which Initial Deposit shall be held by Escrow Agent in an interest bearing account, applied in accordance with the terms hereof, and credited against the Purchase Price at Closing, as the same is hereinafter defined.

(ii) Second Deposit. Within 3 business days following the latter to occur of the Separation Agreement Deadline (as defined herein), and the date the Separation Agreement is executed by Seller and delivered to Purchaser (the "Second Deposit Due Date"), Purchaser shall deliver to Escrow Agent an additional deposit of [REDACTED] (the "Second Deposit," and together with the Initial Deposit, the "Deposit"), which Deposit shall be held by Escrow Agent in an interest bearing account, applied in accordance with the terms hereof, and credited against the Purchase Price at Closing, as the same is hereinafter defined.

(iii) The balance of the Purchase Price, subject to adjustments and pro-rations provided for herein, is to be paid at Closing by certified, cashier's or treasurer's check or checks, or by electronic wire transfer in accordance with wiring instructions provided by Seller.

(b) Separation Costs. In addition to the Purchase Price, Purchaser agrees to pay all costs and expenses (the "Separation Costs") in connection with the separation of the 45 Forest Property from the Seller's Retained Property, up to a cap of [REDACTED] (the "Separation Costs Cap"). Separation Costs shall include, without limitation, architect's, engineer's and surveyor's fees and cost, permitting and application fees and all related permitting costs, construction costs, costs to make both properties code compliant, and other costs, including environmental remediation costs, associated with separating the shared elements and systems, including electrical, mechanical, fire suppression, and life safety systems (collectively, the "Systems") of the 45 Forest Property from the Seller's Retained Property such that the 45 Forest Property may legally be separately conveyed from the Seller's Retained Property and such that each of the 45 Forest Property and the Seller's Retained Property may be independently owned and operated, each with its own dedicated Systems (the "Separation"). The Separation Costs shall also include the removal of the antennas (but not the towers) from the roof of the 45 Forest Property and all

related cabling, conduits and duct work. The Separation Costs shall also include all costs incurred by Purchaser related to the amendment of the Easement Agreement in accordance with the terms hereof. Notwithstanding the foregoing, the classification of any expenditure as a "Separation Cost" shall be subject to Seller's reasonable review and approval. In the event that Seller objects, in its reasonable discretion, to the classification of any expenditure as a "Separation Cost," and the parties are unable to reach an agreement with respect to the disputed Separation Cost, either party may require that the dispute be resolved by binding arbitration in a process to be negotiated as part of the "Separation Agreement" (defined below). Purchaser shall keep Seller reasonably informed of the Separation budget and of the expenditure of Separation Costs. The Parties anticipate that the cost of the Separation will not exceed the Separation Costs Cap. However, if the Separation Costs exceed the Separation Costs Cap, Seller shall bear responsibility for the amount of the Separation Costs in excess of the Separation Costs Cap. At the Closing, Seller shall place [REDACTED] of the Purchase Price into escrow to be held and distributed to pay for Separation Costs in excess of the Separation Costs Cap, provided if there is no excess, the entire [REDACTED] will be delivered to Seller. The terms of such escrow will be negotiated between the Parties as part of the "Separation Agreement" (defined below).

3. Buildings, Structures, Improvements, Fixtures. Included in the sale as a part of the Premises are the buildings, structures, and improvements now thereon, and the fixtures belonging to Seller and used in connection therewith, all as the same may be modified in accordance with the Separation Agreement. Seller shall not be required to remove the antennas on the roof of the Premises, the related cabling within the Premises, or the roof tower where the antennas are located; provided, however, that the costs of removing the antennas on the roof of the Premises shall be a Separation Cost.

4. Deed; Title. (a) The Premises are to be conveyed to Purchaser by a good and sufficient quitclaim deed with covenant (the "Deed"), and such deed shall convey marketable title to the Premises, subject to easements, conditions, encumbrances and restrictions of record, any Unacceptable Encumbrances (as hereinafter defined) accepted or waived by Purchaser pursuant to Section 3(b), and except for the Permitted Exceptions (as hereinafter defined).

(b) Purchaser shall have thirty (30) days from the date of this Agreement (the "Title Review Period") within which to give Seller written notice of (i) any alleged title defects in the Premises; and (ii) any easements, conditions, encumbrances and restrictions that are unacceptable to Purchaser because they have a material adverse effect on the Premises as currently improved and used (items (i) and (ii) being collectively referred to herein as "Unacceptable Encumbrances"). Purchaser's failure to give such notice within the Title Review Period shall be deemed a waiver of Purchaser's right to object to any and all matters that affect the title to the Premises which appear of record in the Cumberland County Registry of Deeds as of the end of the Title Review Period. If Purchaser does give such written notice in a timely manner, Seller shall then have seven (7) days from the date it receives Purchaser's notice within which to elect whether it will attempt to cure such Unacceptable Encumbrance(s) or to notify Purchaser of its election not to attempt to cure such Unacceptable Encumbrance(s). In the event Seller elects to attempt to cure the Unacceptable Encumbrance(s), Seller shall have a period of forty-five (45) days from the date of its election within which to do so. In the event that Seller elects to, but fails to cure any Unacceptable Encumbrance(s) within said 45-day period, Seller shall give written

notice thereof to Purchaser at the expiration of said 45-day period. In the event Seller elects not to cure, or having elected to attempt to cure fails to cure, the Unacceptable Encumbrance(s), Purchaser shall elect, within a period of seven (7) days after its receipt of notice thereof from Seller to either (i) terminate this Agreement; or (ii) waive such Unacceptable Encumbrance(s) and accept conveyance of the Premises subject to the Unacceptable Encumbrance(s) without deduction from the Purchase Price. If Purchaser elects to terminate this Agreement, Seller shall direct Escrow Agent to return the Deposit to Purchaser, and neither party shall have any further obligation under this Agreement, other than those obligations that survive termination of this Agreement. In the event Purchaser fails to make such election within said seven (7) day period, then Purchaser shall be deemed to have made an election to waive the Unacceptable Encumbrance(s) and accept conveyance of the Premises subject to the Unacceptable Encumbrance(s) without deduction from the Purchase Price. "Permitted Exceptions" shall mean: (i) all customary utility easements of record benefiting the Premises; (ii) the effect of existing land use, zoning or governmental subdivision regulations so long as the Premises is in material compliance therewith and they do not prevent Purchaser's intended use; (iii) any lien for taxes or assessments that are not yet due as of the date of the Closing or are due and payable, but not yet delinquent; (iv) any matters or interests created by, consented to in writing by, or otherwise caused by Purchaser or its agents and representatives; (v) terms and conditions of the Easement Agreement, as the same shall be amended in accordance with the terms hereof; and (vi) such matters as may be provided in the Separation Agreement. With respect to any matters affecting title to the Premises and being first recorded after the Title Review Period, Purchaser may object to said matters at any time prior to the Closing, and such objection will be subject to the process set forth in this Section 4(b), beginning with the third sentence.

(c) To enable Seller to make conveyance as herein provided, Seller may, at the time of delivery of the Deed, use the purchase money or any portion thereof to clear the title of any or all encumbrances or interests, provided that all instruments so procured are recorded simultaneously with the delivery of said Deed.

5. Closing.

(a) The Deed is to be delivered and the consideration paid within thirty (30) days from the later of (i) August 31, 2021; or (ii) the date on which Purchaser has obtained all of the Approvals in un-appealable form, provided that in no event shall closing occur later than December 31, 2021 (the "Closing Date"), the Closing to be held on such date and time and at such location as shall be mutual agreed upon in advance by the Parties (the "Closing"). At the Closing, Purchaser and Seller shall execute and deliver such other documents certificates, and affidavits as are reasonably requested by the other Party or its attorney, including without limitation such instruments as are required pursuant to the Separation Agreement.

(b) The acceptance of the Deed by Purchaser shall be deemed to be a full performance and discharge of every agreement and obligation herein contained or expressed, except such as are, by the terms hereof, to be performed after the delivery of said deed or which are expressly stated to survive the Closing.

6. Inspection of Premises.

(a) From and after the Effective Date through the Closing, Purchaser, personally or through its authorized agent or representatives, shall be entitled, upon at least two (2) business days' advance written notice to Seller or Seller's agent to enter upon the Premises on such days and at such times as shall be mutually agreed by the Parties in advance, and shall have the right to make such investigations as are reasonably necessary with respect to Purchaser's satisfaction of its contingencies set forth in Section 7(a) and is are allowed hereunder; provided, however, Seller and its representatives, agents, and/or contractors shall have the right to be present during any of the Purchaser investigations, which representatives shall be made reasonably available for such purposes. Subject to the foregoing, Purchaser shall have the right (at Purchaser's sole expense) to conduct a standard Phase I environmental site assessment upon notice to Seller. Purchaser must obtain Seller's prior written approval of the scope and method of any environmental testing or investigation (other than a standard Phase I environmental site assessment) and any inspection which would materially alter the physical condition of the Premises prior to Purchaser's commencement of such inspections or testing, which consent shall not be unreasonably withheld, conditioned or delayed. Such inspections will be performed by inspectors or consultants chosen and paid for by Purchaser. Purchaser agrees to provide copies of all such inspections and studies to Seller and agrees that it shall not disclose the results thereof to any third party other than prospective lenders, its agents and professionals, potential tenants or as otherwise required by applicable law. Notwithstanding the foregoing or any other provision of this Agreement, Purchaser shall not have any authority to and agrees that it will not conduct or permit any other person to conduct any invasive tests or studies, including, without limitation, soil borings or soil samplings at the Premises, without the prior written consent of Seller, which may be withheld in Seller's sole discretion. Purchaser agrees to promptly repair any damage to any property that may result from Purchaser's exercise of its rights pursuant to this Section. The prohibition against disclosure of the results of any tests, inspections and studies conducted pursuant to this Section 6(a) to any third parties shall survive any termination of this Agreement.

(b) Purchaser agrees to indemnify and hold Seller harmless from and against any and all claims, demands, causes of action, losses, damages, liabilities, costs and expenses (including reasonable attorney fees) that may be incurred by or threatened against Seller and that arise, directly or indirectly, out of the activities of Purchaser, its agents, contractors, or employees on or near the Premises. The foregoing agreement to indemnify and hold Seller harmless applies to claims asserted by Purchaser's employees without regard to any immunity that Purchaser may have under workers compensation laws. The foregoing agreement to indemnify and hold Seller harmless shall survive the Closing and any termination of this Agreement.

(c) Within ten (10) business days of the Effective Date, Seller shall deliver to Purchaser the following items with respect to the Seller Property: (i) a copy of all surveys and building plans not of record; (ii) any environmental site assessments; (iii) copies of any engineering or inspection reports; and (iv) any title insurance owner's policies, all to the extent such items are in Seller's possession on the Effective Date (together, the "Seller Deliverables"). Purchaser acknowledges and agrees that (a) the Seller Deliverables are being provided by Seller to Purchaser as a courtesy and

therefore Seller makes no representation or warranty regarding the accuracy and/or completeness of the Seller Deliverables, and (b) Purchaser and any person to whom Purchaser provides the Seller Deliverables shall rely on the same at their own risk.

7. Contingencies. The obligations of Parties under this Agreement are subject to the following contingencies:

(a) Inspections. Within thirty (30) days from the date of this Agreement (the “Due Diligence Deadline”), Purchaser shall have caused to be performed such inspections of the Premises as it deems reasonably necessary in its discretion, subject to the restrictions contained herein, the results of which must be satisfactory to Purchaser in Purchaser's sole discretion. In the event that Purchaser determines, based on its Phase I environmental site assessment, that additional environmental investigation is necessary, Purchaser shall have the option to extend the Due Diligence Deadline by thirty (30) days upon written notice to Seller delivered prior to the initial Due Diligence Deadline. Any such additional environmental investigation or inspection shall be subject to the requirements of Section 6(a). In the event that Purchaser is not satisfied in its sole discretion with the results of its inspections, Purchaser shall be entitled to terminate this Agreement by giving Seller and Escrow Agent written notice of Purchaser's intention to do so on or before the Due Diligence Deadline, as the same may be extended in accordance with the terms hereof, in which event Seller shall direct Escrow Agent to return to Purchaser the Deposit, the Parties shall be relieved of all further obligations under this Agreement other than those that survive such termination, and neither Party shall be in default under this Agreement. In the event Purchaser does not so notify Seller on or before the Due Diligence Deadline, as the same may be extended in accordance with the terms hereof, the Purchaser shall be deemed to have waived its right to terminate this Agreement on account of the above-described contingency.

(b) Separation Agreement. Within sixty (60) days from the Effective Date of this Agreement (the “Separation Agreement Deadline”), Purchaser and Seller shall have reached agreement on the manner in which and the terms upon which the Separation shall occur, including without limitation the legal description of the 45 Forest Property to be conveyed to Purchaser, the manner in which the Systems of the 45 Forest Property shall be separated from the Seller's Retained Property Systems; such easements as may be necessary for Purchaser's intended use of the 45 Forest Property and for Seller's continued and intended use of the Seller's Retained Property; and an arbitration process to settle any disputes about Separation Costs (the “Separation Agreement”). The Separation Agreement shall provide for Purchaser to incur all costs associated with the Separation up to the Separation Costs Cap. Purchaser shall deliver a draft of the Separation Agreement to Seller for Seller's review and comment within forty-five (45) days of the Effective Date of this Agreement. Seller shall either approve the draft Separation Agreement or propose changes to the separation Agreement within ten (10) days of receipt of a draft from Purchaser. If Purchaser shall fail to approve or propose changes within said ten (10) day period, the Separation Agreement Deadline shall be extended for thirty (30) days. Prior to its delivery of the draft Separation Agreement to Seller, Purchaser shall have used good faith efforts to have all engineering and survey work reasonably necessary for the purposes of the Separation Agreement completed. The Parties agree to negotiate the Separation Agreement in good faith, to use commercially reasonable efforts to enter into the Separation Agreement prior to the Separation Agreement Deadline, and that a failure to negotiate in good faith and use reasonably

commercial efforts will constitute a default hereunder. Notwithstanding anything to the contrary contained in the Separation Agreement, the Seller shall have the right to employ Colby Engineering, at Seller's cost, to oversee all plans and construction associated with the Separation, all of which shall be subject to Colby Engineering's reasonable approval. Among other things the Separation Agreement shall require Seller and Purchaser to deliver to the other Party at Closing easements for use of areas including, but not limited to: a stairwell and freight elevator, the loading dock area, land area behind the loading and an easement over the Oak Street driveway, and an easement over the underground storage tank, title to which will be retained by Seller all as approximately located on Exhibit B, and an easement for the benefit of Seller's Retained Property to maintain the pipes and cables connecting the underground storage tank to Seller's Retained Property on and within the 45 Forest Property.

In the event that the Parties are not able to reach agreement on the terms of the Separation Agreement by the Separation Agreement Deadline, either Party shall be entitled to terminate this Agreement by written notice to the other Party and to Escrow Agent prior to the Separation Agreement Deadline, in which event Escrow Agent shall return to Purchaser the Deposit, the Parties shall be relieved of all further obligations under this Agreement other than those that survive such termination, and neither Party shall be in default under this Agreement.

(c) Renegotiation of Easement Agreement. Prior to the Separation Agreement Deadline, Purchaser and Seller shall each be reasonably satisfied that all necessary parties to the Easement Agreement have reached agreement on the manner in which and the terms upon which the Easement Agreement shall be amended and restated such that the Premises shall be released therefrom to the greatest extent possible, including without limitation removal of the Premises from the residential use restriction and any rights of first refusal, and enabling the Seller to convey the Premises in accordance with terms hereof, provided however that the parties to the Easement Agreement shall be entitled to retain such easements as may be necessary for their continued use and operation of the properties that are subject to the Easement Agreement. The Parties agree to negotiate the amended and restated Easement Agreement in good faith. Seller shall use commercially reasonable efforts to obtain the cooperation of all parties necessary to amend and restate the Easement Agreement prior to the Separation Agreement Deadline, and that a failure to negotiate in good faith and use reasonably commercial efforts will constitute a default hereunder. Notwithstanding the forgoing, the terms of the amended and restated Easement Agreement shall be acceptable to Purchaser in its sole discretion.

Within forty-five (45) days of the Effective Date, Seller shall prepare an amended and restated easement agreement, in recordable form, containing such terms as are set forth hereinabove, together with such plans as may be necessary to effectuate the release (collectively, the "Easement Amendment"). Upon completion, Seller shall provide the Easement Amendment to Purchaser for review and approval. Purchaser shall promptly provide any comments or approve the Easement Amendment. Once approved by Purchaser, Seller shall use commercially reasonable efforts to have the Easement Amendment approved by the appropriate third party, and have the Easement Amendment fully executed and recorded as quickly as possible. If said third party proposes any revisions to the amended and restated Easement Agreement, such revisions must be acceptable to Purchaser in its sole discretion.

In the event that either Party is not satisfied that all parties necessary to amend and restate the Easement Agreement as set forth hereinabove have reached agreement on the manner in which and the terms upon which the Easement Agreement shall be amended and restated by the Separation Agreement Deadline, either Party shall be entitled to terminate this Agreement by written notice to the other Party and to Escrow Agent prior to the Separation Agreement Deadline, in which event this Agreement shall terminate, Escrow Agent shall return to Purchaser the Deposit, the Parties shall be relieved of all further obligations under this Agreement other than those that survive such termination, and neither Party shall be in default under this Agreement.

If, despite the Parties good faith efforts, the Easement Amendment has not been recorded on or before August 31, 2021 as a result of the refusal of necessary third parties to join in the Easement Amendment, either Party shall be entitled to terminate this Agreement by written notice to the other party and to Escrow Agent, in which event Escrow Agent shall return to Purchaser the Deposit, the Parties shall be relieved of all further obligations under this Agreement other than those that survive such termination, and neither Party shall be in default under this Agreement.

8. Seller Cooperation with Governmental Approvals. Seller authorizes Purchaser (and its affiliates and designees) to file any applications, documents and materials required in connection with obtaining the any governmental, municipal or agency approvals that are necessary or appropriate in Purchaser's reasonable discretion to effectuate the Separation or to develop, redevelop, construct, use and operate the 45 Forest Property as student housing and/or apartments (collectively, the "Approvals"). At its expense, Purchaser shall diligently pursue the Approvals in good faith and shall use commercially reasonable efforts to obtain such Approvals, provided that the cost of Approvals related to the separation of the 45 Forest Property from Seller's Retained Property shall be part of the Separation Costs. To the extent Seller's consent or approval is required by third parties, including applicable governmental authorities, in connection with the Approvals, such approval shall not be unreasonably withheld, conditioned or delayed. Seller will cooperate with Purchaser in any manner reasonably requested in Purchaser's efforts to apply for and obtain the Approvals. Seller or Seller's authorized representative(s) will not object to or otherwise oppose Purchaser's proposed development on the 45 Forest Property, including with respect to any zoning variance required therefor; provided, that Seller's cooperation covenant shall not unreasonably interfere with Seller's continued use of or development plans for the Seller's Retained Property. The terms of this Section 8 shall survive the Closing.

9. Possession and Condition of Premises. Full possession of the Premises, free of all tenants and occupants except as otherwise herein provided, is to be delivered at the Closing, the Premises to be then in the same condition as they now are, reasonable use and wear thereof, damage caused by Purchaser or persons acting by, through, or under Purchaser, and modifications made in accordance with the Separation Agreement excepted.

10. Risk of Loss. Until delivery of the deed from Seller to Purchaser and except as otherwise provided herein, risk of loss or damage to the Premises by fire or otherwise shall be on Seller.

11. Adjustments; Closing Costs. Real estate taxes, assessments, and utilities shall be pro-rated as of the Closing. The recording fee for the deed of conveyance shall be paid by Purchaser. Purchaser shall be responsible for the costs of any title searches and title insurance that Purchaser elects to procure. The transfer tax required by the State of Maine shall be paid by Purchaser and Seller in accordance with the laws of the State of Maine. The cost of recording any documents in connection with the cure of any Unacceptable Encumbrances shall, if Seller elects to and does cure such Unacceptable Encumbrances, be paid by Seller. The commission payable to Seller's Agent shall be paid by Seller.

12. Brokerage. Seller and Purchaser each represent and warrant to the other that no brokers, agents or consultants other than The Boulos Company on behalf of the Seller have been employed with respect to this transaction by either of them, and Seller and Purchaser agree to indemnify and hold the other harmless from any claim by any other broker or agent claiming compensation in respect of this transaction, alleging an agreement with Seller or Purchaser, as the case may be.

13. Deposit; Escrow Agent. The Deposit shall be held by the Boulos Company (the "Escrow Agent"), in an interest-bearing account, subject to the terms of this Agreement and shall be held and disposed of in accordance with the terms of this Agreement. Effective upon the later of Second Deposit Due Date and the date the Easement Amendment (in a form approved by Purchaser in its sole discretion) is recorded, [REDACTED] of the Deposit shall become and thereafter shall be non-refundable to Purchaser except if the Seller breaches or defaults under this Agreement, but shall be applied to the Purchase Price at Closing. Upon the expiration of each thirty day period thereafter an additional [REDACTED] of the Deposit, up to the entire amount of the Deposit, shall become and thereafter shall be non-refundable to Purchaser except if the Seller breaches or defaults under this Agreement or if Purchaser terminates the Agreement in accordance with Section 4 hereof. By executing this Agreement, Escrow Agent agrees to hold the Deposit in an interest-bearing account and to disburse the same in accordance with the terms hereof. For purposes of this Agreement, the term "Deposit" shall include any interest accrued on amounts deposited in connection herewith. If the transactions set forth herein shall be consummated at the Closing, Escrow Agent shall pay the Deposit to Seller at the Closing. In the event that a Seller's Default shall occur under Section 15(b) hereof, the Deposit shall be paid to Purchaser by Escrow Agent. In the event that a Purchaser's Default shall occur under Section 15(a) hereof, Escrow Agent shall pay the Deposit to Seller.

14. "AS IS" Condition; Disclaimers.

(a) As-Is Condition. SUBJECT TO SELLER'S REPRESENTATIONS AND WARRANTIES EXPRESSLY SET FORTH IN THIS AGREEMENT AND IN ANY DOCUMENTS DELIVERED PURSUANT TO THE TERMS HEREOF BY SELLER TO PURCHASER AT CLOSING ("SELLER CLOSING DOCUMENTS"), PURCHASER AGREES TO PURCHASE THE PREMISES "AS IS", "WHERE IS", WITH ALL FAULTS AND CONDITIONS THEREON, AND TOGETHER WITH ANY ITEMS OF PERSONAL PROPERTY OR EQUIPEMENT THAT SELLER DOES NOT REMOVE PRIOR TO CLOSING. ANY WRITTEN OR ORAL INFORMATION, REPORTS, STATEMENTS,

DOCUMENTS OR RECORDS CONCERNING THE PREMISES (“DISCLOSURES”) PROVIDED OR MADE AVAILABLE TO PURCHASER, ITS AGENTS OR CONSTITUENTS BY SELLER, SELLER’S AGENTS, EMPLOYEES OR THIRD PARTIES REPRESENTING OR PURPORTING TO REPRESENT SELLER, SHALL NOT BE REPRESENTATIONS OR WARRANTIES, UNLESS SPECIFICALLY SET FORTH IN THIS AGREEMENT OR IN ANY SELLER CLOSING DOCUMENTS. IN PURCHASING THE PREMISES OR TAKING OTHER ACTION HEREUNDER, PURCHASER HAS NOT AND SHALL NOT RELY ON ANY SUCH DISCLOSURES EXCEPT AS SPECIFICALLY SET FORTH IN THIS AGREEMENT, BUT RATHER, PURCHASER SHALL RELY ONLY ON PURCHASER’S OWN INSPECTION OF THE PREMISES. PURCHASER ACKNOWLEDGES THAT THE PURCHASE PRICE REFLECTS AND TAKES INTO ACCOUNT THAT THE PREMISES IS BEING SOLD “AS IS”.

(b) No Additional Representations. PURCHASER ACKNOWLEDGES AND AGREES THAT EXCEPT AS EXPRESSLY SET FORTH IN THIS AGREEMENT AND IN ANY SELLER CLOSING DOCUMENTS, SELLER HAS NOT MADE, DOES NOT MAKE AND SPECIFICALLY DISCLAIMS ANY REPRESENTATIONS, WARRANTIES, PROMISES, COVENANTS, AGREEMENTS OR GUARANTIES OF ANY KIND OR CHARACTER WHATSOEVER, WHETHER EXPRESS OR IMPLIED, ORAL OR WRITTEN, PAST, PRESENT OR FUTURE, OF, AS TO, CONCERNING OR WITH RESPECT TO THE PREMISES INCLUDING, WITHOUT LIMITATION, (A) THE NATURE, QUALITY OR PHYSICAL CONDITION OF THE PREMISES, (B) THE CONSTRUCTION OF THE IMPROVEMENTS AND WHETHER THERE EXISTS ANY CONSTRUCTION DEFECTS THEREIN, (C) THE WATER, SOIL AND GEOLOGY OF THE PREMISES, (D) THE INCOME TO BE DERIVED FROM THE PREMISES, (E) THE SUITABILITY OF THE PREMISES FOR ANY AND ALL ACTIVITIES AND USES WHICH PURCHASER MAY CONDUCT THEREON, (F) THE COMPLIANCE OF OR BY THE PREMISES OR THE OPERATION THEREOF WITH ANY LAWS, RULES, ORDINANCES OR REGULATIONS OF ANY GOVERNMENTAL AUTHORITY OR BODY HAVING JURISDICTION THEREOVER, (G) THE HABITABILITY OR FITNESS OF THE PREMISES FOR A PARTICULAR PURPOSE, (H) THE MARKETABILITY OF THE PREMISES OR THE ABILITY TO LEASE OR SELL UNITS THEREIN, (I) THE STATUS OR CONDITION OF ENTITLEMENTS PERTAINING TO THE PREMISES, AND (J) ANY MATTER REGARDING TERMITES OR WASTES, AS DEFINED BY THE U.S. ENVIRONMENTAL PROTECTION AGENCY REGULATIONS AT 40 C.F.R., OR ANY HAZARDOUS MATERIALS. PURCHASER FURTHER ACKNOWLEDGES AND AGREES THAT EXCEPT AS OTHERWISE SET FORTH HEREIN, SELLER, UNLESS OTHERWISE REQUIRED BY LAW, ARE UNDER NO DUTY TO MAKE ANY AFFIRMATIVE DISCLOSURES REGARDING ANY MATTER WHICH MAY BE KNOWN TO SELLER.

(c) Release. PURCHASER REPRESENTS TO SELLER THAT PURCHASER HAS CONDUCTED, OR WILL CONDUCT PRIOR TO CLOSING, SUCH INVESTIGATIONS OF THE PREMISES, AS PURCHASER DEEMS NECESSARY OR DESIRABLE TO SATISFY ITSELF AS TO ANY MATTER RELATING TO THE PREMISES AND EXCEPT FOR THE EXPRESS REPRESENTATIONS AND WARRANTIES CONTAINED IN THIS AGREEMENT

AND IN ANY SELLER CLOSING DOCUMENTS, PURCHASER WILL RELY SOLELY UPON SAME AND NOT UPON ANY INFORMATION PROVIDED BY OR ON BEHALF OF SELLER, SELLER'S AGENTS, EMPLOYEES OR THIRD PARTIES REPRESENTING OR PURPORTING TO REPRESENT SELLER, WITH RESPECT THERETO. UPON CLOSING, SUBJECT TO THE SELLER CLOSING DOCUMENTS AND THE TERMS AND CONDITIONS OF THIS AGREEMENT, PURCHASER SHALL ASSUME THE RISK THAT ADVERSE MATTERS REGARDING THE PREMISES MAY NOT HAVE BEEN REVEALED BY PURCHASER'S INVESTIGATIONS, AND PURCHASER, UPON CLOSING, SHALL BE DEEMED, ON BEHALF OF ITSELF AND ON BEHALF OF ITS TRANSFEREES AND THEIR RESPECTIVE SUCCESSORS AND ASSIGNS, TO WAIVE, RELINQUISH, RELEASE AND FOREVER DISCHARGE SELLER AND SELLER'S AFFILIATES FROM AND AGAINST ANY AND ALL CLAIMS, DEMANDS, CAUSES OF ACTION, LOSSES, DAMAGES, LIABILITIES, COSTS AND EXPENSES (INCLUDING ATTORNEYS' FEES) OF ANY AND EVERY KIND OR CHARACTER, KNOWN OR UNKNOWN, BY REASON OF OR ARISING OUT OF THE PREMISES, INCLUDING, WITHOUT LIMITATION, BY REASON OF OR ARISING OUT OF ANY LATENT OR PATENT CONSTRUCTION DEFECT OR OTHER PHYSICAL CONDITION (INCLUDING, WITHOUT LIMITATION, FUNGI, MOLD OR MILDEW) WHETHER PURSUANT TO STATUTES IN EFFECT IN THE STATE IN WHICH THE PREMISES IS LOCATED OR ANY OTHER FEDERAL, STATE, OR LOCAL ENVIRONMENTAL OR HEALTH AND SAFETY LAW OR REGULATION, THE EXISTENCE OF ANY HAZARDOUS MATERIALS WHATSOEVER, ON, AT, TO, IN, ABOVE, ABOUT, UNDER, FROM OR IN THE VICINITY OF THE PREMISES AND ANY AND ALL OTHER ACTS, OMISSIONS, EVENTS, CIRCUMSTANCES OR MATTERS WHATSOEVER REGARDING THE PREMISES. THIS RELEASE INCLUDES CLAIMS OF WHICH PURCHASER IS PRESENTLY UNAWARE AND OF WHICH PURCHASER DOES NOT PRESENTLY SUSPECT TO EXIST WHICH, IF KNOWN BY PURCHASER, WOULD MATERIALLY AFFECT PURCHASER'S RELEASE OF SELLER.

PURCHASER'S RELEASE OF SELLER AS SET FORTH IN THIS SECTION 14(c) SHALL NOT PERTAIN TO ANY CLAIM OR CAUSE OF ACTION BY PURCHASER AGAINST SELLER FOR (I) A BREACH BY EITHER SELLER OF A REPRESENTATION OR WARRANTY EXPRESSLY SET FORTH IN THIS AGREEMENT OR IN ANY SELLER CLOSING DOCUMENTS, (II) A BREACH BY EITHER SELLER OF A COVENANT EXPRESSLY IN THIS AGREEMENT OR ANY SELLER CLOSING DOCUMENTS, OR (III) ANY EXPRESS INDEMNIFICATION OBLIGATION OF SELLER UNDER THIS AGREEMENT THAT EXPRESSLY SURVIVES CLOSING.

"Hazardous Materials" or "Hazardous Substances" shall mean (i) hazardous wastes, hazardous materials, hazardous substances, hazardous constituents, toxic substances or related materials, whether solids, liquids or gases, including, but not limited to, substances defined as "hazardous wastes," "hazardous materials," "hazardous substances," "toxic substances," "pollutants," "contaminants," "radioactive materials", "toxic pollutants", or other similar designations in, or otherwise subject to regulation under, the Comprehensive Environmental Response, Compensation and Liability Act of 1980, as amended ("CERCLA"), 42 U.S.C. §§ 9601 et seq.; the Toxic Substance Control Act ("TSCA"), 15 U.S.C. §§ 2601 et seq.; the Hazardous Materials Transportation Act, 49 U.S.C. §§ 5101 et seq.; the Resource Conservation and Recovery

Act ("RCRA"), 42 U.S.C. §§ 9601 et seq.; the Clean Water Act ("CWA"), 33 U.S.C. §§ 1251 et seq.; the Safe Drinking Water Act, 42 U.S.C. §§ 300f et seq.; the Clean Air Act ("CAA"), 42 U.S.C. §§ 7401 et seq.; and in any permits, licenses, approvals, plans, rules, regulations or ordinances adopted, or other criteria and guidelines promulgated pursuant to the preceding laws or other similar federal, state or local laws, regulations, rules or ordinance now or hereafter in effect relating to environmental matters; and (ii) any other substances, constituents or wastes subject to any applicable federal, state or local law, regulation or ordinance, including any environmental law, now or hereafter in effect, including but not limited to (A) petroleum, (B) refined petroleum products, (C) waste oil, (D) waste aviation or motor vehicle fuel and their byproducts, (E) asbestos, (F) lead in water, paint or elsewhere, (G) radon, (H) Polychlorinated Biphenyls (PCB's), (I) ureaformaldehyde, (J) volatile organic compounds (VOC), (K) total petroleum hydrocarbons (TPH), (L) benzene derivative (BTEX), and (M) petroleum byproducts.

The provisions of this Section 14 shall survive the Closing.

15. Default and Remedies.

(a) Seller Default. Notwithstanding anything to the contrary contained in this Agreement, if Seller materially defaults in its obligations under this Agreement for any reason other than those reasons specified in this Agreement, and Purchaser having fully performed all of its obligations under this Agreement (a "Seller Default"), then Purchaser may elect as its sole and exclusive remedy (at law or in equity) to either:

(i) terminate this Agreement and recover the Deposit, together with any interest thereon, and damages from Seller in amount equal to the total of all of Purchaser's documented, out-of-pocket costs and expenses incurred towards due diligence and the Separations Costs in an amount not to exceed [REDACTED], together with legal fees and expenses expended by Purchaser to enforce its rights herein, at which time this Agreement shall terminate and neither Party shall have any further rights or obligations under this Agreement; or

(ii) waive the Seller Default, to the extent waivable, and proceed to Closing; or

(iii) seek specific performance of this Agreement and the Separation Agreement, and if Purchaser shall prevail in such action for specific performance, Seller shall reimburse Purchaser for all legal fees and expenses related to such action, in addition to any other remedies imposed by the court.

Purchaser's failure to proceed to Closing under Section 15(a)(ii) or seek specific performance under Section 15(a)(iii) shall constitute Purchaser's election to terminate this Agreement under Section 15(a)(i) above. Seller shall never be deemed to be in default in the performance of any representation, warranty, covenant or agreement hereunder, other than Seller's obligation to deliver title to the Property in accordance the terms hereof, unless it shall have received written notice thereof from Buyer and such default shall continue for more than ten (10) days after receipt thereof.

(b) Purchaser Default. If Purchaser fails to perform any of its obligations hereunder (and such failure continues for ten (10) days after notice from Seller) or otherwise fails to consummate the purchase of the Premises in accordance with the provisions of this Agreement for any reason other than those reasons specified in this Agreement as giving rise to a right in Purchaser to terminate the transactions contemplated by this Agreement (a "Purchaser Default"), Seller shall have the right to terminate this Agreement by delivering written notice to Purchaser whereupon the Deposit shall be forfeited to Seller as liquidated damages (which shall be Seller's sole and exclusive remedy against Purchaser), it being agreed between the parties hereto that the actual damages to Seller in such event are impractical to ascertain and the amount of the Deposit is a reasonable estimate thereof and shall be and constitute valid liquidated damages, at which time this Agreement shall be null and void and neither party shall have any rights or obligations under this Agreement.

16. Notices. Any demand or notice required or permitted hereunder, shall be given by either (A) personal delivery, (B) same-day or overnight delivery by independent courier, or (C) electronic mail addressed to the electronic mail address set forth herein for the party to be notified. Notices may be sent and/or signed by a party's attorney. Notice given in accordance herewith for all permitted forms of notice, shall be effective upon the earlier to occur of actual delivery to the address of the addressee or refusal of receipt by the addressee (even if such addressee refuses delivery thereof); provided, however, that in the case of notice by facsimile or electronic notice, if such notice is received after 5:00 PM, it shall be deemed to have been received on the next business day.

Seller: Consolidated Communications of
Northern New England Company, LLC
121 South 17th Street
Mattoon IL 61938

With copy to: Reid Hayton-Hull, Esq.
Drummond Woodsum
84 Marginal Way, Suite 600
Portland, Maine 04101-2480
rhayton-hull@dwmlaw.com

Purchaser : Redfern Properties, LLC
Attn: Jonathan Culley
P.O. Box 8816
Portland, ME, 04104
jonathan@redfernproperties.com

With copy to: Eben Adams
Pierce Atwood
254 Commercial Street
Portland, ME 04101
eadams@pierceatwood.com

17. Assignment. This Agreement may not be assigned by Purchaser without the prior written consent of Seller, which consent shall not be unreasonably withheld, conditioned or delayed, except that this Agreement may be assigned to an entity affiliated with, owned or controlled, in whole or in part, by, or under common control with Purchaser upon written notice to Seller.

18. Representations.

(a) Each party represents, covenants and warrants to the other that the representing party has the legal right, power and authority to enter into this Agreement and to perform all of its obligations hereunder, subject to Seller's ability to obtain the Easement Amendment as provided herein, and, subject to approval by its lender, the execution and delivery of this Agreement and the performance by the representing party of its obligations hereunder: (i) have been duly authorized by all requisite action; and (ii) will not conflict with, or result in a breach of, any of the terms, covenants and provisions of the by-laws or articles of organization or constituent organizational documents of the representing party or any law or any regulation, order, judgment, writ, injunction or decree of any court or governmental authority, or any agreement or instrument to which the representing party is a party to or by which it is bound.

(b) Seller represents, covenants and warrants that the 45 Forest Property is not subject to any leases, master leases, subleases, tenancies, options to purchase or rights to purchase, including, without limitation, rights of first refusal or rights of first offer, except the Right of First Offer included in the Easement and Building Operating Agreement dated December 31, 1983 and recorded in the Cumberland County Registry of Deeds in Book 6368, Page 222 (the "ROFR"). Seller represents that it has complied with the terms of the ROFR and that the party entitled to exercise the ROFR elected not to exercise and Seller shall provide satisfactory evidence of the same, in recordable form, within 60 days following the Effective Date.

19. Purchaser's Condition to Closing. The Purchaser's obligation to consummate the transaction contemplated by this Agreement shall be subject to the satisfaction, or written waiver by the Purchaser, of the following condition: Prior to the Closing Date, the Easement Amendment, in a form approved by Purchaser in its sole discretion, shall have been recorded.

20. Miscellaneous.

(a) This Agreement shall be binding upon and inure to the benefit of the heirs, successors and assigns of the parties. This Agreement may not be modified, waived or amended except in a written instrument signed by the parties hereto. No waiver of any breach or term hereof shall be effective unless made in writing signed by the party having the right to enforce such a breach, and no such waiver shall be construed as a waiver of any subsequent breach. No course of dealing or delay or omission on the part of any party in exercising any right or remedy shall operate as a waiver thereof or otherwise be prejudicial thereto. Any and all prior and contemporaneous discussions, undertakings, agreements and understandings of the parties are merged in this Agreement, which alone fully and completely expresses their entire agreement. This Agreement shall be governed by and construed and enforced in accordance with the laws in

effect in the State of Maine, without application of its conflict of laws principles. To facilitate execution, this Agreement may be executed in multiple originals which, collectively, shall constitute a single instrument. All pronouns and nouns and any variations thereof shall be deemed to refer to the masculine, feminine or neuter, singular or plural, as the identity of the parties or the context may require.

(b) Notwithstanding any other provision of this Agreement, Escrow Agent shall have the right to require written releases from both parties prior to releasing the Deposit to either party. If a dispute arises between Purchaser and Seller as to the existence of a default hereunder and/or the release of the earnest money and said dispute is not resolved by the parties within (30) days, Escrow Agent may elect to file an action in interpleader and submit the Deposit in the court to resolve said dispute, or otherwise disburse the Deposit pursuant to Maine Real Estate Commission regulations. Purchaser and Seller, jointly and severally, shall indemnify Escrow Agent for all costs, losses, expenses, and damages, including reasonable attorneys' fees, incurred by Escrow Agent in connection with said action and/or in connection with any dispute relating to this Agreement and/or the Deposit.

[Signature page follows.]

IN WITNESS WHEREOF, the Parties hereto have executed this Agreement as a sealed instrument, effective as of the date first above written.

WITNESS:

SELLER:

CONSOLIDATED COMMUNICATIONS
OF NORTHERN NEW ENGLAND
COMPANY, LLC

DocuSigned by:
By: Steven L. Childers
E1C2631A5870481...
Printed Name: Steven L. Childers
Its: Chief Financial Officer

PURCHASER:

REDFERN PROPERTIES, LLC

By: [Signature]
Printed Name: Jonathan Culley, Manager
Its:

The undersigned Escrow Agent executes this Agreement for purposes of agreeing to hold and disburse the Deposit in accordance with the provisions of this Agreement.

ESCROW AGENT:

The Boulos Company, Inc.

By: _____
Printed Name:
Its:

List of Exhibits

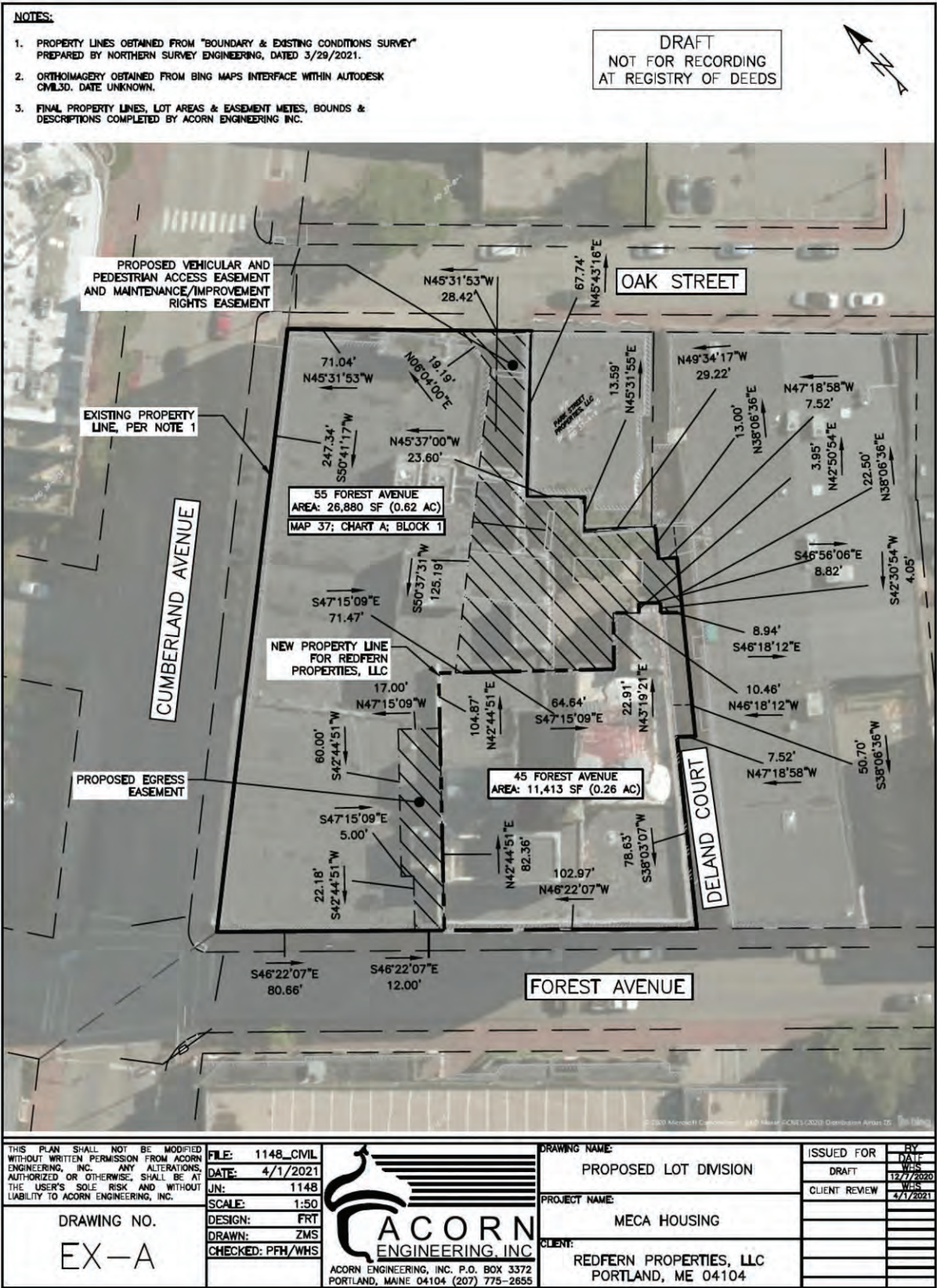
Exhibit A- Description of Seller Property
Exhibit B- Preliminary Sketch of 45 Forest

Exhibit A
Description of Seller Property

[See attached.]

Exhibit B
Preliminary Sketch of 45 Forest

[See attached.]





ZONING ANALYSIS Relevant Zone(s) B3/B3c/DEOZ/HISTORIC DISTRICT (CONGRESS STREET)

All Projects:

	Required	Proposed
Lot Size	NONE	12,446 SF
Area Per Dwelling Unit	NONE	TBD
Minimum Street Frontage	15'	103'
Front Yard Minimum	NONE	0'
Front Yard Maximum	5'	0.04'
Rear Yard	NONE	22.86'
Yard Right	NONE	0'
Yard Left	NONE	0'
Side Street Setback	None	0'
Step Back	NONE	NONE
Maximum Lot Coverage	100%	92.8%
Minimum Lot Coverage	None	92.8%
Maximum Height	210'	97.2'
Open Space	NONE	N/A
Maximum Impervious Area	NONE	100%
Pavement Setback	NONE	N/A
Floor Area Ratio	NONE	N/A
Off Street Parking Spaces	NONE	N/A
Loading Bays	N/A	1 EXISTING
Other 1		
Other 2		
Other 3		

Planned Residential Unit Developments (PRUD) Requirements

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

Affordable Housing Density Bonuses (if applicable)

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

E. Summary of Written Easements

There are no existing easements identified by Norse Northern Survey Engineering on the Boundary & Existing Conditions Survey.

See proposed easements below:

- 1.) Proposed Egress Easement
- 2.) Proposed Vehicular and Pedestrian Access Easement and Maintenance/Improvement Rights Easement



Standard to be Waived: Cite Ordinance or Technical Manual Standard	Cite Standard Language: Cite specific language of applicable Ordinance or Technical Manual Standard	Waiver Being Sought: Describe waiver being sought. Ex. – We are requesting a two-way parking lot drive aisle width of 20' feet.	Justification for Waiver: Address specific waiver criteria, if applicable, and document reasons for the waiver request.
N/A			

G. Financial Capacity

A letter from the Applicant's bank confirming financial capacity is attached to this section.





July 20th, 2021

City Of Portland
Planning Division
389 Congress St., 4th Floor
Portland, ME 04101

RE: Redfern Properties Development at 45 Forest Avenue, Portland.

To whom it may concern:

This letter is to serve as a financial capacity letter for the development to be located at 45 Forest Avenue in Portland. I have discussed this project with Jonathan and can confirm the developer has the capacity to complete this project and attain Bank financing.

Gorham Savings Bank would be very interested in working with Jonathan and helping finance this project.

We are pleased to have the opportunity to assist with this proposal. If you have any questions, please contact me at nweightman@gorhamsavings.bank, or call me at 207-221-8461.

Sincerely,

Nick Weightman
Senior Vice President
Gorham Savings Bank

H. Technical Capacity

Acorn Engineering, Inc. and Ryan Senatore Architecture have successfully permitted and engineered over 20 Major Site Plan projects in Portland over the past 5 years. Some examples include:

- Eldredge Lumber
- 127 York Street – Harborside Townhomes
- Munjoy Heights
- 70 Anderson St.
- 89 Anderson St. – East Bayside Lofts
- 667 Congress St – The Hiawatha
- 104 Grant St.



I. Conformity with Land Use Ordinance

The following outline is made in accordance with the City of Portland Code of Ordinances, Chapter 14 Land Use. Specifically, Article 14 Section 6 Site Plan Review Standards.

OVERVIEW

The proposed project has been designed to conform to City standards where possible as demonstrated in the following narrative.

(a) Transportation Standards

1. Impact on Surrounding Street Systems:

The project will not generate 100 or more cars during peak hour; therefore a Traffic Movement Permit will not be required. The site is located on Forest Ave. and can be accessed directly via Deland Court or Oak Street. The change of use is not anticipated to create any significant hazard to safety on the surrounding street network. Congestion of the intersections is not anticipated.

2. Access and Circulation:

a. Site Access and Circulation:

This project conforms with the design standards of Section 14.6.1.B as demonstrated in the following narrative:

- (i) All site access and internal circulation will be designed in accordance with the standards set forth in Section 1 of the Technical Manual.
- (ii) A sidewalk is existing along Forest Ave and will provide safe access to the proposed changed of use residential housing.
- (iii) The main entrance to the site is located on Forest Avenue, in addition an ADA entrance is proposed to be located on Deland Court.
- (iv) The site does not feature drive up services as mentioned in this requirement.

b. Loading and Servicing:

- (i) The site has an existing loading area located in the rear of the site with access from Oak Street.

c. Curb and Sidewalks:

- (i) A sidewalk with curbing is existing on Forest Ave. This project proposes minimal site work and the sidewalk is forecasted to remain undisturbed.



- (ii) Any disturbance of this sidewalk to accommodate the site will be rebuilt in conformance with Chapter 25 of the City's Code of Ordinances and the applicable design standards in the City's Technical Manual.
 - (iii) Not applicable.
 - (iv) Not applicable.
- 3. Public Transit Access:
 - a. The project is located on a bus route with the closest bus stop located on Forest Ave approximately 415 feet away.
 - b. Not applicable.
 - c. Not applicable.
- 4. Parking:
 - a. Vehicular parking:
 - (i) No off-street parking is required for changes of use per Section 19 Off-Street Parking & Loading, Table 19-B
 - (ii) A parking study is not required.
 - (iii) A parking study is not required.
 - (iv) There is no parking proposed on-site.
 - b. Bicycle parking
 - (i) The proposed development will provide 32 bicycle parking spaces as required per Section 19 Off-Street Parking & Loading, Table 19-A.
 - c. Snow Storage:
 - (i) The client will be responsible for the management of snow removal from the site.
 - (ii) Snow storage shall not be located where it interferes with pedestrian walkways or stormwater management systems.
 - d. Electric Vehicle (EV) charging
 - (i) Not applicable.



5. Transportation Demand Management (TDM):

- a. A Transportation Demand Management plan is not required for this project.
- b. Not applicable.

(b) Environmental Quality Standards

1. Preservation of Significant Natural Features:

- a. There are no significant natural features on site
- b. Not applicable.
- c. Not applicable.

2. Landscaping Preservation:

- a. There will be no changes to the exterior of the building.
- b. There will be no changes to the exterior of the building
- c. Not applicable.
- d. Not applicable.
- e. Not applicable.

3. Site landscaping and buffers.

- a. Landscaping
 - (i) Not applicable
- b. Buffers
 - (i) All exterior solid waste receptacle as well as applicable utility structures will be adequately screened within the development and from adjoining properties.
 - (ii) Not applicable.
 - (iii) Not applicable
- c. Parking and vehicle display lot landscaping.
 - (i) Parking is not required as part of this project.
 - (ii) Not applicable.



- (iii) Not applicable.
- 4. Street trees
 - a. Not applicable
 - b. Not applicable.
- 5. Water Quality, Stormwater Management and Erosion Control:
 - a. Stormwater
 - (i) The drainage patterns will be maintained as they currently exist.
 - (ii) Any stormwater that flows onto adjacent lots will not exceed the pre-development flows.
 - (iii) The runoff from the site into the public way will not increase from the pre-development condition.
 - b. A site-specific Stormwater Management Plan has been developed for the project to show compliance with Section 5 of the Technical Manual, including standards of MEDEP Chapter 500. Please refer to the Stormwater Management Report for this information.
 - c. The development is not anticipated to pose a contamination risk to groundwater during or after construction. The project will be serviced by a public wastewater system.

(c) Public Infrastructure and Community Safety Standards

- 1. Consistency with City Master Plans:
 - a. The project has been designed to be consistent with the City's Zoning Ordinance and off-site infrastructure.
 - b. Two easements are proposed as part of this project.
 - (i) Proposed Vehicular and Pedestrian Access Easement and Maintenance/Improvement Rights Easement.
 - (ii) Proposed Egress Easement
- 2. Public Safety and Fire Prevention:
 - a. Public Safety Design
 - (i) The existing site has long viewing aisles and minimal spaces obscured from



view.

(ii) Access to the site will not change as part of this project.

(iii) This area will promote natural surveillance and access control.

b. Emergency Access

(i) Emergency Access to the site will not be affected as part of this project.

3. Public Utilities:

a. Ability to Serve letters have been sent to the respective companies. Responses are forthcoming. The stormwater report demonstrates that the post development conditions will not overburden the existing storm sewer within Cumberland Avenue.

b. The existing electrical service to the building is anticipated to remain as is.

c. The existing sewer and stormwater infrastructure are anticipated to remain as is.

d. The project will be served by connection to the public sewer system within Cumberland Avenue.

e. Spaces allocated for solid waste storage can be seen on the Site Plan. The solid waste containers will be fully enclosed and screened from the public view.

(d) Site Design Standards

1. Massing, Ventilation and Wind Impact:

a. Please refer to Section O, Architectural Design Narrative.

b. Please refer to Section O, Architectural Design Narrative.

c. Please refer to Section O, Architectural Design Narrative.

2. Shadows:

a. Not applicable.

3. Snow and Ice Loading:

a. There will be no change to the existing exterior of the building.

4. View Corridors:

a. Please refer to Section O, Architectural Design Narrative.



5. Historic Resources:

- a. The development is located in Congress Street Historic District.
- b. The development is located adjacent to the New England Telephone Building.
- c. There are no known archaeological resources on the site.

6. Exterior Lighting:

- a. Site Lighting.
 - (i) Exterior lighting will be designed to meet the requirements of Section 12 of the Technical Manual. See Section N: Lighting for additional information.
 - (ii) Any lighting that may adversely impact the abutting residential properties will feature house-side shielding.
- b. Architectural and Specialty Lighting.
 - (i) No architectural or specialty lighting is proposed.
 - (ii) No up-lighting is proposed.
- c. Street Lighting.
 - (i) Street lighting will be designed to meet the requirements of Section 10 of the Technical Manual.

7. Noise and Vibration:

- a. The HVAC system will meet the applicable state and federal emissions requirements and will also be screened and directed away from abutters.

8. Signage and Wayfinding:

- a. Signage
 - (i) Not applicable.
 - (ii) Not applicable.
 - (iii) Not applicable.
 - (iv) Not applicable.
 - (v) Not applicable.



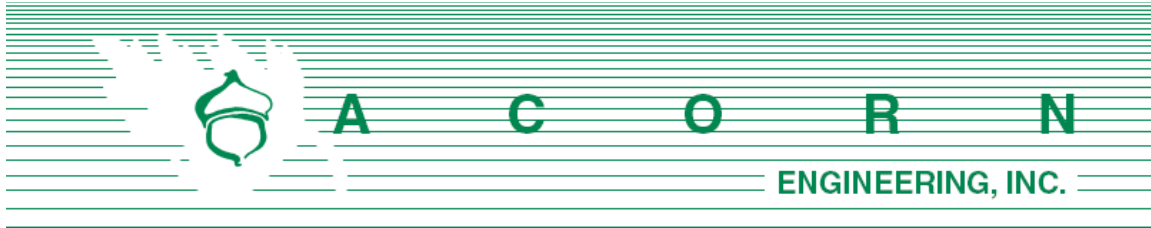
b. Wayfinding

- (i) All street and wayfinding signage shall meet the requirements of the Manual on Uniform Traffic Devices (MUTCD) and Chapter 25 of the City Code.

9. Design Standards:

- a. The project has been designed to meet the standards set forth in the B-3/B-3c/DEOZ zone. Please refer to the Site Plan for more information on the Space & Bulk Standards.





STORMWATER MANAGEMENT **REPORT**

Prepared For:

Redfern Properties, LLC
PO Box 8816
Portland, Maine 04104

Prepared By:

Acorn Engineering, Inc.
P.O. Box 3372
Portland, Maine 04104



July, 2021

INTRODUCTION

The project proposes to convert the existing abandoned commercial use building into residential units which will include 81 micro-apartments, primarily on floors two through six, with ground floor occupied by a lobby, lounge, fitness areas & other miscellaneous amenities for the tenants.

A stormwater analysis has been prepared to demonstrate that the project will meet the following requirements of the City of Portland (the City):

- City of Portland Land Use Ordinance Chapter 14, Article V. Site Plan Section 14-523. Required Approvals and Applicability (F) Level III Site Plan Review.
- City of Portland Technical Manual – Section 5 – Portland Stormwater Management Standards and Maine DEP Chapter 500 Stormwater Management.

The proposed project will not result in 1,000 sf of new impervious area or redevelops greater than 5,000 sf of existing non-roof impervious surface. Therefore, measures for treatment will not be required as part of this project.

SOILS

Onsite soil information includes the following:

- Soil Conservation Service Medium Intensity Soil Survey for Cumberland County

Given the soils information, listed above, no onsite wastewater is proposed, deep fills/cuts the applicant does not intend to perform a more intense hydric soil boundary delineation because of the waiver requirements set forth in the City of Portland Technical Manual – Section 7 – Soil Survey, Rev. 6/17/11;12/8/20 are met.

The area within and surrounding the project includes soils types listed in the table below. The susceptibility of soils to erosion is indicated on a relative “K” scale of values over a range of 0.02 to 0.69. Higher “K” values indicate more erodible soils.

Table 5 - “K” Value		
Soils Type	Subsurface	Substratum
Hinckley Loamy Sand	.17	.17

The soil “K” values for the soils, listed above, show a low susceptibility to erosion. The site’s susceptibility to erosion is from the Soil Conservation Service Medium Intensity Soil Survey for Cumberland County. Although soil “K” values for the soils show a low susceptibility to erosion, implementation of the proposed Erosion & Sedimentation Measures by the contractor will be of the utmost importance, given the embankment and downhill retaining wall.

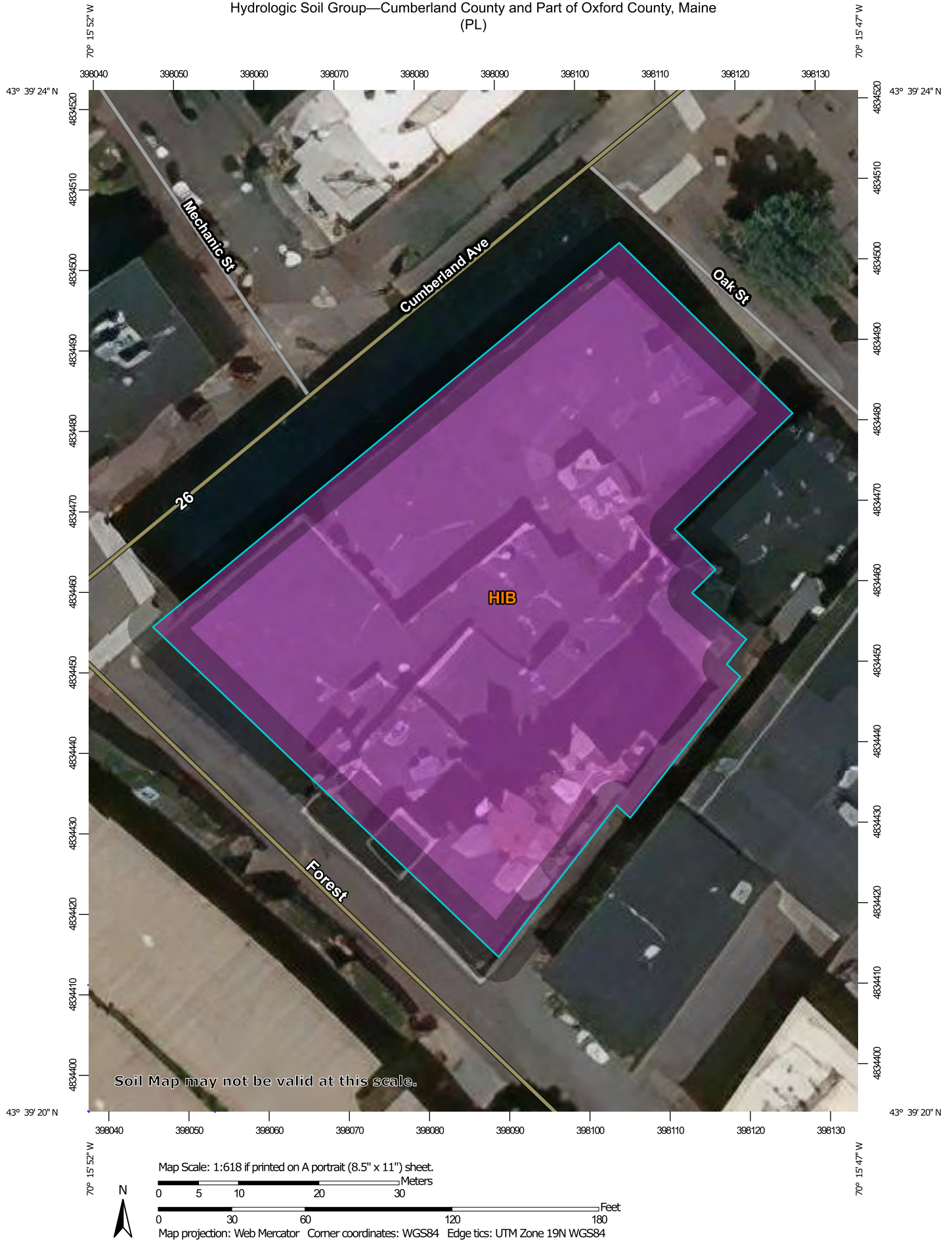
Conclusion

The proposed project does not anticipate creating erosion, drainage or runoff problems for the development, the City, or abutting properties.

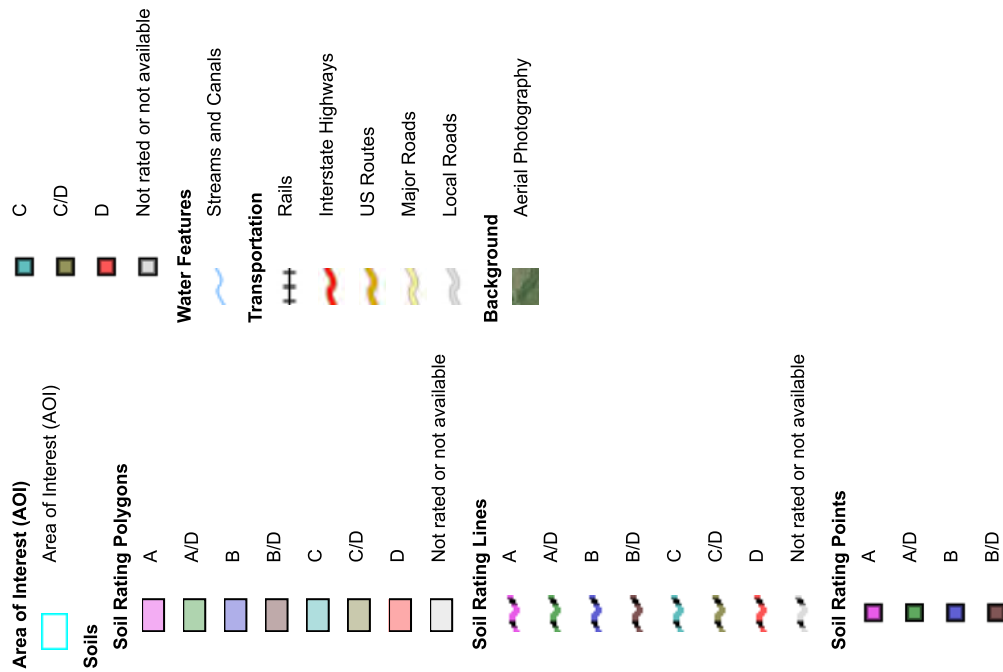


**A C O R N Engineering, Inc. • www.acorn-engineering.com
207-775-2655 • PO Box 3372 • Portland • Maine • 04104**

Hydrologic Soil Group—Cumberland County and Part of Oxford County, Maine
(PL)



MAP LEGEND



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 17, Jun 5, 2020

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Data not available.

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
HIB	Hinckley loamy sand, 3 to 8 percent slopes	A	0.9	100.0%
Totals for Area of Interest			0.9	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.

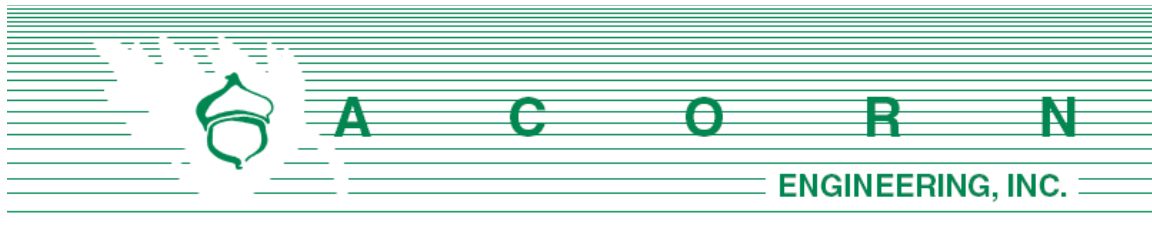
If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

Rating Options

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher



K. EROSION & SEDIMENTATION **CONTROL REPORT**

Prepared For:

Redfern Properties, LLC
PO Box 8816
Portland, Maine 04104

Prepared By:

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



July, 2021



INTRODUCTION

The project proposes to convert the existing abandoned commercial use building into residential units which will include 81 micro-apartments, primarily on floors two through six, with ground floor occupied by a lobby, lounge, fitness areas & other miscellaneous amenities for the tenants.

The following Erosion and Sedimentation Control Report was developed in accordance with the City of Portland Technical Manual – Section 5 – Portland Stormwater Management Standards and the Maine DEP Chapter 500 Stormwater Management Appendix A and B (1), Amended August 12, 2015. This narrative also meets the standards required in the Maine DEP's Erosion & Sediment Control BMP's Manual, revised in 2016.

1.0 EXISTING CONDITIONS

The proposed project site is located on Forest Avenue. A boundary plan has been prepared by Norse Northern Survey Engineering, Maine dated March 29, 2021.

Abutting Uses:

- | | |
|------------------|--|
| ➤ North R-6 Zone | Multi-Use Commercial / Office Business |
| ➤ East R-6 Zone | Multi Family Residential |
| ➤ South R-6 Zone | Condominiums |
| ➤ West R-6 Zone | Office Business |

Nearly 100% of the existing site is comprised of rooftop. The average slope is moderate with grades dropping from southeast to northwest.

1.1 Existing Soils

Onsite soil information includes the following:

- Soil Conservation Service Medium Intensity Soil Survey for Cumberland County

Given the soils information, listed above, no onsite wastewater is proposed; the applicant does not intend to perform a more intense hydric soil boundary delineation because the waiver requirements set forth in the City of Portland Technical Manual – Section 7 – Soil Survey, Rev. 6/17/11;12/8/20 are met.

The area within and surrounding the project includes soil types listed in the table below. The susceptibility of soils to erosion is indicated on a relative “K” scale of values over a range of 0.02 to 0.69. Higher “K” values indicate more erodible soils.

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

The soil “K” value for the soil, listed above, shows a low susceptibility to erosion. The site’s susceptibility to erosion is from the Soil Conservation Service Medium Intensity



Soil Survey for Cumberland County. Although soil “K” values for the soils show a low susceptibility to erosion, implementation of the proposed Erosion & Sedimentation Measures by the contractor will be of the utmost importance given the sustained slope throughout the site.

1.2 Existing Erosion Problems

There are no signs of erosion.

1.3 Critical Areas

With minimal site work for the proposed project. There are no critical areas.

1.4 Protected Natural Resource

The client is not aware of the presence of any existing significant natural features located on the site as listed in Section 14-526 (b) 1. of the Land Use Code. The project is not located within a watershed classified as an Urban Impaired Stream by the Maine DEP.

1.5 Previous Construction Activity (5 years)

Acorn Engineering, Inc. is not aware of any construction related activities within the project limits within the past 5 years.

1.6 Timber Harvesting

Acorn Engineering, Inc. is not aware of any timber harvesting within the past five years.

2.0 EROSION CONTROL MEASURES AND SITE STABILIZATION

As part of the site development, the following temporary and permanent erosion and sedimentation control devices shall be implemented. Devices shall be installed as described in this report or within the plan set. See the Maine Erosion and Sediment Control Handbook for Construction: Best Management Practices for further reference.

2.1 Temporary Erosion Control Measures

The following temporary erosion and sedimentation control measures are planned for the project’s construction period:

2.1.1 Crushed stone stabilized construction entrances shall be placed at all access points to the project site where there are disturbed areas. The following specifications shall be followed at a minimum:

- Stone size shall be 2-3 inches or reclaimed or recycled concrete equivalent.
- The thickness of the entrance stone layer shall be no less than 6 inches.



- The entrance shall not be less than 20 feet wide, however not less than the full width of points where ingress or egress occurs. The length shall not be less than 50 feet in length.
 - Geotextile fabric (woven or non-woven) shall be placed over the entire entrance area.
 - The entrance/exit shall be maintained to the extent that it will prevent the tracking of sediment onto public roadways.
- 2.1.2 Siltation fence or erosion control berm shall be installed down gradient of any disturbed areas to trap runoff borne sediments until permanent stabilization is achieved. The silt fence or erosion control berm shall be installed per the details provided in the plan set and inspected before and immediately after each rainfall and at least daily during prolonged rainfall. Repairs shall be made if there are any signs of erosion or sedimentation below the fence line or berm. If there are signs of undercutting at the center or the edges, or impounding of large volumes of water behind the fence or berm, the barrier shall be replaced with a stone check dam.
- 2.1.3 Hay mulch including hydro seeding is intended to provide cover for denuded or seeded areas until revegetation is established. Mulch placed between April 15th and November 1st on slopes of less than 15 percent shall be covered by fabric netting and anchored with staples in accordance with the manufacturer's recommendation. Mulch placed between November 1st and April 15th on slopes equal to or steeper than 8 percent and equal to or flatter than 2:1 shall use mats or fabric netting and anchored with staples in accordance with the manufacturer's recommendation.
- 2.1.4 At any time of the year, all slopes greater than 3:1 shall be stabilized with Double Net Erosion Control Blanket Bionet SC150BN by North American Green or Approved Equal, or Erosion Control Mix Slope Protection as detailed within the plans.
- 2.1.5 Forest Avenue shall be swept to control mud and dust from the construction site as necessary. Add additional stone to the stabilized construction entrance to minimize the tracking of material off the site and onto the surrounding roadways.
- 2.1.6 During demolition, clearing and grubbing operations, stone check dams shall be installed at any areas of concentrated flow. The maximum height of the check dam shall not exceed 2 feet. The center of the check dam shall be 6 inches below the outer edges of the dam. The contractor shall mulch the side slopes and install stone check dams for all newly excavated ditch lines within 24 hours of their creation.
- 2.1.7 Silt fence stake spacing shall not exceed 6 feet unless the fence is supported with 14-gauge wire in which case the maximum spacing shall not exceed 10 feet. The silt fence shall be "toed" into the ground.



- 2.1.8 Storm drain inlet protection shall be provided to storm drains using any of the following: hay bale drop inlet structures, silt fence drop inlet sediment filter, gravel and wire mesh drop inlet sediment filter, or curb inlet sediment filter. Barriers shall be inspected after every rainfall event and repaired as necessary. Sediments shall be removed when accumulation has reached $\frac{1}{2}$ the design height.
- 2.1.9 Dust control shall be accomplished using any of the following: water, calcium chloride, stone, or an approved MDEP product. Dust control shall be applied as needed to accomplish dust control.
- 2.1.10 Temporary loam, seed, and mulching shall be used in areas where no other erosion control measure is used. Application rates for seeding are provided at the end of this report.
- 2.1.11 Stockpiles shall be stabilized within 7 days of formation unless a scheduled rain event occurs prior to the 7-day window, in which case the stockpile shall be stabilized prior to the rain event. Methods of stabilization shall be mulch, erosion control mix, or erosion control blankets/mats. Silt fence or a wood waste compost filter berm shall be placed downhill of any soil stockpile location.
- 2.1.12 For disturbance between November 1 and April 15, please refer to winter stabilization plan in this report and the Maine Erosion and Sediment Control BMP manual for further information.
- 2.1.13 It is of the utmost importance that stormwater runoff and potential sediment from the construction site be diverted around the proposed underdrains until the trench is backfilled.

2.2 Permanent Erosion Control Measures

The following permanent erosion control measures are intended for post disturbance areas of the project.

- 2.2.1 All disturbed areas during construction, not subject to other proposed conditions, shall receive a minimum 4" of loam, limed, and mulched. Erosion control blankets or mats shall be placed over the mulch in areas noted in paragraph 4.1 of this report.
- 2.2.2 All stormwater devices shall be installed, and tributary areas stabilized prior receiving stormwater.
- 2.2.3 Refer to the Maine Erosion and Sediment Control BMP manual for additional information.

3.0 EROSION AND SEDIMENTATION CONTROL PLAN

- 3.1 The Erosion and Sedimentation Control Plan is included within the plan set.



4.0 DETAILS AND SPECIFICATIONS

4.1 Erosion Control Details and Specifications are included in the plan set.

5.0 STABILIZATION PLAN FOR WINTER CONSTRUCTION

Winter Construction consists of earthwork disturbance between the dates of November 1 and April 15. If a construction site is not stabilized with pavement, a road gravel base, 75% mature vegetation cover or riprap by November 15, then the site shall be protected with over-winter stabilization. Any area not stabilized with pavement, vegetation, mulching, erosion control mix, erosion control mats, riprap, or gravel base on a road shall be considered open.

The contractor shall limit the work area to areas that work will occur in during the subsequent 15 days and so that it can be mulched one day prior to a snow event. The contractor shall stabilize work areas prior to opening additional work areas to minimize areas without erosion control measures.

The following measures shall be implemented during winter construction periods:

5.1 Sediment Barriers

During frozen conditions, sediment barriers may consist of erosion control mix berms or any other recognized sediment barriers as frozen soil prevents the proper installation of hay bales or silt fences.

5.2 Mulching

All areas shall be considered to be denuded until seeded and mulched. Hay and straw mulch shall be applied at a rate of 150 lb. per 1,000 square feet or 3 tons/acre (twice the normal accepted rate of 75-lbs./1,000 s.f. or 1.5 tons/acre) and shall be properly anchored. Erosion control mix must be applied with a minimum 4-inch thickness. Mulch shall not be spread on top of snow. The snow shall be removed down to a one-inch depth or less prior to application. After each day of final grading, the area shall be properly stabilized with anchored hay or straw or erosion control matting. An area shall be considered to have been stabilized when exposed surfaces have been either mulched or adequately anchored so that ground surface is not visible through the mulch. Between the dates of November 1 and April 15, all mulch shall be anchored by either mulch netting, tracking or wood cellulose fiber. The cover will be considered sufficient when the ground surface is not visible through the mulch. After November 1st, mulch and anchoring of all exposed soil shall occur at the end of each final grading workday.

5.3 Soil Stockpiling

Stockpiles of soil or subsoil shall be mulched for over winter protection with hay or straw at twice the normal rate or with a four-inch layer of erosion control mix. This



shall be done within 24 hours of stocking and re-established prior to any rainfall or snowfall.

5.4 Seeding

Between the dates of October 15th and April 1st, loam or seed shall not be required. During periods of above freezing temperatures finished areas shall be fine graded and either protected with mulch or temporarily seeded and mulched until the final treatment can be applied. If the date is after November 1st and if the exposed area has not been loamed, final grading with a uniform surface, then the area may be dormant seeded at a rate of 3 times higher than specified for permanent seed and then mulched.

Dormant seeding may be placed prior to the placement of mulch or erosion control blankets. If dormant seeding is used for the site, all disturbed areas shall receive 4" of loam and seed at an application rate of 5 lbs./1,000 s.f. All areas seeded during the winter shall be inspected in the spring for adequate catch. All areas insufficiently vegetated (less than 75% catch) shall be revegetated by replacing loam, seed and mulch. If dormant seeding is not used for the site, all disturbed areas shall be revegetated in the spring.

5.5 Over winter stabilization of disturbed soils

By September 15th, all disturbed soils on areas having a slope less than 15% shall be seeded and mulched. If the disturbed areas are not stabilized by this date, then one of the following actions shall be taken to stabilize the soil for late fall and winter:

- Stabilize the soil with temporary vegetation – By October 1st, seed the disturbed soil with winter rye at a seeding rate of 3lbs per 1,000 s.f., lightly mulch the seeded soil with hay or straw at 75 lbs per 1,000 s.f., and anchor the mulch with plastic netting. Monitor growth of the rye over the next 30 days. If the rye fails to grow at least three inches or fails to cover at least 75% of the disturbed soil before November 1st, then mulch the area for over-winter protection.
- Stabilize the soil with sod – Stabilize the disturbed soil with properly installed sod by October 1st. Proper installation includes pinning the sod onto the soil with wire pins, rolling the sod to guarantee contact between the sod and underlying soil, and watering the sod to promote root growth into the disturbed soil.
- Stabilize the soil with mulch – By November 15th, mulch the disturbed soil by spreading hay or straw at a rate of at least 150 lbs per 1,000 s.f. on the area so that no soil is visible through the mulch. Immediately after applying the mulch, anchor the mulch with plastic netting to prevent wind from moving the mulch off the disturbed soil.

5.6 Over winter stabilization of disturbed slopes

All stone-covered slopes shall be constructed and stabilized by November 15th. All slopes to be vegetated shall be seeded and mulched by September 1st. A slope is



considered a grade greater than 15%. If a slope to be vegetated is not stabilized by September 1st, then one of the following action shall be taken to stabilize the slope for late fall and winter:

- Stabilize the soil with temporary vegetation and erosion control mats – By October 1st the disturbed slope shall be seeded with winter rye at a seeding rate of 3 lbs per 1,000 s.f. and then install erosion control mats or anchored mulch over the seeding. If the rye fails to grow at least three inches or fails to cover at least 75% of the slope by November 1st, then the contractor shall cover the slope with a layer of erosion control mix or with stone riprap.
- Stabilize the soil with sod – The disturbed slope shall be stabilized with properly installed sod by October 1st. Proper installation includes the contractor pinning the sod onto the slope with wire pins, rolling the sod to guarantee contact between the sod and underlying soil, and watering the sod to promote root growth into the disturbed soil. The contractor shall not use late-season sod installation to stabilize slopes having a grade greater than 3H:1V or having groundwater seeps on the slope face.
- Stabilize the soil with erosion control mix – Erosion control mix shall be properly installed by November 15th. The contractor shall not use erosion control mix to stabilize slopes having grades greater than 2H:1V or having groundwater seeps on the slope face.
- Stabilize the soil with stone riprap – Place a layer of stone riprap on the slope by November 15th. A registered professional engineer shall be hired to determine the stone size needed for stability on the slope and to design a filter layer for underneath the riprap.

6.0 INSPECTION AND MAINTENANCE

A person with knowledge of erosion and stormwater control, including the standards and conditions in the permit, shall conduct periodic visual inspections of installed erosion control measures. The frequency of inspection shall occur at least once every two weeks, as well as after a “storm event”. A “storm event” shall consist 0.5 inches of rain within a 24-hour period. The following Erosion and Sediment Control - Best Management Practices (BMP's) shall inspected in the manner as described.

6.1 Sediment Barriers

Hay bale barriers, silt fences and filter berms shall be inspected and repaired for the following if there are any signs of erosion or sedimentation below them. If there are signs of undercutting at the center or the edges of the barrier, or impounding of large volumes of water behind them, sediment barriers shall be replaced with a temporary check dam. Should the fabric on a silt fence or filter barrier decompose or become ineffective prior to the end of the expected usable life and the barrier is still necessary, the fabric shall be replaced promptly. Sediment deposits should be removed when deposits reach approximately one-half the height of the barrier. Filter berms should



be reshaped as needed. Any sediment deposits remaining in place after the silt fence or filter barrier is no longer required should be dressed to conform to the existing grade, prepared and seeded.

6.2 Stabilized Stone Construction Entrances

The exit shall be maintained in a condition that will prevent tracking of sediment onto public rights-of-way. When the control pad becomes ineffective, the stone shall be removed along with the collected soil material and redistributed on site in a stable manner. The entrance should then be reconstructed. The contractor shall sweep or wash pavement at exits, which have experienced mud-tracking on to the pavement or traveled way. When washing is required, it shall be done on an area stabilized with aggregate, which drains into an approved sediment trapping device. All sediment shall be prevented from entering storm drains, ditches, or waterways.

6.3 Mulched Areas

All mulches must be inspected periodically, in particular after rainstorms, to check for rill erosion. If less than 90% of the soil surface is covered by mulch, additional mulch shall be immediately applied. Nets must be inspected after rain events for dislocation or failure. If washouts or breakage occur, re-install the nets as necessary after repairing damage to the slope. Where mulch is used in conjunction with ornamental plantings, inspect periodically throughout the year to determine if mulch is maintaining coverage of the soil surface. Repair as needed.

6.4 Dust Control

When temporary dust control measures are used, repetitive treatment shall be applied as needed to accomplish control.

6.5 Stormwater Appurtenances

All underdrains, storm drains, and catch basins need to be operating effectively and free of debris.

6.6 Erosion and Sedimentation Control Inspections:

Acorn Engineering has personnel qualified to conduct Erosion and Sedimentation Control Inspections. For further information, contact:

Contact: Will Savage, PE
Telephone: (207) 775-2655

Qualifications:

- Maine Professional Engineering License #11419
- Maine DEP - Certified in Maintenance & Inspection of Stormwater BMP's Cert #14
- Certified Erosion, Sediment and Storm Water Inspector (CESSWI) Cert #0293
- Certified Professional in Erosion and Sediment Control (CPESC) Cert. #4620



The Contractor has sole responsibility for complying with the Erosion and Sedimentation Report/Plan, including control of fugitive dust. The Contractor shall be responsible for any monetary penalties resulting from failure to comply with these standards.

7.0 IMPLEMENTATION SCHEDULE

The following implementation sequence is intended to maximize the effectiveness of the above described erosion control measures. Contractors should avoid overexposing disturbed areas and limit the amount of stabilization area.

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

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

The contractor shall re-vegetate disturbed areas as rapidly as possible. All areas shall be permanently stabilized within 7 days of final grading or before a storm event. The contractor shall incorporate planned inlets and drainage systems as early as possible into the construction phase.

8.0 CONCLUSION



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

9.0 ATTACHMENTS

- Temporary Seeding Plan
- Permanent Seeding Plan



TEMPORARY SEEDING PLAN

Site Preparation

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

Seedbed Preparation

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

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

Seeding

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

Seed	Pounds / 1,000 S.F.	Recommended Seeding Dates
Winter Rye	2.57	Aug-15 to Oct-1
Oats	1.84	Apr-1 to Jul-1 Aug-15 to Sep-15
Annual Ryegrass	0.92	Apr-1 to Jul-1
Sudangrass	0.92	May-15 to Aug-15
Perennial	0.92	Aug-15 to Sep-15

Mulching

Mulch shall be applied at a rate of 70 lbs – 90 lbs per 1,000 square feet. The mulch shall be installed at a minimum depth of 4 inches. The seeded area shall be mulched immediately after seed is applied. Mulching during the winter season shall be double the normal amount.

Conclusion

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



PERMANENT SEEDING PLAN

Site Preparation

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

Seedbed Preparation

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

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

Seeding

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

Seed	Pounds / 1,000 S.F.
Kentucky Bluegrass	0.46
Creeping Red Fescue	0.46
Perennial Ryegrass	0.11
Total	1.03

Mulching

Mulch shall be applied at a rate of 70 lbs – 90 lbs per 1,000 square feet. The mulch shall be installed at a minimum depth of 4 inches. The seeded area shall be mulched immediately after seed is applied. Mulching during the winter season shall be double the normal amount.

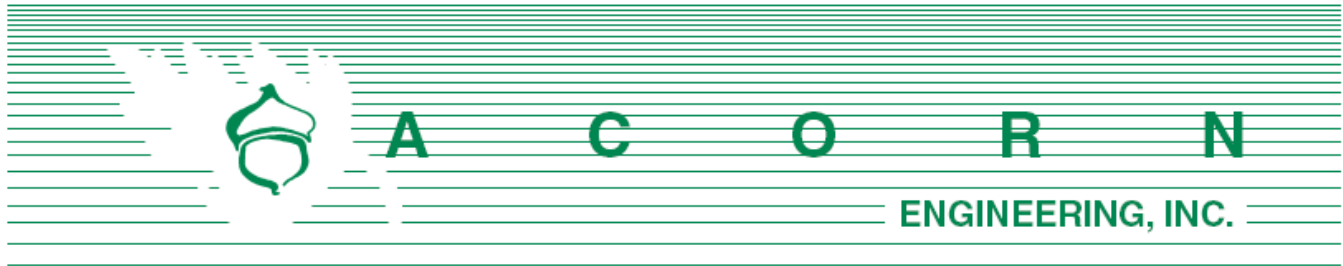
Recommendations

Permanent seeding is recommended to be completed in the spring. Later summer seeding is allowed if completed prior to September 1st. If seeding cannot be accomplished during the periods recommended for permanent seeding, then the contractor shall perform temporary seeding per the temporary seeding plan.

Conclusion

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





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

July 16, 2021

Subject: 45 Forest Avenue – Fire Department Checklist
Section L of Application

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

1. Name, address, telephone number of applicant:

Redfern Properties, LLC
PO Box 8816
Portland, ME 04104
(207) 776-9715

2. Name address, telephone number of architect:

Ryan Senatore Architecture
500 Congress Street Floor 2
Portland, Maine 04101
207-650-6414

3. Proposed uses of any structures [NFPA and IBC classification]

NFPA: Apartment / IBC: R-2

4. Square footage of all structures, including decks [total and per story]

Existing Building		
Total	Approx. 70,275	sf

The existing building is proposed to remain as a part of this project with an approximate 250 SF egress addition of the first floor.

5. Elevation of all structures

The existing 6-story structure's height will not change as a result of this project. This height is below the allowable 210 feet within the B-3 zoning district. Please refer to the building elevations provided by the Architect for additional information.

6. Proposed fire protection of all structures

The building will have a sprinkler system per code. Fire flows and requirements for system storage or booster pumping are subject to the fire designer which will be performed prior the request for a building permit.

7. Hydrant locations

- a. An existing hydrant is located southeast of the existing building on same side of Forest Avenue as the site. Hydrant flow data from the Portland Water District once received may be made available to the Fire Department upon request.

8. Water main size and location

The existing water service connection to the existing 12" water main within Forest Avenue is expected to remain as part of this project.

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

Access to the structure is provided directly on Forest Avenue. Additionally, the site is accessible from Deland Court and Oak Street.

10. The Architect has provided a code summary (attached).

NFPA 1 – Chapter 18 Fire Department Access and Water Supply

18.2 Fire Department Access:

The project site is located in a heavily developed area and is fronted by a public street. The following pavement street width is currently available:

- Forest Avenue: 66 feet
- Cumberland Avenue: 66 feet
- Oak Street: 43 feet
- Deland Court: 15 feet

Per NFPA 1 – Chapter 18.2.3.3.1, there will be public street access within 50 feet of at least one exterior door. Per NFPA 1 – Chapter 18.2.3.2.2.1, all first story floors shall be located not more than 450 feet from a Fire Department access road.

City of Portland Technical Manual – Section 3 Public Safety

3.4.1 Every dead-end roadway more than one hundred fifty (150') feet in length shall provide a turnaround at the closed end. Turnarounds shall be designed to facilitate future street connectivity and shall always be designed to the right (refer to Figure I-5).

Response: The existing access to the site will remain the same as a result of this project.



3.4.2 Where possible, developments shall provide access for Fire Department vehicles to at least two sides of all structures. Access may be from streets, access roads, emergency access lanes, or parking areas.

Response: The existing access to the site will remain the same as a result of this project.

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

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

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

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

Response: The building will be provided with exterior doors that will be within 50' of a Fire Department access route, namely Forest Avenue.

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

Response: The proposed site maintains the required clearance height of nine feet in all cases.

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

Response: The elevators will be sized to accommodate an 80 x 24 stretcher, per the Architect's designs.

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

Response: The sites address is 45 Forest Avenue

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



Peter Heil, P.E.
Project Manager
Acorn Engineering, Inc.



CITY OF PORTLAND WASTEWATER CAPACITY APPLICATION

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



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

Date: 4/15/21

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

Site Address: 45 Forest Avenue Portland ME

Chart Block Lot Number: 38-A-1

Proposed Use: Micro-apartments, lobby, lounge, & fitness area

Previous Use: Abandoned commercial-use

Existing Sanitary Flows: 1,800 GPD

Existing Process Flows: GPD

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

Ex. sewer lateral to remain to outlet into municipal
system

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

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

2. Please, Submit Contact Information.

City Planner's Name: TBD Phone: 207.874.8719

Owner/Developer Name: Redfern Properties, LLC

Owner/Developer Address: PO Box 8816, Portland, ME 04104

Phone: 207.776.9715 Fax: E-mail: Jonathan@redfernproperties.com

Engineering Consultant Name: Acorn Engineering, Inc.

Engineering Consultant Address: 65 Hanover St., Portland, ME 04101

Phone: 207.775.2655 Fax: E-mail: Pheil@acorn-engineering.com

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

3. Please, Submit Domestic Wastewater Design Flow Calculations.

Estimated Domestic Wastewater Flow Generated: 8,670 GPD

Peaking Factor/ Peak Times: Diurnal

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

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

4. Please, Submit External Grease Interceptor Calculations.

Total Drainage Fixture Unit (DFU) Values: _____

Size of External Grease Interceptor: _____

Retention Time: _____

Peaking Factor/ Peak Times: _____

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

5. Please, Submit Industrial Process Wastewater Flow Calculations

Estimated Industrial Process Wastewater Flows Generated: _____

0 GPD

Do you currently hold Federal or State discharge permits? _____

Yes _____ No X

Is the process wastewater termed categorical under CFR 40? _____

Yes _____ No X

OSHA Standard Industrial Code (SIC): _____

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

Peaking Factor/Peak Process Times: _____

NA

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

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

M. Calculation of Wastewater Flowrate for 45 Forest Ave Redevelopment

The project proposes to convert the existing abandoned commercial use building into residential units which will include 81 micro-apartments, primarily on floors two through six, with ground floor occupied by a lobby, lounge, fitness areas & other miscellaneous amenities for the tenants. Based upon the Section 4 of the Maine Subsurface Wastewater Disposal Rules, the project anticipates the following daily flows:

Estimate of Anticipated Daily Flows			
Development	Number of Units	Gallons per Day per Unit	Total Gallons per Day
Existing Flow			
Place of Employment (no showers)	Assume 150 Employees	12 GPD/ Employee	1,800 GPD
Total Gallons per Day (Existing)			1,800
Proposed Flow			
Apartments	81 Units	120 GPD/ Unit	9,720 GPD
Fitness Area	1,500 SF	50 GPD per 100 SF	750 GPD
Total Gallons per Day (Proposed)			10,470
Net Change			+8,670 GPD
*Values based on STATE OF MAINE: SUBSURFACE WASTEWATER DISPOSAL RULES, most recent edition			

As seen above, the project anticipates an increase in daily flow of approximately 8,670 gallons. Please see attached for the formal application template.



N. Lighting

Existing Lighting to remain, additional lighting is anticipated to be added at entrances. All additional lighting will be down shaded and dark sky compliant.



O. Architectural Design Narrative

Please find attached the design narrative completed by Ryan Senatore Architecture.



April 12, 2021

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

Re: 45 Forest Avenue - Design Narrative

We are pleased to submit the design proposal for the renovations to 45 Forest Avenue. The existing structure is a high quality design and material use example. The project will utilize the National Park Service's Historic Tax credit program and adhere to their design standards. The changes to the Forest Avenue facade are very minimal, we are proposing to add a small entry addition on the rear of the building in the alleyway which will not be visible from any street.

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

Sincerely,



Ryan Senatore, AIA LEED AP

Principal

207-747-5159

senatorearchitecture.com

ryan@senatorearchitecture.com

500 Congress Street, Suite 2
Portland, Maine 04101

P. Utilities

The proposed project anticipates utilizing the existing utilities to the existing structure.

Water:

The existing service to the existing building is located from the main within Forest Avenue and is anticipated to remain and be utilized as the domestic water line. In addition, a 6" fire suppression line is proposed.

Sewer:

The existing sewer lateral to the existing building appears to connect within Deland Court. The size of the existing service is currently unknown.

Stormwater:

There are currently two drainage grates on site. Sizes of the existing storm drains are unknown at this time and they appear to outlet into the municipal system within Oak Street.

UGE/T/C:

It's assumed that the existing building is currently serviced by the underground electric main within Forest Avenue.

Gas:

There is currently a 6" plastic gas service tapped from the 6" gas main within Forest Avenue that services the existing site.

Ability to serve letters have been sent out to the respective utility companies in accordance with the City of Portland Code of Ordinances Chapter 14 Land Use, Section 14-527(g)(7). Responses from the utility companies can be found attached to this section.



Q. Construction Management Plan

Project Address:

45 Forest Avenue, Portland, ME

Project Description:

The project proposes to convert the existing abandoned commercial-use building into residential units which will include 81 micro-apartments, primarily on floors two through six, with ground floor occupied by a lobby, lounge, fitness areas & other miscellaneous amenities for the tenants.

Project Team Summary:

Owner:	Redfern Properties, LLC
General Contractor:	TBD
Civil Engineer:	Acorn Engineering, Inc.
Architect:	Ryan Senatore Architecture
Structural Engineer:	TBD

The Owner/GC and all subcontractors will work with the City of Portland and adjacent landowners to minimize any project impacts.

The GC will remain responsible for enforcement of all compliance with 1) all contract plans and specifications in their scope of work and 2) all site working conditions and safety requirements, day and night, for both persons and property, in each case for the duration of their work. These include OSHA, NIOSH, U.S. EPA, local ordinance and any other applicable governmental regulations. Both the Owner/GC and any subcontractors will remain responsible for safeguarding the general public.

The GC shall review all permits and conditions associated with the project. Refer to the Civil/Site Plan Set, Sheet C-03 Construction Management Plan for visual representation of the measures to be taken during construction.

The following outline has been developed in accordance with the City of Portland Construction Management Plan General Template and shall be referenced by the GC during construction.

A. Construction Management Principles

The control of noise, vibrations, ground movement, truck traffic, and other construction related factors will be of utmost importance. Care shall be taken to minimize these effects in the best interest of neighbors and the general public. GC to ensure that work hours conform to the City of Portland's Ordinance.

B. Development Review of Construction Management Plan

Logistics and safety program shall be submitted at or prior to the preconstruction meeting by the GC with all pertinent information required by the Maine Department of Transportation's Traffic Control Plan Standard Specification 652.3.3.



C. Performance Guarantees, Inspection Fees, Preconstruction Meeting, and Permits

Guarantees and fees will be paid at the time of the respective application. Sections 14-530 and 13-532 will be complied with all necessary permits will be obtained prior to work.

1. Street Opening and Street Occupancy Permits:

Required permits regarding street opening and occupancy will be obtained from the Department of Public Works. The requests shall conform to the approved Construction Management Plan.

2. Blasting:

Although not anticipated, if blasting occurs, it shall conform to Article VIII. In Chapter 14 of the City Code and Section 3.7 in the City's Technical Manual.

3. Building Code:

Employ the best practices, as applicable, of Chapter 33 Safeguards During Construction, from the 2009 International Building Code.

D. Construction Administration and Communication

The Contractor will work closely with adjacent abutters, businesses, and all parties informed, as far in advance as possible, of scheduled work, particularly work anticipated to cause significant noise, vibrations, or dust. Communication in order to comply with all agreements, ordinances, and special permits will be of the utmost importance. Contractor contact information shall be posted on a sign on the construction fence along Forest Avenue frontage. Additional signage necessary for communication shall be provided but will be temporary and removed upon completion of the project. The contact information for the project personnel is:

Jonathan Culley
Redfern Properties, LLC
(207) 776-9715

GC and Subcontractor information will be posted along Forest Avenue frontage once contracted.

E. Construction Schedule

The GC shall submit a construction timeline at or prior to the preconstruction meeting. Construction may occur during the daytime hours as defined in Section 17-18 of the Construction Activities for Building permit and City Code Section 25-129, Noise, dust and debris. Between September 1 and May 31, the following year, no person shall engage in construction activities generating noise exceeding 50 decibels, between the hours of 7 pm and 7 am of the following day within 500 feet of any buildings. From June 1 to August 31, construction activity may continue until 8 pm. No construction activity shall begin before 8



am on a Saturday, Sunday, or legal holiday. Extended hours or night work may be requested for special circumstances and street utility work if needed. These requests will be subject to approval by the Public Works Authority.

Due to the limited space within the project parcel, deliveries will need to be stored in an alternate location or deliveries must be small enough to fit within the property. Deliveries will be scheduled between 7 am and 5 pm.

The estimated timeframe of the proposed project is outlined below:

<u>Project Start Date:</u>	Spring 2022
<u>Project End Date:</u>	Spring 2023

A more detailed work schedule shall be provided by the GC at or before the pre-construction meeting with the City.

F. Security

1. The Construction Management Plan, Sheet C-03, depicts all proposed fencing and other barriers, with the intent of separating pedestrian and vehicle circulation from the construction site. Construction entrances per detail shall be installed.
2. Structures undergoing construction, alteration, or demolition operations, including those in underground locations, shall comply with NFPA 1 Chapter 16. *Safeguarding Construction, Alteration, and Demolition Operations*.
3. Fire Safety Program: Prior to construction, an overall construction and demolition fire safety program shall be developed. Essential items to be emphasized include the following:
 - o Good Housekeeping
 - o On-site security
 - o Installation of new fire protection systems as construction progresses
 - o Preservation of existing systems during demolition
 - o Organization and training of an on-site fire brigade
 - o Development of a pre-fire plan with the local fire department
 - o Rapid communication
 - o Consideration of special hazards resulting from previous occupancies
 - o Protection of existing structures and equipment from exposure fires resulting from construction, alteration, and demolition operations.
4. Blasting, if required, shall conform with all measures of Article VIII. Regulation of Explosives in the Land Use Code and Section 3.7 Standards for Blasting and Regulation of Explosives in Portland's Technical Manual.
5. Temporary security lighting shall be shown on the Construction Management Plan, and all fixtures shall be full cutoffs.

G. Construction Permitting and Traffic Control Plans

1. Construction Activity in Public Streets



A C O R N Engineering, Inc. • www.acorn-engineering.com
207-775-2655 • PO Box 3372 • Portland • Maine • 04104

Construction activity in the public right-of-way shall be compliant with Chapter 25 Article VII of the City Code. At no time will it be permissible for construction activity including delivery vehicle to close or block streets or affect public safety access without prior notice and approval of the Department of Public Works.

2. Sewer and Stormwater

Sewer and stormwater system connections are controlled by Chapters 24 and 32 of the City code of Ordinance. Required permits for new connections and/or abandonment of existing connections are available through the Street Opening Clerk at the Department of Public Works. Rules and Regulations for these utility systems are available through the City Engineer's office of the Department of Public Works and in Section II of the Technical Manual. This will apply to the new connections within Forest Avenue.

3. Traffic Control Plans

Construction activity that impacts the existing public street system must be controlled to protect the safety of the construction workers and all modes of the traveling public. The contractor shall submit a satisfactory "Maintenance of Traffic" (MOT) plan prior to any street opening permit approval. This document shall contain all pertinent information from the Maine Department of Transportation's Traffic Control Plan Standard Specification 652.3.3.

The MOT will address the work required for utility connections in Forest Avenue. Traffic will be channelized utilizing drums and cones. Proper signage will be installed prior to the through work zone. Alternating traffic will be controlled with flaggers. Trenches will be patched with pavement daily.

The MOT plan shall provide for the safe passage of the public through or along the construction work zone. It may be permissible to close a portion of Forest Avenue during utility connections and/or detour a mode of traffic when absolutely necessary for safety. All requests shall be subject to City approval. MOT plans shall employ the appropriate techniques and devices as called for in the latest edition of the Manual on Uniform Traffic Control Devices (MUTCD). In addition:

- Construction speed signing may be used as needed to slow traffic.
- Traffic Control signs shall not be placed where they would create any obstructions to bicycles or pedestrians.
- Flaggers will be utilized when necessary.

All existing modes of travel in the work zone area shall be accommodated if impacted by the activity. The safe passage of pedestrians, bicyclists, transit providers, and motorists are of equal importance when planning and laying out the work zone; no pre-existing travel mode may be eliminated without the express approval of the Department of Public Works. The MOT should also address on-street parking impacts, including deliveries and parking for adjoining businesses and property owners, analysis of roadway capacity or diversion capacity if street closure or change to roadway capacity is required, and coordination with other on-going or future construction or utility projects in the vicinity.



- Traffic control bicycle and pedestrian facilities or routes through work zones shall be maintained until the bicycle and pedestrian facilities or routes are ready for safe operation. Traffic control will not be removed to allow auto travel at the expense of bicycle and pedestrians.
- Barrier systems utilized to separate the construction activity from the public street and /or sidewalk shall not inhibit sight distances, particularly for visibility of pedestrians and bicyclists.
- ADA compliance in all capacities shall be maintained.

Use of public parking spaces on Forest Ave shall not be permissible. The blockage of any portion of sidewalk for the purpose of construction activity shall require an occupancy permit and appropriate fee as assessed by the Department of Public Works.

H. Site Management and Controls

1. Regular trash and debris shall be managed appropriately, and its removal shall comply with all local, state, and federal regulations.
2. Street cleaning and sweeping shall be followed as outlined in the erosion and sedimentation control notes and report. Damage to the street shall be avoided and shall be the responsibility of the contractor.
3. Dust shall be controlled and shall comply with Section 25-129 and the erosion and sedimentation control notes, plan, and details.
4. Noise shall be controlled and shall comply with Section 17-18 and Section 25-129.
5. Rodent Control shall be provided, if applicable, by a professional exterminator and shall be consistent with Chapter 22 of the City Code.
6. Snow and Ice Removal shall be provided. Pursuant to Section 25-173, the Contractor shall ensure a safe means of travel within the work zone by the following steps:
 - a. Snow/ice removal or commence automatically from 1" or greater of snow or ice
 - b. Remove snow as needed within the work zone, including parking spaces. Driveways and site lines shall not be blocked by piles of snow.
 - c. Clear all walks and ramps within the work zone
 - d. Sand or salt as needed
 - e. Clear all basin or drainage to help snow melt
 - f. The above steps shall be carried out Sunday-Saturday including holidays.

I. Erosion & Sedimentation Control

1. The Contractor shall install all erosion and sedimentation controls as depicted on the approved Construction Management Plan, C-03, and the approved erosion and sedimentation control report, prior to the pre-construction meeting for inspection by the City. The Contractor shall regularly inspect the control measures, no less than weekly and after storm events (0.5" or more in 24 hours). Additionally, temporary or permanent stormwater management systems shall be inspected and maintained to ensure working order. The Contractor shall document all inspection activities and



corrective actions and be prepared to provide these documents for inspection by the City, Maine Department of Environmental Protection (MDEP) or the U.S. Environmental Protection Agency (EPA) upon request.

2. Due to the existing sparse landscaping on site, no protection during construction will be necessary.
3. Stored materials shall be identified and avoid being located under/near trees.

J. Construction Staging Area

1. The Contractor shall submit a plan with locations depicted for the location of material staging areas, the location of on-site temporary construction trailers, the location of on-site truck delivery holding areas, the location of on-site truck washing stations, masonry mixing stations, the general location of the construction security fence and the general location of temporary construction dumpsters. This plan shall be submitted at or prior to the pre-construction meeting. Any open storage areas shall be shown on the plan.
2. Delivery Truck Holding Areas On-Site: The majority of materials delivered to the site will be scheduled such that they are able to be off-loaded immediately. On days when the construction activities require multiple truck deliveries, these deliveries will be carefully scheduled so that there is always adequate on-site area for the holding of trucks until they can be unloaded. Once at the site all vehicles will be brought within the fence line and will make every attempt to avoid queuing on public streets. If, for any reason, on-site holding of trucks is not feasible, an off-site location must be designated and shown on the submitted plan referenced above in J.1.
3. All deliveries for materials shall comply with the City's noise requirements.

K. Parking During Construction

1. Adequate parking for construction workers shall be provided on site or arrangements for off-street parking at an off-site location shall be provided.
2. Truck Routes and Volumes: The following quantities are estimated as part of the reconstruction:
 - Gravel & Stone – Approx. 10 CY. Earthwork subcontractor(s) pit to project site.
 - Hot Mix Asphalt – Approx. 20 tons. Paving subcontractor(s) pit to project site.

L. Special Measures as Necessary

No special measures are necessary for the proposed reconstruction.



S. Solid Waste Disposal

The property management company or Owner shall be responsible for locating the solid waste and recyclable material to the space allocated for solid waste storage as noted on the Site Plan (C-10).

The solid waste containers will be enclosed and screened from the public view. A private hauler will be contracted with for removal.



S. Parking Analysis

Per Land Use Code Section 19 Off Street Parking Table 19-B Categorical Exceptions to Off-Street Parking Minimums Zone B3: No off-street parking required for changes of use.



TRANSPORTATION DEMAND MANAGEMENT PLAN

45 FOREST AVENUE, PORTLAND, MAINE

Submitted for Redfern Properties, LLC

by Levine Planning Strategies, LLC

Revised - October 2021



LEVINE PLANNING STRATEGIES

Tools for Building Communities

Project Overview

On behalf of Redfern Properties LLC, we are pleased to submit a Transportation Demand Management (TDM) plan for the proposed redevelopment project at 45 Forest Avenue (Chart 37, Block A, Lot 1). Portions of the parcel are in the B-3 Downtown Business, B-3c Downtown Business, Downtown Entertainment Overlay & Congress Street Historic Districts. The existing building is also a designated Historic Landmark identified as the *New England Telephone Building* by the City of Portland's Historic Preservation Office in the Department of Planning & Urban Development.

The project proposes to convert the existing unused commercial building into apartments, primarily on floors two through six, with a lobby, lounge, fitness areas, bike room & other miscellaneous amenities for the tenants on the ground floor. No site work is expected outside the limits of the existing building except for utility connections. Due to the change of use at the property exceeding 20,000 square feet, the project requires site plan review by the Planning Board.

This project consists of a total of 81 units of housing, with 25 percent of the units designated as affordable at or below 80 percent of area median income. The unit sizes and layouts are generally conducive to affordability for renters of the remaining units as well.

According to the April 2021 City Parking Survey of Downtown Garages and Lots, nearby parking spaces rent for between \$95 and \$195 a month. By providing a robust TDM plan, this project aims to significantly reduce the number of tenants who require off-site rental spaces. In addition, by not incorporating on-site parking into the cost of the development will further enable lower price points for the units.

As this project is within ¼ mile of a transit line, it does not need to provide parking, provided it

submits a Transportation Demand Management Plan (Portland Land Use Code Table 19-B.) This project is an excellent opportunity to provide an alternative to automobile ownership and leverage the walkability, bikeability, and transit access of its downtown location.

We are confident that, with this TDM plan in place, this project will not require on-site parking, nor will it have an undue burden on other parking supply in the area.

For ease of review, we have drafted this TDM plan generally following the format of the City's Technical Manual Section 1.13. ("Transportation Demand Management.")

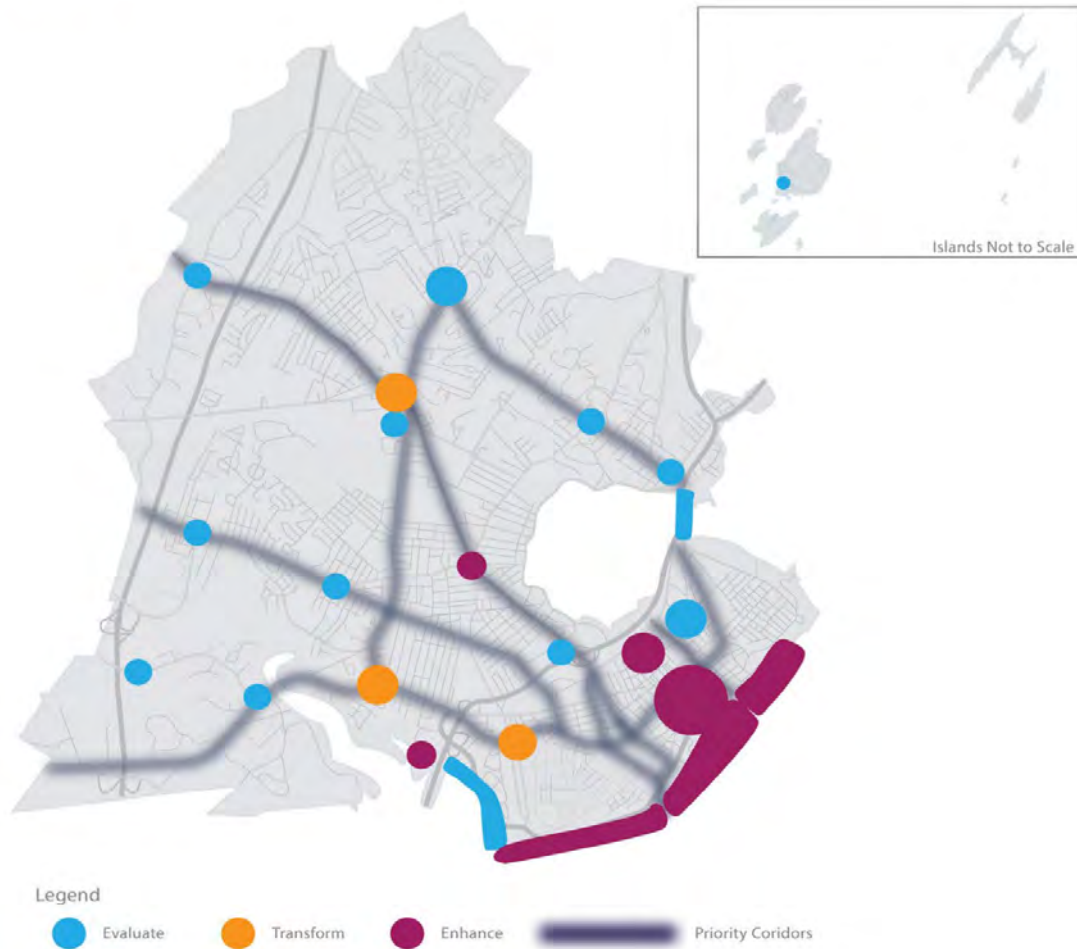
Transportation Narrative

This project is in a location with many transportation options that lend themselves towards Transportation Demand Management. This end of Forest Avenue is just adjacent to where the Forest Avenue/State Street/High Street corridor and the Congress Street corridor – both identified as key development corridors in *Portland's Plan 2030* – come together. It is also located in the downtown development "enhance" node identified in *Portland's Plan*.

Roadways

As mentioned above, 45 Forest Avenue is located where Forest Avenue meets Congress Street, with Cumberland Avenue providing another major east-way roadway. These streets are designed to provide multimodal access, with good sidewalk connections that are generally compliant with accessibility standards. Bicycle accommodations, while good, could be improved along all these corridors.

Priority Nodes & Corridors



Priority Development Nodes and Corridors (Source: *Portland's Plan 2030*)

Transit

Very few developments are in as good a position as this one to take advantage of existing transit.

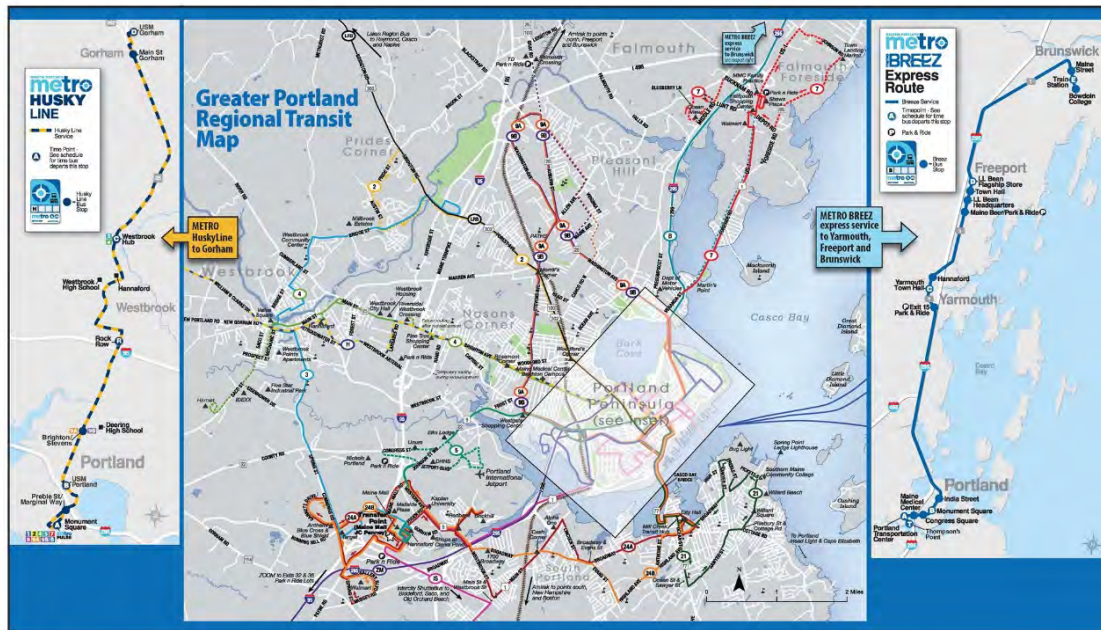
This project is in the heart of the Greater Portland Transit District's system. The METRO Pulse is just a few short blocks away and several bus lines stop nearby.

In addition, the South Portland Bus Service operates routes from this area to destinations across the Casco Bay Bridge, including Southern

Maine Community College and services and offices in South Portland.

Congress Street was recently modified to prioritize transit access, through provision of in-line stops along the street as well as shelters. METRO service also provides easy access to the Portland Transportation Center, where intercity bus and train service provides connections as far as New York City, and to the Portland International Jetport for those going farther afield.

Greater Portland Regional Transit Map



Bicycle and Pedestrian Facilities

As mentioned above, all the nearby roadways have sidewalks on both sides. Accessibility is generally acceptable on these sidewalks, with tip downs provided in most locations. Many of these sidewalks are cleared in the winter as part of Portland Downtown's services working with the City's Public Works Department. Some of the brick surfaces are not ideal in the rain or snow for those with limited mobility, making Portland Downtown's snow clearing program particularly important.

The area has excellent bike facilities. The Bayside Trail is nearby, as is the Back Cove Trail and additional dedicated bicycle/pedestrian facilities that circle much of the downtown peninsula. In addition, the City recently selected Tandem Mobility to work with City staff to launch a bike sharing system in Portland in 2022. If that system is successful, it would provide an additional bicycle option for residents and visitors.

TDM Administrator

The TDM Administrator for this project will be:

Haynes Johnston
Redfern Properties
P.O. Box 8816
Portland, Maine 04104
haynes@redfernproperties.com

Mr. Johnston may work with property management to implement details of this TDM plan but will be the one-stop contact when needed.

Resident Survey

In order to gauge the effectiveness of this TDM plan – and to adjust it if needed – the TDM Administrator will conduct an annual survey of residents in the building. This survey will be

conducted electronically using contact information on file with the management office for each unit. It will include questions on:

- Vehicle ownership and parking location;
- Modes of transportation for commuting, household chores, and recreation;
- Interest in carpooling or otherwise sharing transportation expenses with other tenants to reduce trips;
- Barriers to vehicle trip reduction best practices, such as bicycle use and transit ridership; and
- Other transportation needs and/or interests of tenants.

Those tenants that express interest in sharing information for carpooling or other trip reduction purposes will have their information provided to other tenants who have expressed a similar interest.

The results of this survey will be provided to the City's Planning & Urban Development Department. The survey will remain substantively consistent from year to year, in order to allow the results to be used to monitor the effectiveness of this TDM plan and allow for adjustments as needed.

Parking & Trip Reduction Targets

Trip Generation and Reduction

This project is expected to generate 440 vehicle trips per day, with 28 at morning peak hour and 36 at evening peak hour (*Institute of Transportation Engineers Trip Generation Manual 10th Edition* using Land Use 221-Multifamily Housing (Mid-Rise.)) Those vehicle trip figures are based on a general mid-rise multifamily development with few transit, pedestrian or bicycle options. For this project, there is likely to be some trip-chaining, use of

alternatives to physical trips, and/or combining of separate trips.

We would estimate that, upon opening, the vehicle trip generation from this project would be 50 percent lower than the ITE figure, or 220 vehicle trips a day, and 10 percent lower at peak times: 25 at morning peak hour and 32 at evening peak hour.

As tenancy stabilizes, further reductions in vehicle trips would be met. After 3 years, this TDM plan and the building location should allow us to reach a daily vehicle trip reduction of 75 percent from the ITE figure, or 110 vehicle trips a day, and 25 percent lower at peak times: 21 morning peak trips and 28 evening peak trips.

We don't expect the person-trip numbers to change much based on this TDM plan, as residents are still likely to require the same goods and services. However, the mode of these trips will shift significantly to walking, biking and transit.

Parking Need and Reduction

Were this project designed and located to be dependent on individual vehicle use, it would be projected to require 100 parking spaces (*Institute of Transportation Engineers Parking Generation 5th Edition* using Land Use 221-Multifamily Housing (Mid-Rise.)) However, research has shown that parking demand in transit-oriented developments such as this one can be as little as one-fifth the ITE supply guideline (see, for example, Ewing et al, *Landscape & Urban Planning* 160 (2017) 69-78.) We believe that, given the project's location, the decoupling of parking costs from rents, and the robust measures proposed in this TDM plan, the parking generation of this project would be 50 spaces upon opening (a 50% reduction) and 25 spaces in three years (a 75% reduction.) Those spaces would be accommodated in

nearby lots and overnight on-street parking with limited negative impacts.

Parking & Trip Reduction Strategies

As an entirely residential building with units best suited to one or two persons, this project will have different parking and trip reduction strategies than commercial buildings, or even residential buildings with larger units. The parking and trip reduction strategies for this development are focused on the needs of likely tenants, including younger workers in a variety of fields and older single persons seeking the convenience of a downtown location.

These strategies are designed to respond to the following needs:

- Convenience;
- Cost-effectiveness;
- Leverage of downtown location; and
- Pushing of information to users rather than expecting them to pull information from on-line sources.

Education

A key part of this TDM plan is to convey clear, compelling and accurate information to tenants and visitors as to the transportation options available other than driving. As part of a welcome packet, all new tenants will be provided information including the following:

- Transit maps, schedules, and information about real-time transit trackers;
- Information about transportation providers, including transit operators transportation as a service companies, and other options to avoid driving;
- A building-wide ride board to allow tenants to share trips; and
- Information on bike routes, parking infrastructure, and other incentives.

This educational packet will be provided online as well, so tenants and visitors can refer to it at any time.

In addition, the building management will also provide an annual recognition of leaders in trip reduction from the building.

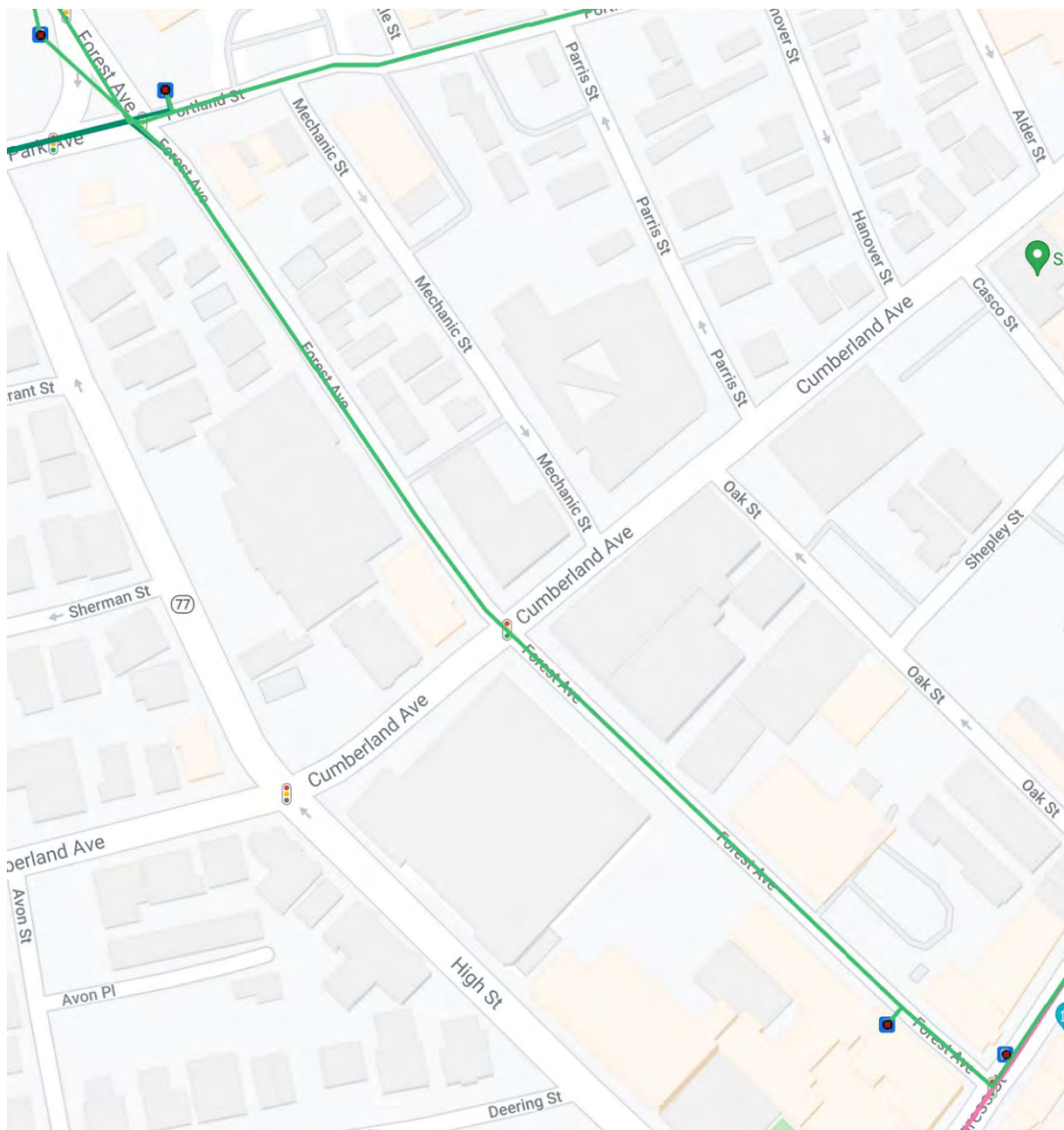
Monitoring

As mentioned above, there is a TDM Administrator designated for this development who will be responsible for monitoring this plan. Following an annual survey of residents, the TDM Administrator will report results to the City's Department of Planning & Urban Development and propose modifications to this

plan to make it more effective, if needed. This reporting will also be helpful in reviewing future TDM plans, as we expect that additional developments will propose using the option in Table 19-B in the future.

The report for this development will include, at a minimum, the following:

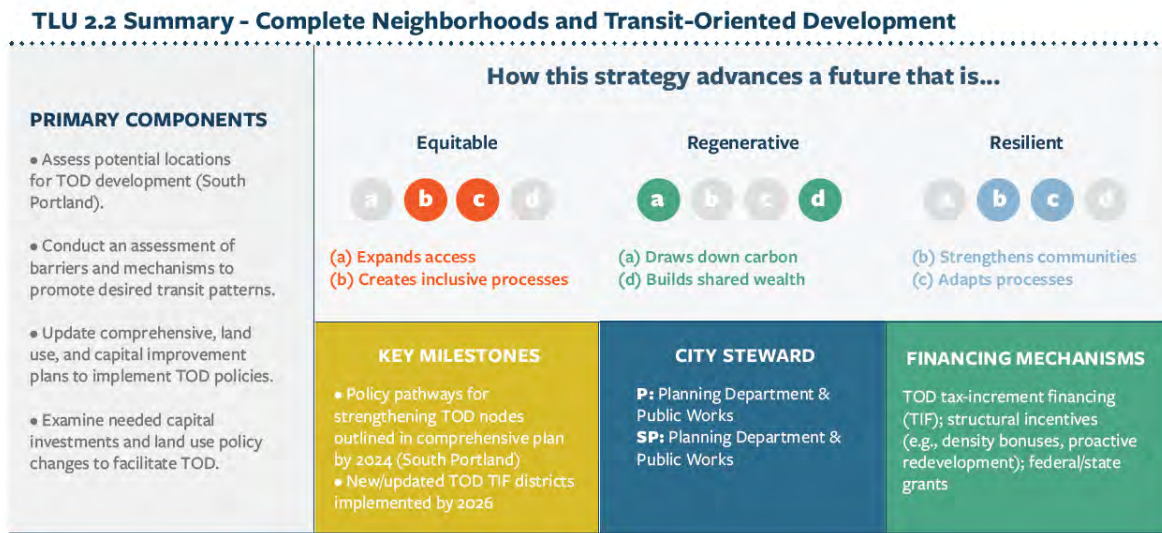
1. Building occupation;
2. Mode split by trip type;
3. Automobile ownership of tenants;
4. Parking locations used by tenants; and
5. Suggested enhancements to transit, bicycle and pedestrian infrastructure.



Nearby transit stops include Portland Street/Park Avenue at Forest Avenue and Congress Street at Forest Avenue
(Source: <http://bustimeweb.smttracker.com/bustime/map/displaymap.jsp>)

TDM Action Steps

The core actions of this TDM Plan are consistent with, and in many cases exceed, the recommended actions in the Technical Manual. When combined with the survey and education actions outlined above, these action steps will result in trip and parking demand reductions that meet or exceed the goals listed. In addition, by providing residents with transportation options that reduce per-capita emissions, these steps will have external benefits that will improve the quality of the air in downtown Portland and help address the goals of the *One Climate Future* plan. Finally, by reducing vehicle trips in individual vehicles, this TDM Plan will save the City and state money by reducing the wear and tear on city streets.



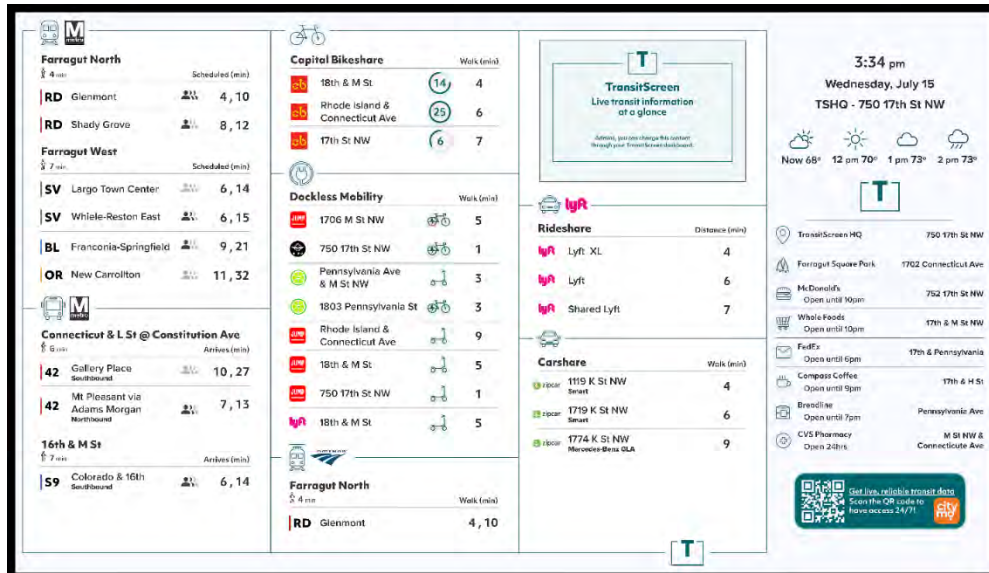
The City's Climate Action Plan calls for more infill development such as this project (Source: *One Climate Future*, p. 151)

The TDM Action Steps are as follows:

1. Infrastructure

- Transit Access and Off-Site Facilities:** With the closest transit stops approximately 400 feet away, it will be easy for tenants to access several bus lines, including METRO's 2, 4 and 5. While there is currently no stop at Cumberland and Forest Avenues, the developer will work with METRO to determine if such as stop might make sense in the future based on tenant needs. In the meantime, access to the transit stop at Portland Street/Park Avenue and Forest Avenue is limited by the needs for repairs to the tip down on the southeast corner of Cumberland Avenue and Forest Avenue. As part of this TDM Plan, Redfern will work with the City to bring this tip down into compliance with the Americans with Disabilities Act.
- Bicycle Parking:** This development will provide at least 32 indoor bicycle parking spaces, as well as additional visitor bicycle parking spaces located safely in the courtyard.
- Transit Information:** As has become a best practice in transit-oriented developments in other cities, this building will include a real-time transit information screen in the lobby. That information screen will, at a minimum, outline nearby transit lines and the current

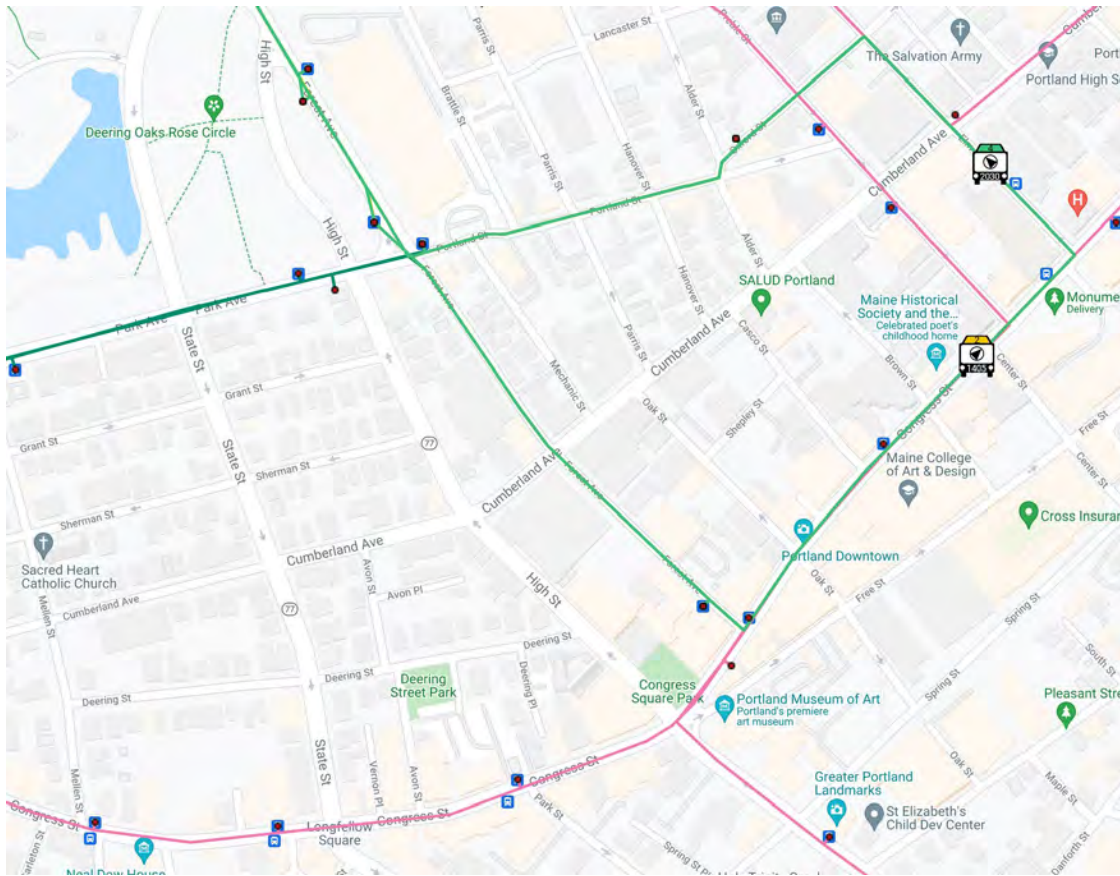
locations of nearby buses. This will provide easy information to tenants and visitors, and serve as an ongoing reminder to them that transit options are viable ways to get around Portland.



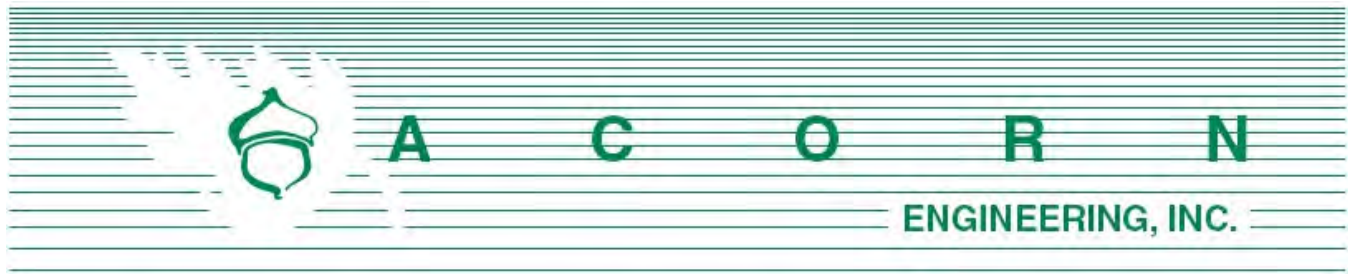
One option for a Real-time Transit display in the lobby
(Source: <https://transitscreen.com/products/transitscreen/>)

2. Incentives

- Effective Parking “cash out”:** With no parking provided on-site or included in the rent, tenants will be provided with a choice as to whether to pay for a parking space off site. Those who choose not to own their own vehicle will be able to reduce their housing costs through this decoupling of parking cost and rent.
- Transit Incentives:** Research has shown that moving into a new home is a chance for residents to try new transportation options. In order to make sure that new tenants are aware of, and have incentives to try, transit, Redfern will provide new tenants with a \$30 credit on the DiriGo app. That app can be used for trips on METRO, BSOOB Transit and/or South Portland Bus Service. This loaded amount will make trying transit very easy and ensure that tenants have loaded the DiriGo app on their phones. This credit will be provided to new tenants for at least five years after building occupancy. Should tenants not own a phone, Redfern will provide them with a DiriGo Pass (formerly a DiriGo TouchPass) loaded with \$30.
- Car and Bike Sharing:** While Portland currently does not have a car-sharing vendor, should one become available, Redfern commits to working with the City to provide a carsharing vehicle nearby. Similarly, Redfern is interested in working with the City as it seeks to launch a bikesharing system in 2022, including sponsorship of the system.
- Telecommuting:** This building will be wired with the best internet access currently available in this location, to encourage telecommuting as a trip reduction strategy.



Transit tracking in downtown Portland that can be utilized in a lobby screen system
(Source: <http://bustimeweb.smttracker.com/bustime/map/displaymap.jsp>)



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

October 4, 2021

Subject: 45 Forest Avenue Neighborhood Meeting

I, Peter Heil, hereby certify that a remote neighborhood meeting was held on September 30, 2021, via Zoom at 5:30 pm. Please find the attached notification letter, Meeting Minutes and Sign-In sheet for the meeting.

I also certify that on September 17, 2021, invitations were mailed to the following:

1. All addresses on the mailing list provided by the Planning Division which includes property owners within 500 feet of the proposed development.
2. Residents on the “interested parties” list.

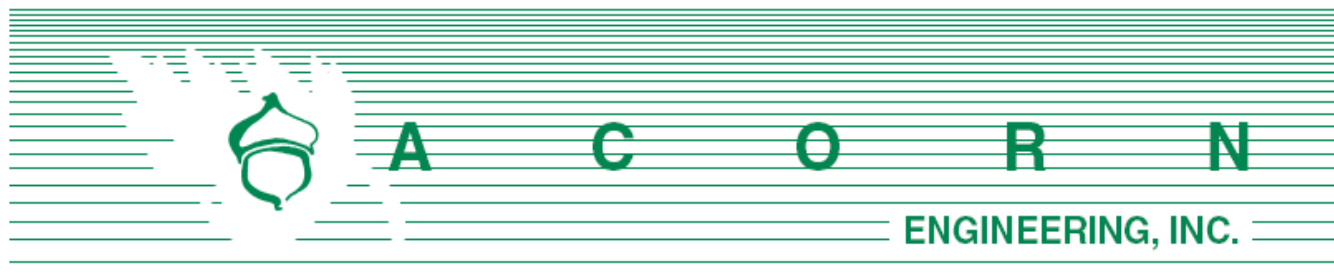
Sincerely,

A handwritten signature in blue ink, appearing to read 'Peter Heil', is written over a light blue circular stamp.

Peter Heil, P.E.
Project Manager
Acorn Engineering, Inc.

Attachments:

1. Notification letter
2. Sign-in sheet
3. Neighborhood Meeting minutes



Dear Neighbor:

September 17, 2021

On behalf of Redfern Properties LLC, we are pleased to invite you to a virtual neighborhood meeting to discuss a proposed Major Site Plan/Subdivision Application related to the property located at 45 Forest Avenue (Chart 37, Block A, Lot 1). The project proposes to redevelop the existing building into a residential development consisting of 81 residential units, including 21 onsite inclusionary zoning units as required by the City's Inclusionary Zoning Ordinance.

Meeting: Held **remotely & recorded via Zoom** according to state and local requirements regarding social distancing and will be available for public viewing and participation. **To attend, please email admin@acorn-engineering.com to request a link or phone number to join the meeting.** You may also call the office line (listed below) to request this information.

Date/Time: Thursday, September 30, 2021, at 5:30 p.m.

The City code requires that property owners within 500 feet of the proposed development and residents on an "interested parties list" be invited to participate in a neighborhood meeting. Both the sign-in sheet and recorded meeting minutes will be submitted to the Planning Board. If you have any questions, please do not hesitate to call the office at (207) 775-2655. We look forward to seeing you at the meeting.

Sincerely,

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

Sign In Sheet

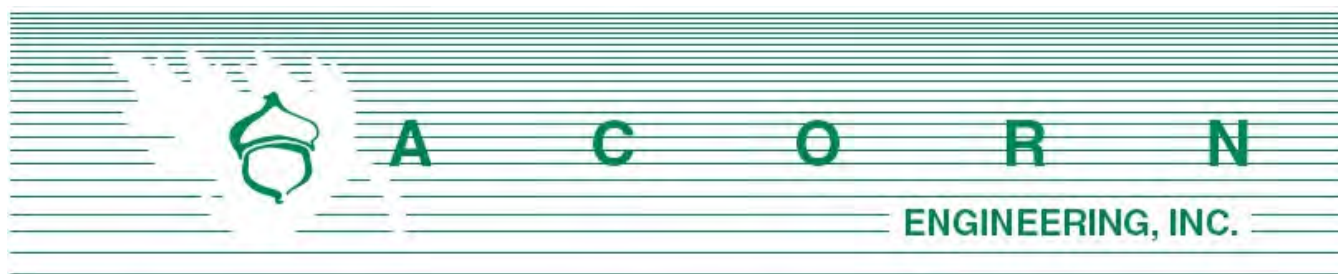
9/30/21 Neighborhood Meeting
45 Forest Avenue, Portland, ME 04101

Members of the Public in Attendance:

	NAME	E-MAIL
1.	George Rheault	George.rheault@gmail.com
2.	Martin Lodish	mlodish@portlandstage.org

Developer and Consultant Team in Attendance:

	NAME	E-MAIL
1.	Peter Heil	pheil@acorn-engineering.com
2.	Zachary Stevens	zstevens@acorn-engineering.com
3.	Ryan Senatore	ryan@senatorearchitecture.com
4.	Soren DeNiord	soren@sorendeniord.com
5.	Haynes Johnston	haynes@newheightgroup.com



**45 Forest Avenue
Major Site Plan Submission**

Neighborhood Meeting Minutes

September 30, 2021 / 5:30 pm

Remote meeting via Zoom

Project Team Attendees:

Peter Heil (PH): Civil Engineer/Presenter (Acorn Engineering)

Zachary Stevens (ZS): Civil Engineer/Note Taker (Acorn Engineering)

Ryan Senatore (RS): Architect/Presenter (RSA)

Soren DeNiord (SD): Landscape Architect/Presenter (LA)

Haynes Johnston (HJ): Applicant (Redfern Properties LLC)

Meeting started at approximately 5:30 pm.

Presentation:

Haynes Johnston:

- Proposed Historic renovation of 45 Forest Avenue into 81 residential apartments
 - (50) Studios
 - (31) One-Bedroom
- Project will comply with new Inclusionary Zoning requirements, including
 - 25% (21) of apartments will be available at 80% AMI
- Project includes historic renovation of the existing building
 - o Site was originally built as office space and switchboard operations, largely abandoned for the last couple decades
 - o Design alterations will be primarily interior-based.
 - o Exterior shell to be renovated back to its original state. Some landscaping improvements in progress with Soren DeNiord
- Design and construction will be in line with the National Park Service's standards

Peter Heil:

- Introduction of project and project team
- This Neighborhood Meeting is a requirement as part of the Major Site Plan Review
- This meeting is part of the planning board approval process, a sign in sheet is available for everyone which will become public record along with the meeting minutes.
- Project Overview
- Overview of site in relation to neighborhood
- Site mostly abandoned for the past few years
- Proposal includes 81 residential units within the 6-story existing building
- Property has been surveyed by Northern Survey Engineering and the project team
- Proposed building includes shared lounge and fitness area
- Currently B3/B3c zoning districts and Congress Street Historic district
- Two parcels, totaling 0.88 acres, bounded by Forest Avenue, Cumberland Avenue and Oak Street. With the division of the parcels the proposed project site will be 0.29 acres.
- Provides increased opportunities for in-city living, representing a variety of income levels.
- Installing an updated electric service, domestic water service, and sanitary service to the existing building located at 45 Forest Ave
- Primary access is anticipated through an existing easement off Forest Avenue and Oak Street. Emergency access potentially provided from Deland Court.
- A transportation demand management plan has been made to provide opportunities for alternative transportation options to and from the proposed site.
 - o Reduced transportation demands, encouraging multimodal trips to and from the site, and benefiting the local transportation system.
- Overview of Architecture
 - o Existing building with a few exterior improvements
 - o Overview of elevations
 - o Overview of floor plans and layout and different uses
- Overview of landscape/access concepts
- Next steps – Planning board workshop to occur 10/12/21. We encourage everyone to join us there.
- Development presentation concluded and public comment process will start

Comments, Questions & Answers:

Please note that the following questions and answers were not recorded verbatim and aim to represent and summarize the actual questions, answers, and discussion that took place at the meeting.

George Rheault: When you subdivide the building, does the phone company not use the loading dock? Will there be any conflict with pedestrian access in this area?



- **Peter Heil:** The project is located the proposed lot division property and does not include the access drive. There are access easements to the building, and deliveries and garbage pickup are occasionally made in this area.
- **Haynes:** There will be gates at the access of Oak Street and Deland Court. We will have easement rights but will not own the entry of Oak Street. We will generally know the delivery/pick-up schedules. Both Oak Street and Forest Ave building entrances will be primary means of entry way for tenants. Forest Ave entrance is the elevator lobby. Lots of benefit from both entryways.

George Rheault: Will the public know if the courtyard will be a passageway used for a cut through or will it be park/landscape area for the public? Will there be gated access/ discouragement of public engagement?

- **Peter Heil:** We are still in progress of creating site improvements in the courtyard to allow for a safe pedestrian environment. Current conversations are favorable to site improvements made off the property. Currently in the legal process required to obtain the right to do so. Working out the Right, Title, and Interest.

George Rheault: I hope that if people are going east, they prefer to utilize the Oak Street passageway. Is there a real phase II plan to take over the building next door?

- **Haynes:** There is no plan or phase II for the building next door. We do not plan to acquire that building. We are trying to promote pedestrian access to Oak Street as a part of this project and intend to encourage people to go through the alleyway (for example, by considering a mural). This corner is expected to be much more active once this building is occupied.

Martin Lodish: When will the first room be rented? Will we shut down sidewalks during façade work? Or it is simple cosmetic items? Looking at the floor plans, will the apartments have windows?

- **Haynes:** Spring/Summer of 2023
- **Ryan:** The façade work is minimal, should not affect the pedestrian access to the sidewalk. The building is shaped like a horseshoe, which allows windows on the interior side of the building as well.
- **Haynes:** There will be a lot of natural light in the apartments.

George Rheault: Will there be window replacement? What is the timeline with the historical reviewer? Are there any rooftop amenities?

- **Ryan:** This building is in great shape and has been well maintained. Most windows in the facade have been replaced and insulated. A few will be replaced to match the others. We do have original windows in the courtyard. Roughly 1/3rd of the way through the process with the historical reviewer. We are not currently planning for rooftop outdoor space.

George Rheault: What will be located for a first-floor building program? If I have a disability, how do I access the building? Does Deland Court meet ADA requirements?

- **Haynes:** There will be a lounge and fitness room located on the first floor of the building. There is ADA access from the rear of the building. The grading is yet to be determined as the programing is undecided. Tenant access will not be provided from Deland Court.

George Rheault: Are you partnering with a specific location to provide parking? Will apartments be cheaper for not providing parking? Could tenant's moving vans use the access off Oak Street? Will there be any two-bedroom units?

- **Haynes:** We are not providing parking, and there will not be a variable rate on our units. We anticipate providing a list of parking options offsite. We haven't anticipated the demand for moving day at this point in the project. All units will be 1-bedroom and studio units.



- **Peter Heil:** As part of the Transportation Management Demand Plan submitted, we are offering incentives to promote multimodule options (bus passes, car services, etc.) to try to reduce parking demand.

Closing Comments

Peter Heil:

- Meeting Minutes will be available on planning board website / attached to memo as part of the public record
- Thanks everyone for joining and the discussion

Meeting concluded at approximately 6:10 pm.

The abovementioned material was as interpreted and recorded from handwritten notes. Please note and relay any discrepancies or disputed information in the recorded minutes to the below address so that they can be reviewed, revised, and resubmitted, as necessary.

Recorded by,



Peter F. Heil, PE
Project Manager
Acorn Engineering, Inc.
pheil@acorn-engineering.com



GENERALCity Planning Staff

- Please provide the City Planning staff with the ability to serve responses from the utility companies (noted: applicant has requested all letters from appropriate providers).
- Please provide the Assessor's Office with a Recorded Deed for the new lot created at 45 Forest Avenue. Additionally, provide City Staff with confirmed easement agreements.
- Please provide an updated Right, Title, & Interest document (Purchase and Sale Agreement still okay) completed (currently missing the "Effective Date").
- Concerning existing Easement and Building Operating Agreement (Cumberland County Registry of Deeds Volume 6368, Page 222 – dated 12/31/1983) – Please provide City Staff with an updated Easement Agreement (or most recent draft) specifically including the restriction of use.
- More information regarding the Tower affixed to the top of the building in terms of future use.

TRANSPORTATIONCity Planning Staff

- Please provide information regarding the Maneuvering of vehicles on Deland's Court and exterior space behind building (Section 1.7.2.6 in City of Portland *Technical Manual*). Specifically, provide more information related to delivery or other service vehicles in location of the proposed easement in the rear of the building. Do the layouts of these spaces allow for a relatively smooth flow of pedestrian/bicycles/other vehicles?
- Please provide a Transportation Demand Management plan (TDM) as described in the *Technical Manual*.
- Please provide an improved Snow Storage/Snow Removal Plan.

TDM Response

- Regarding Trip Generation and reduction, it would be good to be specific regarding vehicle trips vs person trips in the TDM and when talking trip and parking reduction targets.
- Please be more specific about what you anticipate initial trip-making and parking will be and then what the targets for reductions will be (in absolute terms and %) within a specified timeframe (3 yrs, 5 yrs from occupancy).
- More of a site plan issue - access to the bike parking rooms seems cumbersome as does access to/visibility of the bike parking in the courtyards.
- Would it be possible to provide real-time arrival information for the closest transit stops?
- On Incentives (A): Is this an actual 'cash-out' or simply no parking provided on-site which automatically reduces the rent nor included in rent off-site (that could then be 'cashed-out'? I don't see/haven't heard about parking being included in rent as being an option (and counter to what I've heard - what's the latest?)

- On Incentives (B): Does this include Touch-pass card?
- On Incentives (C): Bike share: 1) Provide trial or [full/partial] annual bike share membership for first year of tenancy? 2) Sponsorship? Could be a pooled sponsorship with other Redfern Projects (Hiawatha / 45 Forest / 200 Federal?)

WATER QUALITY, STORMWATER, & INFRASTRUCTURE

DPW Water Resources Division

- Construction Management Plan
 - The Construction Management Narrative mentions the Construction Management Plan as sheet C-03 but does not appear to be included in the plan set.
 - The Construction Management Narrative seems to be missing a section from our template regarding their dewatering plan. They may be using an older template – most recent template is available online (<https://www.portlandmaine.gov/DocumentCenter/View/18030/General-Construction-Management-Template?bidId>).
 - Portland requires that applicant details how they will manage contractor parking in the narrative, rather than just include a general note that adequate parking shall be provided. Please provide sufficient information regarding contractor parking location.
 - Portland requires a traffic management plan or occupancy of the City's ROW and would typically see a vehicular and pedestrian management plan with the Construction Management Plan. The City will not issue occupancy permits without these plans and encourage the applicant to submit those details at this time for review.
- Plan Details
 - Pipe trench detail has some inconsistencies from the City's standard detail:
 - Paved area dimensions are incorrect.
 - The City does not include the rigid insulation in our spec; this will need to be approved by the City Engineer and should not alter the other dimensions of the materials.
 - Please note the required width of crushed stone beside the pipe is shown as dimension "B" in the City's detail.
 - Erosion Control Details:
 - The ultratech drain guard proposed does not provide any protection for the curb inlets. Please either use a proprietary insert with curb inlet protection or include a detail for coir log or similar to be used in conjunction.
 - Include sidewalk details for areas of sidewalk to be reconstructed/repaired.
 - Include bike rack detail

- Site Plan
 - All proposed pavement saw cuts should be shown on the site plan (roof drain/sump connection, potential new sanitary sewer, etc.)
 - Extent of sidewalk reconstruction should be shown on the approved plans and should include any areas of trenching (e.g. roof drain/sump connection).
 - More detail is needed for existing roof drain connection. To where does it connect? What size is existing? What size is proposed?
 - Street / parking signs should be shown on the existing conditions plan and/or in the site plan.

Consulting Stormwater Engineer

- Confirmation of utility ability to serve will be required. The utility submission notes that responses were attached, but they were left out so they may have some of these already.
- Additional information is required on existing and proposed roof drain connections. An existing roof drain is shown at the rear of the building with a note to remove and replace. A new roof drain connection is shown at the front of the building, but no sizing information is provided. In addition a “potential” sewer connection is identified, but a specific size has not been identified.
- Sidewalk repair extents for the sewer and stormdrain services should also be shown on the drawing.

PUBLIC SAFETY

City Planning Staff

- Please provide a Photometric Plan according to *Technical Manual* Section 12.6.

LANDSCAPING & ENVIRONMENTAL QUALITY

City Planning Staff

- Need to complete calculations for contribution towards City Street Tree Fund. Can work with City Staff once plans are more finalized.



Charles Tetelman <ctetelman@portlandmaine.gov>

45 Forest Avenue

Victoria Volent <vvolent@portlandmaine.gov>
To: Charles Tetelman <ctetelman@portlandmaine.gov>

Fri, Oct 8, 2021 at 12:03 PM

Hi Charles,

45 Forest Avenue has confirmed they intend to comply with Chapter 14, Section 18.2 regarding affordable housing by creating twenty-one (21) workforce units (81 units X .25 = 20.25 or 21 units).

Of the 81 units, 50 would be efficiency/studio units and 31 would be one-bedroom units. The creation of thirteen (13) efficiency/studio workforce units (50 units X .25 = 12.5 or 13) and eight (8) one-bedroom units (31 units X .25 = 7.75 or 8) will satisfy the IZ Conditional Use requirements for this project.

Thank you,

Victoria

Victoria Volent
Housing Program Manager
Housing and Community Development
Phone: 207-482-5028
www.portlandmaine.gov

Public Comment re: 45 Forest Avenue Apartments



Subscribe ☐

0 views



George Rheault <george.rheault@gmail.com>

2:03 PM (1 hour ago)

to Planning Board, Christine Grimando, kkraft, jra...@portlandmaine.gov, jmy, Abigail Reed

As a resident homeowner in the vicinity of the 45 Forest Avenue project, I commend the applicant on what promises to be an excellent adaptive re-use for the former telephone company headquarters.

Below are some issues and concerns which it is important for the Planning Board and planning staff to address in its review of the project.

(1) HUMAN EXPOSURE TO COMMUNICATIONS RADIATION

One of the most striking and obvious things about the project site is the large array of communications equipment and microwave relays placed on the top of the building. See attached photo.

I have no idea whether any of this stuff is still functional and/or actively transmitting radio waves around. Future residents, especially those who may remain occupants for extended periods of time (a year or more), probably would like some indication of what is beaming around them at all hours, if anything, and whether they should have any concerns about potential interference with their bodies or the rest of their environment (including their own personal communications equipment). Maybe the roof is covered with lead and thus there is nothing to worry about. But people spending time at this location 24/7 month after month is a different exposure profile than office workers who come and go (and often never spend time there day in and day out even during normal business hours).

A related, but critical question, is what standards would planning staff be using to evaluate this question and whether they need to bring in outside expertise to evaluate the situation including independently collecting data so as not to have to rely exclusively on self-serving representations from the applicant and its affiliates (including Consolidated Communications, which is a development partner here, even if only as a willing seller and neighbor).

2) OAK STREET ACCESS

During the neighborhood meeting, I learned that a good portion of the street level life of this project will likely take place through the "back door" of the building through the existing Oak Street service driveway. Currently that driveway is a drab, vandalized, foreboding and ugly utilitarian after-thought on a section of street with a dramatic slope (thus treacherous in winter). See attached photo.

While the applicant may only have easement rights to the driveway, it is incumbent on the city's planning process to ensure that this entrance gets proper design attention and is sufficiently "spruced up" to ensure that this area is welcoming and befits a project of this scope and expense.

Having watched for years how much time and attention (and money) the Planning Board has exhausted on projects regarding their entry areas (either imploring them to be toned down or jazzed up), it would be curious to say the least if the planning staff have nothing to say about the access experience at either the Oak Street side OR the Forest Avenue side. The Planning Board should also make it clear whether it is once again sidelined by the "historic preservation" turf question and thus it cannot weigh in on such things until the Historic Preservation Board has taken its pound of flesh (which because Redfern is a friend of City Hall, will likely be minimal, along with the fact that exterior changes called for here will be relatively light).

3) MOVING & DELIVERIES

Related to (2) above, a large building like this needs to have a plan for the constant swirl of activity that will be associated with it, especially for tenants who intend a "work-from-home" existence here. The applicant should be required to get as much of the package delivery (UPS, FEDEX, Amazon, USPS) off the street as well as a management plan for move-ins/move-outs and other kinds of deliveries (furniture, groceries, etc.). Residents themselves, whether or not they have cars, will likely be engaged in a far amount of dropping off of people (guests, etc.) in their daily routines and this should be anticipated and planned for (it was largely an after-thought at 200 Federal Street which will come back to haunt everyone in the area - inside the building and out).

4) BUILDING HISTORY ACKNOWLEDGEMENTS

Hopefully the applicant will see some value beyond just tax credits in helping to uncover and communicate the building's history to those inside and out. Portland talks a good game about embracing its historical fabric but often does a terrible job getting the facts correct and helping educate the public why all this energy and expense is worth it.

Fortunately there is a lot of material easily available for this "landmark" such as here:

<http://telephones.newenglandhistorywalks.com/portland>

At a minimum, the 1919 labor history involving the striking switchboard operators deserves a plaque or other clear public acknowledgement. While this labor action was essentially a Massachusetts-based effort, it had an important component here in Portland and therefore deserving appropriate recognition. For relevant background see links below:

<https://pmwht.org/places/congress-street/c18-new-england-telephone-exchange.html> (FYI - the producers of this material use photos that confuse the building history - the Art Deco portion of the telephone complex did not exist at the time of the 1919 labor action and both the original building and the Art Deco annex both were extended in height from their original constructions post-1919).

<https://www.massmoments.org/moment-details/telephone-operators-strike.html>

<https://www.wgbh.org/news/2016/04/22/local-news/more-things-change-97-years-ago-phone-company-was-also-dealing-strike>





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AT ALL TIMES**

45 FOREST AVENUE REDEVELOPEMENT

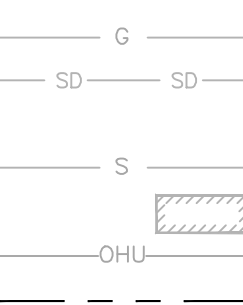
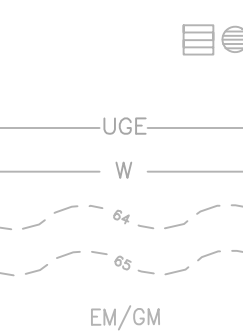
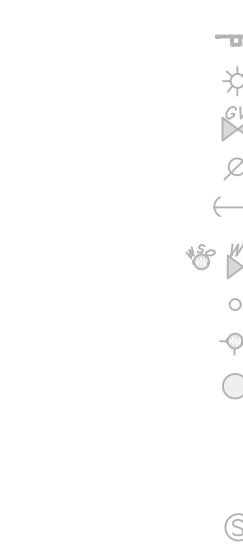
REDFERN PROPERTIES, LLC
PORTLAND, MAINE

CALL BEFORE YOU DIG
1-888-DIG-SAFE
1-888-344-7233

LEGEND

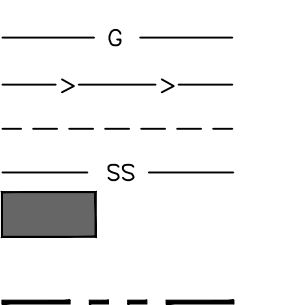
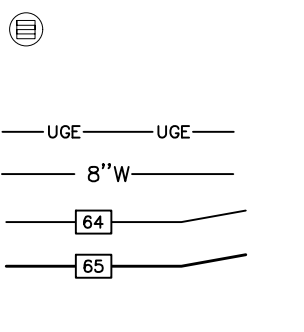
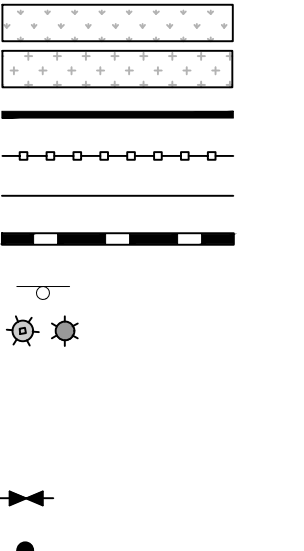
EXISTING

REFER TO
BOUNDARY &
TOPOGRAPHIC
SURVEY FOR
ADDITIONAL
INFORMATION



GREEN SPACE
UTILITY PAVEMENT CUTS
STRIPING
SEDIMENTATION BARRIER
EDGE OF PAVEMENT
CURB
SIGN
LAMP OR LIGHT POLE
GAS VALVE
UTILITY POLE
GUY WIRE
WATER VALVE OR SHUTOFF
BOLLARD
FIRE HYDRANT
MANHOLE
LIGHTING WALLPACK
OVERHEAD LIGHTING
SANITARY MANHOLE
DOGHOUSE MANHOLE
SANITARY CATCH BASIN
STORM DRAIN CATCH BASIN
STORM DRAIN MANHOLE
UNDERGROUND ELECTRIC LINE
UNDERGROUND WATER LINE
MINOR CONTOURS (1 FT)
MAJOR CONTOURS (5 FT)
ELECTRIC OR GAS METER
TELEPHONE
FIRE ALARM
GAS LINE
STORM DRAIN LINE
FOUNDATION DRAIN LINE
SEWER LINE
BUILDING
OVERHEAD ELECTRICAL/TELEPHONE/CABLE
PROPERTY LINE

PROPOSED



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UTILITIES

SEWER

DEPARTMENT OF PUBLIC WORKS (DPW)
250 CANCO ROAD
PORTLAND, MAINE 04101
CONTACT: BRAD ROLAND, P.E.
(207) 874-8834



WATER

PORTLAND WATER DISTRICT
225 DOUGLASS STREET
PO BOX 3553
PORTLAND, MAINE 04104
CONTACT: ROBERT BARTELS, P.E.
(207) 774-5961



ELECTRIC

CENTRAL MAINE POWER COMPANY (CMP)
162 CANCO ROAD
PORTLAND, MAINE 04103
CONTACT: PAUL DUPERRÉ & JAMIE COUGH
(207) 828-2882



TELEPHONE

CONSOLIDATED COMMUNICATIONS
(FORMERLY FAIRPOINT)
45 FOREST AVENUE
PORTLAND, MAINE 04101
CONTACT: PAT MORRISON
(207) 745-9363



CABLE

SPECTRUM CABLE
118 JOHNSON ROAD
PORTLAND, MAINE, 04102
CONTACT: MARK PELLETIER
(877) 546-0962



NATURAL GAS

UNITIL SERVICE CORP
1075 FOREST AVENUE
PORTLAND, ME 04103
CONTACT: BRIDGET HARMON
(207) 541-2536



PROJECT TEAM

DEVELOPER

REDFERN PROPERTIES, LLC
PORTLAND, MAINE
CONTACT: JONATHAN CULLEY
(207) 776-9715



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RYAN SENATORE ARCHITECTURE
PORTLAND, MAINE
CONTACT: RYAN SENATORE, R.A.
(207) 650-6414



SURVEYOR

NORTHERN SURVEY ENGINEERING LLC
BRUNSWICK, MAINE
CONTACT: SEAN PIERCE, P.L.S.
(207) 440-3487



MEP DESIGNER

BENNETT ENGINEERING
FREEPORT, MAINE 04032
CONTACT: WILL BENNETT, P.E.
(207) 865-9475



CIVIL ENGINEER

ACORN ENGINEERING, INC
PORTLAND, MAINE
CONTACT: WILLIAM SAVAGE, P.E.
(207) 775-2655



GENERAL CONTRACTOR

TBD

ABBREVIATIONS

PARTIAL LIST OF ABBREVIATIONS AND THEIR CORRESPONDING MEANING. PLEASE CONTACT THE ENGINEER FOR ANY CLARIFICATION	
A.C.	ASBESTOS CEMENT
APPROX.	APPROXIMATE
BC	BOTTOM OF CURB
BMP	BEST MANAGEMENT PRACTICE
BOT.	BOTTOM
CB	CATCH BASIN
CF	CUBIC FOOT
C.I.	CAST IRON
CIP	CAST IN PLACE
CL	CENTERLINE
CM	CONSTRUCTION MANAGER
CMP	CENTRAL MAINE POWER
CONC.	CONCRETE
CPP	CORRUGATED PLASTIC PIPE
CY	CUBIC YARD
DI	DUCTILE IRON
DIA.	DIAMETER
DIM.	DIMENSION
EA	EACH
ELEC.	ELECTRICAL
ELEV. EL.	ELEVATION
EQUIV.	EQUIVALENT
EST.	ESTIMATE
EX.	EXISTING
FFE	FINISH FLOOR ELEVATION
FD	FOUNDATION DRAIN
FT.	FEET
GAL.	GALVANIZED
ID	INNER DIAMETER
IN.	INCH
INV.	INVERT
L	LENGTH
MAX.	MAXIMUM
MDOT	MAINE DEPARTMENT OF TRANSPORTATION
M.E.P	MECHANICAL, ELECTRICAL, PLUMBING DESIGNER
MFG.	MANUFACTURED
MH	MANHOLE
MIN.	MINIMUM
O.C.	ON CENTER
OD	OUTSIDE DIAMETER
OHE/T/C	OVERHEAD ELECTRIC/TELEPHONE/CABLE
PC	PRECAST
PE	PROFESSIONAL ENGINEER
PERF	PERFORATED
PL	PROPERTY LINE
PLS	PROFESSIONAL LAND SURVEYOR
PR.	PROPOSED
PSI	POUNDS PER SQUARE INCH
PVC	POLYVINYL CHLORIDE
PWD	PORTLAND WATER DISTRICT
R	RADIUS
RD	ROOF DRAIN
RET.	RETAINING
ROW	RIGHT OF WAY
S	SLOPE
SD	STORM DRAIN
SDR	STANDARD DIMENSION RATIO
SF	SQUARE FEET
SMH	SEWER MANHOLE
SPEC.	SPECIFICATION
TC	TOP OF CURB
TW	TOP OF WALL
TYP.	TYPICAL
UD	UNDERDRAIN
UGE	UNDERGROUND ELECTRIC

PRELIMINARY
NOT ISSUED FOR
CONSTRUCTION



VICINITY MAP
SCALE: 1"=500'

ISSUED FOR
PPH
MAJOR SITE PLAN

BY
DATE
7/16/2021

COVER SHEET & LEGEND

PROJECT NAME/ADDRESS:
REDFERN PROPERTIES, LLC

CLIENT/OWNER OF RECORD:
REDFERN PROPERTIES, LLC
PO BOX 8816 PORTLAND, MAINE 04104

ACORN ENGINEERING, INC.

ACORN ENGINEERING, INC.
PO BOX 3372, PORTLAND MAINE 04101
(207) 775-2655

STATE OF MAINE
WILLIAM H. SAVAGE
7/14/21
LICENSED PROFESSIONAL ENGINEER

FILE: 1148_CIVIL

JN: 1148

SCALE: AS NOTED

DESIGNED BY: PPH

DRAWN BY: ZMS

CHECKED BY: WHS/PPH

DRAWING NO.
C-01

1. THE CONTRACTOR SHALL CALL THE APPROPRIATE UTILITY COMPANIES AND DIG SAFE AT LEAST 72 HOURS PRIOR TO ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION FOR UTILITIES. OTHERWISE IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE LOCATION OF UNDERGROUND UTILITIES AND LOCATE ANY POTENTIAL CONFLICTS WITH THE APPROVED PLANS PRIOR TO CONSTRUCTION.

- CIVIL SITE NOTES:

1. THE CONTRACTOR SHALL SUBMIT IN WRITING ANY REQUESTS TO ACORN TO MODIFY THE CONTRACT DOCUMENTS.
2. ALL SHOP, ERECTION, AND CONSTRUCTION DRAWINGS SHALL BE CHECKED AND STAMPED BY THE CONTRACTOR PRIOR TO SUBMISSION FOR ACORN'S REVIEW. ANY UNCHECKED OR NON-STAMPED SUBMITTALS WILL BE RETURNED WITHOUT REVIEW.
3. CONTRACTOR SHALL THOROUGHLY INSPECT AND SURVEY EXISTING STRUCTURES AND SITE TO VERIFY CONDITIONS THAT AFFECT THE WORK SHOWN ON THE DRAWINGS. CONTRACTOR TO NOTIFY ACORN OF ANY DISCREPANCIES PRIOR TO PROCEEDING.
4. DETAILS SHOWN APPLY TO ALL SIMILAR CONDITIONS UNLESS OTHERWISE INDICATED.
5. ALTHOUGH ALL DUE DILIGENCE HAS BEEN APPLIED TO MAKE THE DRAWINGS AS COMPLETE AS POSSIBLE, NOT ALL DETAILS ARE ILLUSTRATED, NOR IS EVERY EXCEPTION CONDITION ADDRESSED WITHIN THE CONTRACT DOCUMENTS.
6. ALL PROPRIETARY CONNECTIONS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
7. THE CONTRACTOR IS RESPONSIBLE FOR THE COORDINATION OF ALL WORK, INCLUDING DIMENSION AND LAYOUT VERIFICATION, MATERIALS COORDINATION, SHOP DRAWING REVIEW, AND THE WORK OF ANY SUBCONTRACTORS.
8. UNLESS OTHERWISE SPECIFICALLY INDICATED, THE DRAWINGS DO NOT DESCRIBE OR DIRECT MEANS OR METHODS OF CONSTRUCTION.
9. THE CONTRACTOR, IN THE PROPER SEQUENCE, SHALL PERFORM OR SUPERVISE ALL WORK NECESSARY TO ACHIEVE THE FINAL COMPLETED STRUCTURE, AND TO PROTECT THE STRUCTURE, WORKMEN, AND OTHERS DURING THE CONSTRUCTION. SUCH WORK SHALL INCLUDE, BUT NOT BE LIMITED TO, BRACING, SHORING FOR CONSTRUCTION EQUIPMENT, SHORING FOR EXCAVATION, FORMWORK, SCAFFOLDING, SAFETY DEVICES AND PROGRAMS OF ALL KINDS, SUPPORT AND BRACING FOR CRANES AND OTHER ERECTION EQUIPMENT.
10. DO NOT BACKFILL AGAINST RETAINING WALLS UNTIL SUPPORTING SLABS AND FLOOR FRAMING ARE IN PLACE AND SECURELY ANCHORED, UNLESS ADEQUATE BRACING IS PROVIDED. CONCRETE MAY NEED TO BE CURED FOR 28 DAYS PRIOR TO BACKFILLING AT THE DISCRETION OF THE STRUCTURAL ENGINEER.
11. TEMPORARY BRACING SHALL REMAIN IN PLACE UNTIL ALL FLOORS, WALLS, ROOFS AND OTHER SUPPORTING ELEMENTS ARE IN PLACE, IF APPLICABLE.
12. ALL PAVEMENT JOINTS SHALL BE SAWCUT AND APPLIED WITH TACK COAT PRIOR TO PAVING TO PROVIDE A DURABLE AND UNIFORM JOINT.
13. ACORN BEARS NO RESPONSIBILITY FOR THE ABOVE ITEMS, AND SITE OBSERVATION VISITS DO NOT IN ANY WAY INCLUDE INSPECTION OF THEM.
14. EXCAVATIONS ACCOMPLISHED AS PART OF THIS PROJECT SHALL BE CONSTRUCTED IN ACCORDANCE WITH SUBPART P OF 29 CFR PART 1926.650--.652 (CONSTRUCTION STANDARD FOR EXCAVATIONS).
15. ALL TRENCH PAVEMENT REPAIR SHALL BE COMPLETED WITH THE USE OF A STREET PAVER WITH A SCREED WIDTH CAPABLE OF SPANNING THE FULL WIDTH OF THE TRENCH UNLESS OTHERWISE AUTHORIZED BY THE ENGINEER.

1. ALL SITE SOILS-RELATED WORK AND FOOTING EXCAVATIONS PRIOR TO PLACING FORMS SHALL BE REVIEWED BY THE PROJECT GEOTECHNICAL ENGINEER.
2. ALL SITE DRAINAGE-RELATED WORK SHALL BE REVIEWED BY ACORN ENGINEERING.
3. NORMAL REVIEWS BY LOCAL BUILDING DEPARTMENT. NOTIFY 48 HOURS PRIOR TO REQUIRED REVIEW.
4. REQUIRED SPECIAL INSPECTIONS PER I.B.C. SECTION 1705.6 BY AN APPROVED SPECIAL INSPECTOR RETAINED BY OWNER. CONTRACTOR TO COORDINATE SPECIAL INSPECTIONS.
5. SPECIAL INSPECTOR SHALL BE A QUALIFIED PERSON WHO SHALL DEMONSTRATE COMPETENCE, TO THE SATISFACTION OF THE BUILDING OFFICIAL, FOR INSPECTION OF THE PARTICULAR TYPE OF CONSTRUCTION OR OPERATION REQUIRING SPECIAL INSPECTION.

- LAYOUT NOTES:

1. MONUMENTS DELINEATING PROPERTY LINES OR RIGHT OF WAYS SHALL NOT BE DISTURBED DURING CONSTRUCTION OPERATIONS. IN THE CASE A MONUMENT IS DISTURBED, AT THE CONTRACTOR'S EXPENSE, THE MONUMENT SHALL BE RESET TO ITS ORIGINAL LOCATION AND ELEVATION BY A LICENSED PROFESSIONAL LAND SURVEYOR.
2. ALL DIMENSIONS ON THE FOLLOWING SHEETS TAKE PRECEDENT OVER SCALED DIMENSIONS. EACH DRAWING WITH A BAR SCALE MEANS THAT THE DRAWING/DETAIL HAS BEEN SCALED AS ACCURATELY AS POSSIBLE, AND THE BAR SCALE IS FOR GENERAL REFERENCE ONLY. IF NO BAR SCALE IS PRESENT, THEN THERE IS NO SCALE TO THAT DRAWING/DETAIL. AT NO TIME SHOULD DRAWINGS BE SCALED FROM. ANY DISCREPANCIES BETWEEN DRAWINGS, DETAILS, SPECIFICATIONS AND THE FIELD CONDITION SHALL BE IMMEDIATELY REPORTED TO ACORN FOR FURTHER DIRECTIONS BEFORE ANY ADDITIONAL WORK PROCEEDS.
3. SIGNAGE, STRIPING, AND PAVEMENT MARKINGS SHALL BE IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).
4. ALL TRAFFIC CONTROL SIGNS INDICATED ON THE SITE LAYOUT PLAN ARE TO MEET ALL REQUIREMENTS & CONDITIONS OF THE CITY OF PORTLAND, MAINE DEPARTMENT OF TRANSPORTATION AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION.
5. THE CONTRACTOR SHALL OBTAIN THE SERVICES OF A LICENSED PROFESSIONAL LAND SURVEYOR TO PROVIDE A MINIMUM OF TWO TEMPORARY BENCHMARKS WITHIN THE SITE AND TO LOCATE PROPOSED STRUCTURE CORNERS.
6. CONTRACTOR TO ENSURE THAT ACCESS, INCLUDING BUT NOT LIMITED TO WALKWAYS, DRIVEWAYS, AND MAILBOXES ADJACENT TO THE PROJECT REMAIN FUNCTIONAL AND AVAILABLE FOR USE AT ALL TIMES.

1. THIS PROJECT IS SUBJECT TO THE TERMS AND CONDITIONS OF SITE PLAN – LEVEL III AND SUBDIVISION PERMIT FROM THE CITY OF PORTLAND.
2. THE CONTRACTOR SHALL REVIEW THE ABOVE REFERENCED PERMITS PRIOR TO SUBMITTING A BID FOR THIS PROJECT, AND INCLUDE COSTS AS NECESSARY TO COMPLY WITH THE CONDITIONS OF THESE PERMITS.
3. ALL WORK WITHIN THE PUBLIC RIGHT-OF-WAY REQUIRES A STREET OPENING PERMIT FROM THE CITY OF PORTLAND. ADDITIONALLY, COORDINATE WITH THE DEPARTMENT OF PUBLIC WORKS.

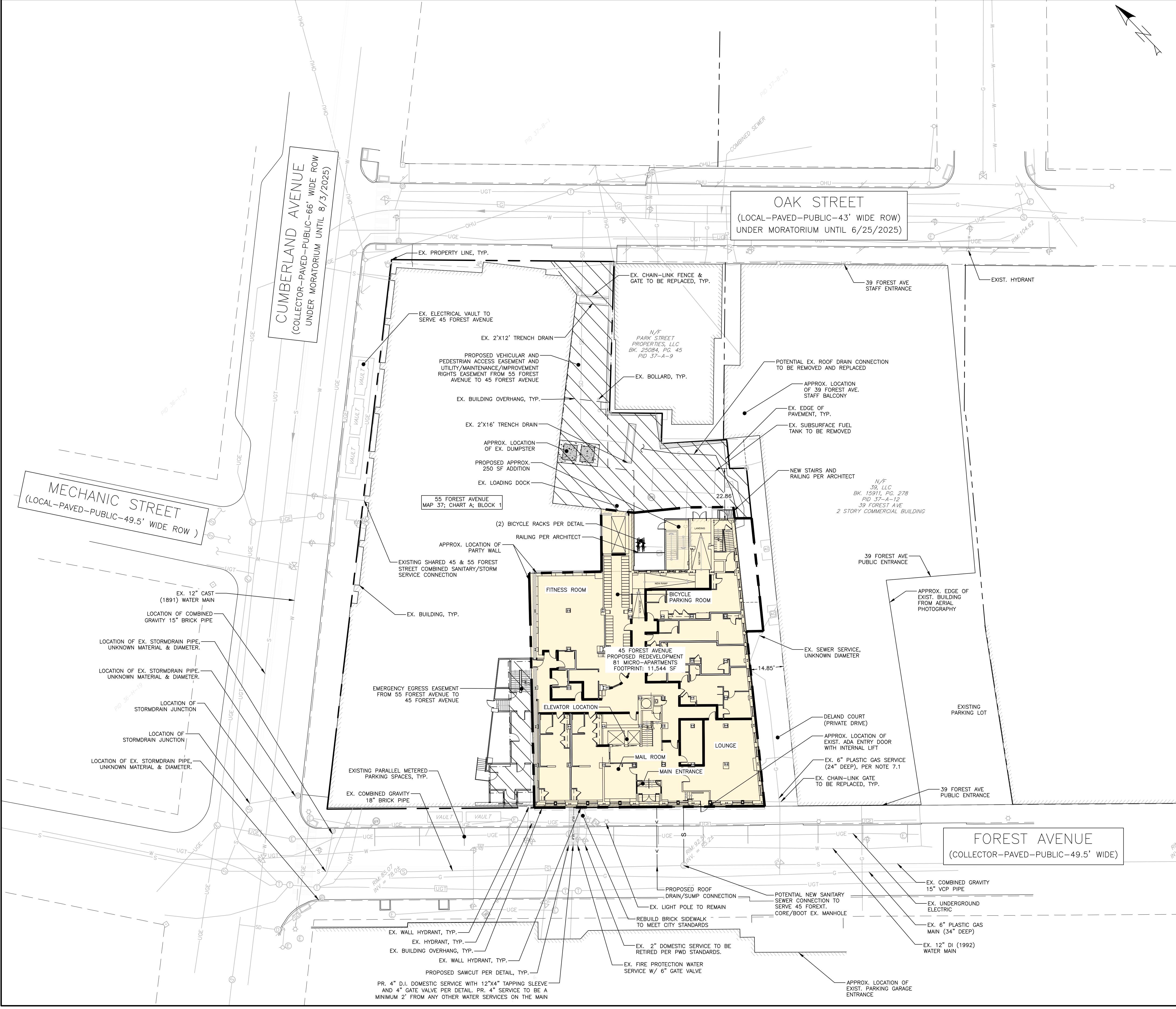
1. TOPSOIL STRIPPED FROM THIS SITE THAT IS SUITABLE FOR REUSE AS LOAM (MEETS THE REQUIREMENTS WITHIN SECTION 615 OF THE MDOT STANDARD SPECIFICATIONS, MOST RECENT VERSION) AND IS FREE OF TRACEABLE AMOUNTS OF CONTAMINANTS) SHALL BE STOCKPILED WITHIN THE PROPOSED LIMIT OF WORK AREA. THE CONTRACTOR SHALL NOT ASSUME THAT ANY STRIPPED TOPSOIL WILL BE ACCEPTABLE FOR REUSE WITH THEIR ESTIMATE.
2. THE CONTRACTOR SHALL ANTICIPATE THAT GROUNDWATER WILL BE ENCOUNTERED DURING CONSTRUCTION AND SHALL INCLUDE SUFFICIENT COSTS WITHIN THEIR BID TO PROVIDE DEWATERING AS NECESSARY; NO SEPARATE PAYMENT SHALL BE MADE TO THE CONTRACTOR FOR DEWATERING. DEWATERING SHALL INCLUDE TREATMENT OF SILT THROUGH THE USE OF A DIRTBAG BY ACF ENVIRONMENTAL OR APPROVED EQUIVALENT. FLOWS FROM DEWATERING ACTIVITIES SHALL NOT BE DISCHARGED INTO SANITARY SEWERS.
3. THE OWNER SHALL BE RESPONSIBLE FOR OBTAINING ANY EASEMENT OR TEMPORARY CONSTRUCTION RIGHTS AS NECESSARY BY PRIVATE ADJACENT LAND OWNERS. THE CONTRACTOR SHALL NOT DISTURB ANY SOIL BEYOND THE PROPERTY LINE WITHOUT NOTIFYING AND OBTAINING SUCH EASEMENT OR TEMPORARY CONSTRUCTION RIGHT FROM THE ADJACENT LAND OWNERS. PRIOR TO THE CONTRACTOR PRICING THE WORK, THEY SHALL PROVIDE ACORN WITH PROOF OF SUCH EASEMENT OR TEMPORARY RIGHTS. SHOULD EASEMENTS OR TEMPORARY RIGHTS NOT BE AVAILABLE, THE CONTRACTOR SHALL INCLUDE COST FOR BRACING AND SHORING AS NECESSARY.
4. THE CONTRACTOR SHALL PROVIDE A FINISH PAVEMENT SURFACE FREE OF LOW SPOTS AND PONDING AREAS. THE MINIMUM SLOPE SHALL MEET OR EXCEED 0.5% IN ALL CASES. ALL SLOPES SHALL BE AWAY FROM BUILDINGS AND TOP OF PAVEMENT SHALL BE AT OR BELOW EXISTING FINISH FLOOR ELEVATIONS.
5. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST GEOTECHNICAL REPORT PREPARED BY THE PROJECT GEOTECHNICAL ENGINEER.
6. NO ADDITIONAL PAYMENT FOR UNSUITABLE MATERIALS.
7. ALL STORM DRAIN PIPE SHALL BE SMOOTH BORE INTERIOR PROVIDING A MANNINGS ROUGHNESS COEFFICIENT OF $N=0.012$ OR LESS.
8. ADJUST ALL MANHOLES, CATCH BASINS, CURB BOXES, ETC. WITHIN LIMITS OF WORK TO FINISH GRADE.

1. DISTURBED AREAS ARE DEFINED AS THOSE SURFACES WHERE EXISTING VEGETATION OR STRUCTURES HAVE BEEN REMOVED, EXPOSING NATIVE SOIL TO THE ELEMENTS.
2. ALL ROUTINE WORK ACTIVITIES SHALL BE CONDUCTED IN SUCH A WAY TO LIMIT THE AMOUNT OF DISTURBED AREA AT ONE TIME TO THE EXTENT PRACTICABLE.
3. PRIOR TO THE START OF ANY CLEARING/LAND DISTURBING ACTIVITIES, THE CONTRACTOR SHALL INSTALL APPLICABLE EROSION CONTROL DEVICES SUCH AS PERIMETER SILT FENCE, AND OTHER APPLICABLE MEASURES. IN THE EVENT THE CONTRACTOR IS NOT SURE A EROSION CONTROL MEASURE SHOULD BE IMPLEMENTED, THE CONTRACTOR SHALL CONTACT THE ENGINEER OF RECORD TO CONFIRM IMPLEMENTATION OF ANY EROSION CONTROL DEVICES.
4. ALL GROUND AREAS GRADED FOR CONSTRUCTION SHALL BE GRADED, LOAMED, SEEDED AND MULCH SHALL BE APPLIED AS SOON AS POSSIBLE WITHIN 7 DAYS FOLLOWING THE COMPLETION OF ANY SOIL DISTURBANCE, AND PRIOR TO ANY STORM EVENT.
5. EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE INSTALLED TO THE SATISFACTION OF THE CITY. THE CONTRACTOR SHALL REFERENCE THE APPROVED EROSION AND SEDIMENTATION CONTROL REPORT FOR TEMPORARY AND PERMANENT EROSION AND SEDIMENTATION CONTROL DEVICES IN ADDITION TO THE PLAN SET. THE CONTRACTOR SHALL ALSO REFER TO THE MAINE D.E.P.'S PERMIT CONDITIONS, FINDINGS OF FACT AND ORDER (IF ANY), AND THE CURRENT MAINE EROSION AND SEDIMENT CONTROL BMP MANUAL FOR ADDITIONAL INFORMATION.
6. PRIOR TO PAVING, THE CONTRACTOR SHALL REMOVE ALL SEDIMENT FROM STORM DRAINS, CATCH BASINS, AND APPURTENANCES.
7. REFER TO THE EROSION CONTROL DETAILS & NOTES FOR ADDITIONAL INFORMATION.

1. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND ELEVATION OF THE EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED UPON RECORDS OF VARIOUS UTILITY COMPANIES AND, WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THIS INFORMATION IS NOT TO BE RELIED UPON AS BEING EXACT OR COMPLETE. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO TEST PIT TO DETERMINE THE EXACT LOCATION AND ELEVATION OF UTILITIES TO COORDINATE WITH THE PROPOSED CONNECTIONS OR CROSSING. ANY DISCREPANCIES SHALL BE IMMEDIATELY REPORTED TO ACORN FOR FURTHER DIRECTIONS BEFORE ANY ADDITIONAL WORK PROCEEDS.

- CONTRACTOR TO BYPASS EXISTING SEWER FLOW CONTROL AT CONNECTION TO EXISTING SYSTEM AT NO ADDITIONAL COST.
3. CONTRACTOR SHALL, AT NO ADDITIONAL COST TO THE OWNER, CONDUCT EXPLORATORY EXCAVATIONS AT LOCATIONS WHERE PROPOSED EXCAVATION WILL INTERSECT WITH EXISTING UTILITIES, PRIOR TO THE ORDERING OF STRUCTURES.
4. ALL NEW SANITARY MANHOLES SHALL BE VACUUM TESTED BEFORE BACKFILLING. TESTING SHALL BE COMPLETED IN ACCORDANCE WITH TECHNICAL REPORT #16 (TR-16): GUIDES FOR THE DESIGN OF WASTEWATER TREATMENT WORKS, PREPARED BY THE NEW ENGLAND INTERSTATE WATER POLLUTION CONTROL COMMISSION.
5. SEWER MANHOLES SHALL BE 4' ID UNLESS OTHERWISE STATED ON THE PLANS.
6. CONTRACTOR TO PROVIDE 5.5' OF COVER FROM TOP OF PIPE TO FINISH GRADE FOR WATER MAINS.
7. THRUST BLOCKS SHALL BE USED FOR THRUST RESTRAIN ON WATER MAINS. DETAIL AND LIMITS FOR THRUST BLOCKS ARE SHOWN WITHIN THE PLAN SET.
8. WATER INFRASTRUCTURE SHALL BE TESTED IN ACCORDANCE WITH THE PORTLAND WATER DISTRICT DOCUMENT "WATER AND SEWER CONSTRUCTION SPECIFICATIONS AND PROCEDURE", MOST RECENT REVISION.
9. ALL REQUIRED FITTINGS FOR THE WATER MAIN ARE NOT SHOWN ON DRAWINGS. CONTRACTOR SHALL FURNISH AND INSTALL ALL NECESSARY FITTINGS REQUIRED TO CONSTRUCT THE WATER MAIN IN ACCORDANCE WITH CITY OF PORTLAND, STATE OF MAINE, AND AMERICAN WATER WORKS ASSOCIATION STANDARDS AND REGULATIONS.
10. CONTRACTOR SHALL COORDINATE WORK REGARDING ANY WATER MAIN CONNECTION AND WATER MAIN SHUTDOWN WITH THE PORTLAND WATER DISTRICT AT LEAST SEVEN (7) DAYS PRIOR TO CONSTRUCTION.
11. ALL WATER PIPE INSTALLATION SHALL CONFORM WITH THE PORTLAND WATER DISTRICT SPECIFICATIONS AND PROCEDURES, MOST RECENT EDITION.
12. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS.
13. SEWER, GAS, TELEPHONE, ELECTRICITY, CABLE, WATER AND ANY OTHER UTILITY CONNECTIONS SHALL BE REVIEWED BY PLUMBING, ELECTRICAL, AND MECHANICAL DESIGNER FOR CONSISTENCY WITH THEIR PLANS PRIOR TO CONSTRUCTION.
14. COORDINATE EXIT POINT FOR SECONDARY UTILITY SERVICES WITH THE ARCHITECT/ELECTRICAL ENGINEER. SECONDARY LINE LOCATIONS NOT PROVIDED BY ACORN WITHIN THE UTILITY PLAN.
15. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN ALL THE NECESSARY PERMITS FOR THE INSTALLATION OF THE UTILITIES AND STORMDRAINS WITHIN THE PUBLIC RIGHT OF WAY. THE CONTRACTOR SHALL SUBMIT A MAINTENANCE OF TRAFFIC PLAN TO THE CITY IN ACCORDANCE WITH THE CITY OF PORTLAND TECHNICAL MANUAL PRIOR TO ANY WORK.
16. THE CONTRACTOR SHALL PROVIDE AND INSTALL ALL BOXES, FITTINGS, CONNECTORS, COVER PLATES AND OTHER MISCELLANEOUS ITEMS NOT NECESSARILY DETAILED ON THE DRAWINGS TO RENDER INSTALLATION OF UTILITIES COMPLETE AND OPERATIONAL AT NO EXTRA EXPENSE TO THE OWNER.
17. ALL PIPE LINES SHALL SLOPE UNIFORMLY BETWEEN ELEVATIONS INDICATED ON THE DRAWINGS. NO CRESTS OR SAGS IN THE PIPING WILL BE PERMITTED. ALL HORIZONTAL AND VERTICAL BENDS IN PRESSURIZED PIPE LINES SHALL BE SUITABLY RESTRAINED WITH THRUST BLOCKS OR RETAINER GLANDS. RETAINER GLANDS ALLOWED FOR DUCTILE IRON PIPE ONLY. PROVIDE ALL BENDS, HORIZONTAL AND VERTICAL, AS REQUIRED TO MEET THE GRADES AND ALIGNMENTS INDICATED ON THE DRAWINGS.
18. ALL WASTEWATER PIPING, EXCLUDING BUILDING DRAINS, AND ALL PRESSURIZED PIPING, TO INCLUDE WATER MAINS, INSTALLED BENEATH STRUCTURES SHALL BE ENCASED IN CONCRETE.
19. WHERE NEW PIPING IS TO BE CONNECTED TO EXISTING PIPING, THE CONTRACTOR SHALL FURNISH AND INSTALL ALL ADAPTERS, FITTINGS AND ADDITIONAL PIPE AS REQUIRED, TO ENSURE A COMPLETE AND PROPERLY FUNCTIONING CONNECTION. CONTRACTOR TO VERIFY LOCATION, ELEVATION, ORIENTATION AND MATERIAL OF CONSTRUCTION. ADAPTERS AND FITTINGS ARE INCIDENTAL TO THE PIPE INSTALLATION.
20. WHENEVER POSSIBLE, WATER LINES SHOULD BE INSTALLED OVER WASTEWATER LINES. A MINIMUM SEPARATION OF 18 INCHES BETWEEN THE BOTTOM OF THE WATER LINE AND THE TOP OF THE WASTEWATER LINE SHALL BE MAINTAINED WHERE POSSIBLE. WHERE A WATER LINE CROSSES UNDER THE WASTEWATER LINE, A FULL LENGTH OF WASTEWATER PIPE SHALL BE CENTERED ABOVE THE WATER LINE SO THAT BOTH JOINTS WILL BE AS FAR FROM THE WATER LINE AS POSSIBLE.
21. THE CONTRACTOR SHALL BE ANTICIPATE THAT THE NATIVE SILT AND CLAY SOILS WILL NOT BE SUITABLE FOR PIPE TRENCH BACKFILL IN PAVED AREAS.
22. GROUNDWATER SHALL BE CONTROLLED TO A LEVEL OF AT LEAST ONE FOOT BELOW SUBGRADE OF THE PIPE OR STRUCTURE. THE CONTRACTOR SHALL MAINTAIN THE LOWERED GROUNDWATER LEVEL UNTIL CONSTRUCTION HAS BEEN COMPLETED TO SUCH AN EXTENT THAT THE STRUCTURES OR PIPES WILL NOT BE FLOATED OR OTHERWISE DAMAGED.
23. EXCAVATION TO SUBRADE IN NATIVE SILT AND CLAY SHALL BE COMPLETED WITH A SMOOTH EDGE BUCKET TO MINIMIZE SUBGRADE DISTURBANCE.
24. ALL ADJUSTMENTS TO FINISHED GRADE ARE TO BE COMPLETED BY THE CONTRACTOR. THE CONTRACTOR SHALL CONFIRM STRUCTURES THAT REQUIRE ADJUSTMENT WITH THE ENGINEER OR OWNERS REPRESENTATIVE PRIOR TO ADJUSTING FAMES.

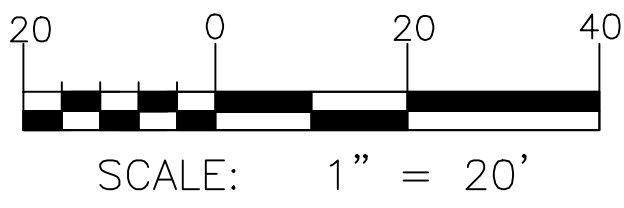
1. THE FOLLOWING ITEMS ARE TYPICAL OF MATERIAL WHICH MAY BE ON SITE:
 - ROCK AND CONCRETE FOUNDATIONS
 - CONCRETE SLABS
 - BITUMINOUS ASPHALT PAVEMENT
 - CONCRETE PADS AND BLOCKS
 - FENCE POST AND FENCING
 - UNDERGROUND UTILITY LINES
 - ABOVE AND OR BELOW FUEL OIL AND PROPANE GAS TANKS
 - STORM DRAIN PIPES AND APPURTENANCE STRUCTURES
 - OTHER TRASH & MISCELLANEOUS SOLID WASTES
2. THE CONTRACTOR IS ADVISED TO VISIT THE SITE TO CONFIRM DEMOLITION ITEMS SINCE THE LIST IS NOT INCLUSIVE OF THE SITE CONDITIONS WHICH MAY BE ENCOUNTERED
3. ALL DISPOSAL OF DEMOLITION DEBRIS OR WASTE SHALL BE IN ACCORDANCE WITH ALL LOCAL, STATE, & FEDERAL REGULATIONS. CONTRACTORS SHALL PROVIDE OWNER WITH APPROPRIATE "BILLS OF LADING" DEMONSTRATING PROPER DISPOSAL OF ALL MATERIALS.



- GENERAL SITE NOTES:
- EXISTING CONDITIONS, BOUNDARY SURVEY, AND TOPOGRAPHY FROM THE PLAN TITLED "BOUNDARY & EXISTING CONDITIONS SURVEY" PREPARED BY NORTHERN SURVEY ENGINEERING, DATED 3/29/2021.
 - SIDEWALK AND VERTICAL GRANITE CURB TO BE REPLACED SHALL BE REBUILT TO CITY OF PORTLAND STANDARD.
 - PAVEMENT STRIPING AND MARKINGS SHALL COMPLY TO CITY OF PORTLAND STANDARDS.
 - ASPHALT TO BE REMOVED MUST BE STRIPPED AND PROPERLY DISPOSED OF OFFSITE.
 - CURB TO BE REMOVED, STOCKPILED AND RESET IN ACCORDANCE WITH DETAIL. BROKEN CURB SHALL BE PROPERLY DISPOSED OF AND SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.
 - ALL RAMPS TO CONFORM TO ADA GUIDELINES. SLOPE SHALL NOT EXCEED 1 INCH PER FOOT FOR A MAXIMUM RISE OF 30 INCHES.
 - ALL SITE SIGNAGE TO COMPLY WITH MUTCD STANDARDS. CONTRACTOR TO COORDINATE AND INSTALL.
 - FOLLOWING COMPLETION OF CONSTRUCTION, THE OWNER SHALL BE RESPONSIBLE FOR THE MAINTENANCE AND MANAGEMENT OF DRIVEWAYS, SITE LIGHTING, TRASH REMOVAL AND SNOW REMOVAL.

SPACE AND BULK STANDARDS			
B3/B3C DOWNTOWN BUSINESS, DOWNTOWN ENTERTAINMENT OVERLAY ZONE, CONGRESS STREET HISTORIC DISTRICT	REQUIRED	EXISTING	PROPOSED (45 FOREST AVE)
MINIMUM LOT SIZE	NONE	0.88 AC	0.29 AC
MINIMUM STREET FRONTAGE	15'	OAK - 99' CUMBERLAND - 247' FOREST - 193'	FOREST - 103'
MAX FRONT YARD SETBACK	5'	0'	0.04'
SIDE YARD SETBACK	NONE	0'	0'
REAR YARD SETBACK	NONE	22.86'	22.86'
MINIMUM LOT WIDTH	NONE	195'	103'
MAXIMUM LOT COVERAGE	100%	83.7%	92.8%
MINIMUM BUILDING HEIGHT	35'	97.72'	97.72'
MAXIMUM BUILDING HEIGHT	210'	97.72'	97.72'
MAX LENGTH OF UNDIFFERENTIATED BLANK WALL ALONG PUBLIC STREET	30' (15' IN PAD OVERLAY ZONE)	-	-
BICYCLE PARKING*	40	N/A	40 (INTERIOR)
VEHICLE PARKING**	N/A	N/A	N/A
*BICYCLE PARKING BASED UPON TWO (2) SPACES PER FIVE (5) UNITS WITH 81 UNITS = 32 BICYCLE PARKING SPACES			
**VEHICLE PARKING BASED UPON LAND USE CODE, TABLE 19-B: OFF-STREET PARKING - NO OFF-STREET PARKING REQUIRED FOR CHANGES OF USE.			

- UTILITY GENERAL NOTES:
- LOCATION OF PROPOSED CONNECTIONS ARE APPROXIMATE. CONTRACTOR TO CONTACT ENGINEER IF FIELD INFORMATION VARIES FROM INFORMATION ON PLANS.
 - CONTRACTOR IS TO BE CAUTIONED THAT CERTAIN LOCATIONS AND/OR ELEVATIONS OF EXISTING UTILITIES HAVE BEEN PROVIDED THROUGH UTILITY COORDINATION OR OTHER OBSERVATIONS. INFORMATION IS NOT TO BE RELIED UPON AS EXACT OR COMPLETE. CONTRACTOR TO FIELD VERIFY AND COORDINATE WITH UTILITY COMPANY AND DIG SAFE. NO LESS THAN 72 HOURS PRIOR TO ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF ALL UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS INDICATED IN THE CONTRACT DOCUMENTS. CONTRACTOR TO NOTIFY ENGINEER OF ANY DIFFERENTIATIONS FROM EXISTING CONDITIONS, INCLUDING UTILITY INFORMATION, PRIOR TO ANY CHANGES.
 - FOR ALL UTILITIES, ACORN ENGINEERING DESIGN LIMITS END AT EXTERIOR WALL OF BUILDING. METERING OF UTILITIES TO BE COMPLETED BY M.E.P. UNLESS SPECIFIED OTHERWISE.
 - CONTRACTOR TO COORDINATE WITH ARCHITECT ON FINAL UTILITY CONNECTIONS WITHIN THE BUILDING.
 - SEWER UTILITIES: CONTRACTOR TO COORDINATE WITH ARCHITECT FOR FINAL SERVICE CONNECTION. SEWER UTILITIES TO BE CONSTRUCTED IN ACCORDANCE WITH CITY OF PORTLAND STANDARDS. VALVE FOR BACKFLOW PREVENTION SHALL BE INSTALLED WITHIN THE THE PROPERTY LINES FOR EACH CITY SEWER CONNECTION. CONTACT ENGINEER IF INVERT FIELD CONDITIONS VARY FROM DESIGN.
 - WATER UTILITIES: FINAL PIPE SIZING PROVIDED BY M.E.P. ENGINEER AND FIRE PROTECTION DESIGNER. INTERNAL METERING, BACKFLOW PREVENTION, AND PRESSURE REDUCERS TO BE COMPLETED BY M.E.P. ENGINEER. DOMESTIC WATER PIPE SIZES WILL DETERMINE THE FINAL WATER METERING OPTIONS. METER MAY BE SMALLER THAN PROPOSED WATER MAIN. WATER METERING, PRESSURE REDUCER AND BACKFLOW PREVENTION TO BE IN ACCORDANCE WITH THE PORTLAND WATER DISTRICT STANDARDS. CONTRACTOR TO FOLLOW METERING GUIDELINES OF THE PORTLAND WATER DISTRICT AND CITY OF PORTLAND.
 - EXISTING WATER SERVICE INFORMATION OBTAINED FROM PORTLAND WATER DISTRICT INFRASTRUCTURE MAP FOR 45 FOREST AVENUE AND 95 OAK STREET. CONTACT PORTLAND WATER DISTRICT FOR ADDITIONAL INFORMATION.
 - GAS UTILITIES: PROJECT GAS LOAD, GAS UTILITY DESIGN, AND FINAL GAS SERVICE LOCATION AND METERS TO BE DEFINED BY M.E.P. AND IN ACCORDANCE WITH UNTIL.
 - EXISTING GAS MAIN INFORMATION OBTAINED FROM UNTIL 45 FOREST AVE MAIN RECORD ON 11/25/2020. EXISTING PROPERTY'S GAS SERVICE INFORMATION OBTAINED FROM UNTIL SERVICE CARD ON 11/30/2020. COORDINATE WITH UNTIL FOR ADDITIONAL INFORMATION.
 - ELECTRIC UTILITIES: ELECTRIC DESIGN TO BE FINALIZED BY M.E.P. ENGINEER. ELECTRICAL LOAD TO BE DETERMINED BY M.E.P. ENGINEER. METER LOCATION AND TRANSFORMER SIZE, IF NECESSARY DEFINED BY M.E.P. M.E.P. TO FINALIZE SERVICE CONNECTION TO BUILDING. ALL ELECTRIC CONSTRUCTION SHALL CONFORM TO CMP GUIDEBOOK OF STANDARD REQUIREMENTS, MOST RECENT EDITION. DESIGN SUBJECT TO FINAL APPROVAL FROM CMP.
 - CABLE AND TELEPHONE PULLBOXES AND PEDESTAL LOCATIONS TO BE DETERMINED BY CHARTER COMMUNICATIONS AND FAIRPOINT PRIOR TO CONSTRUCTION. CONTRACTOR TO COORDINATE INSTALLATION OF UNDERGROUND UTILITIES WITH ALL UTILITY COMPANIES INVOLVED.



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CONSTRUCTION

ISSUED FOR

BY

DATE

PRE-APP

7/7/2020

PFH

CSS

7/7/2021

PFH

MAJOR SITE PLAN

7/16/2021

PFH

SITE & UTILITY PLAN

PROJECT NAME/ADDRESS:

REDFERN PROPERTIES, LLC

CLIENT/OWNER OF RECORD:

REDFERN PROPERTIES, LLC

PO BOX 8816 PORTLAND, MAINE 04104

ACORN ENGINEERING, INC.

11419 8/5/21

WILLIAM H. SAVAGE

PROFESSIONAL ENGINEER

FILE:

1148_CIVIL

JN:

1148

SCALE:

AS NOTED

DESIGNED BY:

PFH

DRAWN BY:

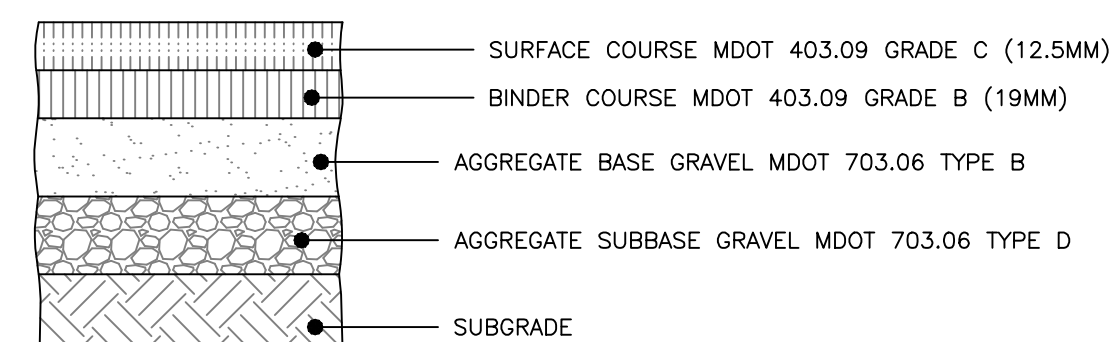
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CHECKED BY:

WHS/PH

DRAWING NO.

C-10

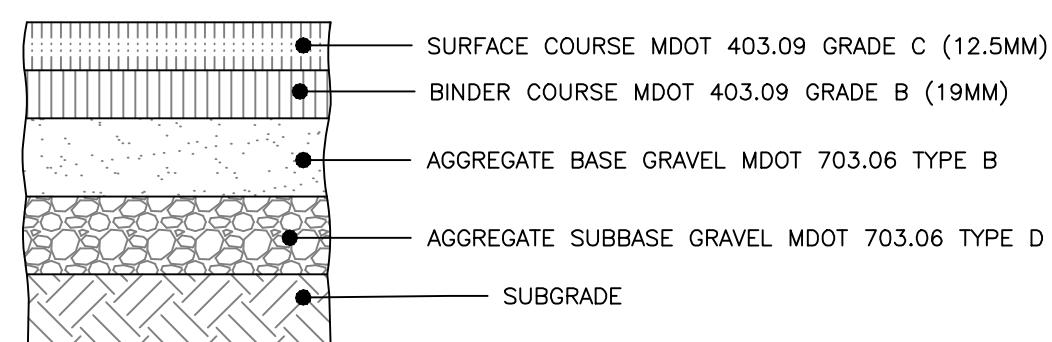
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NOTES:

1. COMPACT SUBGRADE TO 95% MAXIMUM DRY DENSITY IN ACCORDANCE WITH ASTM D-1557.
2. SURFACE AND AGGREGATE MATERIALS SHALL MEET BOTH THE CITY OF PORTLAND & MDOT STANDARDS.

STANDARDS.	
THICKNESS OF LAYERS	
STANDARD	LAYERS
1-1/2"	SURFACE COURSE MDOT 403.09 GRADE C (12.5mm)
2"	BINDER COURSE MDOT 403.09 GRADE B (19mm)
3"	AGGREGATE BASE GRAVEL MDOT 703.06 TYPE B
15"	AGGREGATE SUBBASE GRAVEL MDOT 703.06 TYPE D

CITY OF PORTLAND LOCAL BITUMINOUS PAVEMENT PROFILE
(OAK STREET AND INTERNAL)
NOT TO SCALE

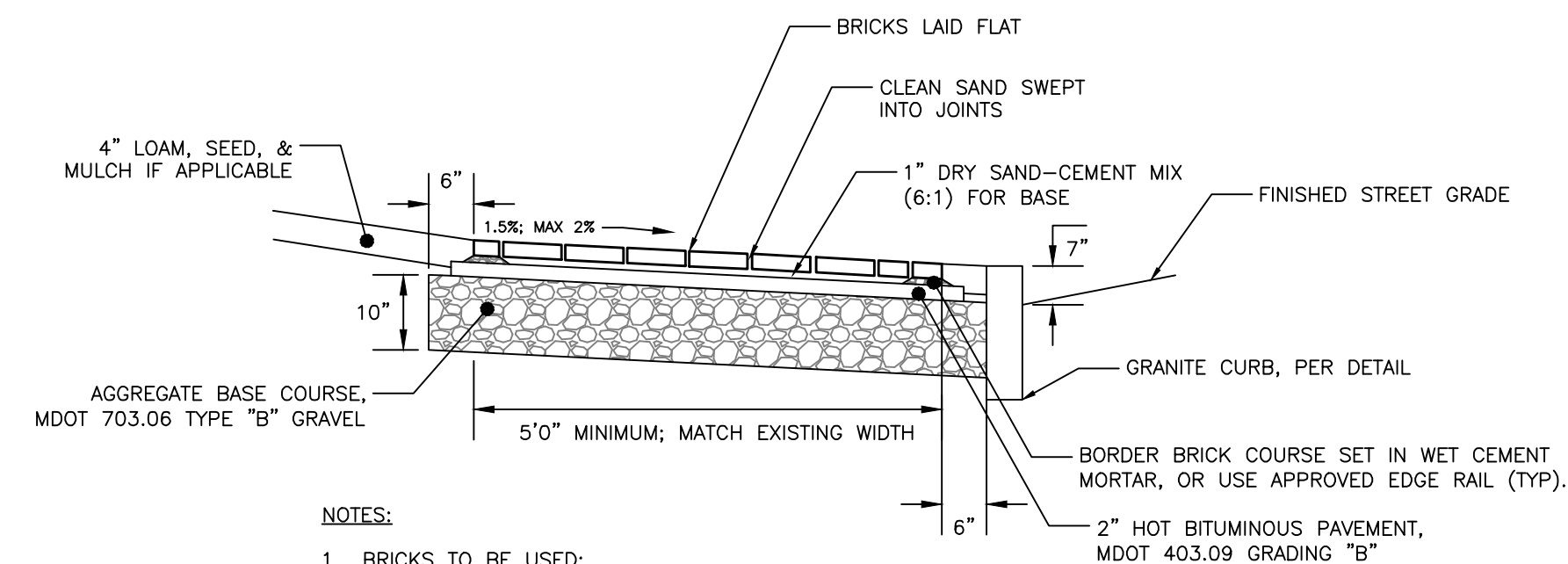


NOTES:

1. COMPACT SUBGRADE TO 95% MAXIMUM DRY DENSITY IN ACCORDANCE WITH ASTM D-1557.
2. SURFACE AND AGGREGATE MATERIALS SHALL MEET BOTH THE CITY OF PORTLAND & MDOT STANDARDS.

THICKNESS OF LAYERS	
STANDARD	LAYERS
1-1/2"	SURFACE COURSE MDOT 403.09 GRADE C (12.5mm)
2-1/2"	BINDER COURSE MDOT 403.09 GRADE B (19mm)
3"	AGGREGATE BASE GRAVEL MDOT 703.06 TYPE B
18"	AGGREGATE SUBBASE GRAVEL MDOT 703.06 TYPE D

CITY OF PORTLAND COLLECTOR BITUMINOUS PAVEMENT PROFILE
(FOREST AVENUE / CUMBERLAND AVENUE)
NOT TO SCALE



NOTES:

1. BRICKS TO BE USED:

NEW CONSTRUCTION:

4"x8" PINE HALL PATHWAY PAVER BRICK; MFG. BY PINE HALL BRICK CO., MADISON, NORTH CAROLINA. LACHANCE ITEM #193623;. PINE HALL PATHWAY PAVER BRICK.

2. INSTALL BRICK FLUSH UP TO BUILDING, PAVEMENT, STAIRS, CONCRETE SURFACES, CURB OR LANDSCAPED AREAS.

BRICK SIDEWALK WITH BITUMINOUS BASE DETAIL
NOT TO SCALE


A C O R N
ENGINEERING, INC.

ACORN ENGINEERS, INC.
 P.O. BOX 3372, PORTLAND, MAINE 04101
 (207) 775-2655

THIS FIRM SHALL NOT BE HELD RESPONSIBLE FOR ANY LOSS OR DAMAGE
 FROM ACORN ENGINEERING, INC. AND ALTERNATES, AUTHORIZED
 TO ACT AS ENGINEERS, ARCHITECTS, OR CONSULTANTS, WITHOUT
 WITHOUT LIABILITY TO ACORN ENGINEERING, INC. SOLE RISK AND

FILE: 1148 CIVIL

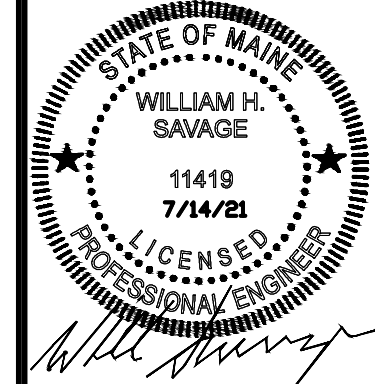
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SCALE: AS NOTED

DESIGNED BY: PFH

DRAWN BY: ZMS

CHECKED BY: WHS/PFH

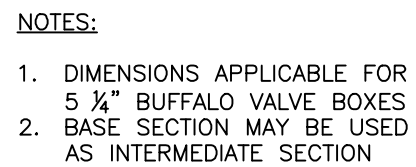
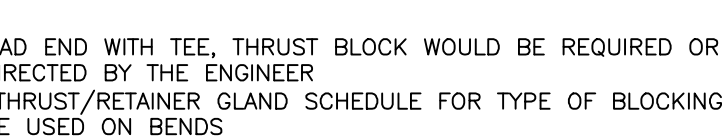
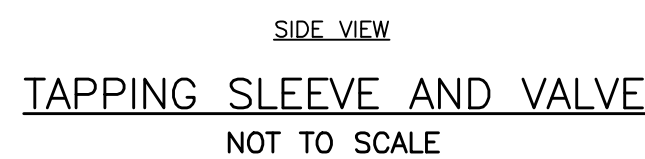


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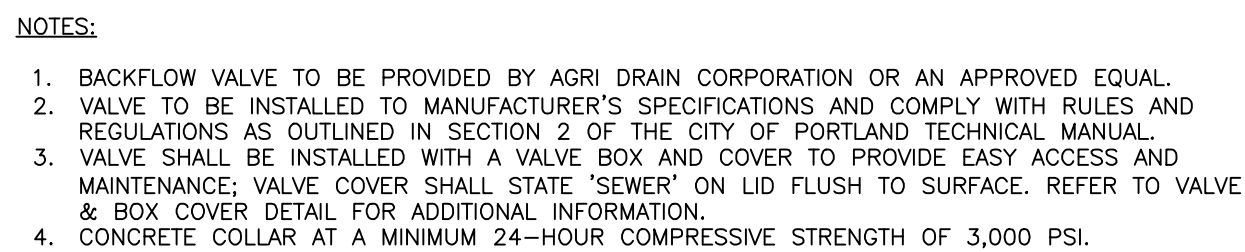
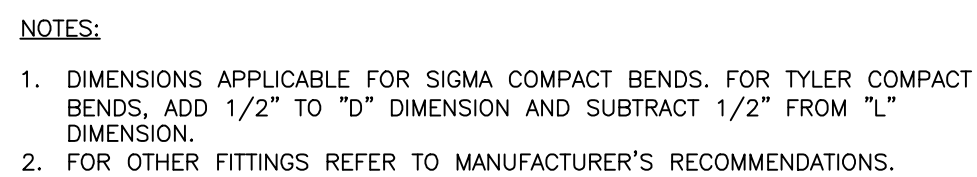
C-40

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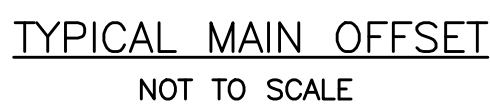
1. ANY ALTERNATE TRENCHING METHODS SHALL BE APPROVED IN ADVANCE BY THE CITY.
2. ALL CONSTRUCTION METHODS SHALL CONFORM TO THE CITY OF PORTLAND TECHNICAL STANDARDS FIGURE II-2.
3. BRACING & SHEETING OR OTHER TRENCH PROTECTION TO BE PROVIDED TO MEET APPLICABLE STATE AND OSHA SAFETY STANDARDS. ALL SUCH TRENCH PROTECTION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
4. WHERE APPLICABLE, PERFORATIONS IN STORM DRAIN (PERFSD) SHALL BE ORIENTED UP.
5. ALL STORM DRAINS SHALL BE PVC SDR 35 MIN PMS 46# RATING OR IN ACCORDANCE WITH CITY OF PORTLAND TECHNICAL STANDARDS FIGURE II-2, PART 2.5.
6. IN PAVED AREAS, DEPTHS OF GRAVE AND HOT MIX ASPHALT PAVEMENT SHALL MATCH THE GREATER OF EXISTING CONDITIONS OR THE REQUIREMENTS FOR THE CORRESPONDING STREET CLASSIFICATION.
7. THIS DETAIL SHALL BE APPLIED ONLY TO PIPE TRENCHES WITHIN OF THE CITY OF PORTLAND ROW/STORM DRAIN BETWEEN 2" AND 36" RIGID INSULATION. 4" OF RIGID INSULATION BETWEEN 3" AND 4" SHALL INCLUDE 2" RIGID INSULATION, OTHER UTILITIES; ADD 2" OF RIGID INSULATION FOR EACH FOOT ABOVE MINIMUM DEPTH.



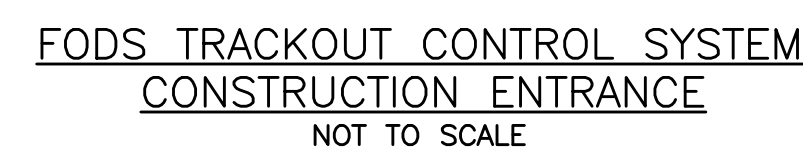
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NOT TO SCALE



1. FULL CONTACT WITH THE GROUND IS CRITICAL TO PREVENT SHORT CIRCUITING UNDER THE TUBE - THE GROUND SURFACE SHOULD BE SMOOTH AND LEVEL. IN WOODED AREAS, PROTRUDING ROOTS AND DEBRIS MAY NEED TO BE REMOVED. IN GRASSED AREAS, THE GRASS NEEDS TO BE EITHER MOWED OR COMPRESSED DOWN.
2. UPON FINAL STABILIZATION, THE TUBE CAN BE CUT OPEN AND THE MATERIAL USED WITHIN LANDSCAPED AREAS. THE MESH MATERIAL SHOULD BE REMOVED.
3. LOOSE COMPOST MAY BE BACKFILLED ALONG THE UPSLOPE SIDE OF THE COMPOST FILTER SOCK, IMPROVING FILTRATION AND SEDIMENT RETENTION.



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ORD: REDFERN PROPERTIES, LLC
PO BOX 8816 PORTLAND, MAINE 04104

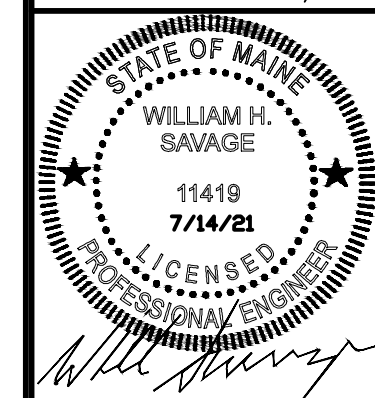
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PROJECT NAME/ADDRESS:

ENGINEERING, INC.

ACORN ENGINEERING, INC.
P.O. BOX 3372, PORTLAND MAINE 04101
(207) 775-2655

FILE:	1148_CIVIL
JN:	1148
SCALE:	AS NOTED
DESIGNED BY:	PFH
DRAWN BY:	ZMS
CHECKED BY:	WHS/PFH

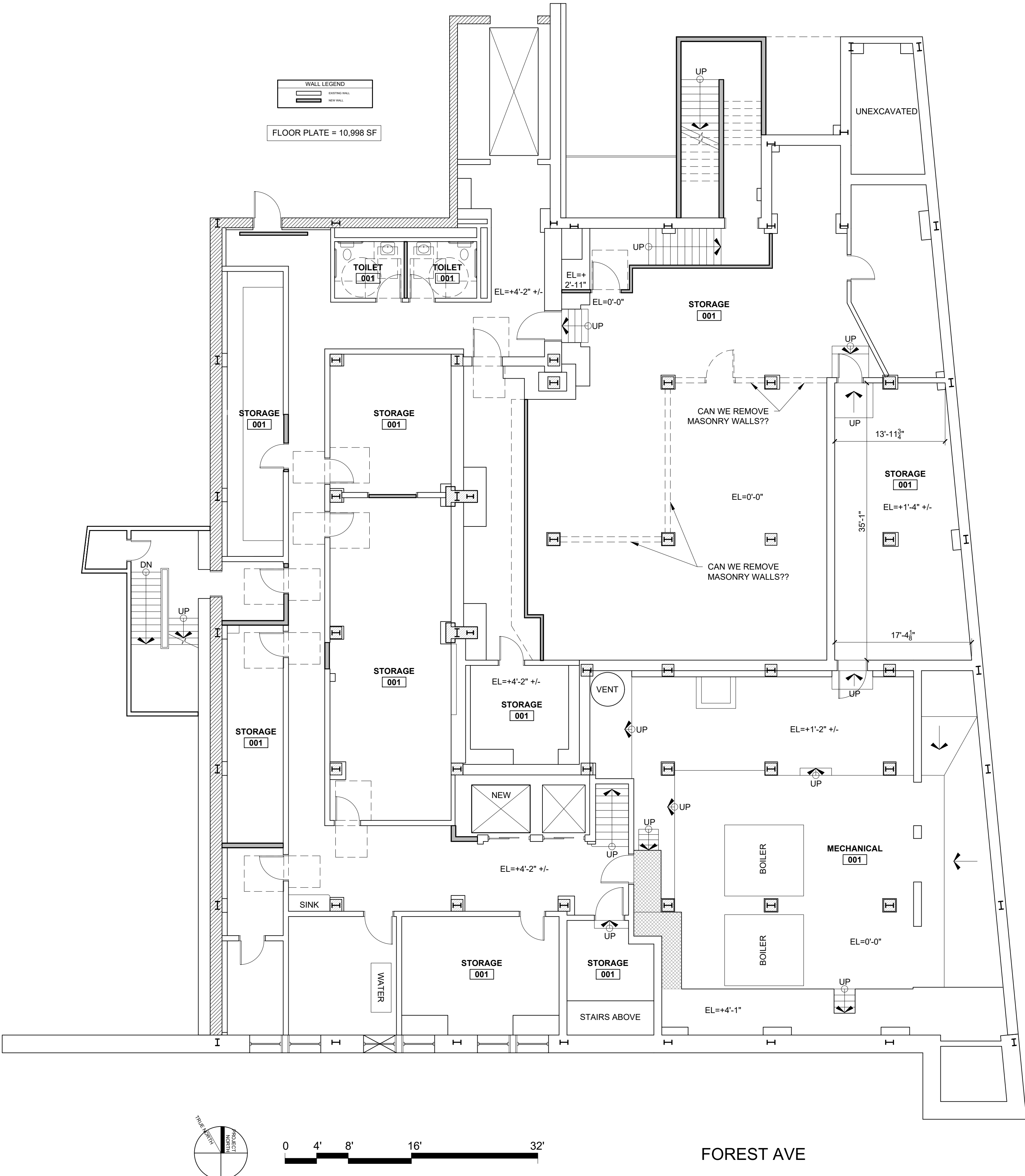
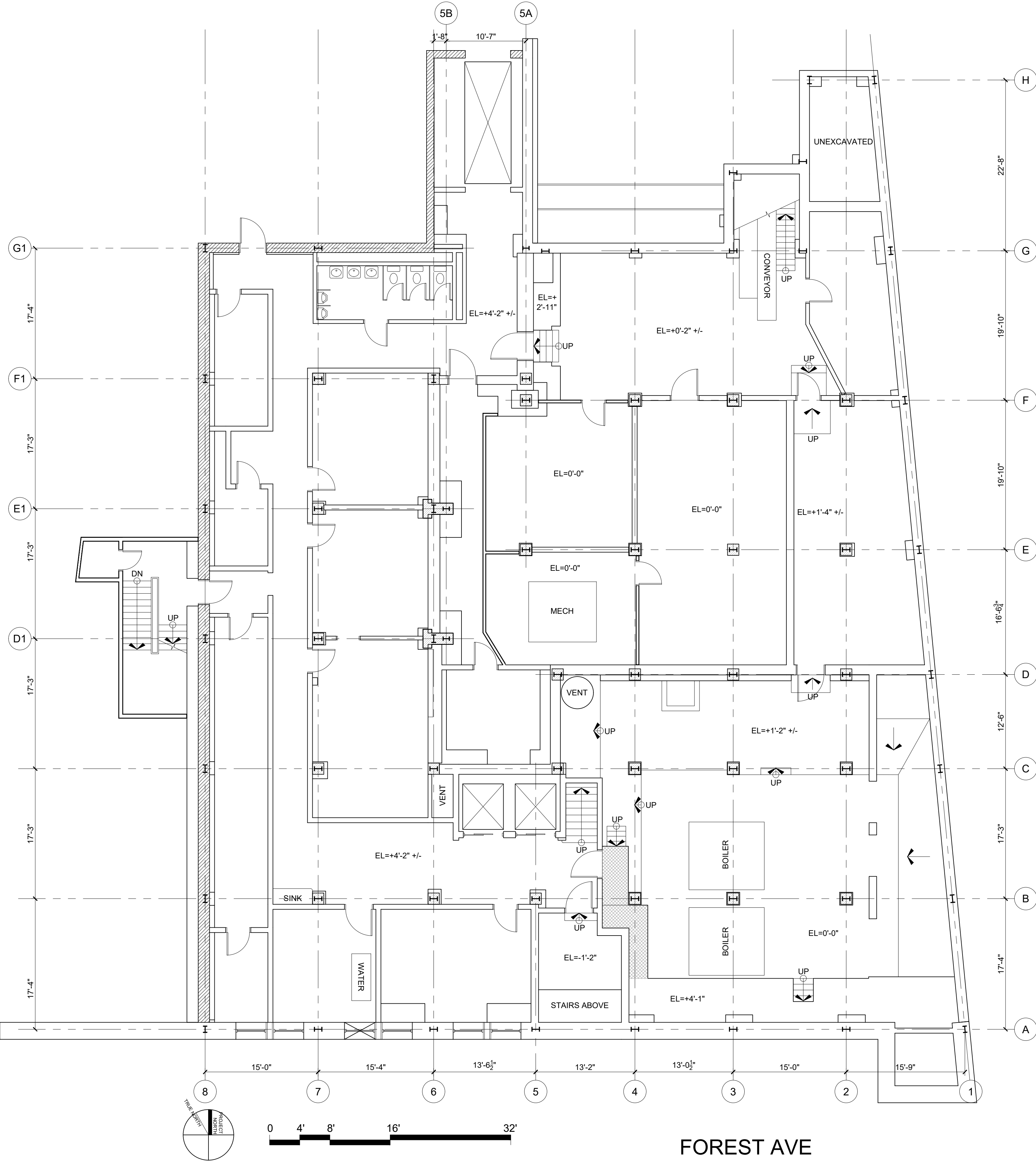


DRAWING NO.

C-43

EXISTING

PROPOSED



1 EXISTING BASEMENT PLAN
1/8" = 1'-0"

2 PROPOSED BASEMENT PLAN
1/8" = 1'-0"

PROPOSED



2 PROPOSED FIRST FLOOR PLAN
1/8" = 1'-0"

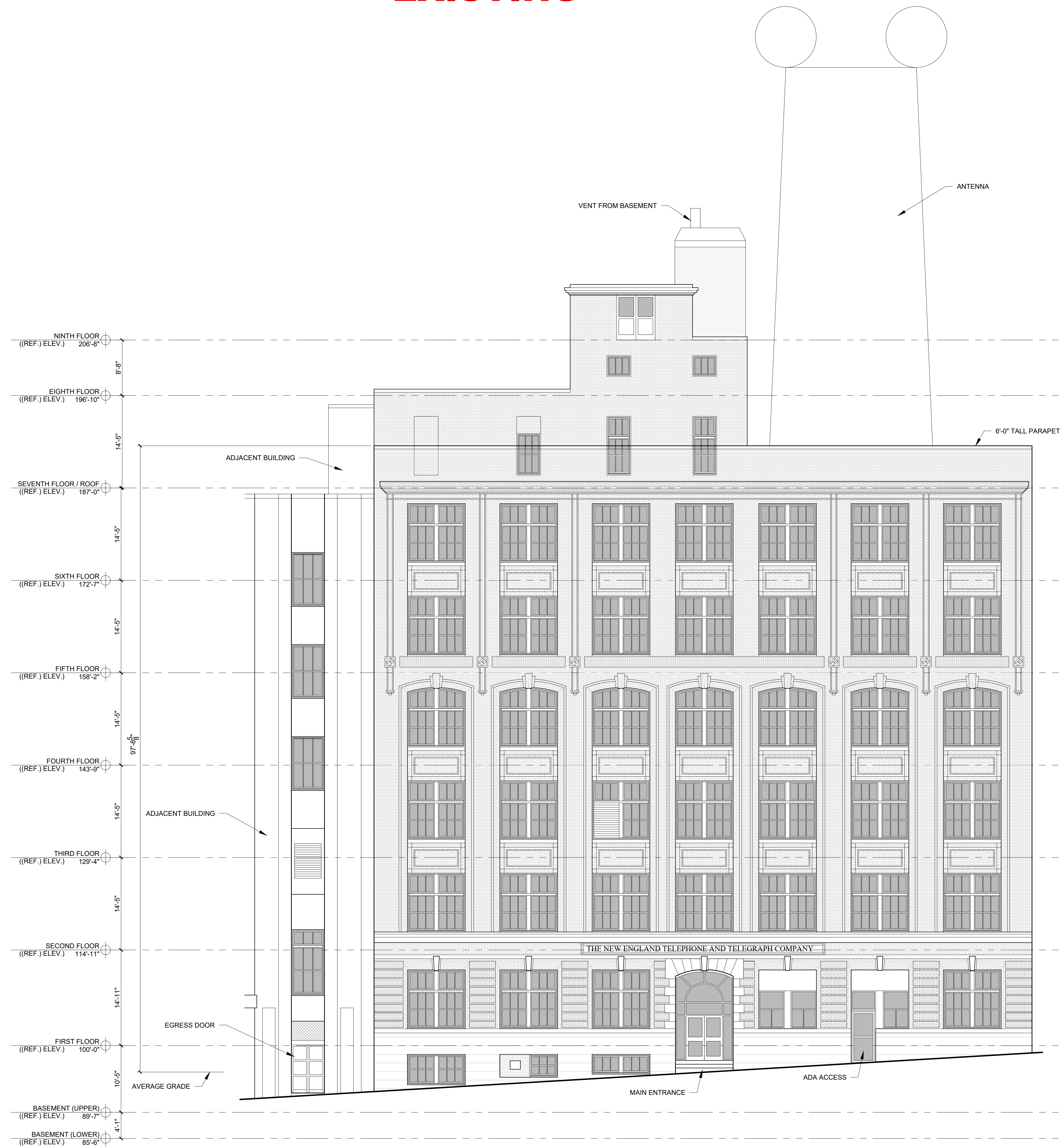
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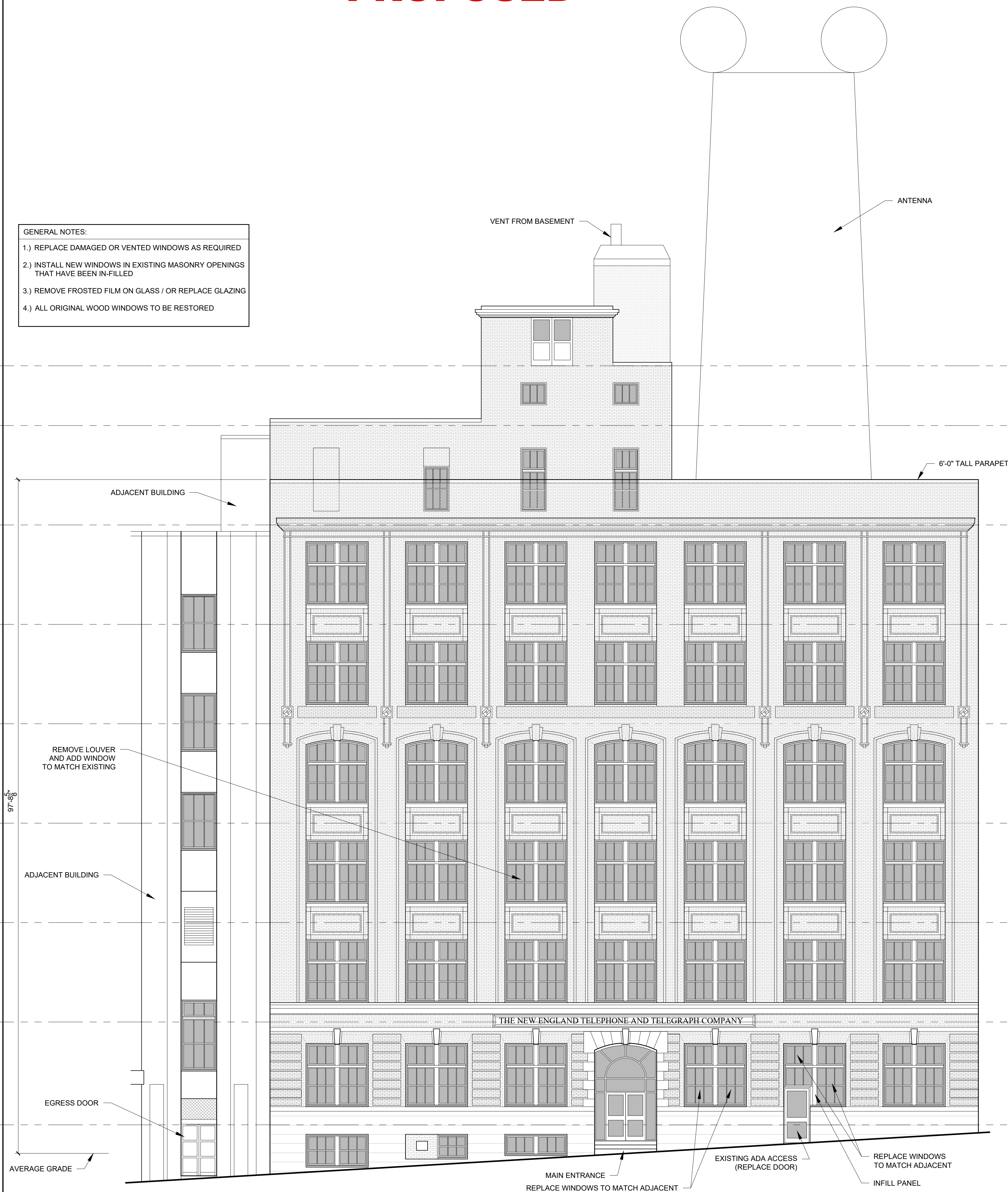
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Not for Construction

EXISTING

PROPOSED



- GENERAL NOTES:
- 1.) REPLACE DAMAGED OR VENTED WINDOWS AS REQUIRED
 - 2.) INSTALL NEW WINDOWS IN EXISTING MASONRY OPENINGS THAT HAVE BEEN IN-FILLED
 - 3.) REMOVE FROSTED FILM ON GLASS / OR REPLACE GLAZING
 - 4.) ALL ORIGINAL WOOD WINDOWS TO BE RESTORED



1 SOUTH ELEVATION - EXISTING
1/8" = 1'-0"

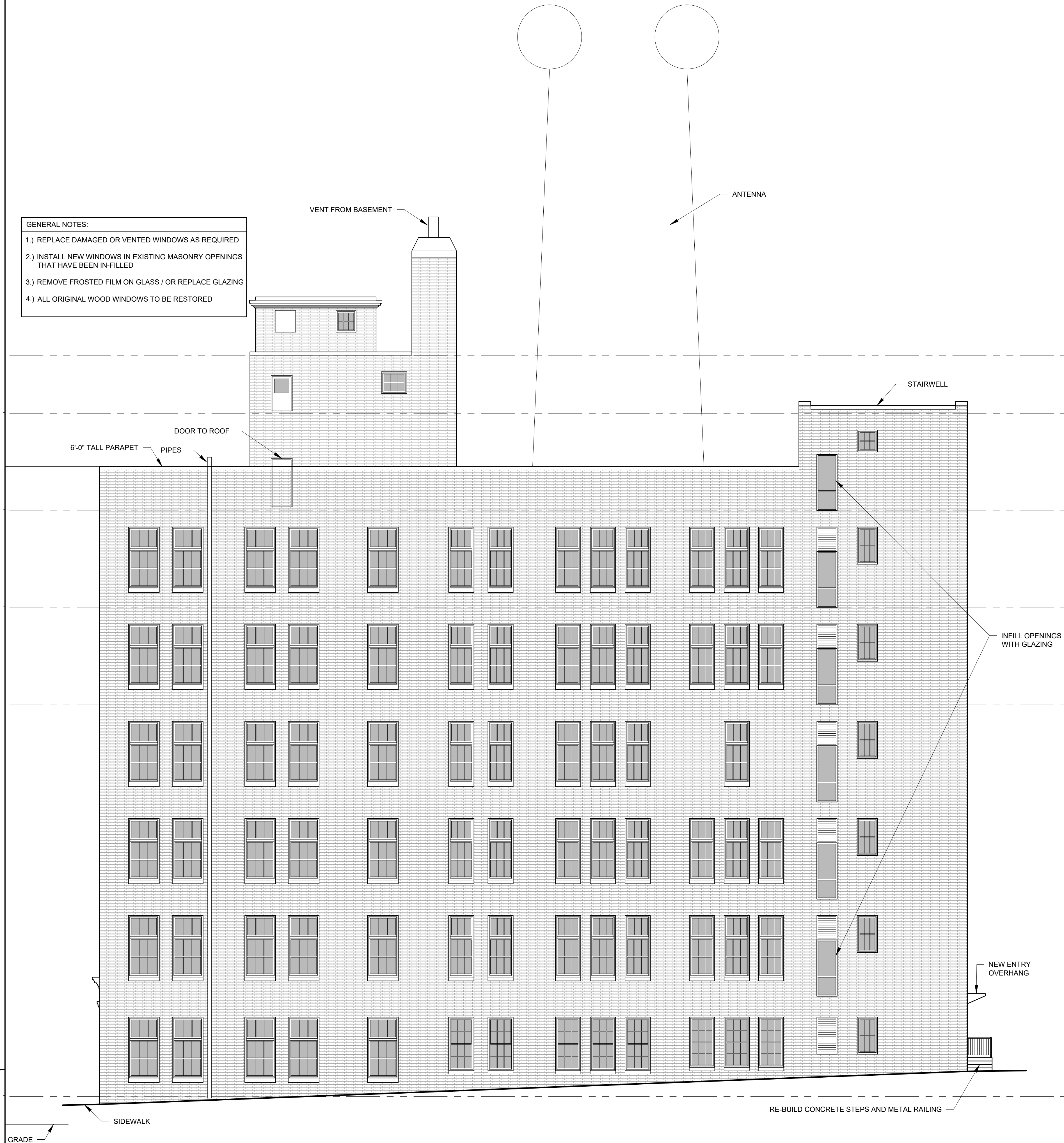
2 SOUTH ELEVATION - PROPOSED
1/8" = 1'-0"

EXISTING



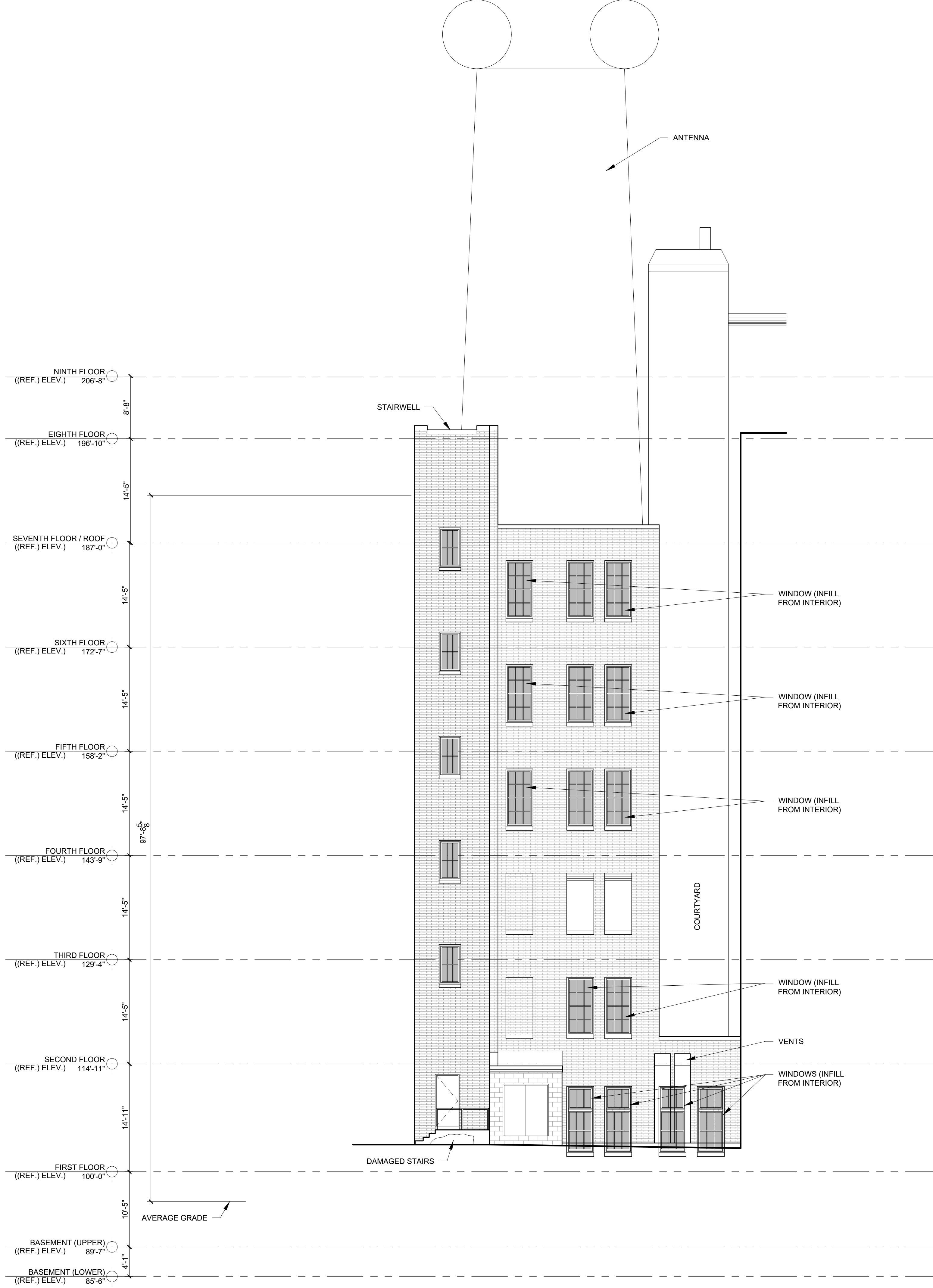
1 EAST ELEVATION - EXISTING
1/8" = 1'-0"

PROPOSED



2 EAST ELEVATION - PROPOSED
1/8" = 1'-0"

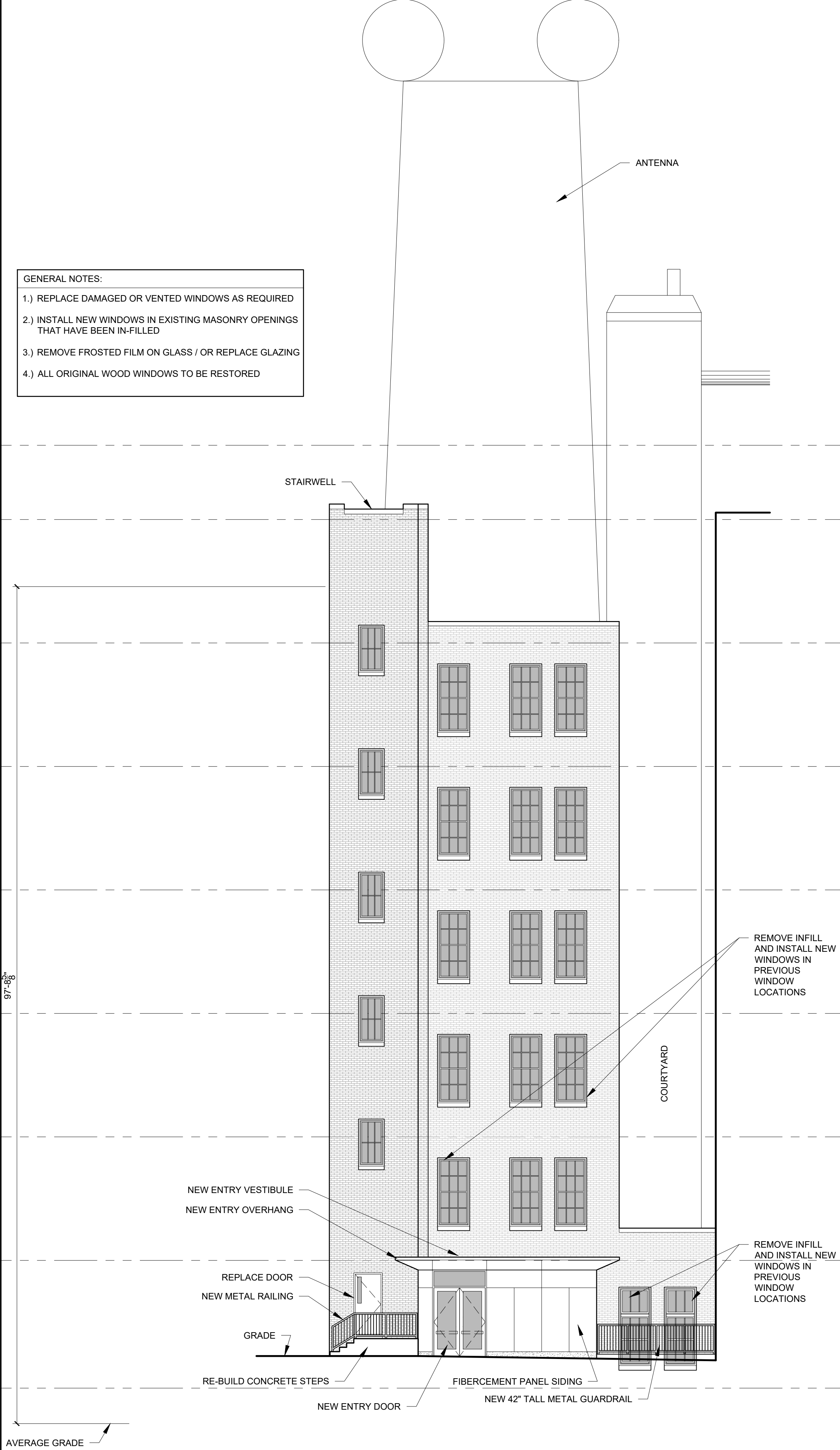
EXISTING



1 NORTH ELEVATION - EXISTING
1/8" = 1'-0"

PROPOSED

- GENERAL NOTES:
- 1.) REPLACE DAMAGED OR VENTED WINDOWS AS REQUIRED
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 - 3.) REMOVE FROSTED FILM ON GLASS / OR REPLACE GLAZING
 - 4.) ALL ORIGINAL WOOD WINDOWS TO BE RESTORED

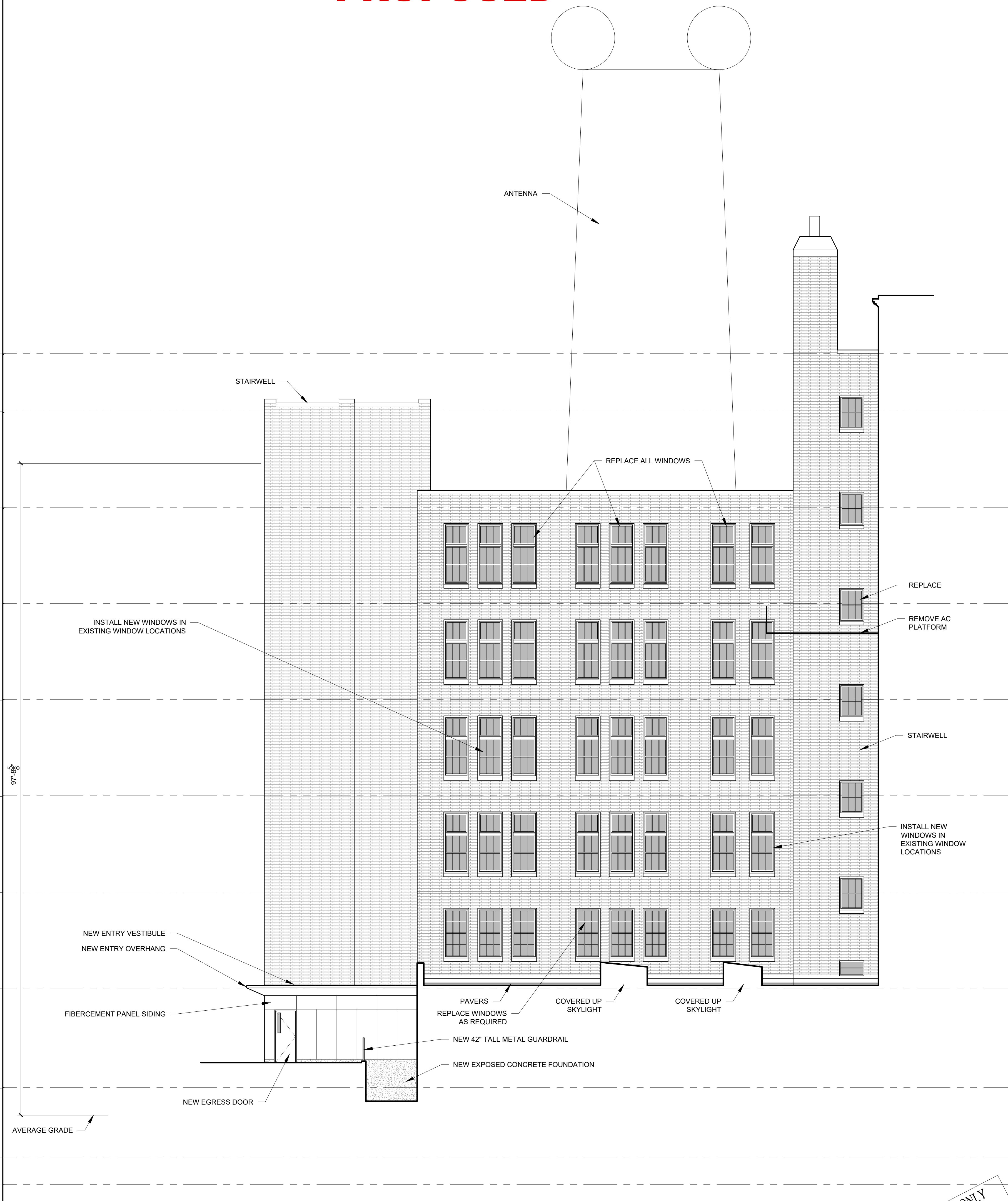
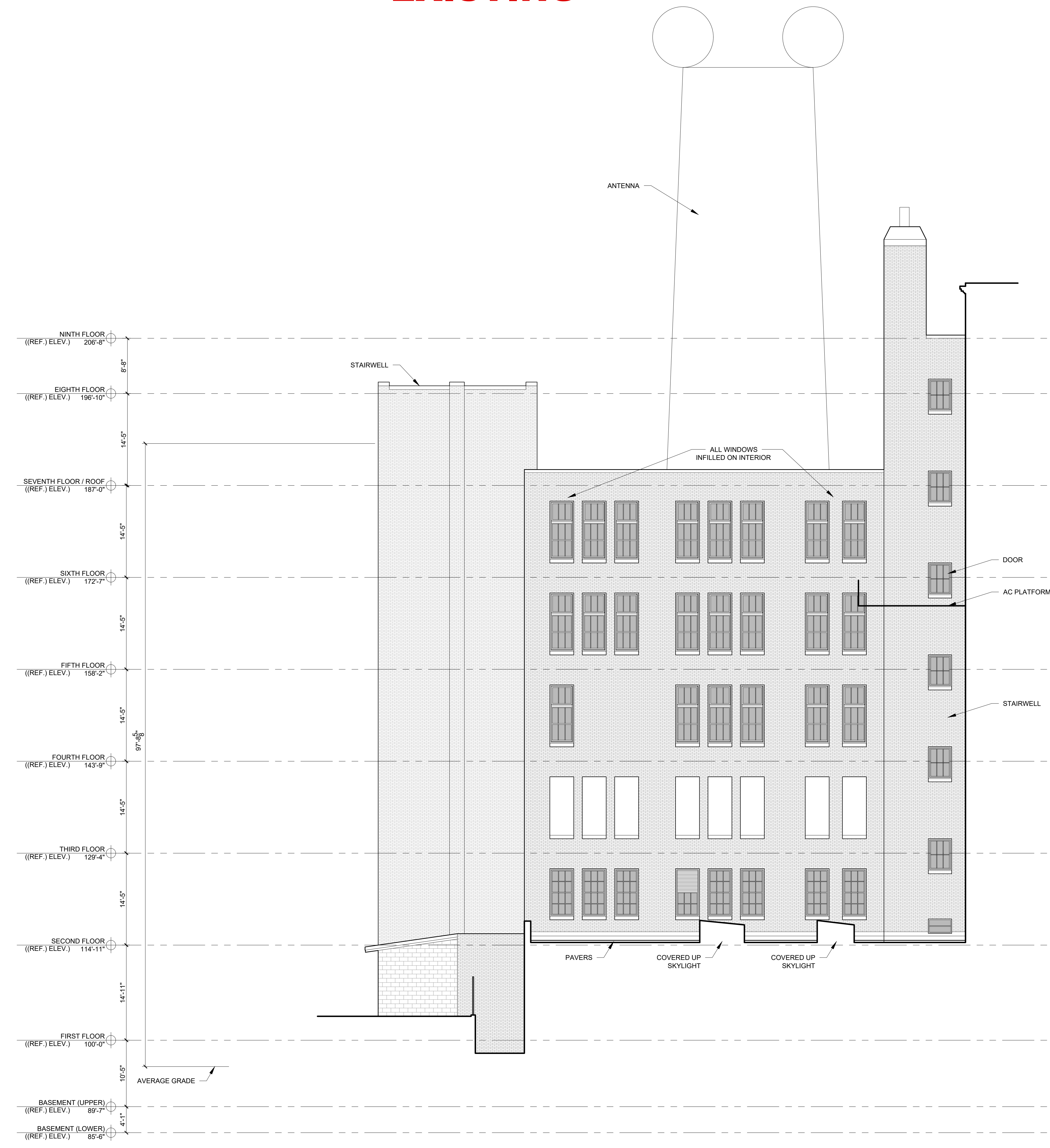


2 NORTH ELEVATION - PROPOSED
1/8" = 1'-0"

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EXISTING

PROPOSED

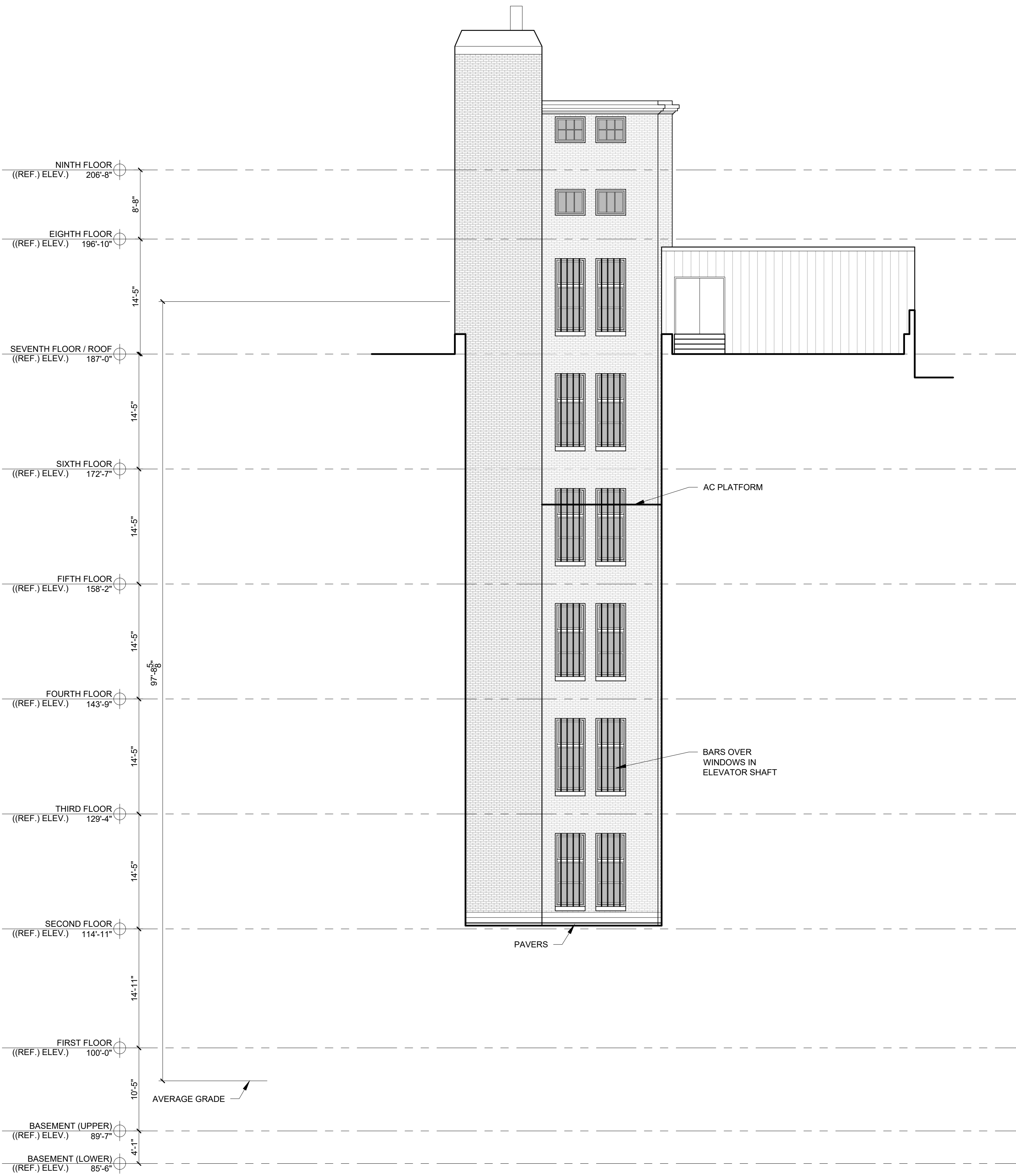


1 WEST COURTYARD ELEVATION - EXISTING
1/8" = 1'-0"

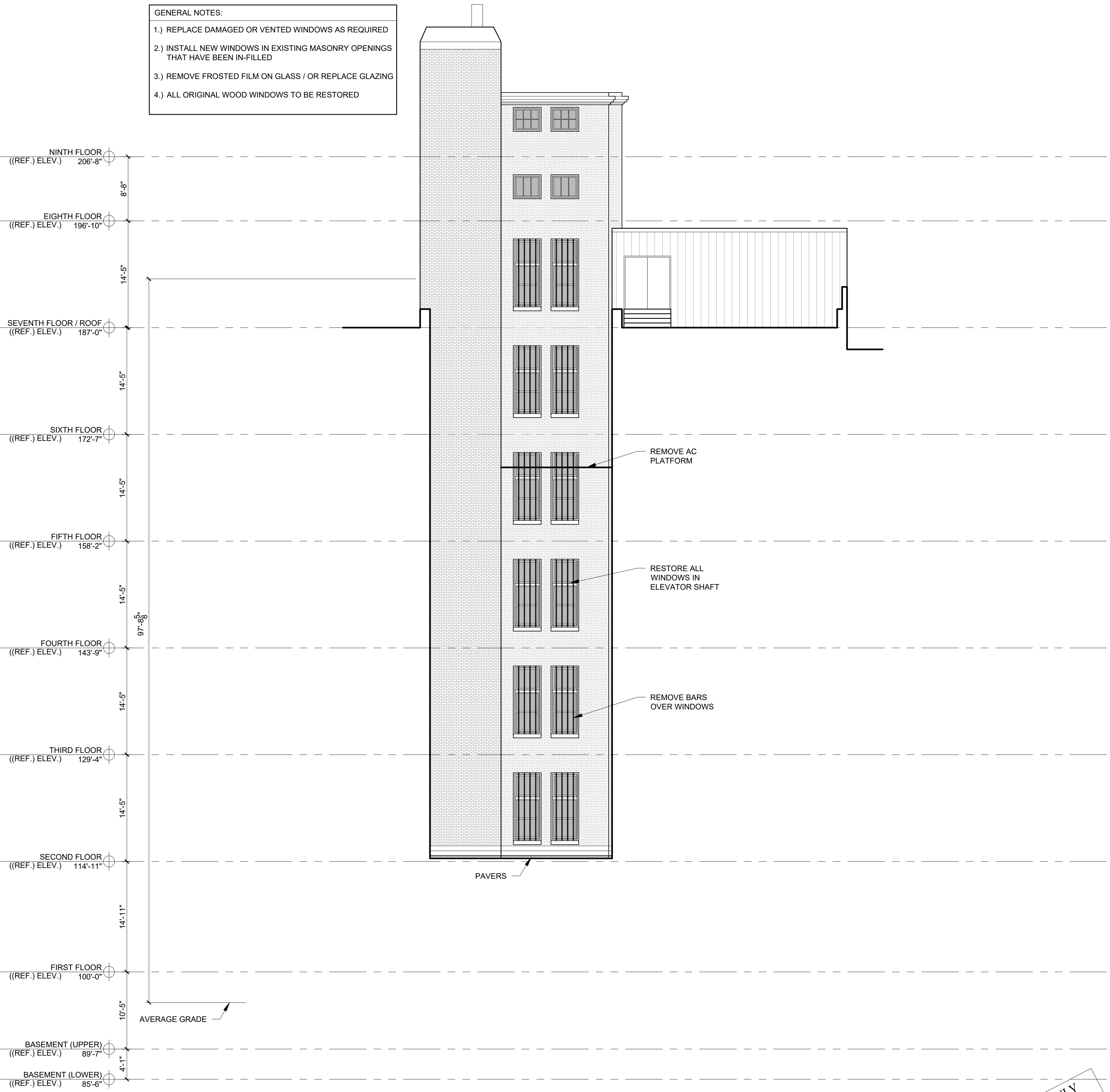
2 WEST COURTYARD ELEVATION - PROPOSED
1/8" = 1'-0"

EXISTING

PROPOSED



1 NORTH COURTYARD ELEVATION - EXISTING
1/8" = 1'-0"

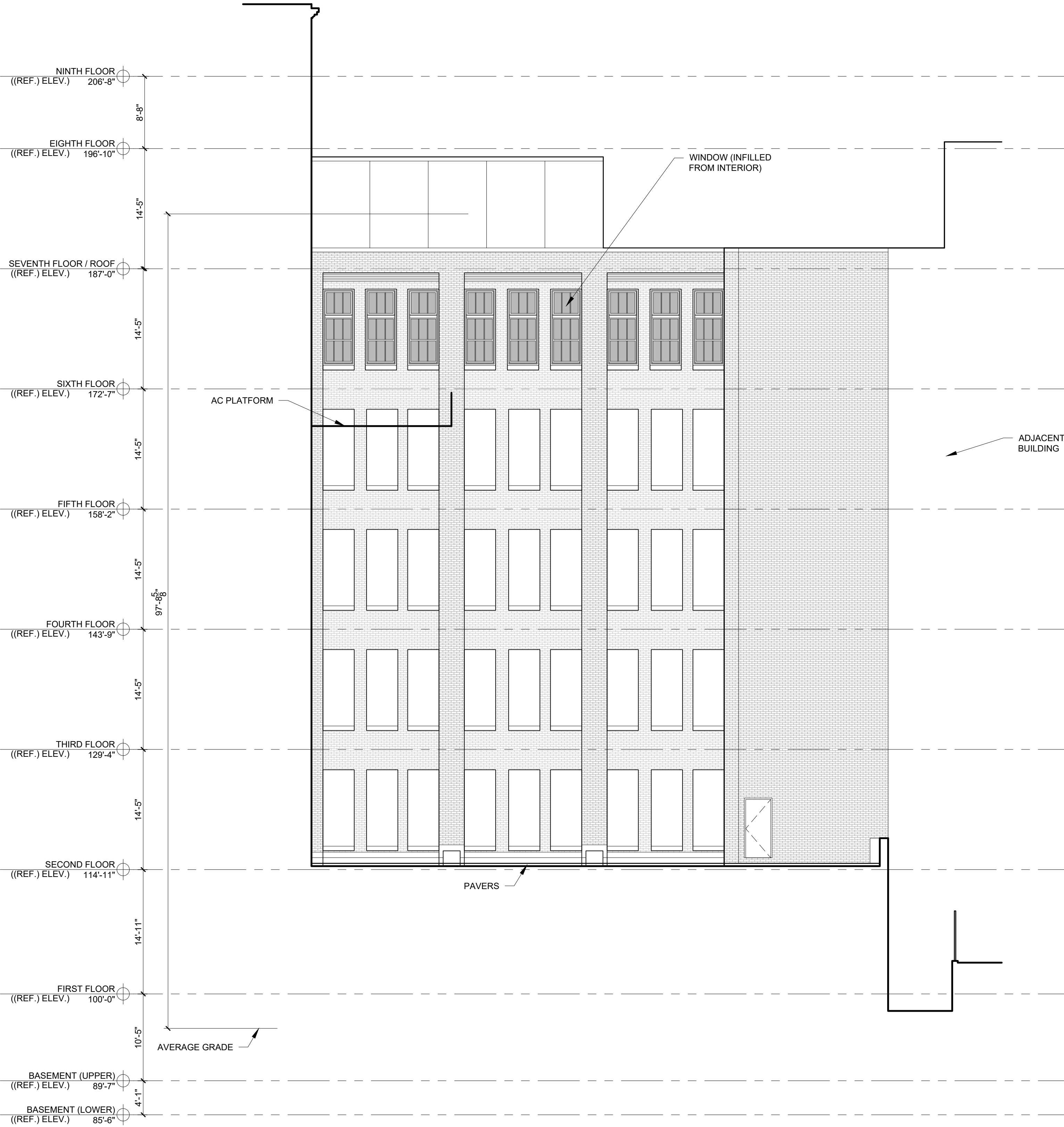


2 NORTH COURTYARD ELEVATION - PROPOSED
1/8" = 1'-0"

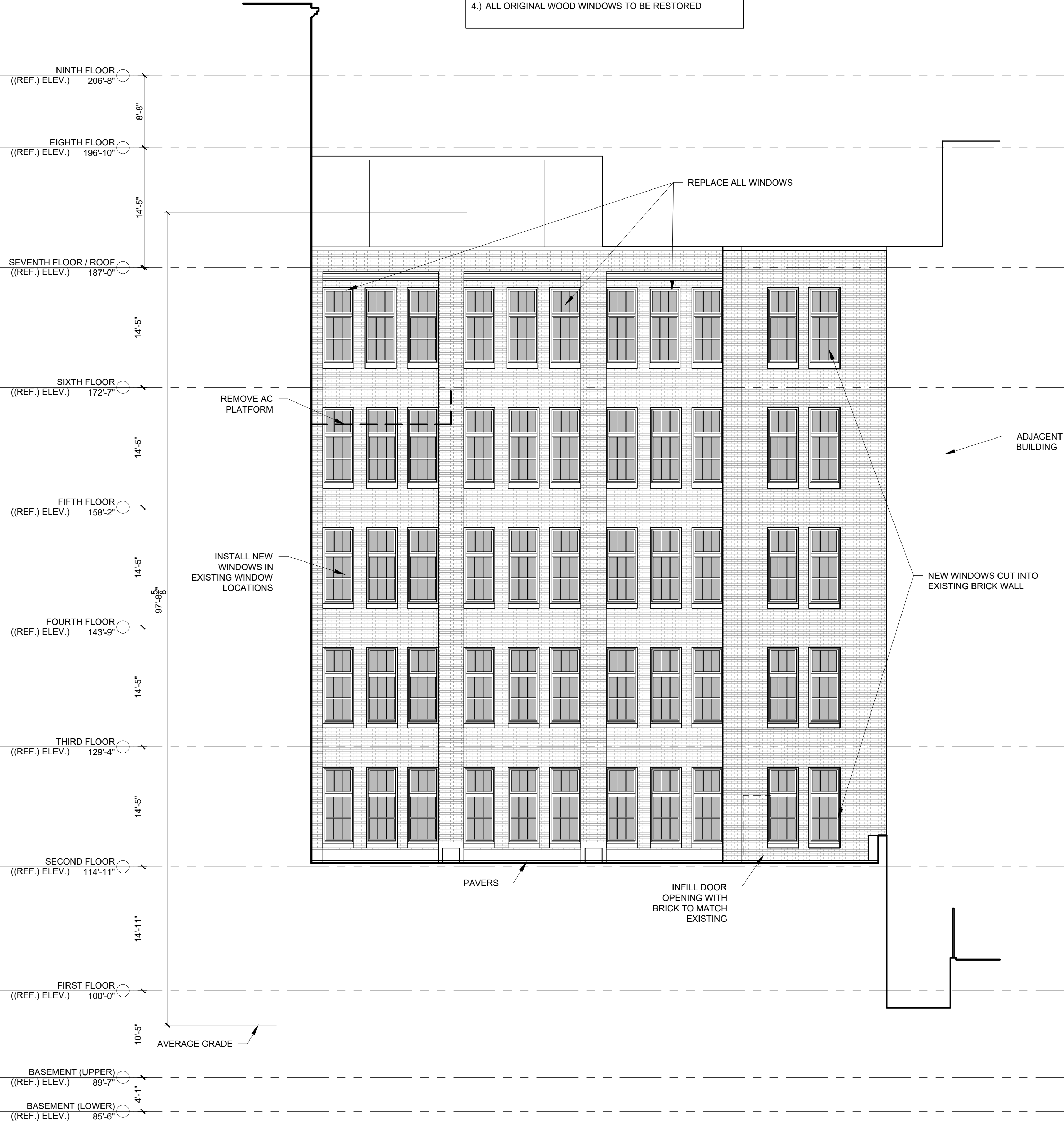
EXISTING

PROPOSED

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 - 4.) ALL ORIGINAL WOOD WINDOWS TO BE RESTORED



1 EAST COURTYARD ELEVATION - EXISTING
1/8" = 1'-0"



2 EAST COURTYARD ELEVATION - PROPOSED
1/8" = 1'-0"

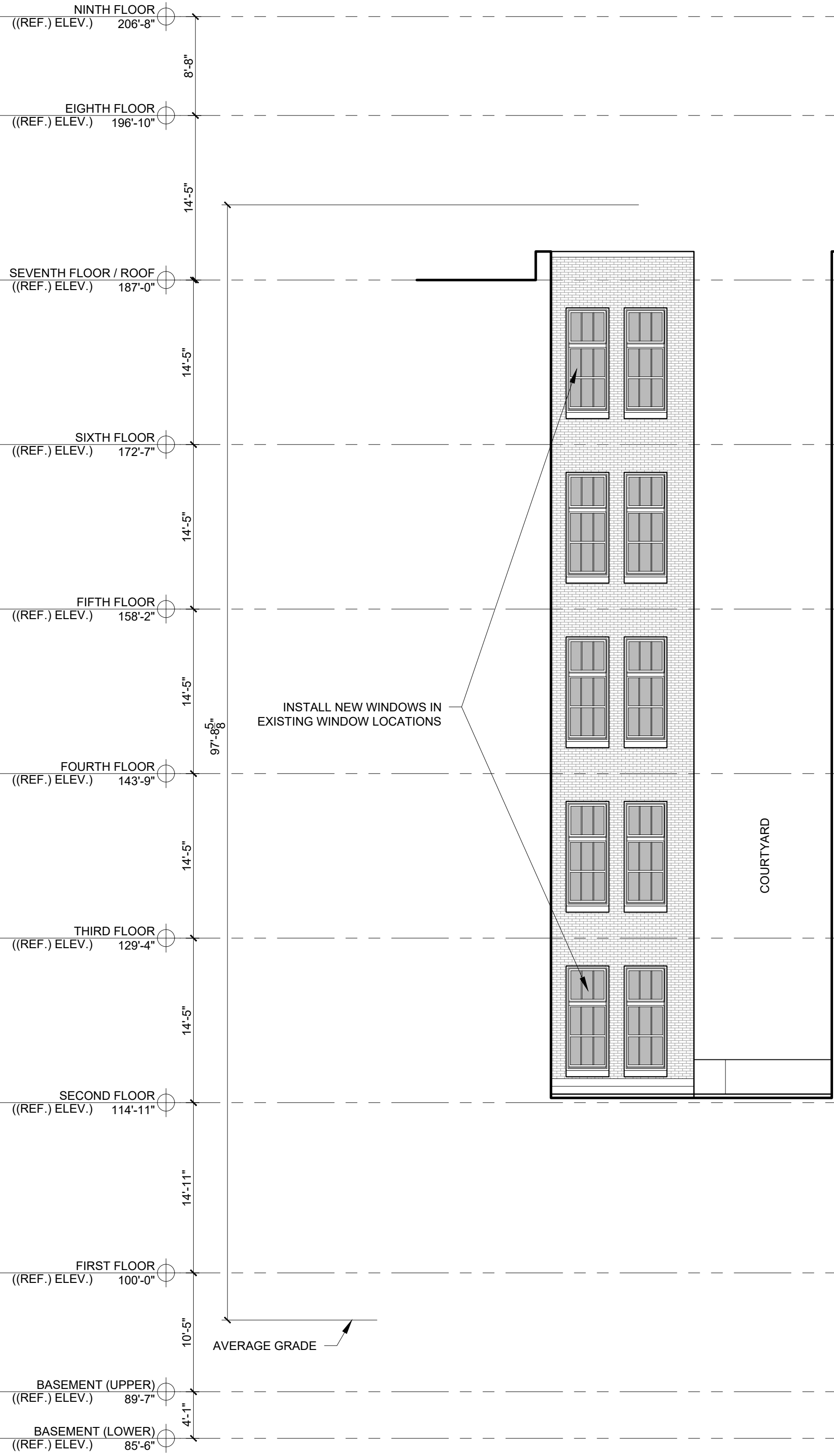
EXISTING

PROPOSED

- GENERAL NOTES:
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 - 3.) REMOVE FROSTED FILM ON GLASS / OR REPLACE GLAZING
 - 4.) ALL ORIGINAL WOOD WINDOWS TO BE RESTORED



1 SOUTH COURTYARD ELEVATION - EXISTING
1/8" = 1'-0"



2 SOUTH COURTYARD ELEVATION - PROPOSED
1/8" = 1'-0"

45 FOREST AVENUE REDEVELOPEMENT

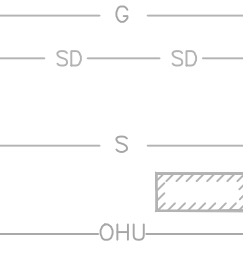
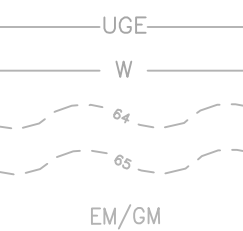
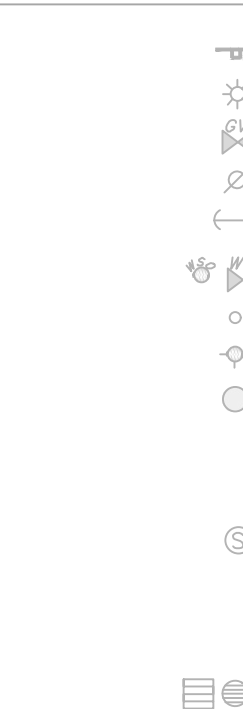
REDFERN PROPERTIES, LLC
PORTLAND, MAINE

CALL BEFORE YOU DIG
1-888-DIG-SAFE
1-888-344-7233

LEGEND

EXISTING

REFER TO
BOUNDARY &
TOPOGRAPHIC
SURVEY FOR
ADDITIONAL
INFORMATION

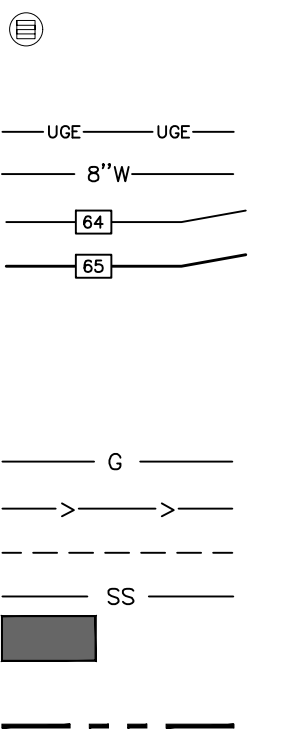


INDEX

- C-01 COVER SHEET & LEGEND
- C-02 GENERAL NOTES
- EX EXISTING CONDITIONS PLAN — BY NORTHERN SURVEY ENGINEERING DATED MARCH 29, 2021
- C-10 SITE & UTILITY PLAN
- C-40 SITE DETAILS
- C-41 UTILITY DETAILS
- C-42 EROSION CONTROL NOTES
- C-43 EROSION CONTROL DETAILS

PROPOSED

GREEN SPACE
UTILITY PAVEMENT CUTS
STRIPING
SEDIMENTATION BARRIER
EDGE OF PAVEMENT
CURB
SIGN
LAMP OR LIGHT POLE
GAS VALVE
UTILITY POLE
GUY WIRE
WATER VALVE OR SHUTOFF
BOLLARD
FIRE HYDRANT
MANHOLE
LIGHTING WALLPACK
OVERHEAD LIGHTING
SANITARY MANHOLE
DOGHOUSE MANHOLE
SANITARY CATCH BASIN
STORM DRAIN CATCH BASIN
STORM DRAIN MANHOLE
UNDERGROUND ELECTRIC LINE
UNDERGROUND WATER LINE
MINOR CONTOURS (1 FT)
MAJOR CONTOURS (5 FT)
ELECTRIC OR GAS METER
TELEPHONE
FIRE ALARM
GAS LINE
STORM DRAIN LINE
FOUNDATION DRAIN LINE
SEWER LINE
BUILDING
OVERHEAD ELECTRICAL/TELEPHONE/CABLE
PROPERTY LINE



UTILITIES

SEWER

DEPARTMENT OF PUBLIC WORKS (DPW)
250 CANCO ROAD
PORTLAND, MAINE 04101
CONTACT: BRAD ROLAND, P.E.
(207) 874-8834



WATER

PORTLAND WATER DISTRICT
225 DOUGLASS STREET
PO BOX 3553
PORTLAND, MAINE 04104
CONTACT: ROBERT BARTELS, P.E.
(207) 774-5961



ELECTRIC

CENTRAL MAINE POWER COMPANY (CMP)
162 CANCO ROAD
PORTLAND, MAINE 04103
CONTACT: PAUL DUPERRÉ & JAMIE COUGH
(207) 828-2882



TELEPHONE

CONSOLIDATED COMMUNICATIONS
(FORMERLY FAIRPOINT)
45 FOREST AVENUE
PORTLAND, MAINE 04101
CONTACT: PAT MORRISON
(207) 745-9363



CABLE

SPECTRUM CABLE
118 JOHNSON ROAD
PORTLAND, MAINE, 04102
CONTACT: MARK PELLETIER
(877) 546-0962



NATURAL GAS

UNITIL SERVICE CORP
1075 FOREST AVENUE
PORTLAND, ME 04103
CONTACT: BRIDGET HARMON
(207) 541-2536



PROJECT TEAM

DEVELOPER

REDFERN PROPERTIES, LLC
PORTLAND, MAINE
CONTACT: JONATHAN CULLEY
(207) 776-9715



ARCHITECT

RYAN SENATORE ARCHITECTURE
PORTLAND, MAINE
CONTACT: RYAN SENATORE, R.A.
(207) 650-6414



SURVEYOR

NORTHERN SURVEY ENGINEERING LLC
BRUNSWICK, MAINE
CONTACT: SEAN PIERCE, P.L.S.
(207) 440-3487



MEP DESIGNER

BENNETT ENGINEERING
FREEPORT, MAINE 04032
CONTACT: WILL BENNETT, P.E.
(207) 865-9475



CIVIL ENGINEER

ACORN ENGINEERING, INC
PORTLAND, MAINE
CONTACT: WILLIAM SAVAGE, P.E.
(207) 775-2655



GENERAL CONTRACTOR

TBD

ABBREVIATIONS

PARTIAL LIST OF ABBREVIATIONS AND THEIR CORRESPONDING MEANING. PLEASE CONTACT THE ENGINEER FOR ANY CLARIFICATION	
A.C.	ASBESTOS CEMENT
APPROX.	APPROXIMATE
BC	BOTTOM OF CURB
BMP	BEST MANAGEMENT PRACTICE
BOT.	BOTTOM
CB	CATCH BASIN
CF	CUBIC FOOT
C.I.	CAST IRON
CIP	CAST IN PLACE
CL	CENTERLINE
CM	CONSTRUCTION MANAGER
CMP	CENTRAL MAINE POWER
CONC.	CONCRETE
CPP	CORRUGATED PLASTIC PIPE
CY	CUBIC YARD
DI	DUCTILE IRON
DIA.	DIAMETER
DIM.	DIMENSION
EA	EACH
ELEC.	ELECTRICAL
ELEV. EL.	ELEVATION
EQUIV.	EQUIVALENT
EST.	ESTIMATE
EX.	EXISTING
FFE	FINISH FLOOR ELEVATION
FD	FOUNDATION DRAIN
FT.	FEET
GAL.	GALVANIZED
ID	INNER DIAMETER
IN.	INCH
INV.	INVERT
L	LENGTH
MAX.	MAXIMUM
MDOT	MAINE DEPARTMENT OF TRANSPORTATION
M.E.P	MECHANICAL, ELECTRICAL, PLUMBING DESIGNER
MFG.	MANUFACTURED
MH	MANHOLE
MIN.	MINIMUM
O.C.	ON CENTER
OD	OUTSIDE DIAMETER
OHE/T/C	OVERHEAD ELECTRIC/TELEPHONE/CABLE
PC	PRECAST
PE	PROFESSIONAL ENGINEER
PERF	PERFORATED
PL	PROPERTY LINE
PLS	PROFESSIONAL LAND SURVEYOR
PR.	PROPOSED
PSI	POUNDS PER SQUARE INCH
PVC	POLYVINYL CHLORIDE
PWD	PORTLAND WATER DISTRICT
R	RADIUS
RD	ROOF DRAIN
RET.	RETAINING
ROW	RIGHT OF WAY
S	SLOPE
SD	STORM DRAIN
SDR	STANDARD DIMENSION RATIO
SF	SQUARE FEET
SMH	SEWER MANHOLE
SPEC.	SPECIFICATION
TC	TOP OF CURB
TW	TOP OF WALL
TYP.	TYPICAL
UD	UNDERDRAIN
UGE	UNDERGROUND ELECTRIC

PRELIMINARY
NOT ISSUED FOR
CONSTRUCTION



VICINITY MAP
SCALE: 1"=500'

ISSUED FOR
PPH
MAJOR SITE PLAN

BY
DATE
7/16/2021

COVER SHEET & LEGEND

PROJECT NAME/ADDRESS:
REDFERN PROPERTIES, LLC

CLIENT/OWNER OF RECORD:
REDFERN PROPERTIES, LLC
PO BOX 8816 PORTLAND, MAINE 04104

ACORN ENGINEERING, INC.

ACORN ENGINEERING, INC.
PO BOX 3372, PORTLAND MAINE 04101
(207) 775-2655

STATE OF MAINE
WILLIAM H. SAVAGE
7/14/21
LICENSED PROFESSIONAL ENGINEER

FILE: 1148_CIVIL

JN: 1148

SCALE: AS NOTED

DESIGNED BY: PPH

DRAWN BY: ZMS

CHECKED BY: WHS/PPH

DRAWING NO.
C-01

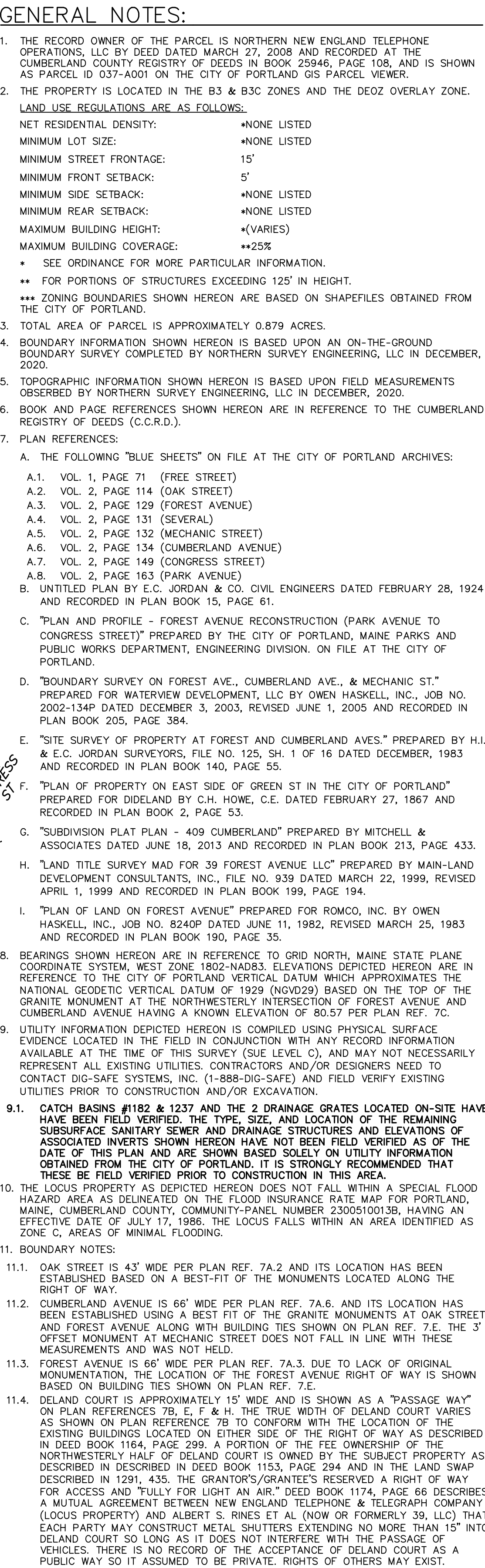
1. THE CONTRACTOR SHALL CALL THE APPROPRIATE UTILITIES COMPANIES AND DIG SAFE AT LEAST 72 HOURS PRIOR TO EXCAVATION TO REQUEST EXACT FIELD LOCATION FOR UTILITIES. OTHERWISE IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE LOCATION OF UNDERGROUND UTILITIES AND LOCATE ANY POTENTIAL CONFLICTS WITH THE APPROVED PLANS PRIOR TO CONSTRUCTION.
2. THE CONTRACTOR IS RESPONSIBLE FOR MAINTENANCE OF ALL EROSION CONTROL MEASURES SHOWN ON THE PLAN. IF DEEMED NECESSARY BY THE OWNER OR OWNER'S REPRESENTATIVE (IF APPLICABLE), ADDITIONAL EROSION CONTROL MEASURES SHALL BE INSTALLED AT NO ADDITIONAL COST TO THE OWNER.
3. THE CONTRACTOR SHALL PREPARE THEIR OWN MATERIAL SCHEDULE BASED ON THE PLANS AND FIELD VERIFICATION BY THE CONTRACTOR. ALL MATERIAL SCHEDULES SHOWN WITHIN THE PLAN SET ARE FOR GENERAL INFORMATION ONLY.
4. ALL CONSTRUCTION METHODS, TESTING AND MATERIALS SHALL CONFORM TO THE MAINE DEPARTMENT OF TRANSPORTATION SPECIFICATIONS, THE CITY OF PORTLAND AND SERVICING UTILITY REQUIREMENTS, IF ANY. IN CASES WHERE THESE CONFLICT THE MOST STRINGENT SPECIFICATION SHALL APPLY AT NO ADDITIONAL COST TO THE OWNER.
5. THE SITE CONTRACTOR SHALL MAINTAIN A SET OF PAPER AND CAD DRAWINGS WHICH SHALL RECORD THE ACTUAL LOCATION, DIMENSIONS, ELEVATIONS, MATERIALS OF THEIR WORK, INDICATING THEREON ALL VARIATIONS FROM THE CONTRACT DRAWINGS. THE CONTRACTOR SHALL PROVIDE THE OWNER WITH ONE COMPLETE SET OF REPRODUCIBLE RECORD DRAWINGS, IN .DWG FORMAT AND PAPER, STAMPED "AS-BUILT". IF AUTOCAD CAPABILITY IS NOT AVAILABLE, EXCLUDE FROM BID IN WRITING.
6. THE CONTRACTOR WILL REMAIN SOLELY AND COMPLETELY RESPONSIBLE FOR ENFORCEMENT OF AND COMPLIANCE WITH 1) ALL CONTRACT PLANS AND SPECIFICATIONS, 2) APPLICABLE INTERNATIONAL BUILDING CODE REQUIREMENTS, AND 3) ALL SITE WORKING CONDITIONS AND SAFETY REQUIREMENTS, DAY AND NIGHT, FOR BOTH PERSONS AND PROPERTY, IN EACH CASE BOTH BY THE CONTRACTOR AND ITS SUBCONTRACTORS. THESE INCLUDE ALL OSHA, NIOSH, U.S. EPA AND ANY OTHER APPLICABLE GOVERNMENTAL REGULATIONS.
7. EXISTING CONDITIONS, BOUNDARY SURVEY, AND TOPOGRAPHY FROM THE PLAN TITLED EXISTING CONDITIONS SURVEY BY NORTHERN SURVEY ENGINEERING DATED MARCH 29, 2021
8. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING ACCESS TO THE SITE AT ALL TIMES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TEMPORARY MARKINGS, SIGNAGE AND INCIDENTALS TO MAINTAIN A SAFE VEHICLE AND PEDESTRIAN ACCESS THROUGH THE LIFE OF THE PROJECT. THE CONTRACTOR SHALL NOTIFY THE PORTLAND PUBLIC SAFETY DIVISION ROUTINELY REGARDING TEMPORARY IMPACTS OR CHANGES TO SITE ACCESS CONDITIONS.
9. CONTRACTOR TO DETERMINE SOIL CLASSIFICATION INDEPENDENTLY FOR TRENCH, SHORING, AND OTHER SIMILAR CONSTRUCTION MEANS AND METHODS APPLICATIONS.
10. NO HOLES, TRENCHES, OR STRUCTURES SHALL BE LEFT OPEN OR UNATTENDED OVERNIGHT IN ANY AREA ACCESSIBLE TO THE PUBLIC OR WITHIN THE PUBLIC RIGHT-OF-WAY.
11. THE CONTRACTOR SHALL CONDUCT A PRE-CONSTRUCTION SURVEY OF INTERIOR SUBGRADE AND ABOVE GRADE ACCESSIBLE WALLS, CEILINGS, FLOORS, ROOF AND VISIBLE EXTERIOR AS VIEWED FROM THE GRADE LEVEL. THIS SHALL BE COMPLETED AT A MINIMUM FOR STRUCTURES DIRECTLY ACROSS THE SITE ALONG FOREST AVENUE, CUMBERLAND AVENUE, AND OAK STREET. A COPY OF THE SURVEY SHOULD BE PROVIDED TO THE OWNER. DOCUMENT WITH PICTURES AT A MINIMUM.
12. THE CONTRACTOR SHALL PROVIDE A GPS MODEL OF THE PROPERTY TO PROVIDE TO ACORN ENGINEERING.
13. THE CONTRACTOR SHALL SURVEY ROCK SURFACE PRIOR TO EXCAVATION AND DEVELOP VOLUME CALCULATIONS TO SHARE WITH THE ENGINEER, ACORN ENGINEERING INC. (ACORN), IF ANY.
14. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PRESERVATION OF ALL TREES AND SHRUBS ON THE PROJECT WHICH ARE NOT TO BE REMOVED.
15. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING ANY TRENCH PAVEMENT THAT HAS EXPERIENCED EXCESSIVE SETTLEMENT, CRACKING, OR OPENING OF JOINTS. REPAIRS MAY INCLUDE OVERLAY. REMOVAL OF WORK MAY BE NECESSARY AFTER THE FINAL ACCEPTANCE OF WORK OR PRIOR TO THE END OF THE WARRANTY PERIOD. THIS WORK SHALL BE DONE AT THE CONTRACTOR'S EXPENSE.

CIVIL SITE NOTES:

1. THE CONTRACTOR SHALL SUBMIT IN WRITING ANY REQUESTS TO ACORN TO MODIFY THE CONTRACT DOCUMENTS.
2. ALL SHOP, ERECTION, AND CONSTRUCTION DRAWINGS SHALL BE CHECKED AND STAMPED BY THE CONTRACTOR PRIOR TO SUBMISSION FOR ACORN'S REVIEW. ANY UNCHECKED OR NON-STAMPED SUBMITTALS WILL BE RETURNED WITHOUT REVIEW.
3. CONTRACTOR SHALL THOROUGHLY INSPECT AND SURVEY EXISTING STRUCTURES AND SITE TO VERIFY CONDITIONS THAT AFFECT THE WORK SHOWN ON THE DRAWINGS. CONTRACTOR TO NOTIFY ACORN OF ANY DISCREPANCIES PRIOR TO PROCEEDING.
4. DETAILS SHOWN APPLY TO ALL SIMILAR CONDITIONS UNLESS OTHERWISE INDICATED.
5. ALTHOUGH ALL DUE DILIGENCE HAS BEEN APPLIED TO MAKE THE DRAWINGS AS COMPLETE AS POSSIBLE, NOT ALL DETAILS ARE ILLUSTRATED, NOR IS EVERY EXCEPTION CONDITION ADDRESSED WITHIN THE CONTRACT DOCUMENTS.
6. ALL PROPRIETARY CONNECTIONS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
7. THE CONTRACTOR IS RESPONSIBLE FOR THE COORDINATION OF ALL WORK, INCLUDING DIMENSION AND LAYOUT VERIFICATION, MATERIALS COORDINATION, SHOP DRAWING REVIEW, AND THE WORK OF ANY SUBCONTRACTORS.
8. UNLESS OTHERWISE SPECIFICALLY INDICATED, THE DRAWINGS DO NOT DESCRIBE OR DIRECT MEANS OR METHODS OF CONSTRUCTION.
9. THE CONTRACTOR, IN THE PROPER SEQUENCE, SHALL PERFORM OR SUPERVISE ALL WORK NECESSARY TO ACHIEVE THE FINAL COMPLETED STRUCTURE, AND TO PROTECT THE STRUCTURE, WORKMEN, AND OTHERS DURING THE CONSTRUCTION. SUCH WORK SHALL INCLUDE, BUT NOT BE LIMITED TO, BRACING, SHORING FOR CONSTRUCTION EQUIPMENT, SHORING FOR EXCAVATION, FORMWORK, SCAFFOLDING, SAFETY DEVICES AND PROGRAMS OF ALL KINDS, SUPPORT AND BRACING FOR CRANES AND OTHER ERECTION EQUIPMENT.
10. DO NOT BACKFILL AGAINST RETAINING WALLS UNTIL SUPPORTING SLABS AND FLOOR FRAMING ARE IN PLACE AND SECURELY ANCHORED, UNLESS ADEQUATE BRACING IS PROVIDED. CONCRETE MAY NEED TO BE CURED FOR 28 DAYS PRIOR TO BACKFILLING AT THE DISCRETION OF THE STRUCTURAL ENGINEER.
11. TEMPORARY BRACING SHALL REMAIN IN PLACE UNTIL ALL FLOORS, WALLS, ROOFS AND OTHER SUPPORTING ELEMENTS ARE IN PLACE, IF APPLICABLE.
12. ALL PAVEMENT JOINTS SHALL BE SAWCUT AND APPLIED WITH TACK COAT PRIOR TO PAVING TO PROVIDE A DURABLE AND UNIFORM JOINT.
13. ACORN BEARS NO RESPONSIBILITY FOR THE ABOVE ITEMS, AND SITE OBSERVATION VISITS DO NOT IN ANY WAY INCLUDE INSPECTION OF THEM.
14. EXCAVATIONS ACCOMPLISHED AS PART OF THIS PROJECT SHALL BE CONSTRUCTED IN ACCORDANCE WITH SUBPART P OF 29 CRF PART 1926.650-.652 (CONSTRUCTION STANDARD FOR EXCAVATIONS).
15. ALL TRENCH PAVEMENT REPAIR SHALL BE COMPLETED WITH THE USE OF A STREET PAYER WITH A SCREED WIDTH CAPABLE OF SPANNING THE FULL WIDTH OF THE TRENCH UNLESS OTHERWISE AUTHORIZED BY THE ENGINEER.

1. ALL SITE SOILS-RELATED WORK AND FOOTING EXCAVATIONS PRIOR TO PLACING FORMS SHALL BE REVIEWED BY THE PROJECT GEOTECHNICAL ENGINEER.
2. ALL SITE DRAINAGE-RELATED WORK SHALL BE REVIEWED BY ACORN ENGINEERING.
3. NORMAL REVIEWS BY LOCAL BUILDING DEPARTMENT. NOTIFY 48 HOURS PRIOR TO REQUIRED REVIEW.
4. REQUIRED SPECIAL INSPECTIONS PER I.B.C. SECTION 1705.6 BY AN APPROVED SPECIAL INSPECTOR RETAINED BY OWNER. CONTRACTOR TO COORDINATE SPECIAL INSPECTIONS.
5. SPECIAL INSPECTOR SHALL BE A QUALIFIED PERSON WHO SHALL DEMONSTRATE COMPETENCE, TO THE SATISFACTION OF THE BUILDING OFFICIAL, FOR INSPECTION OF THE PARTICULAR TYPE OF CONSTRUCTION OR OPERATION REQUIRING SPECIAL INSPECTION.

- [illegible]



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.

DEVON J. HURLEY, MAINE PLS 2584

DATE _____

DRAWN DJH		CHECKED SPP	
PROJECT NO. 202777		DATE 03/29/21	
SHEET SIZE 24" x 36"		SCALE 1" = 20'	

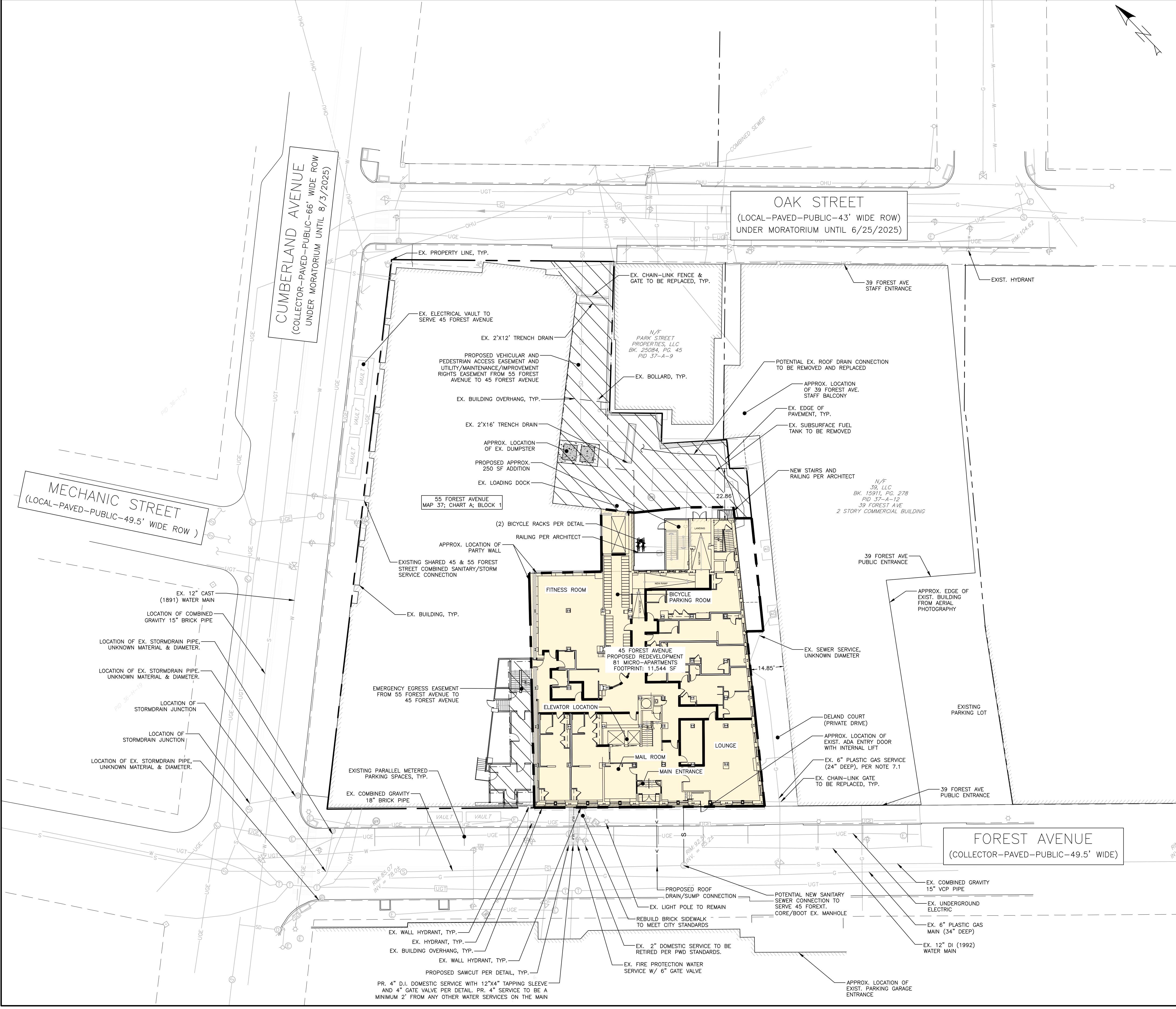
SHEET 1 OF 1

REV:	BY:	DATE:	STATUS:
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The logo for Norse Engineering, featuring the word "NORSE" in large blue letters with orange accents, and "NORTHERN SURVEY ENGINEERING" in smaller blue letters below it, with a stylized orange sunburst icon.

207.440.3487
22 PARKERS WAY, BRUNSWICK, MAINE 04011
www.northernsurveyengineering.com

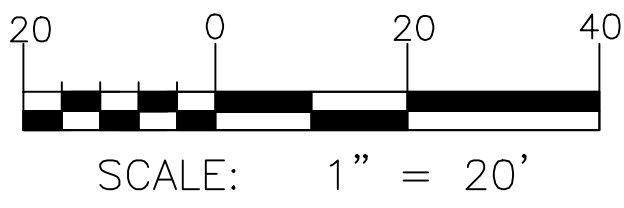
NORTHERN NEW ENGLAND
TELEPHONE OPERATIONS, LLC
BOOK 25946, PAGE 108



- GENERAL SITE NOTES:
- EXISTING CONDITIONS, BOUNDARY SURVEY, AND TOPOGRAPHY FROM THE PLAN TITLED "BOUNDARY & EXISTING CONDITIONS SURVEY" PREPARED BY NORTHERN SURVEY ENGINEERING, DATED 3/29/2021.
 - SIDEWALK AND VERTICAL GRANITE CURB TO BE REPLACED SHALL BE REBUILT TO CITY OF PORTLAND STANDARD.
 - PAVEMENT STRIPING AND MARKINGS SHALL COMPLY TO CITY OF PORTLAND STANDARDS.
 - ASPHALT TO BE REMOVED MUST BE STRIPPED AND PROPERLY DISPOSED OF OFFSITE.
 - CURB TO BE REMOVED, STOCKPILED AND RESET IN ACCORDANCE WITH DETAIL. BROKEN CURB SHALL BE PROPERLY DISPOSED OF AND SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.
 - ALL RAMPS TO CONFORM TO ADA GUIDELINES. SLOPE SHALL NOT EXCEED 1 INCH PER FOOT FOR A MAXIMUM RISE OF 30 INCHES.
 - ALL SITE SIGNAGE TO COMPLY WITH MUTCD STANDARDS. CONTRACTOR TO COORDINATE AND INSTALL.
 - FOLLOWING COMPLETION OF CONSTRUCTION, THE OWNER SHALL BE RESPONSIBLE FOR THE MAINTENANCE AND MANAGEMENT OF DRIVEWAYS, SITE LIGHTING, TRASH REMOVAL AND SNOW REMOVAL.

SPACE AND BULK STANDARDS			
B3/B3C DOWNTOWN BUSINESS, DOWNTOWN ENTERTAINMENT OVERLAY ZONE, CONGRESS STREET HISTORIC DISTRICT	REQUIRED	EXISTING	PROPOSED (45 FOREST AVE)
MINIMUM LOT SIZE	NONE	0.88 AC	0.29 AC
MINIMUM STREET FRONTAGE	15'	OAK - 99' CUMBERLAND - 247' FOREST - 193'	FOREST - 103'
MAX FRONT YARD SETBACK	5'	0'	0.04'
SIDE YARD SETBACK	NONE	0'	0'
REAR YARD SETBACK	NONE	22.86'	22.86'
MINIMUM LOT WIDTH	NONE	195'	103'
MAXIMUM LOT COVERAGE	100%	83.7%	92.8%
MINIMUM BUILDING HEIGHT	35'	97.72'	97.72'
MAXIMUM BUILDING HEIGHT	210'	97.72'	97.72'
MAX LENGTH OF UNDIFFERENTIATED BLANK WALL ALONG PUBLIC STREET	30' (15' IN PAD OVERLAY ZONE)	-	-
BICYCLE PARKING*	40	N/A	40 (INTERIOR)
VEHICLE PARKING**	N/A	N/A	N/A
*BICYCLE PARKING BASED UPON TWO (2) SPACES PER FIVE (5) UNITS WITH 81 UNITS = 32 BICYCLE PARKING SPACES			
**VEHICLE PARKING BASED UPON LAND USE CODE, TABLE 19-B: OFF-STREET PARKING - NO OFF-STREET PARKING REQUIRED FOR CHANGES OF USE.			

- UTILITY GENERAL NOTES:
- LOCATION OF PROPOSED CONNECTIONS ARE APPROXIMATE. CONTRACTOR TO CONTACT ENGINEER IF FIELD INFORMATION VARIES FROM INFORMATION ON PLANS.
 - CONTRACTOR IS TO BE CAUTIONED THAT CERTAIN LOCATIONS AND/OR ELEVATIONS OF EXISTING UTILITIES HAVE BEEN PROVIDED THROUGH UTILITY COORDINATION OR OTHER OBSERVATIONS. INFORMATION IS NOT TO BE RELIED UPON AS EXACT OR COMPLETE. CONTRACTOR TO FIELD VERIFY AND COORDINATE WITH UTILITY COMPANY AND DIG SAFE. NO LESS THAN 72 HOURS PRIOR TO ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF ALL UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS INDICATED IN THE CONTRACT DOCUMENTS. CONTRACTOR TO NOTIFY ENGINEER OF ANY DIFFERENTIATIONS FROM EXISTING CONDITIONS, INCLUDING UTILITY INFORMATION, PRIOR TO ANY CHANGES.
 - FOR ALL UTILITIES, ACORN ENGINEERING DESIGN LIMITS END AT EXTERIOR WALL OF BUILDING. METERING OF UTILITIES TO BE COMPLETED BY M.E.P. UNLESS SPECIFIED OTHERWISE.
 - CONTRACTOR TO COORDINATE WITH ARCHITECT ON FINAL UTILITY CONNECTIONS WITHIN THE BUILDING.
 - SEWER UTILITIES: CONTRACTOR TO COORDINATE WITH ARCHITECT FOR FINAL SERVICE CONNECTION. SEWER UTILITIES TO BE CONSTRUCTED IN ACCORDANCE WITH CITY OF PORTLAND STANDARDS. VALVE FOR BACKFLOW PREVENTION SHALL BE INSTALLED WITHIN THE THE PROPERTY LINES FOR EACH CITY SEWER CONNECTION. CONTACT ENGINEER IF INVERT FIELD CONDITIONS VARY FROM DESIGN.
 - WATER UTILITIES: FINAL PIPE SIZING PROVIDED BY M.E.P. ENGINEER AND FIRE PROTECTION DESIGNER. INTERNAL METERING, BACKFLOW PREVENTION, AND PRESSURE REDUCERS TO BE COMPLETED BY M.E.P. ENGINEER. DOMESTIC WATER PIPE SIZES WILL DETERMINE THE FINAL WATER METERING OPTIONS. METER MAY BE SMALLER THAN PROPOSED WATER MAIN. WATER METERING, PRESSURE REDUCER AND BACKFLOW PREVENTION TO BE IN ACCORDANCE WITH THE PORTLAND WATER DISTRICT STANDARDS. CONTRACTOR TO FOLLOW METERING GUIDELINES OF THE PORTLAND WATER DISTRICT AND CITY OF PORTLAND.
 - EXISTING WATER SERVICE INFORMATION OBTAINED FROM PORTLAND WATER DISTRICT INFRASTRUCTURE MAP FOR 45 FOREST AVENUE AND 95 OAK STREET. CONTACT PORTLAND WATER DISTRICT FOR ADDITIONAL INFORMATION.
 - GAS UTILITIES: PROJECT GAS LOAD, GAS UTILITY DESIGN, AND FINAL GAS SERVICE LOCATION AND METERS TO BE DEFINED BY M.E.P. AND IN ACCORDANCE WITH UNTIL.
 - EXISTING GAS MAIN INFORMATION OBTAINED FROM UNTIL 45 FOREST AVE MAIN RECORD ON 11/25/2020. EXISTING PROPERTY'S GAS SERVICE INFORMATION OBTAINED FROM UNTIL SERVICE CARD ON 11/30/2020. COORDINATE WITH UNTIL FOR ADDITIONAL INFORMATION.
 - ELECTRIC UTILITIES: ELECTRIC DESIGN TO BE FINALIZED BY M.E.P. ENGINEER. ELECTRICAL LOAD TO BE DETERMINED BY M.E.P. ENGINEER. METER LOCATION AND TRANSFORMER SIZE, IF NECESSARY DEFINED BY M.E.P. M.E.P. TO FINALIZE SERVICE CONNECTION TO BUILDING. ALL ELECTRIC CONSTRUCTION SHALL CONFORM TO CMP GUIDEBOOK OF STANDARD REQUIREMENTS, MOST RECENT EDITION. DESIGN SUBJECT TO FINAL APPROVAL FROM CMP.
 - CABLE AND TELEPHONE PULLBOXES AND PEDESTAL LOCATIONS TO BE DETERMINED BY CHARTER COMMUNICATIONS AND FAIRPOINT PRIOR TO CONSTRUCTION. CONTRACTOR TO COORDINATE INSTALLATION OF UNDERGROUND UTILITIES WITH ALL UTILITY COMPANIES INVOLVED.



PRELIMINARY
NOT ISSUED FOR
CONSTRUCTION

ISSUED FOR

BY

DATE

PRE-APP

7/7/2020

PFH

CSS

7/7/2021

PFH

MAJOR SITE PLAN

7/16/2021

PFH

SITE & UTILITY PLAN

PROJECT NAME/ADDRESS:

REDFERN PROPERTIES, LLC

CLIENT/OWNER OF RECORD:

REDFERN PROPERTIES, LLC

PO BOX 8816 PORTLAND, MAINE 04104

ACORN ENGINEERING, INC.

11419 8/5/21

STATE OF MAINE

REGISTERED PROFESSIONAL ENGINEER

WILLIAM H. SAVAGE

FILE:

1148_CIVIL

JN:

1148

SCALE:

AS NOTED

DESIGNED BY:

PFH

DRAWN BY:

ZMS

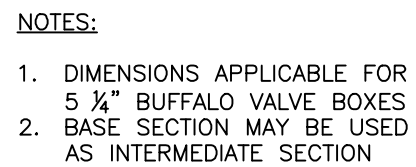
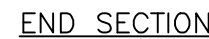
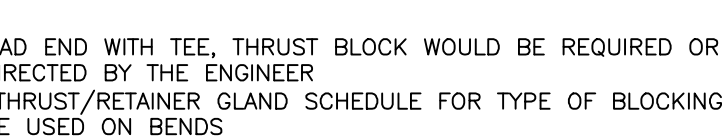
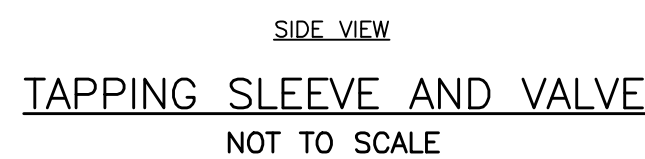
CHECKED BY:

WHS/PFH

DRAWING NO.

C-10

1. ANY ALTERNATE TRENCHING METHODS SHALL BE APPROVED IN ADVANCE BY THE CITY.
2. ALL CONSTRUCTION METHODS SHALL CONFORM TO THE CITY OF PORTLAND TECHNICAL STANDARDS FIGURE II-2.
3. BRACING & SHEETING OR OTHER TRENCH PROTECTION TO BE PROVIDED TO MEET APPLICABLE STATE AND OSHA SAFETY STANDARDS. ALL SUCH TRENCH PROTECTION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
4. WHERE APPLICABLE, PERFORATIONS IN STORM DRAIN (PERFSD) SHALL BE ORIENTED UP.
5. ALL STORM DRAINS SHALL BE PVC SDR 35 MIN PMS 446 RATING OR IN ACCORDANCE WITH CITY OF PORTLAND TECHNICAL STANDARDS FIGURE II-2, PART 2.5.
6. IN PAVED AREAS, DEPTHS OF GRAVE AND HOT MIX ASPHALT PAVEMENT SHALL MATCH THE GREATER OF EXISTING CONDITIONS OR THE REQUIREMENTS FOR THE CORRESPONDING STREET CLASSIFICATION.
7. THIS DETAIL SHALL BE APPLIED ONLY TO PIPE TRENCHES WITHIN OF THE CITY OF PORTLAND ROW/STORM DRAIN BETWEEN 2" AND 36" RIGID INSULATION. 4" OF RIGID INSULATION BETWEEN 3" AND 4" SHALL INCLUDE 2" RIGID INSULATION, OTHER UTILITIES; ADD 2" OF RIGID INSULATION FOR EACH FOOT ABOVE MINIMUM DEPTH.



NOT TO SCALE



1. BACKFLOW VALVE TO BE PROVIDED BY AGRI DRAIN CORPORATION OR AN APPROVED EQUAL.
2. VALVE TO BE INSTALLED TO MANUFACTURER'S SPECIFICATIONS AND COMPLY WITH RULES AND REGULATIONS AS OUTLINED IN SECTION 2 OF THE CITY OF PORTLAND TECHNICAL MANUAL.
3. VALVE SHALL BE INSTALLED WITH A VALVE BOX AND COVER TO PROVIDE EASY ACCESS AND MAINTENANCE; VALVE COVER SHALL STATE "SEWER" ON LID FLUSH TO SURFACE. REFER TO VALVE & BOX COVER DETAIL FOR ADDITIONAL INFORMATION.
4. CONCRETE COLLAR AT A MINIMUM 24-HOUR COMPRESSIVE STRENGTH OF 3,000 PSI.

NOT TO SCALE



1. DIMENSIONS APPLICABLE FOR SIGMA COMPACT BENDS. FOR TYLER COMPACT BENDS, ADD 1/2" TO "D" DIMENSION AND SUBTRACT 1/2" FROM "L" DIMENSION.
2. FOR OTHER FITTINGS REFER TO MANUFACTURER'S RECOMMENDATIONS.

	6" PIPE		8" PIPE		12" PIPE	
H	D	L	D	L	D	L
12'	1' 6-1/2"	0' 10-1/2"	1' 7-1/2"	0' 9-1/2"	1' 11-1/2"	0' 5-1/2"
13'	1' 7-1/2"	0' 11-7/8"	1' 8-1/2"	0' 10-7/8"	2' 0-1/2"	0' 6-7/8"
14'	1' 8-1/2"	1' 1-5/16"	1' 9-1/2"	1' 0-5/16"	2' 1-1/2"	0' 8-5/16"
15'	1' 9-1/2"	1' 2-1/8"	1' 10-1/2"	1' 1-1/8"	2' 2-1/2"	0' 10-1/8"
16'	1' 10-1/2"	1' 4-1/8"	1' 11-1/2"	1' 3-1/8"	2' 3-1/2"	0' 11-9/16"
17'	1' 11-1/2"	1' 5-9/16"	2' 0-1/2"	1' 4-9/16"	2' 4-1/2"	0' 1-0/16"
18'	2' 0-1/2"	1' 6-15/16"	2' 1-1/2"	1' 5-15/16"	2' 5-1/2"	1' 1-15/16"
19'	2' 1-1/2"	1' 7-7/8"	2' 2-1/2"	1' 7-7/8"	2' 6-1/2"	1' 2-1/8"
20'	2' 2-1/2"	1' 9-13/16"	2' 3-1/2"	1' 8-13/16"	2' 7-1/2"	1' 4-13/16"
21'	2' 3-1/2"	1' 11-3/16"	2' 4-1/2"	1' 10-3/16"	2' 8-1/2"	1' 6-3/16"
22'	2' 4-1/2"	2' 0-5/8"	2' 5-1/2"	1' 11-5/8"	2' 9-1/2"	1' 7-5/8"
23'	2' 5-1/2"	2' 1-1/4"	2' 6-1/2"	1' 12-1/4"	2' 10-1/2"	1' 8-7/8"
24'	2' 6-1/2"	2' 3-7/16"	2' 7-1/2"	2' 2-7/16"	2' 11-1/2"	1' 10-7/16"
25'	2' 7-1/2"	2' 4-7/8"	2' 8-1/2"	2' 3-7/8"	3' 0-1/2"	1' 11-7/8"
26'	2' 8-1/2"	2' 6-1/8"	2' 9-1/2"	2' 5-1/4"	3' 1-1/2"	2' 1-1/4"
27'	2' 9-1/2"	2' 7-1/8"	2' 10-1/2"	2' 6-5/8"	3' 2-1/2"	2' 3-3/8"
28'	2' 10-1/2"	2' 9-1/8"	2' 11-1/2"	2' 8-1/8"	3' 3-1/2"	2' 4-1/8"
29'	2' 11-1/2"	2' 10-1/2"	3' 0-1/2"	2' 9-1/2"	3' 4-1/2"	2' 5-1/2"
30'	3' 0-1/2"	2' 11-15/16"	3' 1-1/2"	2' 10-15/16"	3' 5-1/2"	2' 6-15/16"
31'	3' 1-1/2"	2' 12-1/4"	3' 2-1/2"	2' 11-1/4"	3' 6-1/2"	2' 7-3/8"
32'	3' 2-1/2"	3' 2-3/4"	3' 3-1/2"	3' 1-3/4"	3' 7-1/2"	2' 9-3/4"
33'	3' 3-1/2"	3' 4-3/16"	3' 4-1/2"	3' 3-3/16"	3' 8-1/2"	2' 11-3/16"
34'	3' 4-1/2"	3' 5-9/16"	3' 5-1/2"	3' 4-9/16"	3' 9-1/2"	3' 0-8/16"
35'	3' 5-1/2"	3' 6-7/8"	3' 6-1/2"	3' 5-7/8"	3' 10-1/2"	3' 1-1/2"
36'	3' 6-1/2"	3' 8-7/16"	3' 7-1/2"	3' 7-7/16"	3' 11-1/2"	3' 3-7/16"
37'	3' 7-1/2"	3' 9-13/16"	3' 8-1/2"	3' 8-13/16"	4' 0-1/2"	3' 4-13/16"
38'	3' 8-1/2"	3' 11-1/4"	3' 10-1/2"	3' 10-1/4"	4' 1-1/2"	3' 6-1/4"
39'	3' 9-1/2"	3' 12-1/8"	3' 11-1/2"	3' 11-1/8"	4' 2-1/2"	3' 7-1/8"
40'	3' 10-1/2"	4' 2-1/16"	3' 11-1/2"	4' 1-1/16"	4' 3-1/2"	3' 9-1/16"
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42'	4' 0-1/2"	4' 4-1/8"	4' 1-1/2"	4' 3-1/8"	4' 5-1/2"	3' 11-1/8"
43'	4' 1-1/2"	4' 6-5/16"	4' 2-1/2"	4' 5-5/16"	4' 6-1/2"	4' 1-5/16"
44'	4' 2-1/2"	4' 7-3/4"	4' 3-1/2"	4' 6-3/4"	4' 7-1/2"	4' 2-3/4"
45'	4' 3-1/2"	4' 9-1/8"	4' 4-1/2"	4' 8-1/8"	4' 8-1/2"	4' 4-1/8"
46'	4' 4-1/2"	4' 10-3/8"	4' 5-1/2"	4' 9-3/8"	4' 9-1/2"	4' 5-1/4"
47'	4' 5-1/2"	4' 11-15/16"	4' 6-1/2"	4' 10-15/16"	4' 10-1/2"	4' 6-15/16"
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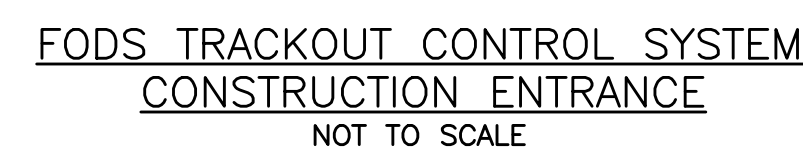
NOT TO SCALE



1. SAWCUT EXISTING PAVEMENT AND BUTT GRIND 2' STRIP OF EXISTING PAVEMENT. APPLY BITUMINOUS TACK COAT PRIOR TO PLACEMENT OF NEW BITUMINOUS PAVEMENT.
2. THE NEW PAVEMENT SECTION SHALL MEET THE BITUMINOUS PAVEMENT SECTION DETAIL AT A MINIMUM OR THE THE EXISTING PAVEMENT AND AGGREGATE BASE AND SUBBASE DEPTH WHICHEVER IS GREATER.



1. FULL CONTACT WITH THE GROUND IS CRITICAL TO PREVENT SHORT CIRCUITING UNDER THE TUBE - THE GROUND SURFACE SHOULD BE SMOOTH AND LEVEL. IN WOODED AREAS, PROTRUDING ROOTS AND DEBRIS MAY NEED TO BE REMOVED. IN GRASSED AREAS, THE GRASS NEEDS TO BE EITHER MOWED OR COMPRESSED DOWN.
2. UPON FINAL STABILIZATION, THE TUBE CAN BE CUT OPEN AND THE MATERIAL USED WITHIN LANDSCAPED AREAS. THE MESH MATERIAL SHOULD BE REMOVED.
3. LOOSE COMPOST MAY BE BACKFILLED ALONG THE UPSLOPE SIDE OF THE COMPOST FILTER SOCK, IMPROVING FILTRATION AND SEDIMENT RETENTION.

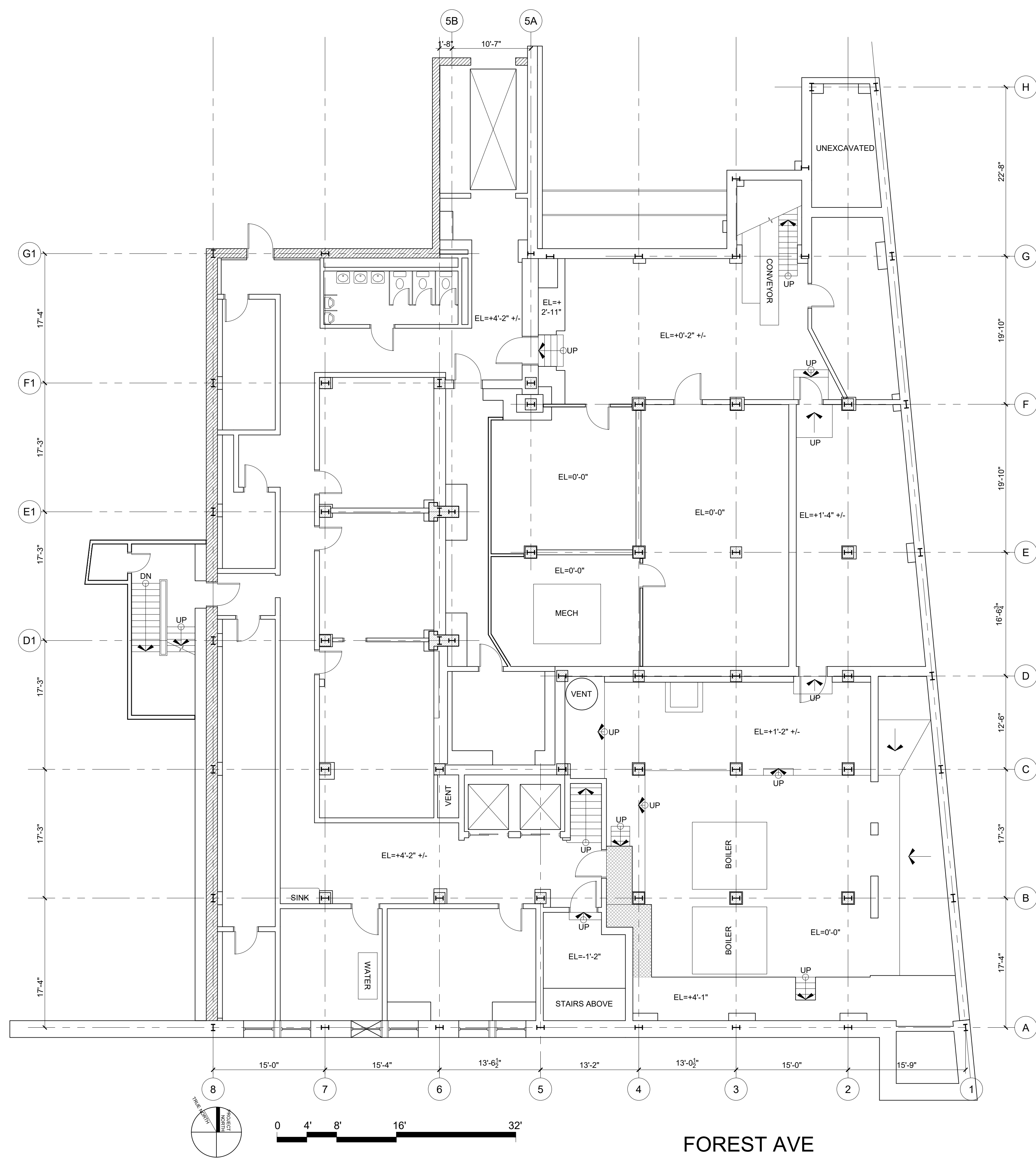


PRELIMINARY
NOT ISSUED FOR
CONSTRUCTION

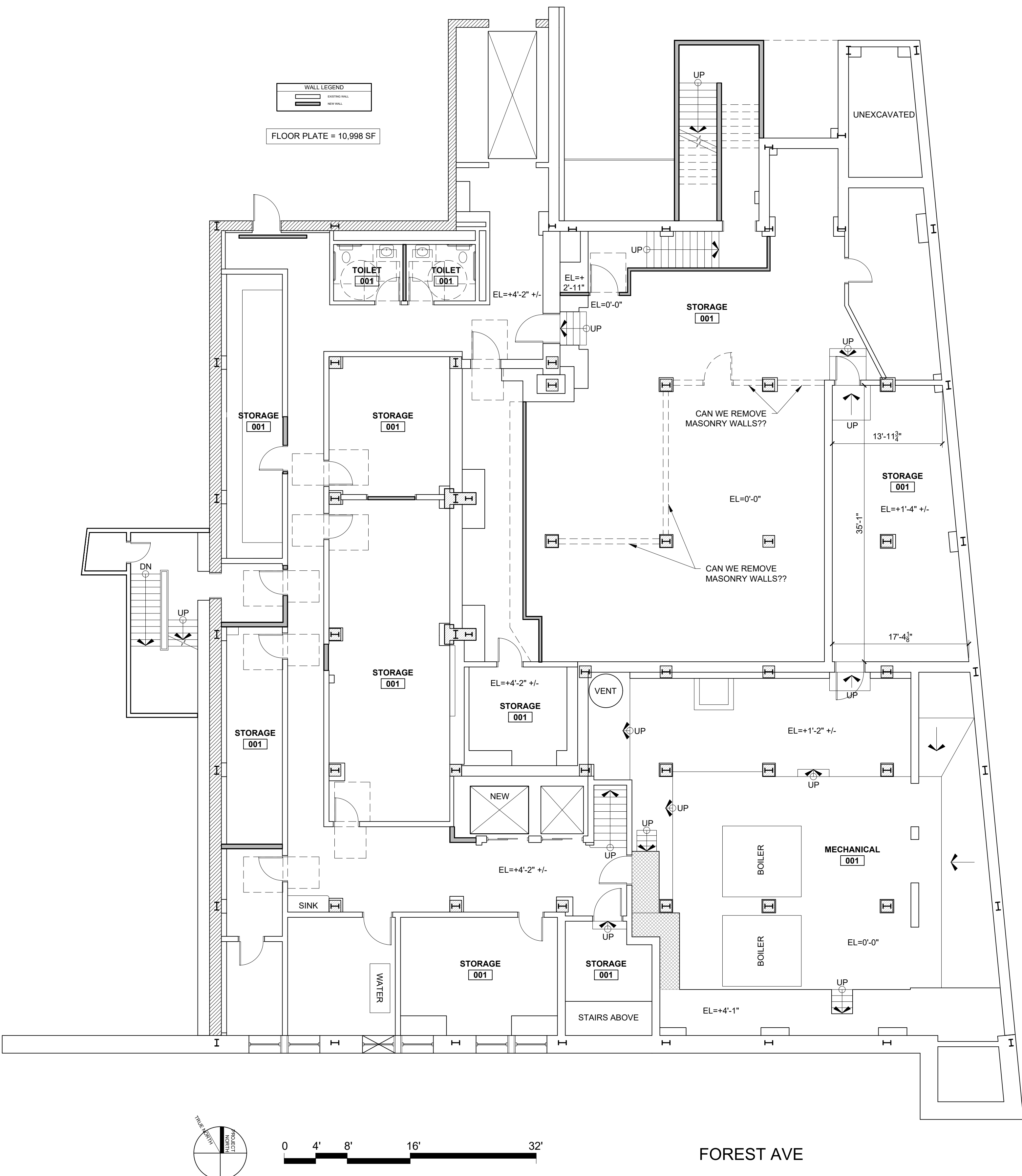
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EXISTING

PROPOSED

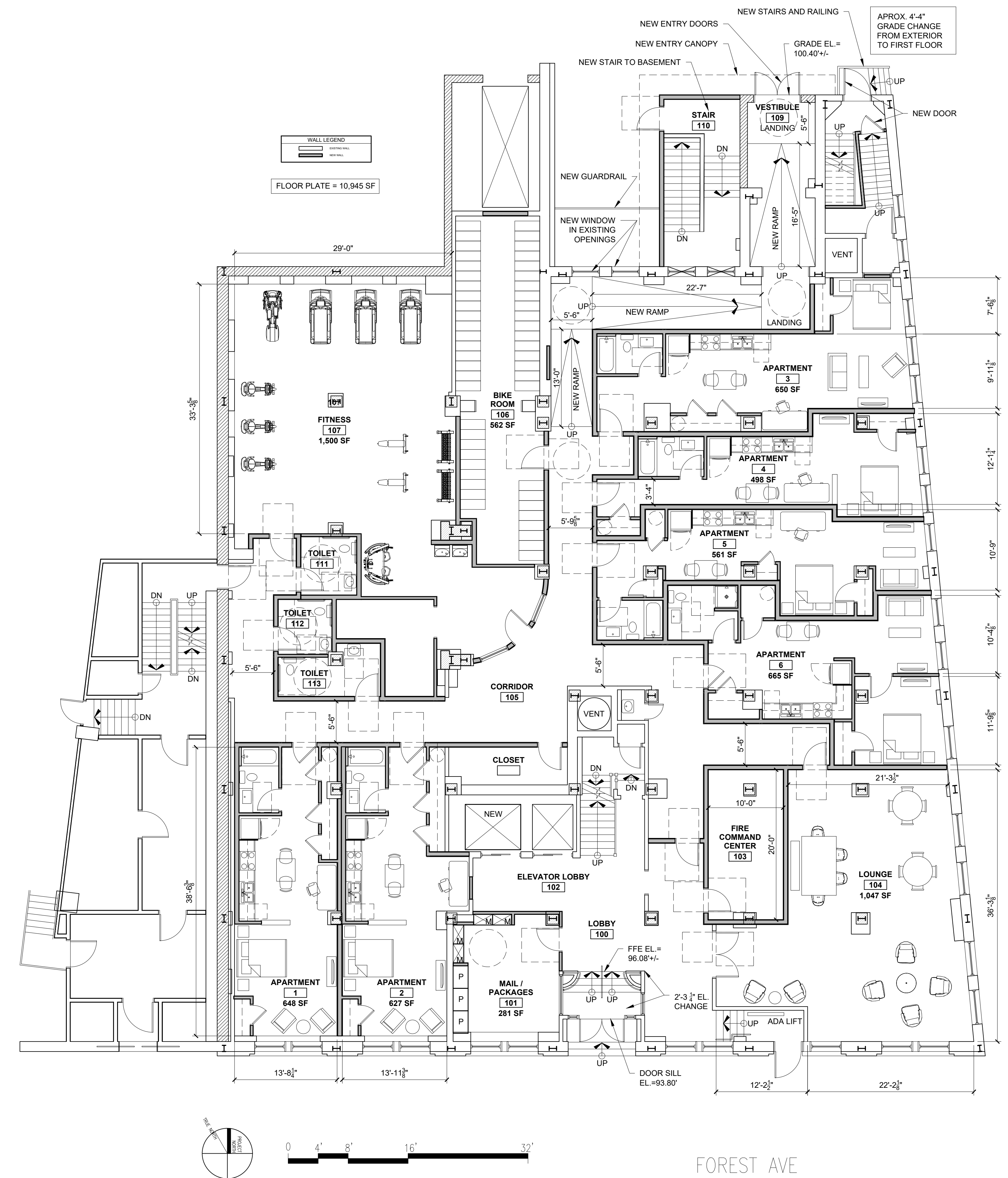


1 EXISTING BASEMENT PLAN
1/8" = 1'-0"



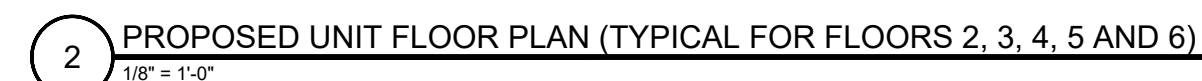
2 PROPOSED BASEMENT PLAN
1/8" = 1'-0"

PROPOSED



2 PROPOSED FIRST FLOOR PLAN
1/8" = 1'-0"

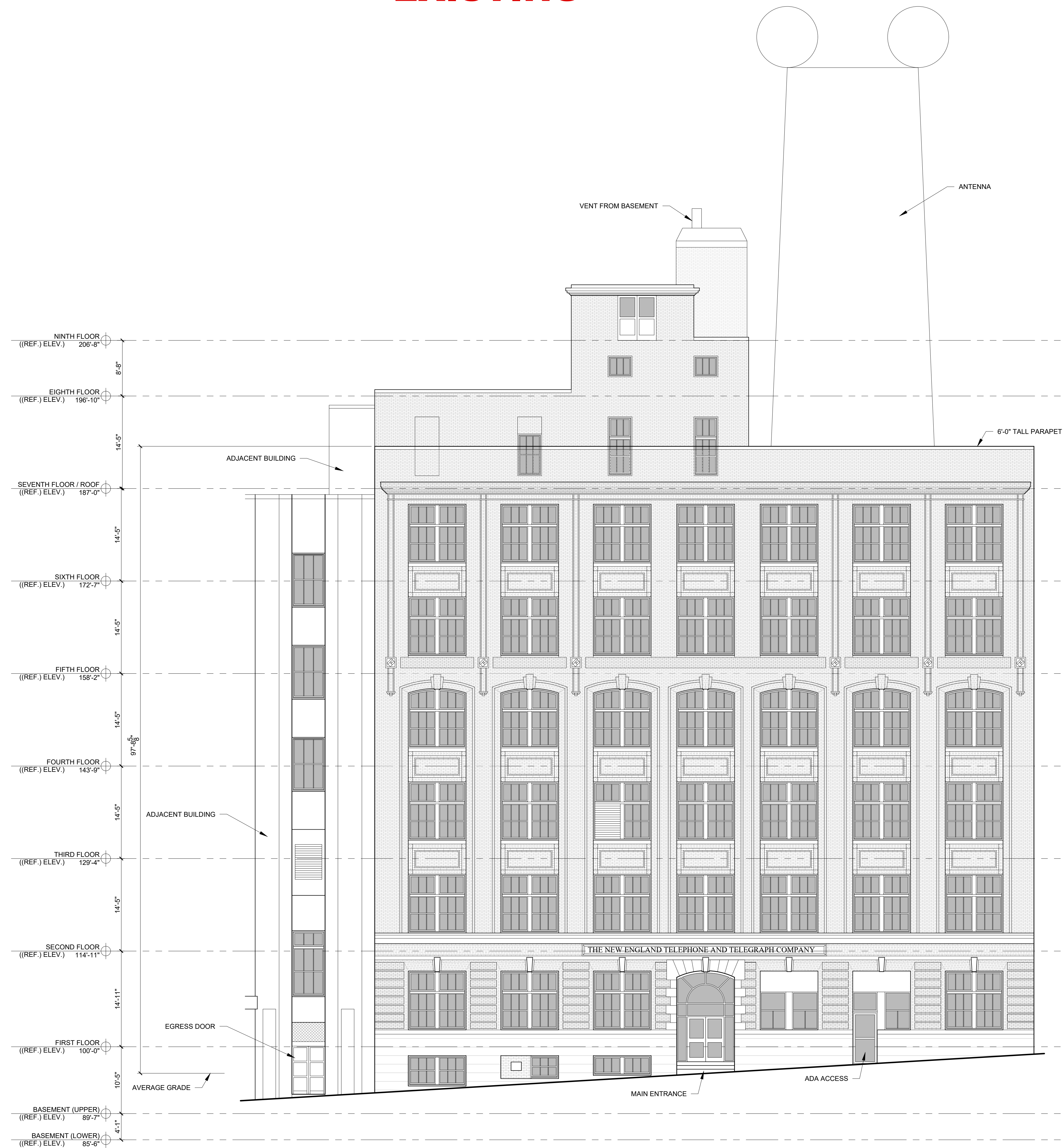
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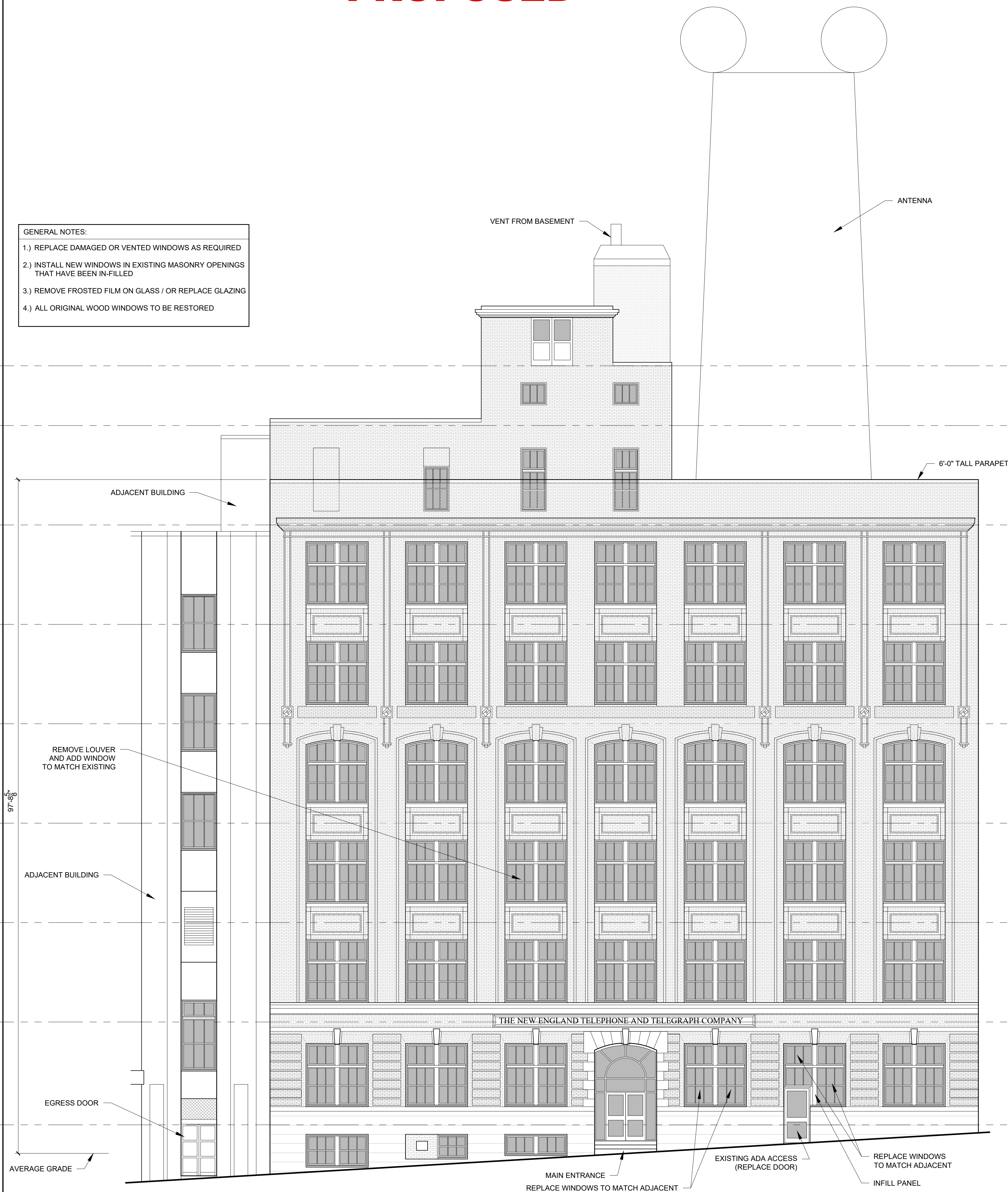
PROGRESS PRINT ONLY
Not for Construction

EXISTING

PROPOSED



- GENERAL NOTES:
- 1.) REPLACE DAMAGED OR VENTED WINDOWS AS REQUIRED
 - 2.) INSTALL NEW WINDOWS IN EXISTING MASONRY OPENINGS THAT HAVE BEEN IN-FILLED
 - 3.) REMOVE FROSTED FILM ON GLASS / OR REPLACE GLAZING
 - 4.) ALL ORIGINAL WOOD WINDOWS TO BE RESTORED



1 SOUTH ELEVATION - EXISTING
1/8" = 1'-0"

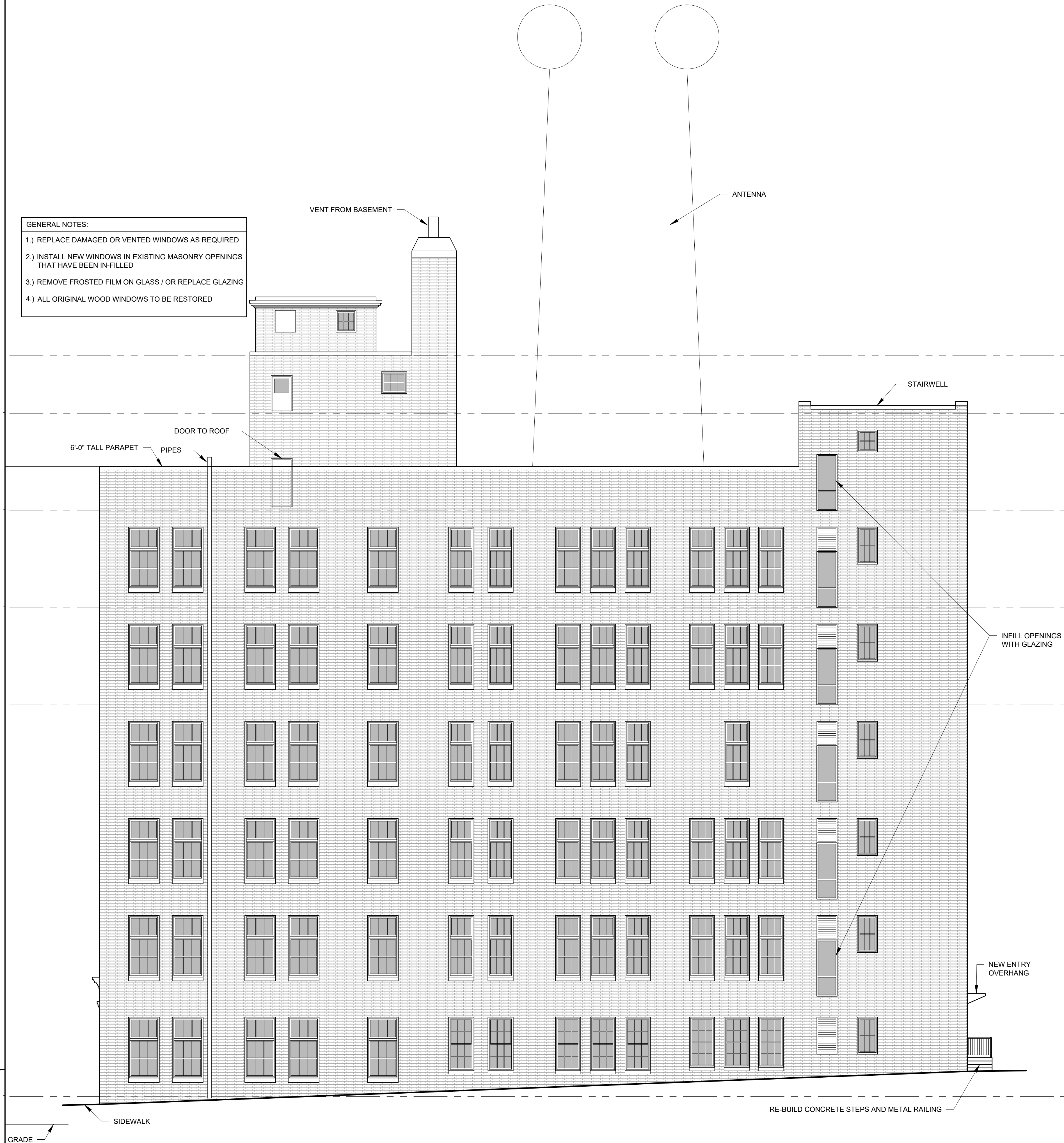
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1/8" = 1'-0"

EXISTING



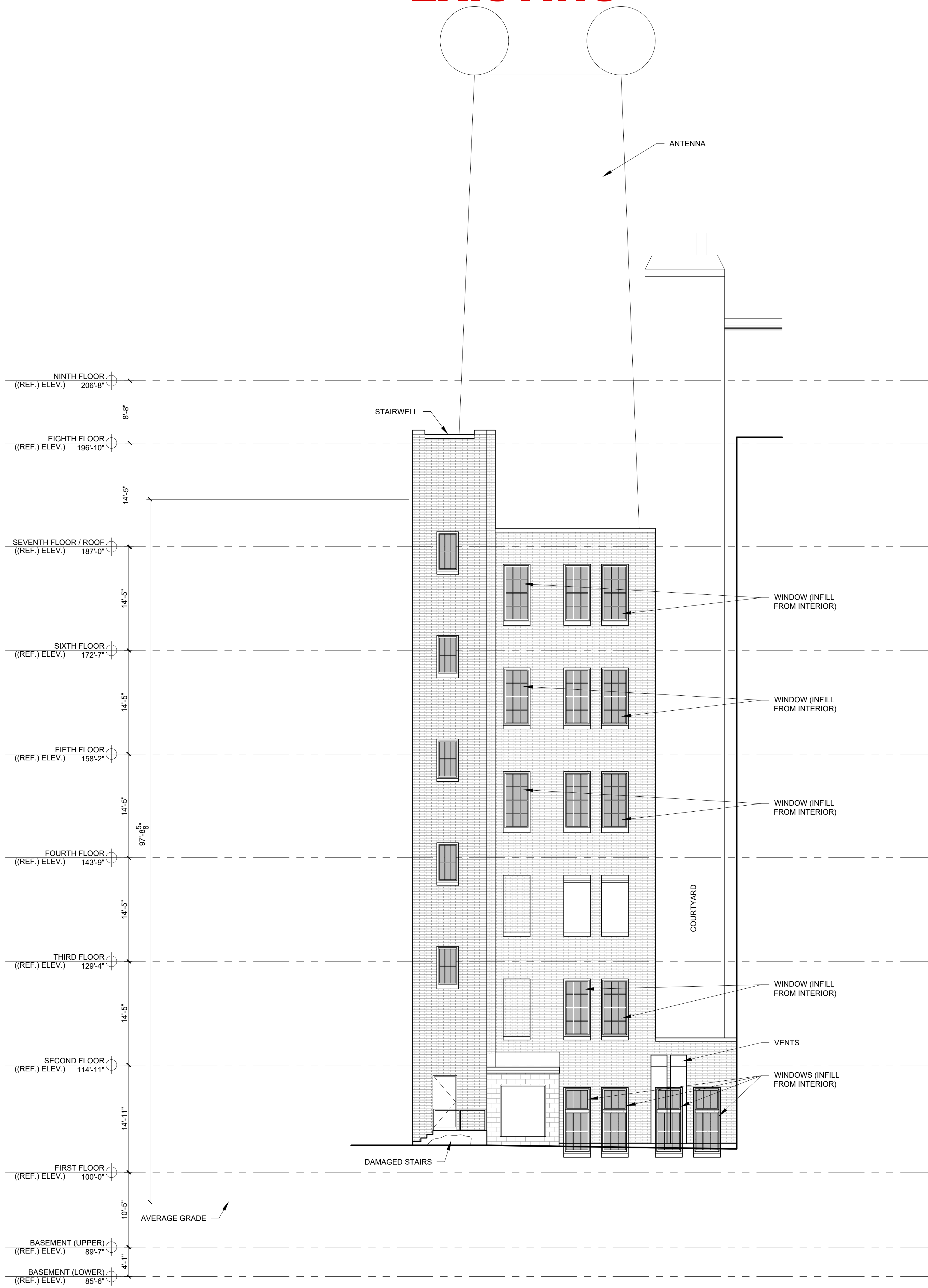
1 EAST ELEVATION - EXISTING
1/8" = 1'-0"

PROPOSED

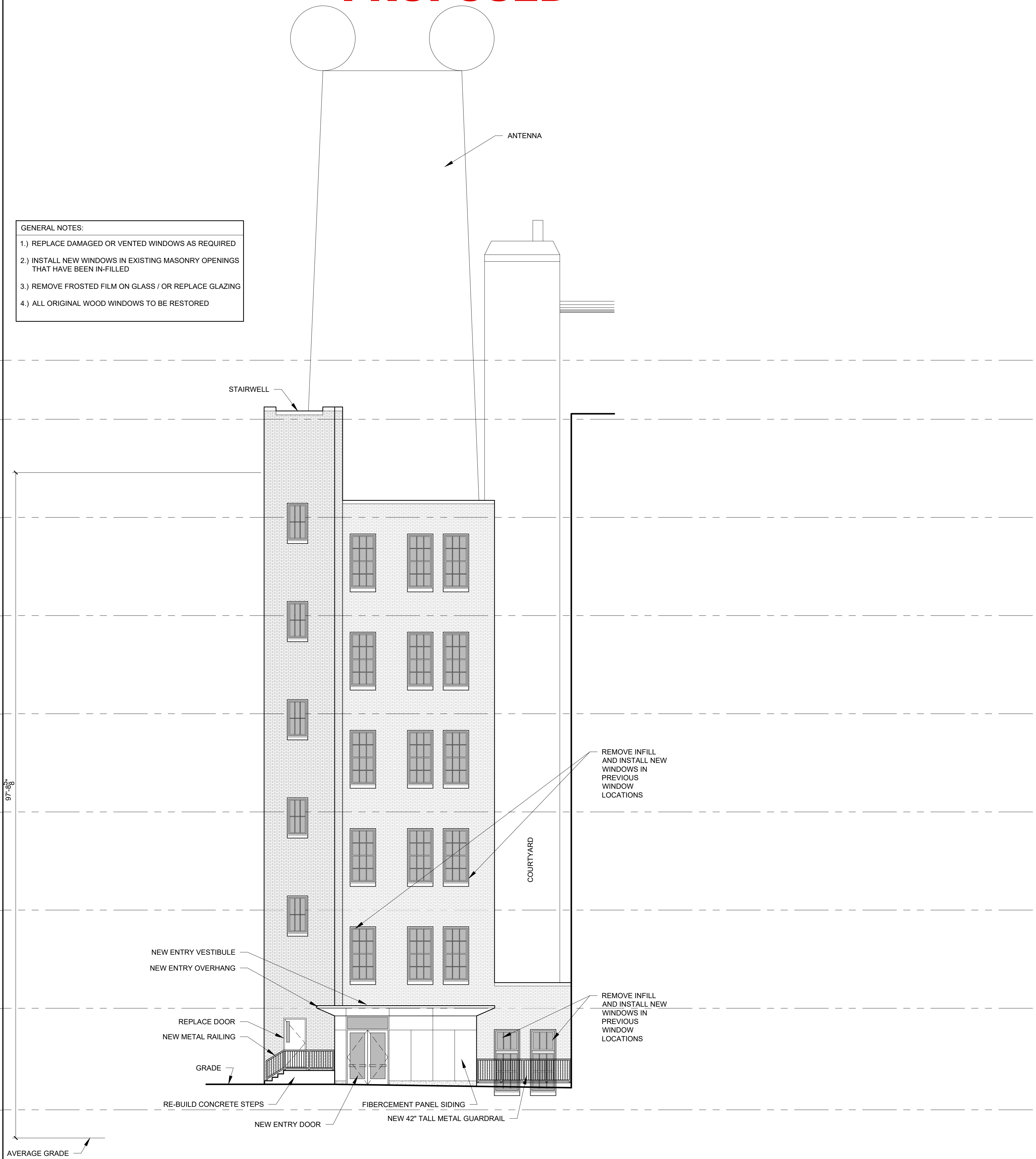


2 EAST ELEVATION - PROPOSED
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EXISTING

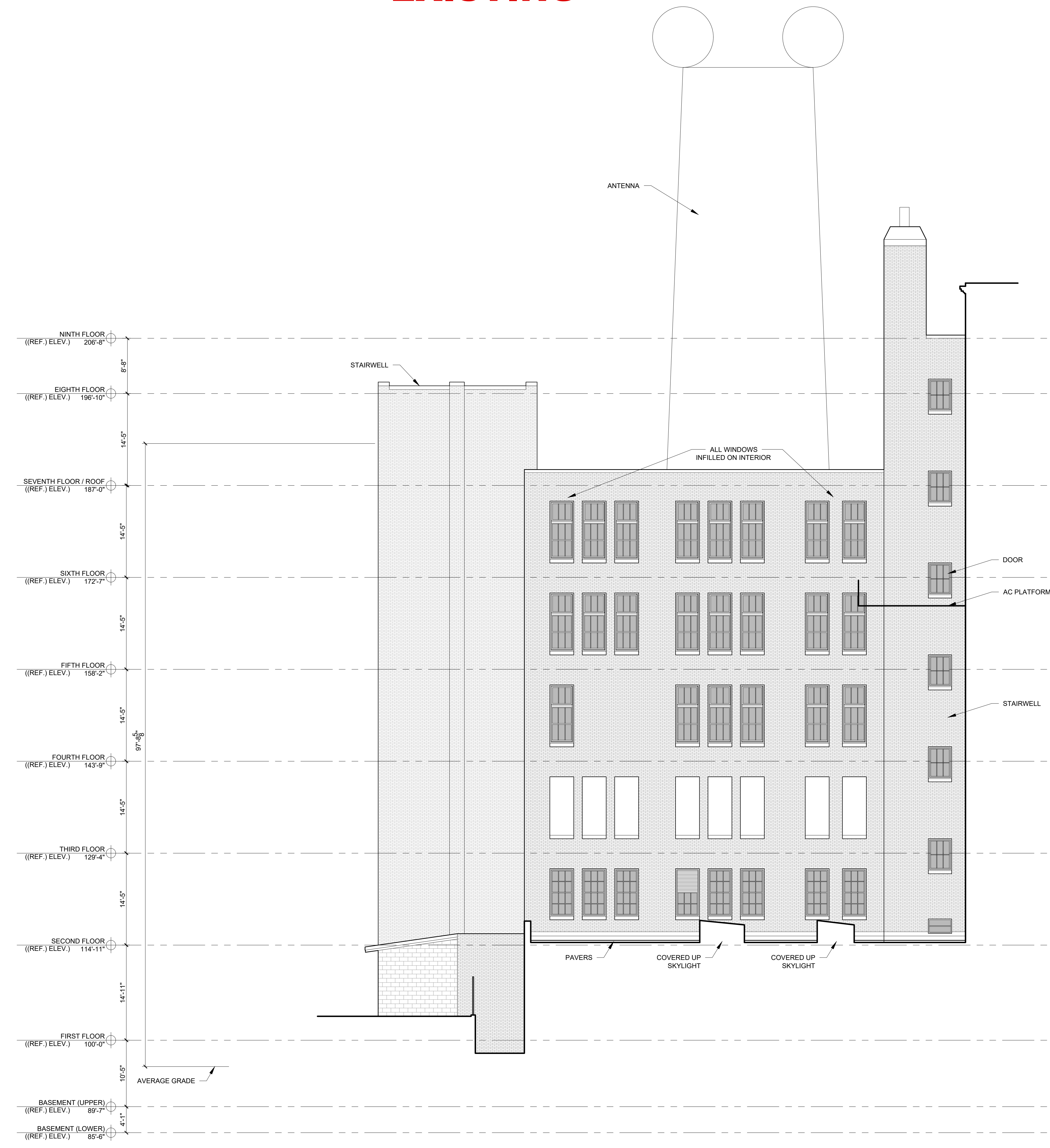


PROPOSED



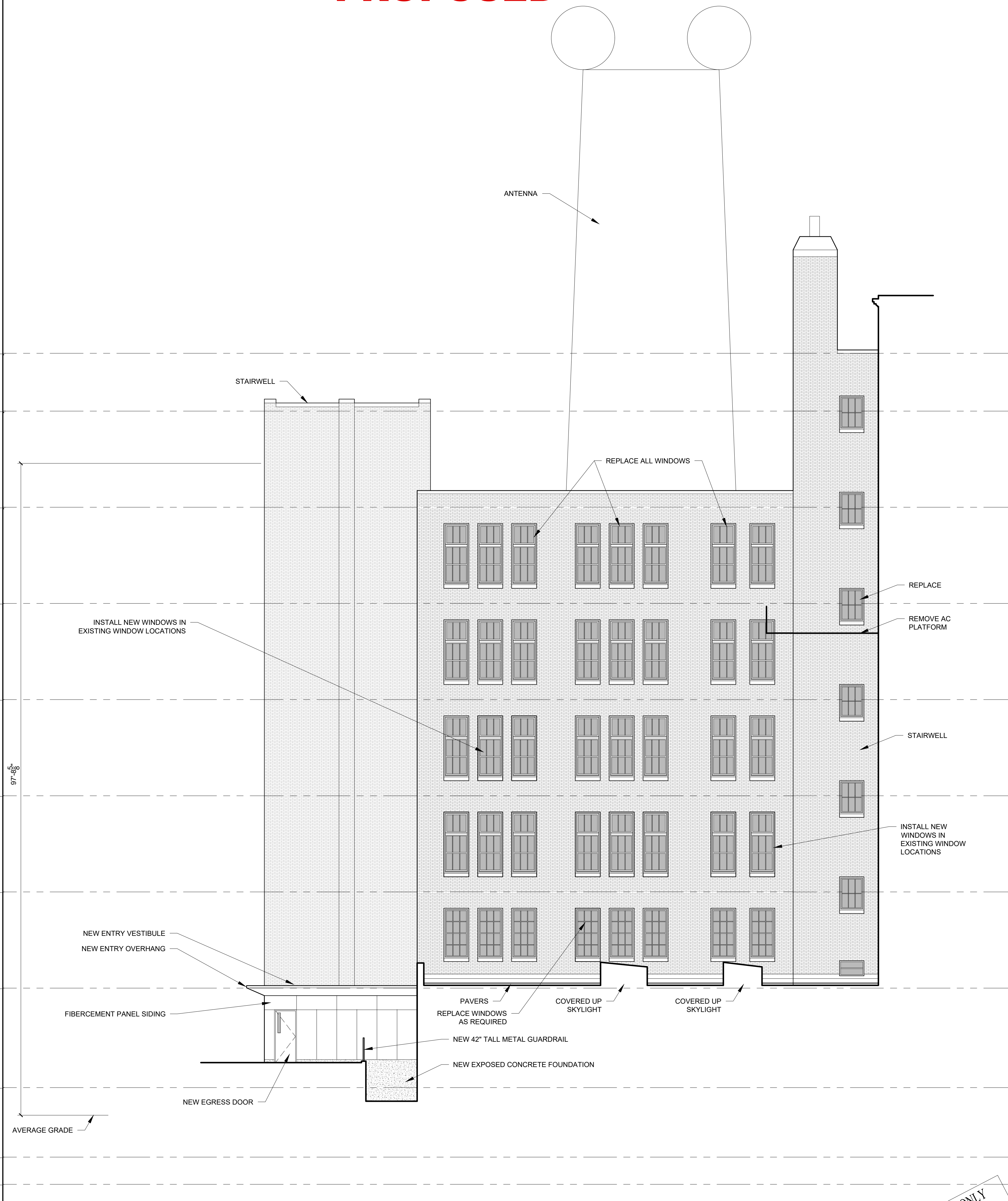
- GENERAL NOTES:
- 1.) REPLACE DAMAGED OR VENTED WINDOWS AS REQUIRED
 - 2.) INSTALL NEW WINDOWS IN EXISTING MASONRY OPENINGS THAT HAVE BEEN INFILLED
 - 3.) REMOVE FROSTED FILM ON GLASS / OR REPLACE GLAZING
 - 4.) ALL ORIGINAL WOOD WINDOWS TO BE RESTORED

EXISTING



1 WEST COURTYARD ELEVATION - EXISTING
1/8" = 1'-0"

PROPOSED

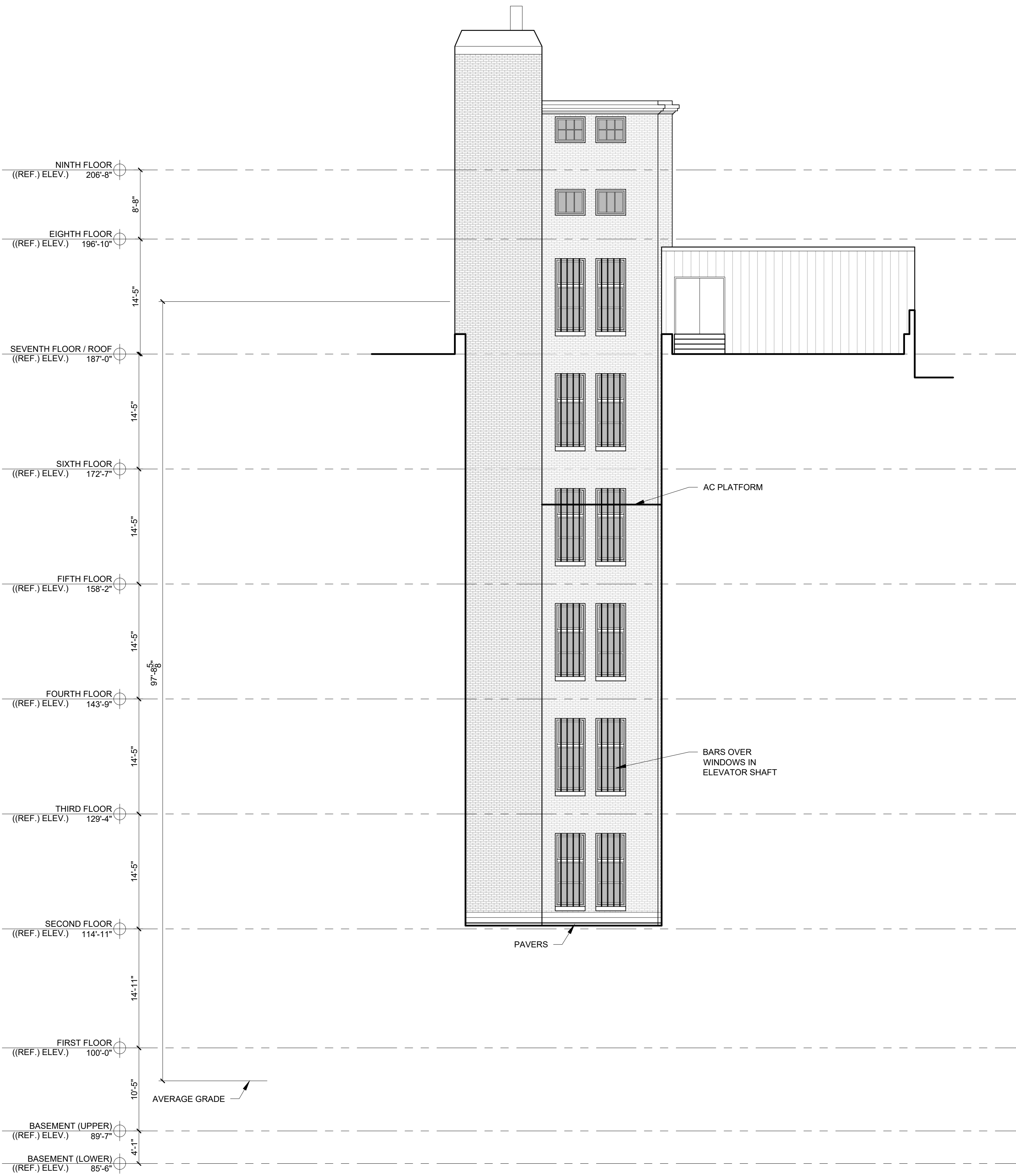


2 WEST COURTYARD ELEVATION - PROPOSED
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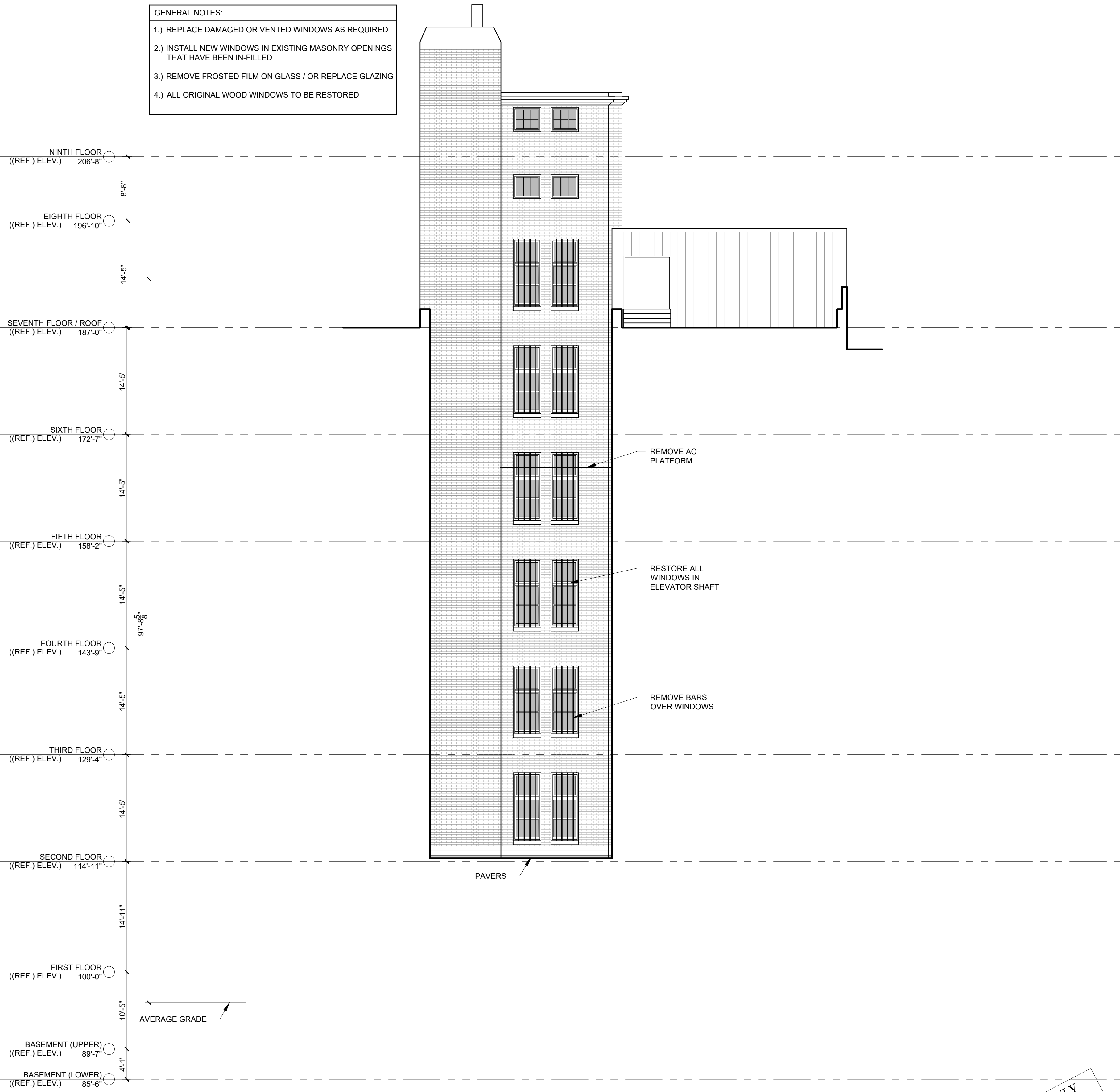
PROGRESS PRINT ONLY
Not for Construction

EXISTING

PROPOSED



1 NORTH COURTYARD ELEVATION - EXISTING
1/8" = 1'-0"

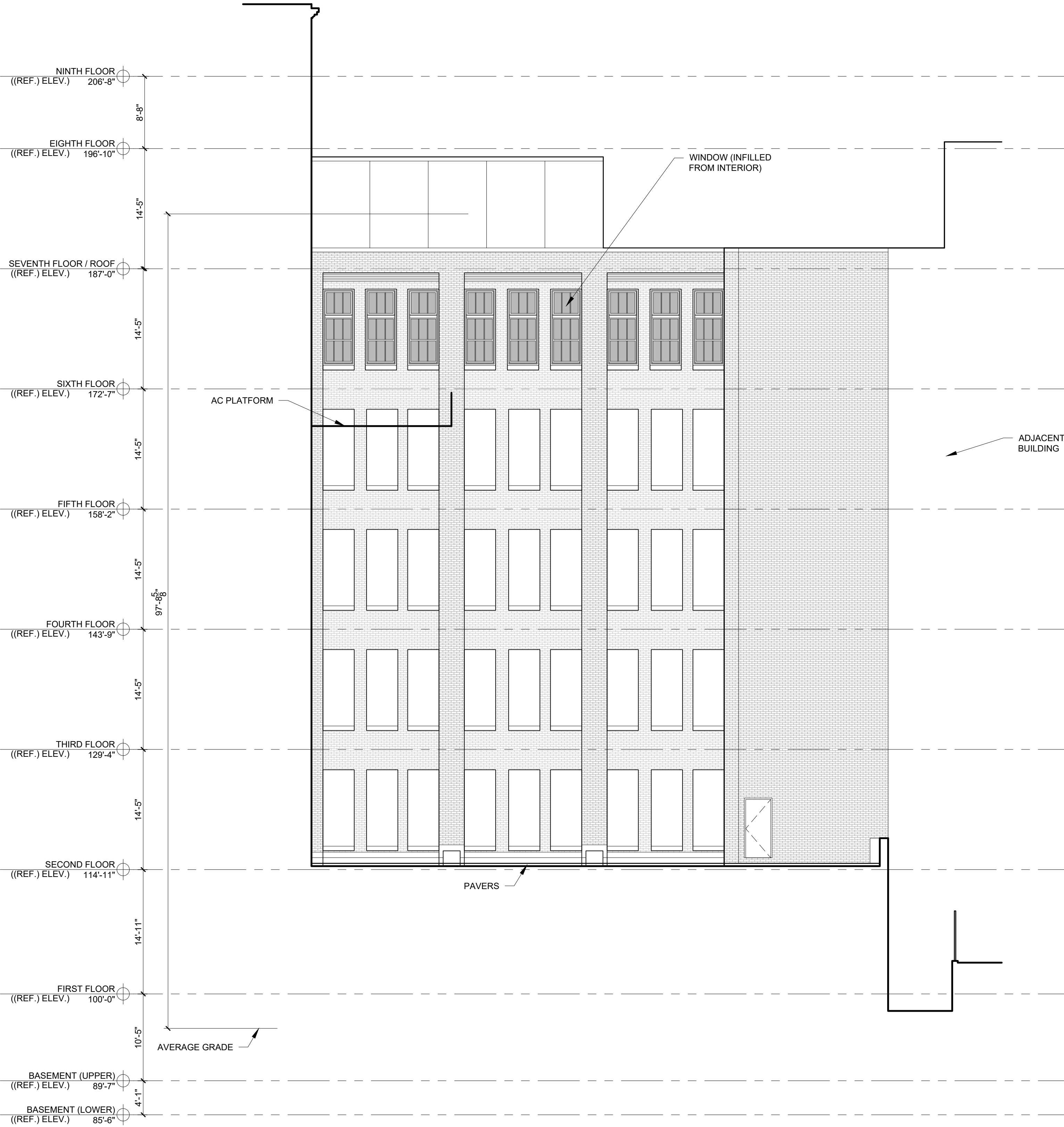


2 NORTH COURTYARD ELEVATION - PROPOSED
1/8" = 1'-0"

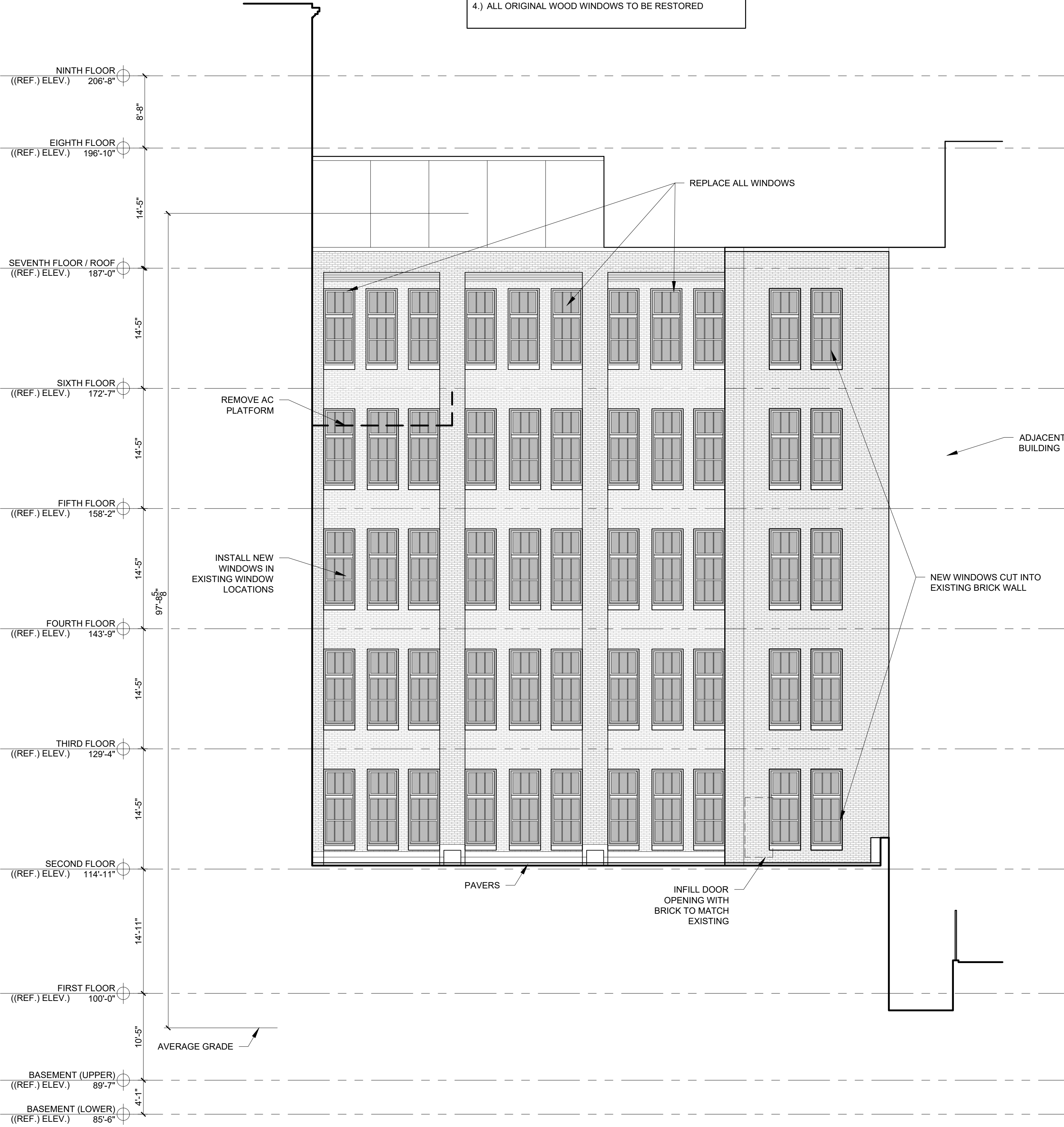
EXISTING

PROPOSED

- GENERAL NOTES:
- 1.) REPLACE DAMAGED OR VENTED WINDOWS AS REQUIRED
 - 2.) INSTALL NEW WINDOWS IN EXISTING MASONRY OPENINGS THAT HAVE BEEN IN-FILLED
 - 3.) REMOVE FROSTED FILM ON GLASS / OR REPLACE GLAZING
 - 4.) ALL ORIGINAL WOOD WINDOWS TO BE RESTORED



1 EAST COURTYARD ELEVATION - EXISTING
1/8" = 1'-0"

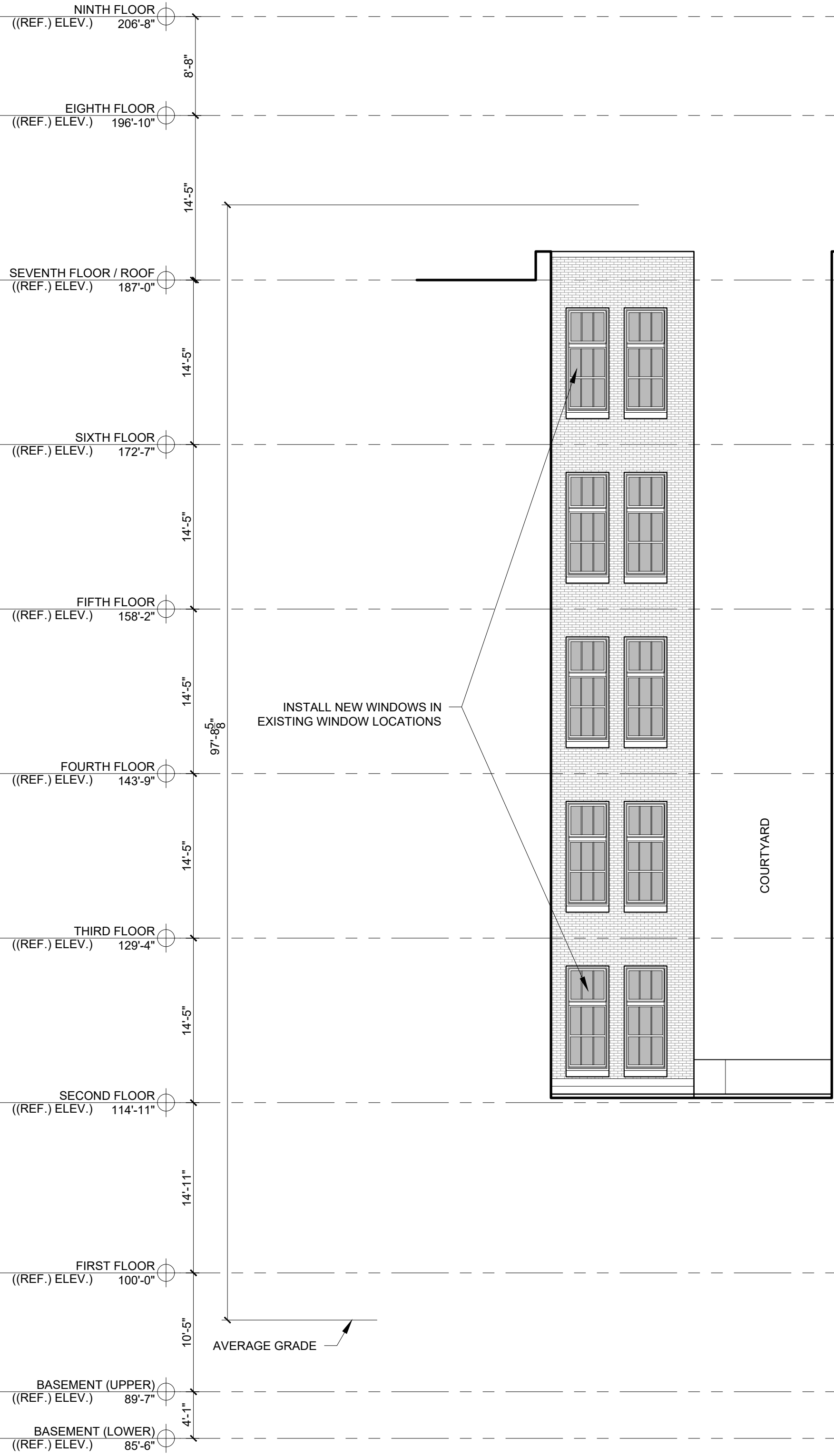


2 EAST COURTYARD ELEVATION - PROPOSED
1/8" = 1'-0"

EXISTING

PROPOSED

- GENERAL NOTES:
- 1.) REPLACE DAMAGED OR VENTED WINDOWS AS REQUIRED
 - 2.) INSTALL NEW WINDOWS IN EXISTING MASONRY OPENINGS THAT HAVE BEEN IN-FILLED
 - 3.) REMOVE FROSTED FILM ON GLASS / OR REPLACE GLAZING
 - 4.) ALL ORIGINAL WOOD WINDOWS TO BE RESTORED



1 SOUTH COURTYARD ELEVATION - EXISTING

2 SOUTH COURTYARD ELEVATION - PROPOSED

PLANNING BOARD REPORT PORTLAND, MAINE



Winchester Woods
Winchester Drive (Formerly known as o Dalton Street)
Major Site Plan, Subdivision, Conditional Use
PL-001532-2021
Hammond House, LLC

Submitted to:	Portland Planning Board	Prepared By:	Charles Tetelman, Planning
Public Hearing Date:	October 12, 2021	Date:	October 8, 2021

I. INTRODUCTION

Hammond House, LLC has submitted a Major Site Plan and Subdivision application to develop a Planned Residential Unit Development (PRUD) to be located along Winchester Drive in the East Deering neighborhood. The project combines 20 parcels into three parcels with frontage along Dalton Street and Sherwood Street. Winchester Drive, the only access point to the development, connects to Sherwood Street through an existing paper street shown as F Street on the boundary survey. Known as Winchester Woods, this PRUD will include 48 residential units spread across four identical, three story, 34 ft. tall structures. The proposal includes a variety of site improvements including a dedicated recreation area and a 14,400 square foot recreation area. Additionally, an existing single-family home (under common ownership with this development) will be renovated and split into two additional parcels separate from the PRUD. The subject parcel totals 3.83 acres in size and is zoned R-5 Residential.



Figure 1 – Aerial of Proposed Development Site

The Planning and Urban Development Department mailed 143 notices advertising this meeting to property owners within 500 feet of the site. A legal advertisement ran in the October 2nd and 3rd, 2021 editions of the *Portland Press Herald*.

The Planning Board held a workshop regarding the Winchester Woods (formerly known as o Dalton Street) PRUD on July 13th, 2021.

Applicant: Hammond House, LLC
Applicant Sam Lebel, P.E., Project Manager, Acorn Engineering, Inc.
Representatives: Devin Cough – Archetype Architects

II. REQUIRED REVIEWS

Review	Applicable Standards
Major Site Plan	Section 14.6
Subdivision	Section 15.4
Inclusionary Zoning Conditional Use	Section 18.2.3
Planned Residential Unit Development (PRUD)	Planned Residential Unit Developments in the R-5 Residential Zone (Section H of the Design Manual)

Waiver Requests	Applicable Standards
Request: Minimum widths of drive aisles are 24 ft. for parking lots with 90 degree parking. Applicant is requesting to reduce the drive aisle width to a minimum of 22 ft. within the site.	City of Portland, <i>Technical Manual</i> §1.14 'Parking Lot and Parking Space Design' states, "Vehicular access shall be provided by one or more aisles. Minimum widths of aisles are illustrated in Figures I-28 through I-31." These figures indicate the minimum widths of aisles shall be 24 ft. for 90 degree parking.

III. PROJECT DATA

Existing Zoning	R-5 Residential
Property Size	3.51 acres 152,896 sq. ft. (PRUD Property) 0.32 acres 13,939 sq. ft. (Single Family/Duplex Lots) 3.83 acres 166,835 sq. ft. (Total)
Existing Use	Vacant
Proposed Use	Residential

	Existing	Proposed
Building Footprint	0 sq. ft.	46,920 sq. ft.
Building Floor Area	0 sq. ft.	12,216 sq. ft.
Impervious Surface Area	0 sq. ft.	56,628 sq. ft.
Parking Spaces	0	63 (5 ADA Compliant)
Bicycle Parking Spaces	0	24
EV Charging Stations	0	13

IV. EXISTING CONDITIONS AND SURROUNDING AREA

The 3.4 acre development site is an assemblage of lots located at the end of Dalton Street and abutting Sherwood Street in East Deering and is comprised of 20 existing parcels originally platted for future single family home development ranging in size from 4,950 square feet to 13,100 square feet. The property has approximately 120 feet of frontage along Dalton Street and 50 feet of frontage on Sherwood Street. The parcel along the Dalton Street frontage currently includes a single-story house at the edge of the site, which the applicant is keeping in order to renovate.



Figure 2 – Existing Site with Historic Parcels

Presently, as the majority of the site is undeveloped, most of the land is pervious, including dense overgrowth and mature tree growth. The site currently contains a trail that extends along the Sherwood Street frontage, as well as an existing twenty foot wide sewer easement for the Portland Water District, which bisects the property. Abutting uses are all residential, with the exception of the Presumpscot Elementary School, which abuts the site to the northwest. There are single-family, duplex, and triplex homes along both Dalton and Sherwood streets and within the surrounding neighborhoods.

V. PROPOSED DEVELOPMENT



Figure 3 – Proposed Site Plan and Rendering of Building

The proposed Major Site Plan application seeks to combine the various subdivided single-family parcels in order to facilitate the development of Winchester Woods – a 48 unit Planned Residential Unit Development (PRUD) consisting of apartments to be housed within four identical 12-unit, 4,072 sq. ft. buildings (totaling 16,288 sq. ft.). Access to the buildings would be provided from Sherwood Street via a new private drive known as Winchester Drive. 63 parking spaces will be added of which five will be ADA compliant spots, four located on-street along Winchester Drive, and 13 electric vehicle charging stations.

Additional site amenities proposed include foot bridges, pathways, and a recreational field for active open space along Dalton Street.

VI. RIGHT, TITLE, & INTEREST

The owners of the property are Walter Libby, Mark Libby, Lucy Copp and Medline Morrill by quitclaim deed with covenants recorded at the Cumberland County Registry of Deeds (Book 11647 Page 187 and Book 15054 Page 170).

The applicant has provided a copy of a purchase and sale agreement, which demonstrates their right, title and interest in the property (Attachment 3).

VII. FINANCIAL & TECHNICAL CAPACITY

The applicant has submitted a letter from Camden National Bank, dated March 24, 2021, as demonstration of their financial and technical capacity to complete the proposed development (Attachments 7 and 8).

VIII. ZONING ANALYSIS

Dimensional and Use Requirements:

The proposed subdivision is within the R-5 Residential zone. A review of the zoning for the site was conducted and the proposed PRUD development meets standards for minimum lot size, minimum street frontage, and lot width requirements for the R-5 zone; below is the zoning assessment included in the application materials:

	Required	Proposed
Lot Size	2 acres	3.51 acres
Area Per Dwelling Unit	3,000 sq. ft.	3185 sq. ft.
Minimum Street Frontage	50 ft.	99 ft.
Front Yard Minimum	20 ft.	40 ft.
Front Yard Maximum	N/A	80 ft.
Rear Yard	20 ft.	43 ft.
Yard Right	N/A	31 ft.
Yard Left	N/A	73 ft.
Side Street Setback	15 ft.	52 ft.
Maximum Lot Coverage	40%	12%
Maximum Height	35 ft.	34 ft.
Common Open Space	300 SF/DU	300 SF/DU
Maximum Impervious Surface	N/A	N/A
Off-Street Parking	48	63

The R-5 zone permits PRUDs by right (Section 6 Use Standards; Table 6-A). Section 19, Table 19-A dictates off-street parking requirements. As an affordable housing project and a site within a ¼ mile of fixed route transit service parking requirements can be reduced or completely exempt as stated in Section 19, Table 19-B. With 63 proposed parking spaces the proposed project exceeds the parking requirements, therefore because the proposed parking exceeds the minimum parking requirements by 10 percent the applicant must demonstrate through a parking study that the amount of parking is appropriate for the proposed use of the site. The applicant has provided additional parking data as part of their application (Attachments 20 and 21).

Conditional Use – Inclusionary Zoning

As required by the City's Inclusionary Zoning Ordinance, regulations mandate that 25% of the units (12 units) meet the definition of workforce housing, allowing for a 25% density bonus (Section 18.2.3.E). Per the applicant, all 12 units will be on-site across all four buildings. The existing single-family home currently under common ownership with this development will be renovated and split off from the PRUD as its own parcel. The City's Housing Program Manager has reviewed the application and offers the following comments (refer to Attachment C for a complete analysis):

Please note, the applicant proposes construction utilizing Section 18.2.3 E of the Ordinance which allows for a 25% increase in total permitted units if the applicant provides the workforce housing units on site. The applicant may not also take advantage of any bonus they may be eligible for under subsection 18.2.4.A (density bonus per Table 18-C) or 18.2.4.B (PRUD dimensional bonuses and changes).

Please also note, the applicant cannot provide a fee-in-lieu for a portion of the required workforce units as they have chosen to provide the workforce units on site to receive the 25% increase in total permitted units (they are committing to providing 12 workforce units on site).

IX. SUBDIVISION REVIEW STANDARDS (Section 15.4)

The applicant has submitted a revised Subdivision Plat. The final plat reflects the City Surveyor's recommendations (Attachment Plan 16). Any waivers granted must be recorded at the Registry of Deeds within two years of a Planning Board decision.

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

1. Will Not Result in Undue Water and Air Pollution (Section 15.4.1.A), and will not result in undue soil erosion (Section 15.4.1.D)

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

No unreasonable soil erosion or reduction in the capacity of the land to hold water is anticipated given the site. The Site Plan (Attachment Plan 4) and Grading & Drainage Plan (Attachment Plan 6) include measures designed to stabilize the site during and after construction.

2. Has sufficient water available and will not cause unreasonable burden on existing water supply (Section 15.4.1.B and C)

The development will be served by an eight-inch fire line running the length of the access drive. This line will connect into Portland Water District's (PWD) 12 inch main beneath Sherwood Street. The site will also be served by a four-inch domestic line. Each of the four buildings will be served by a six-inch fire and two-inch domestic service that will connect into the mechanical room for each respective building. The Department of Public Works reviewed the Applicant's capacity letter and determined that the existing water supply has the capacity to support the proposed project (Attachment B).

3. **Will not cause unreasonable highway or public road congestion or unsafe conditions with respect to use of the highway or public roads existing or proposed (Section 15.4.1.E)**

The proposed development has frontage along Dalton Street and Sherwood Street. The main access point will be from Sherwood Street through a paper street to be known as Winchester Drive. Currently this paper street is shown as F Street on the boundary survey. While a Traffic Movement Permit is not required as the project will not generate 100 or more vehicle trips during peak hour, traffic increase is expected for this project due to the change in use of the land.

Staff review and public comments indicate this PRUD will have some impact on the surrounding traffic system which is already strained do to on-street parking and traffic congestion. The Consulting Traffic Engineer and DPW Transportation Systems Engineer have reviewed the proposed project trip generation and site location and recommended for the applicant to provide some level of analysis at Sherwood and Veranda Streets as well as a crash analysis along Sherwood. The Applicant's Traffic Memo (Attachment 33) includes a trip generation analysis and the requested data.

4. **Will provide for adequate sanitary sewer and stormwater disposal (Section 15.4.1.F) and will not cause an unreasonable burden on municipal solid waste and sewage (Section 15.4.1.G)**

The project is proposed to connect to an eight-inch common sewer line into the existing sewer manhole located within Sherwood Street. The proposed main will run parallel with the Access Drive to serve the site. Each building will connect into this main with six-inch laterals. The applicant will need to submit a capacity letter from Department of Public Works (DPW) stating that there is sufficient capacity for this. The sewer connection to Sherwood Street may require a manhole; the applicant will need to coordinate with Water Resources for clarification. A Consultant Peer Reviewer has reviewed the Utilities Plan (Attachment Plan 5) with the following recommendation regarding utilities on site:

- The utility plan includes locations of proposed landscaping, which is helpful. The Applicant has updated the landscaping design to provide more clearance surrounding the underdrained subsurface sand filters (USSFs) and surrounding electrical infrastructure.
- The Applicant will prepare a stormwater maintenance plan prior to the building permit phase.

5. **Will not have an undue adverse effect on the scenic or natural beauty of the area, aesthetics, historic sites, significant wildlife habitat (Section 15.4.1.H)**

The site is not within or proximate to an historic district. The applicant has reached out to several State agencies including Maine Natural Areas Program and the Maine Historic Preservation Commission and there have been no concerns expressed. Development on the subject property,

which is currently wooded and surrounded by existing development, will not adversely affect any significant wildlife habitat, rare or irreplaceable natural areas, or any public access to the shoreline.

6. Is in conformance with the Comprehensive Plan (Section 15.4.1.I)

The proposed project supports a number of goals identified in Portland's Plan 2030, particularly the Housing Section. Those goals include increasing the overall supply of housing city-wide to meet the needs, preferences, and financial capabilities of all Portland residents, to encourage contextually appropriate housing density, and to enable people who work in Portland to live in Portland. Comprehensive Plan goals relevant to the application are included below:

Housing: A Livable City

State Goals:

- To encourage and promote affordable decent, housing opportunities for all Maine citizens

Local Goals:

- Increase, preserve, and modify the overall supply of housing City-wide to meet the needs, preferences and financial capabilities of all Portland households.
- Encourage additional contextually-appropriate housing density in and proximate to neighborhood centers, concentrations of services, and transit nodes and corridors as a means of supporting complete neighborhoods.
- Pursue policies to enable people who work in Portland to have the option to live in Portland.
- Encourage quality, sustainable design in new housing development.

Goals from Future Strategies:

3. Remove Housing Barriers

- Identify priority growth areas.
- Allow for a range of housing models in City codes, whether small units, co-housing, or others that may suit changing needs and demographics.

7. Adequate financial and technical capacity (Section 15.4.1.J)

The owners of the property are Walter Libby, Mark Libby, Lucy Copp and Medline Morrill by quitclaim deed with covenants recorded at the Cumberland County Registry of Deeds (Book 11647 Page 187 and Book 15054 Page 170). The applicant has provided a copy of a purchase and sale agreement, which demonstrates their right, title and interest in the property. The applicant has submitted a letter from Camden National Bank, dated March 24, 2021, as demonstration of their financial and technical capacity to complete the proposed development (Attachments 7 and 8).

8. Whenever situated, in whole or in part, within the watershed of any pond or lake or within 250 feet of any wetland, great pond, or river, will not adversely affect the quality of such body of water or unreasonably affect the shoreline of such body of water (Section 15.4.1.K)

The assemblage includes 13,939 square feet of wetlands located near the center of the parcel. According to the site plan, the development will not encroach into these wetlands.

9. Will not, adversely affect the quality and quantity of groundwater (Section 15.4.1.L)

There are no anticipated impacts to groundwater supplies.

10. Is or is not in a flood-prone area (Section 15.4.1.M)

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

11. Will provide for adequate stormwater management (Section 15.4.1.N)

The applicant has provided a stormwater report. The applicant has included a variety of stormwater strategies and staff finds these meet the standard (Attachment 10 and Plan 6)

12. Will not have lots with a lot depth-to-shore frontage ratio greater than 5 to 1 if any lots in the proposed subdivision have shore frontage on a river, stream brook, great pond, or coastal wetland (Section 15.4.1.O)

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

13. For any proposed subdivision that crosses municipal boundaries, will not cause unreasonable traffic congestion or unsafe conditions with respect to the use of existing public ways in an adjoining municipality in which part of the subdivision is located (Section 15.4.1.P)

The parcel does not cross municipal boundaries.

X. SITE PLAN STANDARDS (Section 14.6)

The proposed development has been reviewed by staff for conformance with the relevant review standards of the City of Portland's Site Plan Ordinance, Section 14.6. Staff comments are below.

1. Transportation Standards (Section 14.6.1)

A. Impact on surrounding street systems

The proposed development has frontage along Dalton Street and Sherwood Street. The main access point will be from Sherwood Street through a paper street to be known as Winchester Drive. Currently this street is shown as F Street on the boundary survey. While a Traffic Movement Permit is not required as the project will not generate 100 or more vehicle trips during peak hour, traffic increase is expected for this project due to the change in use of the land.

Staff review and public comments indicate this PRUD will have some impact on the surrounding traffic system which is already strained do to on-street parking and traffic congestion. The Consulting Traffic Engineer and DPW Transportation Systems Engineer have reviewed the proposed project trip generation and site location and recommended for the applicant to provide some level of analysis at Sherwood and Veranda Streets as well as a crash analysis along Sherwood. The Applicant's Traffic Memo (Attachment 33) includes a trip generation analysis and the requested data.

B. Access and circulation

The primary entrance and access point to the development will be via Sherwood Street, through Winchester Drive (formerly the paper street F Street). A sidewalk is proposed along the eastern edge of Winchester Drive to provide access to the proposed residential buildings. Three crosswalks are proposed on site; a midblock crosswalk is proposed to accommodate the existing Portland Trails Path on site, one at the end of Winchester Drive, and one along Sherwood Street and Winchester Drive.

C. Public transit access

The project is within a quarter mile of several existing bus stopes: Routes 9A, 9B, and 7. As the site is not directly along an existing public transit route, the applicant will not need to provide a transit shelter and this standard is not applicable..

D. Parking

The Applicants have included a parking summary on Attachment Plan 4. Parking includes 63 vehicle spots (5 ADA compliant, 4 on-street, and 13 EV Stations) and 24 spots for bicycles.

E. Transportation demand management (TDM)

A TDM is not required as part of this application.

2. Environmental Quality Standards (Section 14.6.2)

A. Preservation of significant natural features

There are no significant landscape or natural features to preserve. The site primarily consists of wooded areas with two drainage subcatchments; one is located to the southwestern corner of the site near Sherwood Street, whereas the second comprises the majority of the site. The site does contain 13,939 square feet of wetlands located near the center of the parcel. According to the applicant, the wetlands were originally constructed as manmade detention basins with an outlet control structure to direct stormwater runoff into the municipal separated storm sewer system (MS4) within Sherwood Street. Currently, these features serve as a major collection point of stormwater in the neighborhood between Veranda St, Presumpscot St, and the railroad that runs parallel with I-295. Based on the materials provided, the development will not encroach into these wetlands. Erosion and sedimentation control measures will be provided throughout the site and around the wetlands.

B. Landscape preservation

The Applicants have provided an updated Landscape Plan (Attachment Plan 24) indicating the location of new vegetation throughout the property and includes the trees to be removed and preserved on-site. Parks, Recreation, and Facilities requested that a wooden split rail fence be installed along the property line to the Grand Trunk Cemetery and that buffer planting is installed to ensure tranquility of the cemetery. This split rail fence has been included in the site plan (Attachment Plan 4).

C. Site landscaping and buffers

Staff recommended updating the Landscape Plan to show the significant trees throughout the site and, specifically, preserving the buffer trees along the project edges. Staff review noticed the proposed development could use a greener look with much more tree planting. The updated Landscape Plan (Attachment Plan 24) includes more vegetation throughout the development (near structures and along street). Additionally, the applicants included a vegetation buffer along abutting properties.

D. Water quality/storm water management/erosion control

DPW Staff are reviewing the capacity and condition of the existing outlet control structure located in the drainage basin (Attachment 6).

Under Section 5 of the City of Portland Technical Manual, a major 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. Staff is recommending that a stormwater maintenance agreement be submitted as a conditional of approval.

3. Public Infrastructure and Community Safety Standards (Section 14.6.3)

A. Consistency with City Master Plans

See Section IX.6 above.

B. Public safety and fire prevention

The Crime Prevention through Environmental Design (CPTED) standards in the site plan ordinance address the principles of natural surveillance, access control and territorial reinforcement so that the design of developments enhance the security of public and private spaces and reduce the potential for crime. The site has been designed to promote safe and inviting public access. Adequate emergency access will be provided. The turning radii of the driveway are large enough to allow for emergency vehicles to enter and exit the proposed street. Two fire hydrants are located along Westbrook Street. The hydrant within the PRUD lot is proposed to be private and maintained as such.

C. Availability and capacity of public utilities

DPW has reviewed the Applicant's capacity letter and determined that the existing water supply has the capacity to support the proposed project (Attachment B).

4. Site Design Standards (Section 14.6.4)

A. Massing, ventilation, and wind impact

The applicant indicated that all HVAC equipment will be internal. The project is sufficiently setback from any adjacent structures. The proposed buildings would be three stories high, are comparable to surrounding dimensions, and meet the dimensional standards of the R-5 Zone.

B. Shadows

The project is not adjacent to any public park or open space but does abut the recreational fields located on the Presumpscot Elementary School campus. Based on the proposed building footprints, orientation, and heights, the structures will not cast shadow onto the school's fields.

C. Snow and ice loading

The applicant is proposing on-site snow storage. Snow within the PRUD lot is to be stored along the side slopes of the driveway. The applicant has included snow storage areas along the parking lots.

D. View corridors

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

E. Historic resources

The site is not within a historic district or within 100 feet of a historic district, therefore this project does not require historic preservation review.

F. Exterior lighting

The applicant has submitted a photometric plan (Attachment 14). Staff have reviewed the plan against the Site Lighting Standards (Technical Manual Section 12) and have found that the applicant meets these standards.

G. Noise and vibration

No adverse impacts related to noise and vibration are anticipated as mechanical equipment away from residential properties.

H. Signage and wayfinding

This standard does not apply to the proposal.

I. Zoning-related design standards

The proposed project is subject to the *Planned Residential Unit Developments in the R5 Residential Zones* (Section (h) of the Design Manual). The proposed project was reviewed according to the *City of Portland Design Manual* standards by Planning and Urban Development Department staff (Attachment D) and finds that the proposed project meets the standards. The applicants have provided an updated landscape plan which adequately screens the individual patios providing for more privacy.

XI. NEIGHBORHOOD MEETING & PUBLIC COMMENT

The applicant held a neighborhood meeting, as required as part of this application, on May 27, 2021 with ten attendees (Attachments 25-30).

For the Workshop on July 13, 2021, notices were sent to 143 residents and the interested citizen list. The notice also appeared in the *Portland Press herald* on July 4 and 5, 2021. Only one attendee gave public comment during the Workshop (Attachments 23-27).

Four public comments (Attachments PC 1-4) were received prior to the July Planning board Workshop regarding this application. These comments demonstrated concerns with the invasive species Japanese Knotweed throughout the proposed property and in the surrounding woods. The public comments also indicated a desire to include more wetland protection measures to safeguard the existing ecosystem which includes birds and amphibians. Some abutting properties are still concerned the increase in impervious surfaces and proposed grading plan could increase water runoff into abutting properties causing flooding in the surrounding area. Finally, many public comments noted the impact on the surrounding traffic system and advocated for a speed study or changes to the existing traffic circulation.

At the time of writing this report, staff have not received any additional public comments prior to the Public Hearing.

XII. STAFF RECOMMENDATION

Subject to the proposed motions and conditions of approval listed below, Planning Department Staff finds that the applicant's proposed Subdivision and 48-unit Planned Residential Unit Development meets the applicable standards of Portland's Land Use Code.

XIII. PROPOSED MOTIONS

A. WAIVERS

On the basis of the application, plans, reports and other information submitted by the applicant, findings and recommendations contained in the Planning Board Report for the public hearing on October 12, 2021 for application PL-001532-2021 at Winchester Drive relevant to the Site Plan Standards of the Land Use Code and Portland's Technical and Design Standards, and other regulations, and testimony presented at the Planning Board public hearing:

1. The Planning Board [finds/does not find], based upon the consulting traffic engineer's review that extraordinary conditions exist or undue hardship may result from strict compliance with the Technical Manual Section 1.14 which requires that aisle width for right-angle parking be 24 feet as per Figure I-27. The Planning Board [waives/does not waive] the Technical Manual standard to allow an aisle width measuring 22 feet.

B. INCLUSIONARY ZONING CONDITIONAL USE

On the basis of the application, plans, reports and other information submitted by the applicant, findings and recommendations contained in the Planning Board Report for the public hearing on October 12, 2021 for application PL-001532-2021 at Winchester Drive relevant to Portland's Inclusionary Zoning Conditional Use Standards and other regulations, and the testimony presented at the Planning Board hearing, the Planning Board, [finds/does not find] the proposed conditional use for workforce housing meets the standards of Section [cite section] with the following condition(s):

PRIOR TO ISSUANCE OF A BUILDING PERMIT

1. That the Applicant and the City enter into an agreed upon Affordable Housing Agreement (AHA) for workforce housing units as described in the memorandum from Housing Program Manager dated July 7, 2021 (Attachment C).

PRIOR TO ISSUANCE OF CERTIFICATE OF OCCUPANCY

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

C. SUBDIVISION REVIEW

On the basis of the application, plans, reports and other information submitted by the applicant, findings and recommendations contained in the Planning Board Report for the public hearing on October 12, 2021 for application PL-001532-2021 at Winchester Drive relevant to the subdivision regulations, and the testimony presented at the Planning Board hearing, the Planning Board [finds/does not find] that the plan is in conformance with the subdivision standards of the land use code subject to the following conditions of approval:

PRIOR TO THE SUBMISSION OF THE PLAT FOR PLANNING BOARD SIGNATURE

1. The subdivision plat shall be finalized to the satisfaction of the Planning Authority, Corporation Counsel and Department of Public Works and include clear descriptions of the number, location, type and size of all subdivided units, along with relevant notes and conditions.

PRIOR TO ISSUANCE OF A BUILDING PERMIT

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

D. SITE PLAN REVIEW

On the basis of the application, plans, reports and other information submitted by the applicant; findings and recommendations contained in the Planning Board Report for the public hearing on October 12, 2021 for application PL-001532-2021 at Winchester Drive relevant to the site plan regulations; and the testimony presented at the Planning Board hearing, the Planning Board **[finds/does not find]** that the plan is in conformance with the site plan standards of the land use code subject to the following conditions of approval:

PRIOR TO APPLYING FOR A BUILDING PERMIT

1. The applicant shall coordinate with the Department of Public Works Water Resources Division to confirm whether a manhole is required to the sewer connection on Sherwood Street.

XIV. ATTACHMENTS**Report Attachments**

- A. Winchester Woods PRUD – Comments II (9.27.21)
- B. Wastewater Capacity Authorization 2021-08-17 o Dalton Street
- C. o Dalton Street IZ Memo to PB
- D. o Dalton PRUD Design_prelim

Applicant's Submittal

1. Cover Letter
2. Site Plan Checklist
3. Right, Title, and Interest
4. Zoning Assessment
5. Summary of Written Easements
6. Waivers
7. Financial Capacity
8. Technical Capacity
9. Conformity with Land Use Ordinance
10. Stormwater Report
11. Erosion & Sedimentation Control Report
12. Fire Department Letter
13. Wastewater Capacity
14. Lighting
15. Arch Design Narrative
16. Utilities
17. Construction Management Plan
18. Solid Waste Disposal
19. Comment Response Letter
20. Parking Analysis

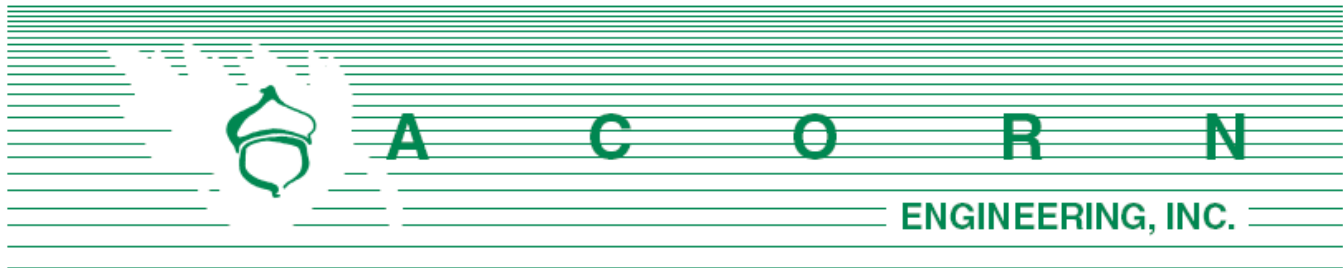
21. Parking Demand Memo
22. Traffic Memo
23. Winchester Woods Public Notice Confirmation
24. Certification Letter
25. Neighborhood Letter
26. Sign In Sheet
27. Meeting Minutes
28. Stormwater Management Permit Application – DEP
29. Winchester Woods Notice of Public Meeting Sign
30. Winchester Woods Public Meeting Certification
31. Winchester Woods Public Notice Confirmation
32. Comment Response Letter 2
33. Traffic Memo

Plans

- Plan 1. Cover Sheet & Legend
- Plan 2. General Notes
- Plan 3. Construction Management & Erosion Control Plan
- Plan 4. Site Plan
- Plan 5. Utility Plan
- Plan 6. Grading & Drainage Plan
- Plan 7. Site Details – 1
- Plan 8. Site Details – 2
- Plan 9. Landscaping Details
- Plan 10. Utility Details – 1
- Plan 11. Utility Details – 2
- Plan 12. Drainage Details
- Plan 13. Underdrained Subsurface Sand Filter Details
- Plan 14. Erosion & Sedimentation Control Notes
- Plan 15. Erosion & Sedimentation Control Details
- Plan 16. Subdivision Plat
- Plan 17. Rendered View
- Plan 18. Summary
- Plan 19. First Floor Plan – Second & Third Floors SIM
- Plan 20. Accessible First Floor Unit
- Plan 21. Second & Third Floor Plan
- Plan 22. Building Elevations
- Plan 23. Existing Conditions Plan
- Plan 24. Landscape Plan
- Plan 25. Profile

Public Comment

- PC 1. Benjamin Algeo – 7/11/2021
- PC 2. Heather Doolittle 5/20/2021
- PC 3. Marianna Russo 8/30/2021
- PC 4. Michael Long 5/14/2021



Planning & Urban Development Department
 City of Portland, Maine
 Attn: James Rather, Development Review Manager
 389 Congress Street, 4th Floor
 Portland, ME 04101

March 25, 2021

Subject: Major Site Plan & Subdivision Application
 Dalton PRUD (Winchester Woods)

James:

On behalf of Hammond House, LLC, we are pleased to submit the accompanying package of materials related to the proposed Winchester Woods development located at the end of Dalton Street which comprises a series of parcels within an unbuilt subdivision planned decades ago. The infill project seeks to combine the various subdivided single-family parcels to facilitate the development of 48 apartments within four identical structures under a Planned Residential Unit Development (PRUD) model. The site will be accessed through an existing right-of-way off Sherwood Street, with additional partial access to a recreation space and a walking trail at the end of Dalton Street. The project will also be subject to the new Inclusionary Zoning regulations which mandates 25% of the units (12) meet the definition of workforce housing. All 12 units will be built on site as part of this project, allowing for a 25% density bonus. The existing single-family home that's under common ownership with this development will be renovated and split off from the PRUD as its own parcel.

The development has been tactfully designed to avoid disturbance of the wetlands on site. Additionally, the project will construct extensive stormwater BMP's on site to detain, cool, and treat stormwater including intercepting runoff from the Presumpscot Elementary School that currently drains to the site and wetlands. As the project progresses, we anticipate coordinating with the City facilities team as well as Portland Trails on the planned upgrades to the existing trail that traverses the site linking the school to Sherwood Street.

We are excited to submit this application to the Planning Department as it falls directly in line with the comprehensive plan by providing quality housing which includes the construction of 12 workforce units on site. We are requesting to be placed on the next available workshop meeting with the Planning Board. If you have any questions regarding these materials or the completeness of the application materials, please contact us within the next five (5) days.

A handwritten signature in black ink, reading 'Sam Lebel'.

Samuel J. Lebel, P.E.
 Project Manager
 Acorn Engineering, Inc.

The following documents and drawings will be uploaded onto the City's electronic submission site per the procedure outlined in the application:

Documents:

- Section A: Cover Letter
- Section B: Major Site Plan and Subdivision Application & Checklist
- Section C: Right, Title, Interest
- Section D: Zoning Assessment
- Section E: Easements
- Section F: Waiver Table
- Section G: Financial Capacity
- Section H: Technical Capacity
- Section I: Conformity with Land Use Ordinance
- Section J: Stormwater Management Report
- Section K: Erosion & Sedimentation Control Report
- Section L: Fire Department Letter
- Section M: Wastewater Capacity Letter
- Section N: Lighting
- Section O: Architectural Design Narrative
- Section P: Utility Cover
- Section Q: Construction Management Plan
- Section R: Solid Waste

Drawings:

- Civil Site Plan Set
- Architectural Plan Set



CITY OF PORTLAND
Planning & Urban Development Department

MAJOR SITE PLAN GENERAL DOCUMENT AND DRAWINGS CHECKLIST Please submit each document as a separate PDF file. Please confirm by electronically checking the boxes in the left-hand column. ** PLEASE FILL OUT AND UPLOAD THE ZONING ASSESSMENT TABLE AND WAIVER TABLE SEPARATELY AS NOTED BELOW ** At the time of application submission, please contact the Department of Public Works regarding E-911 addressing for your project.		
GENERAL APPLICATION DOCUMENTS		
☒	NA	Project Description Cover letter with detailed project description
☒	NA	Completed Checklist (this document)
☒	NA	Evidence of Right, Title, and Interest Deeds, leases, or purchase and sales agreements
☒	NA	Evidence of State or Federal Approvals Permits or letters of non-jurisdiction, if applicable
☒	NA	Zoning Assessment (see Zoning Assessment Table) Summary of compliance with use and dimensional standards of the land use code
☒	NA	Site Plan Standards Assessment (see Section 14.6 of the land use code) Summary of project compliance with site plan standards of the land use code
☒	NA	Summary of Existing and/or Proposed Easements or Covenants, applicable. Evidence of existing easements and any proposed easements, covenants, public or private rights-of-way
☒	NA	Waiver Requests (see Waiver Table) Written request for waiver describing request and compliance with applicable waiver standards
☒	NA	Financial Capability Letter or evidence from a financial institution or third party verifying financial capacity to undertake project
☒	NA	Technical Capability Evidence of technical capability of applicant and consultants – resumes and/or examples of past projects

MAJOR SITE PLAN STANDARDS AND SUBMISSION CHECKLIST

Provide assessment of compliance with standards and include supplemental documentation, as applicable.
Please submit each document as a separate PDF file.

TRANSPORTATION

Yes NA	Impact on Surrounding Street Systems (14-14.6.1(A)) Describe incremental volume of traffic impacts and mitigation measures. If needed
Yes NA	Access and Circulation (14-14.6.1(B)) Identify and describe the following: - Site access and internal circulation, including ADA access - Drive-up features, if applicable - Loading and servicing needs, routes, and geometry, providing turning templates for delivery vehicles, if applicable - Sidewalks and condition along street frontages and internal walkways - Engineered details for ADA ramps and public sidewalks, meeting sidewalk material policy and construction requirements (Technical Manual, Section 1)
Yes NA	Public Transit (14-14.6.1(C)), if applicable Identify and describe the following: Existing available transit service and proposed transit improvements, including design details, such as easement, pad base, and shelter
Yes NA	Off-Street Parking (14-14.6.1(D)), if applicable Identify and describe the following: - Proposed vehicular and bicycle parking supply (including ADA-compliant parking) in relation to applicable parking requirements in Article 19 of the land use code - Curb cut separation and parking layout (Technical Manual, Section 1) - Construction details for bicycle racks - Management plan for snow storage and removal
Yes NA	Transportation Demand Management (TDM) (14-14.6.1(E)), if applicable Provide TDM plan drafted in accordance with Technical Manual Section 1 requirements

ENVIRONMENTAL		
Yes	NA	Preservation of Significant Natural Features (14-14.6.2(A)), if applicable Identify and describe the following: • High and moderate value waterfowl and wading habitat • Aquifers (for Casco Bay Islands) • Waterbodies (including wetlands, watercourses, significant vernal pools and floodplains) • Proposed preservation areas and protection measures • Documentation from environmental compliance consultants and determinations from applicable state and federal agencies
Yes	NA	Landscape Preservation (14-14.6.2(B)) Identify and describe the following: • Measures to preserve trees, including within required zoning setbacks (Technical Manual, Section 4) • Measures to protect existing vegetation during construction
Yes	NA	Site Landscaping and Buffers (14-14.6.2(C)) Identify and describe the following: • Overall landscaping approach and consistency with standards • The use of screening and buffering of service areas and between non-residential and residential uses • Existing Heritage or Feature Trees on site and measures to preserve • Compliance with street tree requirements
Yes	NA	Water Quality, Stormwater Management, and Erosion Control (14-14.6.2(D)) Identify and describe the following: • Erosion and sedimentation control plan and measures • Evidence of compliance with Urban Impaired Stream Standards pursuant to DEP Chapter 500 stormwater law, as applicable • Subsurface sanitary sewage disposal and groundwater protection measures

PUBLIC INFRASTRUCTURE AND COMMUNITY SAFETY		
Yes	NA	Consistency with City Master Plans (14-14.6.3(A)) Describe proposed easements, rights and improvements to connect or continue off-premises public infrastructure, as applicable
Yes	NA	Public Safety and Fire Prevention (14-14.6.3(B)) Identify and describe the following: - Compliance with Crime Prevention through Environmental Design (CPTED) requirements (Technical Manual, Section 3) - Emergency vehicle access - Consistency with public safety standards (Technical Manual, Section 3)
Yes	NA	Availability and Adequacy of Public Utilities (14-14.6.3(C)) (Technical Manual, Sections 2 & 9) Identify and describe the following: - Electrical services, including providing underground services - Existing and proposed connections for public utilities and required public utility upgrades - Sewer line connections
SITE DESIGN		
Yes	NA	Massing, Ventilations and Wind Impact (14-14.6.4(A)) Identify and describe the following: - Wind and ventilation impacts on adjoining structures and/or adjacent public spaces, including wind study, if applicable - Bulk, location, or height impacts on adjoining structures
Yes	NA	Shadows (14-14.6.4(B)), if applicable Provide shadow analysis of impacts on publicly accessible open space (Technical Manual, Section 11)
Yes	NA	Snow and Ice Loading (14-14.6.4(C)) Describe building design measures to prevent snow and ice from loading or falling onto adjacent properties or public ways
Yes	NA	View Corridors (14-14.6.4(D)), if applicable Describe any protection of designated view corridors (Portland Design Manual, Appendix. 1)
Yes	NA	Historic Resources (14-14.6.4(E)), if applicable Identify and describe the following: - The site's status as a designated landmark, within a historic district or historic landscape district, or within 100 feet of any designated landmark, historic district, or historic landscape district - Compliance with standards for preservation and documentation of archaeological resources

Yes	NA	Exterior Lighting (14-14.6.4(F)) Describe how the proposed site lighting will adhere to photometrics requirements as it relates to light trespass and full cutoff fixture design, pursuant to Technical Manual Section 12
Yes	NA	Noise and Vibration (14-14.6.4(G)) Provide data on noise levels for HVAC and other mechanical equipment, such as design specifications, to demonstrate consistency with state and federal noise emissions requirements as well as City code
Yes	NA	Signage and Wayfinding (14-14.6.4(H)), if applicable - Provide signage plan showing the location, dimensions, height and setback of all existing and proposed signs - Provide drawings of all commercial and directional signage on site
Yes	NA	Zone-Related Design Standards (14-14.6.4(I)) Address any applicable design review standards by zone, including compliance with Design Manual

MAJOR SITE PLAN DRAWINGS CHECKLIST

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

All drawings must be submitted in a 24 x 36 sheet size.

BOUNDARY SURVEY (stamped by a Maine Licensed Surveyor and drawn as per Technical Manual Sec. 13)

SITE PLAN(S) (stamped by a Maine Licensed Professional Engineer) including:

All sheets – Include a title block with project title and the following information:

- Project street address
- Name and address of property owner & applicant
- Licensed design professional, incl firm that produced plans
- North arrow
- Date of preparation and revision history block
- Tax parcel (chart, block, and lot) number

Existing Conditions Plan with the following:

- Existing structures, with distance from primary building façade(s) to the property line
- Approximate location of structures on abutting properties
- All streets and intersections adjacent to the site
- Existing driveways, pedestrian ways, and bicycle infrastructure, including dimensions and materials
- Existing public transit infrastructure
- Existing vehicle & bicycle parking areas
- Existing utilities on site and within adjacent rights-of-way
- Existing grades (two-foot contours preferred)
- Location of water courses, wetlands, and vegetation, or other significant natural features
- Existing soil conditions and location of test pits and borings
- Zoning boundary lines, including overlays
- Location of all existing easements and rights-of-way

Proposed Site Plan with the following:

- Proposed structures, including distance from primary building façade(s) to property lines
- Ground floor area, and finished floor elevations for all buildings
- Any proposed geometric modifications to streets and intersections adjacent to site
- Location, dimensions and materials of all proposed driveways, vehicle, bicycle, & pedestrian access ways with corresponding curb lines
- Engineered specifications/ cross-sections for proposed driveways, sidewalks & paved areas
- Location and dimensions of proposed loading areas, including turning templates
- Proposed transit infrastructure with dimensions/ engineering specifications
- Location of vehicle and bicycle parking with dimensions and engineering specifications
- Location of all snow storage areas
- Exterior lighting (please see Technical Manual Sec. 12 for photometrics requirements)
- Location of fire hydrants

• Location of solid waste management receptacles • Location of all proposed HVAC and mechanical equipment, including proposed screening, where applicable • Location of proposed easements and rights-of-way, including dimensions • Please utilize color-coding and/or hatches and shading to delineate changes between the pre and post development condition as needed
UTILITY PLAN including:
• Proposed electrical infrastructure • Location, sizing and directional flows of all proposed sewer and stormwater infrastructure • Location and dimensions of off-premises public or publicly accessible infrastructure adjacent to site • Electric utility infrastructure
GRADING AND DRAINAGE PLAN including:
• Proposed grades • Proposed stormwater management measures meeting Technical Manual (Section 5) standards • Any proposed alteration of a watercourse or wetlands • Any groundwater protection measures • Proposed buffers and preservation measures for wetlands or significant natural features
LANDSCAPE PLAN including:
• Existing vegetation to be preserved and preservation measures • Proposed landscaping, screening, and street trees, including caliper widths for trees • Planting schedule, including street trees
ARCHITECTURAL PLANS AND RENDERINGS including:
• Exterior building elevations, color renderings, illustrations of all sides • Axonometric and street-level views for structures greater than three stories in height • Provide context drawings, if applicable (Design Manual, page 1) • Floor plans
CONSTRUCTION MANAGEMENT PLAN including:
• Specifics on traffic control, sidewalk sheds, and pedestrian rerouting • Include a drawing and written narrative
OTHER
• Details and cross-sections, as necessary

C. Right, Title, and Interest

Please refer to the attached Letter of Good Standing and Purchase and Sale Agreements demonstrating the Applicant's Right, Title, and Interest.





MAINE

Department of the Secretary of State
Bureau of Corporations, Elections and Commissions

Corporate Name Search

Information Summary

[Subscriber activity report](#)

This record contains information from the CEC database and is accurate as of: Wed Mar 10 2021 13:47:39. Please print or save for your records.

Legal Name	Charter Number	Filing Type	Status
HAMMOND HOUSE, LLC	20194089DC	LIMITED LIABILITY COMPANY (DOMESTIC)	GOOD STANDING

Filing Date	Expiration Date	Jurisdiction
01/14/2019	N/A	MAINE

Other Names (A=Assumed ; F=Former)

NONE

Clerk/Registered Agent

THOMAS B. FEDERLE
254 COMMERCIAL STREET
PORTLAND, ME 04101

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our [Feedback](#) page.

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PURCHASE AND SALE AGREEMENT

("days" means business days unless otherwise noted, see paragraph 23)

March 9, 2021
Offer Date

March 9, 2021 Effective Date
Effective Date is defined in Paragraph 23 of this Agreement.

1. PARTIES: This Agreement is made between KEVIN O'ROURKE ("Buyer") and D/S/H Hammer House LLC ("Seller").

2. DESCRIPTION: Subject to the terms and conditions hereinafter set forth, Seller agrees to sell and Buyer agrees to buy ☒ all part of (if "part of" see para. 26 for explanation) the property situated in municipality of PORTLAND, County of CUMBERLAND, State of Maine, located at Lots numbered 100, 101, 103 and 103 and described in deed(s) recorded at said County's Registry of Deeds Book(s) 8 10, Page(s) 1 21.

3. FIXTURES: The Buyer and Seller agree that all fixtures, including but not limited to existing storm windows, screens, shades and/or blinds, shutters, curtain rods, built-in appliances, heating sources/systems including gas and/or kerosene-fired heaters and wood/pellet stoves, sump pump, electrical fixtures, landscaping, and NA are included with the sale except for the following: NA.
Seller represents that all mechanical components of fixtures will be operational at the time of closing except: NA.

4. PERSONAL PROPERTY: The following items of personal property as viewed on NA are included with the sale at no additional cost, in "as is" condition with no warranties: NA.

5. PURCHASE PRICE/EARNEST MONEY: For such Deed and conveyance Buyer agrees to pay the total purchase price of NA. Buyer ☐ has delivered; or ☐ will deliver to the Agency within NA days of the Effective Date, a deposit of earnest money in the amount of \$ NA. Buyer agrees that an additional deposit of earnest money in the amount of \$ NA will be delivered NA.
If Buyer fails to deliver the initial or additional deposit in compliance with the above terms Seller may terminate this Agreement. This right to terminate ends once Buyer has delivered said deposit(s). The remainder of the purchase price shall be paid by wire, certified, cashier's or trust account check upon delivery of the Deed.

This Purchase and Sale Agreement is subject to the following conditions:

6. ESCROW AGENT/ACCEPTANCE: NA ("Agency") shall hold said earnest money and act as escrow agent until closing; this offer shall be valid until NA (date) ☐ AM ☐ PM; and, in the event of non-acceptance, this earnest money shall be returned promptly to Buyer.

7. TITLE AND CLOSING: A deed, conveying good and merchantable title in accordance with the Standards of Title adopted by the Maine Bar Association shall be delivered to Buyer and this transaction shall be closed and Buyer shall pay the balance due and execute all necessary papers on See Addendum (closing date) or before, if agreed in writing by both parties. If Seller is unable to convey in accordance with the provisions of this paragraph, then Seller shall have a reasonable time period, not to exceed 30 calendar days, from the time Seller is notified of the defect, unless otherwise agreed to in writing by both Buyer and Seller, to remedy the title. Seller hereby agrees to make a good-faith effort to cure any title defect during such period. If, at the later of the closing date set forth above or the expiration of such reasonable time period, Seller is unable to remedy the title, Buyer may close and accept the deed with the title defect or may terminate this Agreement in which case the parties shall be relieved of any further obligations hereunder and any earnest money shall be returned to the Buyer.

8. DEED: The property shall be conveyed by a Quitclaim Deed w/covenants, and shall be free and clear of all encumbrances except covenants, conditions, easements and restrictions of record which do not materially and adversely affect the continued current use of the property.

9. POSSESSION, OCCUPANCY, AND CONDITION: Unless otherwise agreed in writing, possession and occupancy of premises, free of tenants and occupants, shall be given to Buyer immediately at closing. Said premises shall then be broom clean, free of all possessions and debris, and in substantially the same condition as at present, excepting reasonable use and wear. Buyer shall have the right to view the property within 24 hours prior to closing.

10. RISK OF LOSS, DAMAGE, DESTRUCTION AND INSURANCE: Prior to closing, risk of loss, damage, or destruction of premises shall be assumed solely by the Seller. Seller shall keep the premises insured against fire and other extended casualty risks prior to closing. If the premises are damaged or destroyed prior to closing, Buyer may either terminate this Agreement and be refunded the earnest money, or close this transaction and accept the premises "as-is" together with the assignment of the insurance proceeds relating thereto.

Revised 2018

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Buyer(s) Initials KOR

Seller(s) Initials TH

Vitalius Real Estate Group, LL, 306 Congress Street Portland, ME 4101
Briton Vitalius

Phone: (207)541-3755

Fax:

Produced with zipForm® by zipLogix 18070 Fifteen Mile Road, Fraser, Michigan 48026 www.ziplogix.com

11. FUEL/UTILITIES/PRORATIONS: Buyer ☐ shall ☒ shall not pay Seller at closing for all fuel in any tanks remaining on the property calculated as of the closing date or such earlier date as required to comply with lender requirements, if any. The amount owed, if any, shall be determined using the most recently available cash price of the company that last delivered the fuel. Metered utilities such as electricity, water and sewer will be paid through the date of closing by Seller. The following items, where applicable, shall be prorated as of the date of closing: collected rent, association fees, (other) _____. The day of closing is counted as a Seller day. Real estate taxes shall be prorated as of the date of closing (based on municipality's fiscal year). Seller is responsible for any unpaid taxes for prior years. If the amount of said taxes is not known at the time of closing, they shall be apportioned on the basis of the taxes assessed for the preceding year with a reapportionment as soon as the new tax rate and valuation can be ascertained, which latter provision shall survive closing. Buyer and Seller will each pay their transfer tax as required by State of Maine.

12. DUE DILIGENCE: Neither Seller nor Licensee makes any warranties regarding the condition, permitted use or value of Sellers' real or personal property, or any representations as to compliance with any federal, state or municipal codes, including, but not limited to, fire, life safety, electrical and plumbing. Buyer is encouraged to seek information from professionals regarding any specific issue or concern.

☐ Buyer's obligation to close under this Agreement is not subject to any due diligence investigations. Buyer is relying completely upon Buyer's own opinion as to the condition of the property.

☒ Buyer's obligation to close under this Agreement is subject to Buyer's satisfaction with the results of any due diligence investigations undertaken. Buyer shall have June 1, 2016 days from the Effective Date of this Agreement to perform such due diligence investigations as Buyer deems necessary which may include, without limitation, any or all of the following:

General Building	Square Footage	Zoning	Survey/MLI	Habitat Review/Waterfowl
Sewage Disposal	Code Conformance	Pests	Lead Paint	Coastal Shoreland Septic
Water Quality	Registered Farmland	Pool	Flood Plain	Energy Audit
Water Quantity	Environmental Scan	Insurance	Chimney	Lot Size/Acreage
Air Quality	Smoke/CO Detectors	Mold	Tax Status*	Arsenic Wood/Water (see par. 13)

All investigations will be done at Buyer's expense by persons chosen by Buyer in Buyer's sole discretion. Seller agrees to cooperate with Buyer and shall give Buyer and Buyer's agents and consultants reasonable access to the property and its systems and fixtures in order to undertake the above investigations. If the result of any investigation is unsatisfactory to Buyer, Buyer may terminate this Agreement by notifying Seller in writing within the specified number of days, and any earnest money shall be returned to Buyer. If the result of any investigation is unsatisfactory to Buyer in Buyer's sole discretion, and Buyer wishes to pursue remedies other than voiding the Agreement, Buyer must do so to full resolution within the time period set forth above; otherwise this contingency is waived. If Buyer does not notify Seller that an investigation is unsatisfactory within the time period set forth above, this contingency is waived by Buyer.

* If the property is enrolled in the Maine Tree Growth Tax program, Seller agrees to provide Buyer with the current Forest Management and Harvest Plan within _____ days. ☐ Yes ☒ No

13. PROPERTY DISCLOSURE FORM: Buyer acknowledges receipt of Property Disclosure Form and the information developed by the Maine Center for Disease Control and Prevention regarding arsenic in private water supplies and arsenic in treated wood.

14. FINANCING: Buyer's obligation to close:

☒ is not subject to a financing contingency. Buyer has provided Seller with acceptable proof of the funds.

☐ is not subject to a financing contingency. Buyer shall provide proof of the funds acceptable to Seller within _____ days. If such proof is unacceptable to Seller, Seller may terminate this Agreement no later than _____ days from receipt. If proof of funds is not provided within such time period, Seller may terminate this Agreement which right shall end once such proof is received, however Seller retains the agreed upon time period to terminate if such proof is unacceptable. If Seller terminates in either case, the earnest money shall be returned to Buyer.

☐ is subject to financing as follows:

- Buyer's obligation to close is subject to Buyer obtaining a _____ loan of _____ % of the purchase price, at an interest rate not to exceed _____ % and amortized over a period of _____ years. Buyer is under a good faith obligation to seek and obtain financing on these terms. If such financing is not available to Buyer as of the closing date, Buyer is not obligated to close and may terminate this Agreement in which case the earnest money shall be returned to Buyer.
- Buyer to provide Seller with letter from lender showing that Buyer has made application for loan specified in (a) and, subject to verification of information, is qualified for the loan requested within _____ days from the Effective Date of the Agreement. If Buyer fails to provide Seller with such letter within said time period, Seller may terminate this Agreement and the earnest money shall be returned to Buyer. This right to terminate ends once Buyer's letter is received.
- Buyer hereby authorizes, instructs and directs its lender to communicate the status of the Buyer's loan application to Seller, Seller's licensee and Buyer's licensee.
- After (b) is met, if the lender notifies Buyer that it is unable or unwilling to provide said financing, Buyer is obligated to provide Seller with the written documentation of the loan denial within two days of receipt. After notifying Seller, Buyer shall have _____ days to provide Seller with a letter from another lender showing that Buyer has made application for loan specified in (a) and, subject to verification of information, is qualified for the loan requested. If Buyer fails to provide Seller with such letter within said time period, Seller may terminate this Agreement and the earnest money shall be returned to Buyer. This right to terminate ends once Buyer's letter is received.
- Buyer agrees to pay no more than _____ points. Seller agrees to pay up to \$ _____ toward Buyer's actual pre-pays, points and/or closing costs, but no more than allowable by Buyer's lender.
- Buyer's ability to obtain financing ☐ is ☒ is not subject to the sale of another property. See addendum ☐ Yes ☐ No.
- Buyer may choose to pay cash instead of obtaining financing. If so, Buyer shall notify Seller in writing including providing proof of funds and the Agreement shall no longer be subject to financing, and Seller's right to terminate pursuant to the provisions of this paragraph shall be void.

15. BROKERAGE DISCLOSURE: Buyer and Seller acknowledge they have been advised of the following relationships:

NA () of ()
Licensee MLS ID Agency MLS ID
is a ☐ Seller Agent ☐ Buyer Agent ☐ Disc Dual Agent ☐ Transaction Broker
NA () of ()
Licensee MLS ID Agency MLS ID
is a ☐ Seller Agent ☐ Buyer Agent ☐ Disc Dual Agent ☐ Transaction Broker

If this transaction involves Disclosed Dual Agency, the Buyer and Seller acknowledge the limited fiduciary duties of the agents and hereby consent to this arrangement. In addition, the Buyer and Seller acknowledge prior receipt and signing of a Disclosed Dual Agency Consent Agreement.

16. DEFAULT/RETURN OF EARNEST MONEY: Buyer's failure to fulfill any of Buyer's obligations hereunder shall constitute a default and Seller may employ all legal and equitable remedies, including without limitation, termination of this Agreement and forfeiture by Buyer of the earnest money. Seller's failure to fulfill any of Seller's obligations hereunder shall constitute a default and Buyer may employ all legal and equitable remedies, including without limitation, termination of this Agreement and return to Buyer of the earnest money. Agency acting as escrow agent has the option to require written releases from both parties prior to disbursing the earnest money to either Buyer or Seller. In the event that the Agency is made a party to any lawsuit by virtue of acting as escrow agent, Agency shall be entitled to recover reasonable attorney's fees and costs which shall be assessed as court costs in favor of the prevailing party.

17. MEDIATION: Earnest money or other disputes within the jurisdictional limit of small claims court will be handled in that forum. All other disputes or claims arising out of or relating to this Agreement or the property addressed in this Agreement (other than requests for injunctive relief) shall be submitted to mediation in accordance with generally accepted mediation practices. Buyer and Seller are bound to mediate in good faith and to each pay half of the mediation fees. If a party fails to submit a dispute or claim to mediation prior to initiating litigation (other than requests for injunctive relief), then that party will be liable for the other party's legal fees in any subsequent litigation regarding that same matter in which the party who failed to first submit the dispute or claim to mediation loses in that subsequent litigation. This clause shall survive the closing of the transaction.

18. PRIOR STATEMENTS: Any representations, statements and agreements are not valid unless contained herein. This Agreement completely expresses the obligations of the parties and may only be amended in writing, signed by both parties.

19. HEIRS/ASSIGNS: This Agreement shall extend to and be obligatory upon heirs, personal representatives, successors, and assigns of the Seller and the assigns of the Buyer.

20. COUNTERPARTS: This Agreement may be signed on any number of identical counterparts with the same binding effect as if the signatures were on one instrument. Original or faxed or other electronically transmitted signatures are binding.

21. SHORELAND ZONE SEPTIC SYSTEM: Seller represents that the property ☐ does ☒ does not contain a septic system within the Shoreland Zone. If the property does contain a septic system located in the Shoreland Zone, Seller agrees to provide certification at closing indicating whether the system has/has not malfunctioned within 180 calendar days prior to closing.

22. NOTICE: Any notice, communication or document delivery requirements hereunder may be satisfied by providing the required notice, communication or documentation to or from the parties or their Licensee. Only withdrawals of offers and counteroffers will be effective upon communication, verbally or in writing.

23. EFFECTIVE DATE/BUSINESS DAYS: This Agreement is a binding contract when the last party signing has caused a paper or electronic copy of the fully executed agreement to be delivered to the other party which shall be the Effective Date. Licensee is authorized to fill in the Effective Date on Page 1 hereof. Except as expressly set forth to the contrary, the use of the term "days" in this Agreement, including all addenda made a part hereof, shall mean business days defined as excluding Saturdays, Sundays and any observed Maine State/Federal holidays. Deadlines in this Agreement, including all addenda, expressed as "within x days" shall be counted from the Effective Date, unless another starting date is expressly set forth, beginning with the first day after the Effective Date, or such other established starting date, and ending at 5:00 p.m. Eastern Time on the last day counted. Unless expressly stated to the contrary, deadlines in this Agreement, including all addenda, expressed as a specific date shall end at 5:00 p.m. Eastern Time on such date.

24. CONFIDENTIALITY: Buyer and Seller authorize the disclosure of the information herein to the real estate licensees, attorneys, lenders, appraisers, inspectors, investigators and others involved in the transaction necessary for the purpose of closing this transaction. Buyer and Seller authorize the lender and/or closing agent preparing the closing disclosure and/or settlement statement to release a copy of the closing disclosure and/or settlement statement to the parties and their licensees prior to, at and after the closing.

25. ADDENDA: Lead Paint - ☐ Yes ☐ No ; Other - ☒ Yes ☐ No Explain: _____

The Property Disclosure Form is not an addendum and not part of this Agreement.

26. OTHER CONDITIONS:

27. GENERAL PROVISIONS:

- a. A copy of this Agreement is to be received by all parties and, by signature, receipt of a copy is hereby acknowledged. If not fully understood, contact an attorney. This is a Maine contract and shall be construed according to the laws of Maine.
- b. Seller acknowledges that State of Maine law requires buyers of property owned by non-resident sellers to withhold a prepayment of capital gains tax unless a waiver has been obtained by Seller from the State of Maine Revenue Services.
- c. Buyer and Seller acknowledge that under Maine law payment of property taxes is the legal responsibility of the person who owns the property on April 1, even if the property is sold before payment is due. If any part of the taxes is not paid when due, the lien will be filed in the name of the owner as of April 1 which could have a negative impact on their credit rating. Buyer and Seller shall agree at closing on their respective obligations regarding actual payment of taxes after closing. Buyer and Seller should make sure they understand their obligations agreed to at closing and what may happen if taxes are not paid as agreed.
- d. Buyer acknowledges that Maine law requires continuing interest in the property and any back up offers to be communicated by the listing agent to the Seller.
- e. Whenever this Agreement provides for earnest money to be returned or released, agency acting as escrow agent must comply with the Maine Real Estate Commission rules which may require written notices or obtaining written releases from both parties.

28. ELECTRONIC SIGNATURES: Pursuant to the Maine Uniform Electronic Transactions Act and Digital Signature Act, the parties authorize and agree to the use of electronic signatures as a method of signing/initialing this Agreement, including all addenda. The parties hereby agree that either party may sign electronically by utilizing an electronic signature service.

Buyer's Mailing address is

94 SOUTH ST. YARMOUTH, ME 04096

BUYER

DATE

BUYER

DATE

Seller accepts the offer and agrees to deliver the above-described property at the price and upon the terms and conditions set forth and agrees to pay agency a commission for services as specified in the listing agreement.

Seller's Mailing address is

16017 DAYSAILOR TRAIL LAKEWOOD RANCH FL 34202

SELLER

DATE

SELLER

DATE

COUNTER-OFFER

Seller agrees to sell on the terms and conditions as detailed herein with the following changes and/or conditions:

The parties acknowledge that until signed by Buyer, Seller's signature constitutes only an offer to sell on the above terms and the offer will expire unless accepted by Buyer's signature with communication of such signature to Seller by (date) _____ (time) _____ AM _____ PM.

SELLER

DATE

SELLER

DATE

The Buyer hereby accepts the counter offer set forth above.

BUYER

DATE

BUYER

DATE

EXTENSION

The closing date of this Agreement is extended until

DATE

SELLER

DATE

SELLER

DATE

BUYER

DATE

BUYER

DATE



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ADDENDUM TO PURCHASE AGREEMENT

Effective Date: March 9 2021

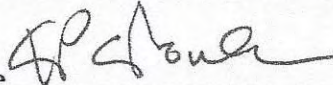
I. The Parties. This Addendum hereby becomes part of the Purchase Agreement between 1 individual(s) known as Kevin O'Rourke ("Buyer") and 1 individual(s) known as Thomas Farr dba Fortune Capital ("Seller") authorized on March 9 2021 ("Agreement") for the residential property located at F Street, Portland , Maine, 04103 ("Property").

II. Amendment(s). Buyer and Seller agree that the Agreement shall be amended as follows:

Buyer and Seller agree to extend due diligence until August 1, 2021 if City approvals have not been received by June 1, 2021.

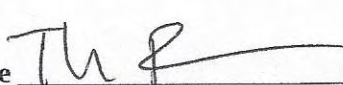
III. Other Terms. All other terms and conditions of the Agreement shall remain the same. This Addendum shall go into effect on the date of the undersigned parties.

Buyer's Signature
Kevin O'Rourke

 Date 3/9/21

Seller's Signature

Thomas Farr dba Fortune Capital

 Date 3/15/21

DocuSign Envelope ID: F2F8A8B9-2B97-468E-965D-02ACCE4657C3

PURCHASE AND SALE AGREEMENT

("days" means business days unless otherwise noted, see paragraph 23)

Offer Date November 4, 2020

Effective Date 11/10/2020
Effective Date is defined in Paragraph 23 of this Agreement.

1. PARTIES: This Agreement is made between Hammond House LLC

Walter H. Libby III, Lucy M. Copp, Madeline F. Morrill, Mark W. Libby ("Buyer") and ("Seller").

2. DESCRIPTION: Subject to the terms and conditions hereinafter set forth, Seller agrees to sell and Buyer agrees to buy ☒ all part of (if "part of" see para. 26 for explanation) the property situated in municipality of Portland County of Cumberland State of Maine, located at 29 Dalton St & Street F Parcels and described in deed(s) recorded at said County's Registry of Deeds Book(s) see section 26 Page(s) see section 26

3. FIXTURES: The Buyer and Seller agree that all fixtures, including but not limited to existing storm windows, screens, shades and/or blinds, shutters, curtain rods, built-in appliances, heating sources/systems including gas and/or kerosene-fired heaters and wood/pellet stoves, sump pump, electrical fixtures, hard-wired generators, landscaping, and XXXXXX are included with the sale except for the following: no exceptions
Seller represents that all mechanical components of fixtures will be operational at the time of closing except: As Is Condition

4. PERSONAL PROPERTY: The following items of personal property as viewed on October 12, 2020 are included with the sale at no additional cost, in "as is" condition with no warranties: kitchen appliances

5. PURCHASE PRICE/EARNEST MONEY: For such Deed and conveyance Buyer agrees to pay the total purchase price of \$450,000.00. Buyer ☐ has delivered; or ☒ will deliver to the Agency within 3 days of the Effective Date, a deposit of earnest money in the amount \$ 10,000.00. Buyer agrees that an additional deposit of earnest money in the amount of \$ XXXXXXXX will be delivered XXXXXXXXXXXX. If Buyer fails to deliver the initial or additional deposit in compliance with the above terms Seller may terminate this Agreement. This right to terminate ends once Buyer has delivered said deposit(s). The remainder of the purchase price shall be paid by wire, certified, cashier's or trust account check upon delivery of the Deed.

This Purchase and Sale Agreement is subject to the following conditions:

6. ESCROW AGENT/ACCEPTANCE: RE/MAX By The Bay ("Agency") shall hold said earnest money and act as escrow agent until closing; this offer shall be valid until 11/10/20 November 6, 2020 (date) 5:00 ☐ AM ☒ PM; and, in the event of non-acceptance, this earnest money shall be returned promptly to Buyer.

7. TITLE AND CLOSING: A deed, conveying good and merchantable title in accordance with the Standards of Title adopted by the Maine Bar Association shall be delivered to Buyer and this transaction shall be closed and Buyer shall pay the balance due and execute all necessary papers on See Section 26 (closing date) or before, if agreed in writing by both parties. If Seller is unable to convey in accordance with the provisions of this paragraph, then Seller shall have a reasonable time period, not to exceed 30 calendar days, from the time Seller is notified of the defect, unless otherwise agreed to in writing by both Buyer and Seller, to remedy the title. Seller hereby agrees to make a good-faith effort to cure any title defect during such period. If, at the later of the closing date set forth above or the expiration of such reasonable time period, Seller is unable to remedy the title, Buyer may close and accept the deed with the title defect or may terminate this Agreement in which case the parties shall be relieved of any further obligations hereunder and any earnest money shall be returned to the Buyer.

8. DEED: The property shall be conveyed by a Quitclaim Deed With Covenant deed, and shall be free and clear of all encumbrances except covenants, conditions, easements and restrictions of record which do not materially and adversely affect the continued current use of the property.

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Buyer(s) Initials KPAR

Seller(s) Initials MM

RE/MAX By The Bay, 281 Veranda Portland ME 04101
David Banks

Produced with zipForm® by zipLogix 13070 Fifteen Mile Road, Fraser, Michigan 48033
Phone: 248.553.7343 Fax: 248.553.7344
www.ziplogix.com

29 Indian St

9. **POSSESSION, OCCUPANCY, AND CONDITION:** Unless otherwise agreed in writing, possession and occupancy of premises, free of tenants and occupants, shall be given to Buyer immediately at closing. Said premises shall then be broom clean, free of all possessions and debris, and in substantially the same condition as at present, excepting reasonable use and wear. Buyer shall have the right to view the property within 24 hours prior to closing.

10. **RISK OF LOSS, DAMAGE, DESTRUCTION AND INSURANCE:** Prior to closing, risk of loss, damage, or destruction of premises shall be assumed solely by the Seller. Seller shall keep the premises insured against fire and other extended casualty risks prior to closing. If the premises are damaged or destroyed prior to closing, Buyer may either terminate this Agreement and be refunded the earnest money, or close this transaction and accept the premises "as is" together with an assignment of the insurance proceeds relating thereto. #10 continued... renegotiate the purchase price agreeable to both buyer and seller.

11. **FUEL/UTILITIES/PRORATIONS:** Buyer ☐ shall ☒ shall not pay Seller at closing for all fuel in any tanks remaining on the property calculated as of the closing date or such earlier date as required to comply with lender requirements, if any. The amount owed, if any, shall be determined using the most recently available cash price of the company that last delivered the fuel. Metered utilities such as electricity, water and sewer will be paid through the date of closing by Seller. The following items, where applicable, shall be prorated as of the date of closing: collected rent, association fees, (other) _____. The day of closing is counted as a Seller day. Real estate taxes shall be prorated as of the date of closing (based on municipality's fiscal year). Seller is responsible for any unpaid taxes for prior years. If the amount of said taxes is not known at the time of closing, they shall be apportioned on the basis of the taxes assessed for the preceding year with a reapportionment as soon as the new tax rate and valuation can be ascertained, which latter provision shall survive closing. Buyer and Seller will each pay their transfer tax as required by State of Maine.

12. **DUE DILIGENCE:** Neither Seller nor Licensee makes any warranties regarding the condition, permitted use or value of Sellers' real or personal property, or any representations as to compliance with any federal, state or municipal codes, including, but not limited to, fire, life safety, electrical and plumbing. Buyer is encouraged to seek information from professionals regarding any specific issue or concern.

☐ Buyer's obligation to close under this Agreement is not subject to any due diligence investigations. Buyer is relying completely upon Buyer's own opinion as to the condition of the property.

☒ Buyer's obligation to close under this Agreement is subject to Buyer's satisfaction with the results of any due diligence investigations undertaken. Buyer shall have May 1, 2021* days from the Effective Date of this Agreement to perform such due diligence investigations as Buyer deems necessary which may include, but are not limited to, any or all of the following:

General Building	Square Footage	Zoning	Survey/MLI	Habitat Review/Waterfowl
Sewage Disposal	Code Conformance	Pests	Lead Paint	Shoreland Septic
Water Quality	Registered Farmland	Pool	Flood Plain	Energy Audit
Water Quantity	Environmental Scan	Insurance	Chimney	Lot Size/Acreage
Air Quality	Smoke/CO Detectors	Mold	Tax Status*	Arsenic Wood/Water (see par. 13)

All investigations will be done at Buyer's expense by persons chosen by Buyer in Buyer's sole discretion. Seller agrees to cooperate with Buyer and shall give Buyer and Buyer's agents and consultants reasonable access to the property and its systems and fixtures in order to undertake the above investigations. Buyer agrees to take reasonable steps to return the property to its pre-inspection condition. If the result of any investigation is unsatisfactory to Buyer, Buyer may terminate this Agreement by notifying Seller in writing within the specified number of days, and any earnest money shall be returned to Buyer. If the result of any investigation is unsatisfactory to Buyer in Buyer's sole discretion, and Buyer wishes to pursue remedies other than voiding the Agreement, Buyer must do so to full resolution within the time period set forth above; otherwise this contingency is waived. If Buyer does not notify Seller that an investigation is unsatisfactory within the time period set forth above, this contingency is waived by Buyer.

* If the property is enrolled in the Maine Tree Growth Tax program, Seller agrees to provide Buyer with the current Forest Management and Harvest Plan within ____ days. ☐ Yes ☒ No

13. **PROPERTY DISCLOSURE FORM:** Buyer acknowledges receipt of Property Disclosure Form and the information developed by the Maine Center for Disease Control and Prevention regarding arsenic in private water supplies and arsenic in treated wood.

KPAR

MM

14. FINANCING: Buyer's obligation to close:

- ☒ is not subject to a financing contingency. Buyer has provided Seller with acceptable proof of the funds. Buyer is not subject to a financing contingency. Buyer shall provide proof of the funds acceptable to Seller within _____ days. If such proof is unacceptable to Seller, Seller may terminate this Agreement no later than _____ days from receipt. If proof of funds is not provided within such time period, Seller may terminate this Agreement which right shall end once such proof is received, however Seller retains the agreed upon time period to terminate if such proof is unacceptable. If Seller terminates in either case, the earnest money shall be returned to Buyer.
- ☐ Buyer's ability to purchase ☐ is ☐ is not subject to the sale of another property. See addendum ☐ Yes ☐ No.
- a. Buyer's obligation to close is subject to financing as follows:
Buyer's obligation to close is subject to Buyer obtaining a _____ loan of _____ % of the purchase price, at an interest rate not to exceed _____ % and amortized over a period of _____ years. Buyer is under a good faith obligation to seek and obtain financing on these terms. If such financing is not available to Buyer as of the closing date, Buyer is not obligated to close and may terminate this Agreement in which case the earnest money shall be returned to Buyer.
- b. Buyer to provide Seller with letter from lender showing that Buyer has made application for loan specified in (a) and, subject to verification of information, is qualified for the loan requested within _____ days from the Effective Date of the Agreement. If Buyer fails to provide Seller with such letter within said time period, Seller may terminate this Agreement and the earnest money shall be returned to Buyer. This right to terminate ends once Buyer's letter is received.
- c. Buyer hereby authorizes, instructs and directs its lender to communicate the status of the Buyer's loan application to Seller, Seller's licensee and Buyer's licensee.
- d. After (b) is met, if the lender notifies Buyer that it is unable or unwilling to provide said financing, Buyer is obligated to provide Seller with the written documentation of the loan denial within two days of receipt. After notifying Seller, Buyer shall have _____ days to provide Seller with a letter from another lender showing that Buyer has made application for loan specified in (a) and, subject to verification of information, is qualified for the loan requested. If Buyer fails to provide Seller with such letter within said time period, Seller may terminate this Agreement and the earnest money shall be returned to Buyer. This right to terminate ends once Buyer's letter is received.
- e. Buyer agrees to pay no more than _____ points. Seller agrees to pay up to \$ _____ toward Buyer's actual pre-pays, points and/or closing costs, but no more than allowable by Buyer's lender.
- f. Buyer's ability to obtain financing ☐ is ☐ is not subject to the sale of another property. See addendum ☐ Yes ☐ No.
- g. Buyer may choose to pay cash instead of obtaining financing. If so, Buyer shall notify Seller in writing including providing proof of funds and the Agreement shall no longer be subject to financing, and Seller's right to terminate pursuant to the provisions of this paragraph shall be void and Seller's obligations pursuant to 14e shall remain in full force and effect.

15. BROKERAGE DISCLOSURE: Buyer and Seller acknowledge they have been advised of the following relationships:

_____ () of _____
Licensee _____ MLS ID _____ Agency _____ MLS ID _____
is a ☐ Seller Agent ☐ Buyer Agent ☐ Disc Dual Agent ☐ Transaction Broker

David Banks (002090) of RE/MAX By The Bay (1150)
Licensee _____ MLS ID _____ Agency _____ MLS ID _____
is a ☐ Seller Agent ☒ Buyer Agent ☐ Disc Dual Agent ☐ Transaction Broker

If this transaction involves Disclosed Dual Agency, the Buyer and Seller acknowledge the limited fiduciary duties of the agents and hereby consent to this arrangement. In addition, the Buyer and Seller acknowledge prior receipt and signing of a Disclosed Dual Agency Consent Agreement.

16. DEFAULT/RETURN OF EARNEST MONEY: Buyer's failure to fulfill any of Buyer's obligations hereunder shall constitute a default and Seller may employ all legal and equitable remedies, including without limitation, termination of this Agreement and forfeiture by Buyer of the earnest money. Seller's failure to fulfill any of Seller's obligations hereunder shall constitute a default and Buyer may employ all legal and equitable remedies, including without limitation, termination of this Agreement and return to Buyer of the earnest money. Agency acting as escrow agent has the option to require written releases from both parties prior to disbursing the earnest money to either Buyer or Seller. In the event that the Agency is made a party to any lawsuit by virtue of acting as escrow agent, Agency shall be entitled to recover reasonable attorney's fees and costs which shall be assessed as court costs in favor of the prevailing party.

17. MEDIATION: Earnest money or other disputes within the jurisdictional limit of small claims court will be handled in that forum. All other disputes or claims arising out of or relating to this Agreement or the property addressed in this Agreement (other than requests for injunctive relief) shall be submitted to mediation in accordance with generally accepted mediation practices. Buyer and Seller are bound to mediate in good faith and to each pay half of the mediation fees. If a party fails to submit a dispute or claim to mediation prior to initiating litigation (other than requests for injunctive relief), then that party will be liable for the other party's legal fees in any subsequent litigation regarding that same matter in which the party who failed to first submit the dispute or claim to mediation loses in that subsequent litigation. This clause shall survive the closing of the transaction.

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Buyer(s) Initials

Seller(s) Initials

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39 Dalton St

18. **PRIOR STATEMENTS:** Any representations, statements and **agreements** are not valid unless contained herein. This Agreement completely expresses the obligations of the parties and may only be amended in writing, signed by both parties.
19. **HEIRS/ASSIGNS:** This Agreement shall extend to and be obligatory upon heirs, personal representatives, successors, and assigns of the Seller and the assigns of the Buyer.
20. **COUNTERPARTS:** This Agreement may be signed on any number of identical counterparts with the same binding effect as if the signatures were on one instrument. Original or faxed or other electronically transmitted signatures are binding.
21. **SHORELAND ZONE SEPTIC SYSTEM:** Seller represents that the property ☐ does ☒ does not contain a septic system within the Shoreland Zone. If the property does contain a septic system located in the Shoreland Zone, Seller agrees to provide certification at closing indicating whether the system has/has not malfunctioned within 180 calendar days prior to closing.
22. **NOTICE:** Any notice, communication or document delivery requirements hereunder may be satisfied by providing the required notice, communication or documentation to or from the parties or their Licensee. Only withdrawals of offers and counteroffers will be effective upon communication, verbally or in writing.
23. **EFFECTIVE DATE/BUSINESS DAYS:** This Agreement is a binding contract when the last party signing has caused a paper or electronic copy of the fully executed agreement to be delivered to the other party which shall be the Effective Date. Licensee is authorized to fill in the Effective Date on Page 1 hereof. Except as expressly set forth to the contrary, the use of the term "days" in this Agreement, including all addenda made a part hereof, shall mean business days defined as excluding Saturdays, Sundays and any observed Maine State/Federal holidays. Deadlines in this Agreement, including all addenda, expressed as "within x days" shall be counted from the Effective Date, unless another starting date is expressly set forth, beginning with the first day after the Effective Date, or such other established starting date, and ending at 5:00 p.m. Eastern Time on the last day counted. Unless expressly stated to the contrary, deadlines in this Agreement, including all addenda, expressed as a specific date shall end at 5:00 p.m. Eastern Time on such date.
24. **CONFIDENTIALITY:** Buyer and Seller authorize the disclosure of the information herein to the real estate licensees, attorneys, lenders, appraisers, inspectors, investigators and others involved in the transaction necessary for the purpose of closing this transaction. Buyer and Seller authorize the lender and/or closing agent preparing the closing disclosure and/or settlement statement to release a copy of the closing disclosure and/or settlement statement to the parties and their licensees prior to, at and after the closing.
25. **ADDENDA:** Lead Paint - ☒ Yes ☐ No ; Other - ☒ Yes ☐ No Explain: Addendum 1, Possession after Closing
- The Property Disclosure Form is not an addendum and not part of this Agreement.
26. **OTHER CONDITIONS:** At transfer of title, Seller will pay RE/MAX By The Bay a 2.5% commission on the sales price.

27. GENERAL PROVISIONS:

- A copy of this Agreement is to be received by all parties and, by signature, receipt of a copy is hereby acknowledged. If not fully understood, contact an attorney. This is a Maine contract and shall be construed according to the laws of Maine.
- Seller acknowledges that State of Maine law requires buyers of property owned by non-resident sellers to withhold a prepayment of capital gains tax unless a waiver has been obtained by Seller from the State of Maine Revenue Services.
- Buyer and Seller acknowledge that under Maine law payment of property taxes is the legal responsibility of the person who owns the property on April 1, even if the property is sold before payment is due. If any part of the taxes is not paid when due, the lien will be filed in the name of the owner as of April 1 which could have a negative impact on their credit rating. Buyer and Seller shall agree at closing on their respective obligations regarding actual payment of taxes after closing. Buyer and Seller should make sure they understand their obligations agreed to at closing and what may happen if taxes are not paid as agreed.
- Buyer acknowledges that Maine law requires continuing interest in the property and any back up offers to be communicated by the listing agent to the Seller.
- Whenever this Agreement provides for earnest money to be returned or released, agency acting as escrow agent must comply with the Maine Real Estate Commission rules which may require written notices or obtaining written releases from both parties.

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Buyer(s) Initials

KPAR

Seller(s) Initials

MM

ML

WBY

JC

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*

29 Dallas St

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28. **ELECTRONIC SIGNATURES:** Pursuant to the Maine Uniform Electronic Transactions Act and Digital Signature Act, the parties authorize and agree to the use of electronic signatures as a method of signing/initialing this Agreement, including all addenda. The parties hereby agree that either party may sign electronically by utilizing an electronic signature service.

Buyer's Mailing address is

Harvard House LLC

11/4/2020

BUYER *Harvard House LLC*

DATE

BUYER

DATE

BUYER

DATE

BUYER

DATE

Seller accepts the offer and agrees to deliver the above-described property at the price and upon the terms and conditions set forth and agrees to pay agency a commission for services as specified in the listing agreement.

Seller's Mailing address is

Walter H. Libby III

11/10/2020

SELLER *Walter H. Libby III*

DATE

SELLER *Lacy M. Copp*

11-10-20

DATE

SELLER *Madeline Morrill*

11/10/2020

SELLER *Madeline F. Morrill*

DATE

* *Mark W. Libby*SELLER *Mark W. Libby*

DATE

COUNTER-OFFER

Seller agrees to sell on the terms and conditions as detailed herein with the following changes and/or conditions:

The parties acknowledge that until signed by Buyer, Seller's signature constitutes only an offer to sell on the above terms and the offer will expire unless accepted by Buyer's signature with communication of such signature to Seller by (date) _____ (time) ☐ AM ☐ PM.

SELLER

DATE

SELLER

DATE

SELLER

DATE

SELLER

DATE

The Buyer hereby accepts the counter offer set forth above.

BUYER

DATE

BUYER

DATE

BUYER

DATE

BUYER

DATE

EXTENSION

The closing date of this Agreement is extended until _____

DATE

SELLER

DATE

SELLER

DATE

SELLER

DATE

SELLER

DATE

BUYER

DATE

BUYER

DATE

BUYER

DATE

BUYER

DATE



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29 Dalton St



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ADDENDUM 1 TO AGREEMENT

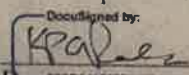
Addendum to contract dated November 4, 2020
 between Walter H. Libby III, Lucy M. Copp, Madeline F. Morrill, Mark W. Libby
 (hereinafter "Seller")
 and Hammond House LLC
 (hereinafter "Buyer")
 property located at 29 Dalton St & Street F Parcels, Portland, ME 04103-5211

Continuation of Paragraph 2: Subject to the terms and conditions hereinafter set forth, Seller agrees to sell and Buyer agrees to buy all of the property situated in municipality of Portland, County of Cumberland, State of Maine, located at Dalton Street & Street F and described in deed(s) recorded at said County's Registry of Book 11647 Page 187 and Book 15054 Page 170 and further described as 2.674 acres on the boundary survey completed by Owen Haskell, INC, dated September 16, 2015, Job No. 2015-193P for Walter H. Libby III, Lucy M. Copp, Madeline F. Morrill & Mark W. Libby and including half of Dalton Street owned by Sellers. Sellers will attempt to acquire and transfer to buyer part of Queen property to half of the right of way for Dalton Street.

Continuation of Paragraph 7: Buyer and Seller agree to close within 15 calendar days of received City approvals.

Continued... See Addendum Addendum Terms and Conditions 1

Parties acknowledge Agency's advice to seek legal, tax and other professional advice as necessary in connection with sale/purchase of property.

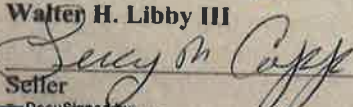
DocuSigned by:

 Buyer Hammond House LLC
 Date 11/4/2020

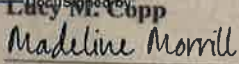
Buyer _____ Date _____

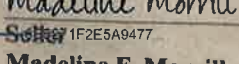
Buyer _____ Date _____

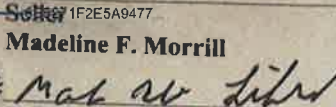
Buyer _____ Date _____

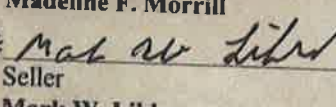

 Seller Walter H. Libby III
 Date 11/10/2020


 Seller Lucy M. Copp
 Date 11/10/2020

DocuSigned by:

 Seller Madeline Morrill
 Date 11/10/2020

DocuSigned by:

 Seller Madeline F. Morrill
 Date _____

DocuSigned by:

 Seller Mark W. Libby
 Date _____

DocuSigned by:

 Seller Mark W. Libby
 Date _____



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RE/MAX By The Bay, 181 Vermont Portland ME 04101
 David Banks

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Phone: 287.553.7362

Fax: 287.553.7296

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ADDENDUM

PROPERTY: 29 Dalton St & Street F Parcels, Portland, ME 04103-5211

1) Addendum Terms and Conditions

***Continuation of Paragraph 12: Buyer and Seller agree to extend due diligence to 5pm on July 1, 2021 if City approvals have not been received by 5pm on May 1, 2021.**

Seller to provide Buyer with Property Disclosure within 5 business days

Date: 11/4/2020

DocuSigned by:

KPA
Signature

Date:

11/10/2020

DocuSigned by:

Madeline Morill
Signature

Date:

Walter Phillips
Signature

Date:

** Mch 20 Lohy*
Signature

Addendum

RE/MAX By The Bay, 281 Verranda Portland ME 04101
David Rankin

Produced with Lane Wolf Transactions (ZipForm Edition) 231 Shearson Cr. Cambridge, Ontario, Canada M1T 1S5
Phone: 287.551.7382 Fax: 287.551.7190
www.lane.com

29 Dalton St

POSSESSION AFTER CLOSING ADDENDUM

To Agreement dated November 4, 2020, between
Walter H. Libby III, Lucy M. Copp, Madeline F. Morrill, Mark W. Libby
 and Hammond House LLC ("Seller")
 for property located at 29 Dalton St & Street F Parcels, Portland, ME 04103-5211 ("Buyer")

Notwithstanding anything to the contrary in the Agreement, Buyer and Seller agree as follows:

Seller shall be entitled to retain possession of the property for up to 30 calendar days from the date of closing at which time Seller shall deliver possession of the property to Buyer. Seller shall deliver the property in substantially the same condition as exists on the Effective Date of the Agreement. Seller shall be responsible for ordinary maintenance and repair of the property and the cost of fuel oil and utilities, including but not limited to electrical service, telephone service, water and sewer assessments, if any, to the property until possession of the property is delivered by Seller to Buyer. Fuel oil shall be prorated as of the date possession is delivered to Buyer at the then prevailing market price of company that delivered fuel. Seller agrees to indemnify and hold Buyer harmless for any costs, expenses, losses, damages, or other liabilities of any kind and nature resulting from Seller's occupancy of the property after closing. Seller accepts full responsibility for any of Seller's personal property remaining in or on the property after closing and agrees to hold Buyer harmless for any damage to or loss of such personal property. Seller shall maintain public liability insurance and insurance on Seller's personal property until possession is delivered by Seller to Buyer. Risk of loss by fire or otherwise shall be borne by Seller until closing. In addition to the above-referenced costs, Seller shall pay Buyer \$1000.00 per month per calendar day in advance for rental of the property. At closing, Buyer shall withhold \$ 0.00 from the net proceeds due Seller as a security deposit. At closing, the parties shall enter into the Maine Residential Lease developed by the Maine Attorney General, or such other lease agreement as mutually agreed to by the parties, further describing the rights and obligations of the parties.

The indemnification provisions of this addendum shall survive the closing or other expiration of the

Agreement by:
[Signature] 11/4/2020
 Buyer
 Hammond House LLC Date

[Signature] 11/10/2020
 Seller
 Walter H. Libby III Date

Buyer Date

[Signature] 11-10-20
 Seller
 Lucy M. Copp Date

Buyer Date

[Signature] 11/10/2020
 Seller
 Madeline Morrill Date

Buyer Date

* [Signature]
 Seller
 Mark W. Libby Date



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RE/MAX By The Bay, 261 Vermont Portland ME 04101

Dorinda Banks

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29 Dalton St



ZONING ANALYSIS Relevant Zone(s) R-5

All Projects:

	Required	Proposed
Lot Size	2 ac	3.40 ac
Area Per Dwelling Unit	3,000 sf	3,375 sf
Minimum Street Frontage	50 ft	99 ft
Front Yard Minimum	20 ft	40 ft
Front Yard Maximum	N/A	80 ft
Rear Yard	20 ft	43 ft
Yard Right	N/A	31 ft
Yard Left	N/A	73 ft
Side Street Setback	15 ft	52 ft
Step Back	N/A	N/A
Maximum Lot Coverage	40%	12%
Minimum Lot Coverage	N/A	N/A
Maximum Height	35 ft	<35 ft
Open Space	300 sf/du	300 sf/du
Maximum Impervious Area	N/A	36%
Pavement Setback	N/A	N/A
Floor Area Ratio	N/A	N/A
Off Street Parking Spaces	48	63
Loading Bays	N/A	N/A
Other 1		
Other 2		
Other 3		

Planned Residential Unit Developments (PRUD) Requirements

	Required	Proposed
Minimum Lot Size	2 ac	3.40 ac
Minimum Lot Area per Dwelling	3,000 sf	3,084 sf
Maximum # Units per Building	12	12
Maximum Building Length	140 ft	64 ft
Maximum Accessory Building Length	60 ft	N/A
Minimum Setbacks	See above	
Minimum Building Separation	N/A	N/A
Minimum Open Space	300 sf/du	300 sf/du

Affordable Housing Density Bonuses (if applicable)

	Bonus Increase or Decrease	Maximum Allowable With Bonus	Proposed
Density	Increase	48.1	48
Height	N/A		
Setback Reduction	N/A		
Recreation Space	N/A		
Maximum Accessory Building Length	N/A		
Minimum Setbacks	N/A		
Minimum Building Separation	N/A		
Minimum Open Space	N/A		
Explanatory Text 1 (optional):			
Explanatory Text 2 (optional):			
Explanatory Text 3 (optional):			

E. Summary of Written Easements

Existing easements on site as identified by Owen Haskell, Inc. include:

1. A 20' wide sewer easement to Portland Water District as recorded in the Cumberland County Registry of Deeds Book 3939, Page 146.



Standard to be Waived: Cite Ordinance or Technical Manual Standard	Cite Standard Language: Cite specific language of applicable Ordinance or Technical Manual Standard	Waiver Being Sought: Describe waiver being sought. Ex. – We are requesting a two-way parking lot drive aisle width of 20' feet.	Justification for Waiver: Address specific waiver criteria, if applicable, and document reasons for the waiver request.
Technical Manual 1.14 Parking Lot and Parking Space Design	Minimum widths of aisles are 24' for 90 deg parking	We are requesting to reduce the drive aisle to a minimum 22' within the site.	The waiver is being sought to maximize use of available parking space within the site. The circulation has been verified to be functional. A 24' drive aisle reduces the total impervious area created by the development.

G. Financial Capacity

Please find attached a letter from the Applicant's bank demonstrating financial capacity.





March 24, 2021

City of Portland, Planning Division

389 Congress Street, 4th Floor

Portland, ME 04101

RE: 48-unit Residential Apartment Complex

To who it may concern:

Kevin O'Rourke and his related companies are well known to Camden National Bank. We have worked with Kevin for more than 8 years and have been directly involved in the financing of successful projects. With the expected financial contribution from Kevin and Bank financing that we will be entertaining, there is expected to be sufficient financial capacity to successfully complete the proposed project. We are looking forward to more substantive conversations as the project materializes.

Please feel free to contact me should you need any additional information. I can be reached at (207) 930-3909 or (207) 323-2673.

Sincerely,

Paul Doody
Paul Doody

Vice President

Camden National Bank



H. Technical Capacity

Acorn Engineering, Inc. has successfully permitted and provided civil/site engineering for over 20 Major Site Plan and Subdivision projects in Portland over the past 5 years. Some examples include:

- Eldredge Lumber
- 127 York Street – Harborside Townhomes
- Munjoy Heights
- 70 Anderson St.
- 89 Anderson St. – East Bayside Lofts
- 667 Congress St – The Hiawatha
- 52 & 82 Hanover Street



I. Conformity with Land Use Ordinance

The following outline is made in accordance with the City of Portland Code of Ordinances, Chapter 14 Land Use.

OVERVIEW

The proposed project has been designed to conform to City standards where possible as demonstrated in the following narrative.

(a) Transportation Standards

1. Impact on Surrounding Street Systems:

The project will not generate 100 or more cars during peak hour, therefore a Traffic Movement Permit will not be required. The site will be accessed via an access drive located within the ROW formerly serving a paper street off Sherwood Street. A moderate traffic increase is expected for this project due to the change in use of the land. However, the increase will be caused by standard vehicles and will not create any significant hazard to safety on the surrounding street network.

2. Access and Circulation:

a. Site Access and Circulation:

This project conforms with the design standards of Section 14.6.1.B as demonstrated in the following narrative:

- (i) All site access and internal circulation will be designed in accordance with the standards set forth in Section 1 of the Technical Manual.
- (ii) A sidewalk is proposed along the eastern edge of the access road to provide for safe access to the proposed residential buildings as well as the existing Portland Trails Path on site.
- (iii) The proposed entrance to the site is located off of Sherwood Street. An access road to the site is proposed and will utilize the vacated paper street ROW formerly held by the City.
- (iv) The site does not feature drive up services as mentioned in this requirement.

b. Loading and Servicing:

- (i) The site has been designed with 11-foot travel lanes and 22-foot drive aisles. The site has been designed to accommodate the turning movements required by a 40' fire truck in the event of emergency access.



c. Curb and Sidewalks:

- (i) A sidewalk has been proposed along the eastern portion of the access road and as well as the frontage of all buildings. The sidewalks will be installed in accordance with the street design standards of the City's technical manual.
- (ii) There are no existing sidewalks on site. It is proposed to connect the site's sidewalk with the existing sidewalk along Sherwood Street. Any disturbance of this sidewalk to accommodate the site will be rebuilt in conformance with Chapter 25 of the City's Code of Ordinances and the applicable design standards in the City's Technical Manual.
- (iii) Not applicable.
- (iv) Not applicable.

3. Public Transit Access:

- a. The proposed development is not located along an existing public transit route.
- b. Not applicable.
- c. Not applicable.

4. Parking:

a. Vehicular parking:

- (i) There are 66 proposed parking spaces associated with the PRUD which meets the parking required by the City. Refer to the Site Plan for more information.
- (ii) A parking study is not required.
- (iii) The development will exceed the parking requirements by 10% as determined by the City's parking requirements. We believe that the proposed 66 spaces is appropriate for this site given the efficient site design that minimizes impervious area, and the lack of public and street parking near the site. To avoid parking spillover onto Sherwood Street, we propose to exceed the City's parking requirements to contain parking on site. Additionally, the 4th edition of the Institute of Traffic Engineers Parking Generation estimates a weekday average of 59 spaces for the site using Land Use Code 221 as opposed to the 48 defined by the City.
- (iv) The parking space and aisle dimensions are in conformance with the



Technical Standards. Please refer to the Site Plan for more information.

b. Bicycle parking

- (i) The project's bicycle parking is in accordance with Table 19-A of the City's Land Use Code, as a result at least 19 bicycle spaces have been provided on site. Please refer to the Site Plan for more information which currently depicts 24 bicycle spaces.

c. Snow Storage:

- (i) The project's snow storage areas can be seen on the Site Plan
- (ii) Snow storage shall not be located where it interferes with the minimum parking requirements, pedestrian walkways, or stormwater management systems.

d. Electric Vehicle (EV) charging

- (i) A note has been added to the plans to direct the owner to provide the appropriate electrical plumbing to meet the requirements of Section 1.17 of the City's Technical Manual.

5. Transportation Demand Management (TDM):

- a. A Transportation Demand Management plan is not required for this project.
- b. Not applicable.

(b) Environmental Quality Standards

1. Preservation of Significant Natural Features:

- a. Significant natural features on site include the wetlands near the center of the site. The project will not disturb these wetlands and will provide appropriate erosion and sedimentation control measures throughout the site and around the wetlands.
- b. Not applicable.
- c. Not applicable.

2. Landscaping Preservation:

- a. The disturbance of trees and vegetation will be limited.
- b. Measures will be taken in accordance with Section 4 of the Technical Manual.



- c. It's anticipated a minimum of 30% of existing trees ten inches DBH or greater within the setback area will be preserved, mainly by maintaining the majority of the site's vegetation and grade at the southeast portion of the property.
 - d. Not applicable.
- 3. Site landscaping and buffers.
 - a. Landscaping
 - (i) The project has frontage along Sherwood and Dalton St; per City Standards, it is required that a minimum of one shade tree or six plantings per 30 linear feet of frontage are planted. The requirement is met through the landscaping within the site and is described in greater detail on the Site Plan.
 - b. Buffers
 - (i) All exterior solid waste receptacle as well as applicable utility structures will be adequately screened within the development and from adjoining properties.
 - (ii) Not applicable.
 - (iii) The existing buffers are to remain or be replanted along all residential abutters.
 - c. Parking and vehicle display lot landscaping
 - (i) The two trees or one tree and three shrubs per five parking space requirement is met within the site.
 - (ii) The longest parking bay does not extend forty parking spaces long, in this case landscaped islands are only proposed near the driveway entrance.
 - (iii) Not applicable.
- 4. Street trees
 - a. Street trees will be provided along the project's access drive where possible in accordance with the Landscaping and landscape preservation standards of the Technical Manual.
 - b. Not applicable.
- 5. Water Quality, Stormwater Management and Erosion Control:
 - a. Stormwater
 - (i) The site drainage will not be directed to flow or pond onto adjacent lots. The drainage patterns will largely be maintained as they currently exist.



- (ii) Any stormwater that flows onto adjacent lots will not exceed the pre-development flows. In the current model, all storm events see a decrease in peak flows.
- (iii) The runoff from the site into the public way will not increase from the pre-development condition.
- b. A site-specific Stormwater Management Plan has been developed for the project to show compliance with Section 5 of the Technical Manual, including the basic and general standards of MEDEP Chapter 500. Please refer to the Stormwater Management Report for this information.
- c. The development is not anticipated to pose a contamination risk to groundwater during or after construction. The project will be serviced by a public wastewater system.

(c) Public Infrastructure and Community Safety Standards

1. Consistency with City Master Plans:
 - a. The project has been designed to be consistent with the City's Zoning Ordinance and off-site infrastructure.
 - b. Not applicable.
2. Public Safety and Fire Prevention:
 - a. Public Safety Design
 - (i) The site has been designed to allow for long viewing aisles and minimal spaces obscured from view.
 - (ii) Access control has been provided for the development that promotes authorized access to the site by proposing a clear border definition between public and private space. A crosswalk along the access road is provided for access to the Portland Trails network, this access occurs before the first proposed building and will mark a clear border between the public trail connection and private development.
 - (iii) The recreation open space will provide for a large gathering area which is easily viewed from the development and neighboring properties. This area will promote natural surveillance and access control.
 - b. Emergency Access
 - (i) Adequate emergency access will be provided. The turning radii of the driveway are large enough to accommodate the turning movements for emergency vehicles. Additionally, driveway locations have been strategically designed to allow for turnaround locations from the parking bays.



3. Public Utilities:

- a. Ability to Serve letters have been sent to the respective companies. Responses are forthcoming. The stormwater report demonstrates that the post development conditions will not overburden the existing storm sewer within Sherwood Street.
- b. The electrical service will be wired underground via new pad-mounted transformers as shown on the Utility Plan.
- c. The new sewer and stormwater infrastructure will meet the provisions of the Technical Manual.
- d. The project will be served by connection to the public sewer system within Sherwood Street.
- e. Spaces allocated for solid waste storage can be seen on the Site Plan. The solid waste containers will be fully enclosed and screened from the public view.

(d) Site Design Standards

1. Massing, Ventilation and Wind Impact:

- a. The bulk, location and height of the proposed structures will not result in health or safety problems from a reduction in ventilation to abutting structures or changes to the existing wind climate.
- b. The bulk, location and height of the proposed structures shall minimize, to the extent feasible, any substantial diminution in the value or utility to neighboring structures under different ownership and not subject to a legal servitude in favor of the site being developed.
- c. All HVAC venting mechanisms will be directed away from public spaces and residential properties directly adjacent to the site.

2. Shadows:

- a. Not applicable.

3. Snow and Ice Loading:

- a. The structure will not distribute snow and ice onto adjacent properties.

4. View Corridors:

- a. The project is located outside the Downtown Vision View Corridor Protection Plan.

5. Historic Resources:



- a. The development is not located in a historic district, historic landscape district or City designated landmark.
 - b. The development is not located adjacent to designated landmarks, historic district, or historic landscape district.
 - c. There are no known archaeological resources on the site.
6. Exterior Lighting:
- a. Site Lighting.
 - (i) Exterior lighting will be designed to meet the requirements of Section 12 of the Technical Manual. A photometric plan will be uploaded as part of the Final Application, if required. Given the secluded nature of the site,
 - (ii) Any lighting that may adversely impact the abutting residential properties will feature house-side shielding.
 - b. Architectural and Specialty Lighting.
 - (i) No architectural or specialty lighting is proposed.
 - (ii) No up-lighting is proposed.
 - c. Street Lighting.
 - (i) Street lighting will be designed to meet the requirements of Section 10 of the Technical Manual.
7. Noise and Vibration:
- a. The HVAC system will meet the applicable state and federal emissions requirements and will also be screened and directed away from abutters.
8. Signage and Wayfinding:
- a. Signage
 - (i) Not applicable.
 - (ii) Not applicable.
 - (iii) Not applicable.
 - (iv) Not applicable.



(v) Not applicable.

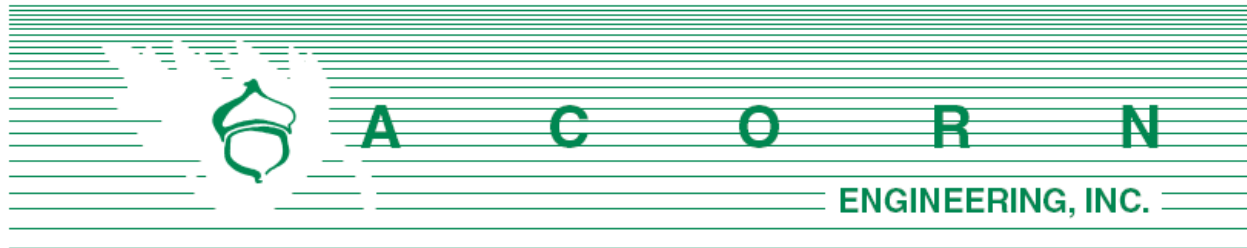
b. Wayfinding

- (i) All street and wayfinding signage shall meet the requirements of the Manual on Uniform Traffic Devices (MUTCD) and Division 22 of the City Code.

9. Design Standards:

- a. The project has been designed to meet the standards set forth in the R-5 zone. Please refer to the Site Plan for more information on the Space & Bulk Standards.





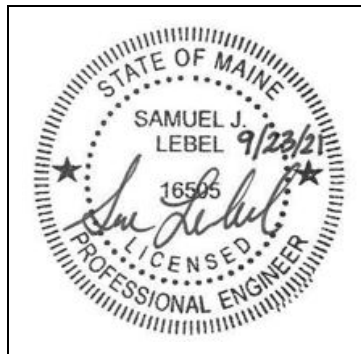
J. STORMWATER MANAGEMENT **REPORT**

Prepared For:

**Winchester Woods, LLC
94 South Street
Yarmouth, Maine 04096**

Prepared By:

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



**April 2021
Rev. Sept 2021**



INTRODUCTION

Acorn Engineering, Inc. has been retained by Hammond House, LLC to provide civil engineering services for the proposed development off the end of Dalton Street in Portland, Maine, now known as Winchester Woods. The property consists of approximately 3.72 acres of land and contains the following parcels (Chart, Book, Lot, 428-A-008-013, 427-I-007-009, 427-K-001-004, 427-L-005-008 and 427-L-012, 427-N-001-004 and 427-N-012).

A stormwater analysis was prepared to demonstrate that the project will meet the requirements set forth by Maine DEP Chapter 500 Basic and General Standards and the following requirements from the City of Portland (the City):

- City of Portland Land Use Ordinance Article 14.6.2.D.
- City of Portland Technical Manual – Section 5 – Portland Stormwater Management Standards and Maine DEP Chapter 500 Stormwater Management.

EXISTING CONDITIONS

The proposed project site is located at the end of Dalton Street in Portland, Maine. A boundary and topographic survey developed by Owen Haskell, Inc. has been included within this submission package. The site primarily consists of wooded area with two drainage subcatchments. The first subcatchment is located to the southwestern corner of the site near Sherwood Street. The land slopes at roughly 15% from west to east towards an abutter on Sherwood. The second subcatchment comprises the majority of the site and generally drains internally within the site towards a pair of wetlands which our understanding were originally constructed as manmade detention basins with an outlet control structure. The southern most wetland area contains an engineered outlet control structure to meter stormwater runoff into the municipal separated storm sewer system (MS4) within Sherwood Street. These “wetlands” serve as a major collection point of stormwater in the neighborhood between Veranda St, Presumpscot St, and the railroad that runs parallel with I-295.

PROPOSED DEVELOPMENT

The project features the development of a planned unit residential development (PRUD) with a development program outlined within the land use ordinance and generally follows the principles of cluster subdivision planning where infrastructure is denser and more efficient and as a result, greater uninterrupted open space opportunities are available. The site will consist of four separate residential buildings with a total of 48 dwelling units, each building will be served with associated parking and utilities. Overall, the project proposes to develop 1.58 acres of the lot with 1.24 acres consisting of impervious area.

The site has been graded to slope with the existing topography while providing for appropriate slopes in the parking lot. The slopes on the outside of the parking areas that are not part of a stormwater system will be appropriately stabilized per the specifications in the plans and are anticipated to be heavily landscaped for further slope protection and buffering.



The majority of the site's runoff, including 95% of the new impervious area, will be collected via a storm drain system which will then be piped to one of the four proposed Underdrained Subsurface Sand Filters (USSF) where stormwater will first be pretreated via the isolator row which provides initial settlement and filtration of contaminants. Water will then flow vertically through the sand filter providing water quality improvements and outlet via a 4" underdrain. At each 4" outlet to the downstream drain manhole, orifices through the use of drilled holes in pipe caps will be utilized to help reduce the flow rate leaving the various USSF's. An outlet control structure will then serve as the common junction point from all four USSF systems which features two orifices and an overflow weir, allowing for greater control of the various storm peak flowrates.

The discharge from this system will ultimately flow to a level lip spreader before entering the bottom of the detention basin/wetland area. The spreader will also collect the discharge that's being intercepted from the off-site run-on to the site, primarily from the elementary school. The plans and design have been coordinated with the previously submitted project at the school which generated peak flowrates for each storm. The bypass system designed as part of the Dalton St project has been designed to keep this flow, some of which will also flow through a USSF on the school site, separate. Furthermore, the storm drain design can accommodate a 25 year storm and will functionally return this off-site run on to its pre-existing point of interest, the detention basin/wetlands.

The development will be served by the Portland Water District, CMP, Spectrum, Consolidated Communications, Unitil, and municipal sewer and storm systems. Utility mains and services have been coordinated with each respective utility company.

GENERAL STANDARDS – WATER QUALITY

The proposal is to provide primary water quality and quantity control through four separate Underdrained Subsurface Sand Filters (USSF) which have been designed in accordance with the Maine DEP BMP guidelines and are proposed to treat no less than 95% of the new impervious area and no less than 80% of the new developed area.

The underdrained subsurface sand filters were sized to meet or exceed the requirements set forth within the MDEP Volume III BMPs Technical Design Manual, Chapter 7.3. Filter BMP systems have shown to be effective at filtering out and removing a wide range of pollutants from stormwater runoff.

Impervious Treatment Area

The stormwater runoff shall first flow into the StormTech Isolator Row which will provide initial treatment of the larger sized pollutants. The stormwater will flow vertically through the sand filter layer. The treated stormwater will then be collected within perforated pipes and released slowly into the downstream system by an orifice on the end of the 4" underdrain outlet at an attenuated rate before it enters further engineered attenuation in an outlet control structure.

The treatment of the impervious and developed surfaces by the BMPs are as follows:



Table 1 - Impervious Treatment Area Table					
	Existing Imp. Area (SF)	Proposed Total Imp. Area (SF)	Net Change in Imp. Area (SF)	Proposed Imp. Area with Treatment (SF)	% Overall New Imp. Area Treated
USSFs	2,245	56,100	53,855	50,895	95%

Table 2 – Developed Area Treatment Area Table					
	Existing Dev. Area (SF)	Proposed Total Dev. Area (SF)	Net Change in Dev. Area (SF)	Proposed Dev. Area with Treatment (SF)	% Overall New Dev. Area Treated
USSFs	30,492	99,142	68,650	54,610	80%

As shown above, the project anticipates meeting the required treatment for new impervious and developed surfaces with the filter BMPs.

Filter Area Sizing

A calculation for sand filter area is necessary to meet the requirements below the surface of the USSF. As defined in the Volume III: BMPs Technical Design Manual, Chapter 7, the surface area of the filter shall be no less than the sum of 5% of the tributary impervious area and 2% of the tributary vegetated area. The filter area is calculated by the following formula:

$$[(\text{Imp. SF} \times 0.05) + (\text{Veg. SF} \times 0.02)] = \text{Filter Area (SF)}$$

Please refer to Table 2 below.

Table 3 – Total Filter Surface Area, displays the proposed USSF sizing requirements, actual size and the percentage of required area.

Table 3 – Total Filter Surface Area		
	Required Filter Area (SF)	Actual Filter Area (SF)
USSF 1	1122	1245
USSF 2	1593	1799

As shown, the size of the soil filter area will meet and exceed the surface area requirements.



Isolator Row Sizing

The isolator row was sized based upon a letter from Mark Bergeron, Director of the MDEP Bureau of Land Resources, to StormTech dated July 29, 2016. The calculation that Mr. Bergeron references to determine the minimum number of stormwater chambers needed for the isolator row is defined as the one-year peak flow rate divided by the specific flow rate of the chamber. This rate was implemented into the HydroCAD model and divided by the flow rate of the MC-3500 chamber (0.3 cfs).

Table 4 – Isolator Row Sizing			
	1-Year Peak Flow (cfs)	Required Chambers	Provided Chambers
USSF 1	1.27	4.2	5
USSF 2	1.80	6	6

Water Quality Volume

In accordance with the Volume III: BMPs Technical Design Manual, a water quality volume of 1.0 inches times the tributary impervious area plus 0.4 inches times the tributary vegetated area is required to be treated by the USSF. The water quality volume is calculated by the following formula:

$$\left(\frac{\text{Imp. SF} \times 1.0''}{12''/1'} \right) + \left(\frac{\text{Veg. SF} \times 0.4''}{12''/1'} \right) = \text{Treatment Volume (CF)}$$

Values from the HydroCAD calculations are attached to this report to demonstrate compliance with this standard.

The treatment volume was confirmed by using the HydroCAD model and the rainfall that produces 18" of ponding within the chambers. The storage volume within the crushed stone and chambers – the two layers above the filter sand – is then added together to calculate the water quality volume.

A vertical orifice is modeled in HydroCAD at the outlet control structure to detain the stormwater for an approximate 24 hour time frame. The orifice for the water quantity volume is then set above the peak elevation determined for the water quality volume. Given that the outlet control structure is located downstream of the four USSFs, it is difficult to provide appropriate attenuation using the outlet control structure alone. To compensate, an orifice is modeled on each of the four underdrain outlets from the USSFs. This will provide for further control on the infiltration rates through the USSFs. The orifice is intended to be a PVC cap placed on the outfall pipe (no glue) with the orifice drilled into the cap eccentrically. The PVC



cap can be easily inspected, removed or replaced if necessary. The orifice shall be placed at the end of the via an orifice on the end of each underdrain outlet from the USSFs, as well as a water quality and quantity orifice within the outlet control structure downstream of the proposed BMPs. Provided the infiltration rates of the water quality volume through the sand filter are variable, a water quality outlet is modeled to provide the required minimum 24-hour release

As shown above, the project anticipates meeting and exceeding the required treatment for new impervious surfaces and developed area through the use of four USSFs. Additionally, the plethora of native plants and catch basins will provide additional water quality benefits in addition to the treatment of the USSF.

FLOODING STANDARD – WATER QUANTITY

The proposed project was modeled using HydroCAD to verify that the post-development conditions do not exceed the pre-development conditions. A 24-hour SCS Type III storm distribution for the 2, 10, and 25-year storm events were used. The corresponding rainfall amounts for these storms are 3.10", 4.60", and 5.80" respectively. Due to the numerous variables, and inherent inaccuracies with the modeling program used to calculate stormwater runoff it is custom at Acorn Engineering, Inc. to round to the nearest whole number. However due to the small size of the project and the minimal existing flows, the stormwater runoff shall be rounded to the nearest tenth of a cubic feet per second (cfs).

Time of Concentration (Tc)

The times of concentration for subcatchments in both the pre and post conditions were calculated by entering the flow path with the associated ground cover and slopes. HydroCAD then calculated the Tc's and incorporated the total Tc for each subcatchment into the model. When the calculated Tc was less than six minutes (0.1 hours), a direct entry of six minutes was used as advised by the TR-55 model. Consistent with previous submissions and best practices, the sheet flow length for any Tc path was capped at 100 feet.

Curve Number (CN)

Within the pre-development model, the vegetated areas were considered grass/wood land cover in poor condition. This determination was made after multiple site visits that observed exposed soils with little to no organic duff layer. As such, although the land is wooded, the vegetative cover and surface condition would be considered in poor condition due to animal burrowing, disposal of debris, utilization of the site as an encampment and walking paths, general urban conditions, and little to no understory growth.

The post development landscaped areas were given a good rating within either the B or C hydrologic soil group depending on the underlying soil type. This is assumption is reinforced given the aggressive landscape plan which will feature more porous conditions that are



appropriately mulched along with future extensive root systems and canopy cover that will exist once the landscaping has matured.

Pre-development Calculations

The site consists of wooded area and wetlands in the predevelopment condition, for the purpose of this analysis the land has been divided into two separate sub catchments. The first sub catchment is located to the southwestern corner of the site near Sherwood Street. The land slopes at roughly 15% from west to east towards an abutter on Sherwood. The second sub catchment makes up the rest of the site which sees drainage internally within the site towards a pair of wetlands. The southern most wetland contains an outlet control structure to meter stormwater runoff into the municipal system within Sherwood Street.

Peak flow rates for the pre-development storm events are as follows:

Table 5 – Pre-Development Peak Stormwater Flows			
Drainage Area	2-Year Storm Event (cfs)	10-Year Storm Event (cfs)	25-Year Storm Event (cfs)
POI #1	0	0	1
POI #2	4	9	13
POI #3	5	9	13

Post-development Calculations

The drainage patterns from the pre and post conditions remain relatively the same, but with the post condition seeing four separate subcatchments that are dedicated for the treatment of runoff generated primarily by roof and pavement via the four (4) USSFs. The subcatchments are as follows:

- Subcatchment 1 – This is comprised of the untreated impervious area towards the entrance to the site that will be directed towards the MS4 in Sherwood St.
- Subcatchment 2 – This subcatchment consists mainly of landscaped area that will not be treated via the proposed USSFs and will directed to one of the two (2) wetlands on site, as it currently does.
- Subcatchments 2.1-2.2 – These subcatchments are responsible for the water quality treatment required by the DEP and City. All of the runoff within these sub catchments will be directed towards the proposed USSFs and consist of pavement, roof, and some landscaping around the buildings.

The post-development calculations include changes to the land use, and the compensation provided by the USSF's and associated engineered orifices. The following table represents comparison of pre- development and post-development condition peak runoff rates for the proposed development and tributary areas.



Table 6 – Post-Development Peak Stormwater Flows			
Drainage Area	2-Year Storm Event (cfs)	10-Year Storm Event (cfs)	25-Year Storm Event (cfs)
POI #1	0	0	0
POI #2	2	5	8
POI #3	3	5	8

Table 7 – Comparison of Peak Flows						
Drainage Area	2-Year Storm Event (cfs)		10-Year Storm Event (cfs)		25-Year Storm Event (cfs)	
	Pre	Post	Pre	Post	Pre	Post
POI #1	0	0	1	0	1	0
POI #2	4	2	8	5	12	8
POI #3 (Total)	4	3	9	5	12	8

As shown in Table 6 and 7, the net impact of the post development peak flows will remain at or below the predevelopment levels. A post-development watershed map developed for this project can be viewed in Attachment B, and a copy of the HydroCAD calculations is included within Attachment C of this report.

SOILS

Onsite soil information includes the following:

- Soil Conservation Service Medium Intensity Soil Survey for Cumberland County
- United States Department of Agriculture Web Soil Survey
- Soil borings completed in April 2021 by Summit Geoengineering Services

Given the soils information, listed above, no onsite wastewater is proposed; the applicant does not intend to perform a more intense hydric soil boundary delineation because the waiver requirements set forth in the City of Portland Technical Manual – Section 7 – Soil Survey, Rev. 6/17/11 are met.

The area within and surrounding the project includes soil types listed in the table below. The susceptibility of soils to erosion is indicated on a relative “K” scale of values over a range of 0.02 to 0.69. Higher “K” values indicate more erodible soils.

Table 8 - “K” Value	
Soils Type	Subsurface
Buxton Silt Loam	0.37



Cut and fill land	0.20
Elmwood fine sandy loam	0.20
Suffield silt loam	0.32

The soil “K” value for the soil, listed above, shows a low to medium susceptibility to erosion. The site’s susceptibility to erosion is sourced from the Soil Conservation Service Medium Intensity Soil Survey for Cumberland County. Although the soil “K” value shows a low to medium susceptibility to erosion, implementation of the proposed Erosion & Sedimentation Measures by the contractor will be of the utmost importance given the sustained slope throughout the site.

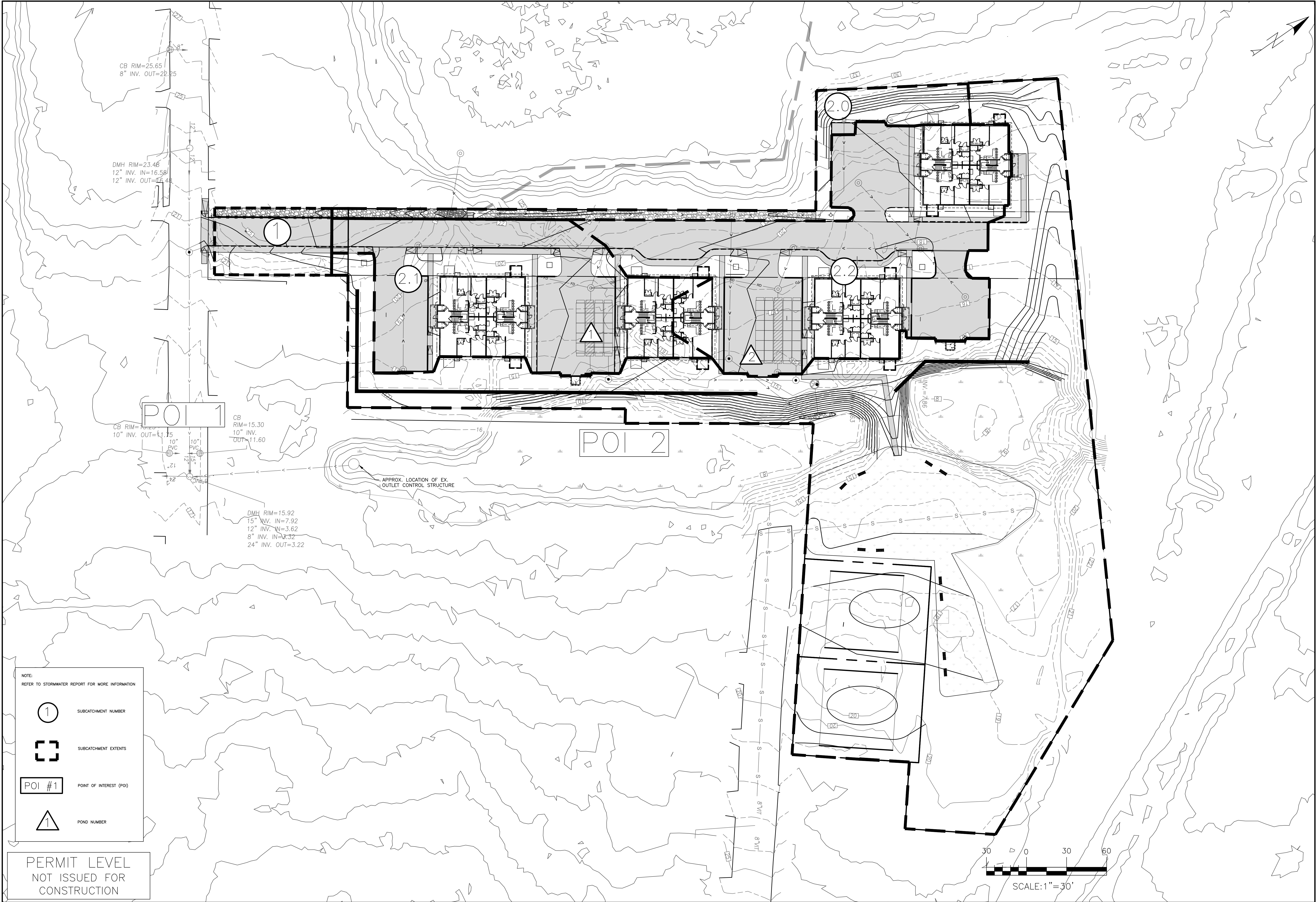
CONCLUSION

The proposed development was designed to meet the requirements implemented by the MDEP under the Stormwater Management Statute (38 M.R.S.A. § 420-D) as well as the City of Portland Technical Manual – Section 5 – Portland Stormwater Management Standards. The proposed project as designed is not anticipated to cause flooding or erosion problems within the subject site, abutters’ sites, nor within the right-of-way. Overall, the project will provide an improvement to stormwater runoff and overall management from several perspective as outlined above.

ATTACHMENTS

Attachment A: Pre-Development Watershed Map
Attachment B: Post-Development Watershed Map
Attachment C: HydroCAD Calculations
Attachment D: Soil Survey
Attachment E: Drain Basin Documentation





NOTE:
REFER TO STORMWATER REPORT FOR MORE INFORMATION

1 SUBCATCHMENT NUMBER

□ SUBCATCHMENT EXTENTS

POI #1 POINT OF INTEREST (POI)

1 POND NUMBER

PERMIT LEVEL
NOT ISSUED FOR
CONSTRUCTION

ISSUED FOR	BY
WHS	WHS
DATE	4/15/21
SITE/SUB	WHS
COMMENT RESPONSE	WHS
DATE	8/11/21

DRAWING NAME: POST-DEVELOPMENT WATERSHED MAP

PROJECT NAME/ADDRESS: WINCHESTER WOODS APARTMENTS
PORTLAND, MAINE 04103

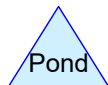
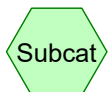
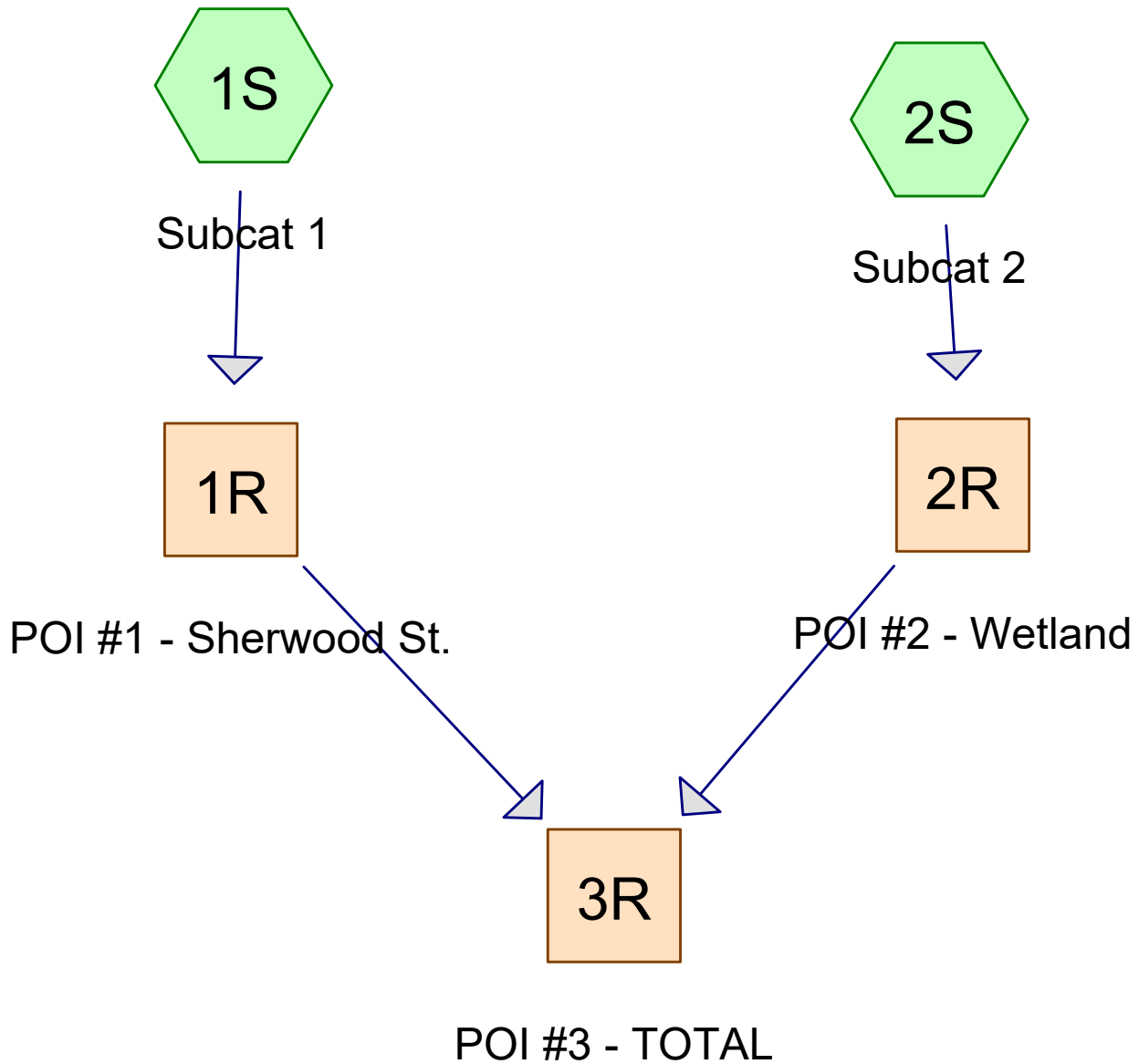
CLIENT/OWNER OF RECORD: WINCHESTER WOODS, LLC
94 SOUTH STREET, YARMOUTH MAINE 04096

ACORN ENGINEERING, INC.
PO BOX 3372, PORTLAND MAINE 04101
(207) 775-2655

STATE OF MAINE
SAMUEL J. LEBEL
16505
PROFESSIONAL ENGINEER

FILE: 1155_CIVIL
JN: 1155
SCALE: AS NOTED
DESIGNED BY: SJL
DRAWN BY: NPH
CHECKED BY: WHS

DRAWING NO.
POST



Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.435	61	>75% Grass cover, Good, HSG B (2S)
0.137	74	>75% Grass cover, Good, HSG C (2S)
0.050	98	Roof Tops (2S)
0.002	98	Unconnected roofs, HSG C (1S)
0.662	73	Woods/grass comb., Poor, HSG B (2S)
2.431	82	Woods/grass comb., Poor, HSG C (2S)
0.118	82	Woods/grass combo, Poor, HSG C (1S)
3.835	78	TOTAL AREA

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Soil Listing (all nodes)

Area (acres)	Soil Group	Subcatchment Numbers
0.000	HSG A	
1.097	HSG B	2S
2.689	HSG C	1S, 2S
0.000	HSG D	
0.050	Other	2S
3.835		TOTAL AREA

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Ground Covers (all nodes)

HSG-A (acres)	HSG-B (acres)	HSG-C (acres)	HSG-D (acres)	Other (acres)	Total (acres)	Ground Cover	Subcatchment Numbers
0.000	0.435	0.137	0.000	0.000	0.572	>75% Grass cover, Good	2S
0.000	0.000	0.000	0.000	0.050	0.050	Roof Tops	2S
0.000	0.000	0.002	0.000	0.000	0.002	Unconnected roofs	1S
0.000	0.662	2.431	0.000	0.000	3.093	Woods/grass comb., Poor	2S
0.000	0.000	0.118	0.000	0.000	0.118	Woods/grass combo, Poor	1S
0.000	1.097	2.689	0.000	0.050	3.835	TOTAL AREA	

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

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Time span=1.00-36.00 hrs, dt=0.01 hrs, 3501 points

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

Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment1S: Subcat 1

Runoff Area=5,216 sf 1.50% Impervious Runoff Depth=1.46"

Tc=6.0 min CN=82 Runoff=0.20 cfs 0.015 af

Subcatchment2S: Subcat 2

Runoff Area=161,833 sf 1.34% Impervious Runoff Depth=1.20"

Flow Length=244' Tc=10.6 min CN=78 Runoff=4.36 cfs 0.372 af

Reach 1R: POI #1 - Sherwood St.

Inflow=0.20 cfs 0.015 af

Outflow=0.20 cfs 0.015 af

Reach 2R: POI #2 - Wetland

Inflow=4.36 cfs 0.372 af

Outflow=4.36 cfs 0.372 af

Reach 3R: POI #3 - TOTAL

Inflow=4.52 cfs 0.386 af

Outflow=4.52 cfs 0.386 af

Total Runoff Area = 3.835 ac Runoff Volume = 0.386 af Average Runoff Depth = 1.21"
98.66% Pervious = 3.783 ac 1.34% Impervious = 0.052 ac

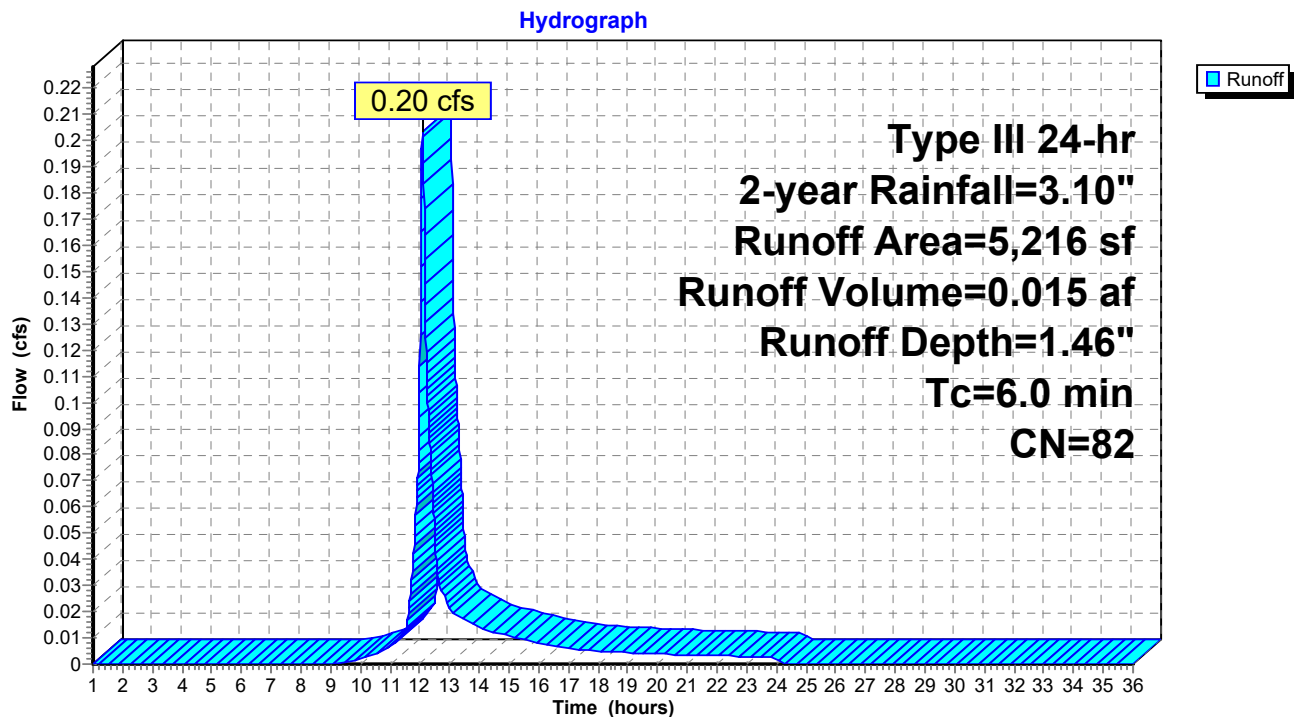
Summary for Subcatchment 1S: Subcat 1

Runoff = 0.20 cfs @ 12.09 hrs, Volume= 0.015 af, Depth= 1.46"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-year Rainfall=3.10"

	Area (sf)	CN	Description
*	5,138	82	Woods/grass combo, Poor, HSG C
	78	98	Unconnected roofs, HSG C
	5,216	82	Weighted Average
	5,138		98.50% Pervious Area
	78		1.50% Impervious Area
	78		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, Steep Slopes to Grassed Ditch

Subcatchment 1S: Subcat 1

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

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Summary for Subcatchment 2S: Subcat 2

Runoff = 4.36 cfs @ 12.15 hrs, Volume= 0.372 af, Depth= 1.20"

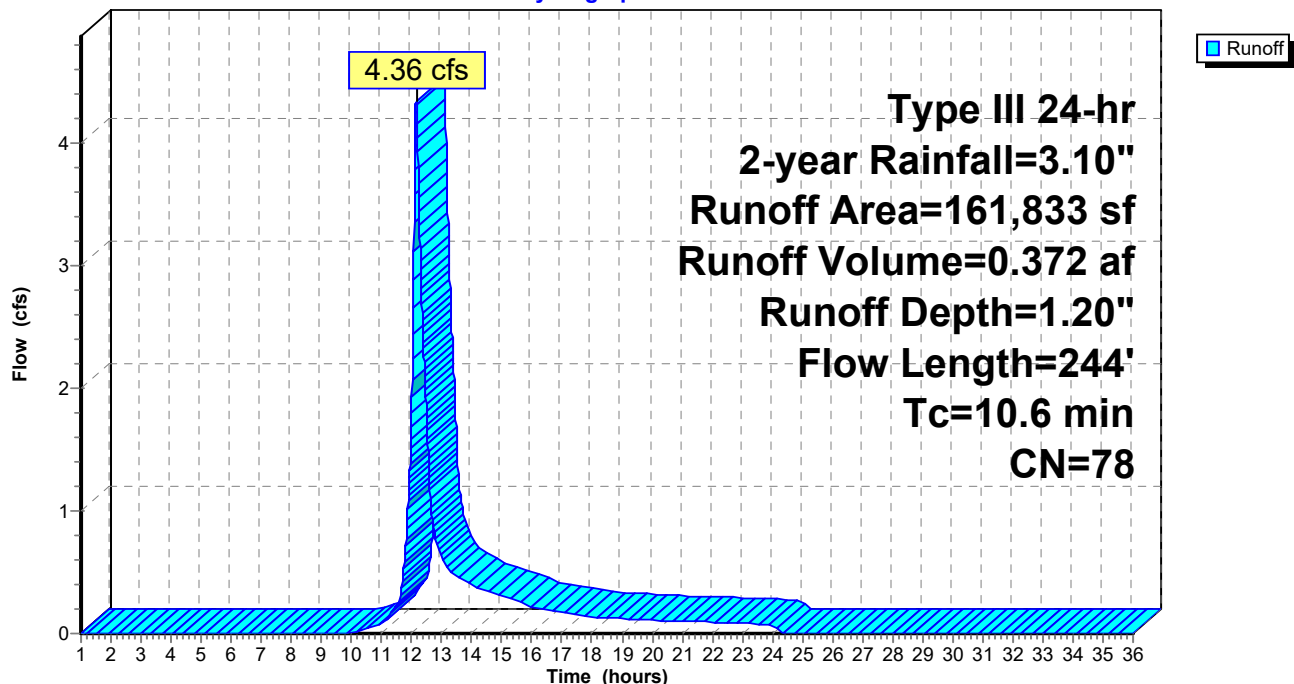
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-year Rainfall=3.10"

Area (sf)	CN	Description
* 2,167	98	Roof Tops
* 105,916	82	Woods/grass comb., Poor, HSG C
28,832	73	Woods/grass comb., Poor, HSG B
18,938	61	>75% Grass cover, Good, HSG B
5,980	74	>75% Grass cover, Good, HSG C
161,833	78	Weighted Average
159,666		98.66% Pervious Area
2,167		1.34% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.7	100	0.0200	0.17		Sheet Flow, A to B Grass: Short n= 0.150 P2= 3.27"
0.7	110	0.0300	2.60		Shallow Concentrated Flow, B to C Grassed Waterway Kv= 15.0 fps
0.2	34	0.2400	2.45		Shallow Concentrated Flow, C to D Woodland Kv= 5.0 fps
10.6	244	Total			

Subcatchment 2S: Subcat 2

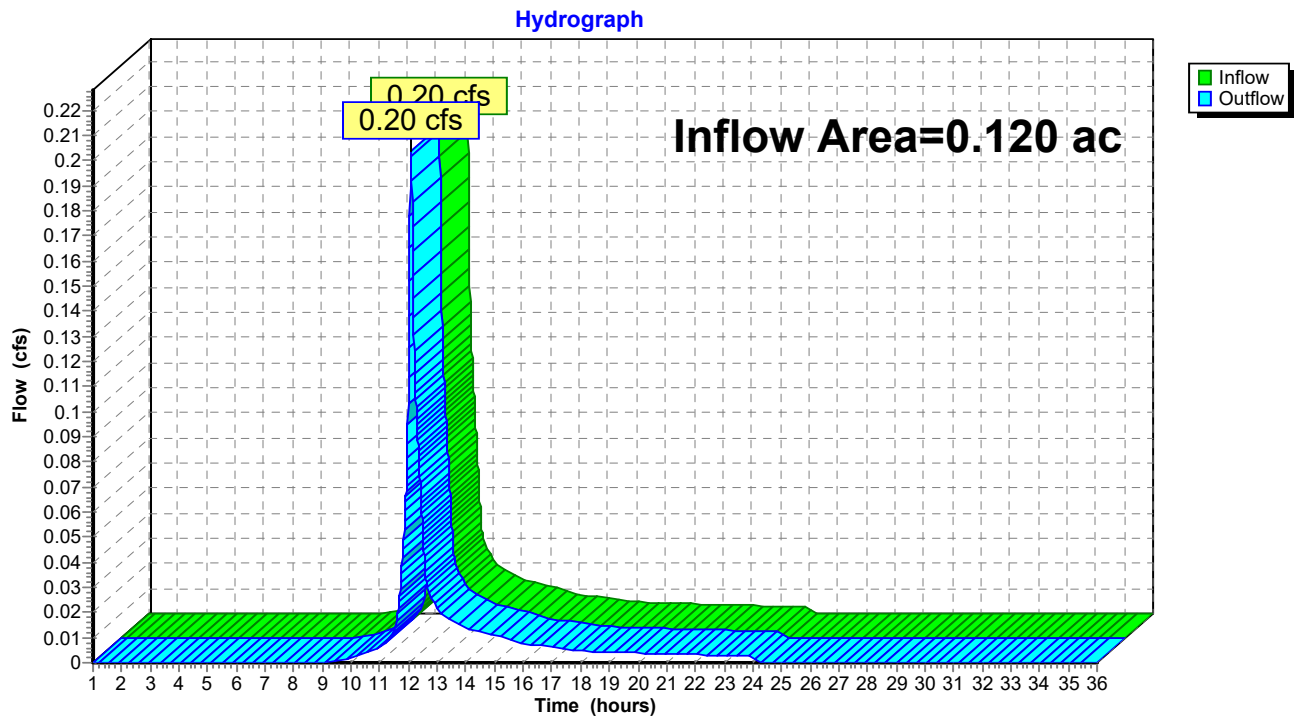
Hydrograph



Summary for Reach 1R: POI #1 - Sherwood St.

Inflow Area = 0.120 ac, 1.50% Impervious, Inflow Depth = 1.46" for 2-year event
Inflow = 0.20 cfs @ 12.09 hrs, Volume= 0.015 af
Outflow = 0.20 cfs @ 12.09 hrs, Volume= 0.015 af, Atten= 0%, Lag= 0.0 min

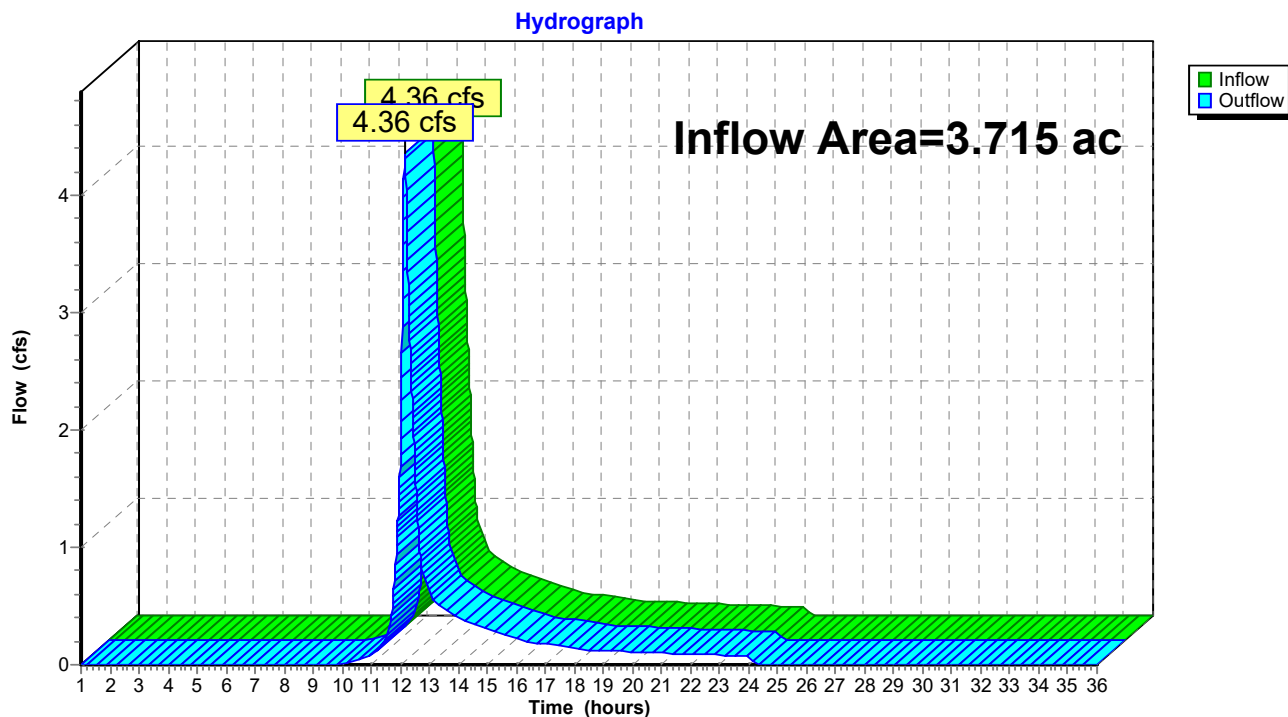
Routing by Dyn-Stor-Ind method, Time Span= 1.00-36.00 hrs, dt= 0.01 hrs

Reach 1R: POI #1 - Sherwood St.

Summary for Reach 2R: POI #2 - Wetland

Inflow Area = 3.715 ac, 1.34% Impervious, Inflow Depth = 1.20" for 2-year event
Inflow = 4.36 cfs @ 12.15 hrs, Volume= 0.372 af
Outflow = 4.36 cfs @ 12.15 hrs, Volume= 0.372 af, Atten= 0%, Lag= 0.0 min

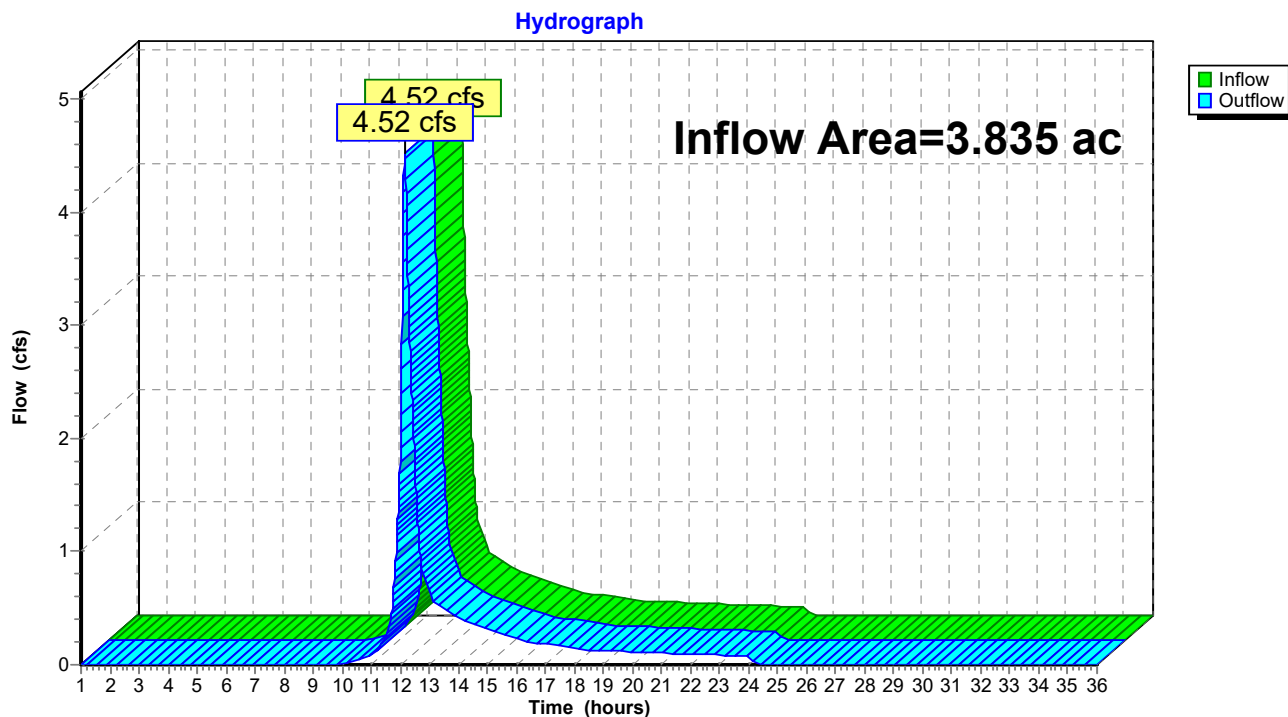
Routing by Dyn-Stor-Ind method, Time Span= 1.00-36.00 hrs, dt= 0.01 hrs

Reach 2R: POI #2 - Wetland

Summary for Reach 3R: POI #3 - TOTAL

Inflow Area = 3.835 ac, 1.34% Impervious, Inflow Depth = 1.21" for 2-year event
Inflow = 4.52 cfs @ 12.15 hrs, Volume= 0.386 af
Outflow = 4.52 cfs @ 12.15 hrs, Volume= 0.386 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 1.00-36.00 hrs, dt= 0.01 hrs

Reach 3R: POI #3 - TOTAL

Pre Development_4-20-21*Type III 24-hr 10-year Rainfall=4.60"*

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Time span=1.00-36.00 hrs, dt=0.01 hrs, 3501 points

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

Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment1S: Subcat 1

Runoff Area=5,216 sf 1.50% Impervious Runoff Depth=2.72"

Tc=6.0 min CN=82 Runoff=0.38 cfs 0.027 af

Subcatchment2S: Subcat 2

Runoff Area=161,833 sf 1.34% Impervious Runoff Depth=2.38"

Flow Length=244' Tc=10.6 min CN=78 Runoff=8.85 cfs 0.735 af

Reach 1R: POI #1 - Sherwood St.

Inflow=0.38 cfs 0.027 af

Outflow=0.38 cfs 0.027 af

Reach 2R: POI #2 - Wetland

Inflow=8.85 cfs 0.735 af

Outflow=8.85 cfs 0.735 af

Reach 3R: POI #3 - TOTAL

Inflow=9.16 cfs 0.763 af

Outflow=9.16 cfs 0.763 af

Total Runoff Area = 3.835 ac Runoff Volume = 0.763 af Average Runoff Depth = 2.39"
98.66% Pervious = 3.783 ac 1.34% Impervious = 0.052 ac

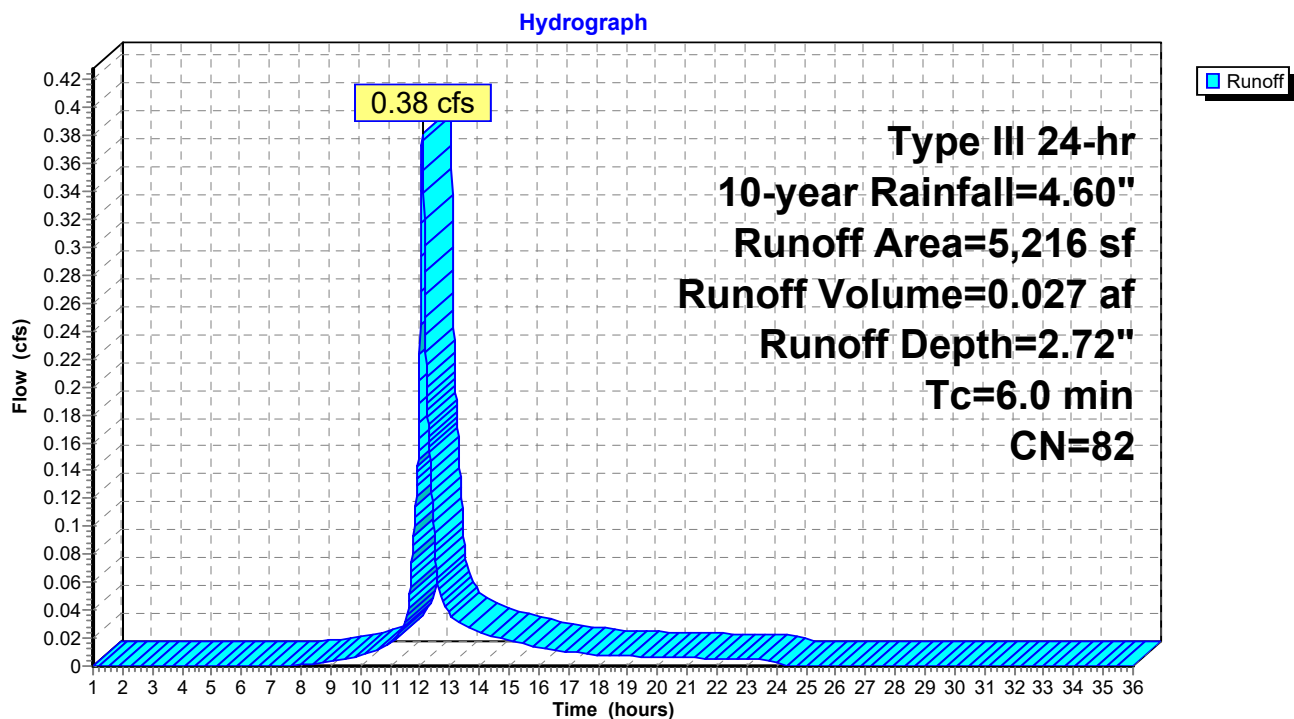
Summary for Subcatchment 1S: Subcat 1

Runoff = 0.38 cfs @ 12.09 hrs, Volume= 0.027 af, Depth= 2.72"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-year Rainfall=4.60"

Area (sf)	CN	Description
* 5,138	82	Woods/grass combo, Poor, HSG C
78	98	Unconnected roofs, HSG C
5,216	82	Weighted Average
5,138		98.50% Pervious Area
78		1.50% Impervious Area
78		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, Steep Slopes to Grassed Ditch

Subcatchment 1S: Subcat 1

Summary for Subcatchment 2S: Subcat 2

Runoff = 8.85 cfs @ 12.15 hrs, Volume= 0.735 af, Depth= 2.38"

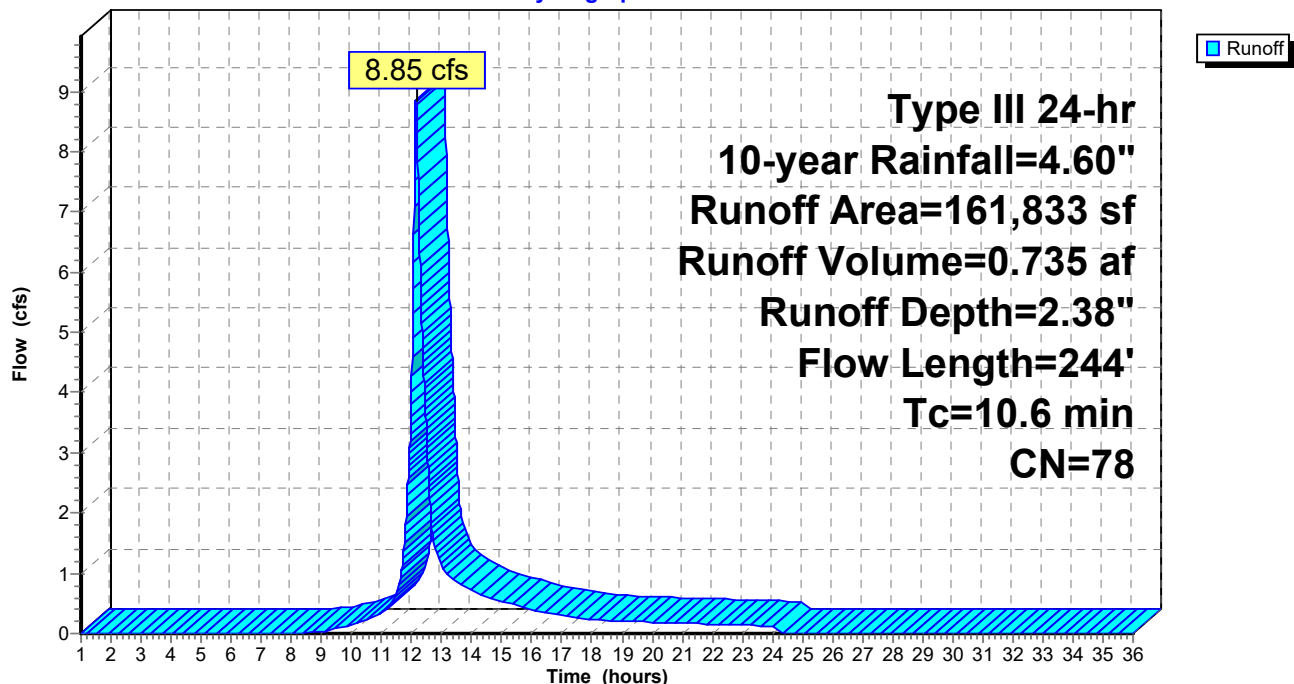
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-year Rainfall=4.60"

Area (sf)	CN	Description
* 2,167	98	Roof Tops
* 105,916	82	Woods/grass comb., Poor, HSG C
28,832	73	Woods/grass comb., Poor, HSG B
18,938	61	>75% Grass cover, Good, HSG B
5,980	74	>75% Grass cover, Good, HSG C
161,833	78	Weighted Average
159,666		98.66% Pervious Area
2,167		1.34% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.7	100	0.0200	0.17		Sheet Flow, A to B Grass: Short n= 0.150 P2= 3.27"
0.7	110	0.0300	2.60		Shallow Concentrated Flow, B to C Grassed Waterway Kv= 15.0 fps
0.2	34	0.2400	2.45		Shallow Concentrated Flow, C to D Woodland Kv= 5.0 fps
10.6	244	Total			

Subcatchment 2S: Subcat 2

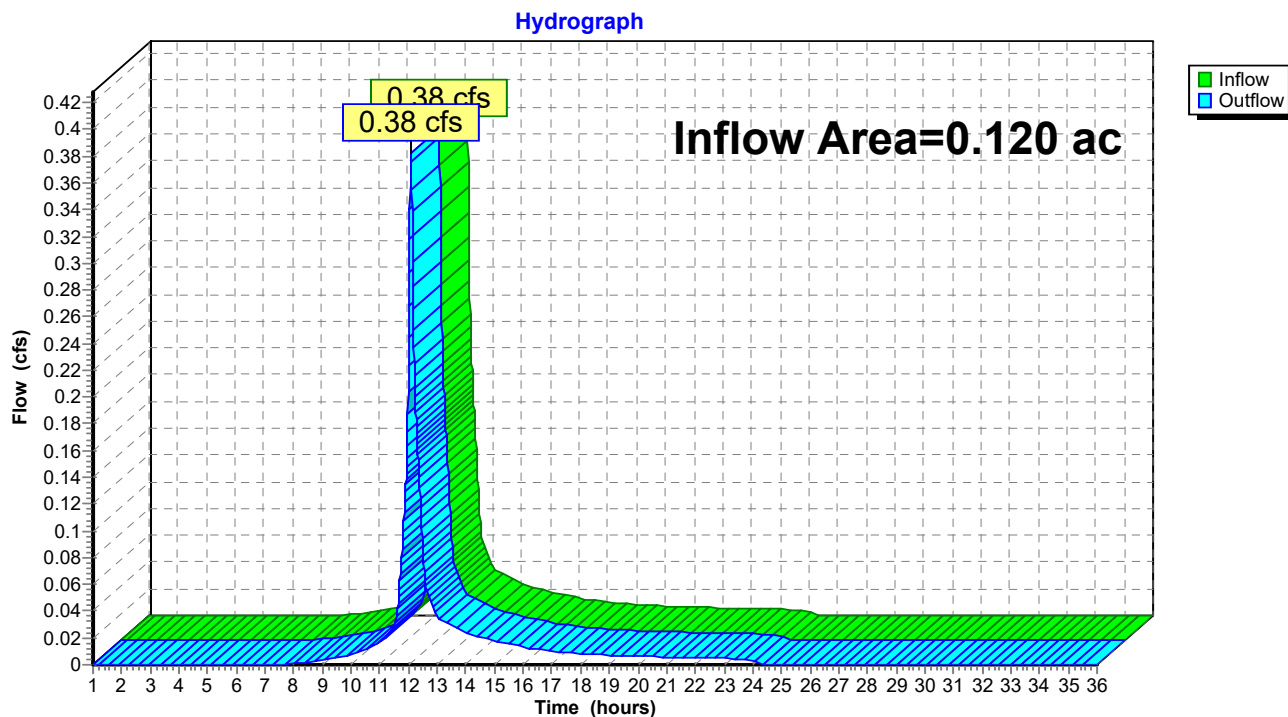
Hydrograph



Summary for Reach 1R: POI #1 - Sherwood St.

Inflow Area = 0.120 ac, 1.50% Impervious, Inflow Depth = 2.72" for 10-year event
Inflow = 0.38 cfs @ 12.09 hrs, Volume= 0.027 af
Outflow = 0.38 cfs @ 12.09 hrs, Volume= 0.027 af, Atten= 0%, Lag= 0.0 min

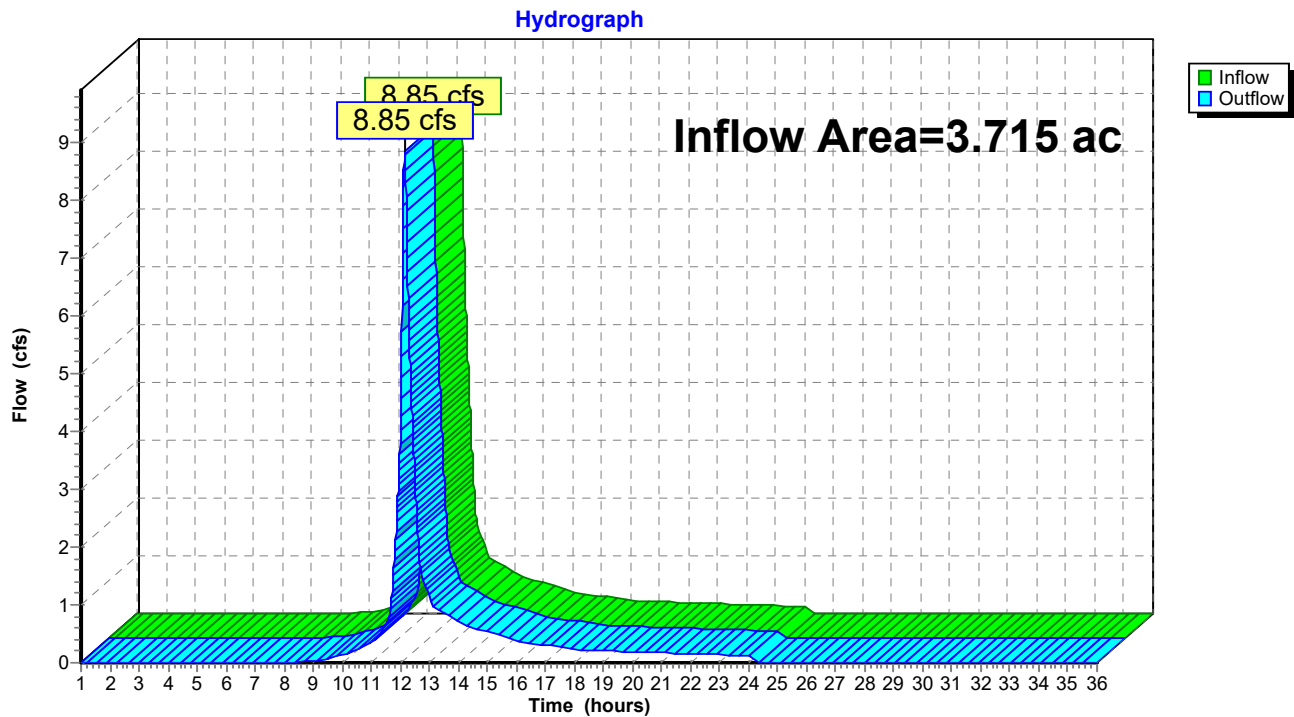
Routing by Dyn-Stor-Ind method, Time Span= 1.00-36.00 hrs, dt= 0.01 hrs

Reach 1R: POI #1 - Sherwood St.

Summary for Reach 2R: POI #2 - Wetland

Inflow Area = 3.715 ac, 1.34% Impervious, Inflow Depth = 2.38" for 10-year event
Inflow = 8.85 cfs @ 12.15 hrs, Volume= 0.735 af
Outflow = 8.85 cfs @ 12.15 hrs, Volume= 0.735 af, Atten= 0%, Lag= 0.0 min

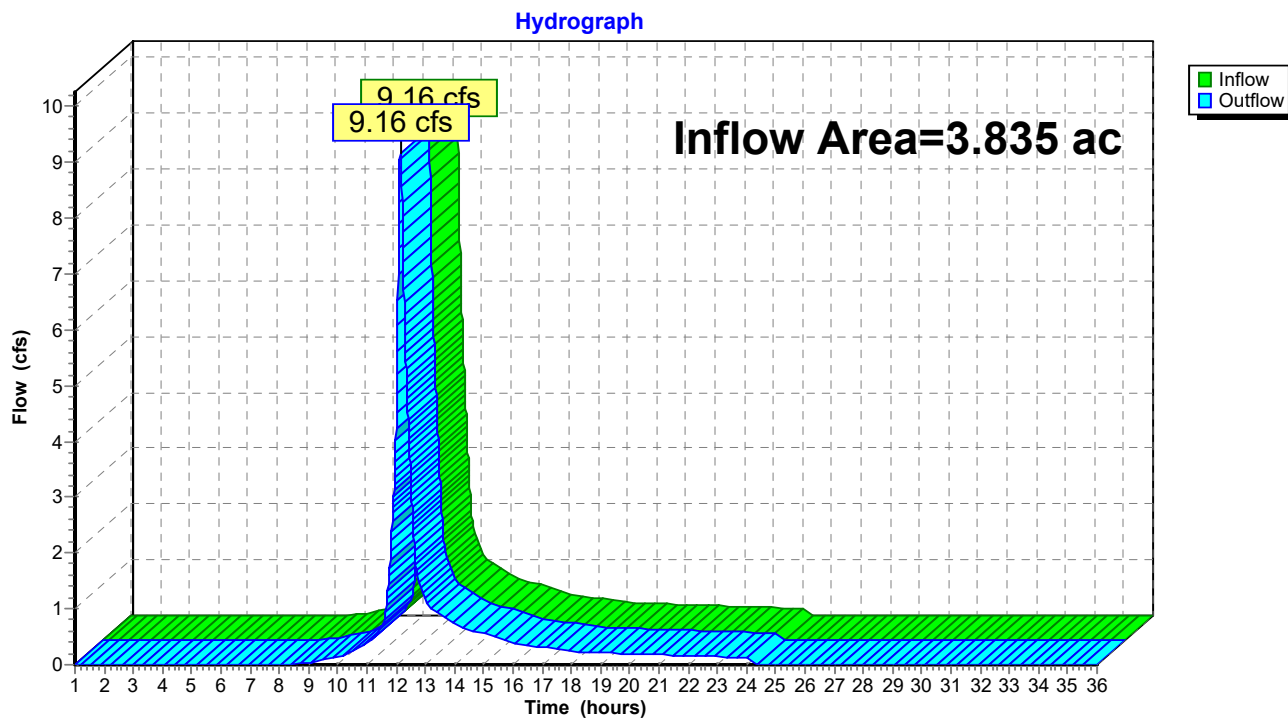
Routing by Dyn-Stor-Ind method, Time Span= 1.00-36.00 hrs, dt= 0.01 hrs

Reach 2R: POI #2 - Wetland

Summary for Reach 3R: POI #3 - TOTAL

Inflow Area = 3.835 ac, 1.34% Impervious, Inflow Depth = 2.39" for 10-year event
Inflow = 9.16 cfs @ 12.15 hrs, Volume= 0.763 af
Outflow = 9.16 cfs @ 12.15 hrs, Volume= 0.763 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 1.00-36.00 hrs, dt= 0.01 hrs

Reach 3R: POI #3 - TOTAL

Pre Development_4-20-21*Type III 24-hr 25-year Rainfall=5.80"*

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Time span=1.00-36.00 hrs, dt=0.01 hrs, 3501 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment1S: Subcat 1

Runoff Area=5,216 sf 1.50% Impervious Runoff Depth=3.80"
Tc=6.0 min CN=82 Runoff=0.53 cfs 0.038 af

Subcatchment2S: Subcat 2

Runoff Area=161,833 sf 1.34% Impervious Runoff Depth=3.40"
Flow Length=244' Tc=10.6 min CN=78 Runoff=12.70 cfs 1.054 af

Reach 1R: POI #1 - Sherwood St.

Inflow=0.53 cfs 0.038 af
Outflow=0.53 cfs 0.038 af

Reach 2R: POI #2 - Wetland

Inflow=12.70 cfs 1.054 af
Outflow=12.70 cfs 1.054 af

Reach 3R: POI #3 - TOTAL

Inflow=13.13 cfs 1.091 af
Outflow=13.13 cfs 1.091 af

Total Runoff Area = 3.835 ac Runoff Volume = 1.091 af Average Runoff Depth = 3.42"
98.66% Pervious = 3.783 ac 1.34% Impervious = 0.052 ac

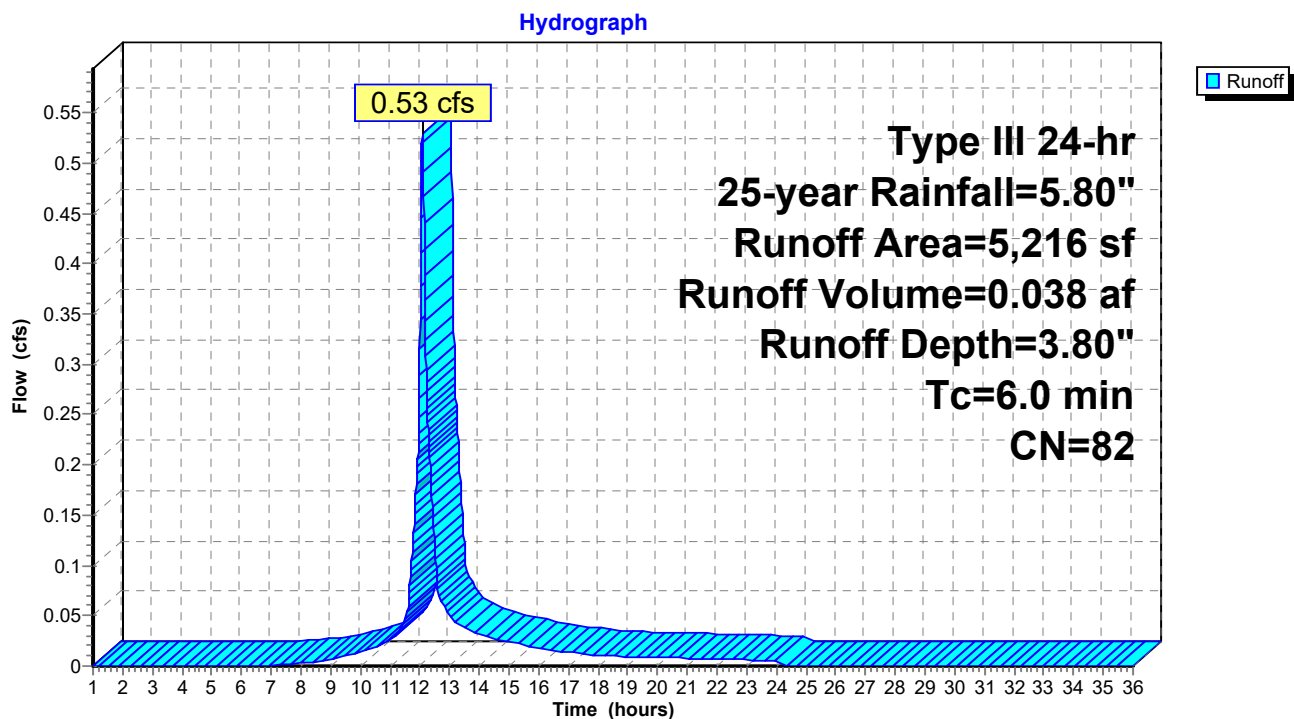
Summary for Subcatchment 1S: Subcat 1

Runoff = 0.53 cfs @ 12.09 hrs, Volume= 0.038 af, Depth= 3.80"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-year Rainfall=5.80"

	Area (sf)	CN	Description
*	5,138	82	Woods/grass combo, Poor, HSG C
	78	98	Unconnected roofs, HSG C
	5,216	82	Weighted Average
	5,138		98.50% Pervious Area
	78		1.50% Impervious Area
	78		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, Steep Slopes to Grassed Ditch

Subcatchment 1S: Subcat 1

Summary for Subcatchment 2S: Subcat 2

Runoff = 12.70 cfs @ 12.15 hrs, Volume= 1.054 af, Depth= 3.40"

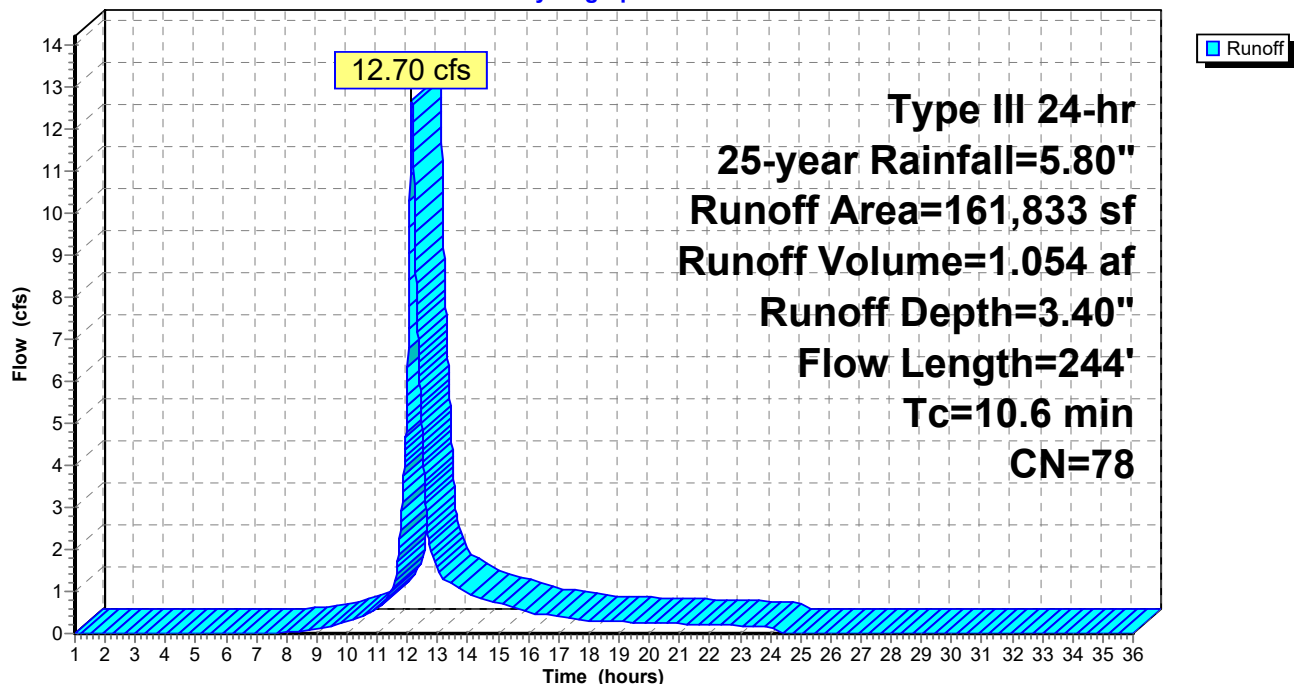
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-year Rainfall=5.80"

Area (sf)	CN	Description
* 2,167	98	Roof Tops
* 105,916	82	Woods/grass comb., Poor, HSG C
28,832	73	Woods/grass comb., Poor, HSG B
18,938	61	>75% Grass cover, Good, HSG B
5,980	74	>75% Grass cover, Good, HSG C
161,833	78	Weighted Average
159,666		98.66% Pervious Area
2,167		1.34% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.7	100	0.0200	0.17		Sheet Flow, A to B Grass: Short n= 0.150 P2= 3.27"
0.7	110	0.0300	2.60		Shallow Concentrated Flow, B to C Grassed Waterway Kv= 15.0 fps
0.2	34	0.2400	2.45		Shallow Concentrated Flow, C to D Woodland Kv= 5.0 fps
10.6	244	Total			

Subcatchment 2S: Subcat 2

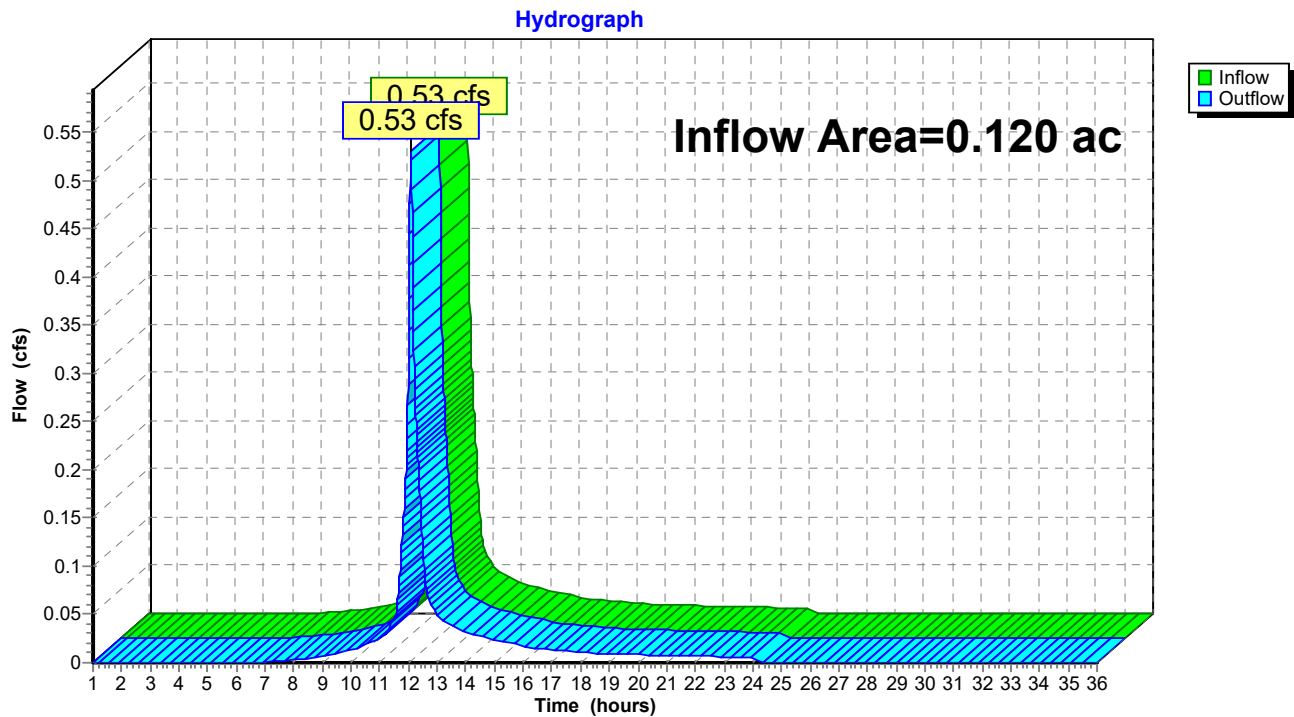
Hydrograph



Summary for Reach 1R: POI #1 - Sherwood St.

Inflow Area = 0.120 ac, 1.50% Impervious, Inflow Depth = 3.80" for 25-year event
Inflow = 0.53 cfs @ 12.09 hrs, Volume= 0.038 af
Outflow = 0.53 cfs @ 12.09 hrs, Volume= 0.038 af, Atten= 0%, Lag= 0.0 min

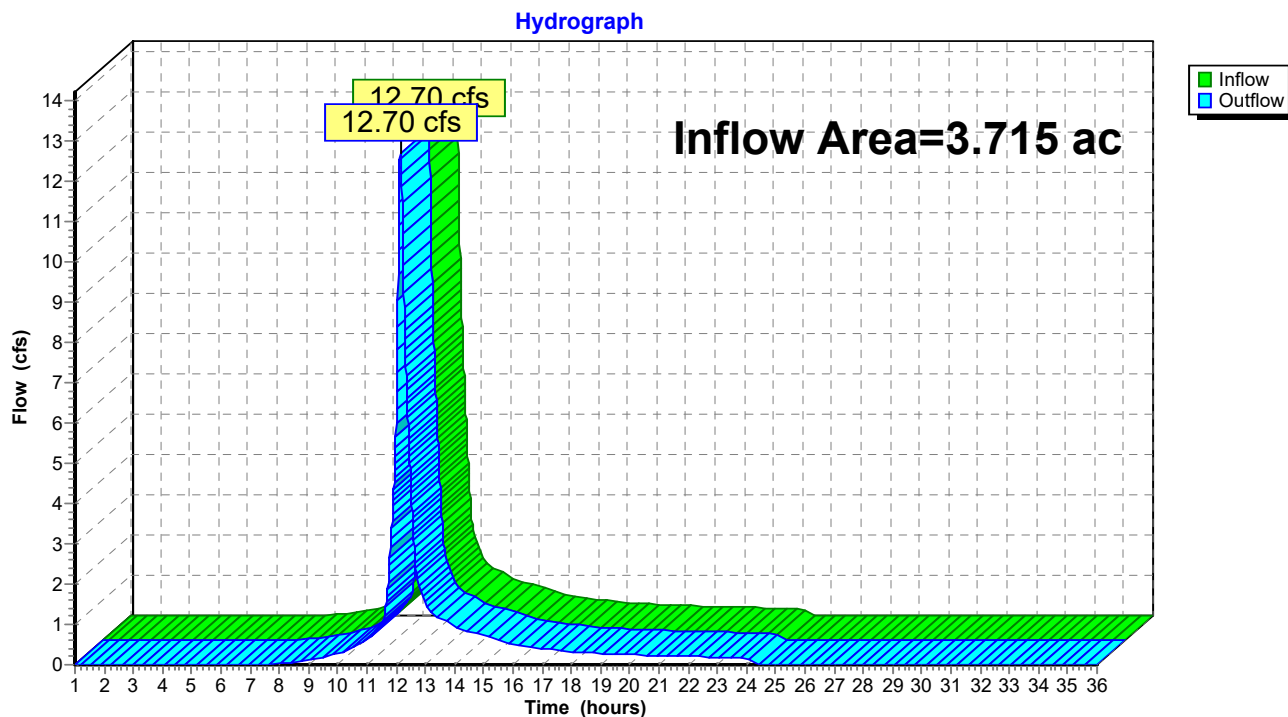
Routing by Dyn-Stor-Ind method, Time Span= 1.00-36.00 hrs, dt= 0.01 hrs

Reach 1R: POI #1 - Sherwood St.

Summary for Reach 2R: POI #2 - Wetland

Inflow Area = 3.715 ac, 1.34% Impervious, Inflow Depth = 3.40" for 25-year event
Inflow = 12.70 cfs @ 12.15 hrs, Volume= 1.054 af
Outflow = 12.70 cfs @ 12.15 hrs, Volume= 1.054 af, Atten= 0%, Lag= 0.0 min

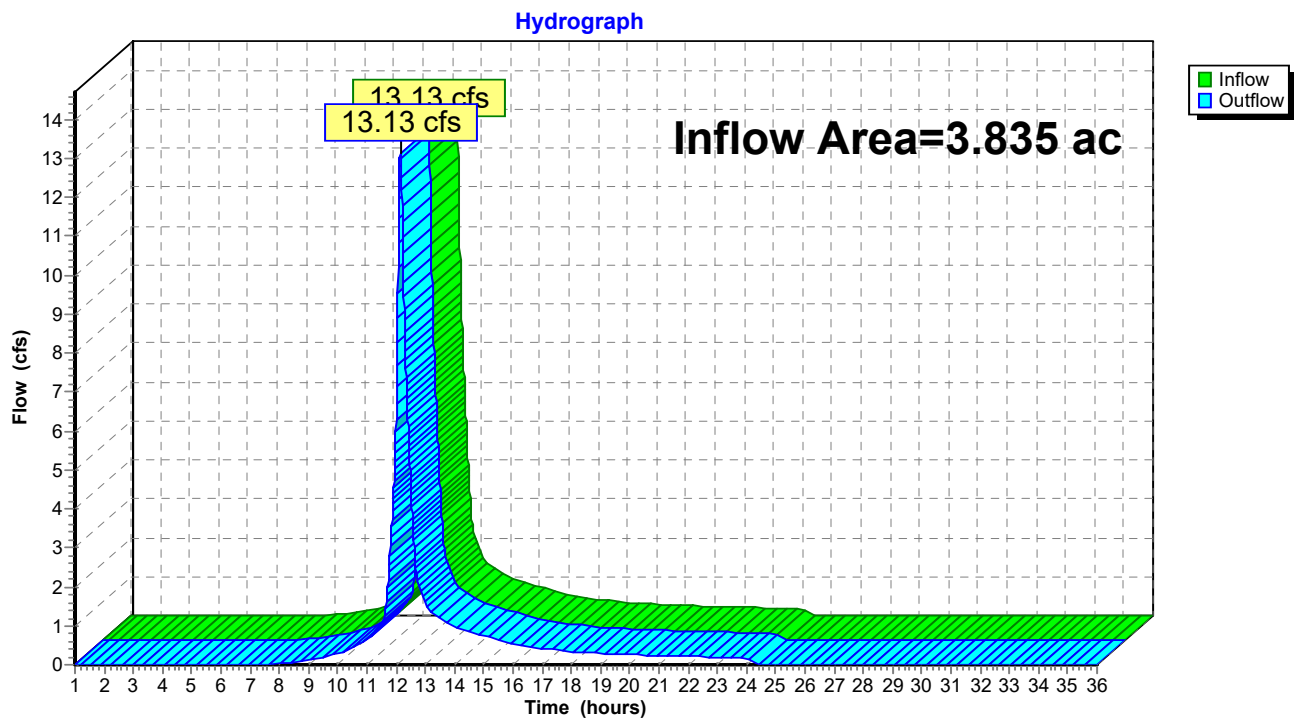
Routing by Dyn-Stor-Ind method, Time Span= 1.00-36.00 hrs, dt= 0.01 hrs

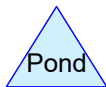
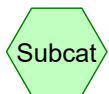
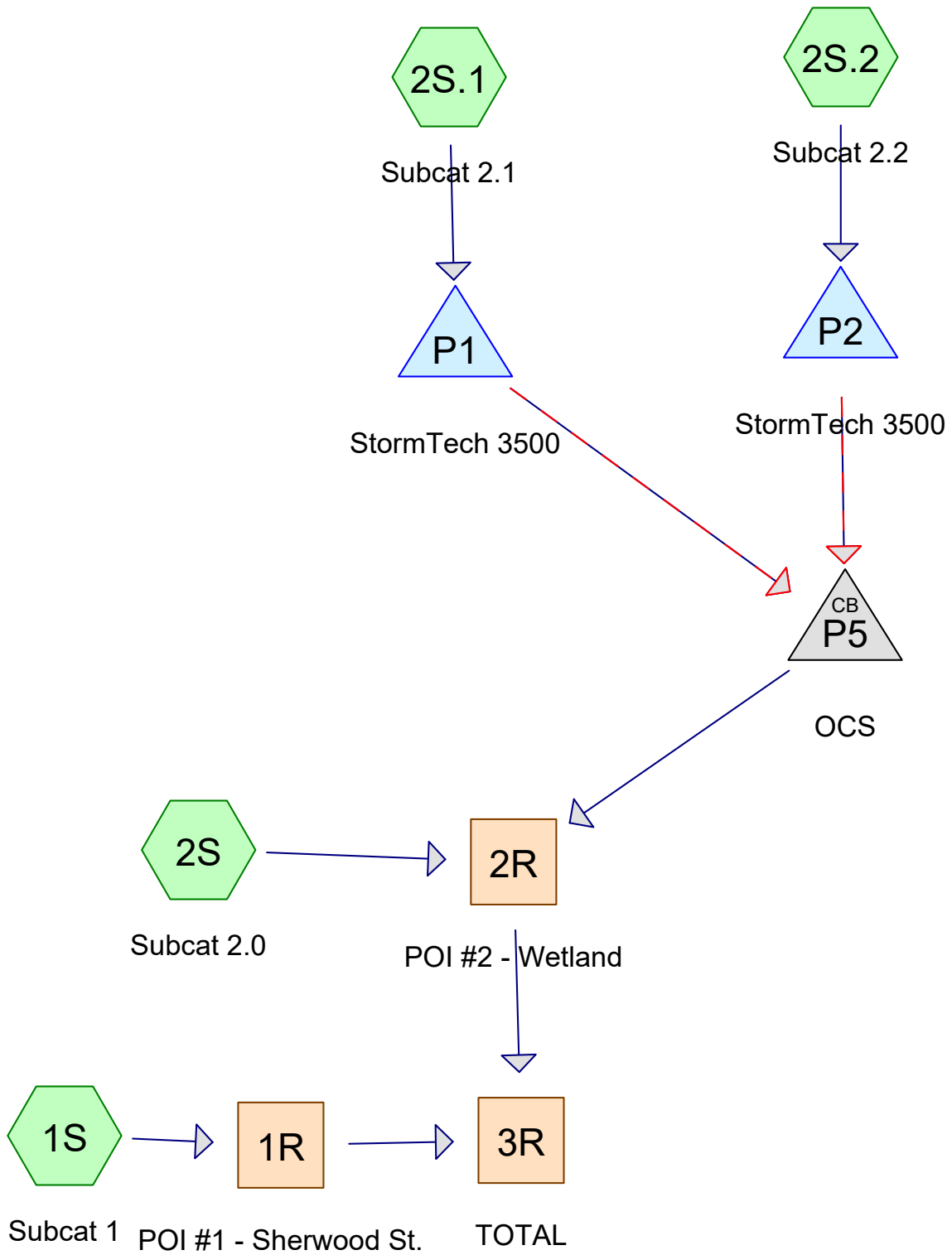
Reach 2R: POI #2 - Wetland

Summary for Reach 3R: POI #3 - TOTAL

Inflow Area = 3.835 ac, 1.34% Impervious, Inflow Depth = 3.42" for 25-year event
Inflow = 13.13 cfs @ 12.14 hrs, Volume= 1.091 af
Outflow = 13.13 cfs @ 12.14 hrs, Volume= 1.091 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 1.00-36.00 hrs, dt= 0.01 hrs

Reach 3R: POI #3 - TOTAL



Routing Diagram for Post Development
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Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.554	61	>75% Grass cover, Good, HSG B (2S)
1.308	74	>75% Grass cover, Good, HSG C (2S, 2S.1, 2S.2)
0.061	98	Concrete Pads / Patio / Stairs (2S)
0.134	70	Cr. Stone (2S)
0.047	70	Cr. Stone/Misc. Vegetation (1S)
0.695	98	Pavement, Roofs, Sidewalks (2S.2)
0.489	98	Pavement, Sidewalk, and Rooftops (2S.1)
0.053	98	Road/Sidewalk (1S)
0.494	66	Woods, Poor, HSG B (2S)
3.836	79	TOTAL AREA

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Soil Listing (all nodes)

Area (acres)	Soil Group	Subcatchment Numbers
0.000	HSG A	
1.048	HSG B	2S
1.308	HSG C	2S, 2S.1, 2S.2
0.000	HSG D	
1.480	Other	1S, 2S, 2S.1, 2S.2
3.836		TOTAL AREA

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Ground Covers (all nodes)

HSG-A (acres)	HSG-B (acres)	HSG-C (acres)	HSG-D (acres)	Other (acres)	Total (acres)	Ground Cover	Subcatchment Numbers
0.000	0.554	1.308	0.000	0.000	1.862	>75% Grass cover, Good	
0.000	0.000	0.000	0.000	0.061	0.061	Concrete Pads / Patio / Stairs	
0.000	0.000	0.000	0.000	0.134	0.134	Cr. Stone	
0.000	0.000	0.000	0.000	0.047	0.047	Cr. Stone/Misc. Vegetation	
0.000	0.000	0.000	0.000	0.695	0.695	Pavement, Roofs, Sidewalks	
0.000	0.000	0.000	0.000	0.489	0.489	Pavement, Sidewalk, and Rooftops	
0.000	0.000	0.000	0.000	0.053	0.053	Road/Sidewalk	
0.000	0.494	0.000	0.000	0.000	0.494	Woods, Poor	
0.000	1.048	1.308	0.000	1.480	3.836	TOTAL AREA	

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Pipe Listing (all nodes)

Line#	Node Number	In-Invert (feet)	Out-Invert (feet)	Length (feet)	Slope (ft/ft)	n	Diam/Width (inches)	Height (inches)	Inside-Fill (inches)
1	P1	12.86	11.38	140.0	0.0106	0.012	18.0	0.0	0.0
2	P1	18.55	16.50	17.0	0.1206	0.012	12.0	0.0	0.0
3	P2	11.28	11.00	14.4	0.0194	0.012	18.0	0.0	0.0
4	P2	12.26	11.38	12.2	0.0721	0.012	3.0	0.0	0.0
5	P2	16.68	14.50	12.3	0.1772	0.012	12.0	0.0	0.0
6	P5	7.95	7.80	34.0	0.0044	0.010	18.0	0.0	0.0

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

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Time span=0.00-36.00 hrs, dt=0.04 hrs, 901 points x 2
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment1S: Subcat 1	Runoff Area=4,385 sf 53.04% Impervious Runoff Depth=1.67" Tc=6.0 min CN=85 Runoff=0.20 cfs 0.014 af
Subcatchment2S: Subcat 2.0	Runoff Area=104,338 sf 2.56% Impervious Runoff Depth=0.77" Flow Length=126' Tc=7.3 min CN=70 Runoff=1.81 cfs 0.154 af
Subcatchment2S.1: Subcat 2.1	Runoff Area=24,140 sf 88.26% Impervious Runoff Depth=2.55" Tc=6.0 min CN=95 Runoff=1.55 cfs 0.118 af
Subcatchment2S.2: Subcat 2.2	Runoff Area=34,233 sf 88.41% Impervious Runoff Depth=2.55" Tc=6.0 min CN=95 Runoff=2.20 cfs 0.167 af
Reach 1R: POI #1 - Sherwood St.	Inflow=0.20 cfs 0.014 af Outflow=0.20 cfs 0.014 af
Reach 2R: POI #2 - Wetland	Inflow=2.33 cfs 0.429 af Outflow=2.33 cfs 0.429 af
Reach 3R: TOTAL	Inflow=2.51 cfs 0.443 af Outflow=2.51 cfs 0.443 af
Pond P1: StormTech 3500	Peak Elev=16.76' Storage=1,854 cf Inflow=1.55 cfs 0.118 af Outflow=0.31 cfs 0.114 af
Pond P2: StormTech 3500	Peak Elev=15.20' Storage=3,140 cf Inflow=2.20 cfs 0.167 af Outflow=0.31 cfs 0.161 af
Pond P5: OCS	Peak Elev=13.29' Inflow=0.59 cfs 0.275 af Outflow=0.59 cfs 0.275 af

Total Runoff Area = 3.836 ac Runoff Volume = 0.452 af Average Runoff Depth = 1.41"
66.15% Pervious = 2.537 ac 33.85% Impervious = 1.299 ac

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

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Summary for Subcatchment 1S: Subcat 1

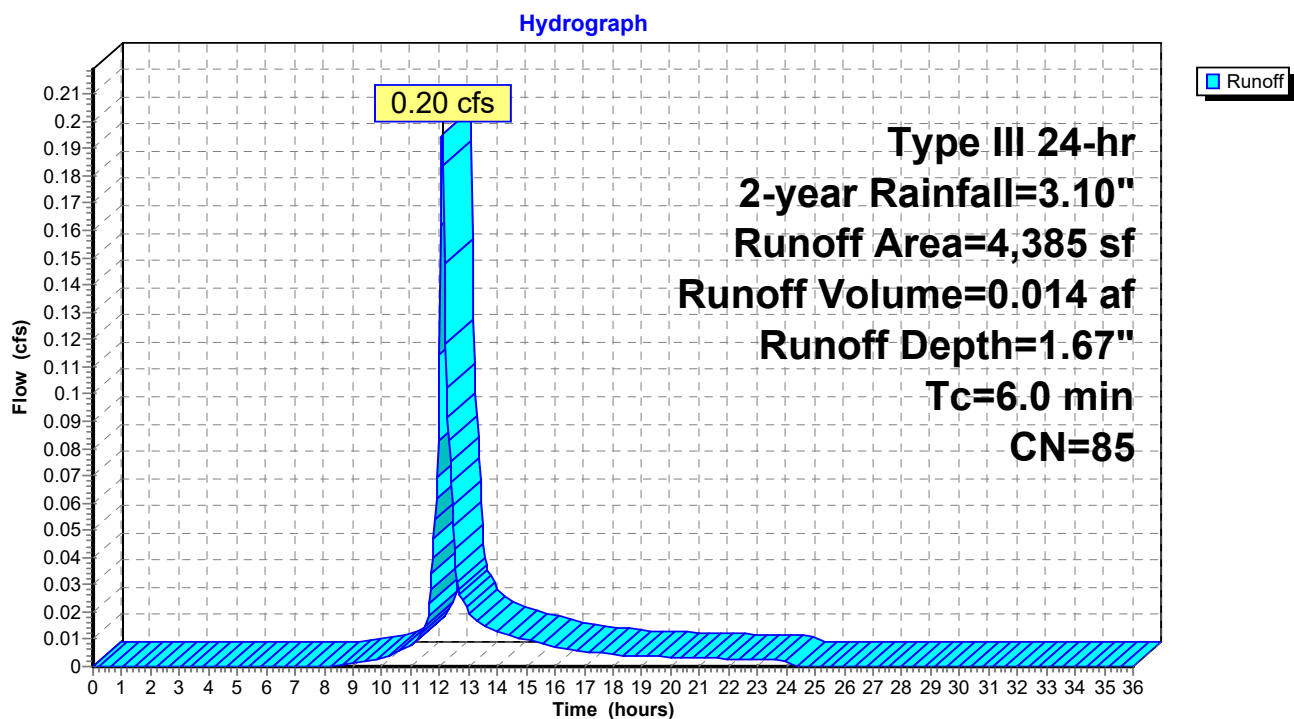
Runoff = 0.20 cfs @ 12.09 hrs, Volume= 0.014 af, Depth= 1.67"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.04 hrs
Type III 24-hr 2-year Rainfall=3.10"

	Area (sf)	CN	Description
*	2,059	70	Cr. Stone/Misc. Vegetation
*	2,326	98	Road/Sidewalk
	4,385	85	Weighted Average
	2,059		46.96% Pervious Area
	2,326		53.04% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, Steep banks to pipe flow

Subcatchment 1S: Subcat 1



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

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Summary for Subcatchment 2S: Subcat 2.0

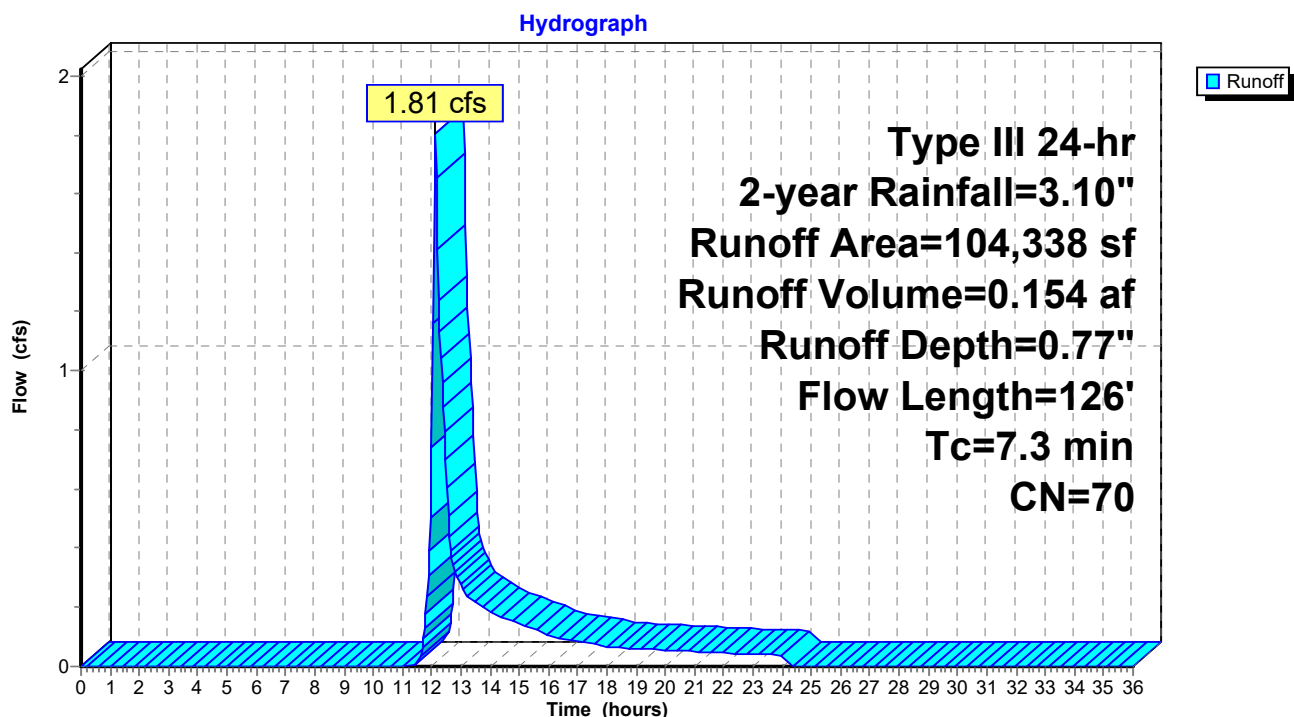
Runoff = 1.81 cfs @ 12.12 hrs, Volume= 0.154 af, Depth= 0.77"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.04 hrs
Type III 24-hr 2-year Rainfall=3.10"

	Area (sf)	CN	Description
*	2,671	98	Concrete Pads / Patio / Stairs
	21,511	66	Woods, Poor, HSG B
*	5,847	70	Cr. Stone
	50,176	74	>75% Grass cover, Good, HSG C
	24,133	61	>75% Grass cover, Good, HSG B
	104,338	70	Weighted Average
	101,667		97.44% Pervious Area
	2,671		2.56% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.2	100	0.0425	0.23		Sheet Flow, A to B Grass: Short n= 0.150 P2= 3.27"
0.1	26	0.2770	3.68		Shallow Concentrated Flow, B to C Short Grass Pasture Kv= 7.0 fps
7.3	126	Total			

Subcatchment 2S: Subcat 2.0



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

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Summary for Subcatchment 2S.1: Subcat 2.1

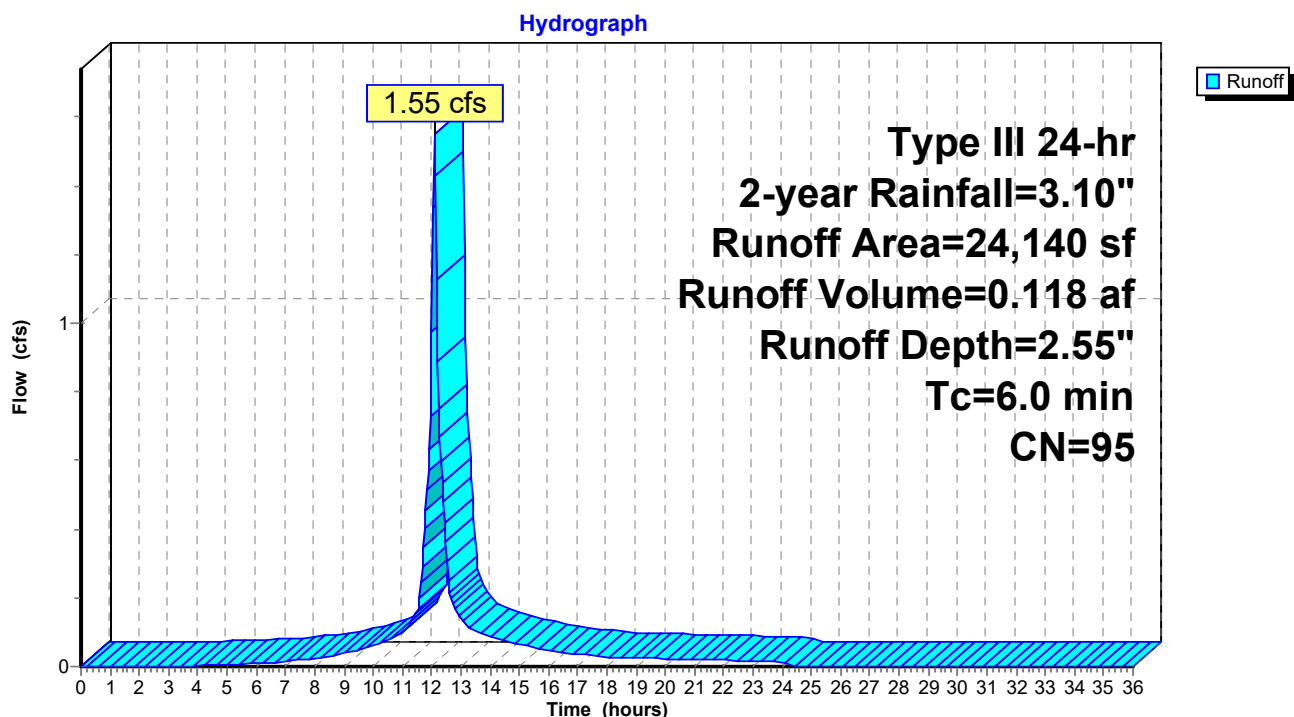
Runoff = 1.55 cfs @ 12.09 hrs, Volume= 0.118 af, Depth= 2.55"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.04 hrs
Type III 24-hr 2-year Rainfall=3.10"

	Area (sf)	CN	Description
*	21,305	98	Pavement, Sidewalk, and Rooftops
	2,835	74	>75% Grass cover, Good, HSG C
	24,140	95	Weighted Average
	2,835		11.74% Pervious Area
	21,305		88.26% Impervious Area

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

Subcatchment 2S.1: Subcat 2.1



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

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Summary for Subcatchment 2S.2: Subcat 2.2

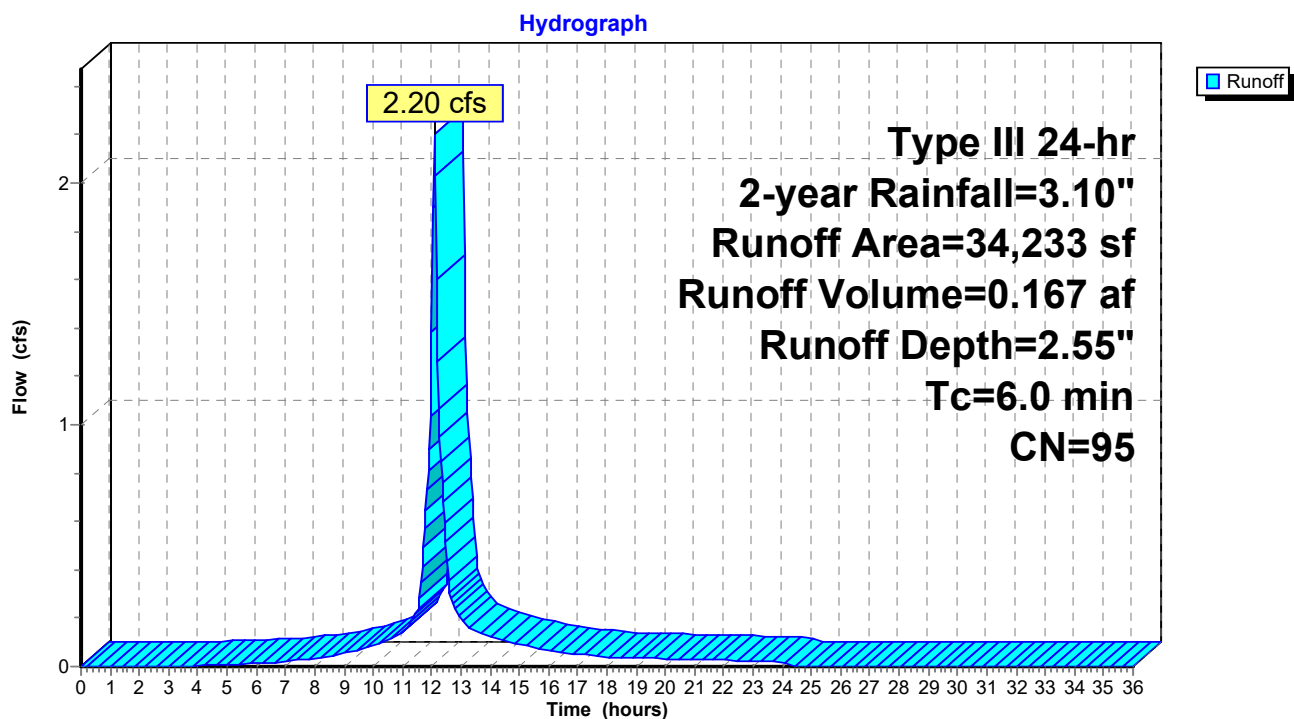
Runoff = 2.20 cfs @ 12.09 hrs, Volume= 0.167 af, Depth= 2.55"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.04 hrs
Type III 24-hr 2-year Rainfall=3.10"

	Area (sf)	CN	Description
*	30,266	98	Pavement, Roofs, Sidewalks
	3,967	74	>75% Grass cover, Good, HSG C
	34,233	95	Weighted Average
	3,967		11.59% Pervious Area
	30,266		88.41% Impervious Area

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

Subcatchment 2S.2: Subcat 2.2



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

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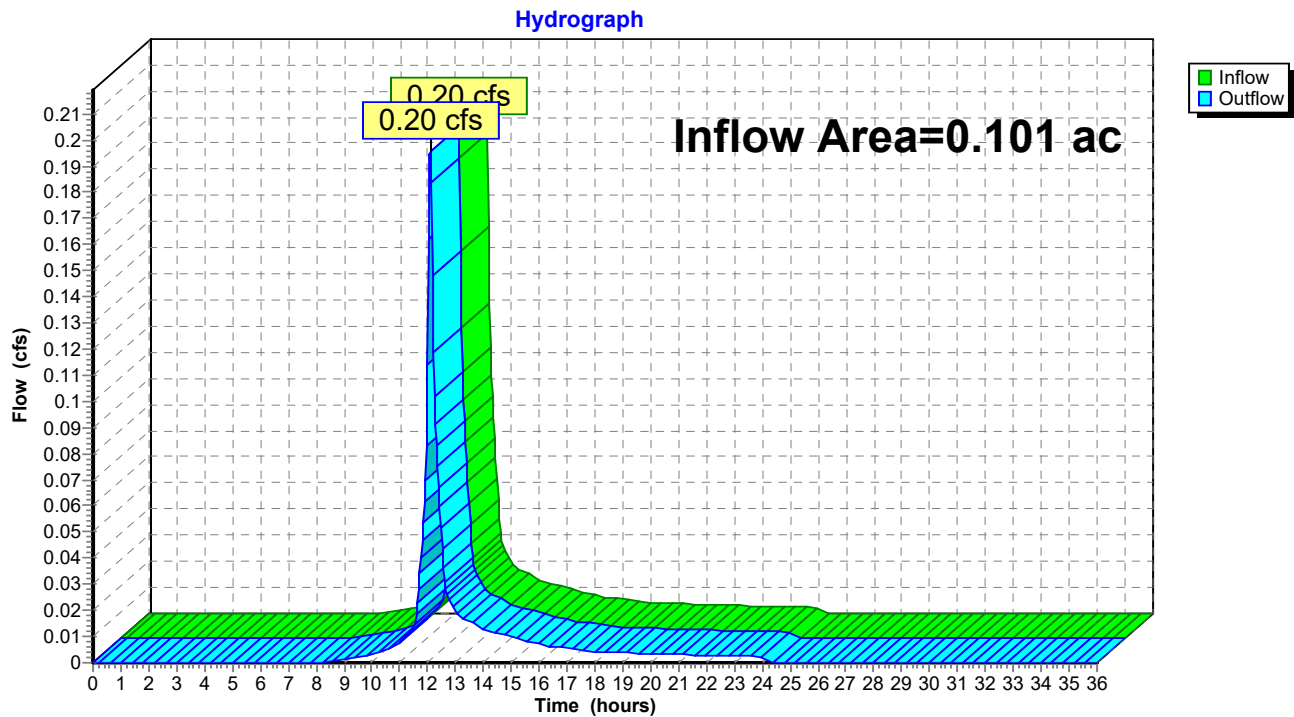
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Summary for Reach 1R: POI #1 - Sherwood St.

Inflow Area = 0.101 ac, 53.04% Impervious, Inflow Depth = 1.67" for 2-year event
Inflow = 0.20 cfs @ 12.09 hrs, Volume= 0.014 af
Outflow = 0.20 cfs @ 12.09 hrs, Volume= 0.014 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.04 hrs / 2

Reach 1R: POI #1 - Sherwood St.



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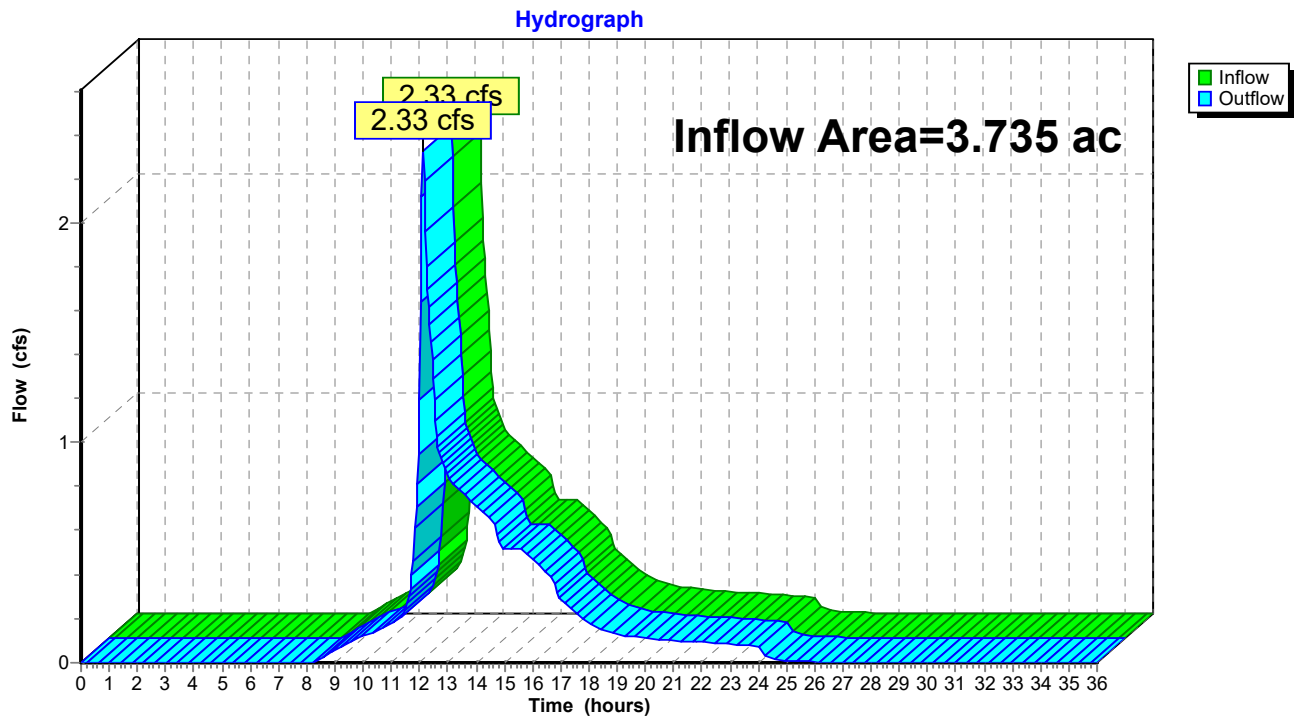
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Summary for Reach 2R: POI #2 - Wetland

Inflow Area = 3.735 ac, 33.34% Impervious, Inflow Depth = 1.38" for 2-year event
Inflow = 2.33 cfs @ 12.12 hrs, Volume= 0.429 af
Outflow = 2.33 cfs @ 12.12 hrs, Volume= 0.429 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.04 hrs / 2

Reach 2R: POI #2 - Wetland



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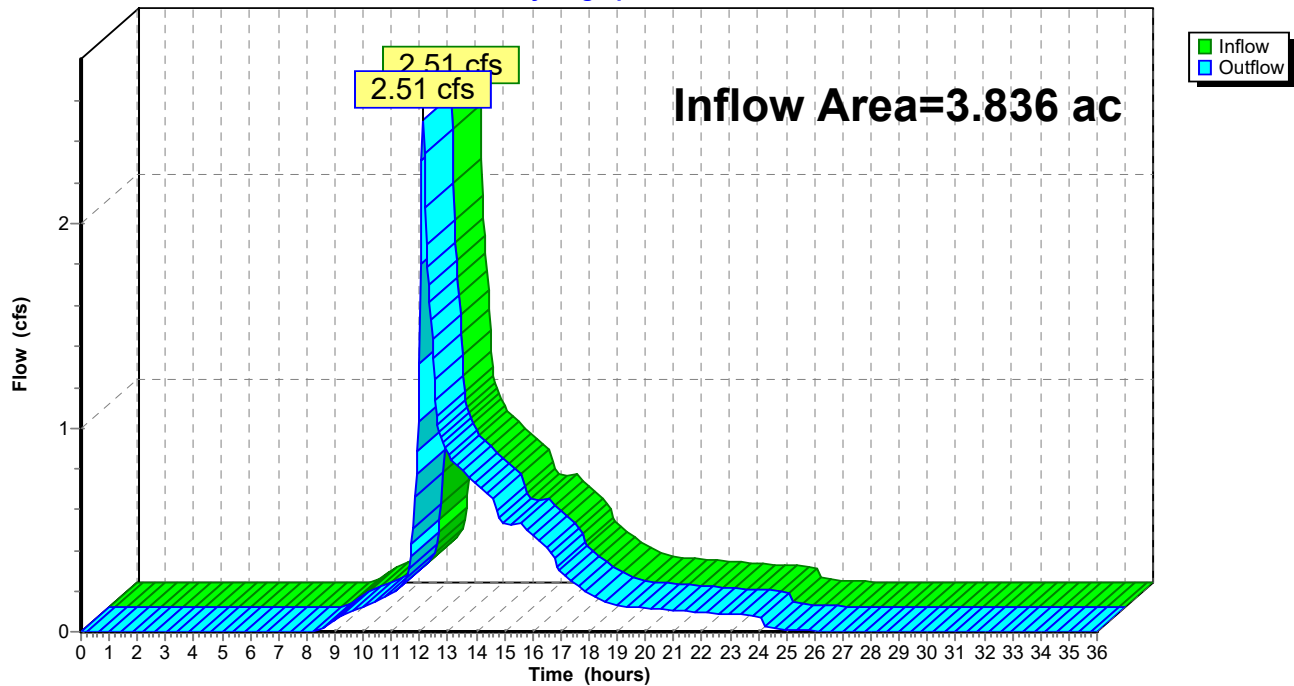
Summary for Reach 3R: TOTAL

Inflow Area = 3.836 ac, 33.85% Impervious, Inflow Depth = 1.39" for 2-year event
Inflow = 2.51 cfs @ 12.12 hrs, Volume= 0.443 af
Outflow = 2.51 cfs @ 12.12 hrs, Volume= 0.443 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.04 hrs / 2

Reach 3R: TOTAL

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Summary for Pond P1: StormTech 3500

Inflow Area = 0.554 ac, 88.26% Impervious, Inflow Depth = 2.55" for 2-year event
 Inflow = 1.55 cfs @ 12.09 hrs, Volume= 0.118 af
 Outflow = 0.31 cfs @ 12.52 hrs, Volume= 0.114 af, Atten= 80%, Lag= 25.8 min
 Primary = 0.31 cfs @ 12.52 hrs, Volume= 0.114 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.04 hrs / 2

Peak Elev= 16.76' @ 12.52 hrs Surf.Area= 3,735 sf Storage= 1,854 cf

Flood Elev= 20.05' Surf.Area= 3,735 sf Storage= 4,440 cf

Plug-Flow detention time= 87.2 min calculated for 0.114 af (97% of inflow)

Center-of-Mass det. time= 68.4 min (850.3 - 782.0)

Volume	Invert	Avail.Storage	Storage Description
#1	15.30'	1,386 cf	28.67'W x 43.42'L x 4.75'H Stone 5,913 cf Overall - 2,449 cf Embedded = 3,464 cf x 40.0% Voids
#2	15.80'	2,449 cf	ADS_StormTech MC-3500 d +Cap @ 7.50' L x 20 Inside #1 Effective Size= 70.4"W x 45.0"H => 15.33 sf x 7.50'L = 115.0 cf Overall Size= 77.0"W x 45.0"H x 7.50'L with 0.33' Overlap 20 Chambers in 5 Rows Cap Storage= +14.9 cf x 2 x 5 rows = 149.0 cf
#3	13.80'	93 cf	28.67'W x 43.42'L x 1.50'H Sand 1,867 cf Overall x 5.0% Voids
#4	12.80'	489 cf	28.67'W x 43.42'L x 1.00'H Crushed Stone 1,245 cf Overall - 23 cf Embedded = 1,222 cf x 40.0% Voids
#5	13.13'	23 cf	4.0" Round Underdrain Storage Inside #4 L= 260.0'
4,440 cf			Total Available Storage

Device	Routing	Invert	Outlet Devices
#1	Primary	12.86'	18.0" Round Culvert L= 140.0' Ke= 0.600 Inlet / Outlet Invert= 12.86' / 11.38' S= 0.0106 '/' Cc= 0.900 n= 0.012, Flow Area= 1.77 sf
#2	Device 1	13.13'	2.5" Vert. Underdrain/Orifice C= 0.600
#3	Device 1	18.55'	12.0" Round Bypass Overflow L= 17.0' Ke= 0.600 Inlet / Outlet Invert= 18.55' / 16.50' S= 0.1206 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.31 cfs @ 12.52 hrs HW=16.76' TW=13.29' (Dynamic Tailwater)

- 1=Culvert (Passes 0.31 cfs of 13.59 cfs potential flow)
 2=Underdrain/Orifice (Orifice Controls 0.31 cfs @ 8.97 fps)
 3=Bypass Overflow (Controls 0.00 cfs)

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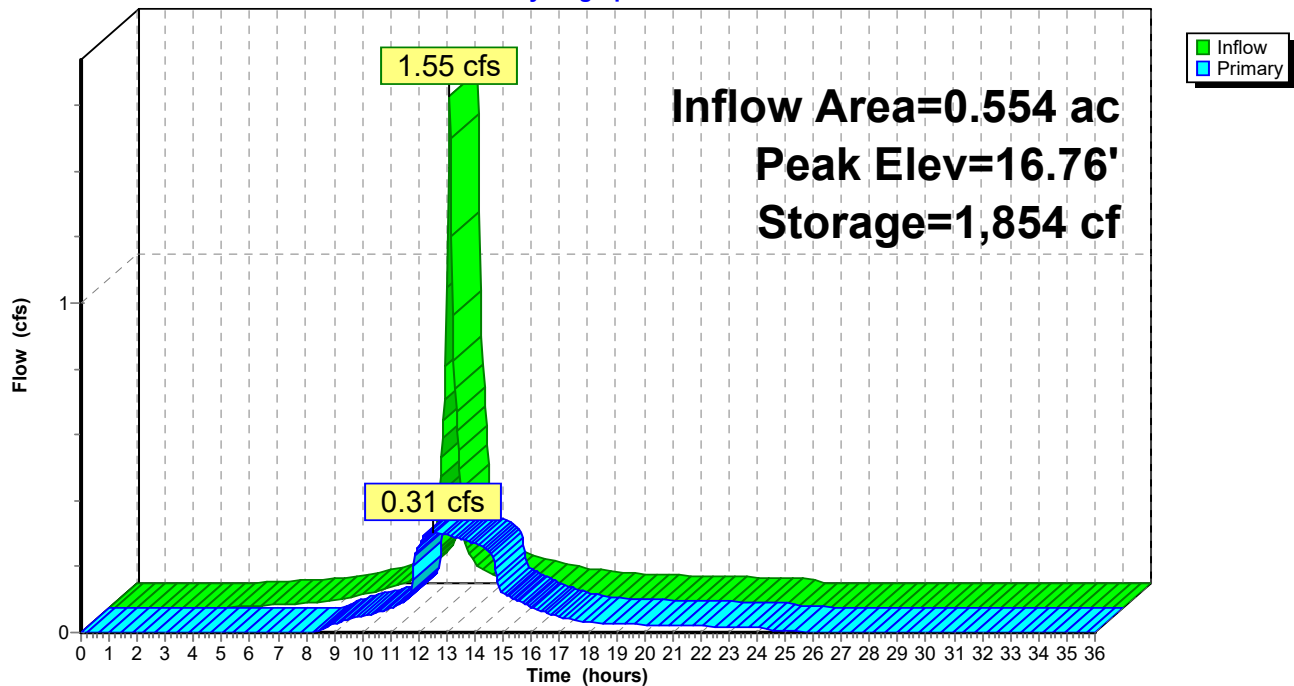
Type III 24-hr 2-year Rainfall=3.10"

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Pond P1: StormTech 3500

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Summary for Pond P2: StormTech 3500

Inflow Area = 0.786 ac, 88.41% Impervious, Inflow Depth = 2.55" for 2-year event
 Inflow = 2.20 cfs @ 12.09 hrs, Volume= 0.167 af
 Outflow = 0.31 cfs @ 15.46 hrs, Volume= 0.161 af, Atten= 86%, Lag= 202.2 min
 Primary = 0.31 cfs @ 15.46 hrs, Volume= 0.161 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.04 hrs / 2
 Peak Elev= 15.20' @ 12.64 hrs Surf.Area= 5,397 sf Storage= 3,140 cf
 Flood Elev= 18.18' Surf.Area= 5,397 sf Storage= 6,440 cf

Plug-Flow detention time= 130.0 min calculated for 0.161 af (97% of inflow)
 Center-of-Mass det. time= 110.8 min (892.7 - 782.0)

Volume	Invert	Avail.Storage	Storage Description
#1	13.43'	1,978 cf	35.33'W x 50.92'L x 4.75'H Stone 8,545 cf Overall - 3,599 cf Embedded = 4,946 cf x 40.0% Voids
#2	13.93'	3,599 cf	ADS_StormTech MC-3500 d +Cap @ 7.50' L x 30 Inside #1 Effective Size= 70.4"W x 45.0"H => 15.33 sf x 7.50'L = 115.0 cf Overall Size= 77.0"W x 45.0"H x 7.50'L with 0.33' Overlap 30 Chambers in 5 Rows Cap Storage= +14.9 cf x 2 x 5 rows = 149.0 cf
#3	12.93'	135 cf	35.33'W x 50.92'L x 1.50'H Sand 2,699 cf Overall x 5.0% Voids
#4	11.93'	714 cf	35.33'W x 50.92'L x 1.00'H Crushed Stone 1,799 cf Overall - 14 cf Embedded = 1,785 cf x 40.0% Voids
#5	12.26'	14 cf	4.0" Round Underdrain Storage Inside #4 L= 157.0'
6,440 cf			Total Available Storage

Device	Routing	Invert	Outlet Devices
#1	Primary	11.28'	18.0" Round Culvert L= 14.4' Ke= 0.600 Inlet / Outlet Invert= 11.28' / 11.00' S= 0.0194 '/' Cc= 0.900 n= 0.012 Corrugated PP, smooth interior, Flow Area= 1.77 sf
#2	Device 1	12.26'	3.0" Round Underdrain & Orifice L= 12.2' Ke= 0.600 Inlet / Outlet Invert= 12.26' / 11.38' S= 0.0721 '/' Cc= 0.900 n= 0.012, Flow Area= 0.05 sf
#3	Device 1	16.68'	12.0" Round Bypass Overflow L= 12.3' Ke= 0.600 Inlet / Outlet Invert= 16.68' / 14.50' S= 0.1772 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.22 cfs @ 15.46 hrs HW=14.31' TW=13.12' (Dynamic Tailwater)

- 1=Culvert (Passes 0.22 cfs of 8.73 cfs potential flow)
- 2=Underdrain & Orifice (Outlet Controls 0.22 cfs @ 4.58 fps)
- 3=Bypass Overflow (Controls 0.00 cfs)

Post Development

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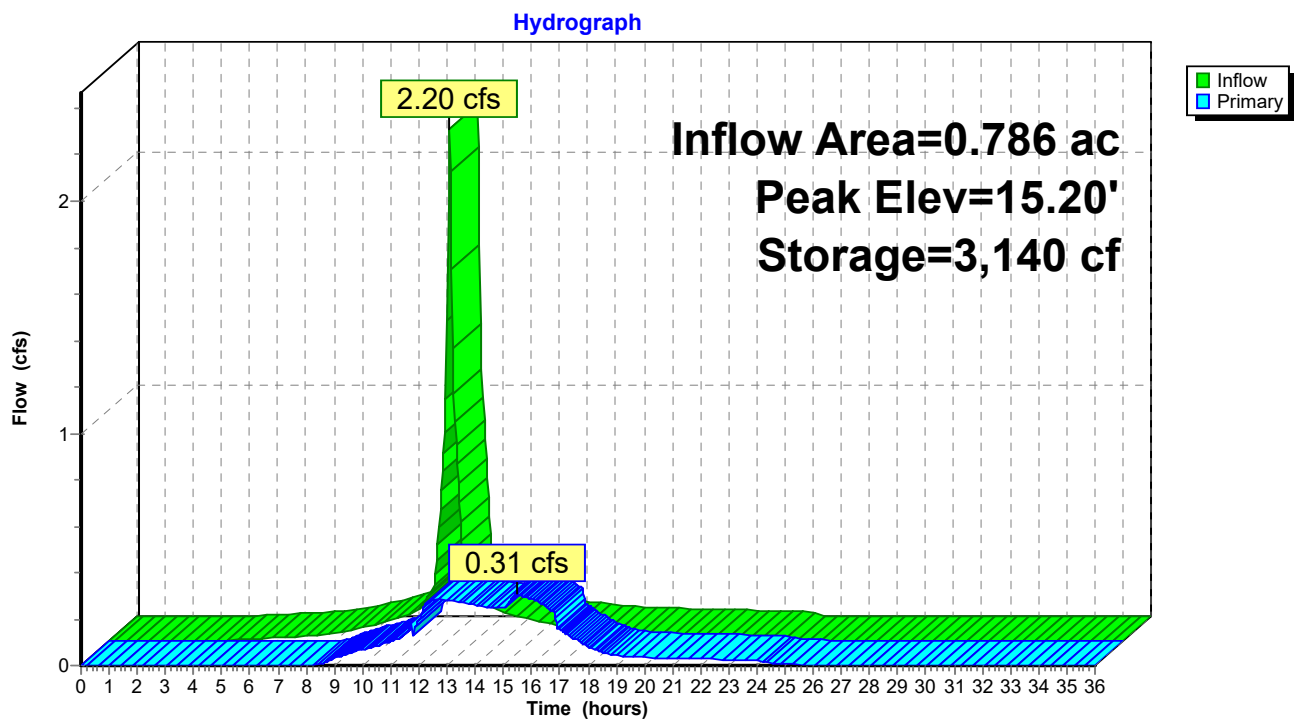
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Pond P2: StormTech 3500



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Summary for Pond P5: OCS

Inflow Area = 1.340 ac, 88.35% Impervious, Inflow Depth > 2.46" for 2-year event
Inflow = 0.59 cfs @ 12.57 hrs, Volume= 0.275 af
Outflow = 0.59 cfs @ 12.57 hrs, Volume= 0.275 af, Atten= 0%, Lag= 0.0 min
Primary = 0.59 cfs @ 12.57 hrs, Volume= 0.275 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.04 hrs / 2

Peak Elev= 13.29' @ 12.57 hrs

Flood Elev= 20.60'

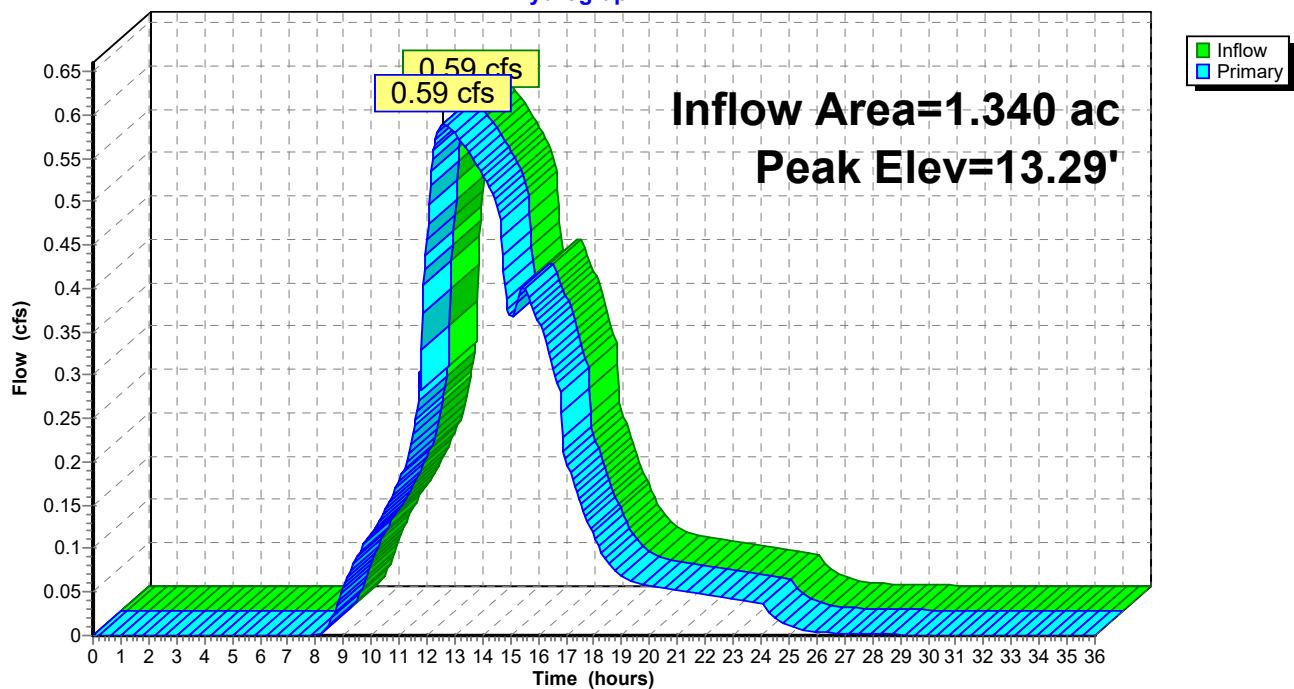
Device	Routing	Invert	Outlet Devices
#1	Primary	7.95'	18.0" Round 18" Outlet L= 34.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 7.95' / 7.80' S= 0.0044 '/' Cc= 0.900 n= 0.010, Flow Area= 1.77 sf
#2	Device 1	8.05'	2.5" Vert. Quality Orifice C= 0.600
#3	Device 1	13.00'	6.0" Vert. Quantity Orifice C= 0.600
#4	Device 1	18.00'	6.0' long x 0.7' 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 Coef. (English) 2.76 2.82 2.93 3.09 3.18 3.22 3.27 3.30 3.32 3.31 3.32

Primary OutFlow Max=0.59 cfs @ 12.57 hrs HW=13.29' TW=0.00' (Dynamic Tailwater)

- 1=18" Outlet (Passes 0.59 cfs of 14.39 cfs potential flow)
- 2=Quality Orifice (Orifice Controls 0.37 cfs @ 10.91 fps)
- 3=Quantity Orifice (Orifice Controls 0.22 cfs @ 1.84 fps)
- 4=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond P5: OCS

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Time span=0.00-36.00 hrs, dt=0.04 hrs, 901 points x 2
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment1S: Subcat 1	Runoff Area=4,385 sf 53.04% Impervious Runoff Depth=3.00" Tc=6.0 min CN=85 Runoff=0.35 cfs 0.025 af
Subcatchment2S: Subcat 2.0	Runoff Area=104,338 sf 2.56% Impervious Runoff Depth=1.74" Flow Length=126' Tc=7.3 min CN=70 Runoff=4.50 cfs 0.348 af
Subcatchment2S.1: Subcat 2.1	Runoff Area=24,140 sf 88.26% Impervious Runoff Depth=4.02" Tc=6.0 min CN=95 Runoff=2.39 cfs 0.186 af
Subcatchment2S.2: Subcat 2.2	Runoff Area=34,233 sf 88.41% Impervious Runoff Depth=4.02" Tc=6.0 min CN=95 Runoff=3.39 cfs 0.264 af
Reach 1R: POI #1 - Sherwood St.	Inflow=0.35 cfs 0.025 af Outflow=0.35 cfs 0.025 af
Reach 2R: POI #2 - Wetland	Inflow=5.11 cfs 0.788 af Outflow=5.11 cfs 0.788 af
Reach 3R: TOTAL	Inflow=5.44 cfs 0.813 af Outflow=5.44 cfs 0.813 af
Pond P1: StormTech 3500	Peak Elev=18.03' Storage=3,077 cf Inflow=2.39 cfs 0.186 af Outflow=0.35 cfs 0.182 af
Pond P2: StormTech 3500	Peak Elev=16.67' Storage=5,111 cf Inflow=3.39 cfs 0.264 af Outflow=0.37 cfs 0.258 af
Pond P5: OCS	Peak Elev=13.39' Inflow=0.73 cfs 0.440 af Outflow=0.73 cfs 0.440 af

Total Runoff Area = 3.836 ac Runoff Volume = 0.823 af Average Runoff Depth = 2.57"
66.15% Pervious = 2.537 ac 33.85% Impervious = 1.299 ac

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

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Summary for Subcatchment 1S: Subcat 1

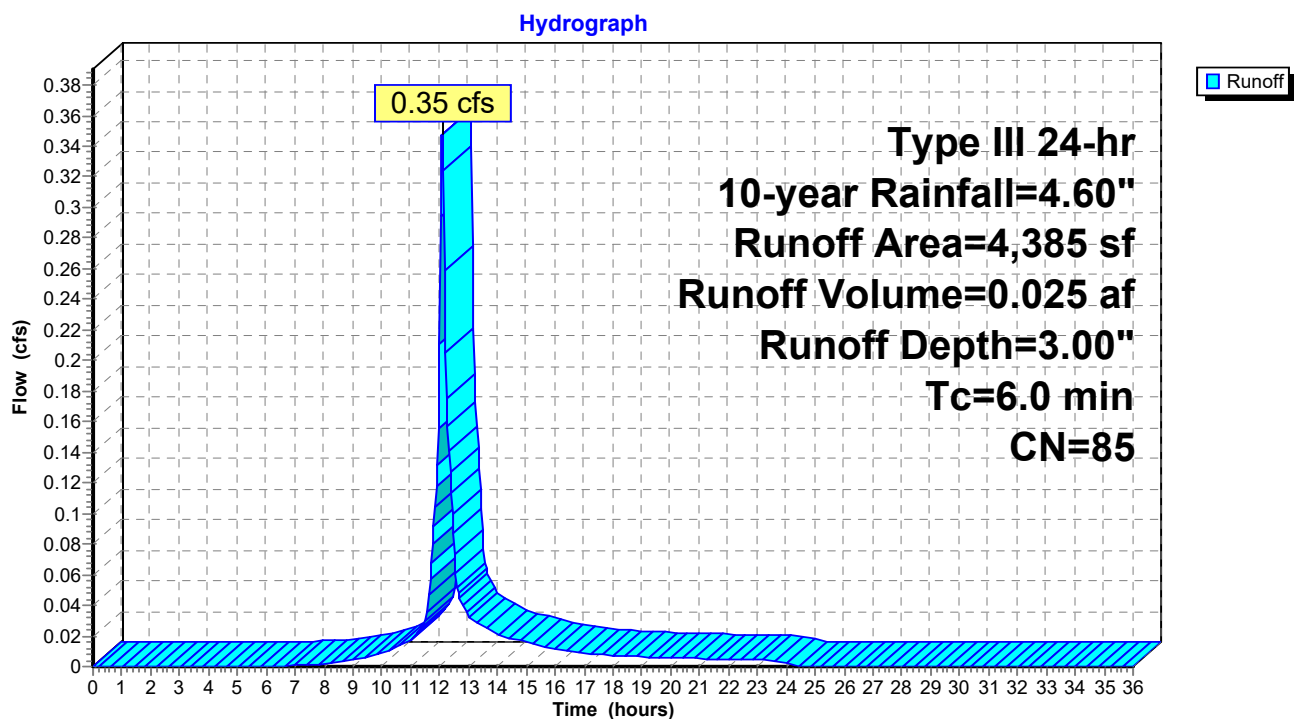
Runoff = 0.35 cfs @ 12.09 hrs, Volume= 0.025 af, Depth= 3.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.04 hrs
Type III 24-hr 10-year Rainfall=4.60"

	Area (sf)	CN	Description
*	2,059	70	Cr. Stone/Misc. Vegetation
*	2,326	98	Road/Sidewalk
	4,385	85	Weighted Average
	2,059		46.96% Pervious Area
	2,326		53.04% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, Steep banks to pipe flow

Subcatchment 1S: Subcat 1



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Summary for Subcatchment 2S: Subcat 2.0

Runoff = 4.50 cfs @ 12.11 hrs, Volume= 0.348 af, Depth= 1.74"

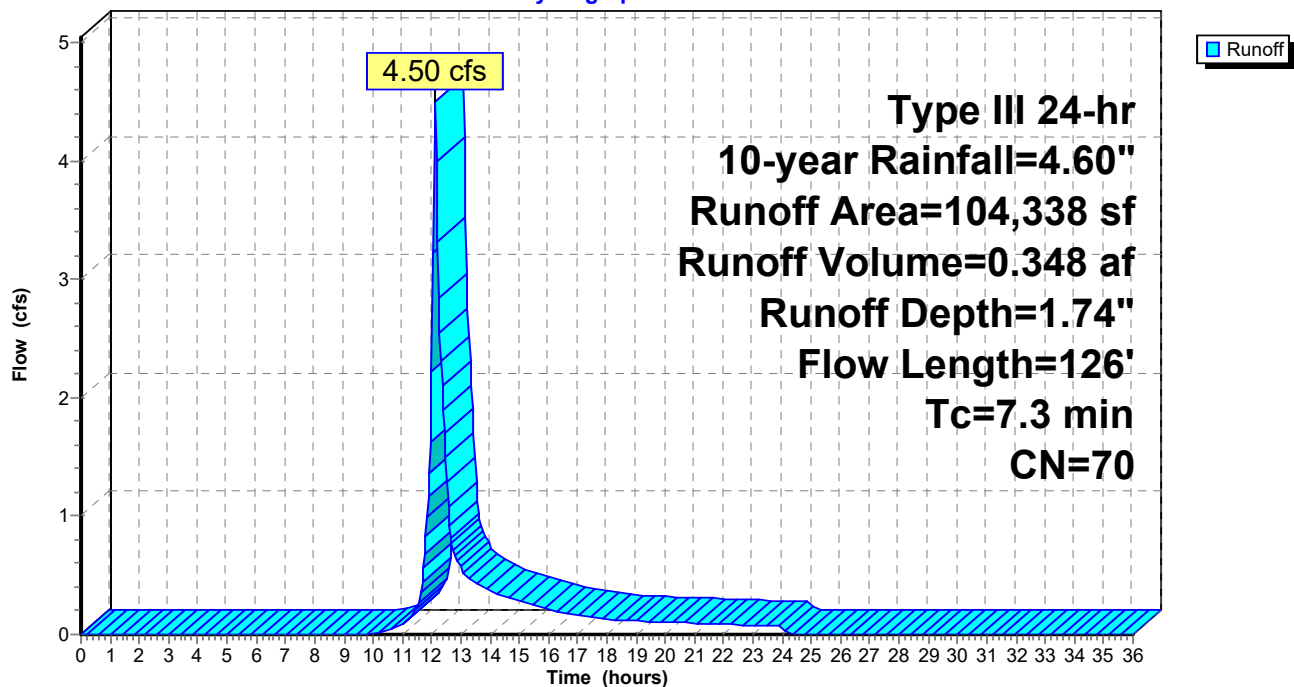
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.04 hrs
Type III 24-hr 10-year Rainfall=4.60"

	Area (sf)	CN	Description
*	2,671	98	Concrete Pads / Patio / Stairs
	21,511	66	Woods, Poor, HSG B
*	5,847	70	Cr. Stone
	50,176	74	>75% Grass cover, Good, HSG C
	24,133	61	>75% Grass cover, Good, HSG B
	104,338	70	Weighted Average
	101,667		97.44% Pervious Area
	2,671		2.56% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.2	100	0.0425	0.23		Sheet Flow, A to B Grass: Short n= 0.150 P2= 3.27"
0.1	26	0.2770	3.68		Shallow Concentrated Flow, B to C Short Grass Pasture Kv= 7.0 fps
7.3	126	Total			

Subcatchment 2S: Subcat 2.0

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Summary for Subcatchment 2S.1: Subcat 2.1

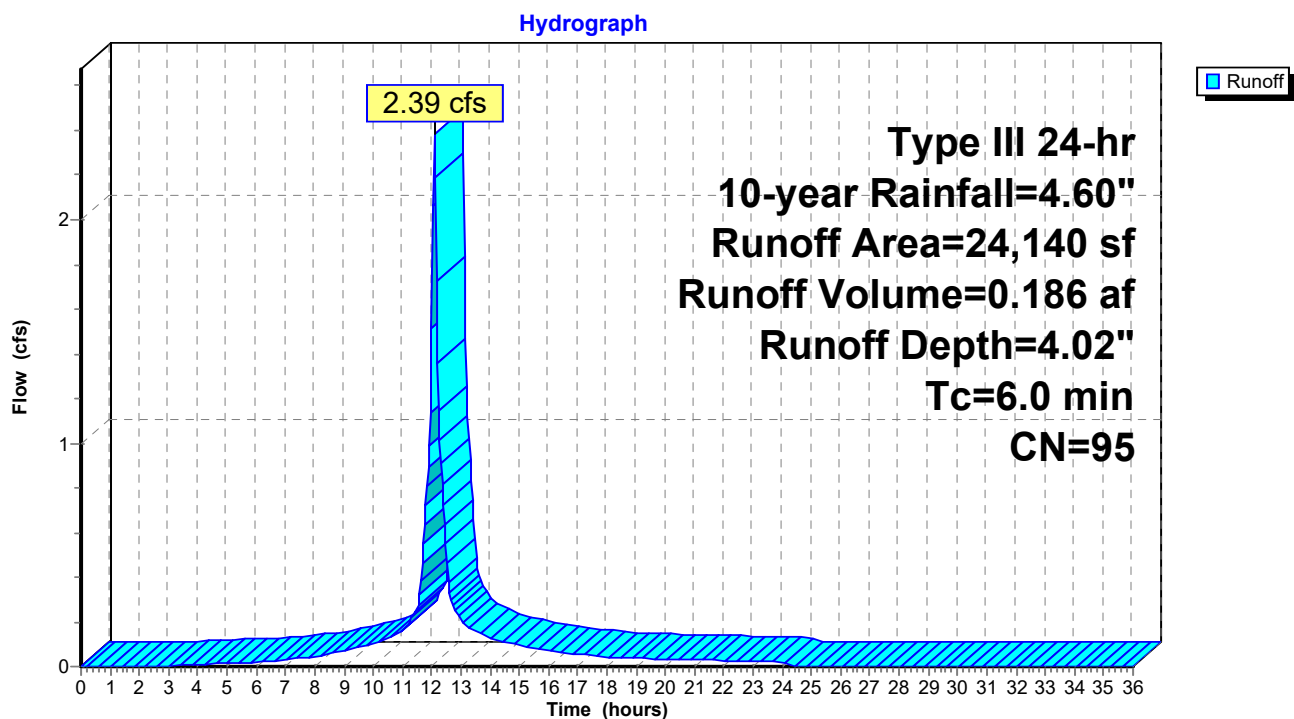
Runoff = 2.39 cfs @ 12.08 hrs, Volume= 0.186 af, Depth= 4.02"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.04 hrs
Type III 24-hr 10-year Rainfall=4.60"

	Area (sf)	CN	Description
*	21,305	98	Pavement, Sidewalk, and Rooftops
	2,835	74	>75% Grass cover, Good, HSG C
	24,140	95	Weighted Average
	2,835		11.74% Pervious Area
	21,305		88.26% Impervious Area

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

Subcatchment 2S.1: Subcat 2.1



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Summary for Subcatchment 2S.2: Subcat 2.2

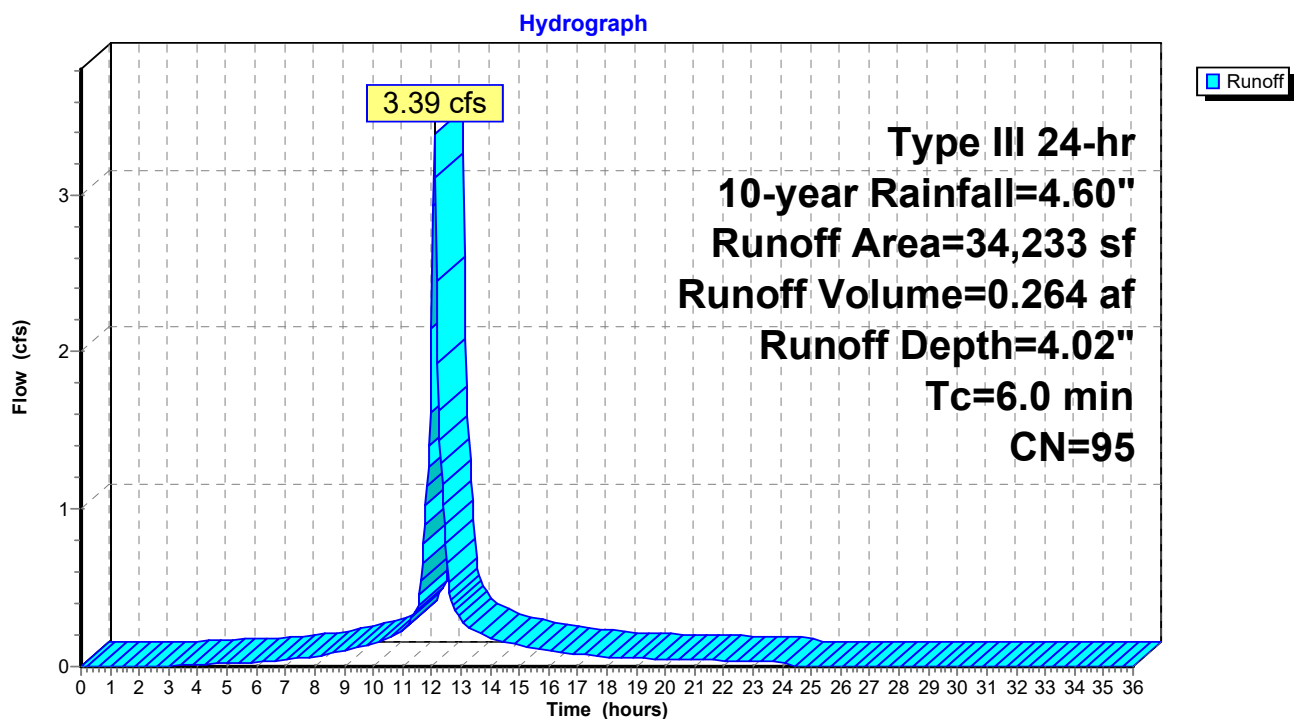
Runoff = 3.39 cfs @ 12.08 hrs, Volume= 0.264 af, Depth= 4.02"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.04 hrs
Type III 24-hr 10-year Rainfall=4.60"

	Area (sf)	CN	Description
*	30,266	98	Pavement, Roofs, Sidewalks
	3,967	74	>75% Grass cover, Good, HSG C
	34,233	95	Weighted Average
	3,967		11.59% Pervious Area
	30,266		88.41% Impervious Area

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

Subcatchment 2S.2: Subcat 2.2



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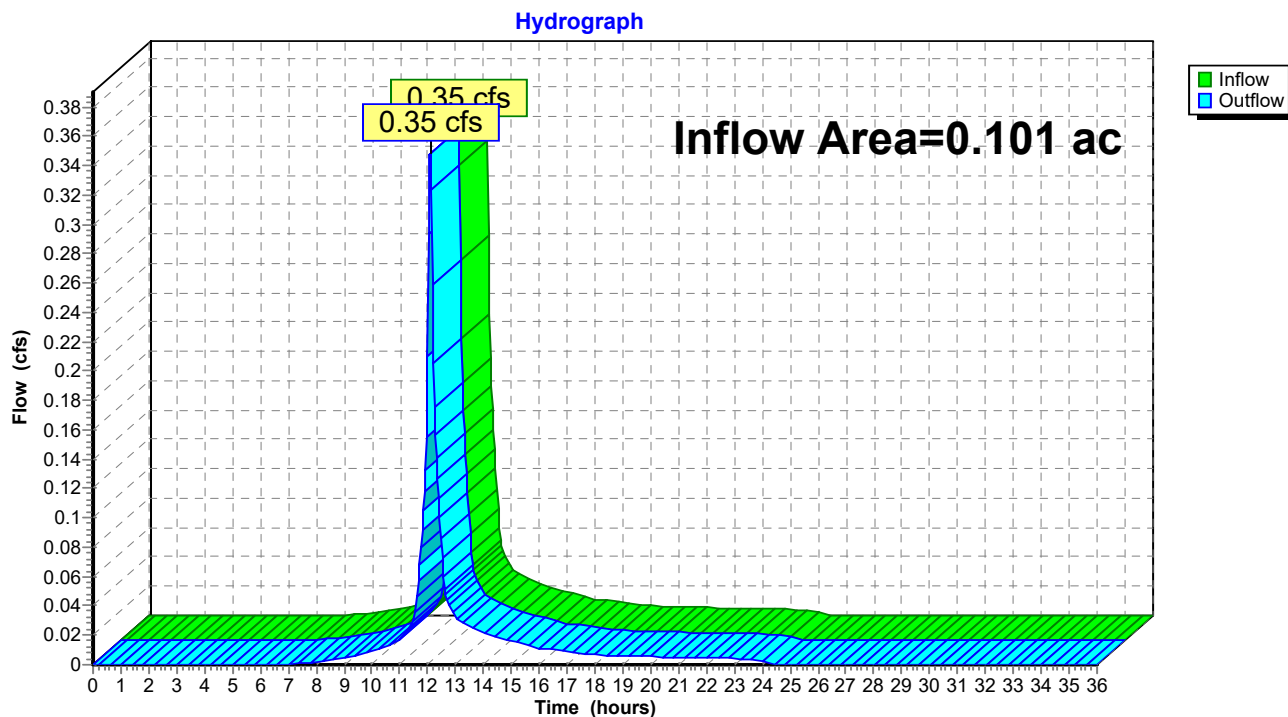
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Summary for Reach 1R: POI #1 - Sherwood St.

Inflow Area = 0.101 ac, 53.04% Impervious, Inflow Depth = 3.00" for 10-year event
Inflow = 0.35 cfs @ 12.09 hrs, Volume= 0.025 af
Outflow = 0.35 cfs @ 12.09 hrs, Volume= 0.025 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.04 hrs / 2

Reach 1R: POI #1 - Sherwood St.



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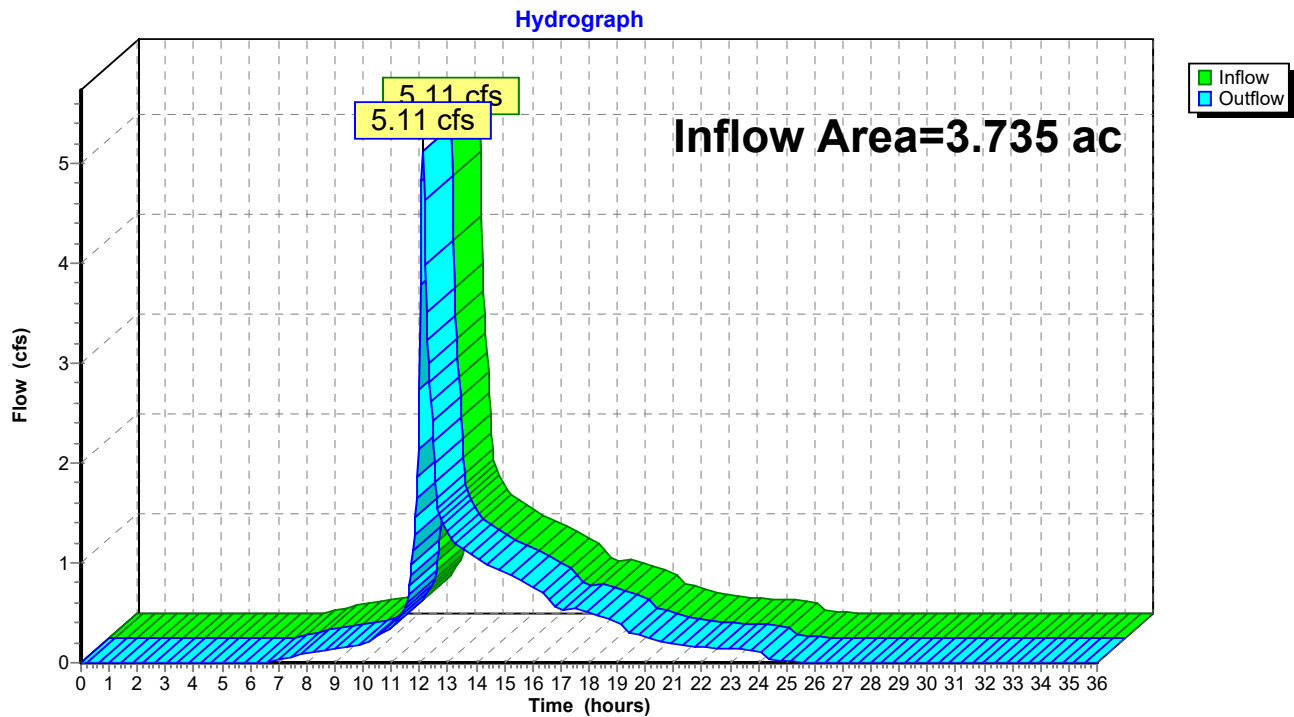
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Summary for Reach 2R: POI #2 - Wetland

Inflow Area = 3.735 ac, 33.34% Impervious, Inflow Depth = 2.53" for 10-year event
Inflow = 5.11 cfs @ 12.12 hrs, Volume= 0.788 af
Outflow = 5.11 cfs @ 12.12 hrs, Volume= 0.788 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.04 hrs / 2

Reach 2R: POI #2 - Wetland



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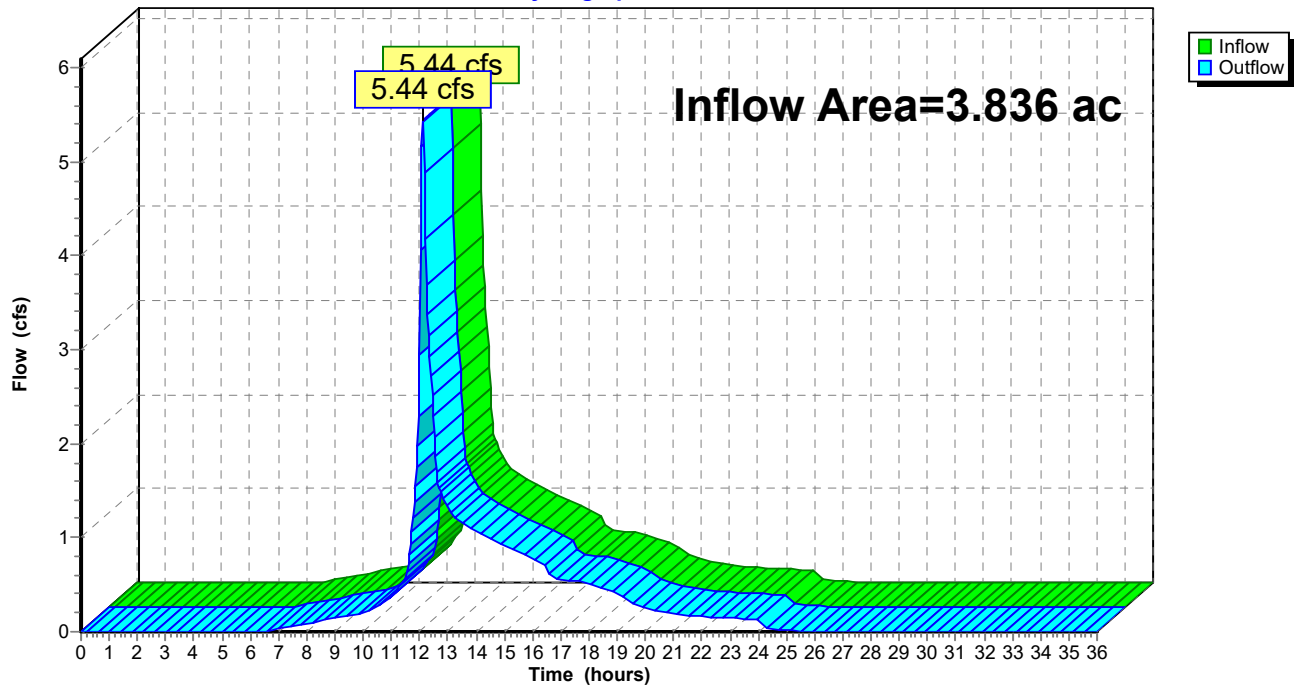
Summary for Reach 3R: TOTAL

Inflow Area = 3.836 ac, 33.85% Impervious, Inflow Depth = 2.54" for 10-year event
Inflow = 5.44 cfs @ 12.11 hrs, Volume= 0.813 af
Outflow = 5.44 cfs @ 12.11 hrs, Volume= 0.813 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.04 hrs / 2

Reach 3R: TOTAL

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Summary for Pond P1: StormTech 3500

Inflow Area = 0.554 ac, 88.26% Impervious, Inflow Depth = 4.02" for 10-year event
 Inflow = 2.39 cfs @ 12.08 hrs, Volume= 0.186 af
 Outflow = 0.35 cfs @ 12.58 hrs, Volume= 0.182 af, Atten= 85%, Lag= 29.6 min
 Primary = 0.35 cfs @ 12.58 hrs, Volume= 0.182 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.04 hrs / 2

Peak Elev= 18.03' @ 12.58 hrs Surf.Area= 3,735 sf Storage= 3,077 cf

Flood Elev= 20.05' Surf.Area= 3,735 sf Storage= 4,440 cf

Plug-Flow detention time= 99.2 min calculated for 0.182 af (98% of inflow)

Center-of-Mass det. time= 86.7 min (857.2 - 770.5)

Volume	Invert	Avail.Storage	Storage Description
#1	15.30'	1,386 cf	28.67'W x 43.42'L x 4.75'H Stone 5,913 cf Overall - 2,449 cf Embedded = 3,464 cf x 40.0% Voids
#2	15.80'	2,449 cf	ADS_StormTech MC-3500 d +Cap @ 7.50' L x 20 Inside #1 Effective Size= 70.4"W x 45.0"H => 15.33 sf x 7.50'L = 115.0 cf Overall Size= 77.0"W x 45.0"H x 7.50'L with 0.33' Overlap 20 Chambers in 5 Rows Cap Storage= +14.9 cf x 2 x 5 rows = 149.0 cf
#3	13.80'	93 cf	28.67'W x 43.42'L x 1.50'H Sand 1,867 cf Overall x 5.0% Voids
#4	12.80'	489 cf	28.67'W x 43.42'L x 1.00'H Crushed Stone 1,245 cf Overall - 23 cf Embedded = 1,222 cf x 40.0% Voids
#5	13.13'	23 cf	4.0" Round Underdrain Storage Inside #4 L= 260.0'
4,440 cf			Total Available Storage

Device	Routing	Invert	Outlet Devices
#1	Primary	12.86'	18.0" Round Culvert L= 140.0' Ke= 0.600 Inlet / Outlet Invert= 12.86' / 11.38' S= 0.0106 '/' Cc= 0.900 n= 0.012, Flow Area= 1.77 sf
#2	Device 1	13.13'	2.5" Vert. Underdrain/Orifice C= 0.600
#3	Device 1	18.55'	12.0" Round Bypass Overflow L= 17.0' Ke= 0.600 Inlet / Outlet Invert= 18.55' / 16.50' S= 0.1206 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.35 cfs @ 12.58 hrs HW=18.03' TW=13.39' (Dynamic Tailwater)

1=Culvert (Passes 0.35 cfs of 15.70 cfs potential flow)

2=Underdrain/Orifice (Orifice Controls 0.35 cfs @ 10.37 fps)

3=Bypass Overflow (Controls 0.00 cfs)

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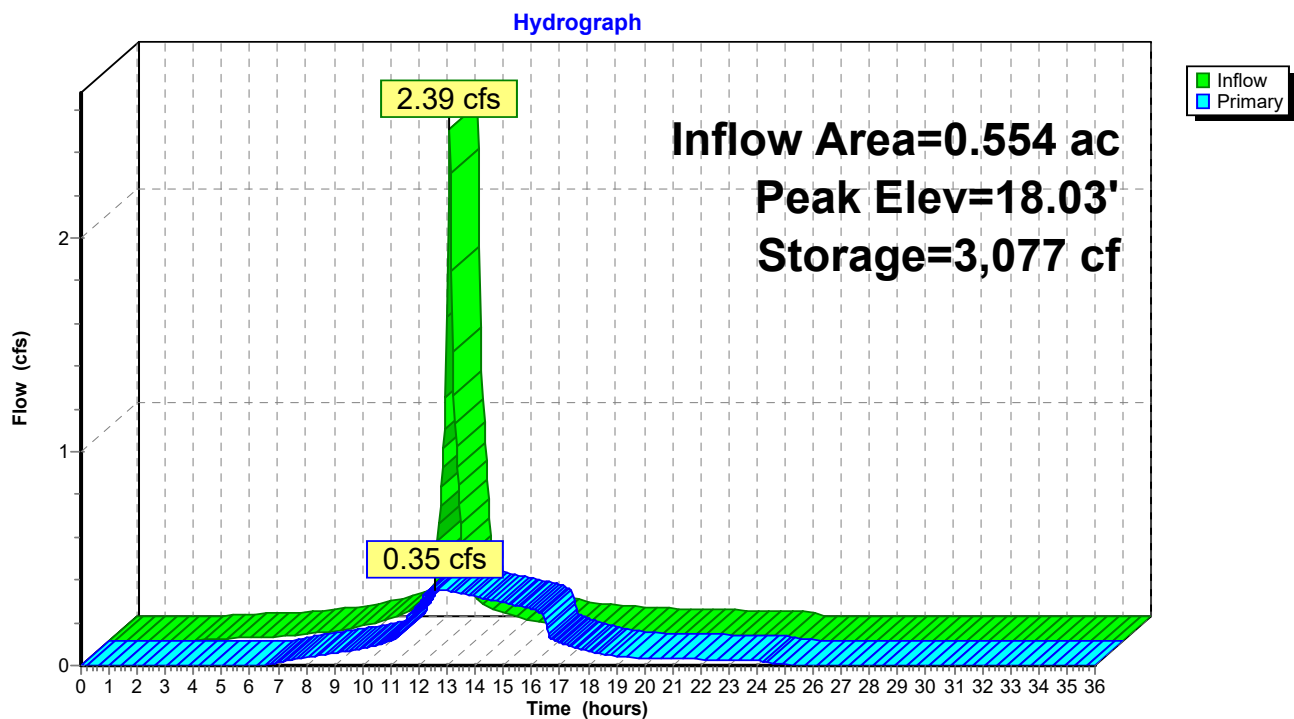
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Pond P1: StormTech 3500



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

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Summary for Pond P2: StormTech 3500

Inflow Area = 0.786 ac, 88.41% Impervious, Inflow Depth = 4.02" for 10-year event
 Inflow = 3.39 cfs @ 12.08 hrs, Volume= 0.264 af
 Outflow = 0.37 cfs @ 12.76 hrs, Volume= 0.258 af, Atten= 89%, Lag= 40.8 min
 Primary = 0.37 cfs @ 12.76 hrs, Volume= 0.258 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.04 hrs / 2

Peak Elev= 16.67' @ 12.76 hrs Surf.Area= 5,397 sf Storage= 5,111 cf

Flood Elev= 18.18' Surf.Area= 5,397 sf Storage= 6,440 cf

Plug-Flow detention time= 156.1 min calculated for 0.258 af (98% of inflow)

Center-of-Mass det. time= 142.8 min (913.3 - 770.5)

Volume	Invert	Avail.Storage	Storage Description
#1	13.43'	1,978 cf	35.33'W x 50.92'L x 4.75'H Stone 8,545 cf Overall - 3,599 cf Embedded = 4,946 cf x 40.0% Voids
#2	13.93'	3,599 cf	ADS_StormTech MC-3500 d +Cap @ 7.50' L x 30 Inside #1 Effective Size= 70.4"W x 45.0"H => 15.33 sf x 7.50'L = 115.0 cf Overall Size= 77.0"W x 45.0"H x 7.50'L with 0.33' Overlap 30 Chambers in 5 Rows Cap Storage= +14.9 cf x 2 x 5 rows = 149.0 cf
#3	12.93'	135 cf	35.33'W x 50.92'L x 1.50'H Sand 2,699 cf Overall x 5.0% Voids
#4	11.93'	714 cf	35.33'W x 50.92'L x 1.00'H Crushed Stone 1,799 cf Overall - 14 cf Embedded = 1,785 cf x 40.0% Voids
#5	12.26'	14 cf	4.0" Round Underdrain Storage Inside #4 L= 157.0'
		6,440 cf	Total Available Storage

Device	Routing	Invert	Outlet Devices
#1	Primary	11.28'	18.0" Round Culvert L= 14.4' Ke= 0.600 Inlet / Outlet Invert= 11.28' / 11.00' S= 0.0194 '/' Cc= 0.900 n= 0.012 Corrugated PP, smooth interior, Flow Area= 1.77 sf
#2	Device 1	12.26'	3.0" Round Underdrain & Orifice L= 12.2' Ke= 0.600 Inlet / Outlet Invert= 12.26' / 11.38' S= 0.0721 '/' Cc= 0.900 n= 0.012, Flow Area= 0.05 sf
#3	Device 1	16.68'	12.0" Round Bypass Overflow L= 12.3' Ke= 0.600 Inlet / Outlet Invert= 16.68' / 14.50' S= 0.1772 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.37 cfs @ 12.76 hrs HW=16.67' TW=13.39' (Dynamic Tailwater)

1=Culvert (Passes 0.37 cfs of 14.46 cfs potential flow)

2=Underdrain & Orifice (Outlet Controls 0.37 cfs @ 7.59 fps)

3=Bypass Overflow (Controls 0.00 cfs)

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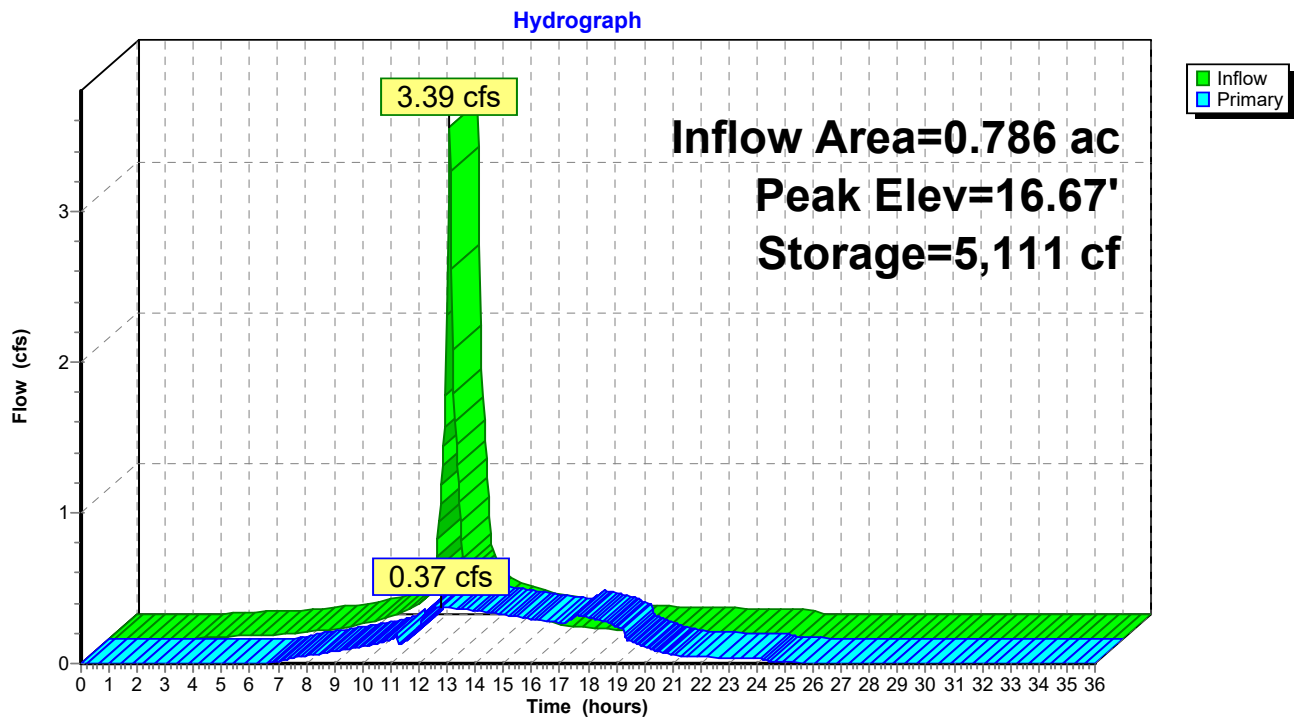
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Pond P2: StormTech 3500



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Summary for Pond P5: OCS

Inflow Area = 1.340 ac, 88.35% Impervious, Inflow Depth > 3.94" for 10-year event
Inflow = 0.73 cfs @ 12.65 hrs, Volume= 0.440 af
Outflow = 0.73 cfs @ 12.65 hrs, Volume= 0.440 af, Atten= 0%, Lag= 0.0 min
Primary = 0.73 cfs @ 12.65 hrs, Volume= 0.440 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.04 hrs / 2

Peak Elev= 13.39' @ 12.65 hrs

Flood Elev= 20.60'

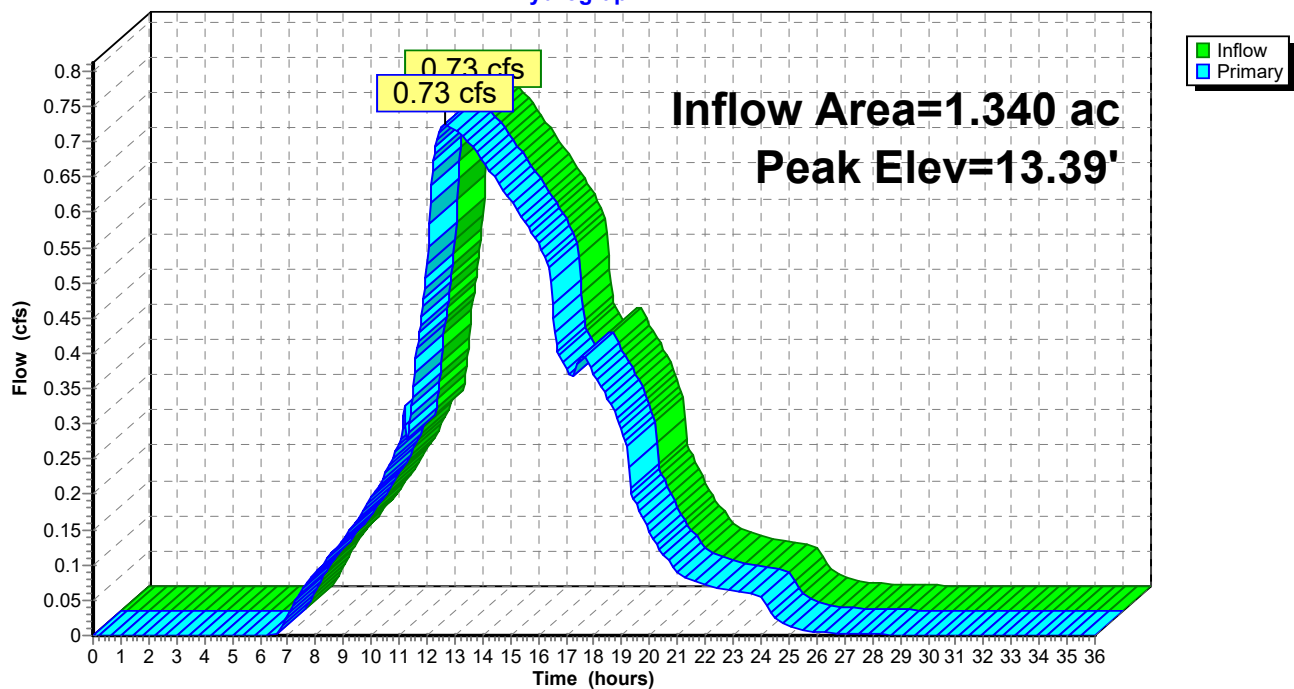
Device	Routing	Invert	Outlet Devices
#1	Primary	7.95'	18.0" Round 18" Outlet L= 34.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 7.95' / 7.80' S= 0.0044 '/ Cc= 0.900 n= 0.010, Flow Area= 1.77 sf
#2	Device 1	8.05'	2.5" Vert. Quality Orifice C= 0.600
#3	Device 1	13.00'	6.0" Vert. Quantity Orifice C= 0.600
#4	Device 1	18.00'	6.0' long x 0.7' 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 Coef. (English) 2.76 2.82 2.93 3.09 3.18 3.22 3.27 3.30 3.32 3.31 3.32

Primary OutFlow Max=0.73 cfs @ 12.65 hrs HW=13.39' TW=0.00' (Dynamic Tailwater)

- 1=18" Outlet (Passes 0.73 cfs of 14.55 cfs potential flow)
- 2=Quality Orifice (Orifice Controls 0.38 cfs @ 11.02 fps)
- 3=Quantity Orifice (Orifice Controls 0.35 cfs @ 2.13 fps)
- 4=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond P5: OCS

Hydrograph



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Time span=0.00-36.00 hrs, dt=0.04 hrs, 901 points x 2
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment1S: Subcat 1	Runoff Area=4,385 sf 53.04% Impervious Runoff Depth=4.11" Tc=6.0 min CN=85 Runoff=0.47 cfs 0.035 af
Subcatchment2S: Subcat 2.0	Runoff Area=104,338 sf 2.56% Impervious Runoff Depth=2.65" Flow Length=126' Tc=7.3 min CN=70 Runoff=6.97 cfs 0.528 af
Subcatchment2S.1: Subcat 2.1	Runoff Area=24,140 sf 88.26% Impervious Runoff Depth=5.21" Tc=6.0 min CN=95 Runoff=3.05 cfs 0.241 af
Subcatchment2S.2: Subcat 2.2	Runoff Area=34,233 sf 88.41% Impervious Runoff Depth=5.21" Tc=6.0 min CN=95 Runoff=4.33 cfs 0.341 af
Reach 1R: POI #1 - Sherwood St.	Inflow=0.47 cfs 0.035 af Outflow=0.47 cfs 0.035 af
Reach 2R: POI #2 - Wetland	Inflow=7.65 cfs 1.101 af Outflow=7.65 cfs 1.101 af
Reach 3R: TOTAL	Inflow=8.10 cfs 1.136 af Outflow=8.10 cfs 1.136 af
Pond P1: StormTech 3500	Peak Elev=18.94' Storage=3,830 cf Inflow=3.05 cfs 0.241 af Outflow=0.83 cfs 0.237 af
Pond P2: StormTech 3500	Peak Elev=17.30' Storage=5,778 cf Inflow=4.33 cfs 0.341 af Outflow=1.46 cfs 0.336 af
Pond P5: OCS	Peak Elev=16.54' Inflow=2.19 cfs 0.573 af Outflow=2.19 cfs 0.573 af

Total Runoff Area = 3.836 ac Runoff Volume = 1.145 af Average Runoff Depth = 3.58"
66.15% Pervious = 2.537 ac 33.85% Impervious = 1.299 ac

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

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Summary for Subcatchment 1S: Subcat 1

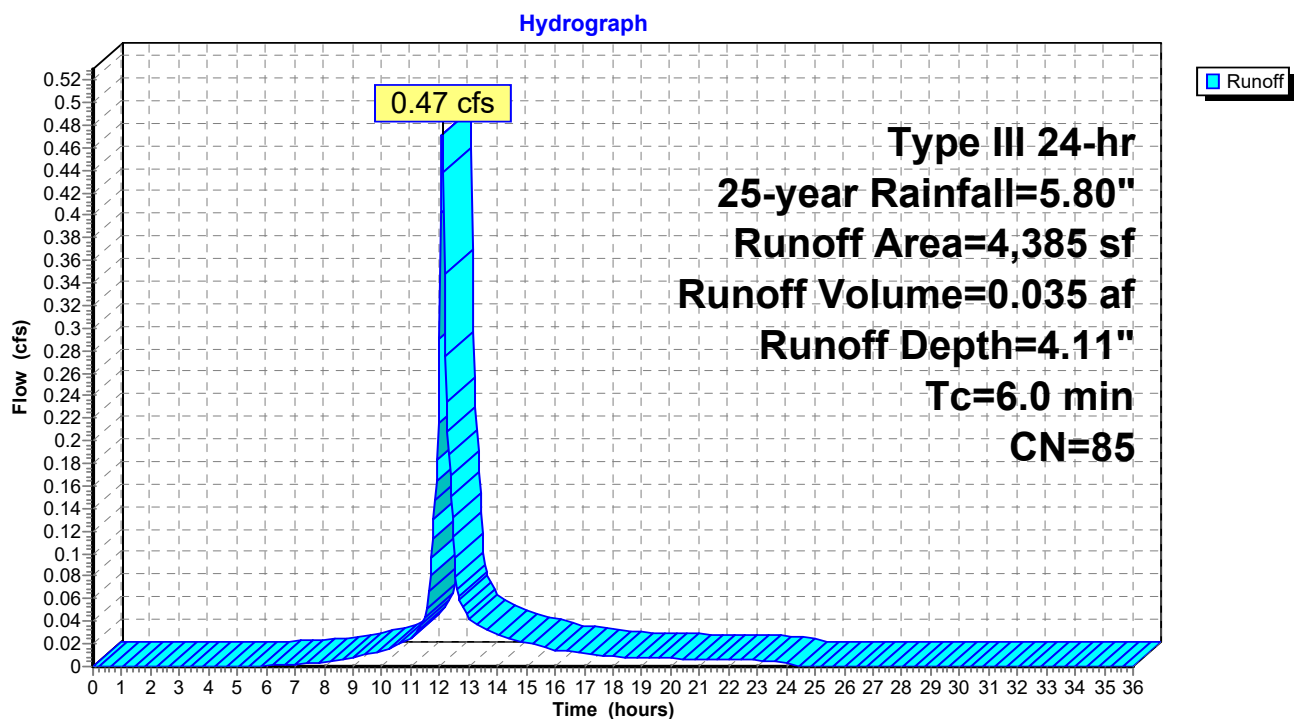
Runoff = 0.47 cfs @ 12.09 hrs, Volume= 0.035 af, Depth= 4.11"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.04 hrs
Type III 24-hr 25-year Rainfall=5.80"

	Area (sf)	CN	Description
*	2,059	70	Cr. Stone/Misc. Vegetation
*	2,326	98	Road/Sidewalk
	4,385	85	Weighted Average
	2,059		46.96% Pervious Area
	2,326		53.04% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, Steep banks to pipe flow

Subcatchment 1S: Subcat 1



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Summary for Subcatchment 2S: Subcat 2.0

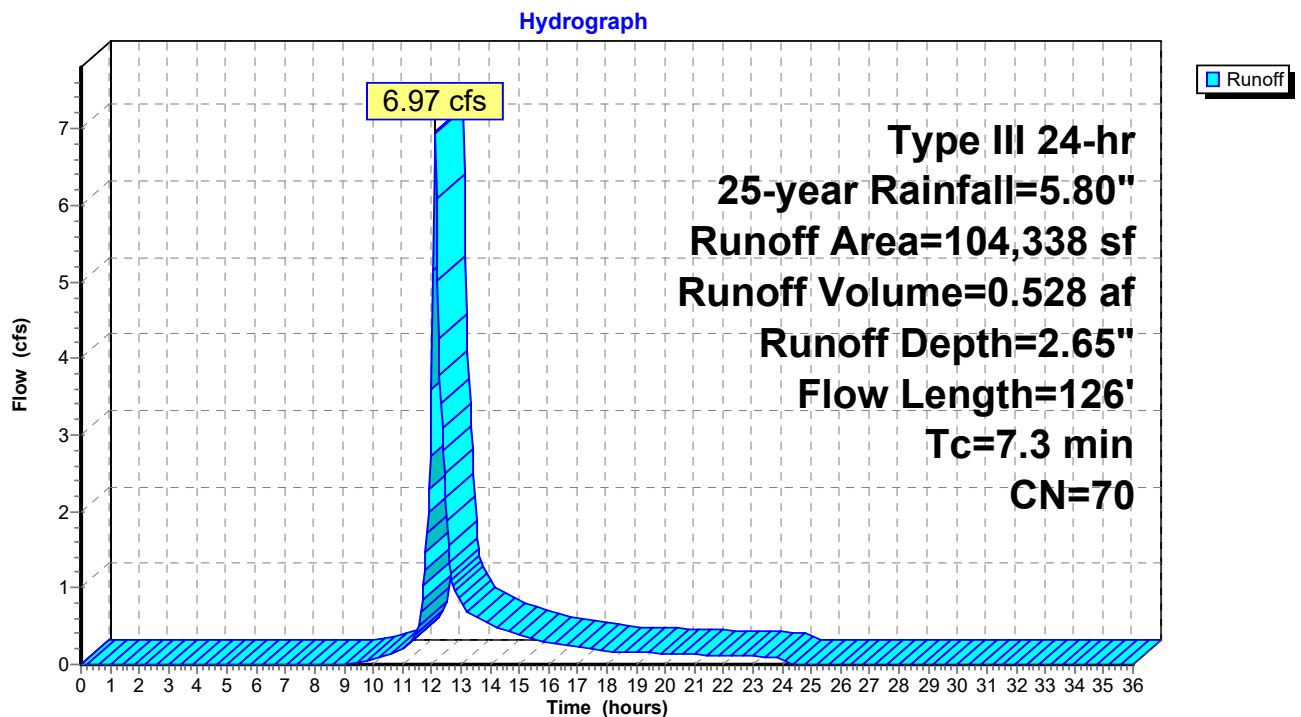
Runoff = 6.97 cfs @ 12.11 hrs, Volume= 0.528 af, Depth= 2.65"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.04 hrs
Type III 24-hr 25-year Rainfall=5.80"

	Area (sf)	CN	Description
*	2,671	98	Concrete Pads / Patio / Stairs
	21,511	66	Woods, Poor, HSG B
*	5,847	70	Cr. Stone
	50,176	74	>75% Grass cover, Good, HSG C
	24,133	61	>75% Grass cover, Good, HSG B
	104,338	70	Weighted Average
	101,667		97.44% Pervious Area
	2,671		2.56% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.2	100	0.0425	0.23		Sheet Flow, A to B Grass: Short n= 0.150 P2= 3.27"
0.1	26	0.2770	3.68		Shallow Concentrated Flow, B to C Short Grass Pasture Kv= 7.0 fps
7.3	126	Total			

Subcatchment 2S: Subcat 2.0



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Summary for Subcatchment 2S.1: Subcat 2.1

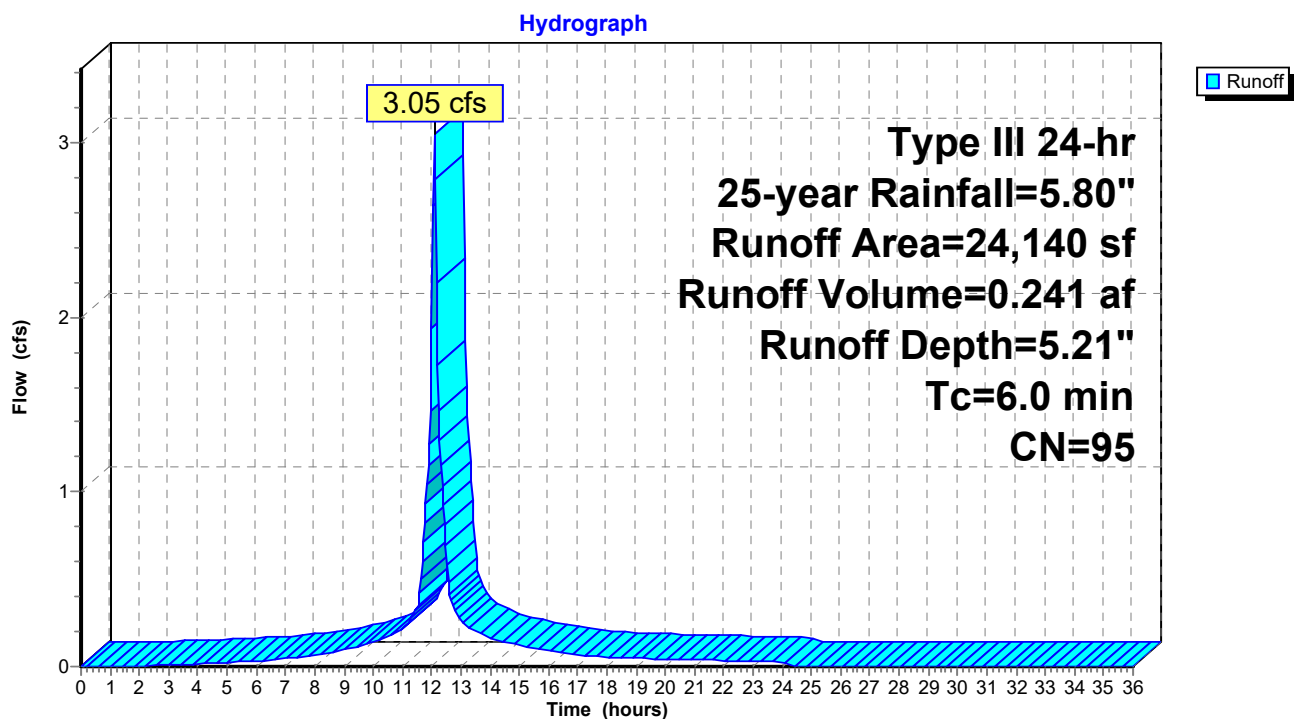
Runoff = 3.05 cfs @ 12.08 hrs, Volume= 0.241 af, Depth= 5.21"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.04 hrs
Type III 24-hr 25-year Rainfall=5.80"

	Area (sf)	CN	Description
*	21,305	98	Pavement, Sidewalk, and Rooftops
	2,835	74	>75% Grass cover, Good, HSG C
	24,140	95	Weighted Average
	2,835		11.74% Pervious Area
	21,305		88.26% Impervious Area

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

Subcatchment 2S.1: Subcat 2.1



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Summary for Subcatchment 2S.2: Subcat 2.2

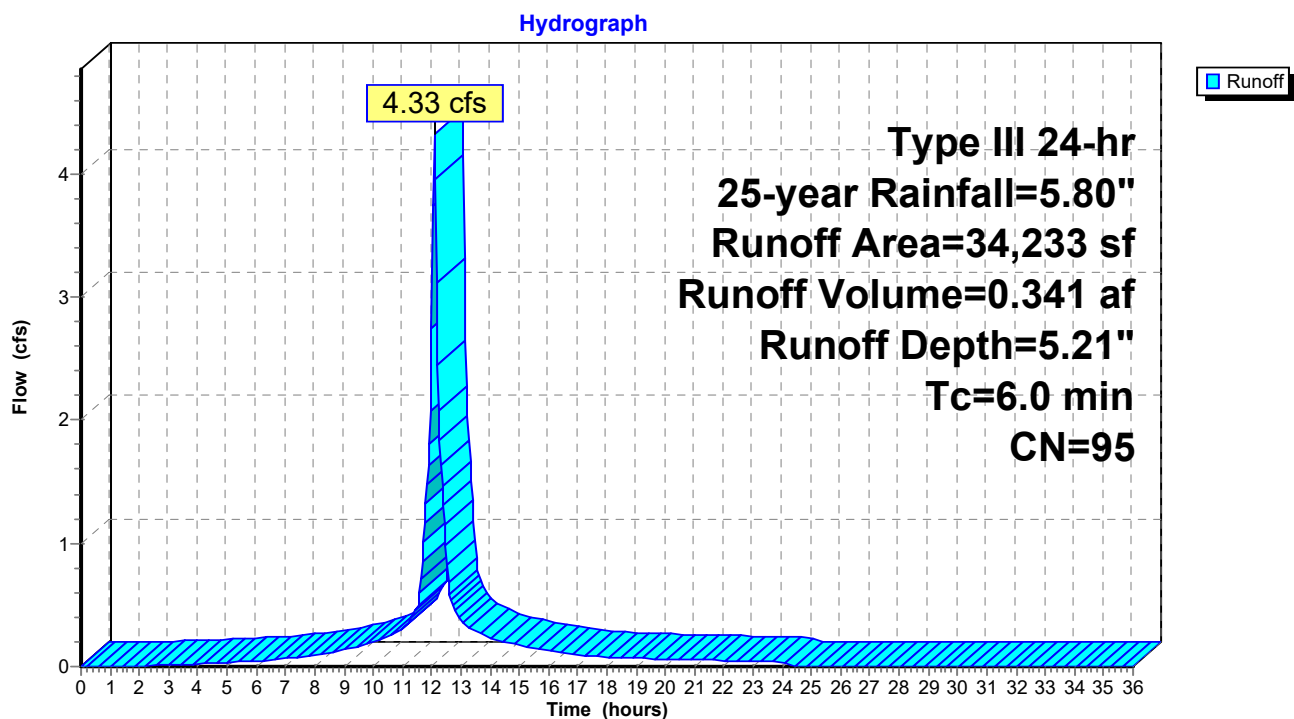
Runoff = 4.33 cfs @ 12.08 hrs, Volume= 0.341 af, Depth= 5.21"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.04 hrs
Type III 24-hr 25-year Rainfall=5.80"

	Area (sf)	CN	Description
*	30,266	98	Pavement, Roofs, Sidewalks
	3,967	74	>75% Grass cover, Good, HSG C
	34,233	95	Weighted Average
	3,967		11.59% Pervious Area
	30,266		88.41% Impervious Area

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

Subcatchment 2S.2: Subcat 2.2



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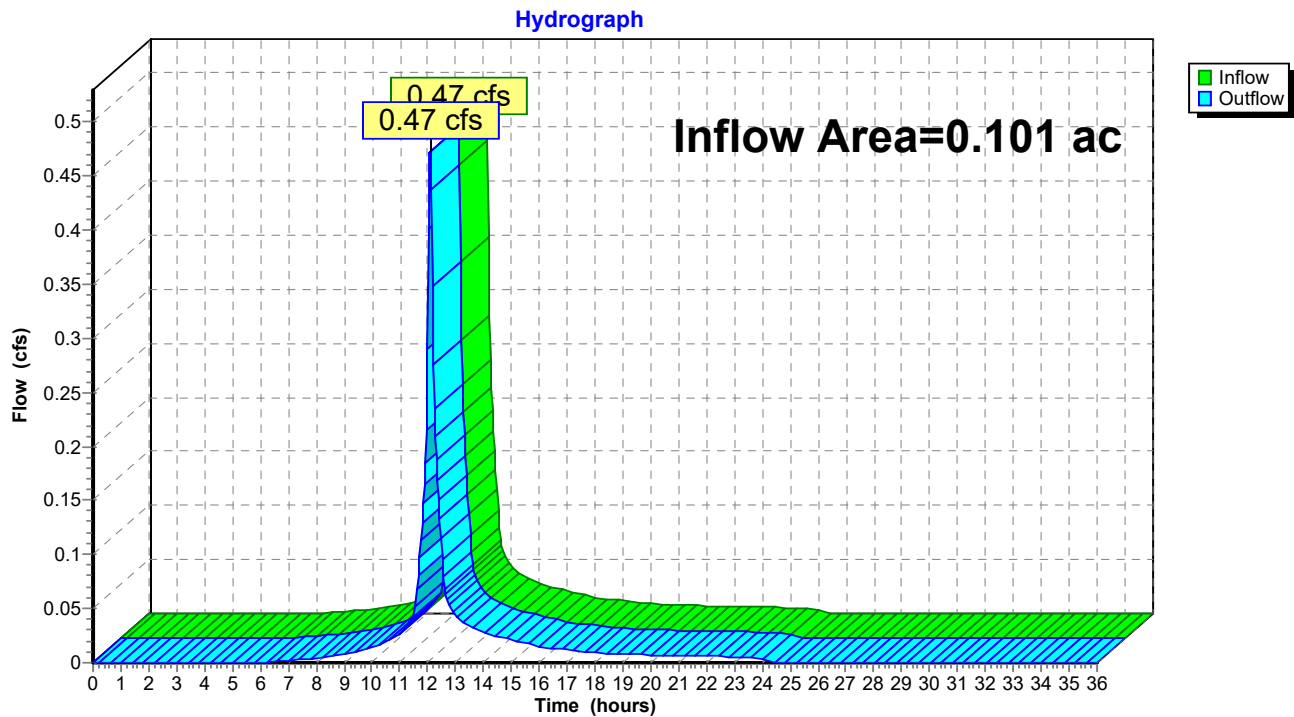
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Summary for Reach 1R: POI #1 - Sherwood St.

Inflow Area = 0.101 ac, 53.04% Impervious, Inflow Depth = 4.11" for 25-year event
Inflow = 0.47 cfs @ 12.09 hrs, Volume= 0.035 af
Outflow = 0.47 cfs @ 12.09 hrs, Volume= 0.035 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.04 hrs / 2

Reach 1R: POI #1 - Sherwood St.



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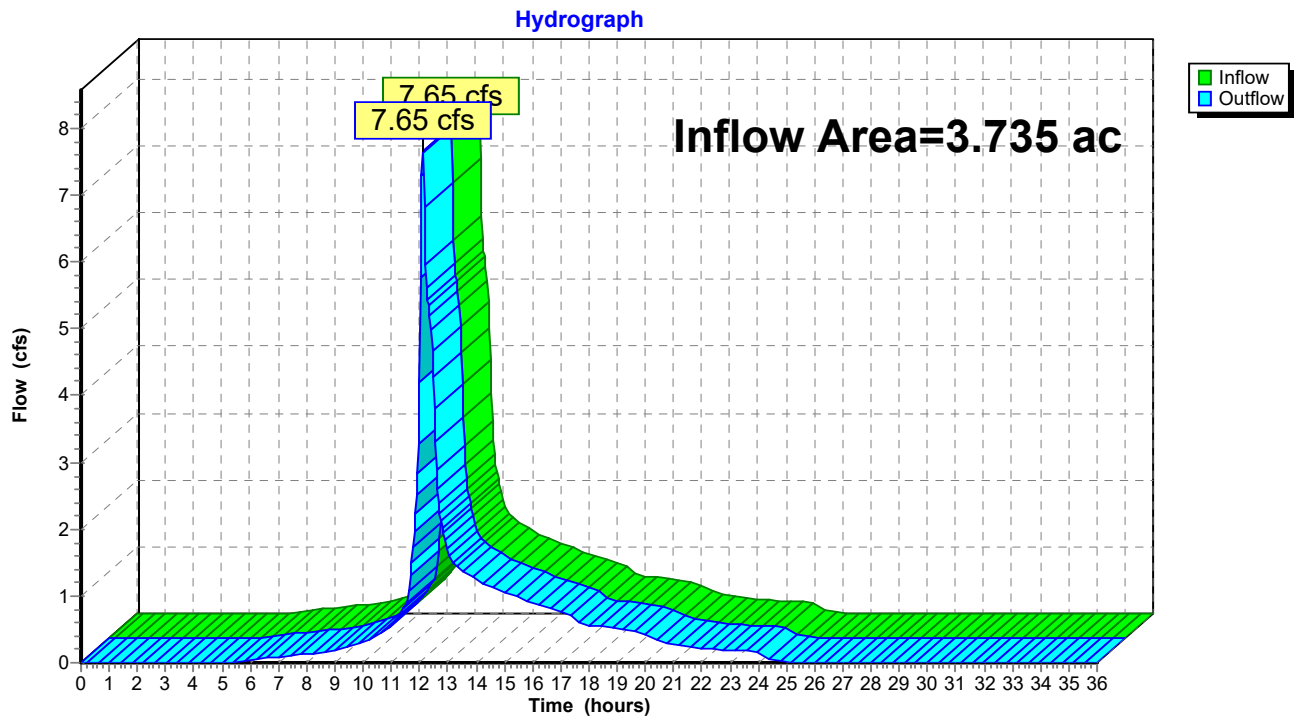
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Summary for Reach 2R: POI #2 - Wetland

Inflow Area = 3.735 ac, 33.34% Impervious, Inflow Depth = 3.54" for 25-year event
Inflow = 7.65 cfs @ 12.11 hrs, Volume= 1.101 af
Outflow = 7.65 cfs @ 12.11 hrs, Volume= 1.101 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.04 hrs / 2

Reach 2R: POI #2 - Wetland



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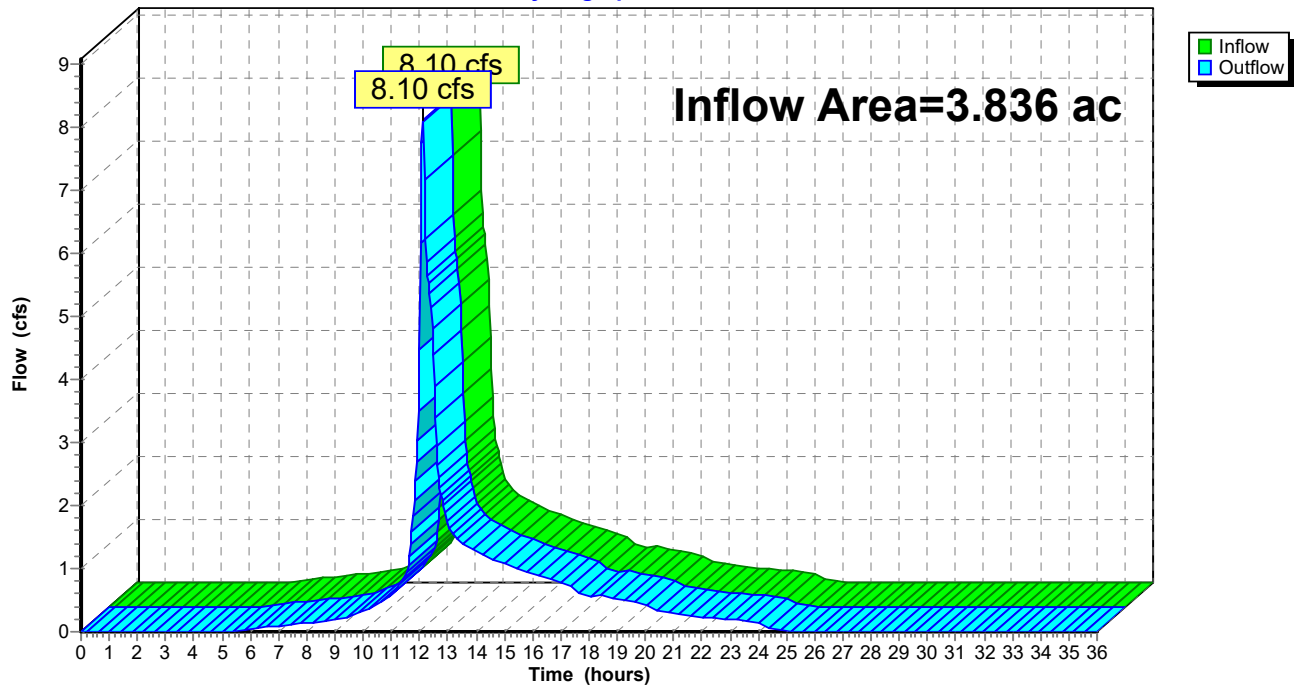
Summary for Reach 3R: TOTAL

Inflow Area = 3.836 ac, 33.85% Impervious, Inflow Depth = 3.55" for 25-year event
Inflow = 8.10 cfs @ 12.11 hrs, Volume= 1.136 af
Outflow = 8.10 cfs @ 12.11 hrs, Volume= 1.136 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.04 hrs / 2

Reach 3R: TOTAL

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Summary for Pond P1: StormTech 3500

Inflow Area = 0.554 ac, 88.26% Impervious, Inflow Depth = 5.21" for 25-year event
 Inflow = 3.05 cfs @ 12.08 hrs, Volume= 0.241 af
 Outflow = 0.83 cfs @ 12.45 hrs, Volume= 0.237 af, Atten= 73%, Lag= 22.0 min
 Primary = 0.83 cfs @ 12.45 hrs, Volume= 0.237 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.04 hrs / 2

Peak Elev= 18.94' @ 12.44 hrs Surf.Area= 3,735 sf Storage= 3,830 cf

Flood Elev= 20.05' Surf.Area= 3,735 sf Storage= 4,440 cf

Plug-Flow detention time= 101.4 min calculated for 0.237 af (98% of inflow)

Center-of-Mass det. time= 91.1 min (855.6 - 764.5)

Volume	Invert	Avail.Storage	Storage Description
#1	15.30'	1,386 cf	28.67'W x 43.42'L x 4.75'H Stone 5,913 cf Overall - 2,449 cf Embedded = 3,464 cf x 40.0% Voids
#2	15.80'	2,449 cf	ADS_StormTech MC-3500 d +Cap @ 7.50' L x 20 Inside #1 Effective Size= 70.4"W x 45.0"H => 15.33 sf x 7.50'L = 115.0 cf Overall Size= 77.0"W x 45.0"H x 7.50'L with 0.33' Overlap 20 Chambers in 5 Rows Cap Storage= +14.9 cf x 2 x 5 rows = 149.0 cf
#3	13.80'	93 cf	28.67'W x 43.42'L x 1.50'H Sand 1,867 cf Overall x 5.0% Voids
#4	12.80'	489 cf	28.67'W x 43.42'L x 1.00'H Crushed Stone 1,245 cf Overall - 23 cf Embedded = 1,222 cf x 40.0% Voids
#5	13.13'	23 cf	4.0" Round Underdrain Storage Inside #4 L= 260.0'
4,440 cf			Total Available Storage

Device	Routing	Invert	Outlet Devices
#1	Primary	12.86'	18.0" Round Culvert L= 140.0' Ke= 0.600 Inlet / Outlet Invert= 12.86' / 11.38' S= 0.0106 '/' Cc= 0.900 n= 0.012, Flow Area= 1.77 sf
#2	Device 1	13.13'	2.5" Vert. Underdrain/Orifice C= 0.600
#3	Device 1	18.55'	12.0" Round Bypass Overflow L= 17.0' Ke= 0.600 Inlet / Outlet Invert= 18.55' / 16.50' S= 0.1206 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.82 cfs @ 12.45 hrs HW=18.94' TW=16.41' (Dynamic Tailwater)

- 1=Culvert (Passes 0.82 cfs of 11.59 cfs potential flow)
- 2=Underdrain/Orifice (Orifice Controls 0.26 cfs @ 7.66 fps)
- 3=Bypass Overflow (Inlet Controls 0.56 cfs @ 1.99 fps)

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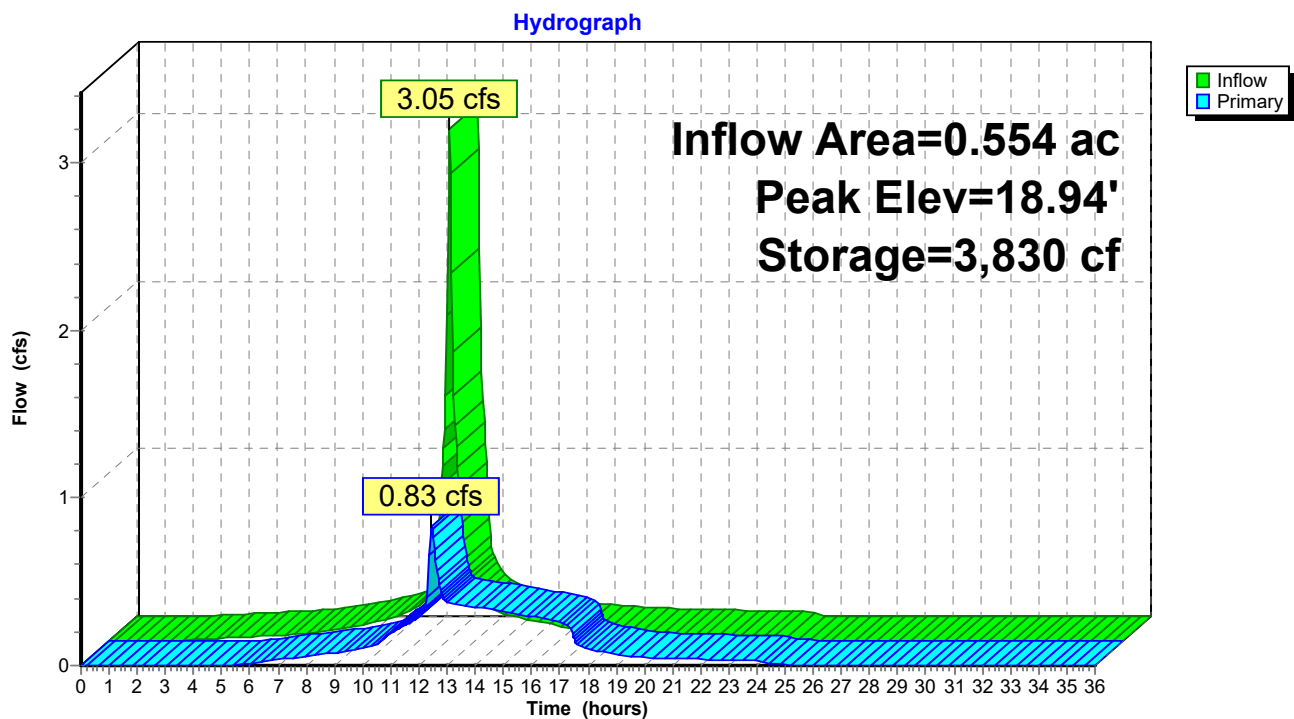
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Pond P1: StormTech 3500



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Summary for Pond P2: StormTech 3500

Inflow Area = 0.786 ac, 88.41% Impervious, Inflow Depth = 5.21" for 25-year event
 Inflow = 4.33 cfs @ 12.08 hrs, Volume= 0.341 af
 Outflow = 1.46 cfs @ 12.34 hrs, Volume= 0.336 af, Atten= 66%, Lag= 15.3 min
 Primary = 1.46 cfs @ 12.34 hrs, Volume= 0.336 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.04 hrs / 2

Peak Elev= 17.30' @ 12.37 hrs Surf.Area= 5,397 sf Storage= 5,778 cf

Flood Elev= 18.18' Surf.Area= 5,397 sf Storage= 6,440 cf

Plug-Flow detention time= 142.3 min calculated for 0.335 af (98% of inflow)

Center-of-Mass det. time= 132.2 min (896.6 - 764.5)

Volume	Invert	Avail.Storage	Storage Description
#1	13.43'	1,978 cf	35.33'W x 50.92'L x 4.75'H Stone 8,545 cf Overall - 3,599 cf Embedded = 4,946 cf x 40.0% Voids
#2	13.93'	3,599 cf	ADS_StormTech MC-3500 d +Cap @ 7.50' L x 30 Inside #1 Effective Size= 70.4"W x 45.0"H => 15.33 sf x 7.50'L = 115.0 cf Overall Size= 77.0"W x 45.0"H x 7.50'L with 0.33' Overlap 30 Chambers in 5 Rows Cap Storage= +14.9 cf x 2 x 5 rows = 149.0 cf
#3	12.93'	135 cf	35.33'W x 50.92'L x 1.50'H Sand 2,699 cf Overall x 5.0% Voids
#4	11.93'	714 cf	35.33'W x 50.92'L x 1.00'H Crushed Stone 1,799 cf Overall - 14 cf Embedded = 1,785 cf x 40.0% Voids
#5	12.26'	14 cf	4.0" Round Underdrain Storage Inside #4 L= 157.0'
		6,440 cf	Total Available Storage

Device	Routing	Invert	Outlet Devices
#1	Primary	11.28'	18.0" Round Culvert L= 14.4' Ke= 0.600 Inlet / Outlet Invert= 11.28' / 11.00' S= 0.0194 '/' Cc= 0.900 n= 0.012 Corrugated PP, smooth interior, Flow Area= 1.77 sf
#2	Device 1	12.26'	3.0" Round Underdrain & Orifice L= 12.2' Ke= 0.600 Inlet / Outlet Invert= 12.26' / 11.38' S= 0.0721 '/' Cc= 0.900 n= 0.012, Flow Area= 0.05 sf
#3	Device 1	16.68'	12.0" Round Bypass Overflow L= 12.3' Ke= 0.600 Inlet / Outlet Invert= 16.68' / 14.50' S= 0.1772 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=1.48 cfs @ 12.34 hrs HW=17.29' TW=15.95' (Dynamic Tailwater)

1=Culvert (Passes 1.48 cfs of 9.21 cfs potential flow)

2=Underdrain & Orifice (Outlet Controls 0.24 cfs @ 4.84 fps)

3=Bypass Overflow (Inlet Controls 1.24 cfs @ 2.49 fps)

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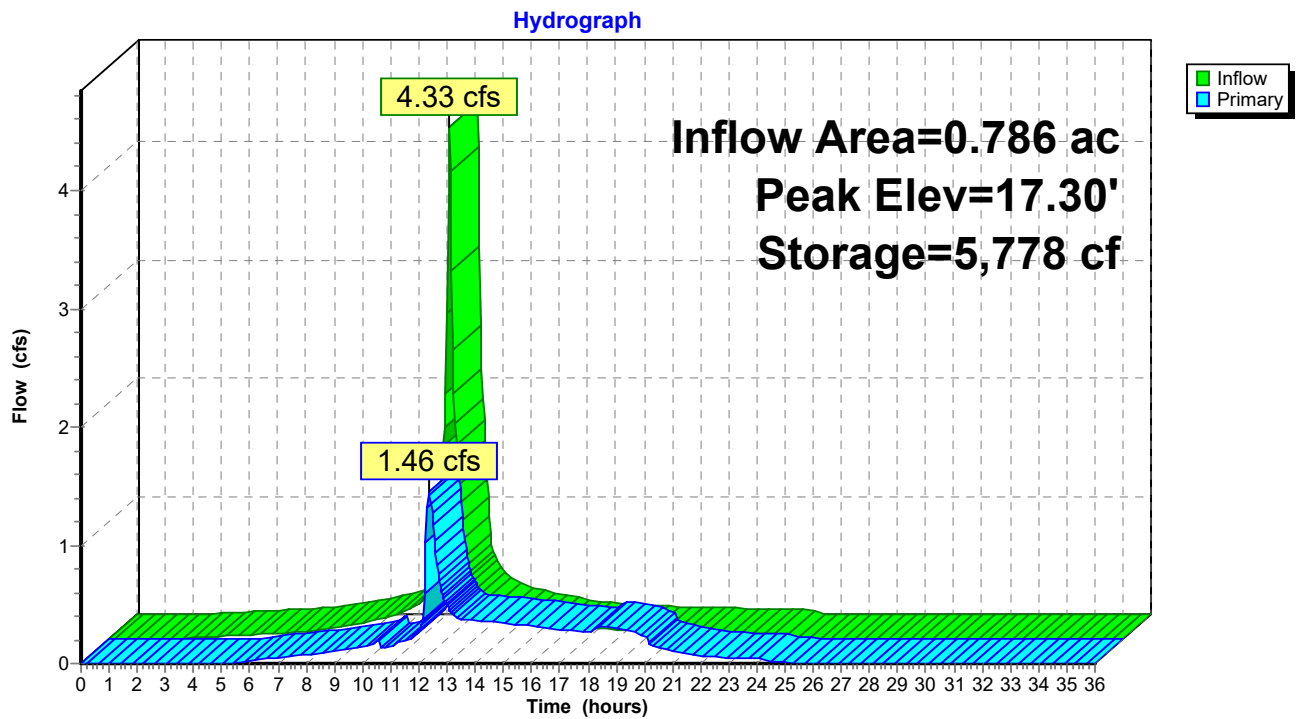
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Type III 24-hr 25-year Rainfall=5.80"

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Pond P2: StormTech 3500



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

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Summary for Pond P5: OCS

Inflow Area = 1.340 ac, 88.35% Impervious, Inflow Depth = 5.13" for 25-year event
Inflow = 2.19 cfs @ 12.42 hrs, Volume= 0.573 af
Outflow = 2.19 cfs @ 12.42 hrs, Volume= 0.573 af, Atten= 0%, Lag= 0.0 min
Primary = 2.19 cfs @ 12.42 hrs, Volume= 0.573 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.04 hrs / 2

Peak Elev= 16.54' @ 12.42 hrs

Flood Elev= 20.60'

Device	Routing	Invert	Outlet Devices
#1	Primary	7.95'	18.0" Round 18" Outlet L= 34.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 7.95' / 7.80' S= 0.0044 '/' Cc= 0.900 n= 0.010, Flow Area= 1.77 sf
#2	Device 1	8.05'	2.5" Vert. Quality Orifice C= 0.600
#3	Device 1	13.00'	6.0" Vert. Quantity Orifice C= 0.600
#4	Device 1	18.00'	6.0' long x 0.7' 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 Coef. (English) 2.76 2.82 2.93 3.09 3.18 3.22 3.27 3.30 3.32 3.31 3.32

Primary OutFlow Max=2.18 cfs @ 12.42 hrs HW=16.51' TW=0.00' (Dynamic Tailwater)

- 1=18" Outlet (Passes 2.18 cfs of 18.77 cfs potential flow)
- 2=Quality Orifice (Orifice Controls 0.47 cfs @ 13.92 fps)
- 3=Quantity Orifice (Orifice Controls 1.71 cfs @ 8.69 fps)
- 4=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Post Development

Prepared by HP

HydroCAD® 10.00-24 s/n 00620 © 2018 HydroCAD Software Solutions LLC

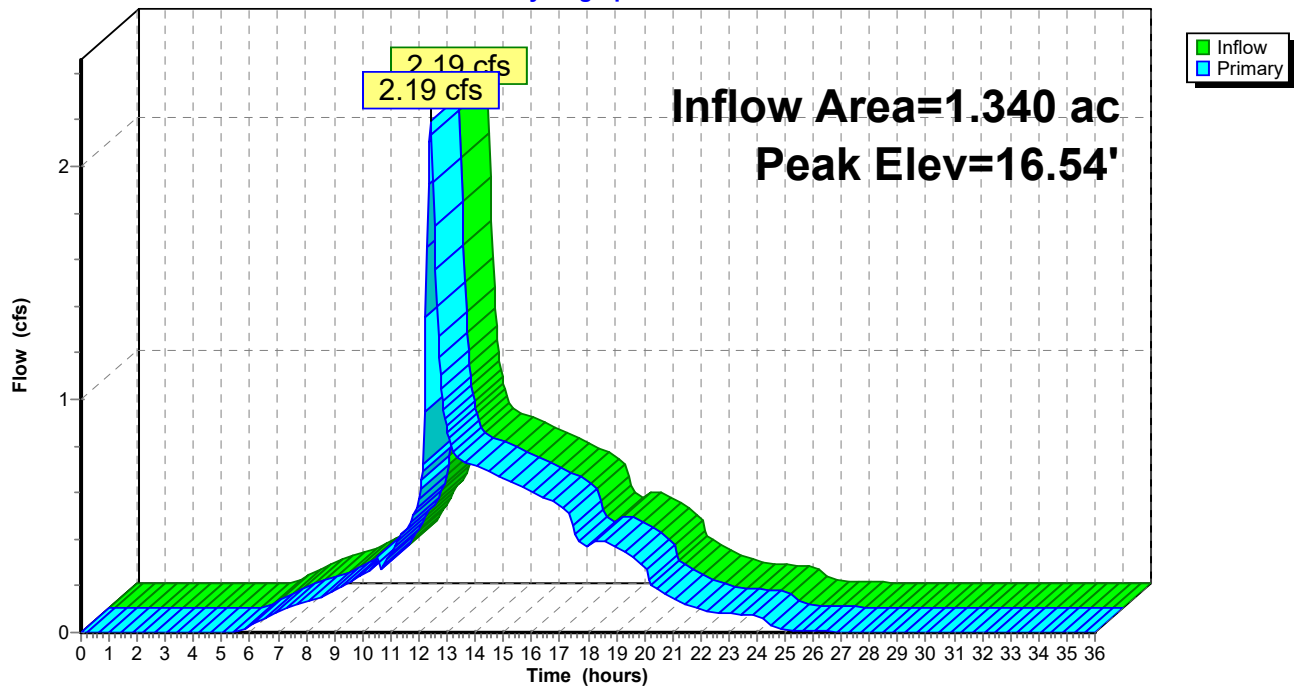
Type III 24-hr 25-year Rainfall=5.80"

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Pond P5: OCS

Hydrograph





United States
Department of
Agriculture

NRCS

Natural
Resources
Conservation
Service

A product of the National
Cooperative Soil Survey,
a joint effort of the United
States Department of
Agriculture and other
Federal agencies, State
agencies including the
Agricultural Experiment
Stations, and local
participants

Custom Soil Resource Report for Cumberland County and Part of Oxford County, Maine



March 11, 2021

Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (<http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/>) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (<https://offices.sc.egov.usda.gov/locator/app?agency=nrcs>) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

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How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

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identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Custom Soil Resource Report Soil Map



MAP LEGEND

Area of Interest (AOI)

 Area of Interest (AOI)

Soils

 Soil Map Unit Polygons

 Soil Map Unit Lines

 Soil Map Unit Points

Special Point Features

 Blowout

 Borrow Pit

 Clay Spot

 Closed Depression

 Gravel Pit

 Gravelly Spot

 Landfill

 Lava Flow

 Marsh or swamp

 Mine or Quarry

 Miscellaneous Water

 Perennial Water

 Rock Outcrop

 Saline Spot

 Sandy Spot

 Severely Eroded Spot

 Sinkhole

 Slide or Slip

 Sodic Spot

 Spoil Area

 Stony Spot

 Very Stony Spot

 Wet Spot

 Other

 Special Line Features

Water Features

 Streams and Canals

Transportation

 Rails

 Interstate Highways

 US Routes

 Major Roads

 Local Roads

Background

 Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Cumberland County and Part of Oxford County, Maine
Survey Area Data: Version 17, Jun 5, 2020

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Data not available.

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
BuC2	Buxton silt loam, 8 to 15 percent slopes	0.1	3.6%
Cu	Cut and fill land	0.0	0.0%
EmB	Elmwood fine sandy loam, 0 to 8 percent slopes	1.1	29.9%
SuD2	Suffield silt loam, 15 to 25 percent slopes, eroded	2.6	66.5%
Totals for Area of Interest		3.8	100.0%

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate

pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Cumberland County and Part of Oxford County, Maine

BuC2—Buxton silt loam, 8 to 15 percent slopes

Map Unit Setting

National map unit symbol: 2x1by
Elevation: 10 to 490 feet
Mean annual precipitation: 33 to 60 inches
Mean annual air temperature: 36 to 52 degrees F
Frost-free period: 90 to 160 days
Farmland classification: Not prime farmland

Map Unit Composition

Buxton and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Buxton

Setting

Landform: Marine terraces, river valleys
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Linear
Across-slope shape: Convex
Parent material: Fine glaciomarine deposits

Typical profile

Ap - 0 to 7 inches: silt loam
Bw1 - 7 to 18 inches: silt loam
Bw2 - 18 to 23 inches: silty clay loam
BC - 23 to 35 inches: silty clay loam
C - 35 to 65 inches: silty clay

Properties and qualities

Slope: 8 to 15 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Moderately well drained
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.14 in/hr)
Depth to water table: About 17 to 24 inches
Frequency of flooding: None
Frequency of ponding: None
Maximum salinity: Nonsaline (0.0 to 1.9 mmhos/cm)
Available water capacity: High (about 9.1 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3e
Hydrologic Soil Group: C/D
Hydric soil rating: No

Minor Components

Lamoine

Percent of map unit: 7 percent

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Landform: Marine terraces, river valleys
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Base slope
Down-slope shape: Concave
Across-slope shape: Linear
Hydric soil rating: No

Scantic

Percent of map unit: 5 percent
Landform: Marine terraces, river valleys
Landform position (two-dimensional): Toeslope, footslope
Landform position (three-dimensional): Base slope
Down-slope shape: Concave
Across-slope shape: Concave
Hydric soil rating: Yes

Buxton, >15% slopes

Percent of map unit: 3 percent
Landform: Marine terraces, river valleys
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Linear
Across-slope shape: Convex
Hydric soil rating: No

Cu—Cut and fill land

Map Unit Setting

National map unit symbol: blh4
Elevation: 10 to 2,200 feet
Mean annual precipitation: 30 to 55 inches
Mean annual air temperature: 37 to 46 degrees F
Frost-free period: 70 to 195 days
Farmland classification: Not prime farmland

Map Unit Composition

Cut and fill land: 90 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Cut And Fill Land

Typical profile

H1 - 0 to 65 inches: very gravelly sandy loam

Properties and qualities

Slope: 0 to 35 percent
Drainage class: Moderately well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to very high (0.06 to 20.00 in/hr)
Depth to water table: About 24 to 42 inches

Available water capacity: Moderate (about 6.6 inches)

Minor Components

Windsor

Percent of map unit: 2 percent
Landform: Kames, outwash terraces
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Riser
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Elmwood

Percent of map unit: 2 percent
Landform: Stream terraces
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Hollis

Percent of map unit: 2 percent
Landform: Hills
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Base slope
Down-slope shape: Convex
Across-slope shape: Convex
Hydric soil rating: No

Tidal marsh

Percent of map unit: 2 percent
Landform: Tidal flats
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Dip
Down-slope shape: Concave
Across-slope shape: Concave
Hydric soil rating: Yes

Buxton

Percent of map unit: 2 percent
Landform: Coastal plains
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

EmB—Elmwood fine sandy loam, 0 to 8 percent slopes

Map Unit Setting

National map unit symbol: blh8
Elevation: 10 to 900 feet
Mean annual precipitation: 36 to 55 inches
Mean annual air temperature: 39 to 46 degrees F
Frost-free period: 90 to 195 days
Farmland classification: All areas are prime farmland

Map Unit Composition

Elmwood and similar soils: 88 percent
Minor components: 12 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Elmwood

Setting

Landform: Stream terraces
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Coarse-loamy glaciolacustrine deposits

Typical profile

H1 - 0 to 8 inches: fine sandy loam
H2 - 8 to 25 inches: sandy loam
H3 - 25 to 65 inches: silty clay loam

Properties and qualities

Slope: 0 to 8 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Moderately well drained
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately high (0.00 to 0.20 in/hr)
Depth to water table: About 18 to 36 inches
Frequency of flooding: None
Frequency of ponding: None
Available water capacity: High (about 9.7 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2w
Hydrologic Soil Group: B
Hydric soil rating: No

Minor Components

Swanton

Percent of map unit: 7 percent
Landform: Stream terraces
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: Yes

Melrose

Percent of map unit: 3 percent
Landform: Stream terraces
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Riser
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Whately

Percent of map unit: 2 percent
Landform: Stream terraces
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Tread
Down-slope shape: Concave
Across-slope shape: Concave
Hydric soil rating: Yes

SuD2—Suffield silt loam, 15 to 25 percent slopes, eroded

Map Unit Setting

National map unit symbol: blk2
Elevation: 10 to 900 feet
Mean annual precipitation: 34 to 48 inches
Mean annual air temperature: 43 to 46 degrees F
Frost-free period: 90 to 160 days
Farmland classification: Not prime farmland

Map Unit Composition

Suffield and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Suffield

Setting

Landform: Coastal plains
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Riser

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Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Fine glaciolacustrine deposits

Typical profile

H1 - 0 to 6 inches: silt loam
H2 - 6 to 23 inches: silt loam
H3 - 23 to 33 inches: silty clay
H4 - 33 to 65 inches: silty clay

Properties and qualities

Slope: 15 to 25 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Moderately well drained
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately high (0.00 to 0.20 in/hr)
Depth to water table: About 18 to 36 inches
Frequency of flooding: None
Frequency of ponding: None
Available water capacity: High (about 9.5 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6e
Hydrologic Soil Group: C
Hydric soil rating: No

Minor Components

Hartland

Percent of map unit: 7 percent
Landform: Coastal plains
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Riser
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Suffield, slopes <15%

Percent of map unit: 3 percent
Landform: Coastal plains
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Riser
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Belgrade

Percent of map unit: 3 percent
Landform: Coastal plains
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Riser
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Suffield, slopes >25%

Percent of map unit: 2 percent

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Landform: Coastal plains

Landform position (two-dimensional): Backslope

Landform position (three-dimensional): Riser

Down-slope shape: Linear

Across-slope shape: Linear

Hydric soil rating: No

References

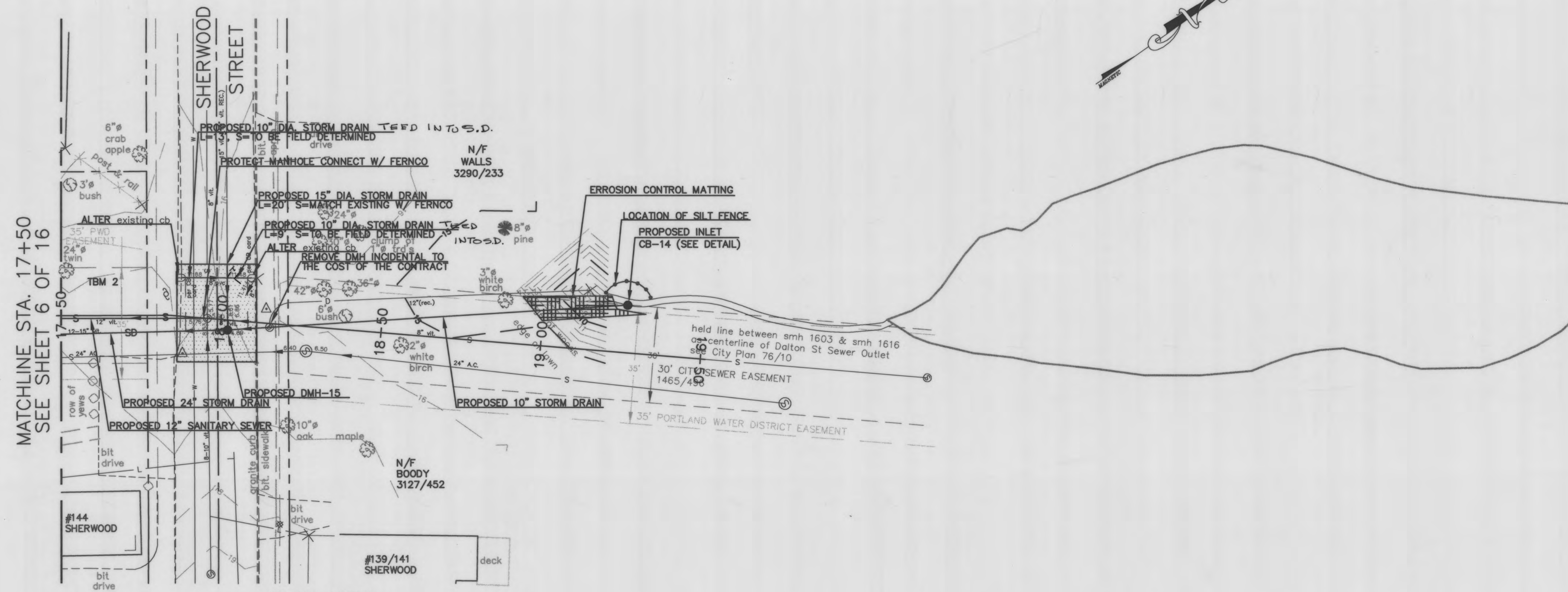
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- United States Department of Agriculture, Natural Resources Conservation Service. National range and pasture handbook. <http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/landuse/rangepasture/?cid=stelprdb1043084>

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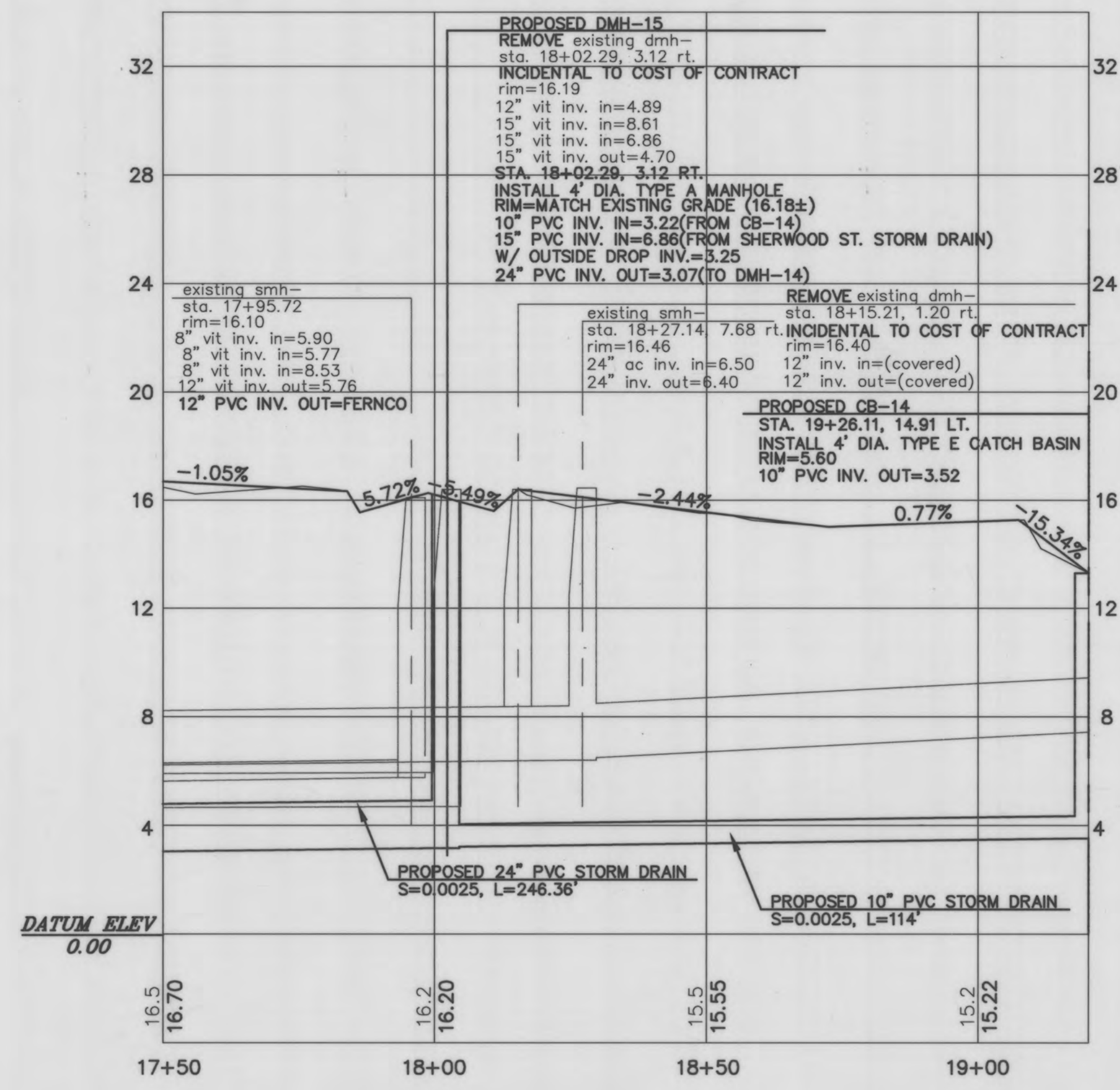
United States Department of Agriculture, Natural Resources Conservation Service. National soil survey handbook, title 430-VI. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/scientists/?cid=nrcs142p2_054242

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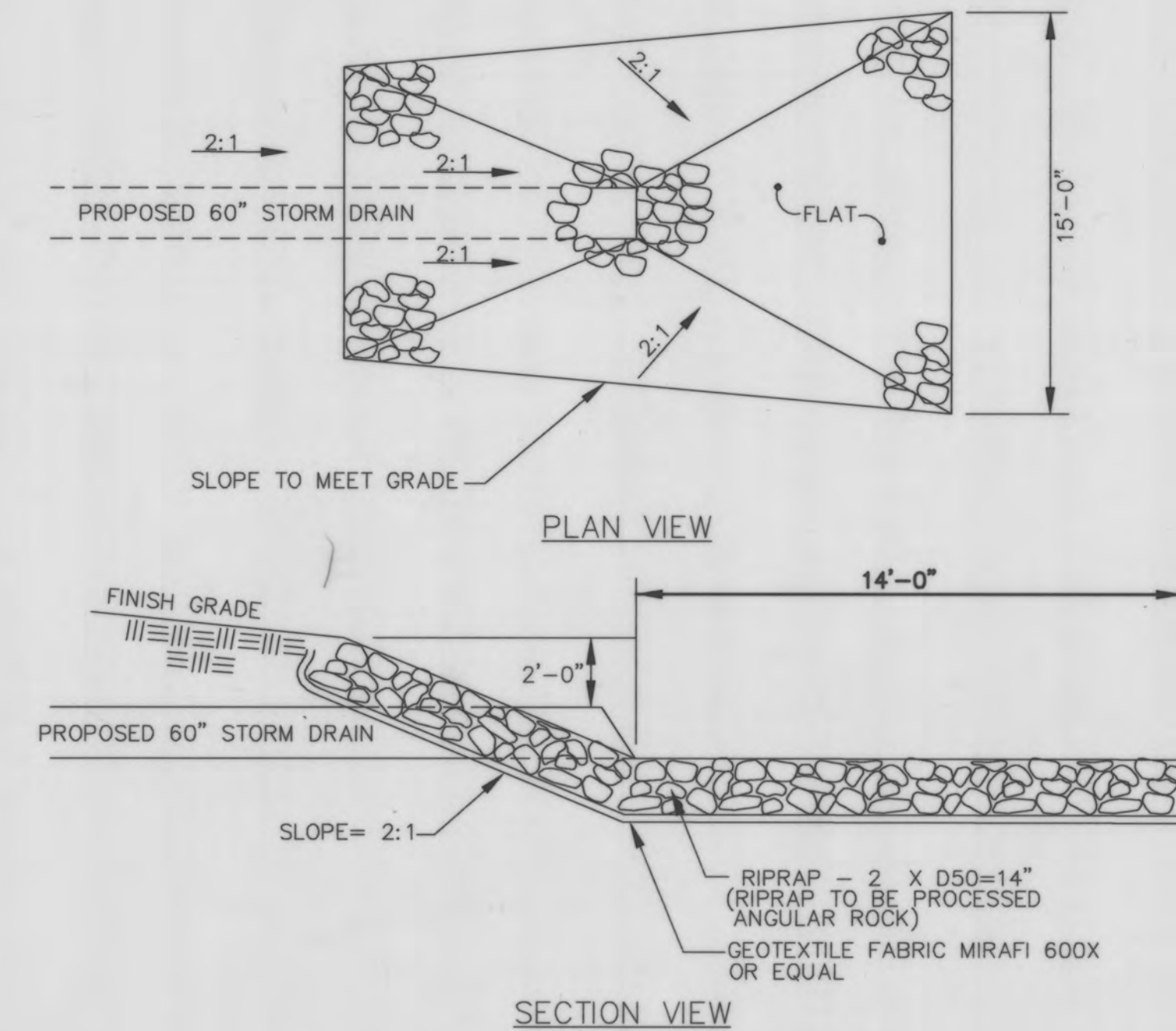
United States Department of Agriculture, Soil Conservation Service. 1961. Land capability classification. U.S. Department of Agriculture Handbook 210. http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_052290.pdf



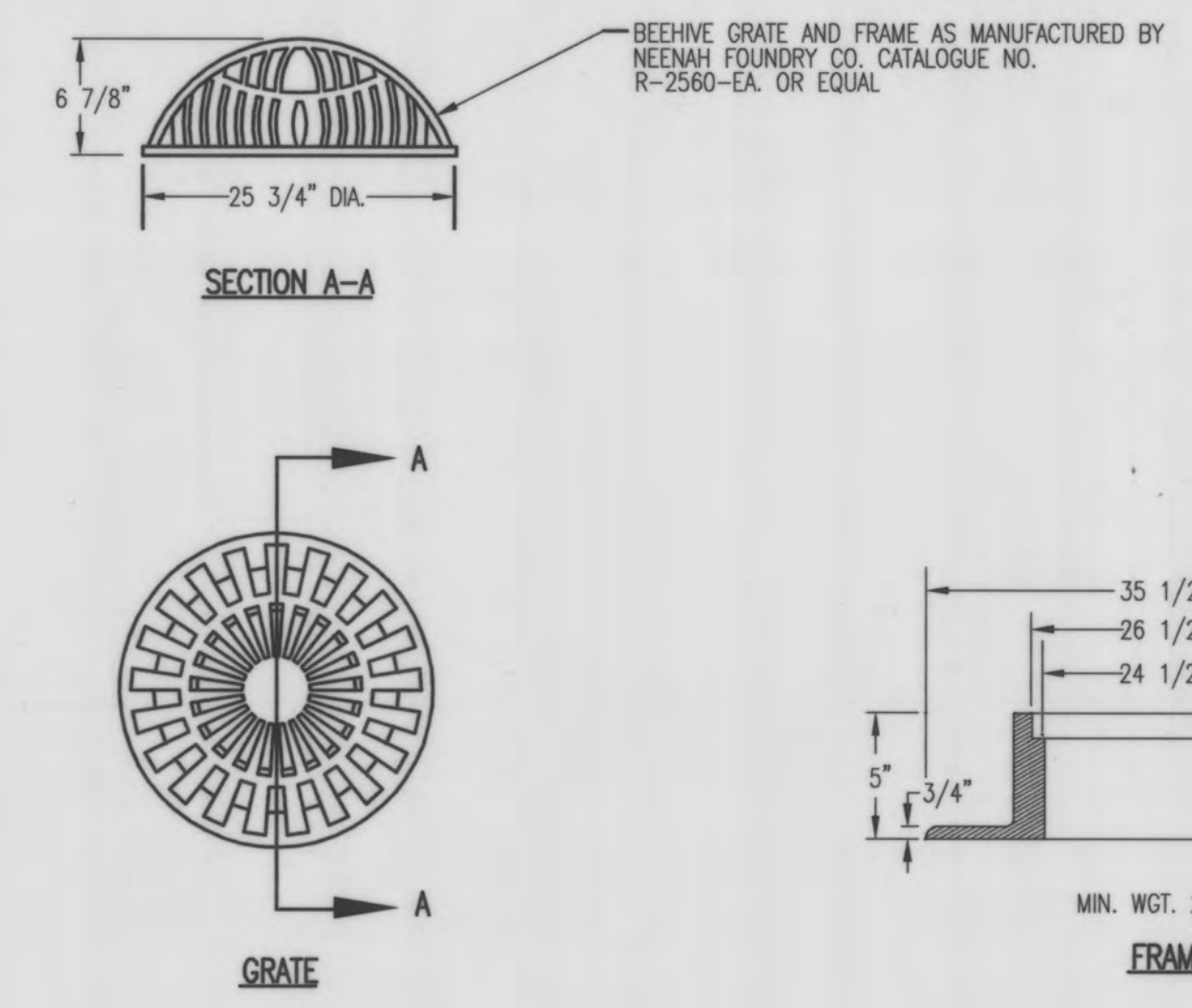
PLAN VIEW
SCALE: 1"=20'



PROFILE
SCALE: 1"=4' VERT.
1"=20' HORIZ.



RIPRAP OUTLET PROTECTION
NOT TO SCALE



CAST IRON BEEHIVE CATCH BASIN FRAME AND GRATE
NOT TO SCALE
AS BUILTS 6/8/2004

REFERENCES:



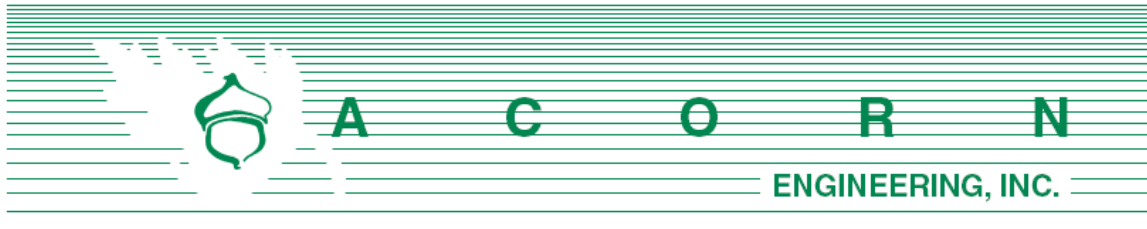
DESIGNED BY:	B. ROLAND
DRAWN BY:	P. DUBAIL
CHECKED BY:	B. ROLAND
PROJECT NO.:	001512
DATE:	MAY 2003
SCALE:	AS NOTED

RANDALL STREET
SEWER SEPARATION
PLAN AND PROFILE
STA. 17+50 TO 19+50

CITY OF PORTLAND, MAINE
PUBLIC WORKS DEPARTMENT
ENGINEERING SECTION
CITY ENGINEER
DATE APPROVED







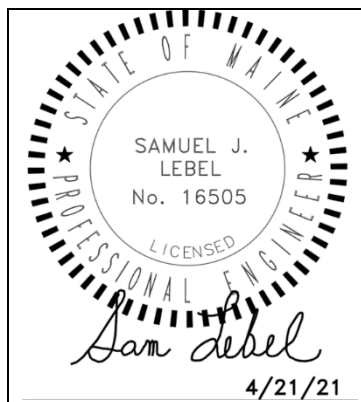
K. EROSION & SEDIMENTATION **CONTROL REPORT**

Prepared For:

**Hammond House, LLC
94 South Street
Yarmouth, Maine 04096**

Prepared By:

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



April 2021

INTRODUCTION

Acorn Engineering, Inc. has been retained by Hammond House, LLC to provide civil engineering services for the proposed residential development at the end of Dalton Street in Portland, Maine. The proposed project includes the construction of 4 separate buildings with a total of 48 dwelling units.

The following Erosion and Sedimentation Control Report was developed in accordance with the City of Portland Technical Manual – Section 5 – Portland Stormwater Management Standards and the Maine DEP Chapter 500 Stormwater Management Appendix A and B (1), Amended August 12, 2015. This narrative also meets the standards required in the Maine DEP's Erosion & Sediment Control BMP's Manual, revised in 2016.

1.0 EXISTING CONDITIONS

The proposed project site is located at the end of Dalton Street in Portland, Maine. A boundary and topographic survey has been prepared by Owen Haskell, Inc. dated December 11th, 2020.

The property is in the R5 Residential Zone. Abutting Uses include residential except for the elementary school that abuts the site to the northwest.

The 3.72 acre site consists of varying slopes. To the northern corner of the site the land slopes at approximately 7% from west to east down into a pair of wetlands near the center of the site. To the east of the wetlands the site slopes roughly 2% to the wetlands. The south of the site slopes to the west with grades dropping off towards the abutters at roughly 33%.

1.1 Existing Soils

Onsite soil information includes the following:

- Soil Conservation Service Medium Intensity Soil Survey for Cumberland County
- United States Department of Agriculture Web Soil Survey

Given the soils information, listed above, no onsite wastewater is proposed; the applicant does not intend to perform a more intense hydric soil boundary delineation because the waiver requirements set forth in the City of Portland Technical Manual – Section 7 – Soil Survey, Rev. 6/17/11 are met.

The area within and surrounding the project includes soil types listed in the table below. The susceptibility of soils to erosion is indicated on a relative “K” scale of values over a range of 0.02 to 0.69. Higher “K” values indicate more erodible soils.

Table 1 - “K” Value	
Soils Type	Subsurface
Buxton Silt Loam	0.37



Cut and fill land	0.20
Elmwood fine sandy loam	0.20
Suffield silt loam	0.32

The soil “K” value for the soil, listed above, shows a medium to low susceptibility to erosion. The site’s susceptibility to erosion is from the USDA Soil Survey. Although the soil “K” value shows a low susceptibility to erosion, implementation of the proposed Erosion & Sedimentation Measures by the contractor will be of the utmost importance given the sustained slope throughout the site.

1.2 Existing Erosion Problems

There are no signs of erosion.

1.3 Critical Areas

Critical areas that would require special attention during construction are any exposed slopes, particularly to the northern and south eastern portions of the site along with the wetlands located near the center of the site.

1.4 Protected Natural Resource

Wetlands exist onsite, as delineated by Mark Hampton Associated, Inc. in May of 2018. The project is not located with a watershed classified as an Urban Impaired Stream by the Maine DEP.

1.5 Previous Construction Activity (5 years)

Acorn Engineering, Inc. is not aware of any construction related activities within the project limits within the past 5 years.

1.6 Timber Harvesting

Acorn Engineering, Inc. is not aware of any timber harvesting within the past five years.



2.0 EROSION CONTROL MEASURES AND SITE STABILIZATION

As part of the site development, the following temporary and permanent erosion and sedimentation control devices shall be implemented. Devices shall be installed as described in this report or within the plan set. See the Maine Erosion and Sediment Control Handbook for Construction: Best Management Practices for further reference.

2.1 Temporary Erosion Control Measures

The following temporary erosion and sedimentation control measures are planned for the project's construction period:

2.1.1 Crushed stone stabilized construction entrances shall be placed at all access points to the project site where there are disturbed areas. The following specifications shall be followed at a minimum:

- Stone size shall be 2-3 inches, or reclaimed or recycled concrete equivalent.
- The thickness of the entrance stone layer shall be no less than 6 inches.
- The entrance shall not be less than 20 feet wide, however not less than the full width of points where ingress or egress occurs. The length shall not be less than 50 feet in length.
- Geotextile fabric (woven or non-woven) shall be placed over the entire entrance area.
- The entrance/exit shall be maintained to the extent that it will prevent the tracking of sediment onto public road ways.

2.1.2 Siltation fence or erosion control berm shall be installed down gradient of any disturbed areas to trap runoff borne sediments until permanent stabilization is achieved. The silt fence or erosion control berm shall be installed per the details provided in the plan set and inspected before and immediately after each rainfall and at least daily during prolonged rainfall. Repairs shall be made if there are any signs of erosion or sedimentation below the fence line or berm. If there are signs of undercutting at the center or the edges, or impounding of large volumes of water behind the fence or berm, the barrier shall be replaced with a stone check dam.

2.1.3 Hay mulch including hydro seeding is intended to provide cover for denuded or seeded areas until revegetation is established. Mulch placed between April 15th and November 1st on slopes of less than 15 percent shall be covered by fabric netting and anchored with staples in accordance with the manufacturer's recommendation. Mulch placed between November 1st and April 15th on slopes equal to or steeper than 8 percent and equal to or flatter than 2:1 shall use mats or fabric netting and anchored with staples in accordance with the manufacturer's recommendation.

2.1.4 At any time of the year, all slopes greater than 3:1 shall be stabilized with Double Net Erosion Control Blanket Bionet SC150BN by North American



Green or Approved Equal, or Erosion Control Mix Slope Protection as detailed within the plans.

- 2.1.5 Dalton and Sherwood streets shall be swept to control mud and dust from the construction site as necessary. Add additional stone to the stabilized construction entrance to minimize the tracking of material off the site and onto the surrounding roadways.
 - 2.1.6 During demolition, clearing and grubbing operations, stone check dams shall be installed at any areas of concentrated flow. The maximum height of the check dam shall not exceed 2 feet. The center of the check dam shall be 6 inches below the outer edges of the dam. The contractor shall mulch the side slopes and install stone check dams for all newly excavated ditch lines within 24 hours of their creation.
 - 2.1.7 Silt fence stake spacing shall not exceed 6 feet unless the fence is supported with 14-gauge wire in which case the maximum spacing shall not exceed 10 feet. The silt fence shall be “toed” into the ground.
 - 2.1.8 Storm drain inlet protection shall be provided to storm drains using any of the following: hay bale drop inlet structures, silt fence drop inlet sediment filter, gravel and wire mesh drop inlet sediment filter, or curb inlet sediment filter. Barriers shall be inspected after every rainfall event and repaired as necessary. Sediments shall be removed when accumulation has reached $\frac{1}{2}$ the design height.
 - 2.1.9 Dust control shall be accomplished using any of the following: water, calcium chloride, stone, or an approved MDEP product. Dust control shall be applied as needed to accomplish dust control.
 - 2.1.10 Temporary loam, seed, and mulching shall be used in areas where no other erosion control measure is used. Application rates for seeding are provided at the end of this report.
 - 2.1.11 Stockpiles shall be stabilized within 7 days of formation unless a scheduled rain event occurs prior to the 7-day window, in which case the stockpile shall be stabilized prior to the rain event. Methods of stabilization shall be mulch, erosion control mix, or erosion control blankets/mats. Silt fence or a wood waste compost filter berm shall be placed downhill of any soil stockpile location.
 - 2.1.12 For disturbance between November 1 and April 15, please refer to winter stabilization plan in this report and the Maine Erosion and Sediment Control BMP manual for further information.
 - 2.1.13 It is of the utmost importance that stormwater runoff and potential sediment from the construction site be diverted around the proposed underdrains until the trench is backfilled.
- 2.2 Permanent Erosion Control Measures



The following permanent erosion control measures are intended for post disturbance areas of the project.

2.2.1 All disturbed areas during construction, not subject to other proposed conditions, shall receive a minimum 4" of loam, limed, and mulched. Erosion control blankets or mats shall be placed over the mulch in areas noted in paragraph 4.1 of this report.

2.2.2 All stormwater devices shall be installed and tributary areas stabilized prior receiving stormwater.

2.2.3 Refer to the Maine Erosion and Sediment Control BMP manual for additional information.

3.0 EROSION AND SEDIMENTATION CONTROL PLAN

3.1 The Construction Management & Erosion Control Plan is included within the plan set.

4.0 DETAILS AND SPECIFICATIONS

4.1 Erosion & Sedimentation Control Details and Specifications are included in the plan set.

5.0 STABILIZATION PLAN FOR WINTER CONSTRUCTION

Winter Construction consists of earthwork disturbance between the dates of November 1 and April 15. If a construction site is not stabilized with pavement, a road gravel base, 75% mature vegetation cover or riprap by November 15, then the site shall be protected with over-winter stabilization. Any area not stabilized with pavement, vegetation, mulching, erosion control mix, erosion control mats, riprap, or gravel base on a road shall be considered open.

The contractor shall limit the work area to areas that work will occur in during the subsequent 15 days and so that it can be mulched one day prior to a snow event. The contractor shall stabilize work areas prior to opening additional work areas to minimize areas without erosion control measures.

The following measures shall be implemented during winter construction periods:

5.1 Sediment Barriers

During frozen conditions, sediment barriers may consist of erosion control mix berms or any other recognized sediment barriers as frozen soil prevents the proper installation of hay bales or silt fences.

5.2 Mulching



All areas shall be considered to be denuded until seeded and mulched. Hay and straw mulch shall be applied at a rate of 150 lb. per 1,000 square feet or 3 tons/acre (twice the normal accepted rate of 75-lbs./1,000 s.f. or 1.5 tons/acre) and shall be properly anchored. Erosion control mix must be applied with a minimum 4-inch thickness. Mulch shall not be spread on top of snow. The snow shall be removed down to a one-inch depth or less prior to application. After each day of final grading, the area shall be properly stabilized with anchored hay or straw or erosion control matting. An area shall be considered to have been stabilized when exposed surfaces have been either mulched or adequately anchored so that ground surface is not visible through the mulch. Between the dates of November 1 and April 15, all mulch shall be anchored by either mulch netting, tracking or wood cellulose fiber. The cover will be considered sufficient when the ground surface is not visible through the mulch. After November 1st, mulch and anchoring of all exposed soil shall occur at the end of each final grading workday.

5.3 Soil Stockpiling

Stockpiles of soil or subsoil shall be mulched for over winter protection with hay or straw at twice the normal rate or with a four-inch layer of erosion control mix. This shall be done within 24 hours of stocking and re-established prior to any rainfall or snowfall.

5.4 Seeding

Between the dates of October 15th and April 1st, loam or seed shall not be required. During periods of above freezing temperatures finished areas shall be fine graded and either protected with mulch or temporarily seeded and mulched until the final treatment can be applied. If the date is after November 1st and if the exposed area has not been loamed, final grading with a uniform surface, then the area may be dormant seeded at a rate of 3 times higher than specified for permanent seed and then mulched.

Dormant seeding may be placed prior to the placement of mulch or erosion control blankets. If dormant seeding is used for the site, all disturbed areas shall receive 4" of loam and seed at an application rate of 5 lbs./1,000 s.f. All areas seeded during the winter shall be inspected in the spring for adequate catch. All areas insufficiently vegetated (less than 75% catch) shall be revegetated by replacing loam, seed and mulch. If dormant seeding is not used for the site, all disturbed areas shall be revegetated in the spring.



5.5 Over winter stabilization of disturbed soils

By September 15th, all disturbed soils on areas having a slope less than 15% shall be seeded and mulched. If the disturbed areas are not stabilized by this date, then one of the following actions shall be taken to stabilize the soil for late fall and winter:

- Stabilize the soil with temporary vegetation – By October 1st, seed the disturbed soil with winter rye at a seeding rate of 3lbs per 1,000 s.f., lightly mulch the seeded soil with hay or straw at 75 lbs per 1,000 s.f., and anchor the mulch with plastic netting. Monitor growth of the rye over the next 30 days. If the rye fails to grow at least three inches or fails to cover at least 75% of the disturbed soil before November 1st, then mulch the area for over-winter protection.
- Stabilize the soil with sod – Stabilize the disturbed soil with properly installed sod by October 1st. Proper installation includes pinning the sod onto the soil with wire pins, rolling the sod to guarantee contact between the sod and underlying soil, and watering the sod to promote root growth into the disturbed soil.
- Stabilize the soil with mulch – By November 15th, mulch the disturbed soil by spreading hay or straw at a rate of at least 150 lbs per 1,000 s.f. on the area so that no soil is visible through the mulch. Immediately after applying the mulch, anchor the mulch with plastic netting to prevent wind from moving the mulch off the disturbed soil.

5.6 Over winter stabilization of disturbed slopes

All stone-covered slopes shall be constructed and stabilized by November 15th. All slopes to be vegetated shall be seeded and mulched by September 1st. A slope is considered a grade greater than 15%. If a slope to be vegetated is not stabilized by September 1st, then one of the following action shall be taken to stabilize the slope for late fall and winter:

- Stabilize the soil with temporary vegetation and erosion control mats – By October 1st the disturbed slope shall be seeded with winter rye at a seeding rate of 3 lbs per 1,000 s.f. and then install erosion control mats or anchored mulch over the seeding. If the rye fails to grow at least three inches or fails to cover at least 75% of the slope by November 1st, then the contractor shall cover the slope with a layer of erosion control mix or with stone riprap.
- Stabilize the soil with sod – The disturbed slope shall be stabilized with properly installed sod by October 1st. Proper installation includes the contractor pinning the sod onto the slope with wire pins, rolling the sod to guarantee contact between the sod and underlying soil, and watering the sod to promote root growth into the disturbed soil. The contractor shall not use late-season sod installation to stabilize slopes having a grade greater than 3H:1V or having groundwater seeps on the slope face.



- Stabilize the soil with erosion control mix – Erosion control mix shall be properly installed by November 15th. The contractor shall not use erosion control mix to stabilize slopes having grades greater than 2H:1V or having groundwater seeps on the slope face.
- Stabilize the soil with stone riprap – Place a layer of stone riprap on the slope by November 15th. A registered professional engineer shall be hired to determine the stone size needed for stability on the slope and to design a filter layer for underneath the riprap.

6.0 INSPECTION AND MAINTENANCE

A person with knowledge of erosion and stormwater control, including the standards and conditions in the permit, shall conduct periodic visual inspections of installed erosion control measures. The frequency of inspection shall occur at least once every two weeks, as well as after a “storm event”. A “storm event” shall consist 0.5 inches of rain within a 24-hour period. The following Erosion and Sediment Control - Best Management Practices (BMP's) shall inspected in the manner as described.

6.1 Sediment Barriers

Hay bale barriers, silt fences and filter berms shall be inspected and repaired for the following if there are any signs of erosion or sedimentation below them. If there are signs of undercutting at the center or the edges of the barrier, or impounding of large volumes of water behind them, sediment barriers shall be replaced with a temporary check dam. Should the fabric on a silt fence or filter barrier decompose or become ineffective prior to the end of the expected usable life and the barrier is still necessary, the fabric shall be replaced promptly. Sediment deposits should be removed when deposits reach approximately one-half the height of the barrier. Filter berms should be reshaped as needed. Any sediment deposits remaining in place after the silt fence or filter barrier is no longer required should be dressed to conform to the existing grade, prepared and seeded.

6.2 Stabilized Stone Construction Entrances

The exit shall be maintained in a condition that will prevent tracking of sediment onto public rights-of-way. When the control pad becomes ineffective, the stone shall be removed along with the collected soil material and redistributed on site in a stable manner. The entrance should then be reconstructed. The contractor shall sweep or wash pavement at exits, which have experienced mud-tracking on to the pavement or traveled way. When washing is required, it shall be done on an area stabilized with aggregate, which drains into an approved sediment trapping device. All sediment shall be prevented from entering storm drains, ditches, or waterways.

6.3 Mulched Areas



All mulches must be inspected periodically, in particular after rainstorms, to check for rill erosion. If less than 90% of the soil surface is covered by mulch, additional mulch shall be immediately applied. Nets must be inspected after rain events for dislocation or failure. If washouts or breakage occur, re-install the nets as necessary after repairing damage to the slope. Where mulch is used in conjunction with ornamental plantings, inspect periodically throughout the year to determine if mulch is maintaining coverage of the soil surface. Repair as needed.

6.4 Dust Control

When temporary dust control measures are used, repetitive treatment shall be applied as needed to accomplish control.

6.5 Stormwater Appurtenances

All underdrains, storm drains, and catch basins need to be operating effectively and free of debris.

6.6 Erosion and Sedimentation Control Inspections:

Acorn Engineering has personnel qualified to conduct Erosion and Sedimentation Control Inspections. For further information, contact:

Contact: Will Savage, PE
Telephone: (207) 775-2655

Qualifications:

- Maine Professional Engineering License #11419
- Maine DEP - Certified in Maintenance & Inspection of Stormwater BMP's Cert #14
- Certified Erosion, Sediment and Storm Water Inspector (CESSWI) Cert #0293
- Certified Professional in Erosion and Sediment Control (CPESC) Cert. #4620

The Contractor has sole responsibility for complying with the Erosion and Sedimentation Report/Plan, including control of fugitive dust. The Contractor shall be responsible for any monetary penalties resulting from failure to comply with these standards.



7.0 IMPLEMENTATION SCHEDULE

The following implementation sequence is intended to maximize the effectiveness of the above described erosion control measures. Contractors should avoid overexposing disturbed areas and limit the amount of stabilization area.

1. Install a stabilized construction entrance in all locations where construction traffic will enter and exit the site.
2. Install perimeter silt fence or erosion control berm.
3. Install all other erosion control devices as necessary throughout the remainder of this schedule.
4. Commence installation of drainage infrastructure.
5. Prioritize the downhill side to contain runoff within the site while providing an engineered outlet to the municipal storm drain system within Sherwood Street.
6. Commence earthwork operations, associated with the parking lot construction.
7. Commence installation of utilities.
8. Continue earthwork and grading to subgrade as necessary for construction.
9. Complete installation of drainage infrastructure, as well as other utility work.
10. Complete remaining earthwork operations.
11. Install sub-base and base gravels in paved areas.
12. Install paving, curbing and brickwork.
13. Loam, lime, fertilize, seed and mulch disturbed areas and complete all landscaping.
14. Once the site is stabilized and mulching of landscape areas is complete, remove all temporary erosion control measures.
15. Touch up areas without a vigorous catch of grass with loam and seed.
16. Complete site signage and striping.
17. Execute proper maintenance of all temporary and permanent erosion control measures throughout the project.

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

The contractor shall re-vegetate disturbed areas as rapidly as possible. All areas shall be permanently stabilized within 7 days of final grading or before a storm event. The contractor shall incorporate planned inlets and drainage systems as early as possible into the construction phase.

8.0 CONCLUSION

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



9.0 ATTACHMENTS

- Temporary Seeding Plan
- Permanent Seeding Plan



TEMPORARY SEEDING PLAN

Site Preparation

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

Seedbed Preparation

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

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

Seeding

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

Seed	Pounds / 1,000 S.F.	Recommended Seeding Dates
Winter Rye	2.57	Aug-15 to Oct-1
Oats	1.84	Apr-1 to Jul-1 Aug-15 to Sep-15
Annual Ryegrass	0.92	Apr-1 to Jul-1
Sudangrass	0.92	May-15 to Aug-15
Perennial	0.92	Aug-15 to Sep-15

Mulching

Mulch shall be applied at a rate of 70 lbs – 90 lbs per 1,000 square feet. The mulch shall be installed at a minimum depth of 4 inches. The seeded area shall be mulched immediately after seed is applied. Mulching during the winter season shall be double the normal amount.

Conclusion

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



PERMANENT SEEDING PLAN

Site Preparation

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

Seedbed Preparation

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

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

Seeding

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

Seed	Pounds / 1,000 S.F.
Kentucky Bluegrass	0.46
Creeping Red Fescue	0.46
Perennial Ryegrass	0.11
Total	1.03

Mulching

Mulch shall be applied at a rate of 70 lbs – 90 lbs per 1,000 square feet. The mulch shall be installed at a minimum depth of 4 inches. The seeded area shall be mulched immediately after seed is applied. Mulching during the winter season shall be double the normal amount.

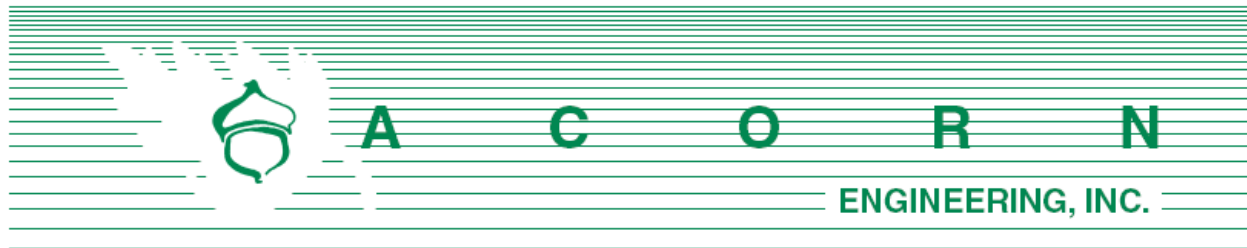
Recommendations

Permanent seeding is recommended to be completed in the spring. Later summer seeding is allowed if completed prior to September 1st. If seeding cannot be accomplished during the periods recommended for permanent seeding, then the contractor shall perform temporary seeding per the temporary seeding plan.

Conclusion

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





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

March 11, 2021

Subject: Dalton Street PRUD – Fire Department Checklist
 Section L of Application

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

1. Name, address, telephone number of applicant

Hammond House, LLC
 94 South Street
 Yarmouth, Maine 04096
 (207) 838-3410

2. Name, address, telephone number of architect

Archetype Architects
 48 Union Wharf
 Portland, Maine 04101
 (207) 772-6022

3. Proposed uses of any structures [NFPA and IBC classification]

NFPA: Apartment Building IBC: R-2

4. Square footage of all structures, including decks [total and per story]

Proposed Buildings (Total of 4 Structures)		
Ground	16,288	sf
2 nd Floor	16,288	sf
3 rd Floor	16,288	sf
Total	48,864	sf



5. Elevation of all structures

The proposed building height is 34'.

6. Proposed fire protection of all structures

Each building will be sprinkled and in compliance with NFPA 13R.

7. Hydrant locations

A hydrant is proposed within the site and will be within 230 ft from the far corner of the furthest structure. Please refer to the Utility Plan.

8. Water main size and location

Water services of 4" and 8" are proposed along the access drive to the site. A domestic meter pit and above ground backflow enclosure are located along the access drive as well. Each building will be served via a 6" fire and 2" domestic service that tap into the respective services within the access drive.

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

Access to the structures is provided from the access drive as well as parking bays.

10. A code summary referencing NFPA 1 and all fire department technical standards may be submitted with the Final Application, if required by the fire department.

NFPA 1 – Chapter 18 Fire Department Access and Water Supply

18.2 Fire Department Access:

Each building can be accessed via the access drive off of Sherwood. The access drive will be equipped with slipform concrete curbing. The following pavement street widths to the site are as follows:

- Sherwood Street: 25 feet
- Access Drive: 22 feet

Per NFPA 1 – Chapter 18.2.3.3.1, there will be public street access within 50 feet of at least one exterior door. Per NFPA 1 – Chapter 18.2.3.2.2.1, all first story floors shall be located not more than 450 feet from a Fire Department access road.



City of Portland Technical Manual – Section 3 Public Safety

3.4.1 Every dead-end roadway more than one hundred fifty (150') feet in length shall provide a turnaround at the closed end. Turnarounds shall be designed to facilitate future street connectivity and shall always be designed to the right (refer to Figure I-5).

Response: The site has been designed to accommodate the turning movements required from a 40' ladder truck utilizing the drive aisle and private roadway.

3.4.2 Where possible, developments shall provide access for Fire Department vehicles to at least two sides of all structures. Access may be from streets, access roads, emergency access lanes, or parking areas.

Response: As depicted on the site plan, the proposed site layout provides fire access from at least two sides of a paved travel way, and in some case 3 sides.

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

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

Response: The proposed development layout has contemplated emergency access conditions and provides for safe and efficient access along the access drive for emergency vehicles.

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

Response: The building will be provided with exterior doors that will be within 50' of a Fire Department access route.

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

Response: The proposed site maintains the required clearance height of nine feet in all cases.

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

Response: Elevators are not proposed for this project.

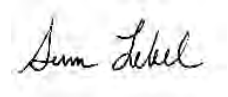


3.4.7. All structures are required to display the assigned street number. Numbers shall be clearly visible from the public right of way.

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

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

Sincerely,



Samuel J. Lebel, P.E.
Project Manager
Acorn Engineering, Inc.



BUILDING CODE SUMMARY

Name of Project: Dalton Prud
Address: Portland, ME Zip Code
Owner/ Authorized Agent: Kevin O'Rourke Phone # () E-Mail kevin@gravitysports.org
Owned By: City/County Private State
Code Enforcement Jurisdiction: City Portland County State

CONTACT:
DESIGNER FIRM NAME LICENSE # TELEPHONE # E-MAIL
Architectural Archetype Architects David Lloyd 936 (207) 772-6022
Civil Acorn Engineering
Electrical Bennett Engineering Will Bennett
Fire Alarm Bennett Engineering Will Bennett
Plumbing Bennett Engineering Will Bennett
Mechanical Bennett Engineering Will Bennett
Sprinkler-Standpipe M2 Structural Engineers Matt Miller
Structural Retaining Walls >5' High
Other

Maine Uniform Building and Energy Code with references to 2018 NFPA 1 & NFPA 101

- 2015 International Building Code (IBC)
- 2015 International Existing Building Code (IEBC)
- 2015 International Energy Conservation Code (IECC)

New Construction Addition Renovation
1st Time Interior Completion
Shell/Core
Phased Construction – Shell/Core
Renovation

2015 INTERNATIONAL EXISTING BUILDING CODE:
Alteration: Prescriptive Repair Chapter 14
Level 1 Level II Level III
Historic Property Change of Use
CONSTRUCTED:(date) ORIGINAL OCCUPANCY(S) (Ch. 3):
RENOVATED: (date) CURRENT OCCUPANCY(S) (Ch. 3):

RISK CATEGORY (table 1604.5) Current: I II III IV
Proposed: I II III IV

BASIC BUILDING DATA (table 601)
Construction Type: I-A II-A III-A IV V-A
I-B II-B III-B V-B
mixed types utilizing Horizontal Building Separation Allowance per IBC 510.2
Sprinklers: No Partial Yes NFPA 13 NFPA 13R NFPA 13D
Standpipes: No Yes Class I II III Wet Dry
Flood Hazard Area: No Yes
Special Inspections Required per section 17: No Yes, see attached statement of special inspections

Gross Building Area:				
FLOOR	EXISTING (SQ.FT)	NEW (SQ.FT)	RENO/ALTER (SQ.FT)	SUB-TOTAL
6 th Floor		0		
5 th Floor		0		
4 th Floor		0		
3 rd Floor		3,821		
2 nd Floor		3,821		
Mezzanine		0		
1 st Floor		4072		
Basement		0		
TOTAL		11,914		

NOTE: THIS BUILDING REPEATED (4) TIMES. TOTAL BUILDING AREA = 47,936 SF

ALLOWABLE AREA
Occupancy Classification 302:
Assembly Business Educational Factory Hazardous Institutional
A-1 A-2 A-3 A-4 A-5
F-1 Moderate F-2 Low
H-1 Deteronate H-2 Deflagrate H-3 Combust H-4 Health H-5 HPM
I-1 Condition I 2
I-2 Condition I 2
I-3 Condition I 2 3 4 5
I-4
Mercantile
Residential R-1 R-2 R-3 R-4
Storage S-1 Moderate S-2 Low High-piled
Parking Garage Open Enclosed Repair Garage
Utility and Miscellaneous
Accessory Occupancy Classification(s) 508.2:
N/A

Incidental Uses (Table 509): NONE
NFPA 101 Table 30.3.2.1.1 Hazardous Area Protection: NONE
Special Uses (Chapter 4 – List Code Sections) NONE
Special Provisions: (Chapter 5 – List Code Sections): NONE

506.2.3 Single Occupancy, Multistory Buildings:

Allowable Area =
The allowable area of a single-occupancy building with more than one story above grade plane shall be determined in accordance with Equation 5-2:

A_a = [A_r + (NS × I_f)] × S_a (Equation 5-2)

Allowable area = [21,000 + (7,000 x 1 (frontage increase not taken))] x 3 = 42,000 SF

EACH 11,914 SF BUILDING < 42,000 SF ALLOWABLE

where:
A_a = Allowable area (square feet).
A_t = Tabular allowable area factor (NS, S13R or SM value, as applicable) in accordance with Table 506.2.
N_S = Tabular allowable area factor in accordance with Table 506.2 for a non sprinklered building (regardless of whether th building is sprinklered).
I_f = Area factor increase due to frontage (percent) as calculated in accordance with Section 506.3.
Actual number of building stories above grade plane, not to exceed three. For buildings equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.2, use the actual number of building storie above grade plane, not to exceed four.

No individual story shall exceed the allowable area (A_a) as determined by Equation 5-2 using the value of S_a = 1.

ALLOWABLE HEIGHT			
	ALLOWABLE: (TABLE 503)	SHOWN ON PLANS	CODE REFERENCE
Building Height in Feet (Table 504.3)	60	34'-0"	
Building Height in Stories (Table 504.4)	3	3	

¹ Provide code reference if the "Show on Plans" quantity is not based on Table 504.3 or 504.4.

² The maximum height of open parking garages must comply with Table 406.5.4

FIRE PROTECTION REQUIREMENTS

BUILDING ELEMENT	FIRE SEPARATION DISTANCE (FEET)	RATING REQ'D	NOTES	DETAIL # AND SHEET #	DESIGN # FOR RATED ASSEMBLY
Structural Frame, including columns, girders, trusses					
Bearing Walls					
Exterior					
North	0HR			W1, W2/A4.00	
East	0HR			W1, W2/A4.00	
West	0HR			W1/A4.00	
South	0HR			W1/A4.00	
Interior	0HR				
Nonbearing Walls and Partitions					
Exterior walls					
North				N/A	
East				N/A	
West				N/A	
South				N/A	
Interior walls and partitions	0				
Floor Construction Including supporting beams and joists	1HR			F2/A4.02	UL L528
Floor Ceiling Assembly	1HR			F2/A4.02	UL L528
Column Supporting Floors	0HR			N/A	
Roof Construction, including supporting beams and joists	0HR			R1,R2,R3/A4.02	GA FC5406, UL P531, UL P52
Roof Ceiling Assembly	0HR			N/A	
Column Supporting Roof	0HR			N/A	
Shaft Enclosures - Exit	1HR				
Shaft Enclosures - Other	1HR				
Corridor Separation	30 MIN.			W4/A4.01	UL U311
Occupancy/Fire Barrier Separation				W6/A4.01	UL305
Party/Fire Wall Separation	1 HR.				
Smoke Barrier Separation					
Smoke Partition					
Tenant/Dwelling Unit/ Sleeping Unit Separation	1 HR			W5/A4.01	
Incidental Use Separation	1 HR			N/A	

* Indicate section number permitting reduction

PERCENTAGE OF WALL OPENING CALCULATIONS

FIRE SEPARATION DISTANCE (FEET FROM PROPERTY LINES)	DEGREES OF OPENINGS PROTECTION (TABLE 705.8)	ALLOWABLE AREA (%)	ACTUAL SHOWN ON PLANS (%)
20'-0" MIN	Unprotected, Sprinklered	No Limit	>allowable

LIFE SAFETY SYSTEM REQUIREMENTS

Emergency Lighting: No Yes
Exit Signs: No Yes
Fire Alarm: No Yes
Smoke Detection Systems: No Yes Partial
Carbon Monoxide Detection: No Yes

LIFE SAFETY PLAN

Life Safety Plan Sheet #:
☐ Fire and/or smoke rated wall locations (Chapter 7)
☐ Assumed and real property line locations (if not on the site plan)
☐ Exterior wall opening area with respect to distance to assumed property lines (705.8)
☐ Occupancy types for each area as it relates to occupant load calculation (Table 1004.1.2)
☐ Occupant loads for each area
☐ Exit access travel distances (1017)
☐ Common path of travel distances (1006.2.1 & 2006.3.2(1))
☐ Dead end lengths (1020.4)
☐ Clear exit widths for each exit door (NFPA 101 TABLE 7.3.3.1)
☐ Maximum calculated occupant load capacity each exit door can accommodate based on egress width (1005.3)
☐ Actual occupant load for each exit door
☐ A schematic plan indicating where fire rated floor/ceiling and/or roof structure is provided for purposes of occupancy separation and supporting construction for a fire barrier/fire partition/smoke barrier.
☐ Location of doors with panic hardware (1010.1.10) ☐ N/A
☐ Location of doors with delayed egress locks and the amount of delay (1010.1.9.7) ☐ N/A
☐ Location of doors with electromagnetic egress locks (1010.1.9.9) ☐ N/A
☐ Location of doors equipped with hold-open devices ☐ N/A
☐ Location of emergency escape windows (1030) ☐ N/A
☐ The square footage of each fire area (202)
☐ The square footage of each smoke compartment for Occupancy Classification I-2 (407.5) ☐ N/A
☐ Note any code exceptions or table notes that may have been utilized regarding the items above

Section/Table/Note	Title

ACCESSIBLE DWELLING UNITS (SECTION 1107)

TOTAL UNITS	ANSI 117.1 ACCESSIBLE UNITS REQUIRED	ANSI 117.1 ACCESSIBLE UNITS PROVIDED	ANSI 117.1 TYPE A UNITS REQUIRED	ANSI 117.1 TYPE A UNITS PROVIDED	ANSI 117.1 TYPE B UNITS REQUIRED	ANSI 117.1 TYPE B UNITS PROVIDED	TOTAL ACCESSIBLE/TYPE A/ TYPE B UNITS PROVIDED
48	0	0	1	1	16	16	16

COMMENTS

ACCESSIBLE PARKING (SECTION 1106)

LOT OR PARKING AREA	TOTAL # OF PARKING SPACES		# OF ACCESSIBLE SPACES PROVIDED			TOTAL # ACCESSIBLE PROVIDED
	REQUIRED	PROVIDED	REGULAR WITH 5' ACCESS AISLE	13'2" ACCESS AISLE	8' ACCESS AISLE	
TOTAL						

PLUMBING FIXTURE REQUIREMENTS (2015 UPC)

USE		WATERCLOSETS			URINALS			LAVATORIES			SHOWERS / TUBS		DRINKING FOUNTAINS	
SPACE	EXIST'G	MALE	FEMALE	UNISEX	MALE	FEMALE	UNISEX	MALE	FEMALE	UNISEX			REGULAR	ACCESSIBLE
	NEW													
	REQ'D													

SPECIAL APPROVALS

Special approval: (Local Jurisdiction, Department of Insurance, SCO, DPI, DHHS, ICC, etc., describe below)

ELEVATOR NOT REQUIRED
2 & 3-STORY RESIDENTIAL BUILDING
PER CODE PATH BELOW

The following language is taken from IBC 2015, and exempts the building from the requirements for an elevator, as the building is less than (4) stories.

1009.2.1 Elevators Required

In buildings where a required accessible floor is four or more stories above or below a level of exit discharge, not less than one required accessible means of egress shall be an elevator complying with Section 1009.4.

Exceptions:

- In buildings equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.1 or 903.3.1.2, the elevator shall not be required on floors provided with a horizontal exit and located at or above the levels of exit discharge.
- In buildings equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.1 or 903.3.1.2, the elevator shall not be required on floors provided with a ramp conforming to the provisions of Section 1012.

However, questions are often raised about the need for an accessible route (ie, an elevator) to the second and third floor. Exception 2 below eliminates the requirement for an accessible route to floors without accessible elements.

1104.4 Multistory Buildings and Facilities

At least one accessible route shall connect each accessible story and mezzanine in multilevel buildings and facilities.

Exceptions:

- An accessible route is not required to stories and mezzanines that have an aggregate area of not more than 3,000 square feet (278.7 m2) and are located above and below accessible levels. This exception shall not apply to:
 - Multiple tenant facilities of Group M occupancies containing five or more tenant spaces used for the sales or rental of goods and where at least one such tenant space is located on a floor level above or below the accessible levels;
 - Stories or mezzanines containing offices of health care providers (Group B or I);
 - Passenger transportation facilities and airports (Group A-3 or B); or
 - Government buildings.
- Stories or mezzanines that do not contain accessible elements or other spaces as determined by Section 1107 or 1108 are not required to be served by an accessible route from an accessible level.

Exception 3 below allows for all required Type A units to be located on the first floor.

1107.4 Accessible Route

At least one accessible route shall connect accessible building or facility entrances with the primary entrance of each Accessible unit, Type A unit and Type B unit within the building or facility and with

those exterior and interior spaces and facilities that serve the units.

Exceptions:

- If due to circumstances outside the control of the owner, either the slope of the finished ground level between accessible facilities and buildings exceeds one unit vertical in 12 units horizontal (1:12), or where physical barriers or legal restrictions prevent the installation of an accessible route, a vehicular route with parking that complies with Section 1106 at each public or common use facility or building is permitted in place of the accessible route.
- In Group I-3 facilities, an accessible route is not required to connect stories or mezzanines where Accessible units, all common use areas serving Accessible units and all public use areas are on an accessible route.
- In Group R-2 facilities with Type A units complying with Section 1107.6.2.2.1, an accessible route is not required to connect stories or mezzanines where Type A units, all common use areas serving Type A units and all public use areas are on an accessible route.

The language below exempts upper floors without elevator service from containing accessible units.

1107.7.1 Structures Without Elevator Service

Where no elevator service is provided in a structure, only the dwelling units and sleeping units that are located on stories indicated in Sections 1107.7.1.1 and 1107.7.1.2 are required to be Type A units and Type B units, respectively. The number of Type A units shall be determined in accordance with Section 1107.6.2.2.1.

Type B units are only required on the ground floor per the section below.

1107.7.1.1 One Story With Type B Units Required

At least one story containing dwelling units or sleeping units intended to be occupied as a residence shall be provided with an accessible entrance from the exterior of the structure and all units intended to be occupied as a residence on that story shall be Type B units.

The exclusion of an elevator may prompt a question about the use of a single means of egress from the second and third floors. A single means of egress is allowed per the IBC 2015 language below. Emergency Escape and Rescue Openings per section 1030 will be provided.

1006.2.1 Egress Based on Occupant Load and Common Path of Egress Travel Distance

Two exits or exit access doorways from any space shall be provided where the design occupant load or the common path of egress travel distance exceeds the values listed in Table 1006.2.1. Exceptions:

- In Group R-2 and R-3 occupancies, one means of egress is permitted within and from individual dwelling units with a maximum occupant load of 20 where the dwelling unit is equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 or 903.3.1.2 and the common path of egress travel does not exceed 125 feet (38 100 mm).

Prepared For: Kevin O'Rourke

Consultant:

ARCHETYPE ARCHITECTS
48 Union Wharf - Portland, Maine 04101

Architect:

Project: DALTON PRUD

PORTLAND, ME

Revisions:

Scale:

Date: 04/05/2021

CODE SUMMARY

A0.01

M. Calculation of Wastewater Flowrate for Dalton PRUD Development

The proposed project includes four (4) separate residential buildings consisting of twelve (12) units each. Based upon the Section 4 of the Maine Subsurface Wastewater Disposal Rules, the project anticipates the following daily flows:

Estimate of Design Flows			
Classification of Water Demand	Number of Units	Gallons per Day per Unit	Total Gallons per Day
<i>Existing</i>			
-	-	-	0
<i>Proposed</i>			
Residential Units (1-Bedroom)	24	120	2,880
Residential Units (2-Bedroom)	24	180	4,320
Total Existing			0
Total Proposed			7,200
Net Change			+7,200 GPD
*Values based on STATE OF MAINE: SUBSURFACE WASTEWATER DISPOSAL RULES, most recent edition			

As seen above, the project anticipates an increase in daily flow rate of approximately 7,200 gallons. Please see attached for the formal application template.



CITY OF PORTLAND WASTEWATER CAPACITY APPLICATION

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



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

Date: April 6, 2021

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

Site Address: Dalton Street Portland, Maine 0410

Proposed Use: Condominiums/ Multifamily residential

Previous Use: Undeveloped Land

Existing Sanitary Flows: 0 GPD

Existing Process Flows: GPD

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

Proposed connection to the combined system within York Street

Chart Block Lot Number: 44-B-007

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

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

2. Please, Submit Contact Information.

City Planner's Name: TBD Phone: 207-874-8719
Owner/Developer Name: Hammond House, LLC
Owner/Developer Address: 94 South Street Yarmouth, ME 04096
Phone: Fax: E-mail: kevin@gravitysports.org
Engineering Consultant Name: Sam Lebel, P.E. - Acorn Engineering, Inc.
Engineering Consultant Address: 65 Hanover Street Portland, Maine 04102
Phone: (207) 775-2655 Fax: E-mail: slebel@acorn-engineering.com

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

3. Please, Submit Domestic Wastewater Design Flow Calculations.

Estimated Domestic Wastewater Flow Generated: 7,200 GPD

Peaking Factor/ Peak Times: Diurnal Residential Flow Pattern

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)
State of Maine Subsurface Wastewater Disposal Rules, Effective 8/3/15

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

4. Please, Submit External Grease Interceptor Calculations.

Total Drainage Fixture Unit (DFU) Values:

N/A

Size of External Grease Interceptor:

Retention Time:

Peaking Factor/ Peak Times:

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

5. Please, Submit Industrial Process Wastewater Flow Calculations

Estimated Industrial Process Wastewater Flows Generated:

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.

N. Lighting

Please see attached for the photometric plan and cut sheets. At this time, the lighting program is simple in nature with sidewalk lighting and typical modest downlit 3000k LED wall packs at the entrances.



Date: Oct 7, 2021

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

Job Name
WINCHESTER DEVELOPMENT
SLA21-50001
PORTLAND ME

Bid Date
Oct 6, 2021

Submittal Date
Oct 7, 2021



Transmittal

Swaney Lighting

PO Box 1597

Scarborough ME 04070

Phone: (207) 883-7100

From: Therese "TC" Freeman X-103

Project WINCHESTER DEVELOPMENT**Quote#** SLA21-50001**Location** PORTLAND ME

Contact:

ATTACHED WE ARE SENDING YOU 1 COPY OF THE FOLLOWING ITEM:

- | | | |
|-----------------------------------|--|--------|
| ☐ Drawings | ☐ Specifications | Other: |
| ☐ Prints | ☐ Information | |
| ☐ Plans | ☒ Submittals | |

THESE ARE TRANSMITTED FOR:

- | | | |
|--|---|---------------------------------|
| ☐ Prior Approval | ☐ Resubmittal for Approval | ☐ Record |
| ☒ Approval | ☐ Corrections | Bids due on: |
| ☐ Approval as Submitted | ☐ Your Use | Other: |
| ☐ Approval as Noted | ☐ Review and Comment | |

Type	MFG	Part
A2	BEACON PRODUCTS	VP-S/24L-55/3K7/2/UNV/A/BC/***
A2	BEACON PRODUCTS	SSSB15-40A-1-B3-***
	Item Note: 15FT POLE ON FLUSH ANCHOR BASE	
A4	BEACON PRODUCTS	VP-S/24L-55/3K7/4W/UNV/A/BC/***
A4	BEACON PRODUCTS	SSSB15-40A-1-B3-***
	Item Note: 15FT POLE ON FLUSH ANCHOR BASE	
W4	Hubbell Outdoor	LNC2-9L-3K-070-4-U-***



VIPER S

SMALL VIPER LUMINAIRE

FEATURES

- Small size companion to Viper Large
- Wide choice of different LED wattage configurations
- Nine optical distributions
- Designed to replace HID lighting up to 400W MH or HPS
- Suitable for wet locations



See Certification Specifications

CONTROL TECHNOLOGY



SPECIFICATIONS

CONSTRUCTION

- Corrosion resistant, die-cast aluminum housing with powder coat paint finish rated for 1000 hour salt spray.
- External hardware is corrosion resistant

OPTICS

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

INSTALLATION

- Mounting options for horizontal arm, vertical tenon or traditional arm mounting available. Mounting hardware included

ELECTRICAL

- Luminaire accepts 100V through 277V, 347V or 480V input 50 Hz to 60 Hz (UNV)
- Ambient operating temperature -40°C to 25°C
- Power factor is $\geq .90$ at full load
- Dimming Drivers are standard and dimming leads are extended out of the luminaire unless control options require connection to the dimming leads. Must specify if wiring leads are to be greater than the 6" standard.

ELECTRICAL (CONTINUED)

- Component-to-component wiring within the luminaire may carry no more than 80% of rated load and is certified by UL for use at 600VAC at 90°C or higher
- Plug disconnects are certified by UL for use at 600 VAC, 13A or higher. 13A rating applies to primary (AC) side only
- Fixture electrical compartment contains all LED driver components
- Optional 7-pin ANSI C136.41-2013 Twist-Lock® photo control receptacle available. Compatible with ANSI C136.41 external wireless control devices
- Surge protection: 20kA
- Lifeshield™ Circuit ([see Electrical Data](#))

CONTROLS

- Available with an optional passive infrared (PIR) motion sensor capable of detecting motion 360° around the luminaire. When no motion is detected for the specified time, the motion response system reduces the wattage to factory preset level, reducing the light level accordingly. When motion is detected by the PIR sensor, the luminaire returns to full wattage and full light output. Please contact Beacon Products if project requirements vary from standard configuration
- Available with [Energeni](#) for optional set dimming, timed dimming with simple delay, or timed dimming based on time of night

STRIKE



RELATED PRODUCTS

Ø [Viper Large](#)

CONTROLS (CONTINUED)

- In addition, Viper can be specified with [SiteSync™ wireless control system](#) for reduction in energy and maintenance costs while optimizing light quality 24/7
- Please consult brand or sales representative when combining control and electrical options as some combinations may not operate as anticipated depending on your application

CERTIFICATIONS

- DLC® (DesignLights Consortium) Qualified. Please refer to the DLC website for specific product qualifications at www.designlights.org
- Certified to UL 1598 and UL 8750
- 3G rated for ANSI C136.31 high vibration applications with MAF mounting
- This product qualifies as a "designated country construction material" per FAR 52.225-11 Buy American-Construction Materials under Trade Agreements effective 04/23/2020. See [Buy American Solutions](#).

WARRANTY

- 5 year warranty
- See [HLI Commercial and Industrial Outdoor Lighting Warranty](#) for additional information

KEY DATA	
Lumen Range	4,045–16,216
Wattage Range	39–136
Efficacy Range (LPW)	100–124
Reported Life (Hours)	L70>60,000
Input Current Range (Amps)	0.1–1.1

Submitted by Swaney Lighting	Job Name: WINCHESTER DEVELOPMENT	Catalog Number: VP-S/24L-55/3K7/2/UNV/A/BC/***	Type: A2
		Notes:	SLA21-50001



VIPER S

SMALL VIPER LUMINAIRE

DATE:	LOCATION:
TYPE:	PROJECT:
CATALOG #:	

ORDERING GUIDE

Example: VPS-24L-55-4K7-4W-UNV-A-DBT-TL-GENI-04-BC

CATALOG #

VPS	LED Engine	CCT/CRI ⁷	Distribution	Rotation	Voltage
Series					
VPS Viper Small	24L-39 39W, LED array	3K7 3000K, 70 CRI	FR Type 1/Front Row	Blank No rotation	UNV 120-277V
	24L-55 55W, LED array	4K7 4000K, 70 CRI	2 Type 2	L Optic rotation left ⁵	347 347V
	36L-65 65W, LED array	5K7 5000K, 70 CRI	3 Type 3	R Optic rotation right ⁵	480 480V
	36L-80 80W, LED array		4F (formerly 4) Type 4		
	48L-110 110W, LED array		4W Type 4 Wide		
	60L-136 136W, LED array		5QM Type 5QM		
			5R Type 5R (rectangular)		
			5W Type 5W (round wide)		
			TC Tennis Court		
			CR Corner Right		
			CL Corner Left		

Mounting	Specify Std. finish	Network Control Options	Options
A Rectangular Arm (formerly RA) for square or round pole	Color	NXWE NX Wireless Enabled (module + radio)	BC Backshield (available for FR, 2, 3, 4, 4W Optics)
A3 Arm for round pole 3.5" - 4.13" OD	BLT Black Matte Textured	NXSPW_F Nx Wireless, PIR Occ. Sensor, Daylight Harvesting ⁷	CD Continuous Dimming
A4 Arm for round pole 4.18" - 5.25" OD	BLS Black Gloss Smooth	WIR Wireless Controls, wiSCAPE	F Fusing
A5 Arm for round pole 5.5" - 6.5" OD	DBT Dark Bronze Matte Textured	SWP SiteSync Pre-Commission ^{1,4}	TB Terminal Block
MAF Mast Arm Fitter (formerly SF2) for 2 3/8" OD horizontal arm	DBS Dark Bronze Gloss Smooth	SWPM_F SiteSync Pre-Commission w/ Sensor ^{1,2,4}	
K Knuckle (formerly PK2) limit to 30° tilt or 2 3/8" OD horizontal arm or vertical tenon	GTT Graphite Matte Textured	Control Options	
WB Wall Bracket	LGS Light Grey Gloss Smooth	GENI-XX ENERGENI ³	
AD Universal Arm for square pole	PSS Platinum Silver Smooth	7PR 7-Pin Receptacle only (shorting cap, photo control, or wireless control provided by others)	
AD3 Adapter for 2.4"-4.1" round pole	WHT White Matte Textured	7PR-SC 7-Pin Receptacle w/Shorting Cap	
AD4 Adapter for 4.2"-5.3" round pole	WHS White Gloss Smooth	7PR-TL 7-Pin Receptacle w/Twist-Lock® photo control	
AD5 Adapter for 5.5"-5.9" round pole	VGT Verde Green Textured	Sensors	
AD6 Adapter for 6.0"-6.5" round pole	Color Option	BTS_F Bluetooth Programmable, PIR Occupancy/Daylight Sensor, 360° lens ⁷	
	CC Custom Color	BTSO_F Bluetooth Programmable, PIR Occupancy/Daylight Sensor, 360° lens, up to 12' mounting height ⁸	
		NXSP_F NX, PIR Occ. Sensor, Daylight Harvesting ⁷	
		SCP/_F Programmable Occupancy Sensor w/ daylight control ^{1,2,6}	

House Side Shield Accessories

- ☐ HSS/VP-S/90-FB/XXX 90° shield front or back
- ☐ HSS/VP-S/90-LR/XXX 90° shield left or right
- ☐ HSS/VP-S/270-FB/XXX 270° shield front or back
- ☐ HSS/VP-S/270-LR/XXX 270° shield left or right
- ☐ HSS/VP-S/360/XXX Full shield

Replace XXX with notation for desired finish color. Refer to page 8 for shield images.

Mounting Accessories

- ☐ VPL-AD-RPA3 2.4"-4.1" Round Pole Adapter for AD arm
- ☐ VPL-AD-RPA4 4.2"-5.3" Round Pole Adapter for AD arm
- ☐ VPL-AD-RPA5 5.5"-5.9" Round Pole Adapter for AD arm
- ☐ VPL-AD-RPA6 6.0"-6.5" Round Pole Adapter for AD arm

Notes:

- Not available with other wireless control or sensor options
- Specify mounting height; 8 = 8' or less, 40 = 14' to 30'
- Specify routine setting code (example GENI-04). See [ENERGENI brochure and instructions](#) for setting table and options. Not available with sensor or SiteSync options
- Specify group and zone at time of order. See [www.hubbelllighting.com/sitesync](#) for further details. Order at least one SiteSync interface accessory SWUBS or SWTAB. Each option contains SiteSync License, GUI, and Bridge Node
- Only available with FR, 2, 3, 4, 4W and 5R distributions
- Specify mounting height; 8=8'; 30=30'
- Replace "._" with "14" for up to 14' mounting height, "40F" for 15-40' mounting height
- Replace "._" with "12" for up to 12' mounting height



VIPER S

SMALL VIPER LUMINAIRE

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

ORDERING GUIDE (CONTINUED)

Accessories and Services (Ordered Separately)

- ☐ **SCP-REMOTE** Remote Control for SCP/_F option. Order at least one per project to program and control the occupancy sensor
- ☐ **SWUSB*** SiteSync interface software loaded on USB flash drive for use with owner supplied PC (Windows based only). Includes SiteSync license, software and USB radio bridge node
- ☐ **SWTAB*** Windows tablet and SiteSync interface software. Includes tablet with preloaded software, SiteSync license and USB radio bridge node
- ☐ **SWBRG** SiteSync USB radio bridge node only. Order if a replacement is required or if an extra bridge node is requested
- ☐ **SW7PR+** SiteSync 7-Pin on fixture module On/Off/Dim, Daylight Sensor 120-480VAC
- ☐ **BIRD-SPIKE-3** Bird Spikes

* When ordering SiteSync at least one of these two interface options must be ordered per project.
+ Available as a SiteSync retrofit solution for fixtures with an existing 7-pin receptacle.

Hubbell Control Solutions — Accessories (Sold Separately)

NX Distributed Intelligence™

- ☐ **NXOFM-1R1D-UNV** On-fixture Module (7-pin), On / Off / Dim, Daylight Sensor with HubbellNET Radio and Bluetooth® Radio, 120-480VAC

wiSCAPE® Lighting Control

- ☐ **WIR-RME-L** On-fixture Module (7-pin or 5-pin), On / Off / Dim, Daylight Sensor with wiSCAPE Radio, 110-480VAC

For additional information related to these accessories please visit www.hubbellcontrolsolutions.com. Options provided for use with integrated sensor, please view specification sheet ordering information table for details.

CONTROLS

SiteSync — Precommissioned Ordering Information:

When ordering a fixture with the SiteSync lighting control option, additional information will be required to complete the order. The SiteSync Commissioning Form or alternate schedule information must be completed. This form includes Project location, Group information, and Operating schedules. For more detailed information please visit the SiteSync family page on our website or contact Hubbell Lighting tech support at 864-678-1000.



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

Examples: VP-L/80L-235/4K7/3/UNV/A/DB/SWP/ SiteSync only
VP-L/80L-235/4K7/3/UNV/A/DB/SWPM-40F/ SiteSync with Motion Control

SiteSync 7-Pin Module:

- SiteSync features in a new form
- Available as an accessory for new construction or retrofit applications (with existing 7-Pin receptacle)
- Does not interface with occupancy sensors



SW7PR

NX Distributed Intelligence™ Lighting Controls:

Supports both indoor and outdoor applications in a variety of deployment options: wired, wireless and hybrid. Integrates with and enables a wide array of luminaires including those with SpectraSync Color Tuning Technology.



NX Integrated Controls Reference								
NX Option	Sensor	Networkable	Scheduling	Occupancy	Daylight Harvesting	0-10V Dimming	On/off Control	Bluetooth® App Programming
NX Networked – Wireless								
NXOFM-1R1D-UNV	SCLNX	Yes	Yes	Yes	Yes	Yes	Yes	Yes, Bluetooth App

wiSCAPE™:

Supports remote management, monitoring and metering of outdoor wireless lighting applications such as smart campuses, smart cities, parking lots and roadways.



wiSCAPE Reference								
wiSCAPE Option	Sensor	Networkable	Scheduling	Occupancy	Daylight Harvesting	0-10V Dimming	On/off Control	Bluetooth® App Programming
Networked – Wireless								
WIR-RME-L	WIR-RME-L	Yes	Yes	No	Yes	Yes	Yes	wiSCAPE Gateway

Submitted by Swaney Lighting	Job Name: WINCHESTER DEVELOPMENT	Catalog Number: VP-S/24L-55/3K7/2/UNV/A/BC/***	Type: A2
		Notes:	SLA21-50001



VIPER S

SMALL VIPER LUMINAIRE

DATE:	LOCATION:
TYPE:	PROJECT:
CATALOG #:	

DELIVERED LUMENS

# of LEDs	DRIVE CURRENT (mA)	SYSTEM WATTS	DISTRIBUTION TYPE	5K (5000K nominal, 70 CRI)					4K (4000K nominal, 70 CRI)					3K (3000K nominal, 70 CRI)				
				LUMENS	LPW	B	U	G	LUMENS	LPW	B	U	G	LUMENS	LPW	B	U	G
24	500mA	39W	FR	4689	120	1	0	0	4665	120	1	0	0	4432	114	1	0	0
			2	4523	116	1	0	1	4500	115	1	0	1	4275	110	1	0	1
			3	4436	114	1	0	1	4414	113	1	0	1	4194	108	1	0	1
			4F	4362	112	1	0	2	4340	111	1	0	2	4123	106	0	0	2
			4W	4280	110	1	0	2	4258	109	1	0	2	4045	104	1	0	2
			5QM	4442	114	2	0	1	4420	113	2	0	1	4199	108	2	0	0
			5R	4472	115	2	0	2	4450	114	2	0	2	4227	108	2	0	2
			5W	4335	112	3	0	1	4336	111	3	0	1	4114	105	3	0	1
			TC	4561	117	1	0	1	4538	116	1	0	1	4311	111	1	0	1
			CL	4758	122	1	0	2	4758	122	1	0	2	4329	111	1	0	1
			CR	4773	122	1	0	2	4773	122	1	0	2	4361	112	1	0	1
			FR	6357	118	1	0	1	6486	120	1	0	1	5804	107	1	0	1
24	700 mA	55W	2	6132	114	1	0	1	6257	116	1	0	2	5599	104	1	0	1
			3	6015	111	1	0	2	6137	114	1	0	2	5492	102	1	0	2
			4F	5921	110	1	0	2	6034	112	1	0	2	5400	100	1	0	2
			4W	5793	108	1	0	2	5909	110	1	0	2	5272	98	1	0	2
			5QM	6022	112	2	0	1	6145	114	2	0	1	5499	102	2	0	1
			5R	6063	112	3	0	3	6187	115	3	0	3	5536	103	3	0	3
			5W	5908	109	3	0	1	6028	112	3	0	1	5908	102	3	0	1
			TC	6183	113	1	0	1	6309	118	1	0	1	5645	105	1	0	1
			CL	6707	122	1	0	2	6707	122	1	0	2	6117	111	1	0	2
			CR	6729	122	1	0	2	6729	122	1	0	2	6143	112	1	0	2
			FR	7864	121	1	0	1	8041	124	1	0	1	7189	111	1	0	1
			2	7586	117	1	0	2	7757	119	1	0	2	6934	107	1	0	2
36	560 mA	65W	3	7441	114	1	0	2	7609	117	1	0	2	6802	105	1	0	2
			4F	7317	110	1	0	2	7482	112	1	0	2	6688	100	1	0	2
			4W	8690	108	1	0	2	8864	110	1	0	2	7908	98	1	0	2
			5QM	7450	115	3	0	1	7618	117	3	0	1	6810	105	3	0	1
			5R	7501	115	3	0	3	7670	118	3	0	3	6857	105	3	0	3
			5W	7309	112	3	0	2	7473	115	3	0	2	6681	103	3	0	1
			TC	7540	116	1	0	1	7694	118	1	0	1	7694	122	1	0	2
			CL	8179	126	2	0	2	8179	126	2	0	2	7467	115	1	0	2
			CR	8205	126	2	0	2	8205	126	2	0	2	7492	115	1	0	2
			FR	9535	118	1	0	1	9730	120	1	0	1	8706	107	1	0	1
			2	9197	114	1	0	2	9385	116	1	0	2	8398	104	1	0	2
			3	9022	111	1	0	2	9206	114	1	0	2	8238	102	1	0	2
36	700 mA	80W	4F	8871	110	1	0	2	9052	112	1	0	2	8100	100	1	0	2
			4W	11587	108	1	0	3	11819	110	1	0	3	10544	98	1	0	3
			5QM	9033	112	3	0	1	9217	114	3	0	1	8248	102	3	0	1
			5R	9095	112	3	0	3	9280	115	3	0	3	8304	103	3	0	3
			5W	8861	109	3	0	2	9043	112	3	0	2	8092	100	3	0	2
			TC	9275	115	1	0	1	9464	118	1	0	1	8468	105	1	0	1
			CL	10060	126	2	0	2	10060	126	2	0	2	9184	115	2	0	2
			CR	10093	126	2	0	2	10093	126	2	0	2	9215	115	2	0	2
			FR	12713	118	1	0	1	12973	120	2	0	1	11608	107	1	0	1
			2	12263	114	2	0	2	12513	116	2	0	2	11197	104	2	0	2
			3	12029	111	2	0	2	12275	114	2	0	2	10984	102	1	0	2
			4F	11828	110	1	0	3	12069	112	1	0	3	10800	100	1	0	2
48	700 mA	110W	4W	11609	108	1	0	3	11841	110	1	0	3	10564	98	1	0	3
			5QM	12044	112	3	0	2	12290	114	3	0	2	10997	102	3	0	1
			5R	12126	112	3	0	3	12374	115	3	0	3	11072	103	3	0	3
			5W	12126	109	4	0	2	12057	112	4	0	2	10789	100	4	0	2
			RC	12366	115	1	0	2	12619	118	1	0	1	11290	105	1	0	2
			CL	13414	122	2	0	3	13414	122	2	0	3	12246	111	2	0	2
			CR	13458	122	2	0	3	13458	122	2	0	3	12287	112	2	0	2
			FR	15891	117	2	0	2	16216	120	2	0	2	14511	107	2	0	1
			2	15329	113	2	0	2	15642	116	2	0	2	13997	103	2	0	2
			3	15037	111	2	0	3	15344	113	2	0	3	13730	101	2	0	3
			4F	14784	109	1	0	3	15086	111	1	0	3	13500	100	1	0	3
			4W	14802	109	2	0	3	15104	112	2	0	3	13515	100	2	0	3
60	700 mA	136W	5QM	15055	111	3	0	2	15362	114	3	0	2	13747	102	3	0	2
			5R	15158	112	4	0	4	15469	114	4	0	4	13841	102	4	0	4
			5W	14781	109	4	0	2	15083	111	4	0	2	13495	100	4	0	2
			TC	15458	115	1	0	2	15834	118	1	0	2	14113	105	1	0	2
			CL	16768	123	3	0	3	16768	123	3	0	3	15309	113	2	0	3
			CR	16823	124	3	0	3	16823	124	3	0	3	15359	113	2	0	3

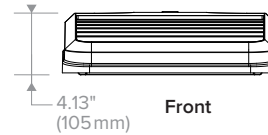
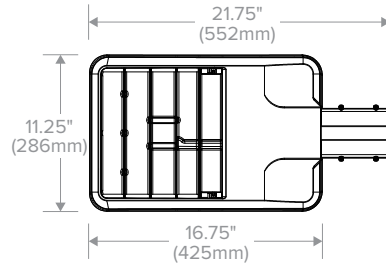
**VIPER S**

SMALL VIPER LUMINAIRE

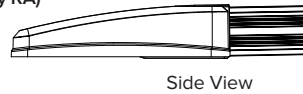
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TYPE: _____ PROJECT: _____

CATALOG #: _____

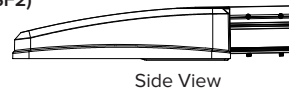
DIMENSIONS

Weight	15.0 lbs (6.8 kg)
EPA	.67 ft ²

A Arm (formerly RA)

Side View

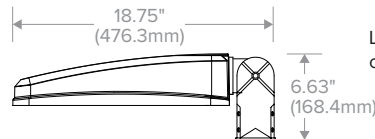
Back View

MAF (formerly SF2)

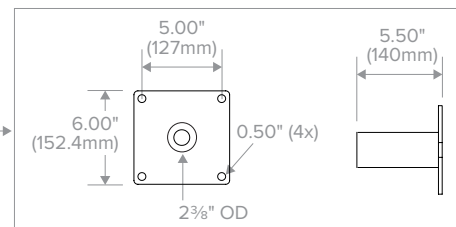
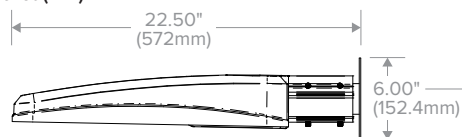
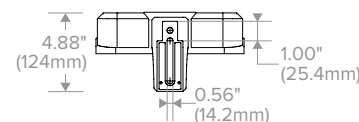
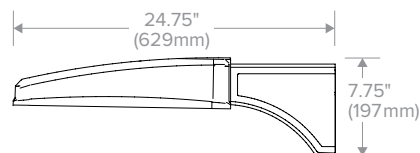
Side View

Back View

Accepts 2 3/8" OD tenon, min 5" long.

2 3/8" Adjustable Knuckle (K) (formerly PK2)

Limit to 30° tilt. Sensor, photocell and wireless controls should not be tilted above horizontal.

Wall Bracket (WB)**AD Decorative Arm**See [page 9](#) for mounting details.



Job Name:
WINCHESTER DEVELOPMENT

Catalog Number:

VP-S/24L-55/3K7/2/UNV/A/BC/***

Type:

A2

Notes:

SLA21-50001



VIPER S

SMALL VIPER LUMINAIRE

DATE: _____ LOCATION: _____

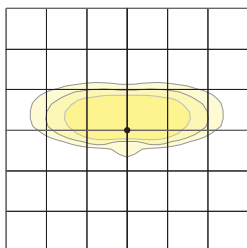
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CATALOG #: _____

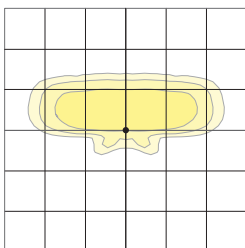
PHOTOMETRY

The following diagrams represent the general distribution options offered for this product. For detailed information on specific product configurations, see [website photometric test reports](#).

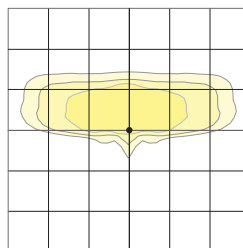
Type FR – Front Row/Auto Optic



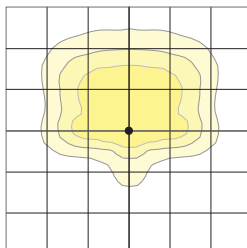
Type 2



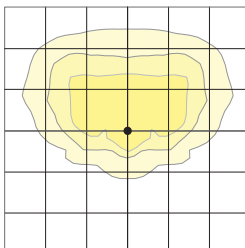
Type 3



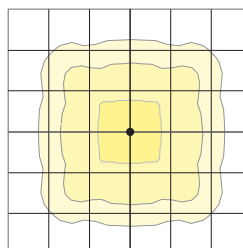
Type 4



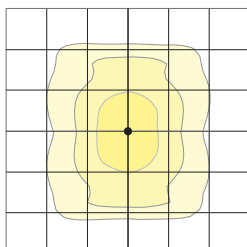
Type 4 Wide



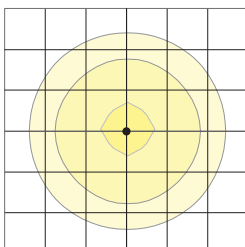
Type 5QM



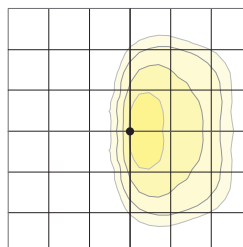
Type 5R (rectangular)



Type 5W (round wide)



Type TC





VIPER S

SMALL VIPER LUMINAIRE

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

ELECTRICAL DATA

# OF LEDS	NUMBER OF DRIVERS	DRIVE CURRENT (mA)	INPUT VOLTAGE (V)	SYSTEM POWER (w)	CURRENT (Amps)
24	1	500 mA	120	39	0.33
			277		0.14
			347		0.11
			480		0.08
			120		0.5
24	1	700 mA	277	55	0.2
			347		0.2
			480		0.1
			120		0.65
			277		0.28
36	1	525 mA	347	65	0.22
			480		0.16
			120		0.7
			277		0.3
		700 mA	347	80	0.2
			480		0.2
			120		0.9
			277		0.4
48	1	700 mA	347	110	0.3
			480		0.2
			120		1.1
			277		0.5
60	1	700 mA	347	136	0.4
			480		0.3
			120		1.1
			277		0.5

PROJECTED LUMEN MAINTENANCE						
Ambient Temp.	0	25,000	50,000	TM-21-11 60,000 ¹	100,000	Calculated L70 (HOURS)
25°C / 77°C	1	0.97	0.95	0.95	0.92	>377,000

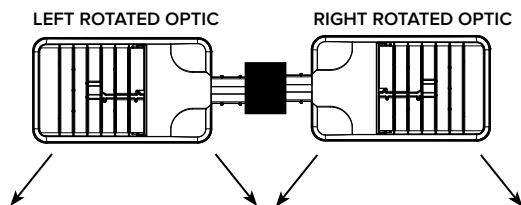
¹ Projected per IESNA TM-21-11.
Data references the extrapolated performance projections for the 60 LED base model in a 25°C ambient, based on 10,000 hours of LED testing per IESNA LM-80-08.

LIFESHIELD™ CIRCUIT

Protects luminaire from excessive temperature. The device activates at a specific, factory-preset temperature and progressively reduces power over a finite temperature range. Operation is smooth and undetectable to the eye. Thermal circuit is designed to "fail on", allowing the luminaire to revert to full power in the event of an interruption of its power supply or faulty wiring connection to the drivers. The device can co-exist with other 0-10V control devices (occupancy sensors, external dimmers, etc.)

ADDITIONAL INFORMATION

ROTATION OPTIONS



**VIPER S**

SMALL VIPER LUMINAIRE

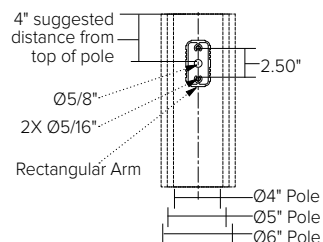
DATE: _____ LOCATION: _____

TYPE: _____ PROJECT: _____

CATALOG #:

ADDITIONAL INFORMATION (CONTINUED)**DRILL PATTERN****RECTANGULAR ARM (A)**

Compatible with Pole drill pattern B3

**EPA**

Config.	EPA
1	.67
2 @ 90°	1.06
2 @ 180°	1.34

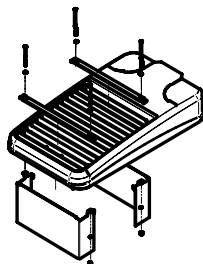
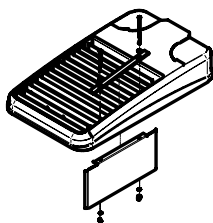
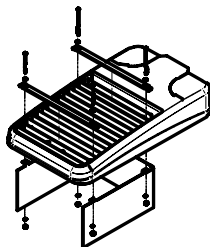
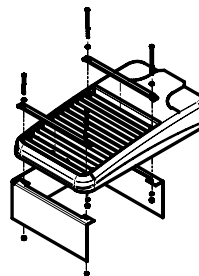
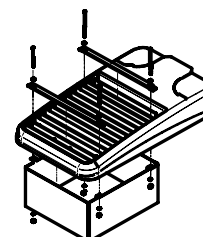
Config.	EPA
3 @ 120°	1.68
3 @ 90°	1.73
4 @ 90°	2.12

TENON TOP POLE BRACKET ACCESSORIES (ORDER SEPARATELY)

(2 3/8" OD tenon)

TENON TOP POLE BRACKET ACCESSORIES (Order Separately)

- ☐ **SETAVP-XX** Square tenon adapter (4 at 90°) for A - Rectangular Arm mounting option only
- ☐ **RETAVP-XX** Round tenon adapter (4 at 90°) for A - Rectangular Arm mounting option only
- ☐ **SETA2XX** Square tenon adapter (4 at 90°) for AD - Universal Arm mounting option only
- ☐ **RETA2XX** Round tenon adapter (4 at 90°) for AD3 - Universal Arm mounting option only

HOUSE SIDE SHIELD FIELD INSTALL ACCESSORIES
HSS/VP-S/90-FB/XXX
 90° shield front or back
 (2 shields shown)

HSS/VP-S/90-LR/XXX
 90° shield left or right
 (1 shield shown in left orientation)

HSS/VP-S/270-FB/XXX
 270° shield front or back
 (1 shield shown in back orientation)

HSS/VP-S/270-LR/XXX
 270° shield left or right
 (1 shield shown in right orientation)

HSS/VP-S/360/XXX
 Full shield
 (1 shield shown)

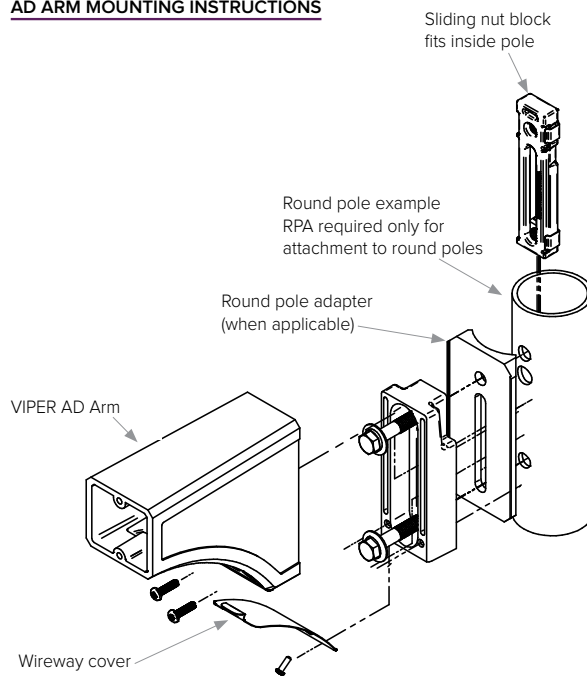
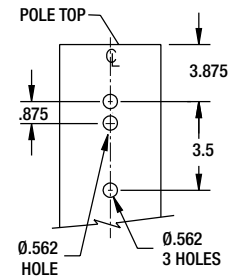
**VIPER S**

SMALL VIPER LUMINAIRE

DATE: _____ LOCATION: _____

TYPE: _____ PROJECT: _____

CATALOG #: _____

ADDITIONAL INFORMATION (CONTINUED)**AD ARM MOUNTING INSTRUCTIONS****DECORATIVE ARM (AD)**
Compatible with pole drill pattern S2



Job Name:
WINCHESTER DEVELOPMENT

Catalog Number:
SSSB15-40A-1-B3-***

Notes: 15FT POLE ON FLUSH ANCHOR
BASE

Type:

A2

SLA21-50001

SSS-B SERIES POLES

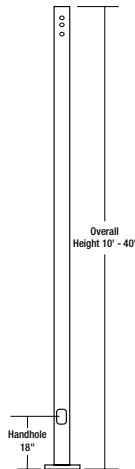
SQUARE STRAIGHT STEEL

Cat.#

Job

Type

Approvals



APPLICATIONS

- Lighting installations for side and top mounting of luminaires with effective projected area (EPA) not exceeding maximum allowable loading of the specified pole in its installed geographic location

CONSTRUCTION

- SHAFT:** One-piece straight steel with square cross section, flat sides and minimum 0.23" radius on all corners; Minimum yield of 46,000 psi (ASTM-A500, Grade B); Longitudinal weld seam to appear flush with shaft side wall; Steel base plate with axial bolt circle slots welded flush to pole shaft having minimum yield of 36,000 psi (ASTM A36)
- BASE COVER:** Two-piece square aluminum base cover included standard
- POLE CAP:** Pole shaft supplied with removable cover when applicable; Tenon and post-top configurations also available
- HAND HOLE:** Rectangular 3x5 steel hand hole frame (2.38" x 4.38" opening); Mounting provisions for grounding lug located behind gasketed cover
- ANCHOR BOLTS:** Four galvanized anchor bolts provided per pole with minimum yield of 55,000 psi (ASTM F1554). Galvanized hardware with two washers and two nuts per bolt for leveling

Anchor bolt part numbers: 3/4 x 30 x 3 — TAB-30-M38

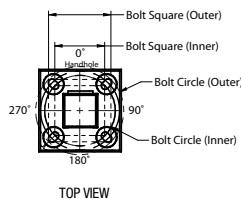
1 x 36 x 4 — TAB-36-M38

FINISH

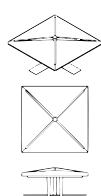
- Durable thermoset polyester powder coat paint finish with nominal 3.0 mil thickness
- Powder paint prime applied over "white metal" steel substrate cleaned via mechanical shot blast method
- Decorative finish coat available in multiple standard colors; Custom colors available; RAL number preferable

WAREHOUSE 'STOCKED' POLES:

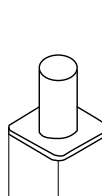
- SSSH20-40A-4-HV-DB-RDC, SSSH25-40A-4-HV-DB-RDC and SSSH30-50B-4-HV-DB-RDC
- The HV designation in the above catalog numbers is a combination drill pattern of the Hubbell Outdoor S2 pattern and the Beacon B3/B4 Viper pattern (rectangular arm mounting)



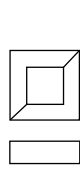
POLE CAP



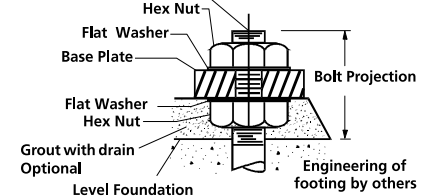
TENON



BASE COVER



BASE DETAIL



ORDERING INFORMATION

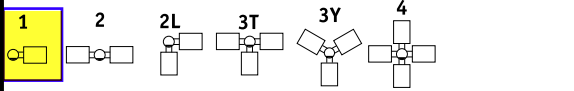
ORDERING EXAMPLE:

SSS - B - 25 - 40 - A/B/C - 2L - B3 - BLT - UL

Reference page 2 for available configurations

SERIES	HEIGHT	SHAFT	THICKNESS	MOUNTING	Specify Std. finish	OPTIONS
SSS-B Square Straight Steel Pole Beacon	Reference page 2 Ordering matrix 15	Reference page 2 Ordering matrix 40	Reference page 2 Ordering matrix A	1 Single arm mount 2 Two fixtures at 180° 2L Two fixtures at 90° 3T Three fixtures at 90° 4 Four fixtures at 90° TA Tenon (2.38" OD x 4" Tall) TB Tenon (2.88" OD x 4" Tall) TC Tenon (3.5" OD x 6" Tall) TR¹ Removable Tenon (2.375 x 4.25) OT Open Top (includes pole cap)	BLT Black Matte Textured BLS Black Gloss Smooth DBT Dark Bronze Matte Textured DBS Dark Bronze Gloss Smooth GTT Graphite Matte Textured LGS Light Grey Gloss Smooth PSS Platinum Silver Smooth WHT White Matte Textured WHS White Gloss Smooth VG Verde Green Textured Color Option CC Custom Color	GFF² 20 Amp GFCI Receptacle and Cover EHH² Extra Handhole C05² .5" Coupling C07² .75" Coupling C20² 2" Coupling MPB² Mid-pole Luminaire Bracket VM2 2nd mode vibration damper LAB Less Anchor Bolts UL UL Certified

MOUNTING ORIENTATION



- Removable tenon used in conjunction with side arm mounting. First specify desired arm configuration followed by the "TR" notation. Example: SSS-B-25-40-A-1-B1-TR-BBT
- Specify option location using logic found on page 2 (Option Orientation)
- VM1 recommended on poles 20' and taller with EPA of less than 1.

ACCESSORIES - Order Separately

Catalog Number	Description
VM1 ³	1st mode vibration damper
VM2SXX	2nd mode vibration damper

DRILL PATTERN

- B1** Cruiser, "AM" arm
B3 2 bolt (2-1/2" spacing), Viper "A" arm
S2 2 bolt (3-1/2" spacing), Viper "AD" arm



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SSS-B POLES-SPEC

JULY 28, 2020 8:45 AM




Job Name:
 WINCHESTER DEVELOPMENT

Catalog Number:
 SSSB15-40A-1-B3-***

 Notes: 15FT POLE ON FLUSH ANCHOR
 BASE

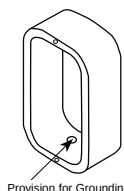
Type:
A2

SLA21-50001

ORDERING INFORMATION Cont.

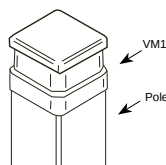
Catalog Number	Height		Nominal Shaft Dimensions	Wall Thickness	Bolt Circle (suggested)	Bolt Circle (range)	Bolt Square (range)	Base Plate Square	Anchor bolt size	Bolt Projection	Pole weight
	Feet	Meters									
SSS-B-10-40-A-XX-XX	10	3.0	4" square	0.125"	9"	8" - 10"	5.66" - 7.07"	9"	3/4" x 30" x 3"	3.5	77
SSS-B-12-40-A-XX-XX	12	3.7	4" square	0.125"	9"	8" - 10"	5.66" - 7.07"	9"	3/4" x 30" x 3"	3.5	90
SSS-B-14-40-A-XX-XX	14	4.3	4" square	0.125"	9"	8" - 10"	5.66" - 7.07"	9"	3/4" x 30" x 3"	3.5	103
SSS-B-16-40-A-XX-XX	16	4.9	4" square	0.125"	9"	8" - 10"	5.66" - 7.07"	9"	3/4" x 30" x 3"	3.5	116
SSS-B-18-40-A-XX-XX	18	5.5	4" square	0.125"	9"	8" - 10"	5.66" - 7.07"	9"	3/4" x 30" x 3"	3.5	129
SSS-B-20-40-A-XX-XX	20	6.1	4" square	0.125"	9"	8" - 10"	5.66" - 7.07"	9"	3/4" x 30" x 3"	3.5	142
SSS-B-25-40-A-XX-XX	25	7.6	4" square	0.125"	9"	8" - 10"	5.66" - 7.07"	9"	3/4" x 30" x 3"	3.5	175
SSS-B-14-40-B-XX-XX	14	4.3	4" square	.188"	11"	10" - 12"	7.07" - 8.48"	10.50"	3/4" x 30" x 3"	3.5	152
SSS-B-16-40-B-XX-XX	16	4.9	4" square	.188"	11"	10" - 12"	7.07" - 8.48"	10.50"	3/4" x 30" x 3"	3.5	171
SSS-B-18-40-B-XX-XX	18	5.5	4" square	.188"	11"	10" - 12"	7.07" - 8.48"	10.50"	3/4" x 30" x 3"	3.5	190
SSS-B-20-40-B-XX-XX	20	6.1	4" square	.188"	11"	10" - 12"	7.07" - 8.48"	10.50"	3/4" x 30" x 3"	3.5	209
SSS-B-25-40-B-XX-XX	25	7.6	4" square	.188"	11"	10" - 12"	7.07" - 8.48"	10.50"	3/4" x 30" x 3"	3.5	257
SSS-B-30-40-B-XX-XX	30	9.1	4" square	.188"	11"	10" - 12"	7.07" - 8.48"	10.50"	3/4" x 30" x 3"	3.5	304
SSS-B-16-50-B-XX-XX	16	4.9	5" square	.188"	11"	10.25" - 13.25"	7.25" - 9.37"	11.50"	1" x 36" x 4"	4.5	219
SSS-B-18-50-B-XX-XX	18	5.5	5" square	.188"	11"	10.25" - 13.25"	7.25" - 9.37"	11.50"	1" x 36" x 4"	4.5	243
SSS-B-20-50-B-XX-XX	20	6.1	5" square	.188"	11"	10.25" - 13.25"	7.25" - 9.37"	11.50"	1" x 36" x 4"	4.5	267
SSS-B-25-50-B-XX-XX	25	7.6	5" square	.188"	11"	10.25" - 13.25"	7.25" - 9.37"	11.50"	1" x 36" x 4"	4.5	327
SSS-B-30-50-B-XX-XX	30	9.1	5" square	.188"	11"	10.25" - 13.25"	7.25" - 9.37"	11.50"	1" x 36" x 4"	4.5	387
SSS-B-25-50-C-XX-XX	25	7.6	5" square	.25"	11"	10.25" - 13.25"	7.25" - 9.37"	11.50"	1" x 36" x 4"	4.5	427
SSS-B-30-50-C-XX-XX	30	9.1	5" square	.25"	11"	10.25" - 13.25"	7.25" - 9.37"	11.50"	1" x 36" x 4"	4.5	507
SSS-B-20-60-B-XX-XX	20	6.1	6" square	.188"	12"	11.00" - 13.25"	7.81" - 9.37"	12.25"	1" x 36" x 6"	4.5	329
SSS-B-25-60-B-XX-XX	25	7.6	6" square	.188"	12"	11.00" - 13.25"	7.81" - 9.37"	12.25"	1" x 36" x 6"	4.5	404
SSS-B-30-60-B-XX-XX	30	9.1	6" square	.188"	12"	11.00" - 13.25"	7.81" - 9.37"	12.25"	1" x 36" x 6"	4.5	479
SSS-B-35-60-B-XX-XX	35	10.7	6" square	.188"	12"	11.00" - 13.25"	7.81" - 9.37"	12.25"	1" x 36" x 6"	4.5	554
SSS-B-40-60-B-XX-XX	40	12.2	6" square	.188"	12"	11.00" - 13.25"	7.81" - 9.37"	12.25"	1" x 36" x 6"	4.5	629

NOTE: Factory supplied template must be used when setting anchor bolts. Beacon Products will deny any claim for incorrect anchorage placement resulting from failure to use factory supplied template and anchor bolts.

EHH - EXTRA HANDHOLE


Provision for Grounding

C05 - C07 - C20 - COUPLING

VM1 - VIBRATION DAMPER 1ST MODE


Field Installed Pole Top damper designed to reduce pole top deflection or sway. VM1 is recommended for pole systems 25' and taller with a total EPA of 1.0 or less.

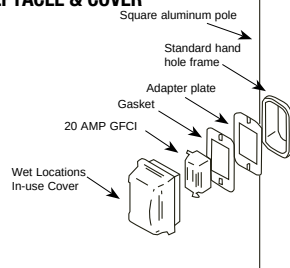
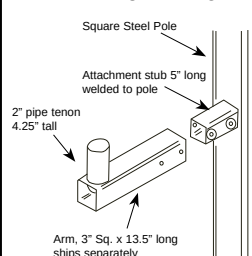
VM2 - VIBRATION DAMPER 2ND MODE


Factory installed, internal damper designed to alter pole resonance to reduce movement and material fatigue caused by 2nd mode vibration.

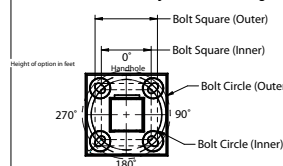
VM2SXX - VIBRATION DAMPER 2ND MODE

 VM2S08 - 8'
 VM2S12 - 12'
 VM2S16 - 16'
 VM2S20 - 20'
 VM2S24 - 24'

Field installed, internal damper designed to alter pole resonance to reduce movement and material fatigue caused by 2nd mode vibration.

GFI - 20 AMP GFCI RECEPTACLE & COVER

MPB - MID POLE BRACKET

OPTION ORIENTATION

Follow the logic below when ordering location specific options. For each option, include its orientation (in degrees) and its height (in feet). Example: Option C07 should be ordered as: SSS-B-20-40-A-TA-DB-C05-0-15 (.5" coupling on the handhole/arm side of pole, 15 feet up from the pole base) 1' spacing required between option. Consult factory for other configurations.


 For more information about pole vibration and vibration dampers, please consult https://hubbellcdn.com/ohwassets/HLL/outdoor/resources/literature/files/Pole_Wind_Induced_Flyer_HL010022.pdf
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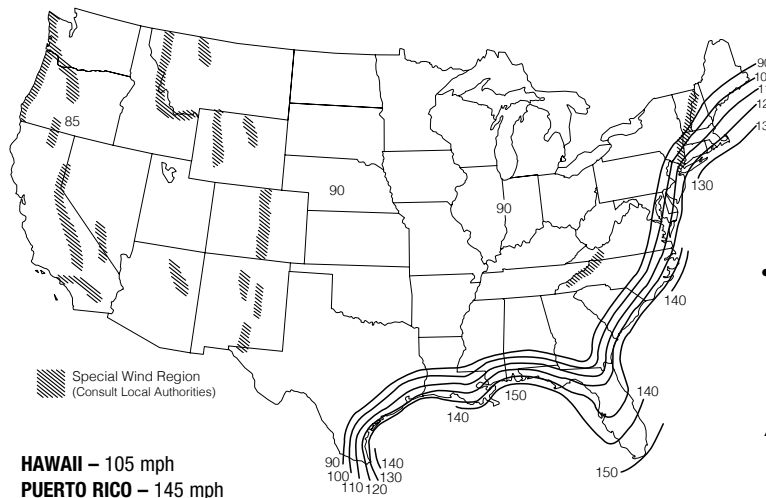
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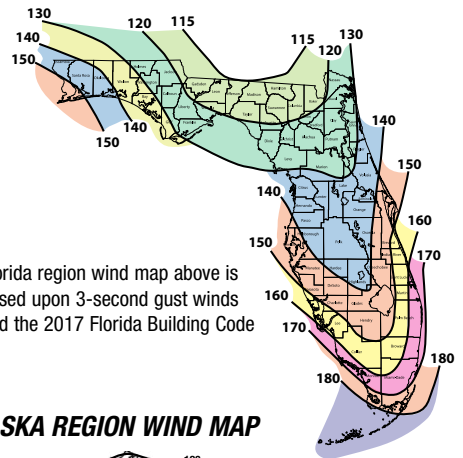
HUBBELL
 Lighting

SSS-B POLES-SPEC

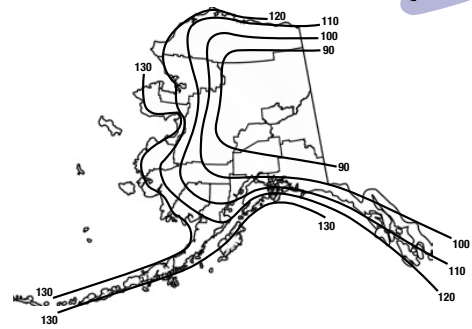
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**ASCE7-05 WIND MAP**

HAWAII – 105 mph
PUERTO RICO – 145 mph

FLORIDA REGION WIND MAP

- Florida region wind map above is based upon 3-second gust winds and the 2017 Florida Building Code

ALASKA REGION WIND MAP

ASCE 7-05 wind map EPA Load Rating - 3 second gust wind speeds (Use for all locations except Florida)										
Catalog Number	85	90	100	105	110	120	130	140	145	150
SSS-B-10-40-A	25.0	25.0	25.0	22.8	20.6	17.0	14.2	11.9	11.0	10.1
SSS-B-12-40-A	25.0	25.0	20.0	18.0	16.1	13.2	10.8	8.9	8.1	7.4
SSS-B-14-40-A	23.1	20.4	16.1	14.3	12.8	10.2	8.2	6.6	5.9	5.3
SSS-B-16-40-A	19.0	16.7	13.0	11.5	10.1	7.9	6.2	4.7	4.1	3.6
SSS-B-18-40-A	15.6	13.6	10.0	9.0	7.8	5.9	4.4	3.1	2.6	2.1
SSS-B-20-40-A	12.7	10.9	7.9	6.9	5.9	4.2	2.8	1.7	1.3	0.9
SSS-B-25-40-A	7.3	5.9	3.8	2.9	2.1	0.8	NR	NR	NR	NR
SSS-B-14-40-B	25.0	25.0	23.3	20.8	18.6	15.1	12.3	10.2	9.2	8.4
SSS-B-16-40-B	25.0	24.9	19.4	17.3	15.4	12.3	9.9	8.0	7.2	6.4
SSS-B-18-40-B	24.0	20.8	16.1	14.2	12.5	9.8	7.7	6.1	5.3	4.7
SSS-B-20-40-B	20.2	17.5	13.2	11.6	10.1	7.7	5.9	4.4	3.8	3.2
SSS-B-25-40-B	12.8	11.0	7.9	6.7	5.5	3.7	2.3	1.2	0.7	NR
SSS-B-30-40-B	8.0	6.6	4.1	3.1	2.2	0.8	NR	NR	NR	NR
SSS-B-16-50-B	25.0	25.0	25.0	25.0	24.8	20.1	16.5	13.6	12.3	11.2
SSS-B-18-50-B	25.0	25.0	25.0	22.9	20.4	16.4	13.2	10.7	9.6	8.6
SSS-B-20-50-B	25.0	25.0	21.3	18.9	16.7	13.2	10.4	8.1	7.2	6.3
SSS-B-25-50-B	20.7	17.8	13.3	11.5	9.8	7.2	5.0	3.3	2.6	1.9
SSS-B-30-50-B	13.5	11.3	7.7	6.2	4.9	2.8	1.1	NR	NR	NR
SSS-B-25-50-C	25.0	25.0	19.4	17.1	15.1	11.7	9.0	6.9	6.0	5.1
SSS-B-30-50-C	20.1	17.3	12.7	10.9	9.3	6.6	4.5	2.8	2.1	1.4
SSS-B-20-60-B	25.0	25.0	25.0	25.0	25.0	20.2	16.1	12.9	11.5	10.3
SSS-B-25-60-B	25.0	25.0	20.6	18.0	15.6	11.8	8.7	6.2	5.2	4.2
SSS-B-30-60-B	21.4	18.1	12.9	10.7	8.8	5.7	3.3	1.3	NR	NR
SSS-B-35-60-B	14.0	11.3	6.9	5.2	3.6	1.0	NR	NR	NR	NR
SSS-B-40-60-B	8.1	5.8	2.2	nr	NR	NR	NR	NR	NR	NR

Florida Building Code 2017 EPA Load Rating - 3 second gust wind speeds (Use for Florida only)								
Catalog Number	115	120	130	140	150	160	170	180
SSS-B-10-40-A	25.0	25.0	25.0	25.0	21.4	18.4	15.9	13.9
SSS-B-12-40-A	25.0	25.0	23.6	19.8	16.7	14.2	12.1	10.4
SSS-B-14-40-A	25.0	23.1	19.0	15.7	13.1	10.9	9.1	7.6
SSS-B-16-40-A	20.8	18.7	15.2	12.3	10.1	8.2	6.7	5.4
SSS-B-18-40-A	16.8	15.0	11.9	9.4	7.5	5.9	4.5	3.4
SSS-B-20-40-A	13.6	11.9	9.2	7.1	5.3	3.9	2.7	1.7
SSS-B-25-40-A	7.4	6.2	4.1	2.5	1.1	NR	NR	NR
SSS-B-14-40-B	25.0	23.6	19.4	16.1	13.4	11.2	9.4	7.8
SSS-B-16-40-B	21.4	19.2	15.6	12.7	10.4	8.5	6.9	5.6
SSS-B-18-40-B	17.2	15.4	12.2	9.7	7.7	6.1	4.7	3.6
SSS-B-20-40-B	13.9	12.3	9.5	7.3	5.5	4.1	2.9	1.9
SSS-B-25-40-B	7.7	6.4	4.3	2.6	1.3	NR	NR	NR
SSS-B-30-40-B	3.2	2.1	NR	NR	NR	NR	NR	NR
SSS-B-16-50-B	25.0	25.0	25.0	25.0	25.0	21.4	18.2	15.5
SSS-B-18-50-B	25.0	25.0	25.0	24.4	20.4	17.0	14.2	11.9
SSS-B-20-50-B	25.0	25.0	24.4	19.9	16.3	13.4	11.0	8.9
SSS-B-25-50-B	21.8	19.3	15.0	11.5	8.8	6.5	4.7	3.1
SSS-B-30-50-B	13.7	11.7	8.2	5.5	3.3	1.5	NR	NR
SSS-B-25-50-C	21.8	19.3	15.0	11.5	8.8	6.5	4.7	3.1
SSS-B-30-50-C	13.7	11.7	8.2	5.5	3.3	1.5	NR	NR
SSS-B-20-60-B	25.0	25.0	25.0	21.9	17.8	14.5	11.7	9.4
SSS-B-25-60-B	23.8	20.9	16.1	12.3	9.2	6.6	4.5	2.8
SSS-B-30-60-B	14.6	12.3	8.4	5.3	2.8	0.8	NR	NR
SSS-B-35-60-B	7.5	5.6	2.4	NR	NR	NR	NR	NR
SSS-B-40-60-B	1.8	NR	NR	NR	NR	NR	NR	NR

Submitted by Swaney Lighting	Job Name: WINCHESTER DEVELOPMENT	Catalog Number: SSSB15-40A-1-B3-***	Type: A2
		Notes: 15FT POLE ON FLUSH ANCHOR BASE	SLA21-50001

NOTES

Wind-speed Website disclaimer:

Hubbell Lighting has no connection to the linked website and makes no representations as to its accuracy. While the information presented on this third-party website provides a useful starting point for analyzing wind conditions, Hubbell Lighting has not verified any of the information on this third party website and assumes no responsibility or liability for its accuracy. The material presented in the windspeed website should not be used or relied upon for any specific application without competent examination and verification of its accuracy, suitability and applicability by engineers or other licensed professionals. Hubbell Lighting Inc. does not intend that the use of this information replace the sound judgment of such competent professionals, having experience and knowledge in the field of practice, nor to substitute for the standard of care required of such professionals in interpreting and applying the results of the windspeed report provided by this website. Users of the information from this third party website assume all liability arising from such use. Use of the output of these referenced websites do not imply approval by the governing building code bodies responsible for building code approval and interpretation for the building site described by latitude/longitude location in the windspeed report. <http://windspeed.atcouncil.org>

NOTES

- Allowable EPA, to determine max pole loading weight, multiply allowable EPA by 30 lbs.
- The tables for allowable pole EPA are based on the ASCE 7-05 Wind Map or the Florida Region Wind Map for the 2010 Florida Building Code. The Wind Maps are intended only as a general guide and cannot be used in conjunction with other maps. Always consult local authorities to determine maximum wind velocities, gusting and unique wind conditions for each specific application
- Allowable pole EPA for jobsite wind conditions must be equal to or greater than the total EPA for fixtures, arms, and accessories to be assembled to the pole. Responsibility lies with the specifier for correct pole selection. Installation of poles without luminaires or attachment of any unauthorized accessories to poles is discouraged and shall void the manufacturer's warranty
- Wind speeds and listed EPAs are for ground mounted installations. Poles mounted on structures (such as bridges and buildings) must consider vibration and coefficient of height factors beyond this general guide; Consult local and federal standards
- Wind Induced Vibration brought on by steady, unidirectional winds and other unpredictable aerodynamic forces are not included in wind velocity ratings. Consult Hubbell Lighting's Pole Vibration Application Guide for environmental risk factors and design considerations. https://hubbellcdn.com/ohwassets/HLJ/outdoor/resources/literature/files/Pole_Wind_Induced_Flyer_HL010022.pdf
- Extreme Wind Events like, Hurricanes, Typhoons, Cyclones, or Tornadoes may expose poles to flying debris, wind shear or other detrimental effects not included in wind velocity ratings

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



Beacon Products • 701 Millennium Blvd, Greenville, SC 29607 • Phone: 864-678-1000

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HUBBELL
Lighting

SSS-B POLES-SPEC

JULY 28, 2020 8:45 AM



VIPER S

SMALL VIPER LUMINAIRE

FEATURES

- Small size companion to Viper Large
- Wide choice of different LED wattage configurations
- Nine optical distributions
- Designed to replace HID lighting up to 400W MH or HPS
- Suitable for wet locations



See Certification Specifications

CONTROL TECHNOLOGY



SPECIFICATIONS

CONSTRUCTION

- Corrosion resistant, die-cast aluminum housing with powder coat paint finish rated for 1000 hour salt spray.
- External hardware is corrosion resistant

OPTICS

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

INSTALLATION

- Mounting options for horizontal arm, vertical tenon or traditional arm mounting available. Mounting hardware included

ELECTRICAL

- Luminaire accepts 100V through 277V, 347V or 480V input 50 Hz to 60 Hz (UNV)
- Ambient operating temperature -40°C to 25°C
- Power factor is $\geq .90$ at full load
- Dimming Drivers are standard and dimming leads are extended out of the luminaire unless control options require connection to the dimming leads. Must specify if wiring leads are to be greater than the 6" standard.

ELECTRICAL (CONTINUED)

- Component-to-component wiring within the luminaire may carry no more than 80% of rated load and is certified by UL for use at 600VAC at 90°C or higher
- Plug disconnects are certified by UL for use at 600 VAC, 13A or higher. 13A rating applies to primary (AC) side only
- Fixture electrical compartment contains all LED driver components
- Optional 7-pin ANSI C136.41-2013 Twist-Lock® photo control receptacle available. Compatible with ANSI C136.41 external wireless control devices
- Surge protection: 20kA
- Lifeshield™ Circuit ([see Electrical Data](#))

CONTROLS

- Available with an optional passive infrared (PIR) motion sensor capable of detecting motion 360° around the luminaire. When no motion is detected for the specified time, the motion response system reduces the wattage to factory preset level, reducing the light level accordingly. When motion is detected by the PIR sensor, the luminaire returns to full wattage and full light output. Please contact Beacon Products if project requirements vary from standard configuration
- Available with [Energeni](#) for optional set dimming, timed dimming with simple delay, or timed dimming based on time of night

OPTICS STRIKE



RELATED PRODUCTS

Ø [Viper Large](#)

CONTROLS (CONTINUED)

- In addition, Viper can be specified with [SiteSync™ wireless control system](#) for reduction in energy and maintenance costs while optimizing light quality 24/7
- Please consult brand or sales representative when combining control and electrical options as some combinations may not operate as anticipated depending on your application

CERTIFICATIONS

- DLC® (DesignLights Consortium) Qualified. Please refer to the DLC website for specific product qualifications at www.designlights.org
- Certified to UL 1598 and UL 8750
- 3G rated for ANSI C136.31 high vibration applications with MAF mounting
- This product qualifies as a "designated country construction material" per FAR 52.225-11 Buy American-Construction Materials under Trade Agreements effective 04/23/2020. See [Buy American Solutions](#).

WARRANTY

- 5 year warranty
- See [HLI Commercial and Industrial Outdoor Lighting Warranty](#) for additional information

KEY DATA	
Lumen Range	4,045–16,216
Wattage Range	39–136
Efficacy Range (LPW)	100–124
Reported Life (Hours)	L70>60,000
Input Current Range (Amps)	0.1–1.1

Submitted by Swaney Lighting	Job Name: WINCHESTER DEVELOPMENT	Catalog Number: VP-S/24L-55/3K7/4W/UNV/A/BC/***	Type: A4
		Notes:	SLA21-50001



VIPER S

SMALL VIPER LUMINAIRE

DATE:	LOCATION:
TYPE:	PROJECT:
CATALOG #:	

ORDERING GUIDE

Example: VPS-24L-55-4K7-4W-UNV-A-DBT-TL-GENI-04-BC

CATALOG #

VPS	LED Engine	CCT/CRI ⁷	Distribution	Rotation	Voltage
Series					
VPS Viper Small	24L-39 39W, LED array	3K7 3000K, 70 CRI	FR Type 1/Front Row	Blank No rotation	UNV 120-277V
	24L-55 55W, LED array	4K7 4000K, 70 CRI	2 Type 2	L Optic rotation left ⁵	347 347V
	36L-65 65W, LED array	5K7 5000K, 70 CRI	3 Type 3	R Optic rotation right ⁵	480 480V
	36L-80 80W, LED array		4F (formerly 4) Type 4		
	48L-110 110W, LED array		4W Type 4 Wide		
	60L-136 136W, LED array		5QM Type 5QM		
			5R Type 5R (rectangular)		
			5W Type 5W (round wide)		
			TC Tennis Court		
			CR Corner Right		
			CL Corner Left		

Mounting	Specify Std. finish	Network Control Options	Options
A Rectangular Arm (formerly RA) for square or round pole	Color	NXWE NX Wireless Enabled (module + radio)	BC Backshield (available for FR, 2, 3, 4, 4W Optics)
A3 Arm for round pole 3.5" - 4.13" OD	BLT Black Matte Textured	NXSPW_F Nx Wireless, PIR Occ. Sensor, Daylight Harvesting ⁷	CD Continuous Dimming
A4 Arm for round pole 4.18" - 5.25" OD	BLS Black Gloss Smooth	WIR Wireless Controls, w/SCAPE	F Fusing
A5 Arm for round pole 5.5" - 6.5" OD	DBT Dark Bronze Matte Textured	SWP SiteSync Pre-Commission ^{1,4}	TB Terminal Block
MAF Mast Arm Fitter (formerly SF2) for 2 3/8" OD horizontal arm	DBS Dark Bronze Gloss Smooth	SWPM_F SiteSync Pre-Commission w/ Sensor ^{1,2,4}	
K Knuckle (formerly PK2) limit to 30° tilt or 2 3/8" OD horizontal arm or vertical tenon	GTT Graphite Matte Textured	Control Options	
WB Wall Bracket	LGS Light Grey Gloss Smooth	GENI-XX ENERGENI ³	
AD Universal Arm for square pole	PSS Platinum Silver Smooth	7PR 7-Pin Receptacle only (shorting cap, photo control, or wireless control provided by others)	
AD3 Adapter for 2.4"-4.1" round pole	WHT White Matte Textured	7PR-SC 7-Pin Receptacle w/Shorting Cap	
AD4 Adapter for 4.2"-5.3" round pole	WHS White Gloss Smooth	7PR-TL 7-Pin Receptacle w/Twist-Lock ⁸ photo control	
AD5 Adapter for 5.5"-5.9" round pole	VGT Verde Green Textured	Sensors	
AD6 Adapter for 6.0"-6.5" round pole	Color Option	BTS_F Bluetooth Programmable, PIR Occupancy/Daylight Sensor, 360° lens ⁷	
	CC Custom Color	BTSO_F Bluetooth Programmable, PIR Occupancy/Daylight Sensor, 360° lens, up to 12' mounting height ⁸	
		NXSP_F NX, PIR Occ. Sensor, Daylight Harvesting ⁷	
		SCP/_F Programmable Occupancy Sensor w/ daylight control ^{1,2,6}	

House Side Shield Accessories

☐ HSS/VP-S/90-FB/XXX 90° shield front or back

☐ HSS/VP-S/90-LR/XXX 90° shield left or right

☐ HSS/VP-S/270-FB/XXX 270° shield front or back

☐ HSS/VP-S/270-LR/XXX 270° shield left or right

☐ HSS/VP-S/360/XXX Full shield

Replace XXX with notation for desired finish color. Refer to page 8 for shield images.

Mounting Accessories

☐ VPL-AD-RPA3 2.4"-4.1" Round Pole Adapter for AD arm

☐ VPL-AD-RPA4 4.2"-5.3" Round Pole Adapter for AD arm

☐ VPL-AD-RPA5 5.5"-5.9" Round Pole Adapter for AD arm

☐ VPL-AD-RPA6 6.0"-6.5" Round Pole Adapter for AD arm

- Notes:
- Not available with other wireless control or sensor options
 - Specify mounting height; 8 = 8' or less, 40 = 14' to 30'
 - Specify routine setting code (example GENI-04). See [ENERGENI brochure and instructions](#) for setting table and options. Not available with sensor or SiteSync options
 - Specify group and zone at time of order. See [www.hubbelllighting.com/sitesync](#) for further details. Order at least one SiteSync interface accessory SWUBS or SWTAB. Each option contains SiteSync License, GUI, and Bridge Node
 - Only available with FR, 2, 3, 4, 4W and 5R distributions
 - Specify mounting height; 8=8'; 30=30'
 - Replace "._" with "14" for up to 14' mounting height, "40F" for 15-40' mounting height
 - Replace "._" with "12" for up to 12' mounting height



VIPER S

SMALL VIPER LUMINAIRE

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

ORDERING GUIDE (CONTINUED)

Accessories and Services (Ordered Separately)

- ☐ **SCP-REMOTE** Remote Control for SCP/_F option. Order at least one per project to program and control the occupancy sensor
- ☐ **SWUSB*** SiteSync interface software loaded on USB flash drive for use with owner supplied PC (Windows based only). Includes SiteSync license, software and USB radio bridge node
- ☐ **SWTAB*** Windows tablet and SiteSync interface software. Includes tablet with preloaded software, SiteSync license and USB radio bridge node
- ☐ **SWBRG** SiteSync USB radio bridge node only. Order if a replacement is required or if an extra bridge node is requested
- ☐ **SW7PR+** SiteSync 7-Pin on fixture module On/Off/Dim, Daylight Sensor 120-480VAC
- ☐ **BIRD-SPIKE-3** Bird Spikes

* When ordering SiteSync at least one of these two interface options must be ordered per project.
+ Available as a SiteSync retrofit solution for fixtures with an existing 7-pin receptacle.

Hubbell Control Solutions — Accessories (Sold Separately)

NX Distributed Intelligence™

- ☐ **NXOFM-1R1D-UNV** On-fixture Module (7-pin), On / Off / Dim, Daylight Sensor with HubbellNET Radio and Bluetooth® Radio, 120-480VAC

wiSCAPE® Lighting Control

- ☐ **WIR-RME-L** On-fixture Module (7-pin or 5-pin), On / Off / Dim, Daylight Sensor with wiSCAPE Radio, 110-480VAC

For additional information related to these accessories please visit www.hubbellcontrolsolutions.com. Options provided for use with integrated sensor, please view specification sheet ordering information table for details.

CONTROLS

SiteSync — Precommissioned Ordering Information:

When ordering a fixture with the SiteSync lighting control option, additional information will be required to complete the order. The SiteSync Commissioning Form or alternate schedule information must be completed. This form includes Project location, Group information, and Operating schedules. For more detailed information please visit the SiteSync family page on our website or contact Hubbell Lighting tech support at 864-678-1000.



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

Examples: VP-L/80L-235/4K7/3/UNV/A/DB/SWP/ SiteSync only
VP-L/80L-235/4K7/3/UNV/A/DB/SWPM-40F/ SiteSync with Motion Control

SiteSync 7-Pin Module:

- SiteSync features in a new form
- Available as an accessory for new construction or retrofit applications (with existing 7-Pin receptacle)
- Does not interface with occupancy sensors



SW7PR

NX Distributed Intelligence™ Lighting Controls:

Supports both indoor and outdoor applications in a variety of deployment options: wired, wireless and hybrid. Integrates with and enables a wide array of luminaires including those with SpectraSync Color Tuning Technology.



NX Integrated Controls Reference								
NX Option	Sensor	Networkable	Scheduling	Occupancy	Daylight Harvesting	0-10V Dimming	On/off Control	Bluetooth® App Programming
NX Networked – Wireless								
NXOFM-1R1D-UNV	SCLNX	Yes	Yes	Yes	Yes	Yes	Yes	Yes, Bluetooth App

wiSCAPE™:

Supports remote management, monitoring and metering of outdoor wireless lighting applications such as smart campuses, smart cities, parking lots and roadways.



wiSCAPE Reference								
wiSCAPE Option	Sensor	Networkable	Scheduling	Occupancy	Daylight Harvesting	0-10V Dimming	On/off Control	Bluetooth® App Programming
Networked – Wireless								
WIR-RME-L	WIR-RME-L	Yes	Yes	No	Yes	Yes	Yes	wiSCAPE Gateway



VIPER S

SMALL VIPER LUMINAIRE

DATE: _____ LOCATION: _____

TYPE: _____ PROJECT: _____

CATALOG #: _____

DELIVERED LUMENS

# of LEDs	DRIVE CURRENT (mA)	SYSTEM WATTS	DISTRIBUTION TYPE	5K (5000K nominal, 70 CRI)					4K (4000K nominal, 70 CRI)					3K (3000K nominal, 70 CRI)				
				LUMENS	LPW	B	U	G	LUMENS	LPW	B	U	G	LUMENS	LPW	B	U	G
24	500mA	39W	FR	4689	120	1	0	0	4665	120	1	0	0	4432	114	1	0	0
			2	4523	116	1	0	1	4500	115	1	0	1	4275	110	1	0	1
			3	4436	114	1	0	1	4414	113	1	0	1	4194	108	1	0	1
			4F	4362	112	1	0	2	4340	111	1	0	2	4123	106	0	0	2
			4W	4280	110	1	0	2	4258	109	1	0	2	4045	104	1	0	2
			5QM	4442	114	2	0	1	4420	113	2	0	1	4199	108	2	0	0
			5R	4472	115	2	0	2	4450	114	2	0	2	4227	108	2	0	2
			5W	4335	112	3	0	1	4336	111	3	0	1	4114	105	3	0	1
			TC	4561	117	1	0	1	4538	116	1	0	1	4311	111	1	0	1
			CL	4758	122	1	0	2	4758	122	1	0	2	4329	111	1	0	1
			CR	4773	122	1	0	2	4773	122	1	0	2	4361	112	1	0	1
			FR	6357	118	1	0	1	6486	120	1	0	1	5804	107	1	0	1
24	700 mA	55W	2	6132	114	1	0	1	6257	116	1	0	2	5599	104	1	0	1
			3	6015	111	1	0	2	6137	114	1	0	2	5492	102	1	0	2
			4F	5921	110	1	0	2	6034	112	1	0	2	5400	100	1	0	2
			4W	5793	108	1	0	2	5909	110	1	0	2	5272	98	1	0	2
			5QM	6022	112	2	0	1	6145	114	2	0	1	5499	102	2	0	1
			5R	6063	112	3	0	3	6187	115	3	0	3	5536	103	3	0	3
			5W	5908	109	3	0	1	6028	112	3	0	1	5908	102	3	0	1
			TC	6183	113	1	0	1	6309	118	1	0	1	5645	105	1	0	1
			CL	6707	122	1	0	2	6707	122	1	0	2	6117	111	1	0	2
			CR	6729	122	1	0	2	6729	122	1	0	2	6143	112	1	0	2
			FR	7864	121	1	0	1	8041	124	1	0	1	7189	111	1	0	1
			2	7586	117	1	0	2	7757	119	1	0	2	6934	107	1	0	2
36	560 mA	65W	3	7441	114	1	0	2	7609	117	1	0	2	6802	105	1	0	2
			4F	7317	110	1	0	2	7482	112	1	0	2	6688	100	1	0	2
			4W	8690	108	1	0	2	8864	110	1	0	2	7908	98	1	0	2
			5QM	7450	115	3	0	1	7618	117	3	0	1	6810	105	3	0	1
			5R	7501	115	3	0	3	7670	118	3	0	3	6857	105	3	0	3
			5W	7309	112	3	0	2	7473	115	3	0	2	6681	103	3	0	1
			TC	7540	116	1	0	1	7694	118	1	0	1	7694	122	1	0	2
			CL	8179	126	2	0	2	8179	126	2	0	2	7467	115	1	0	2
			CR	8205	126	2	0	2	8205	126	2	0	2	7492	115	1	0	2
			FR	9535	118	1	0	1	9730	120	1	0	1	8706	107	1	0	1
			2	9197	114	1	0	2	9385	116	1	0	2	8398	104	1	0	2
			3	9022	111	1	0	2	9206	114	1	0	2	8238	102	1	0	2
36	700 mA	80W	4F	8871	110	1	0	2	9052	112	1	0	2	8100	100	1	0	2
			4W	11587	108	1	0	3	11819	110	1	0	3	10544	98	1	0	3
			5QM	9033	112	3	0	1	9217	114	3	0	1	8248	102	3	0	1
			5R	9095	112	3	0	3	9280	115	3	0	3	8304	103	3	0	3
			5W	8861	109	3	0	2	9043	112	3	0	2	8092	100	3	0	2
			TC	9275	115	1	0	1	9464	118	1	0	1	8468	105	1	0	1
			CL	10060	126	2	0	2	10060	126	2	0	2	9184	115	2	0	2
			CR	10093	126	2	0	2	10093	126	2	0	2	9215	115	2	0	2
			FR	12713	118	1	0	1	12973	120	2	0	1	11608	107	1	0	1
			2	12263	114	2	0	2	12513	116	2	0	2	11197	104	2	0	2
			3	12029	111	2	0	2	12275	114	2	0	2	10984	102	1	0	2
			4F	11828	110	1	0	3	12069	112	1	0	3	10800	100	1	0	2
48	700 mA	110W	4W	11609	108	1	0	3	11841	110	1	0	3	10564	98	1	0	3
			5QM	12044	112	3	0	2	12290	114	3	0	2	10997	102	3	0	1
			5R	12126	112	3	0	3	12374	115	3	0	3	11072	103	3	0	3
			5W	12126	109	4	0	2	12057	112	4	0	2	10789	100	4	0	2
			RC	12366	115	1	0	2	12619	118	1	0	1	11290	105	1	0	2
			CL	13414	122	2	0	3	13414	122	2	0	3	12246	111	2	0	2
			CR	13458	122	2	0	3	13458	122	2	0	3	12287	112	2	0	2
			FR	15891	117	2	0	2	16216	120	2	0	2	14511	107	2	0	1
			2	15329	113	2	0	2	15642	116	2	0	2	13997	103	2	0	2
			3	15037	111	2	0	3	15344	113	2	0	3	13730	101	2	0	3
			4F	14784	109	1	0	3	15086	111	1	0	3	13500	100	1	0	3
			4W	14802	109	2	0	3	15104	112	2	0	3	13515	100	2	0	3
60	700 mA	136W	5QM	15055	111	3	0	2	15362	114	3	0	2	13747	102	3	0	2
			5R	15158	112	4	0	4	15469	114	4	0	4	13841	102	4	0	4
			5W	14781	109	4	0	2	15083	111	4	0	2	13495	100	4	0	2
			TC	15458	115	1	0	2	15834	118	1	0	2	14113	105	1	0	2
			CL	16768	123	3	0	3	16768	123	3	0	3	15309	113	2	0	3
			CR	16823	124	3	0	3	16823	124	3	0	3	15359	113	2	0	3

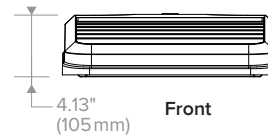
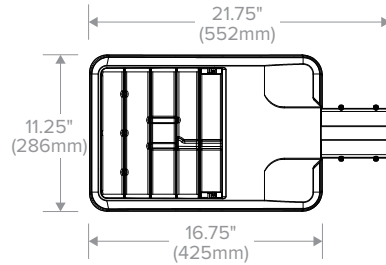
**VIPER S**

SMALL VIPER LUMINAIRE

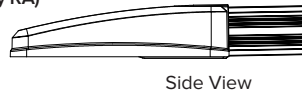
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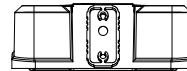
CATALOG #: _____

DIMENSIONS

Weight	15.0 lbs (6.8 kg)
EPA	.67 ft ²

A Arm (formerly RA)

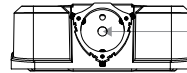
Side View



Back View

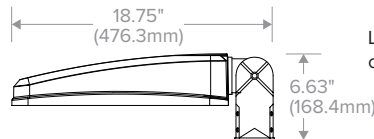
MAF (formerly SF2)

Side View

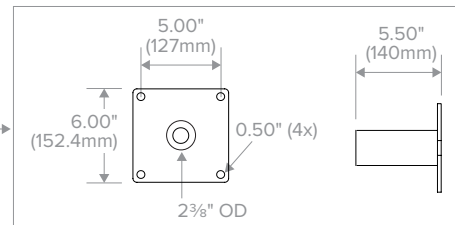
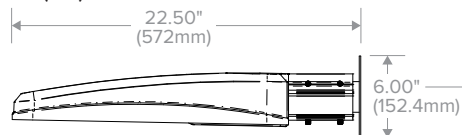
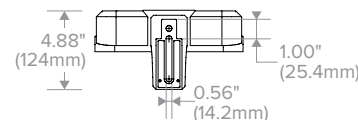
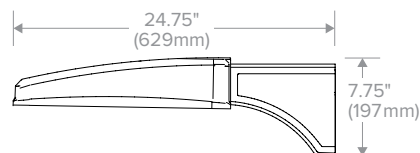


Back View

Accepts 2 3/8" OD tenon, min 5" long.

2 3/8" Adjustable Knuckle (K) (formerly PK2)

Limit to 30° tilt. Sensor, photocell and wireless controls should not be tilted above horizontal.

Wall Bracket (WB)**AD Decorative Arm**See [page 9](#) for mounting details.

**VIPER S**

SMALL VIPER LUMINAIRE

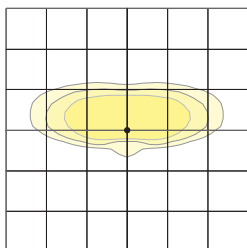
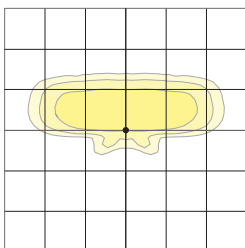
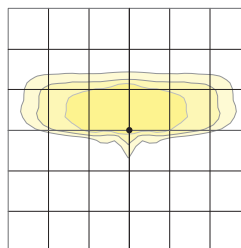
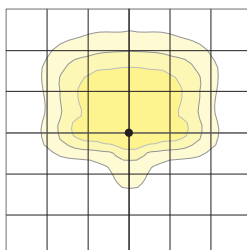
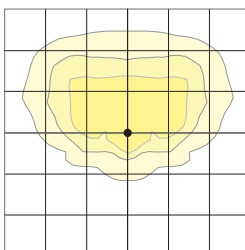
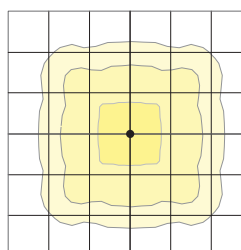
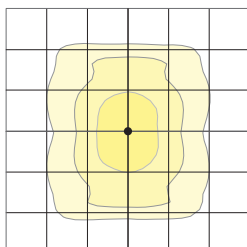
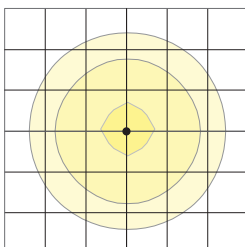
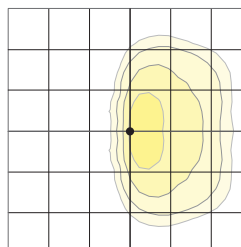
DATE: _____ LOCATION: _____

TYPE: _____ PROJECT: _____

CATALOG #: _____

PHOTOMETRY

The following diagrams represent the general distribution options offered for this product. For detailed information on specific product configurations, see [website photometric test reports](#).

Type FR – Front Row/Auto Optic**Type 2****Type 3****Type 4****Type 4 Wide****Type 5QM****Type 5R (rectangular)****Type 5W (round wide)****Type TC**



VIPER S

SMALL VIPER LUMINAIRE

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

ELECTRICAL DATA

# OF LEDS	NUMBER OF DRIVERS	DRIVE CURRENT (mA)	INPUT VOLTAGE (V)	SYSTEM POWER (w)	CURRENT (Amps)
24	1	500 mA	120	39	0.33
			277		0.14
			347		0.11
			480		0.08
			120		0.5
24	1	700 mA	277	55	0.2
			347		0.2
			480		0.1
			120		0.65
			277		0.28
36	1	525 mA	347	65	0.22
			480		0.16
			120		0.7
			277		0.3
		700 mA	347	80	0.2
			480		0.2
			120		0.9
			277		0.4
48	1	700 mA	347	110	0.3
			480		0.2
			120		1.1
			277		0.5
60	1	700 mA	347	136	0.4
			480		0.3
			120		
			277		

PROJECTED LUMEN MAINTENANCE						
Ambient Temp.	0	25,000	50,000	TM-21-11 60,000 ¹	100,000	Calculated L70 (HOURS)
25°C / 77°C	1	0.97	0.95	0.95	0.92	>377,000

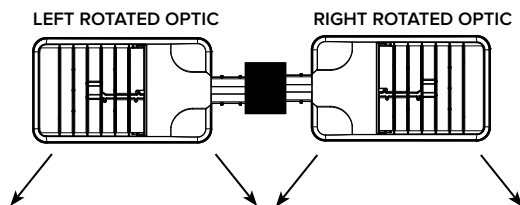
¹ Projected per IESNA TM-21-11.
 Data references the extrapolated performance projections for the 60 LED base model in a 25°C ambient, based on 10,000 hours of LED testing per IESNA LM-80-08.

LIFESHIELD™ CIRCUIT

Protects luminaire from excessive temperature. The device activates at a specific, factory-preset temperature and progressively reduces power over a finite temperature range. Operation is smooth and undetectable to the eye. Thermal circuit is designed to "fail on", allowing the luminaire to revert to full power in the event of an interruption of its power supply or faulty wiring connection to the drivers. The device can co-exist with other 0-10V control devices (occupancy sensors, external dimmers, etc.)

ADDITIONAL INFORMATION

ROTATION OPTIONS





VIPER S

SMALL VIPER LUMINAIRE

DATE: _____ LOCATION: _____

TYPE: _____ PROJECT: _____

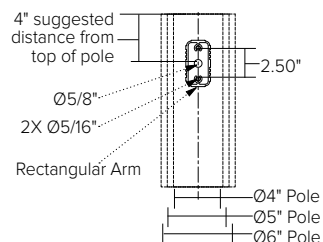
CATALOG #: _____

ADDITIONAL INFORMATION (CONTINUED)

DRILL PATTERN

RECTANGULAR ARM (A)

Compatible with Pole drill pattern B3



EPA

Config.	EPA
1	.67
2 @ 90°	1.06
2 @ 180°	1.34

Config.	EPA
3 @ 120°	1.68
3 @ 90°	1.73
4 @ 90°	2.12

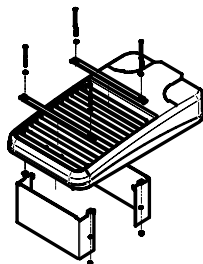
TENON TOP POLE BRACKET ACCESSORIES (ORDER SEPARATELY)

(2 3/8" OD tenon)

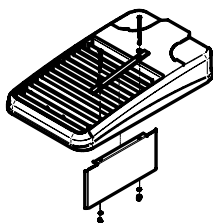
TENON TOP POLE BRACKET ACCESSORIES (Order Separately)

- ☐ SETAVP-XX Square tenon adapter (4 at 90°) for A - Rectangular Arm mounting option only
- ☐ RETAVP-XX Round tenon adapter (4 at 90°) for A - Rectangular Arm mounting option only
- ☐ SETA2XX Square tenon adapter (4 at 90°) for AD - Universal Arm mounting option only
- ☐ RETA2XX Round tenon adapter (4 at 90°) for AD3 - Universal Arm mounting option only

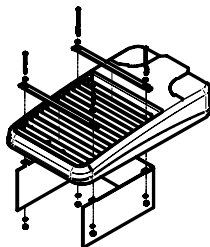
HOUSE SIDE SHIELD FIELD INSTALL ACCESSORIES



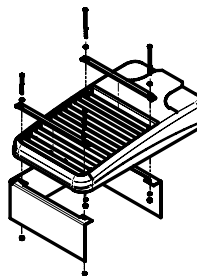
HSS/VP-S/90-FB/XXX
90° shield front or back
(2 shields shown)



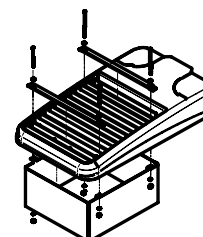
HSS/VP-S/90-LR/XXX
90° shield left or right
(1 shield shown in left orientation)



HSS/VP-S/270-FB/XXX
270° shield front or back
(1 shield shown in back orientation)



HSS/VP-S/270-LR/XXX
270° shield left or right
(1 shield shown in right orientation)



HSS/VP-S/360/XXX
Full shield
(1 shield shown)

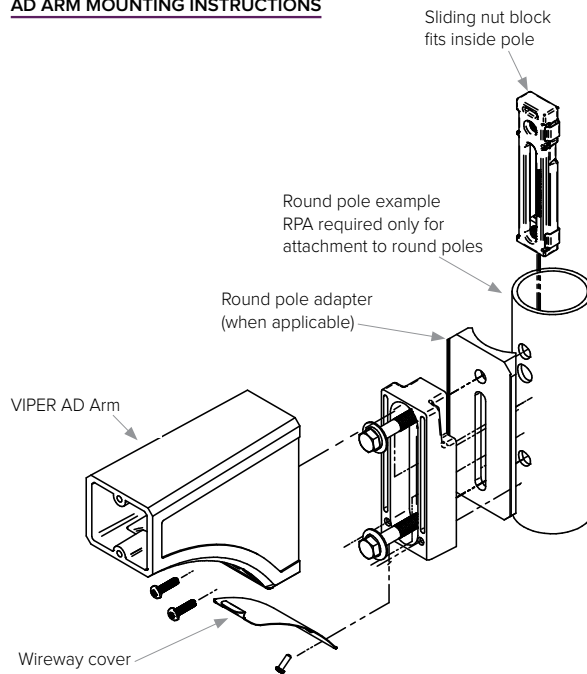
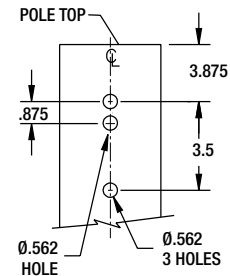
**VIPER S**

SMALL VIPER LUMINAIRE

DATE: _____ LOCATION: _____

TYPE: _____ PROJECT: _____

CATALOG #: _____

ADDITIONAL INFORMATION (CONTINUED)**AD ARM MOUNTING INSTRUCTIONS****DECORATIVE ARM (AD)**
Compatible with pole drill pattern S2

Submitted by Swaney Lighting		Catalog Number: VP-S/24L-55/3K7/4W/UNV/A/BC/***	Type: A4
	Job Name: WINCHESTER DEVELOPMENT	Notes:	SLA21-50001

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LNC2

SMALL LED LITEPAK

FEATURES

- 60% more lumens and increased performance than smaller LNC models
- 3000K, 4000K and 5000K as well as Amber
- Type II, III and IV distributions available for a variety of application needs
- Quick-mount adapter allows easy installation/maintenance
- 347V and 480V versions for industrial applications and Canada
- Stock versions available for fast service
- Full cut-off, neighbor friendly, IDA approved
- Optional photocontrol for additional energy savings

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



*Shown with CS acrylic diffuser

RELATED PRODUCTS

θ [LNC](#) θ [INC3](#) θ [LNC4](#)



CONTROL TECHNOLOGY



SPECIFICATIONS

CONSTRUCTION

- Rugged die-cast aluminum housing protects components and provides an architectural appearance
- Casting thermally conducts LED heat to optimize performance and long life
- Powder paint finish provides durability in outdoor environments

OPTICS

- Zero uplight distributions using individual acrylic
- LED optics provide IES type II, III and IV distributions. Optional (CS) acrylic diffuser available for reduced glare
- Prismatic refractor lens provides ~10% uplight for increased vertical footcandles and forward light projection ideal for security lighting
- L96 at 60,000hrs (Projected per IESNA TM-21-11), see table on page 3 for all values

INSTALLATION

- Quick-mount adapter provides easy installation to wall or to recessed junction boxes (4" square junction box)
- Designed for direct j-box mount.
- Optional 1/2" conduit hubs available (standard for sensor, SiteSync and battery versions)

ELECTRICAL

- 120V-277V universal voltage 50/60Hz 0-10V dimming drivers
- 347V and 480V dimmable driver option in 12L-070 configuration
- Minimum operating temperature is -40°C/-40°F (excludes 12L-035 and P15 configurations)
- Drivers have greater than .90 power factor and less than 20% Total Harmonic Distortion
- Driver RoHS and IP66
- 10kA surge protector
- 3000K CCT nominal, 4000K CCT nominal, 5000K CCT nominal (70 CRI)
- 9, 12 and 18 LED configurations available see pages 2 and 3 for electrical and photometric details

CONTROLS

- Universal button photocontrol
- Occupancy sensor options available for complete on/off and dimming control
- SiteSync pre-commissioned wireless controls (with or without sensor)
- Integral Battery Backup provides emergency lighting for the required 90 minute path of egress
- Dual Driver and Dual Power Feed option for 18L-070 versions

CERTIFICATIONS

- DLC® DesignLights Consortium Qualified, with some Premium Qualified configurations. Please refer to the DLC website for specific product qualifications at www.designlights.org
- Listed to UL1598 and CSAC22.2#250.0-24 for wet locations
- Made-to-order versions are IP-65 rated
- This product qualifies as a "designated country construction material" per FAR 52.225-11 Buy American-Construction Materials under Trade Agreements effective 04/23/2020. See [Buy American Solutions](#)

WARRANTY

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

KEY DATA	
Lumen Range	2600–4100
Wattage Range	29–42
Efficacy Range (LPW)	85–112
Fixture Projected Life (Hours)	L96>60K
Weights lbs. (kg)	9.6 (24.5)

Submitted by Swaney Lighting	Job Name: WINCHESTER DEVELOPMENT	Catalog Number: LNC2-9L-3K-070-4-U-***	Type: W4
		Notes:	SLA21-50001



LNC2

SMALL LED LITEPAK

DATE:	LOCATION:
TYPE:	PROJECT:
CATALOG #:	

ORDERING GUIDE

Example: LNC2-9L-3K-2-U-DBT-PCU

CATALOG #

ORDERING INFORMATION

Series	# LEDs	CCT/CRI	Drive Current	IES Distribution	Voltage	Mounting
LNC2 Small LitePak LNC2	9L 9 LEDs	3K 3000K nominal, 70 CRI	070 700mA	2 Type II ¹	U 120-277V	Leave blank for down position
	12L 12 LEDs	4K 4000K nominal, 70 CRI	035 350mA (12L & 18L only)	3 Type III ¹	1 120V	NV Inverted ²
	18L 18 LEDs	5K 5000K nominal, 70 CRI		4 Type IV ¹	2 208V	
	P15 15w Prismatic Refractor	AM Amber ⁹		FT Forward Throw (Prismatic Refractor only)	3 240V	
	P25 25w Prismatic Refractor				4 277V	
	P35 35w Prismatic Refractor				5 480V ⁶	
					F 347V ⁶	

Specify Std. finish	Control Options	Options	Notes:
Finish	SCP Occupancy Sensor Programmable (Dim) ^{4,5}	EH Battery Backup Unit with Heater (-30°C) ³	1 IES distributions only available with 9L, 12L, and 18L versions
BLS Black Gloss Smooth	PCU Universal Button Photocontrol	E Battery Backup Unit (0°C) ³	2 Not available with occupancy sensor, battery backup or prismatic refractor options
DBT Dark Bronze Matte Textured	SWP SiteSync Pre-Commission ⁶	F Fuse & Fuse-Holder (not available with Battery Backup) ³	3 Must specify voltage (120 or 277 only for E & EH)
DBS Dark Brone Gloss Smooth	SWPM SiteSync Pre-commission w/ OCC Sensor ^{6,7}	CS Comfort Shield (N/A with Prismatic Refractor)	4 Must order minimum of one remote control to program dimming settings, 0-10V fully adjustable dimming with automatic daylight calibration and different time delay settings, 120-277V only
GTT Graphite Matte Textured	Specify SCP Height	2DR Dual Driver (18L - 700mA only)	5 PCU option not applicable, included in sensor
LGS Light Grey Gloss Smooth	8F Up to 8ft mount height	2PF Dual Power Feed (18L - 700mA only)	6 18L - 700mA versions only. Not available with 2DR or 2PF options. Must specify group and zone information at time of order
PSS Platinum Silver Smooth	20F Up to 20ft mount height	CH Surface Conduit Hubs)	7 Specify time delay; dimming level and mounting height
WHT White Matte Textured	Sensors		8 12L - 700mA version only
WHS White Gloss Smooth	BTS_F Bluetooth Programmable, PIR Occupancy/Daylight Sensor, 360° lens ⁹		9 For 350 mA only
VG Verde Green Textured	BTSO_F Bluetooth Programmable, PIR Occupancy/Daylight Sensor, 360° lens, up to 12' mounting height ¹⁰		10 Replace " _ " with "12" for up to 12' mounting height
Color Option			
CC Custom Color			

STOCK ORDERING INFORMATION

Catalog Number	Lumens	Wattage	Distribution	CCT/CRI	Voltage	Distribution	Weight lbs. (kg)	Finish	Options
LNC2-12LU-4K-3-DB	2,662	29W	3	4000K/70CRI	120-277V	Type 3	7.0 (13.3)	Bronze	*
LNC2-12LU-5K-3-DB	2,868	29W	3	5000K/70CRI	120-277V	Type 3	7.0 (13.3)	Bronze	*
LNC2-12LU-5K-3-DB-PC-U	2,868	29W	3	5000K/70CRI	120-277V	Type 3	7.0 (13.3)	Bronze	Photocell *
LNC2-18LU-4K-3-DB	3,806	42W	3	4000K/70CRI	120-277V	Type 3	7.0 (13.3)	Bronze	*
LNC2-18LU-5K-3-DB	4,106	42W	3	5000K/70CRI	120-277V	Type 3	7.0 (13.3)	Bronze	*
LNC2-18LU-5K-3-DB-PC-U	4,106	42W	3	5000K/70CRI	120-277V	Type 3	7.0 (13.3)	Bronze	Photocell *
LNC2-P35-4K-PCU	4,025	37W	FT	4000K/70CRI	120-277V	FT	7.0 (13.3)	Bronze	Photocell
LNC2-P35-PCU	4,108	37W	FT	5000K/70CRI	120-277V	FT	7.0 (13.3)	Bronze	Photocell

REPLACEMENT PART - MADE TO ORDER

Catalog Number	Description
☐ SCP-Remote	Remote control for SCP option. Order at least one per project to program and control fixtures*

Notes:

* IES distributions only available with 9L, 12L and 18L versions

Submitted by Swaney Lighting		Catalog Number: LNC2-9L-3K-070-4-U-***	Type: W4
	Job Name: WINCHESTER DEVELOPMENT	Notes:	SLA21-50001



DATE:	LOCATION:
TYPE:	PROJECT:
CATALOG #:	

LNC2

SMALL LED LITEPAK

PERFORMANCE DATA

STANDARD 9, 12 AND 18L VERSIONS

# Of LEDs	Nominal Wattage	System Watts	Dist. Type	5K (5000K NOMINAL 70 CRI)					4K (4000K NOMINAL 70 CRI)					3K (3000K NOMINAL 80 CRI)				
				Lumens	LPW*	B	U	G	Lumens	LPW*	B	U	G	Lumens	LPW*	B	U	G
9	700mA	21W	2	2,083	97	1	0	1	2,072	97	1	0	1	1,927	90	1	0	1
			3	1,972	92	0	0	1	1,962	92	0	0	1	1,825	85	0	0	1
			4	2,097	98	0	0	1	2,087	98	0	0	1	1,941	91	0	0	1
12	350mA	14W	2	1,513	110	0	0	1	1,506	109	0	0	1	1,440	104	0	0	1
			3	1,433	104	0	0	1	1,426	103	0	0	1	1,364	99	0	0	1
			4	1,524	110	0	0	1	1,543	112	0	0	1	1,476	107	0	0	1
	700mA	29W	2	2,777	97	1	0	1	2,763	97	1	0	1	2,570	90	1	0	1
			3	2,629	92	1	0	1	2,616	91	1	0	1	2,433	85	1	0	1
			4	2,797	98	1	0	1	2,783	97	1	0	1	2,588	90	1	0	1
18	350mA	21W	2	2,270	107	1	0	1	2,259	106	1	0	1	2,074	97	1	0	1
			3	2,149	101	0	0	1	2,138	100	0	0	1	1,963	92	0	0	1
			4	2,286	107	0	0	1	2,275	107	0	0	1	2,125	100	0	0	1
	700mA	43W	2	4,261	99	1	0	1	4,240	98	1	0	1	3,943	91	1	0	1
			3	4,033	93	1	0	1	4,014	93	1	0	1	3,733	86	1	0	1
			4	4,290	99	1	0	1	4,270	99	1	0	1	3,971	92	1	0	1

PRISMATIC REFRACTOR

# Of LEDs	Nominal Wattage	Dist. Type	5K (5000K NOMINAL 70 CRI)					4K (4000K NOMINAL 70 CRI)					3K (3000K NOMINAL 80 CRI)				
			Lumens	LPW*	B	U	G	Lumens	LPW*	B	U	G	Lumens	LPW*	B	U	G
1	15W	FT	1,741	132	0	3	2	1,706	129	0	3	2	1,648	125	0	3	2
	25W		2,929	117	1	3	2	2,806	112	1	3	2	2,773	111	1	3	2
	35W		4,108	112	1	3	3	4,025	110	1	3	3	3,889	106	1	3	3

Notes:

* Lumen values are from photometric tests performed in accordance with IESNA LM-79-08. Data is considered to be representative of the configurations shown. Actual performance may differ as a result of end-user environment and application. LNC2-12L battery mode produces 1,546 initial lumens. Meets UL924 90 minute discharge pattern.

PROJECTED LUMEN MAINTENANCE

STANDARD 9, 12 AND 18L VERSIONS

Ambient Temperature	OPERATING HOURS					
	0	25,000	50,000	TM-21-11* L96 60,000	100,000	L70 (Hours)
25°C / 77°F	1.00	0.98	0.97	0.96	0.95	>791,000
40°C / 104°F	0.99	0.98	0.96	0.96	0.95	>635,000

PRISMATIC REFRACTOR

Ambient Temperature	OPERATING HOURS					
	0	25,000	50,000	TM-21-11* L96 60,000	100,000	L70 (Hours)
25°C / 77°F	1.00	0.94	0.89	0.87	0.80	>160,000
40°C / 104°F	0.99	0.93	0.88	0.86	0.78	>150,000

* Projected per IESNA TM-21-11 * (Nichia 219B, 700mA, 85°C Ts, 10,000hrs). Data references the extrapolated performance projections for the LNC-12LU-5K base model in a 40°C ambient, based on 10,000 hours of LED testing per IESNA LM-80-08.



LNC2

SMALL LED LITEPAK

DATE: _____ LOCATION: _____

TYPE: _____ PROJECT: _____

CATALOG #:

ELECTRICAL DATA

STANDARD 9, 12 AND 18L VERSIONS

# OF LEDS	Drive Current (mA)	Input Voltage (V)	Oper. Current (Amps)	System Power (W)
9	700mA	120	0.18	21
		277	0.08	21
12	350mA	120	0.12	14
		277	0.05	14
	700mA	120	0.24	29
		277	0.10	29
		347	0.08	29
		480	0.06	29
18	350mA	120	0.18	21
		277	0.08	21
	700mA	120	0.36	43
		277	0.16	43

PRISMATIC REFRACTOR

# OF LEDS	Drive Current (mA)	Input Voltage (V)	Oper. Current (Amps)	System Power (W)
1	350mA	120	0.11	13
		277	0.05	13
	600mA	120	0.21	25
		277	0.09	25
	900mA	120	0.31	37
		277	0.13	37

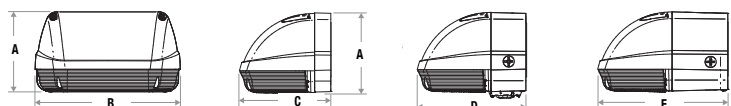
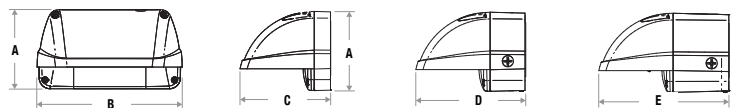
LUMINAIRE AMBIENT TEMPERATURE FACTOR (LATF)

Standard 9, 12, 18L and Prismatic Versions

Ambient Temperature		Lumen Multiplier
0° C	32° F	1.02
10° C	50° F	1.01
20° C	68° F	1.00
25° C	77° F	1.00
30° C	86° F	1.00
40° C	104° F	0.99
50° C	122° F	0.98

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

DIMENSIONS



A	B	C	D	E
5.54" (141 mm)	10.16" (258 mm)	6.33" (161 mm)	7.64" (194 mm)	9.10" (231 mm)

Submitted by Swaney Lighting	Job Name: WINCHESTER DEVELOPMENT	Catalog Number: LNC2-9L-3K-070-4-U-***	Type: W4
		Notes:	SLA21-50001



LNC2

SMALL LED LITEPAK

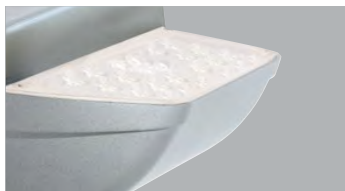
DATE:	LOCATION:
TYPE:	PROJECT:
CATALOG #:	

ADDITIONAL INFORMATION

SHIPPING INFORMATION

Catalog Number	G.W(kg)/CTN	Carton Dimensions			Carton Qty. per Master Pack
		Length Inch (cm)	Width Inch (cm)	Height Inch (cm)	
LNC2-12LU	14.3 (6.5)	14.5 (37)	11.4 (29)	8.4 (21.5)	2
LNC2-18LU	14.8 (6.7)	14.9 (38)	11.4 (29)	8.4 (21.5)	2

NV - INVERTED MOUNTING OPTIONS



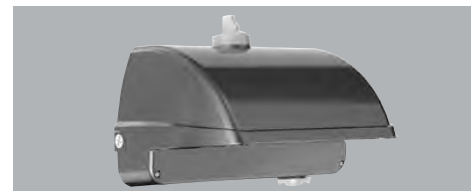
*Requires Factory Installed Lens Option
Inverted mounting capabilities for uplighting applications. Specially designed frosted acrylic diffuser option softens output, improves uniformity and protects LED lenses.

SCP - PROGRAMMABLE OCCUPANCY SENSOR



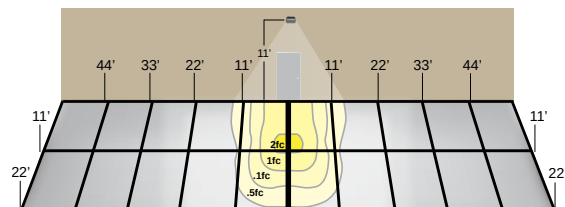
Sensor offers greater control and energy savings with SCP programmable sensor with adjustable delay and dimming levels (Factory default is 10%)
Visit: <http://www.hubbelllighting.com/solutions/controls/> for control application information

SWP & SWPM - SITESYNC™



When ordering a fixture with the SiteSync lighting control option, additional information will be required to complete the order. The SiteSync Commissioning Form or alternate schedule information must be completed. This form includes Project locations Group information, and Operating schedules. For more detailed information please visit www.HubbellLighting.com/products/sitesync or contact Hubbell Lighting tech support at (800) 345-4928.

LNC2 - BATTERY BACK UP



11' Mounting Height

Provides Life Safety Code average illuminance of 1.0 fc. Assumes open space with no obstructions and mounting height of 11'.

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

Battery backup units consume 6 watts when charging a dead battery and 2 watts during maintenance charging. EH (units with a heater) consume up to an additional 8 watts when charging if the battery temp is lower than 10°C

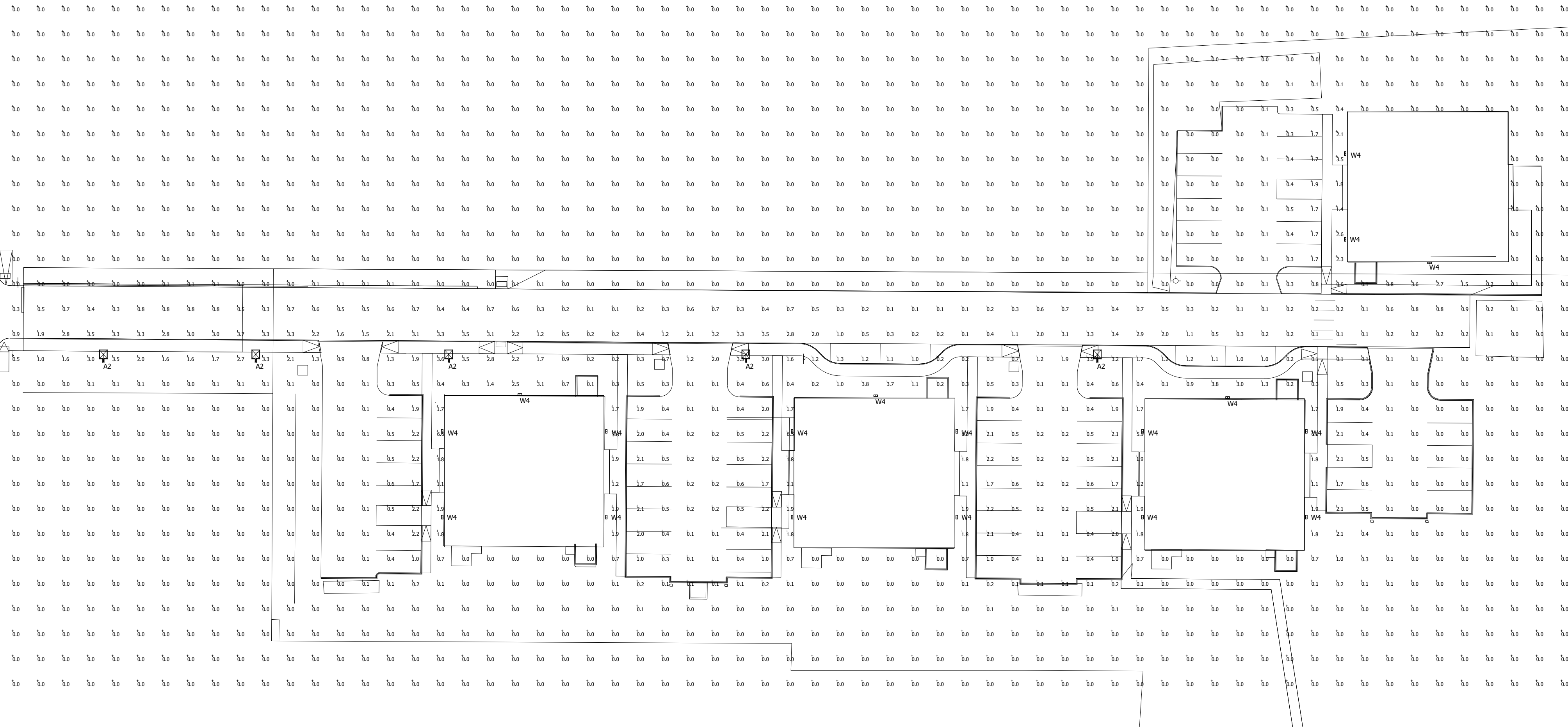
E & EH EMERGENCY BATTERY BACKUP



Standard versions utilize 9, 12 or 18 High Power LEDs to generate 1,600 - 4,200 lumens in Normal Mode and use 4 LEDs for up to 700 lumens in Emergency Mode. Prismatic refractor versions utilize 1 COB LED to generate approximately 900 lumens in emergency mode.

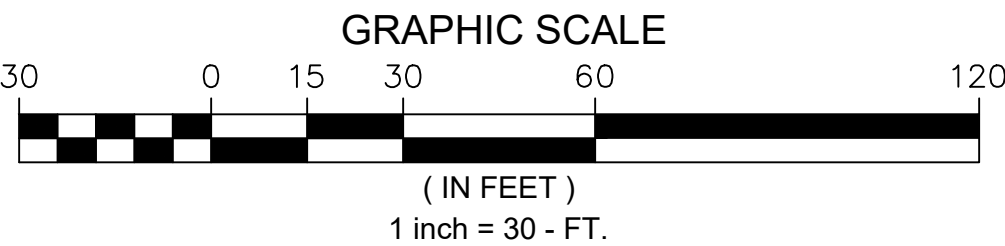
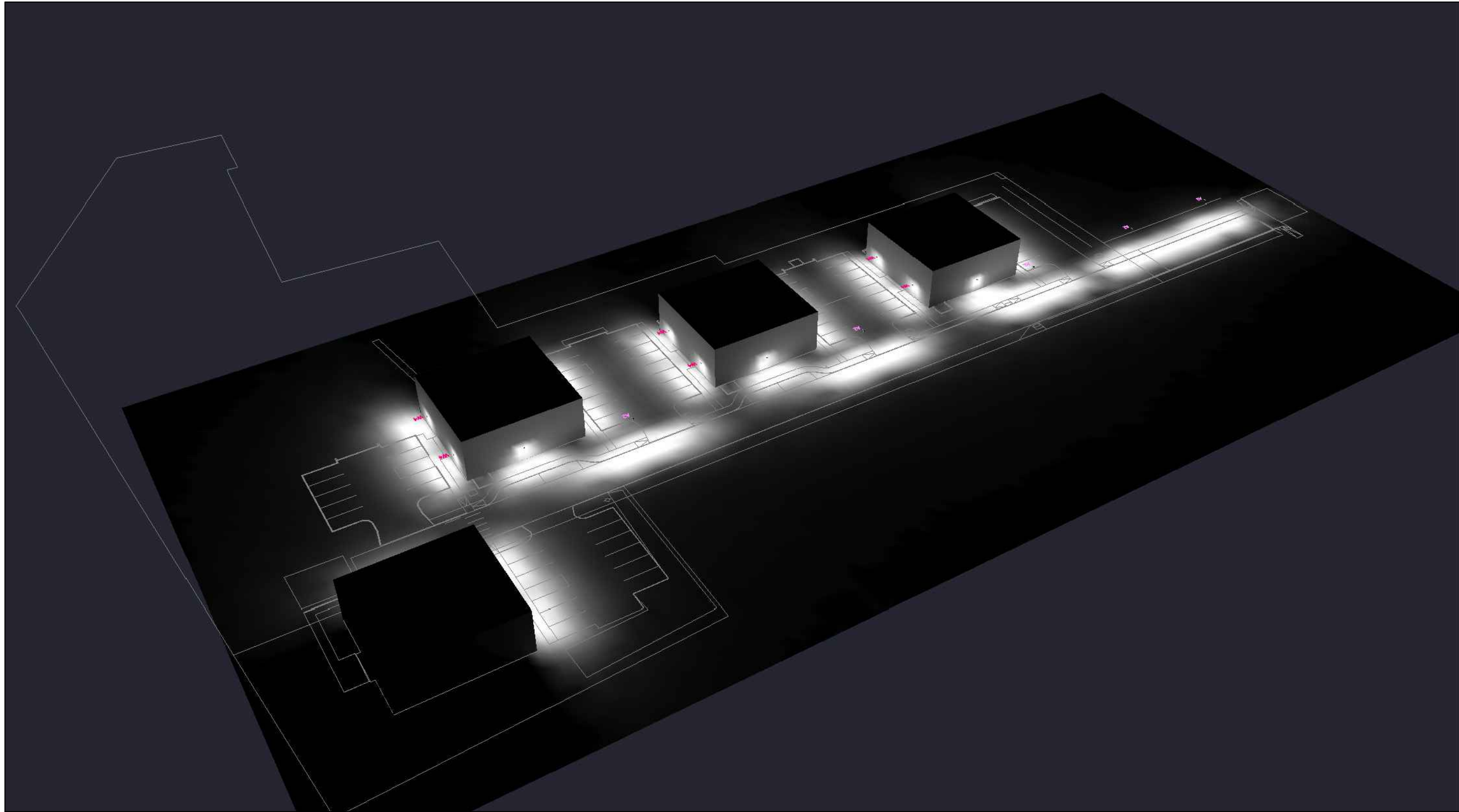
USE OF TRADEMARKS AND TRADE NAMES

All product and company names, logos and product identifies are trademarks ™ or registered trademarks ® of Hubbell Lighting, Inc. or their respective owners. Use of them does not necessarily imply any affiliation with or endorsement by such respective owners.



Luminaire Schedule							
Symbol	Qty	Label	Mounting Height	LLF	Lum. Lumens	Lum. Watts	Description
	5	A2	15' - 0" AFG	0.900	4127	55	VP-S-24L-55-3K7-2-BC
	18	W4	8' - 0" AFG	0.900	1941	20	LCN2-9L-3K-070-4

Calculation Summary							
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
Overall Area	Illuminance	Fc	0.29	6.6	0.0	N.A.	N.A.
Paved Area	Illuminance	Fc	0.82	3.7	0.0	N.A.	N.A.
Property Line	Illuminance	Fc	0.01	1.2	0.0	N.A.	N.A.



1. THIS LIGHTING DESIGN IS BASED ON LIMITED INFORMATION SUPPLIED BY OTHERS TO HUBBELL LIGHTING. SITE DETAILS PROVIDED HEREON ARE REPRODUCED ONLY AS A VISUALIZATION AID. FIELD DEVIATIONS MAY SIGNIFICANTLY AFFECT PREDICTED PERFORMANCE. PRIOR TO INSTALLATION, CRITICAL SITE INFORMATION (POLE LOCATIONS, ORIENTATION, MOUNTING HEIGHT, ETC.) SHOULD BE COORDINATED WITH THE CONTRACTOR AND/OR SPECIFIER RESPONSIBLE FOR THE PROJECT. 2. LUMINAIRE DATA IS TESTED TO INDUSTRY STANDARDS UNDER LABORATORY CONDITIONS. OPERATING VOLTAGE AND NORMAL MANUFACTURING TOLERANCES OF LAMP, BALLAST, AND LUMINAIRE MAY AFFECT FIELD RESULTS. 3. CONFORMANCE TO FACILITY CODE AND OTHER LOCAL REQUIREMENTS IS THE RESPONSIBILITY OF THE OWNER AND/OR THE OWNER'S REPRESENTATIVE.				ON BY: DHK		DATE: 10/06/21	CHK BY: N/A
REVISED FROM DRAWING NUMBER(S) R1: 10/07/21				REV BY: DHK		DATE: 10/07/21	SCALE: AS NOTED
TITLE: WINCHESTER WOODS APARTMENTS YARMOUTH, ME SITE PHOTOMETRIC PLAN				QUOTE: N/A		DRAWING / DESIGN NO.: 2128473R1	



O. Architectural Design Narrative

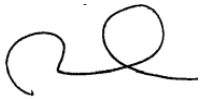
Please find attached the design narrative completed by Archetype Architects.



Architectural Narrative

Although somewhat remote from the surrounding neighborhood, the buildings use all traditional New England siding and trim details. The clapboard is vinyl but window trim, door trim and corner boards are PVC to give a crisp distinctive line identifying the building elements. There are four buildings each a three-story building with a shingled hip roof. Each building has two main entrances located on a side elevation yielding easy access from parking area. A walkway from the street sidewalk is identified with two granite posts identifying the entry walk to the main door. The doors are identified with double columns and an overhang trimmed out in classic New England style. Each side door gains access to six units for a total of twelve units per building. Keeping the buildings at twelve units helps scale the project down to be in harmony with neighboring buildings scale. Each unit has a deck or patio breaking up the façade and offering the private outdoor amenity for the occupants. The buildings are placed to allow proper landscaping but close enough to preserve as much natural wooded area as possible.

David Lloyd, Principal Architect



Maine Licensed Architect
Architect/President, Archetype

P. Utilities

The proposed project will include installation of multiple utility services to the renovated building.

Water:

It is proposed to serve the site with an 8" fire line running the length of the access drive. This line will connect into PWD's 12" main within Sherwood Street. The site will also be served by a 4" domestic line. Each of the four (4) buildings will be served by a 6" fire and 2" domestic service that will connect into the mechanical room for each respective building.

Sewer:

It is proposed to connect a 8" common sewer line into the existing sewer manhole located within Sherwood Street. The proposed main will run parallel with the Access Drive to serve the site. Each building will connect into this main with 6" laterals. Please refer to the Wastewater Capacity Letter for more information.

Stormwater:

The project will trigger general and flooding standards as they pertain to Chapter 500 of the Maine DEP regulations. As such, on site quantity and quality control will be provided by capturing 95% of the new impervious area and routing it to underdrained subsurface sand filters before it's slowly metered out to the existing detention basin along Dalton Street. The proposed peak flowrates in the post condition show a noticeable decrease as compared to the existing condition. Furthermore, the off-site run-on from the neighboring school has been accounted for and will be diverted to the existing detention basin where it currently flows. The project continues to coordinate with the design engineer of the school renovation project.

Electric/Communications:

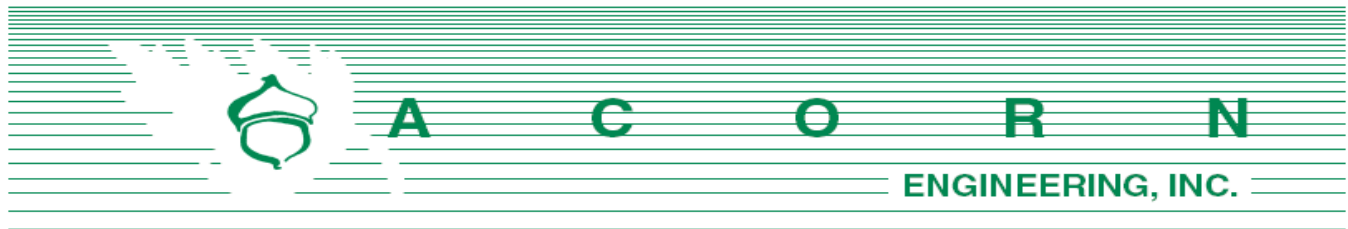
It is proposed to install a riser on the existing utility pole near the site entrance on Sherwood. From here underground conduits will be run into the site to serve the electric and communication demands of the development. A total of four (4) separate pad mounted transformers are proposed to serve the residential buildings.

Natural Gas:

The development is currently contemplating the extension of the existing gas main

Various coordination streams including ability to serve letters are under way with the respective utility companies. Please find attached the letters sent out to date. Formal approvals will be forwarded upon receipt.





Portland Water District
 Attn: MEANS Department
 225 Douglass Street
 Portland, Maine 04104

April 22, 2021

Subject: Dalton Street PRUD
 Re: Ability to Serve

To Whom It May Concern:

On behalf of Hammond House, LLC we are pleased to submit the following request for PWD's ability to serve the proposed development. The proposed project is located at the end of Dalton Street and contains the following parcels, Chart, Book, Lot: 428-A-008-013, 427-I-007-009, 427-K-001-004, 427-L-005-008 and 427-L-012, 427-N-001-004 and 427-N-012. The site is located within the R-5 Residential Zoning District in Portland, Maine. The property consists mainly of undeveloped land with an existing single-family home and accessory structures. The project includes the development of four (4) multi-family buildings with accompanying roadway, parking, and recreation space.

The existing single-family dwelling will continue to be served by the existing services within Dalton Street. It is proposed to serve the site with an 8" fire line running the length of Winchester Drive. This line will connect into the 12" main within Sherwood Street. The site will also be served by a 4" domestic line with an underground meter pit proposed within Winchester Drive. Each of the four (4) buildings will be served by a 6" fire and 2" domestic service that will connect into the mechanical room for each respective building. Based upon the Section 4 of the Maine Subsurface Wastewater Disposal Rules, and assuming that the units will be comprised of 6 one-bedroom units and 6 two-bedroom units in each of the four proposed buildings, the project anticipates the following design flows:

Estimate of Anticipated Daily Flows				
Development	Unit Size	Number of Units	Gallons per Day per Unit	Total Gallons per Day
Existing Flow				
Single Family Dwelling (Dalton St)	3-Bedroom	1	270	270
Total Gallons per Day (Existing)				270
Proposed Flow				

Single Family Dwelling (Dalton St)	3-Bedroom	1	270	270
Residential Units	1-Bedroom	24	120	2,880
Residential Units	2-Bedroom	24	180	4,320
Total Gallons per Day (Proposed)				7,470
Net Change				+7,200 GPD
*Values based on STATE OF MAINE: SUBSURFACE WASTEWATER DISPOSAL RULES, most recent edition				

The proposed project is anticipated to increase the net flow by approximately 7,200 gallons per day (GPD). It should be noted that these values were developed using conservative estimates from the State of Maine Subsurface Wastewater Disposal Rules. Additionally, the number of bedrooms per unit may change later in the design process. We will provide any changes to the anticipated water demand.

On behalf of the client, we are requesting the following information:

1. Any additional information, such as existing utility mapping within Dalton and Sherwood Streets and confirmation of the location and size of the services to the existing property and the size and material of the water main within Dalton and Sherwood Streets.
2. Alternative connection locations from the property to the existing system.
3. PWD's proposed infrastructure improvements within the project vicinity.
4. Flow data for adjacent hydrant.
5. PWD's ability to serve the project.

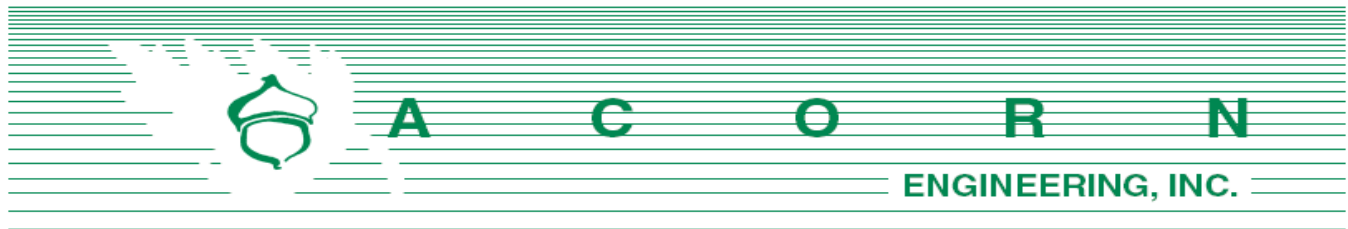
I have attached a fixture count, an existing conditions plan created by Owen Haskell, Inc., and the proposed preliminary utility plan from our office to facilitate your review. Please do not hesitate to contact me or the office for any questions or clarifications.

Sincerely,



Nate Pratt-Holt, E.I.
Design Engineer
Acorn Engineering, Inc.





Spectrum Cable
Attn: Mr. Mark Pelletier
118 Johnson Road
Portland, Maine 04102

April 22, 2021

Subject: Dalton Street PRUD
Re: Ability to Serve

Dear Mr. Pelletier:

On behalf of Hammond House, LLC we are pleased to submit the following request for Spectrum's ability to serve the proposed development. The proposed project is located at the end of Dalton Street and contains the following parcels, Chart, Book, Lot: 428-A-008-013, 427-I-007-009, 427-K-001-004, 427-L-005-008 and 427-L-012, 427-N-001-004 and 427-N-012. The site is located within the R-5 Residential Zoning District in Portland, Maine. The property consists mainly of undeveloped land with an existing single-family home and accessory structures. The project includes the development of four (4) multi-family buildings with accompanying roadway, parking, and recreation space.

The existing single-family dwelling will continue to be served by the aerial services on Dalton Street. It is also proposed that new underground services be dropped from the existing utility pole on Sherwood Street. The conduit will cross Sherwood Street and continue within the proposed roadway to each of the proposed buildings.

On behalf of the client, we are requesting the following information:

1. Any additional information, such as utility mapping within Dalton and Sherwood Streets.
2. Any easements for overhead services currently crossing the proposed development.
3. Alternative connection locations from the property to the existing communication system.
4. Spectrum's proposed infrastructure improvements within the project vicinity.
5. Spectrum's ability to serve the project.

I have attached an existing conditions plan created by Owen Haskell, Inc. as well as the proposed preliminary utility plan from our office to facilitate your review. Please do not hesitate to contact me or the office for any questions or clarifications.

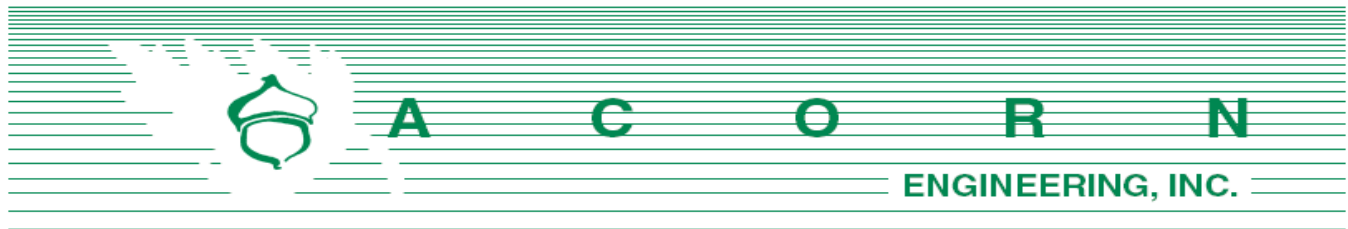
Sincerely,

A handwritten signature in black ink, reading 'Nate Pratt-Holt'.

Nate Pratt-Holt, E.I.
Design Engineer
Acorn Engineering, Inc.



A C O R N Engineering, Inc. • www.acorn-engineering.com
207-775-2655 • PO Box 3372 • Portland • Maine • 04104



Central Maine Power Company
162 Canco Road
Portland, Maine 04103

April 22, 2021

Subject: Dalton Street PRUD
Re: Ability to Serve

To whom it may concern:

On behalf of Hammond House, LLC we are pleased to submit the following request for CMP's ability to serve the proposed development. The proposed project is located at the end of Dalton Street and contains the following parcels, Chart, Book, Lot: 428-A-008-013, 427-I-007-009, 427-K-001-004, 427-L-005-008 and 427-L-012, 427-N-001-004 and 427-N-012. The site is located within the R-5 Residential Zoning District in Portland, Maine. The property consists mainly of undeveloped land with an existing single-family home and accessory structures. The project includes the development of four (4) multi-family buildings with accompanying roadway, parking, and recreation space.

The existing single-family dwelling will continue to be served by the aerial services on Dalton Street. It is also proposed that new underground services be dropped from the existing utility pole on Sherwood Street. The conduit will cross Sherwood Street and continue within the proposed roadway to four (4) proposed pad-mounted transformers to serve the residential structures.

On behalf of the client, we are requesting the following information:

1. Any easements for overhead services currently crossing the proposed development.
2. Alternative connection locations from the development to the existing system.
3. CMP's proposed infrastructure improvements within the project vicinity.
4. CMP's ability to serve the project.
5. Access requirements to the CMP meters.

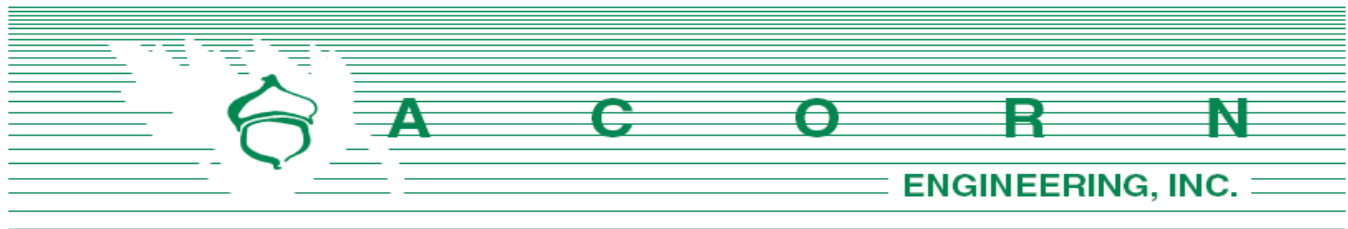
I have attached an existing conditions plan created by Owen Haskell, Inc. as well as the proposed preliminary utility plan from our office to facilitate your review. Please do not hesitate to contact me or the office for any questions or clarifications.

Sincerely,

Nate Pratt-Holt, E.I.
Design Engineer
Acorn Engineering, Inc.



ACORN Engineering, Inc. • www.acorn-engineering.com
207-775-2655 • PO Box 3372 • Portland • Maine • 04104



Consolidated Communications
Attn: Mr. Patrick Morrison
5 Davis Farm Road
Portland, Maine 04103

April 22, 2021

Subject: Dalton Street PRUD
Re: Ability to Serve

Mr. Morrison:

On behalf of Hammond House, LLC we are pleased to submit the following request for Consolidated's ability to serve the proposed development. The proposed project is located at the end of Dalton Street and contains the following parcels, Chart, Book, Lot: 428-A-008-013, 427-I-007-009, 427-K-001-004, 427-L-005-008 and 427-L-012, 427-N-001-004 and 427-N-012. The site is located within the R-5 Residential Zoning District in Portland, Maine. The property consists mainly of undeveloped land with an existing single-family home and accessory structures. The project includes the development of four (4) multi-family buildings with accompanying roadway, parking, and recreation space.

The existing single-family dwelling will continue to be served by the aerial services on Dalton Street. It is also proposed that new underground services be dropped from the existing utility pole on Sherwood Street. The conduit will cross Sherwood Street and continue within the proposed roadway to each of the proposed buildings.

On behalf of the client, we are requesting the following information:

1. Any additional information, such as utility mapping within Dalton and Sherwood Streets.
2. Any easements for overhead services currently crossing the proposed development.
3. Alternative connection locations from the property to the existing communication system.
4. Consolidated's proposed infrastructure improvements within the project vicinity.
5. Consolidated's ability to serve the project.

I have attached an existing conditions plan created by Owen Haskell, Inc. as well as the proposed preliminary utility plan from our office to facilitate your review. Please do not hesitate to contact me or the office for any questions or clarifications.

Sincerely,

Nate Pratt-Holt, E.I.
Design Engineer
Acorn Engineering, Inc.



A C O R N Engineering, Inc. • www.acorn-engineering.com
207-775-2655 • PO Box 3372 • Portland • Maine • 04104

Q. Construction Management Plan

Project Address: Dalton/Sherwood Street (future private way to become Winchester Drive)

Project Description:

The proposed project includes the development of a 3.4 ac parcel to accommodate four (4) residential buildings with a total of forty-eight (48) units.

Project Team Summary:

Owner:	Hammond House, LLC
General Contractor:	TBD
Civil & Environmental Engineer:	Acorn Engineering, Inc.
Architect:	Archetype Architects
Structural Engineer:	M2 Structural Engineering
Geotechnical Engineer:	Summit Geoengineering Services

The Owner/GC and all subcontractors will work with the City of Portland and adjacent landowners to minimize any project impacts.

The GC will remain responsible for enforcement of all compliance with 1) all contract plans and specifications in their scope of work and 2) all site working conditions and safety requirements, day and night, for both persons and property, in each case for the duration of their work. These include OSHA, NIOSH, U.S. EPA, local ordinance and any other applicable governmental regulations. Both the Owner/GC and any subcontractors will remain responsible for safeguarding the general public.

The GC shall review all permits and conditions associated with the project. Refer to the Civil/Site Plan Set, Sheet C-03 Construction Management Plan for visual representation of the measures to be taken during construction.

The following outline has been developed in accordance with the City of Portland Construction Management Plan General Template and shall be referenced by the GC during construction.

A. Construction Management Principles

The control of noise, vibrations, ground movement, truck traffic, and other construction related factors will be of utmost importance. Care shall be taken to minimize these effects in the best interest of neighbors and the general public. GC to ensure that work hours conform to the City of Portland's Ordinance.

B. Development Review of Construction Management Plan

Logistics and safety program shall be submitted at or prior to the preconstruction meeting by the GC with all pertinent information required by the Maine Department



of Transportation's Traffic Control Plan Standard Specification 652.3.3.

C. Performance Guarantees, Inspection Fees, Preconstruction Meeting, and Permits

Guarantees and fees will be paid at the time of the respective application. Sections 14-530 and 13-532 will be complied with all necessary permits will be obtained prior to work.

1. Street Opening and Street Occupancy Permits:

Required permits regarding street opening and occupancy will be obtained from the Department of Public Works. The requests shall conform to the approved Construction Management Plan.

2. Blasting:

Although not anticipated, if blasting occurs, it shall conform to Article VIII. In Chapter 14 of the City Code and Section 3.7 in the City's Technical Manual.

3. Building Code:

Employ the best practices, as applicable, of Chapter 33 Safeguards During Construction, from the 2009 International Building Code.

D. Construction Administration and Communication

The Contractor will work closely with adjacent abutters, businesses, and all parties informed, as far in advance as possible, of scheduled work, particularly work anticipated to cause significant noise, vibrations, or dust. Communication in order to comply with all agreements, ordinances, and special permits will be of the utmost importance. Contractor and Subcontractor contact information shall be posted somewhere along the project's street frontage. Additional signage necessary for communication shall be provided but will be temporary and removed upon completion of the project.

E. Construction Schedule

The GC shall submit a construction timeline at or prior to the preconstruction meeting. Construction may occur during the daytime hours as defined in Section 17-18. Construction Activities for Building permit and City Code Section 25-129, Noise, dust and debris. Between September 1 and May 31, the following year, no person shall engage in construction activities generating noise exceeding 50 decibels, between the hours of 7 pm and 7 am of the following day within 500 feet of any buildings. From June 1 to August 31, construction activity may continue until 8 pm. No construction activity shall begin before 8 am on a Saturday, Sunday, or legal holiday. Extended hours or night work may be requested for special circumstances and street utility work if needed. These requests will be subject to approval by the Public Works Authority. Deliveries will be scheduled between 7 am and 5 pm.



The estimated timeframe of the proposed project is outlined below:

<u>Project Start Date:</u>	Fall 2021
<u>Project End Date:</u>	Spring 2023

A more detailed work schedule shall be provided by the GC at or before the pre-construction meeting with the City.

F. Security

1. The Construction Management Plan, Sheet C-03, depicts all proposed fencing and other barriers, with the intent of separating pedestrian and vehicle circulation from the construction site. Construction entrances per detail shall be installed.
2. Structures undergoing construction, alteration, or demolition operations, including those in underground locations, shall comply with NFPA 1 Chapter 16. *Safeguarding Construction, Alteration, and Demolition Operations.*
3. Fire Safety Program: Prior to construction, an overall construction and demolition fire safety program shall be developed. Essential items to be emphasized include the following:
 - o Good Housekeeping
 - o On-site security
 - o Installation of new fire protection systems as construction progresses
 - o Preservation of existing systems during demolition
 - o Organization and training of an on-site fire brigade
 - o Development of a pre-fire plan with the local fire department
 - o Rapid communication
 - o Consideration of special hazards resulting from previous occupancies
 - o Protection of existing structures and equipment from exposure fires resulting from construction, alteration, and demolition operations.
4. Blasting, if required, shall conform with all measures of Article VIII. Regulation of Explosives in the Land Use Code and Section 3.7 Standards for Blasting and Regulation of Explosives in Portland's Technical Manual.
5. Temporary security lighting shall be shown on the Construction Management Plan, and all fixtures shall be full cutoffs.

G. Construction Permitting and Traffic Control Plans

1. Construction Activity in Public Streets

Construction activity in the public right-of-way shall be compliant with Chapter 25 Article VII of the City Code. At no time will it be permissible for construction activity including delivery vehicle to close or block streets or affect public safety



access without prior notice and approval of the Department of Public Works.

2. Sewer and Stormwater

Sewer and stormwater system connections are controlled by Chapters 24 and 32 of the City code of Ordinance. Required permits for new connections and/or abandonment of existing connections are available through the Street Opening Clerk at the Department of Public Works. Rules and Regulations for these utility systems are available through the City Engineer's office of the Department of Public Works and in Section II of the Technical Manual.

3. Traffic Control Plans

Construction activity that impacts the existing public street system must be controlled to protect the safety of the construction workers and all modes of the traveling public. The contractor shall submit a satisfactory "Maintenance of Traffic" (MOT) plan prior to any street opening permit approval. This document shall contain all pertinent information from the Maine Department of Transportation's Traffic Control Plan Standard Specification 652.3.3.

The MOT will address the work required for utility connections in Hanover and Parris Street. Traffic will be channelized utilizing drums and cones. Proper signage will be installed prior to the through work zone. Alternating traffic will be controlled with flaggers. Trenches will be patched with pavement daily.

The MOT plan shall provide for the safe passage of the public through or along the construction work zone. It may be permissible to close a portion of Dalton or Sherwood Street during utility connections and/or detour a mode of traffic when absolutely necessary for safety. All requests shall be subject to City approval. MOT plans shall employ the appropriate techniques and devices as called for in the latest edition of the Manual on Uniform Traffic Control Devices (MUTCD). In addition:

- Construction speed signing may be used as needed to slow traffic.
- Traffic Control signs shall not be placed where they would create any obstructions to bicycles or pedestrians.
- Flaggers will be utilized when necessary.

All existing modes of travel in the work zone area shall be accommodated if impacted by the activity. The safe passage of pedestrians, bicyclists, transit providers, and motorists are of equal importance when planning and laying out the work zone; no pre-existing travel mode may be eliminated without the express approval of the Department of Public Works. The MOT should also address on-street parking impacts, including deliveries and parking for adjoining businesses and property owners, analysis of roadway capacity or diversion capacity if street closure or change to roadway capacity is required, and coordination with other on-going or future construction or utility projects in the vicinity.



- Traffic control bicycle and pedestrian facilities or routes through work zones shall be maintained until the bicycle and pedestrian facilities or routes are ready for safe operation. Traffic control will not be removed to allow auto travel at the expense of bicycle and pedestrians.
- Barrier systems utilized to separate the construction activity from the public street and /or sidewalk shall not inhibit sight distances, particularly for visibility of pedestrians and bicyclists.
- ADA compliance in all capacities shall be maintained.

Use of public parking spaces or the blockage of any portion of sidewalk for the purpose of construction activity shall require an occupancy permit and appropriate fee as assessed by the Department of Public Works.

H. Site Management and Controls

1. Regular trash and debris shall be managed appropriately, and its removal shall comply with all local, state, and federal regulations.
2. Street cleaning and sweeping shall be followed as outlined in the erosion and sedimentation control notes and report. Damage to the street shall be avoided and shall be the responsibility of the contractor.
3. Dust shall be controlled and shall comply with Section 25-129 and the erosion and sedimentation control notes, plan, and details.
4. Noise shall be controlled and shall comply with Section 17-18 and Section 25-129.
5. Rodent Control shall be provided, if applicable, by a professional exterminator and shall be consistent with Chapter 22 of the City Code.
6. Snow and Ice Removal shall be provided. Pursuant to Section 25-173, the Contractor shall ensure a safe means of travel within the work zone by the following steps:
 - a. Snow/ice removal or commence automatically from 1" or greater of snow or ice
 - b. Remove snow as needed within the work zone, including parking spaces. Driveways and site lines shall not be blocked by piles of snow.
 - c. Clear all walks and ramps within the work zone
 - d. Sand or salt as needed
 - e. Clear all basin or drainage to help snow melt
 - f. The above steps shall be carried out Sunday-Saturday including holidays.

I. Erosion & Sedimentation Control

1. The Contractor shall install all erosion and sedimentation controls as depicted on the approved Construction Management Plan, C-03, and the approved erosion and sedimentation control report, prior to the pre-construction meeting for inspection



- by the City. The Contractor shall regularly inspect the control measures, no less than weekly and after storm events (0.5" or more in 24 hours). Additionally, temporary or permanent stormwater management systems shall be inspected and maintained to ensure working order. The Contractor shall document all inspection activities and corrective actions and be prepared to provide these documents for inspection by the City, Maine Department of Environmental Protection (MDEP) or the U.S. Environmental Protection Agency (EPA) upon request.
2. Due to the existing, sparse landscaping on site, no protection during construction will be necessary.
 3. Stored materials shall be identified and avoid being located under/near trees.

J. Construction Staging Area

1. The Contractor shall submit a plan with locations depicted for the location of material staging areas, the location of on-site temporary construction trailers, the location of on-site truck delivery holding areas, the location of on-site truck washing stations, masonry mixing stations, the general location of the construction security fence and the general location of temporary construction dumpsters. This plan shall be submitted at or prior to the pre-construction meeting. Any open storage areas shall be shown on the plan.
2. Delivery Truck Holding Areas On-Site: The majority of materials delivered to the site will be scheduled such that they are able to be off-loaded immediately. On days when the construction activities require multiple truck deliveries, these deliveries will be carefully scheduled so that there is always adequate on-site area for the holding of trucks until they can be unloaded. Once at the site all vehicles will be brought within the fence line and will make every attempt to avoid queuing on public streets. If, for any reason, on-site holding of trucks is not feasible, an off-site location must be designated and shown on the submitted plan referenced above in J.1.
3. All deliveries for materials shall comply with the City's noise requirements.

K. Parking During Construction

1. Adequate parking for construction workers shall be provided on site or arrangements for off-street parking at an off-site location shall be provided.
2. Truck Routes and Volumes: The following quantities are estimated as part of the reconstruction:
 - Gravel & Stone – 1,500 CY. Earthwork subcontractor(s) pit to project site.
 - Hot Mix Asphalt – 75 Tons. Paving subcontractor pit to project site.

L. Dewatering Plans



1. A basic dewatering plan for any construction work is required and shall be submitted by the Contractor. The plan must cover construction sites where groundwater is not expected but the impact of rainwater may require dewatering. The plan must include operating procedures, equipment to be used, including filters, erosion and sediment control measures, or other methods of removing sediment from approved discharges.
2. For construction work that will require frequent dewatering of groundwater from site, a dewatering plan must be prepared by the Contractor and approved by the Department of Public Works. Groundwater and/or soil testing may be required to determine course of action if treatment is necessary. Approval for all discharges to City infrastructure is required. The proposed plan must address the following:
 - Project duration, discharge location, storage equipment on-site, dewatering schematic, and emergency contact.
 - General requirements include trained staff on-site for all approve discharges and required site log for documentation of all discharges.
 - Storage and/or treatment process should include proper settling time and maintain proper use of filtering medium as required.
 - Contingency/maintenance plan for all dewatering equipment devices and filtration mediums.

Any water that is removed from an excavation must be pumped from a perforated device buried in crush stone prior discharge and/or prior to storage and treatment. There will be no discharge allowed during precipitation events.

M. Special Measures as Necessary

The presence of the invasive Japanese Knotweed has been voiced by neighbors during the neighborhood meeting held. To help combat the spread of the plant special measures will need to be taken during construction and afterwards by the property management company. The Maine Natural Areas Program recommends smothering well established cover with heavy black landscaping cloth or erosion control fabric, this requires biweekly maintenance and must be repeated for up to 10 years. Other methods include cutting the plants when they are approximately 3' tall, then applying glyphosate when the plants have grown within 3-5' range later in the same growing season. Glyphosate can be applied to uncut, mature stems just before flowering, avoid applying during flowering to prevent impacting bees which are attracted to the species. It should be noted that special rules apply when applying herbicide near wetlands, as such the contractor and property management company should consult with the Maine Board of Pesticides Control when targeting Knotweed near the wetlands on site.

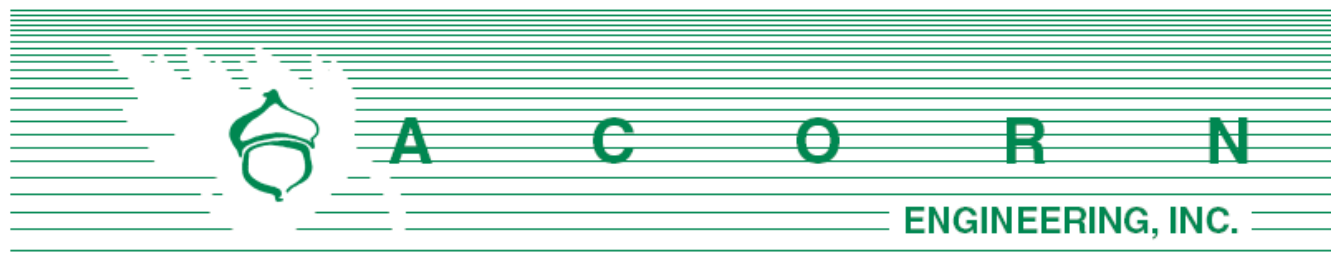


R. Solid Waste Disposal

The property management company or Owner shall be responsible for locating the solid waste and recyclable material to the space allocated for solid waste storage as noted on the Site Plan (C-10).

The solid waste containers will be fully enclosed and screened from the public view. A private hauler will be contracted with for removal.





Shukria Wiar, Planner
 Planning Division, City of Portland
 389 Congress Street
 Portland, ME 04101

August 11, 2021

Subject: Comment Response Letter
 Winchester Woods – Portland, Maine

On behalf of Winchester Woods LLC and the rest of the project team, we are pleased to respond to the comments that we have received thus far.

To facilitate the review, comments are provided below in italics followed by the project team's response. The response to the Design Review comments were prepared by David Lloyd and Mike Hutchins of Archetype and the response to the remaining comments were prepared by Sam Lebel and Will Savage of Acorn Engineering.

Design Review Comments

Comment – *Please clarify whether the elevations or the rendering is the correct version of the design.*

Response – In regard to the rendering and the building elevations, they are developed from the same 3D model, so they should be consistent. If there is a specific element that you can point out the design team would be glad to check.

(h) Planned Residential Unit Development (PRUDs) in the R-5 Residential Zones

Comment – *Standard (1) b. Internal Design Character and Relationship to the Surrounding Neighborhood – Context – The Sherwood and Dalton streets are considered to be the neighborhood context – these are small-scale homes with natural finish clapboard, hipped and gable roofs, elevated ground floors with porches/stoops, and simple, regular window patterns.*

- **Character:** *The overall design character should be cohesive with the existing residential development, however, the proposal includes residential buildings of a larger scale and not directly sharing the same streetscape. The proposal should take cues from the characteristics of residential buildings but should not be expected to replicate single-family homes. Those characteristics include a single siding material (clapboard), clear primary roof form with subsidiary dormers, transitional entrance (stoop, canopy, or porch), corner boards, overhanging eaves, double-hung windows. The proposal uses one cladding material – clapboard (though vinyl is less preferable to fiber cement board), a hipped roof with dormers at the entrances, vertical oriented windows in a regular rhythm. The entrances appear institutional or commercial in character because:*

1. *The canopy is overly tall and should be reduced in height to a more residential scale*

2. *The use of capitols and columns is not consistent with the character of this residential area*
3. *The entrance canopy is very shallow in depth.*

Response –

- Our owners wish to stay with the vinyl clapboard for reasons of reduced future maintenance costs but we do wish to point out that we have trimmed the windows, doors and corner boards with a painted PVC product which provides crisp lines and closely resembles a painted wood product. In response to the entry details we have lowered the roof overhang, simplified the column details, and extended the roof to provide a full four feet of coverage.

Standard (1) c. Recreation and Open Space

Comment – *The individual patios require more privacy – screening/landscaping and railings to buffer from surface parking areas and to provide privacy from all directions.*

Response – The buildings have been pulled off Winchester Drive to ensure the 50' right-of-way is clear of any structures. As a result the ground level patios have inherently been provided with more buffer from the sidewalk and are buffered by a more robust landscaping plan.

Comment – *The existing trail crosses through the property and will be maintained/enhanced. In addition, the multi-function field allows for the possibility of recreation/play. Staff ask whether an amenity such as play equipment can be added to the site.*

Response – We are open to suggestions and input regarding the addition of play equipment to the site. As the design stands currently, we are proposing an open space that has the opportunity for multiple recreation purposes.

Comment – *Private open spaces: Each unit has access to private decks. The current size and orientation of these decks are not conducive to comfortable, functional, private space. Some revisions are proposed to better meet the standard and provide useable/functional spaces:*

- o *Extend the footprint of the ground floor patios to provide more functional space allowing the mechanical room to serve as a dividing screen.*
- o *Provide better screening/privacy as mentioned above*
- o *Consider moving the decks from the street-facing façade to the side elevations to create privacy and more comfortable space.*

Response – Due to the right-of-way constraint on the building, a number of building and site revision have had to occur which might outdate the above comments. As such, we will respond to the general tone of the comment with the following responses:

- o The footprint of the ground floor patios have been increased to a 8'x8' areas to provide a more livable space.
- o More plantings and a further physical buffer from the sidewalk have been implemented into this design.
- o To ensure the buildings remain out of the right-of-way while also avoiding any wetland disturbance, the decks will need to be located along the sides of the building. We have not had any complaints in regard to privacy on similar projects and like the idea of potential interplay with people on decks and people on the sidewalks.



Planning Comments

Comment –

- *All residential development consisting of 20 or more dwelling units and all commercial and institutional developments of at least 20,000 square feet gross floor area shall provide a transit shelter adjacent to or within the public right-of-way along its frontage when the following criteria are met: a. The development is proposed along an existing public transit route on a principal or minor arterial roadway, as shown in the Federal Street Classification Map. b. The nearest existing transit shelter on the route is more than ¼ mile from the site, measured along rights-of-way.*

Response – As defined in Chapter 14.6.C of the City's Land Use Code, the site would not qualify for providing a transit shelter as the location is not along an existing public transit route on a principal or minor arterial roadway.

Comment – *Where a parking study is required, the City encourages Transportation Demand Management (TDM) strategies to be employed.*

Response – Please refer to the Parking Study included with this submission for greater than 10% parking provided vs required. A TDM plan is not required for this project, nor does the project and building typology lend itself well to a TDM plan. Each building contains 12 units over three floors which is not conducive to containing traditional TDM strategies such as a dedicated bicycle room or a large lobby with message boards and transportation information. This approach is more appropriate in larger multifamily buildings on smaller sites that have less parking. In this case, the PRUD was applied along with an affordable density bonus to maximize the unit count; however, given the relatively large land area and the underlying zoning district, parking is available on site at a ratio of 1.3 spaces per unit (less than 1 space per bedroom).

Comment – *Bicycle parking - All development shall provide secure bicycle parking in accordance with the parking requirements of this Land Use Code and the transportation systems and street design standards of the Technical Manual*

Response – A bicycle parking ratio of 1 space per 2 units has been provided for a total of 24 spaces on site which meets the zoning standard. These racks will be adjacent to the building and anchored to the ground in a secure fashion. Should residents desire additional storage, the unit layout offers an opportunity for internal storage.

Comment – *Snow storage – a. All developments shall include areas for snow storage or provide an acceptable snow removal plan. b. Snow storage areas may not encroach on areas designed to meet minimum parking requirements or on pedestrian walkways and shall not be located where they would adversely impact the functionality of stormwater management systems. Landscaping in designated snow storage areas shall be such that it can withstand the snow pile.*

Response – Adequate space has been provided for snow storage throughout the site, particularly at the ends of drive aisles to facilitate natural plowing movements. Please refer to site plan for the proposed storage locations.



Comment - *Electric Vehicle (EV) charging - All development shall adhere to applicable EV standards as provided in Section 1 of the Technical Manual*

Response – General note #8 on Sheet C-10 addresses the EV requirements set forth in the Technical Manual.

Preservation of significant natural features

Comment – *All development shall preserve and protect significant natural features by incorporating them into the site design.*

Response – The project proposes to minimize the disturbance of existing vegetation where feasible. Particularly in the area of the PRUD open space and two future single-family/duplex lots, existing trees that are healthy and non-invasive will generally be preserved. The manmade “wetlands” on site will not be disturbed. We have reached out to several State agencies including the Historic Preservation and Maine Natural Areas Program offices and there have been no concerns expressed.

Comment - *All exterior site lighting shall be full cutoff with no light emitted above the horizontal plane or spilled onto adjacent properties and streets. Illumination levels shall be adequate but not excessive for the safety, comfort, and convenience of occupants and users of the site, and shall conform to the lighting standards of the Technical Manual.*

Response – Full cut off lighting is proposed for each deck and patio adjacent to entryways. Two recessed lights are proposed in the entry porch ceiling. There is no “site lighting” proposed. Given the compact nature of the development and the small parking lots, we believe this is the appropriate balance to provide a safe, yet modest site from a lighting perspective.

Comment - *Where light from a proposed development may adversely impact adjacent residential properties, exterior lighting shall employ houseside shielding.*

Response – The proposed lighting will result in zero spillover onto adjacent properties given the required 25’ setbacks the PRUD requires, in addition to the existing and proposed vegetation.

Comment - *Submit catalogue cut for all proposed lighting.*

Response – Please refer to Section N. Lighting for the product sheets.

Comment – *Contact Chuck Wardell at DPW for a 911 address.*

Response – The applicant has been in contact regarding addressing for the site. Final addresses will be provided on the plans once determined; however, DPW has agreed to the name “Winchester Drive” for the private road.



Department of Public Works

General

Comment – *The project name "0 Dalton" has already caused confusion about traffic and access impacts. Members of the public have assumed that primary access will be off Dalton Street. While this isn't the case, residents of Sherwood Street may not be as aware and engaged of this project as they may be otherwise. It is encouraged that the applicant changes the project name to clarify.*

Response – 0 Dalton is the default name generated at the time of the CSS Application. The City may assign the project any name it wishes although the project is now referred to as “Winchester Woods Apartments” and the private roadway name has been agreed to by DPW as “Winchester Drive”.

Comment – *Verify that the E-911 process has been completed for this project.*

Response – The applicant has been in contact regarding addressing for the site. Final addresses will be provided on the plans once determined.

Site Plan

Comment – *The site plan shows several crosswalks along Winchester Drive, but there are no ramps shown.*

Response – Please refer to the revised plans depicting ADA accessible ramps at the crosswalk locations.

Comment – *The northernmost parking area does not have an ADA space. All parking distinct areas should have a van-accessible ADA space.*

Response – An ADA space has been added to the northernmost parking bay.

Comment – *The buffer spaces adjacent to ADA parking spaces should have a direct accessible route to the sidewalk. Refer to [this document](#).*

Response – All ADA spaces and adjacent loading/unloading aisles have been designed to meet ADA standards and provide access to ADA building entrances as well as the proposed sidewalk along Winchester Drive. Please refer to Sheets C-10 and C-30 for more information.

Comment – *Sidewalk widths are typically 4 feet. While not under the purview of the Technical Manual, the recommended sidewalk width is at least 5 feet. Additionally, the Applicant should be aware of federal ADA requirements for sidewalks, which do apply here. Signs or other obstructions along the sidewalk may pinch the sidewalk down to an unacceptable width. A 5-foot sidewalk width or greater is strongly encouraged.*

Response – The sidewalk width has been increased to 5' along Winchester Drive.



Comment – *Bicycle racks do not appear to be located along a paved access way, requiring users to wheel bikes through grass or another unspecified material. Bike rack symbology is also extremely small (5'x3') and do not adequately reflect the footprint of bike racks with bikes parked in them. The symbol used for a bike rack is a simple rectangle and is not easily distinguishable from other site features like concrete pads.*

Response – Please refer to the revised site plan which includes a more distinct symbol for the proposed bike rack as well as Sheet C-41 which depicts the proposed bike rack detail. Each rack will be placed on top of a concrete pad and located in a well maintained grassed area to the rear of each building. The racks have been relocated to be in proximity to a sidewalk or walking path to prevent the formation of “goat paths”.

Comment – *"No Thru Traffic" or similar signage is recommended.*

Response – A dead end sign is proposed to be mounted on the same pole as the Portland Trails sign. An additional sign is proposed further up Winchester that signals on-street parking is designated for residents. We believe the dead-end sign will make it clear that Winchester Drive is not a thru street, while still inviting foot traffic along the sidewalk to access the trail.

Utility Plan

Comment – *The sewer connection to Sherwood St. may require a manhole; coordinate with Water Resources.*

Response – The utility plan currently shows coring a new hole into the existing sewer manhole in Sherwood Street. We have submitted the wastewater capacity application and utility plan with our prior submission.

Traffic

Comment – *Based on project trip generation and site location a traffic study is recommended with the scope of work to include the following:*

- *Evaluate the intersections of Sherwood Street at Veranda and Presumpscot. This shall include collecting AM and PM intersection turning movements counts and conducting a capacity analysis.*
- *The analysis should be performed for No-Build and Build conditions.*
- *Conduct a speed study on Sherwood Street and assess the need for traffic calming strategies (including suggestions for pavement marking calming strategies).*
- *Crash data for Sherwood Street shall be obtained and assessed.*

Response – Based upon the trip generation calculations prepared, the project is not anticipated to exceed the 25 passenger car equivalent trip threshold specified by Section 1.1 of the Technical Manual and therefore, based upon our interpretation (as well as DPW's concurrence) a traffic study is not required. Overall, the project will have a minimal effect on the overall traffic network and those who wish to walk, bike, or ride the bus will be able to do so easily. Please refer to the traffic memo submitted with this letter for more information.



Zoning Division

Comment – *They need to confirm the status of the right of way off of Sherwood St. I think that Mike Tremblay said that he was going to talk to Jon Giles. You should check in with Mike. This will determine the total lot area and the setback requirements.*

Response – The project area is within a previously approved subdivision and “paper street” that was never accepted by the City. The project will not build any permanent structure within the 50’ ROW.

Comment – *Table 7-B (Article 7) outlines the PRUD standards. The net land area per dwelling unit requirement is 3,000 sf. Section 7.2 defines net land area as: The land area arrived at by subtracting from lot area the square footage of the following: a) areas of special flood hazard; b) existing watercourses measured by the area between the top of the banks at the normal high-water mark; c) wetlands; and d) slopes of 25% or greater. Where a slope of 25% or greater was altered to less than 25% within the two years immediately preceding a development proposal, such slope shall also be subtracted from the lot area. They need to provide the total area of the wetlands on the property and subtract it from the total area of the lot in order to show that the net land area per dwelling unit requirement is being met.*

Response – Please refer to the Net Land Area table provided on C-10 for this calculation which was calculated directly from the Net Land Area definition in the Zoning Ordinance, as referenced above.

Comment – *Footnote 2 of Table 7-B outlines the requirements for the Common Recreation Open Space. They need to indicate this space clearly on the site plan. For 48 units, they need a minimum of 14,400 sf.*

Response – Please see Sheet C-10 which depicts the recreation area at the end of Dalton Street which meets the spatial requirements as noted.

Comment – *Regarding the Zoning Analysis table, the setbacks for a PRUD are from the external subdivision property lines. The table should be corrected to reflect this. Since the buildings are less than 100 ft, the setback is 25’.*

Response – Please refer to the PRUD standards within the space and bulk table on C-10 for the setback requirements. The design complies with these 25’ setbacks.

City Surveyor Comments

Comment – *Please show and label F Street on this plan. Please include a note to the effect that it is a dedicated, unaccepted street in which the City has continued its potential future interests. Please show the street lines that are not fee ownership lines for the developer by using a different line type and line width to distinguish them from the fee ownership boundary lines.*

Response – F Street has been labeled on the subdivision plat with the mentioned note.

Comment – *Please label the vacated portions of C Street and Dalton Street.*



Response – The vacated portions of F Street and Dalton Street have been added to the subdivision plat, please refer to the legend.

Comment – *Please label all abutting landowners' names and deed book & page numbers.*

Response – The abutter information has been added to the subdivision plat.

Comment – *It looks like at least 3 of the 4 proposed buildings are encroaching on the limits of F Street. These buildings should not be designed within the street limits. Structures may not be constructed in the dedicated rights of way as that has the potential to interfere with the dedication as originally made.*

Response – The site design has been modified to ensure that all four of the proposed buildings are outside the 50' ROW.

Comment – *Please add the City-approved name of the proposed street.*

Response – Winchester Drive has been labeled on the subdivision plat.

Comment – *Please add a note to the plan that makes it clear that the road will be a private street until such time as the City accepts it as public. This note should state that the homeowners' association is responsible for plowing, trash removal, and maintaining the road, parking lots and sidewalks, as well as any drainage and sewer structures and pipes. A condition of approval should be added that requires submission of HOA docs that also note the status of the road and the HOA's responsibility for maintenance, snow removal, trash, etc.*

Response – Please refer to General note 15 and general note 12 on the subdivision plat for this information.

Comment – *Please label the "house lot" within this development. Is it to be retained by the developer?*

Response – The existing house will now be removed and the lot boundaries will be modified. It is proposed to create two parcels roughly 7,000 sf in size along to add more housing at the end of Dalton Street while still maintaining the residential density with the PRUD.

Comment – *Please add a Legend to the plan.*

Response – A legend has been added to the subdivision plan.

Comment – *Please show boundary markers to be set at the development's lot corners.*

Response – Boundary markers have been added to the plan and legend.

Comment – *Please add a Professional Land Surveyor's name, stamp and signature to this plan.*

Response – The subdivision plat will include the project surveyor's stamp and signature on the final version to be recorded.



Comment – *Please label the sewer easement that crosses the property near Dalton Street, with its deed reference.*

Response – This has been added to the plans.

Comment – *Please note encroachments and proposed actions to be taken, if any.*

Response – All apparent encroachments have been added to the plans with the proposed course of action highlighted.

Comment – *Please add notes about the boundary line agreements with the City and with the railroad company. Please label any deed references pertaining to these agreements.*

Response – A note has been added to the subdivision plat outlining the recommended boundary agreement per Owen Haskell.

Comment – *Please make sure all boundary lines and street lines have bearings and distances labeled. Many are missing on the current version.*

Response – Bearing and distances have been added to the property lines on the subdivision plan.

Comment – *Please add the boundary survey plan note about the basis of bearings and coordinates.*

Response – Refer to the survey notes section of the updated subdivision plat.

Comment – *Please add the number of new unit numbers per building, and whether or not they all are proposed to be residential.*

Response – All proposed units will be residential. Refer to the table on the subdivision plat for the unit mix.

Comment – *Please remove the stray line on the school property.*

Response – This line has been removed.

Comment – *Please label Sherwood Street and Dalton Street as "public" and also label their right-of-way widths.*

Response – The right-of-way width has been added for Sherwood and Dalton.



Lauren Swett – Woodard & Curran**Basic Standards**

Comment – *The project has provided an erosion and sedimentation control plan with details and notes in accordance with the standards. The plan should be updated to show a double row of sediment barrier along any remaining undisturbed wetlands.*

Response – A note has been added to sheet C-03 specifying a double row of protection adjacent to wetlands.

General & Flooding Standards

Comment – *The project is providing for treatment and flow attenuation of stormwater utilizing a series of underdrained subsurface sand filters (USSFs). I just have a few minor comments:*

- *The Applicant should check proposed tree location for proximity to the proposed USSF systems, in particular number 1 and 4.*
- *A stormwater maintenance plan and agreement will be required for the proposed systems. The agreement should include the 4 USSFs and the connecting outlet control structure.*

Response –

- The landscaping design has been updated to provide more clearance near the USSF systems.
- Noted, a stormwater maintenance plan will be prepared prior to the building permit phase.

Comment – *A stormwater system is proposed to direct water from the school site to the west through the property, discharging to the west. The Applicant has included narrative describing the system's design in conjunction with the abutting school property. The system includes a structure labeled "DMH By Others" and a "Potential 12" Storm Drain Connection and Drainage Easement from School". Further information confirming the design of this system (specifically pipe sizing) should be provided as well as confirmation of the easement and additional infrastructure required from the abutter.*

Response – We have been in contact with Frank Crabtree from Harriman who is the Professional Engineer of record on the Presumpscot School project. He has confirmed that a 15" storm drain will outlet the drainage from the School. A temporary invert has been provided which will outlet onto a rip rap slope in the interim condition. In the final condition the 15" storm drain pipe will be extended and connected into the proposed catch basin (CB-12) with the temporary slope raised to achieve adequate cover. This work will be coordinated under a temporary construction easement as well as a drainage easement.

Comment – *The Applicant has provided requests for utility ability to serve. Confirmation of ability to serve should be provided upon receipt. The utility plan includes locations of proposed landscaping, which is helpful. The Applicant should generally check for proximity of proposed landscaping to utilities. In addition to proximity to the USSFs as noted above, it also appears that landscaping will be in close proximity to some proposed electrical infrastructure – the Applicant should confirm constructability.*

Response – We will provide the ability to serve letters once received. We have been in consistent contact/coordination with Portland Water District and Central Maine Power.



Comment – *The utility plan identifies a potential gas main extension in the existing Dalton Street. Confirmation of this extension and further information on impact (repaving, etc.) should be provided.*

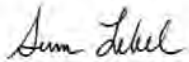
Response – The gas extension is no longer being pursued by the applicant.

Comment – *With work proposed in close proximity to wetlands, the Applicant should confirm if additional permitting, like a Natural Resource Protection Act Permit By Rule is necessary. Also, I would suggest that a different hatch be used to show loam and seed in the area to the east – the current hatch looks like wetlands and appears to show wetland impact which I don't believe is the intent of this work.*

Response – Given that this wetland does not contain a vernal pool and is not classified as a wetland of special significance, no setback requirements are required. It should also be noted these “wetlands” were manmade detention basins and may not hold any State jurisdiction as wetlands; however, we are not proposing to encroach upon the delineated edged. The hatching on the plans has been revised to help distinguish the recreation field and the wetlands.

Please let us know if you have any additional questions or comments.

Sincerely,



Samuel J. Lebel, P.E.
Project Manager
Acorn Engineering, Inc.



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



AA. Parking Analysis





Dear Shukria Wiar, Planner

I am writing on behalf of the proposed development of Winchester Woods. I am the Owner and President of Foreside Real Estate Management, Inc. Our company has been in the apartment management business for 37 years and I have 21 years of professional experience in the apartment management industry.

Winchester Woods will have 48 apartments - 24 one bedroom and 24 two-bedroom units. A total of 72 bedrooms. The target demographic for this housing are young workers who are attracted to the amenities and jobs that Portland has to offer but are currently priced out of similar sized apartment units and housing on the peninsula. These prospective tenants would be attractive to Portland employers in a tight labor market and would be ideal customers for Portland's small business community as they would be more likely to shop and eat "local" based on their desire to live in the city.

However, to make the Winchester Woods a feasible location for future tenants to call home they would need reliable, convenient transportation to get them to work and to access local retail business. Unfortunately, at this time the public transportation infrastructure in the neighborhood is not a realist option for the majority of this demographic. Therefore, to successful attract young workforce tenants, opportunities to own and conveniently park a vehicle off the street must be available as part of the lease.

The city code requires 48 parking spaces or 1 parking space per unit. This limitation would be a challenge for residents as two income families or families with children may need two vehicles. In our experience, we find that one vehicle per bedroom to be appropriate for many tenants in order to live off peninsula and partake in everything Portland has to offer.

The developer has also relayed to us concerns that neighbors have regarding tenants parking on the street in a neighborhood that already has restrictive parking and congestion. We find that expanding vehicle parking to the proposed 62 spaces will reduce demand for on street parking, reduce potential property crime, and address the concerns expressed by neighbors.

As outlined on the "Parking Space Analysis" of comparable apartment complexes, all the comparable apartment complexes have at least one parking space per bedroom. With limited parking at Winchester Woods, it would place the marketability of the complex at a disadvantage, create a higher transient population, and lessen the appeal of the housing against comparable alternative housing option.

P.O. Box 957, Portland, ME 04104
Phone (207) 775-2325 • Fax (207) 775-1196
www.foresidemanagement.com

Therefore, I highly encourage the members of the Planning Board to approve the proposed 62 parking spaces Winchester Woods. Though 62 spaces is less than the ideal 72 spaces for the complex, in my professional opinion, I believe it is a very fair compromise to the minimum requirement of 48 parking spaces specified in the ordinance and will be adequate to meet the needs of the tenants in the Winchester Woods community.

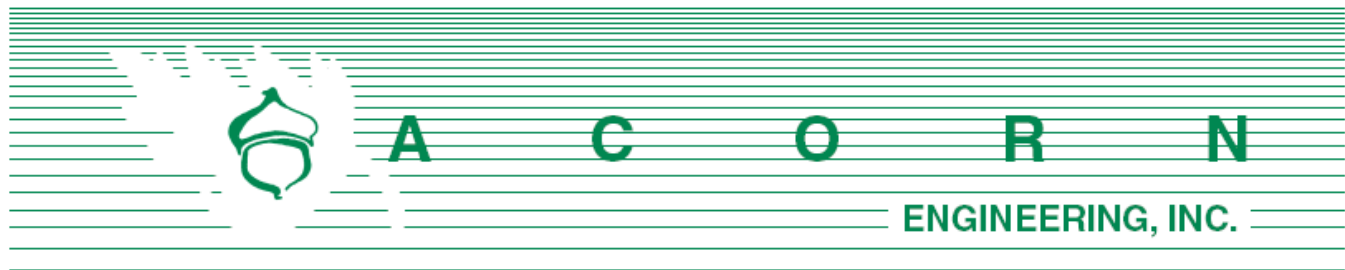
Sincerely,

Jeff Martin
President



Parking Space Analysis
Apartment Building Complexes

- Westbrook, ME
 - o 72 Units
 - 36 1-Bedroom Units
 - 36 2-Bedroom Units
 - o 108 Parking Spaces
 - 1.0 Parking Spaces / Bedroom
- Brunswick, ME
 - o 108 Units
 - 54 1-Bedroom Units
 - 54 2-Bedroom Units
 - o 169 Parking Spaces
 - 1.04 Parking Spaces / Bedroom
- Saco, ME
 - o 58 Units
 - 30 1-Bedroom Units
 - 28 2-Bedroom Units
 - o 102 Parking Spaces
 - 1.18 Parking Spaces / Bedroom
- Auburn, ME
 - o 12 Units
 - 6 1-Bedroom Units
 - 6 2-Bedroom Units
 - o 24 Parking Spaces
 - 1.33 Parking Spaces / Bedroom
- South Portland, ME
 - o 232 Units
 - 44 1-Bedroom Units
 - 188 2-Bedroom Units
 - o 391 Parking Spaces
 - 1.07 Parking Spaces / Bedroom
- Winchester Woods – Portland, ME
 - o 48 Units
 - 24 1-Bedroom Units
 - 24 2-Bedroom Units
 - o 62 Parking Spaces
 - 0.86 Parking Spaces / Bedroom



BB. Parking Demand Memo

The Winchester Woods residential project includes an four (4) buildings each with twelve (12) units for a total of forty-eight (48) dwelling units following the City's PRUD model. Twelve (12) of the units would be designated as work force housing to provide for more affordable housing in Portland. As the site plan currently sits, there are a total of sixty-two (62) parking spaces provided through a combination of on and off-street parking. Twelve (12) of the dwelling units will be leased as workforce housing, as a result it is expected that the property would see a number of residents relying on multiple vehicles and a standard commute to their workplace. The unit sizes are relatively large and vary in size between 745 sf to 907. The unit mix includes an even split between one and two-bedroom units in each building. The units will be marketed to young families, empty nesters and urban professionals.

Based upon the applicant's research there is a demand for apartments that include two parking spaces per unit that is presently not being met. As documented within the neighborhood meeting minutes, attendees voiced frustration with the traffic congestion on Sherwood Street and support of additional off-street parking to avoid spillover into the neighborhood. With the COVID-19 pandemic subsiding, more businesses are having their employees return to the office putting an increased demand on providing off-street parking in the development.

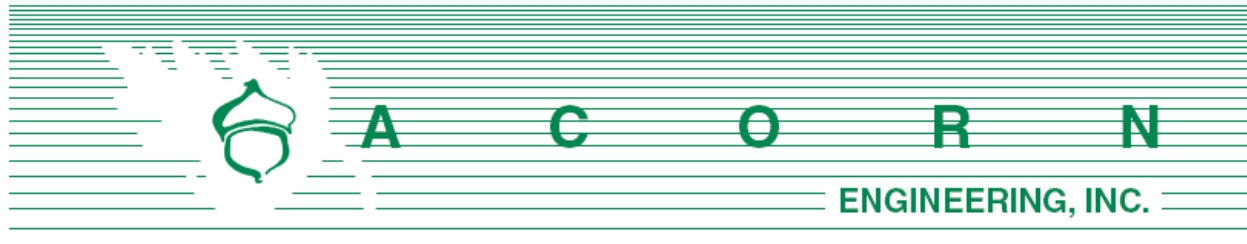
Given the type of proposed unit owners, bedroom count, unit size, lack of available on street parking, neighbors' concerns, and desire for flexibility, the applicant respectfully request the Planning Board allow the applicant to exceed the minimum parking standard.

Please let me know if you have any additional questions or comments.

Sincerely,

A handwritten signature in black ink that reads 'Sam Lebel'.

Sam Lebel, P.E.
Project Manager
Acorn Engineering, Inc.



CC. Traffic Memo

The proposed four building, 48-unit development located off of Sherwood Street includes 62 parking spaces. Pedestrian access to the site is provided with a connection to the Sherwood sidewalk. Public access to the Portland Trails walking path is provided with a sidewalk along Winchester Drive. The site is in proximity to the Metro Bus Stop Route #7 on Veranda St that links the Old Port to the Falmouth Foreside. Although parking is provided on site (0.86 parking spaces per bedroom), multimodal options are available through walking, bicycling, and METRO.

The trip generation for the proposed project has been estimated using the Institute of Transportation Engineers (ITE) “Trip Generation” 10th Edition publication. The land uses utilized in the calculations consist entirely of Residential mid-rise apartments. Please note that this analysis slightly overestimates the total trip generation as 12 of the dwelling units will be workforce housing. ITE does not provide supplemental rates for affordable housing, which would project a lower trip generation for the site than the standard mid-rise apartment rates if there was an established rate. This is consistent with the established rate for parking in which affordable housing has a notably smaller rate than market-rate units.

Trip Generation

Trip generation is based upon tables presented in the tenth edition of the Institute of Transportation’s Engineers “TRIP GENERATION” manual. The following trip rates were applied:

Land-Use #221: Multi-family Housing (Mid-Rise)

Weekday AM Peak Hour (Street)	= 0.36 trips/unit
Weekday PM Peak Hour (Street)	= 0.44 trips/unit
Weekday AM Peak Hour (Generator)	= 0.32 trips/unit
Weekday PM Peak Hour (Generator)	= 0.41 trips/unit
Saturday Peak Hour (Generator)	= 0.44 trips/unit
Sunday Peak Hour (Generator)	= 0.39 trips/unit

Table 1, below, provides a summary of the trip generation for the development. Please note that the peak trip generation is highlighted as well as the peak PCE trip generation. The site anticipates mail truck deliveries as well as weekly trash pickup from a private hauler. The hauler will be scheduled by the property manager to pickup solid waste at off hours. The peak hours have assumed one mail truck delivery within that hour.

Table 1 – Peak Hour Trip Generation		
	Peak Hour Trip Generation	Peak Hour PCE Trip Generation
AM Peak Hour (Street)	18 trips	19 trips
PM Peak Hour (Street)	22 trips	23 trips
AM Peak Hour (Generator)	16 trips	17 trips
PM Peak Hour (Generator)	21 trips	21 trips
Saturday Peak Hour (Generator)	22 trips	23 trips
Sunday Peak Hour (Generator)	20 trips	21 trips
*All values assume one mail truck delivery between 4pm-6pm (2 PCE)		

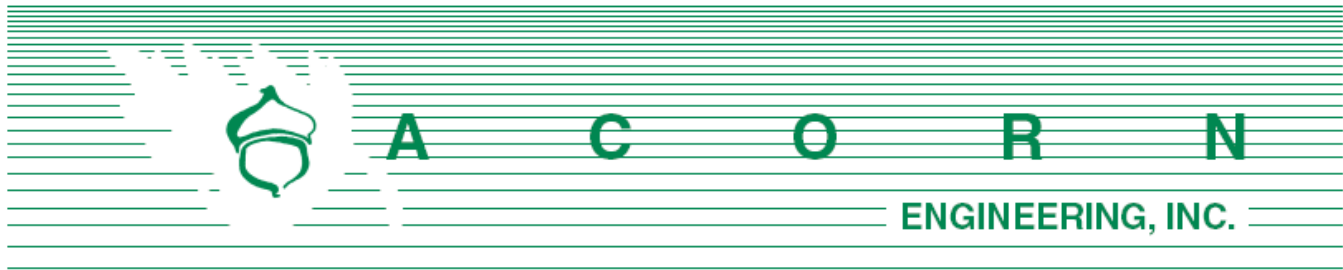
Note that the peak hour PCE trip generation is below the 25-trip threshold set forth by the City's Technical Manual (Section 1.1) that would require a traffic study for the project. Should there be any questions regarding the calculations highlighted above, please feel free to reach out with any questions.

Sincerely,



Sam Lebel, P.E.
Project Manager
Acorn Engineering, Inc.





Planning Division
 City of Portland, Maine
 Attn: Charles Tetelman
 389 Congress Street, 4th Floor
 Portland, ME 04101

September 30, 2021

Subject: Winchester Woods - Notice of Public Meeting Certification

I, Sam Lebel, hereby certify that (2) notice of neighborhood meeting signs were posted on September 30, 2021, prior to the October 12, 2021 Planning Board Meeting for the proposed project PL-001532-2021 located in the vicinity of 157 Sherwood Street and 33 Dalton Street. Photo documentation of sign in-situ:



Sign Location Near 33 Dalton Street



Sign Location Near 157 Sherwood Street

Note that it is the applicant's responsibility to remove the notice of public meeting sign within three days following the date of the meeting.

Signed,

Sam Lebel, P.E.
 Project Manager
 Acorn Engineering, Inc.

ADDRESS: IN THE VICINITY OF
157 SHERWOOD STREET
& 33 DALTON STREET

APPLICATION ID: PL-001532-2021

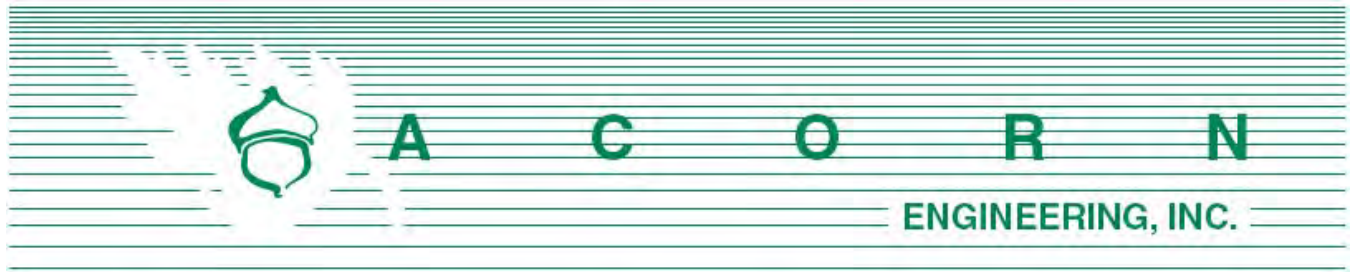
MEETING DATE:

October 12, 2021

NOTICE OF PUBLIC MEETING CITY OF PORTLAND PLANNING BOARD

Find agenda at: www.portlandmaine.gov/agendas

For more information, call (207) 874-8719



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

June 7, 2021

Subject: Winchester Woods Neighborhood Meeting

I, Sam Lebel, hereby certify that a neighborhood meeting was held on May 27, 2021 remotely over a video conference at 5:35 pm.

I also certify that on May 17th, 2021 invitations were mailed to the following:

1. All addresses on the mailing list provided by the Planning Division which includes property owners within 500 feet of the proposed development.
2. Residents on the “interested parties” list.

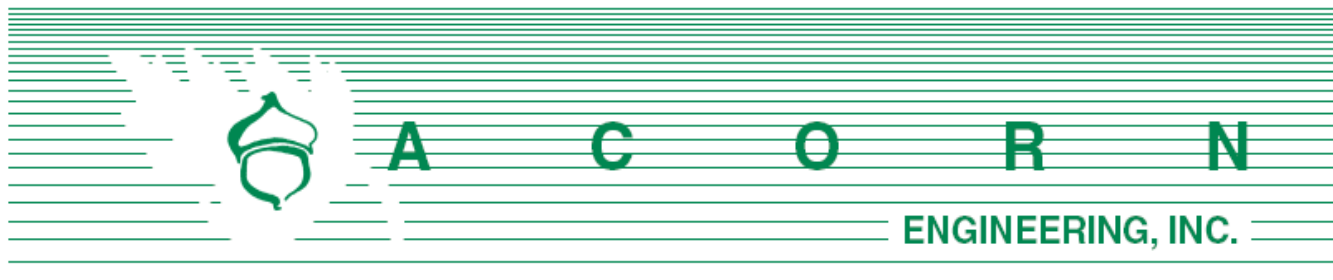
Sincerely,

A handwritten signature in black ink that reads 'Sam Lebel'.

Sam Lebel, P.E.
Project Manager Acorn
Engineering, Inc.

Included with this certification are:

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



Dear Neighbor:

May 17, 2021

On behalf of Hammond House, LLC, we are pleased to invite you to a neighborhood meeting to discuss plans for the proposed residential project at the end of Dalton Street within the R-5 Zoning District. The project includes a Planned Residential Unit Development (PRUD) with the construction of four, three-story buildings, each containing twelve residences. The site will be served by a private access road, on-site parking, and a multi-purpose green space.

Meeting Location: This meeting will be available for public viewing and participation via Zoom. **For those wishing to attend this meeting, please email admin@acorn-engineering.com for a link or phone number to join the meeting.** You may also call the office line (listed below) to request this information.

Meeting Date/Time: Thursday, May 27, 2021 at 5:30 pm

The City code requires that property owners within 500 feet of the proposed development and residents on an “interested parties list” be invited to participate in a neighborhood meeting. Both the sign-in sheet and recorded meeting minutes will be submitted to the Planning Board. The meeting is anticipated to be run similarly to previous non-virtual neighborhood meetings and the project team will give an overview of the process at the beginning of the meeting.

If you have any questions, please don’t hesitate to call me at (207) 775-2655. We look forward to seeing you at the meeting.

Sincerely,

Sam Lebel, P.E.
Project Manager
Acorn Engineering, Inc.

Sign-In Sheet

5/27/2021

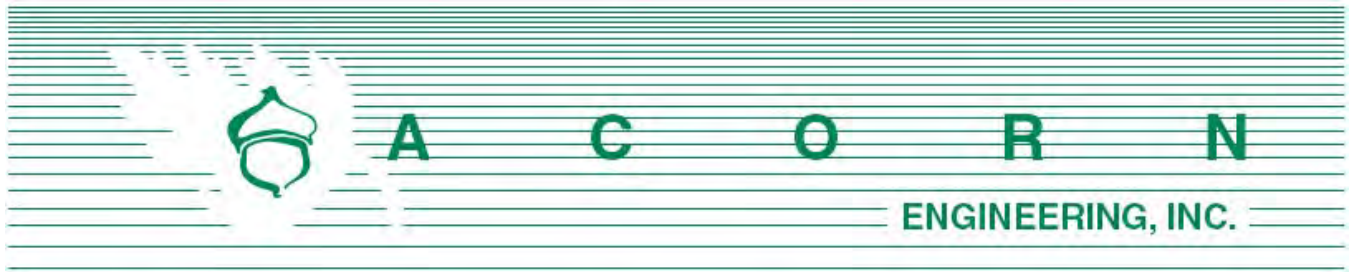
Members of the Public in Attendance¹:

NAME	EMAIL
1. Susan Campbell	
2. Marge Queen	maqbeachbum@gwi.net
3. Loren and Patty Peters	loren1952@gmail.com
4. Elaine Carney	elaine@propsectjh.com
5. Gloria Dubail	mcdkeller@gmail.com
6. Melissa and Michael Isgro	Melissa.Anne.Isgro@gmail.com
7. Heather Doolittle	hdoolitt@gmail.com
8. Jaime Parker	jaime@trails.org
9. Cheryl Leeman	
10. Aura Russell-Bedder	arussellbedder@gmail.com

Please note that additional neighbors were in attendance but chose not to sign in.

Developer and Consultant Team in Attendance:

NAME	EMAIL
1. Kevin O'Rourke – Hammond House LLC	kevin@gravitysports.
2. Will Savage – Acorn Engineering, Inc.	wsavage@acorn-engineering.com
3. Sam Lebel – Acorn Engineering, Inc.	slebel@acorn-engineering.com
4. Nate Pratt-Holt – Acorn Engineering, Inc.	nprattholt@acorn-engineering.com
5. Devin Cough – Archetype Architects	devin@archetypepa.com



Winchester Woods Apartments Neighborhood Meeting

Neighborhood Meeting Minutes

May 27, 2021 / 5:35 pm
Remote meeting via Zoom

Project Team Participants:

Kevin O'Rourke (KO): Developer/Presenter – (Hammond House LLC)

Sam Lebel (SL): Civil Engineer/Presenter (Acorn Engineering)

Will Savage (WS): Civil Engineer (Acorn Engineering)

Nate Pratt-Holt (NH): Civil Engineer/Note Taker (Acorn Engineering)

Devin Cough (DC): Architect/Presenter (Archetype Architects)

Meeting started at approximately 5:35 pm.

Presentation:

Kevin O'Rourke:

- (Slide 1)
 - o Developer and Applicant
 - o Introduced the project
 - o History of Career as developer, over 20 years of experience as residential developer
 - o Explained history of site and F-Street, laid out as subdivision from 1865
 - o Explained intent to use F-Street (paper street) to build Winchester Drive
 - o Vision to create high quality rental housing
 - o 12 of 48 units to be deed restricted for workforce housing and to be spread throughout the 4 buildings
 - o Overview of PRUD and the allowance of increased housing density under City conditions

- o PRUD standards allows for 55 units, but only proposing 48 units
- (Slide 2)
- Proposing pedestrian and bike accesses
 - o Intent of creating a neighborhood within a neighborhood
- (Slide 1)
 - o Clarification of buffering to screen site from Sherwood

Sam Lebel:

- (Slide 2)
 - o Meeting minutes being taken and to be submitted to City
 - o Preparing to be in front of planning board in June or July
 - o Planner is Shukria Wiar
- (Slide 3)
 - o Overview of streets and geographic features around the site
- (Slide 4)
 - o Brief history of site containing subdivided lots
 - o Existing wetland to south of site, appear to be manmade and serve as neighborhood drainage collection point
- (Slide 5)
 - o Four separate buildings, each with 12 units to make up 48 proposed units
 - o 12 of 48 to be restricted for affordability, with the remaining 36 units to be market rate units
 - o 22' driveway (Winchester Woods Drive) will come off Sherwood
 - o Proposed sidewalk to allow access for residents and linkage to Portland Trails system
 - o Proposing 63 parking spaces on site for a 1.3 space to unit ratio
 - o Alternative transportation options near site such as Metro, pedestrian, and bicycle opportunities
 - o Single family house property to be separate from the development
 - o 14,400 sf multi-purpose recreation field as part of the PRUD standards
 - o No wetland disturbance, looking to preserve mature trees on site to the greatest extent practical
 - o Underground utilities to serve the site
 - o Project to detain, cool, and treat 95% of project's impervious area with a slight reduction of peak flows when compared to the pre-condition via MaineDEP approved stormwater infrastructure



Devin Cough:

- (Slide 6)
 - o Building material with traditional New England material and sloped roofs
 - o Consistent with neighborhood
 - o Vinyl clapboard siding that changes to vertical board and batten to define the entryway

- (Slide 7)
 - o Each unit to be supplied with energy efficient heat pumps for heating and cooling
 - o Even mix of 750 sf one-bedroom units and 900 sf two-bedroom units to allow for diverse mix of residents
 - o Ground floor units type B accessible with one unit fully type A accessible

Comments, Questions & Answers:

Please note that the following questions and answers were not recorded verbatim and aim to represent and summarize the actual questions, answers, and discussion that took place at the meeting.

Q: Will the trail behind Presumpscot School be preserved?

SL: We are looking to enhance the connection to the trail system. Willing to improve the portion on site. Providing access off sidewalk in site via a crosswalk.

Q: Is the multipurpose recreation field public? Will there be access from Dalton Street?

KO: We are providing parking off Dalton Street to allow for ADA access. Unclear how the city requires parking to open space. Would prefer to allow access to the public kids in the neighborhood.

Q: (*Question/comments from Jamie Parker of Portland Trails*) How will the existing trail be accessed? Would like to work with the development team to see the existing trail improved. Can a new trail be linked from the recreation space to the Presumpscot School trail. The community should have input on the use of the recreation field.

Q: Will Dalton street be used as an access point for construction vehicles?

SL: This will depend on the contractor's preference. We are currently proposing options for access off Sherwood and Dalton Streets.

KO: Based on preliminary discussions with the potential contractor, the site access is likely to occur primarily off Sherwood Street.

Q: How will more cars be allowed into Sherwood Street giving existing size constraints of the road?

SL: Trip generation numbers have been run for the site to quantify trip generation. This will likely not have a large impact on the street network as the peak hour is in the low 20's.

Q: How will Presumpscot School cope with an increase in children in the neighborhood if they don't go through with their renovations?

KO: If the School has an overcrowding issue it is unlikely that prospective tenants with children will want to move into the apartments knowing these issues.

Q: Can a traffic study be performed for Sherwood and Dalton Streets? What will the lighting look like to neighbors, what about the trail lighting? What will the buffering requirements be from the southeast of the site and Dalton? What will the impacts be on the wetland from the development? General concerns about parking. Would like to see a traffic study performed for Sherwood Street. Concerns about on street parking on Sherwood Street. Concerns about on street parking on Dalton during the winter specifically.

SL: Parking will not be proposed on either Sherwood or Dalton Streets. The site is very close to bus stops and is in close proximity to downtown Portland. The multimodal transportation opportunities near the site will reduce the parking generation. The city would likely not require a traffic study due to the predictability of multifamily residential when compared to commercial uses as well as the low trip generation. No plans for trail lighting at this time. The lighting on the buildings will be wallpacks and downlit to eliminate trespass over the property line with a photometric plan likely on its way. The site will find a balance between safety and eliminating trespass to neighbors. A 22' minimum buffer will be held to the southeast of the site at the "pinch point" with a greater buffer elsewhere. The stormwater runoff will be collected via underground chambers to reduce the peak flow rates generated by the site when comparing the existing condition to the proposed project. This analysis will be reviewed by the city and their peer review consultant.

Q: There are traffic issues going to the schools in the morning. A traffic study would be good for this area even if not required by the city. Is the grading shown in the first slide accurate?

SL: This rendering has not been nailed down yet to match the plans so there are some slight tweaks to make to incorporate the correct grading.

Q: Are there plans to prevent the migration of the invasive Japanese Knotweed?

SL: This would likely be addressed once a contractor has been selected.

Q: This study should occur before that step, the city arborist and DEP should be addressed.

SL: We can have that discussion with the arborist and reference DEP resources.



Q: A traffic study should be prepared. How will changes to surrounding properties be communicated?

KO: A preconstruction meeting will be required for this project to help manage these issues.

Q: What will the distance be from the property line to the edge of the proposed road?

SL: Approximately 6'. We are looking to retain the greatest extent of the existing stone wall along Sherwood.

Q: What is considered 80% of the area median income?

KO: 80% of the area median income for a family of 1 is \$54,950. 80% for a household of 2 is \$62,800. A household of 4 is \$78,500. Prospective tenants would need to be below these criteria thresholds in order to meet the deed restricted housing.

C: There is a lot of commercial traffic on Sherwood Street.

C: I support the request for a traffic study to help preserve safety of kids near the School. You should coordinate with the school renovation project.

KO: We have had preliminary discussions with the School's Civil Engineer as well as School Representatives to coordinate the two construction projects.

C: Traffic should be coordinated between the two developments.

Q: Why will the access to the site be provided off Sherwood?

KO: The extension to Dalton has been terminated to avoid disturbing wetlands. The sightlines from Sherwood Street are better than from Dalton when turning onto Veranda Street.

C: Emphasize the traffic issues and recommend a traffic study. The slides don't depict the actual conditions on the abutting houses. Concerns about impact on watershed from development.

SL: The runoff from the pavement and roofs will be directed into sand filters to cool and detain runoff before discharging to wetlands. These systems are underneath the pavement and will slowly release treated stormwater.

Q: What are your plans to provide a buffer for the site?

KO: We will protect the healthy and mature trees along the perimeter of the site where possible as well as plant new trees to improve the aesthetic.

Q: How can we determine which trees will be removed as part of this project?



KO: This will occur at the pre-construction meeting. It is my intent to protect the landscape to the greatest extent possible.

C: Sensitivity to neighborhood and environment are critical factors to this project.

Q: Have you considered access from the railyard off Presumpscot Street?

KO: I have reached out to the Railroad and have not received a response.

Q: Is there any local significance to the name “Winchester Woods”?

KO: I submitted various street names to the City’s E911 naming process. The name seemed to fit into the framework of the existing surrounding street names.

Q: Why is it called 0 Dalton Street?

KO: I believe that is what the lot is called on the City’s Tax Maps.

Q: Is the land that you are using City Owned?

KO: No, the property was privately owned. We are not developing this property with any funds from the City.

WS: Any remaining questions or comments?

Q: How will houses on Dalton be impacted, specifically at the end of the street?

KO: 29 Dalton will be renovated and improved. The other houses on Dalton will not be impacted other than construction noise during the days.

Q: What are the next steps? How can we request a traffic study?

WS: We will be assigned a planning board workshop. This is a public process and anyone in attendance tonight can attend that meeting and offer feedback. Shukria Wiar is the planner for this project and is the best source for you to address your comments and questions to. Meeting minutes are being taken and will be submitted to the public.

Q: Will we be notified of future meetings?

WS: The City handles this and will send out notification to all abutters within 500’ of the project.

KO: Thank you everybody for participating in this conversation tonight.

Meeting concluded at approximately 7:05 pm.



The abovementioned material was as interpreted and recorded from handwritten notes. Please note and relay any discrepancies or disputed information in the recorded minutes to the below address so that they can be reviewed, revised, and resubmitted as necessary.

Recorded by,



Nathan Pratt-Holt, E.I.

Design Engineer

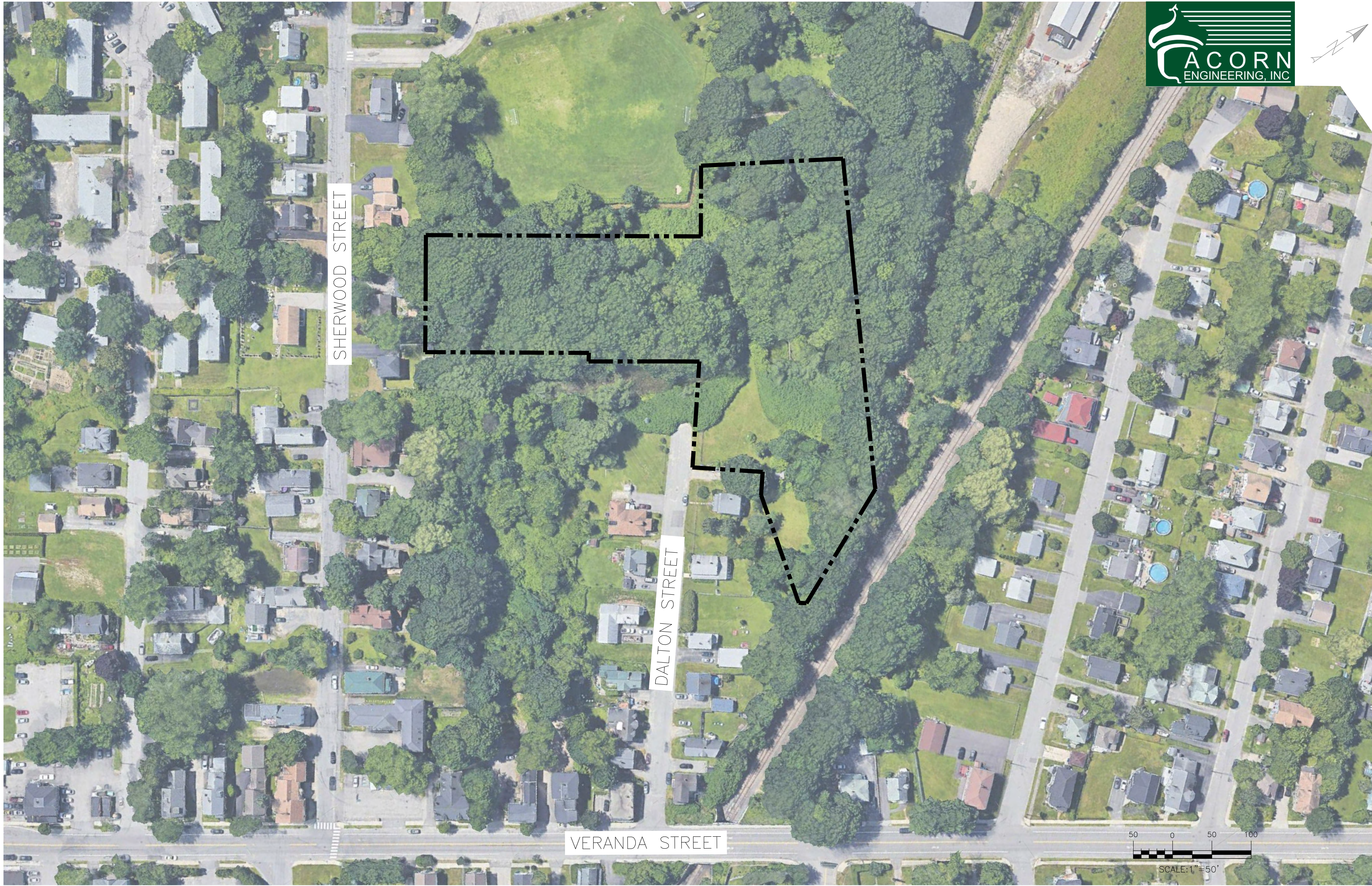
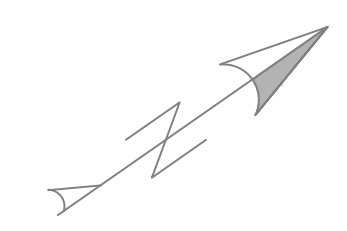
Acorn Engineering, Inc.

nprattholt@acorn-engineering.com





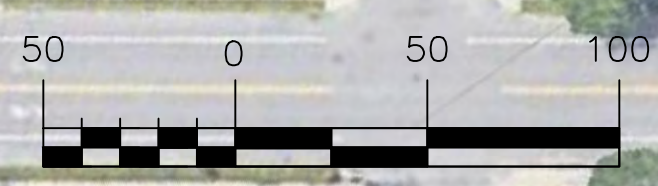




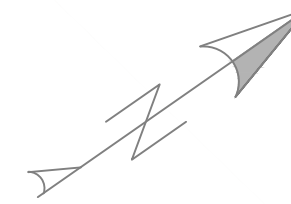
SHERWOOD STREET

DALTON STREET

VERANDA STREET



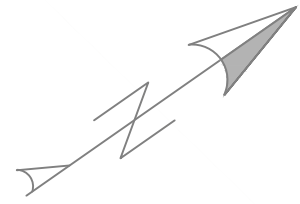
SCALE: 1"=50'



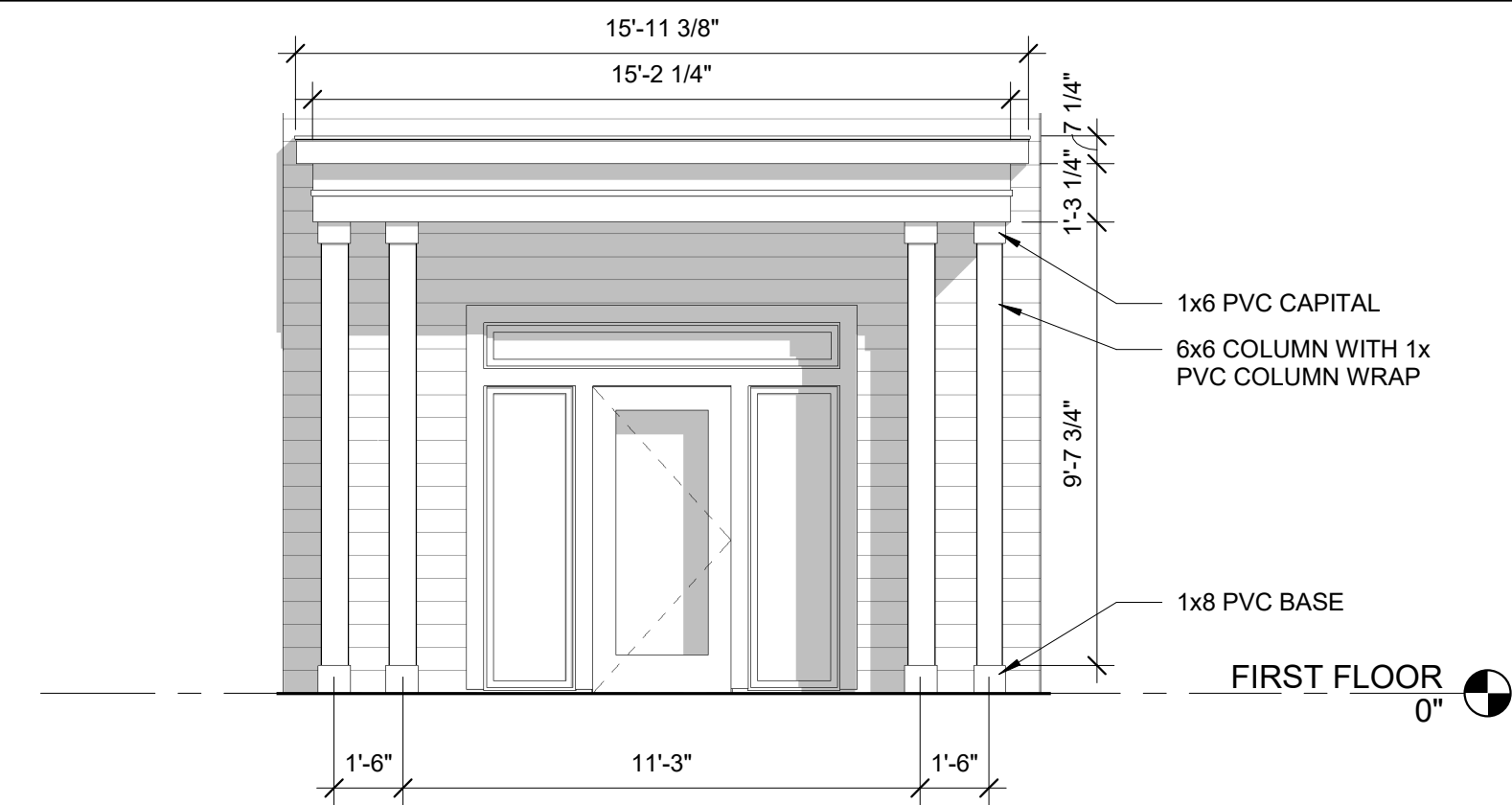
LANDSCAPED OR GRASSED AREA

PAVEMENT

PROPOSED BUILDINGS

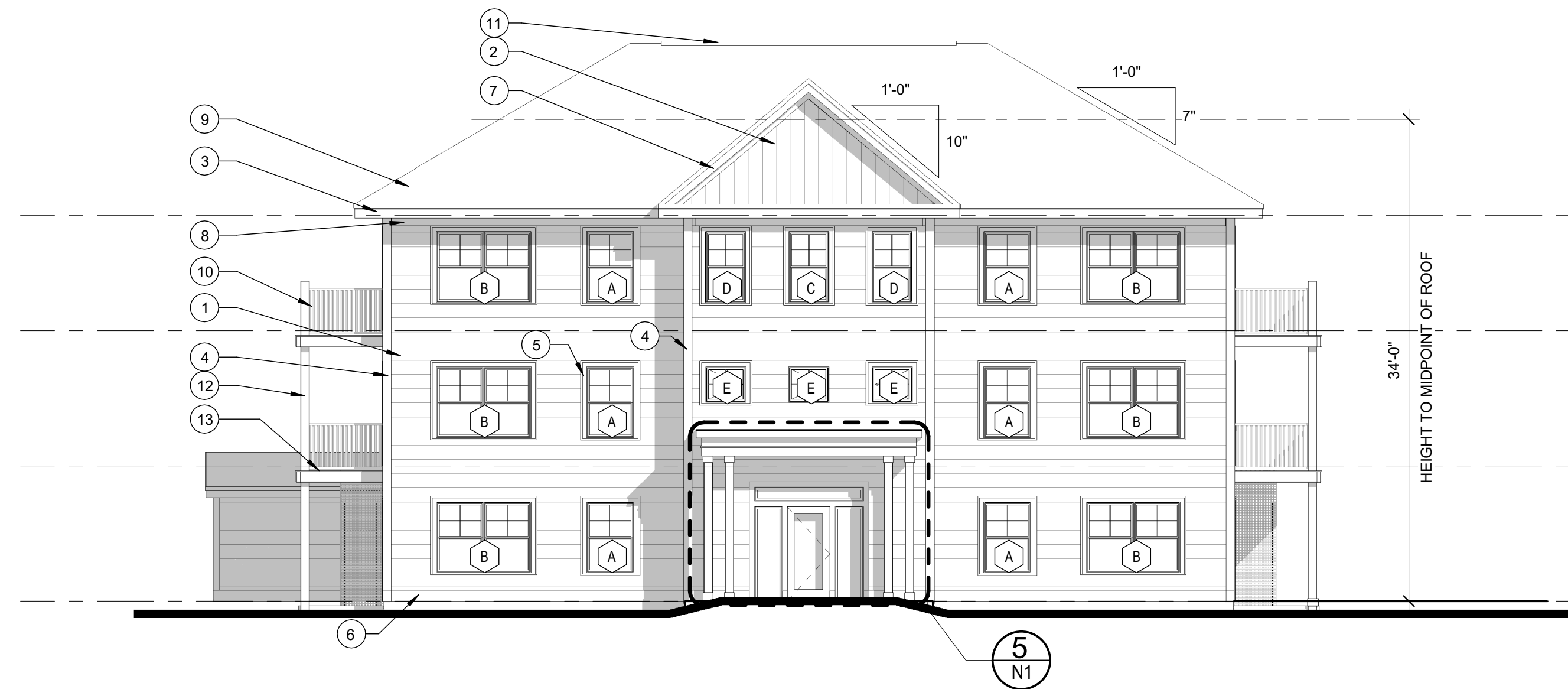


SCALE: 1"=30'



5 | ENTRY ELEVATION
1/4" = 1'-0"

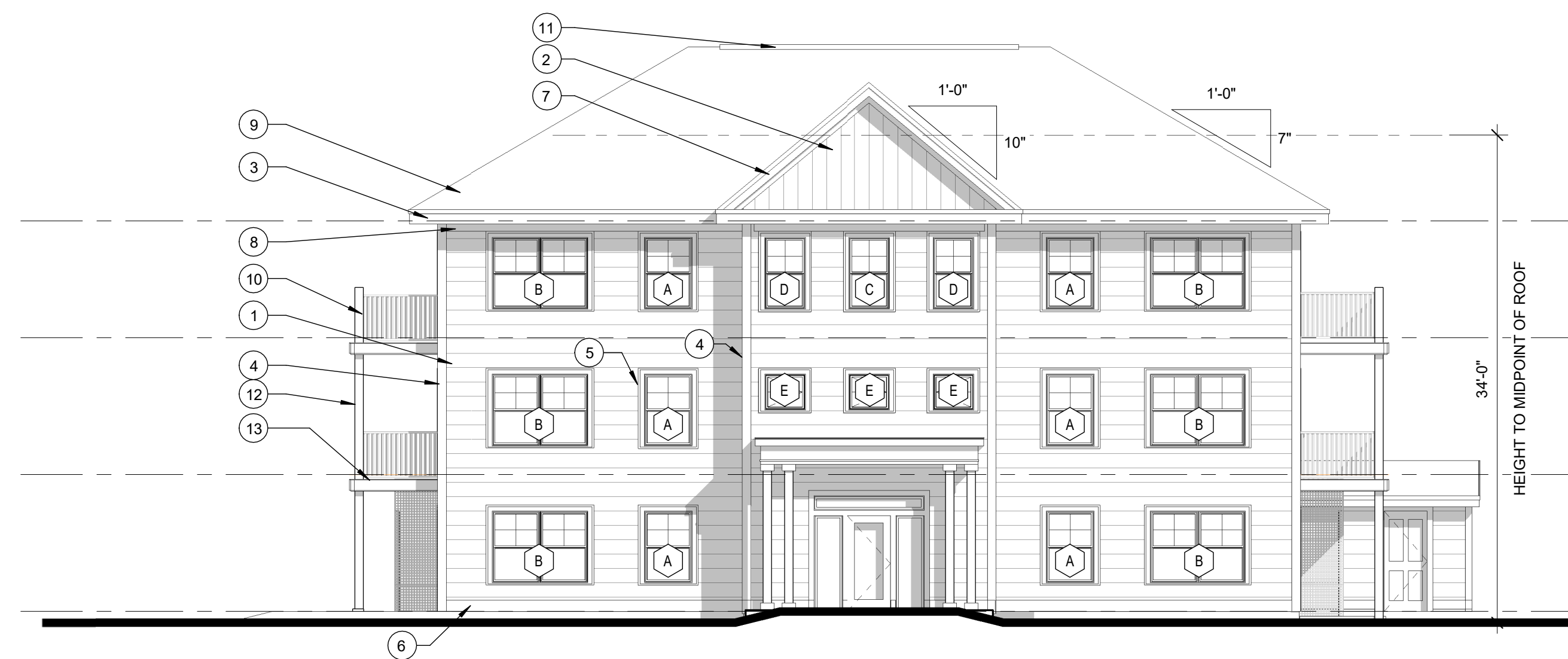
1. VINYL SIDING - EQUAL TO CERTAINTED MONOGRAM 5" CLAPBOARD
2. VINYL BOARD AND BATTEN SIDING
3. 1x10 PVC FASCIA WITH 1x4 SHADOW BOARD - COLOR TO BE WHITE
4. 1x8 PVC CORNERBOARDS - COLOR TO BE WHITE
5. 1x4 PVC WINDOW TRIM W/ 1x2 TRIM AROUND PERIMETER
6. 1x10 PVC WATER TABLE
7. 1x10 PVC RAKE BOARD WITH 1x4 PVC SHADOW BOARD
8. 1x6 PVC FRIEZE
9. 30-YEAR ARCHITECTURAL ASPHALT SHINGLE
10. 42" HIGH VINYL RAILING AND BALUSTERS
11. CONTINUOUS RIDGE VENT
12. PVC TRIM WRAP ON POST - REF STRUCTURAL FOR POST SIZE
13. COMPOSITE DECKING
14. 1x10 PVC TRIM
15. 8" EXPOSED CONCRETE, TYP.
16. 2x2 CONCRETE PATIO PAVERS



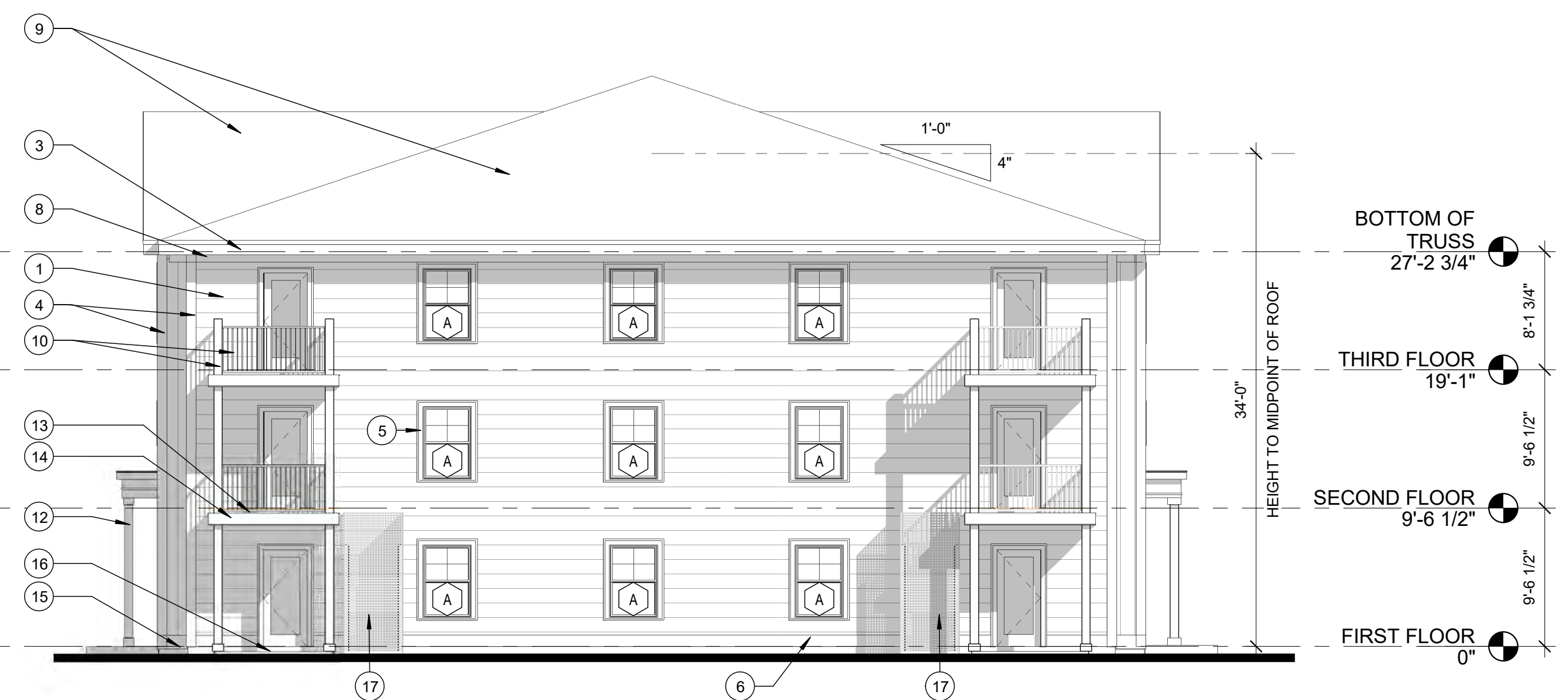
1 | ELEVATION A
1/8" = 1'-0"



3 | ELEVATION B
1/8" = 1'-0"



2 | ELEVATION C
1/8" = 1'-0"



4 | ELEVATION D
1/8" = 1'-0"

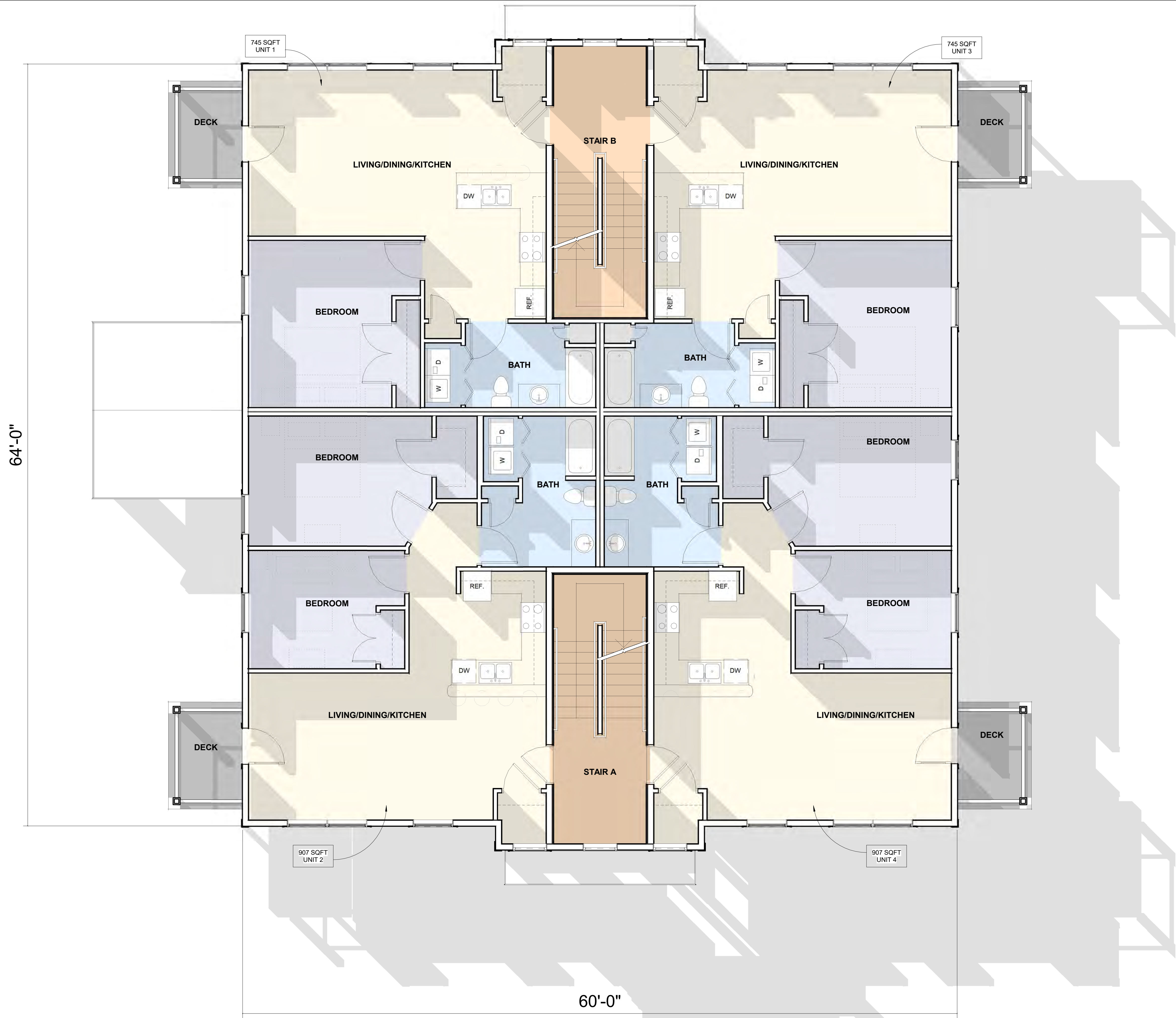
WINCHESTER WOODS

PORTLAND, ME

5/27/2021

N1

ARCHETYPE
ARCHITECTS



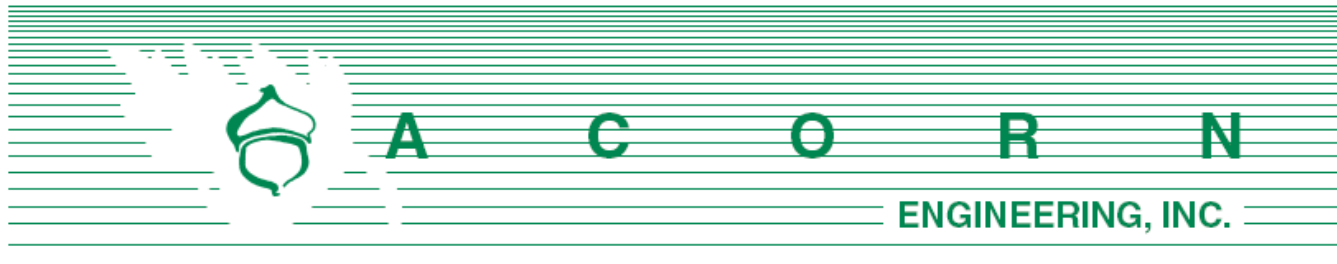
WINCHESTER WOODS

PORTLAND, ME

5/27/2021

N2

ARCHETYPE
ARCHITECTS



Maine Department of Environmental Protection /
City of Portland, Maine

June 21, 2021

Subject: Delegated Review: Stormwater Management Permit
Winchester Woods Development – Portland, Maine

To Whom It May Concern:

Acorn Engineering has been retained by Hammond House, LLC to provide civil engineering and permitting services for the proposed development at the end of Dalton Street which comprises a series of parcels within an unbuilt subdivision planned decades ago. In accordance with the City's delegated review for Stormwater Permits, we are submitting the Application in the DEP's format. The Applicant seeks to develop the 3.40 acre parcel and 0.11 acre paper street to accommodate 48 apartments within four separate structures that will be served by a private road (Winchester Drive). On behalf of our client, we are pleased to submit a Stormwater Management Permit application for the project subject to Delegated Review by the City of Portland. Concurrently, the project is anticipated to undergo a Major Site Plan/Subdivision review subject to approval from the Portland Planning Board.

The existing site largely consists of wooded area, with impervious and developed area coming in the form of beaten trails throughout the site. The proposed impervious area is made up of a 22' wide road serving the development, parking area, a sidewalk network throughout the site, a walking path, and rooftops. 95% of the stormwater runoff from the new impervious area will be directed to four separate underdrained subsurface sand filters. In addition to providing water quality treatment, the project will meet or exceed flooding standards by maintaining or lowering the peak flowrates within the municipal system in Sherwood Street.

If you have any questions regarding these materials or the completeness of the application materials, please contact us within the next five (5) days.

Sincerely,

A handwritten signature in black ink, reading "Sam Lebel".

Samuel J. Lebel, P.E.
Project Manager
Acorn Engineering, Inc.

A handwritten signature in black ink, reading "Will Savage".

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

The following documents and drawings are included as part of this application.

Documents:

1. Stormwater Management Law Permit Application
2. Notice of Intent to File
3. Certificate of Good Standing
4. Title, Right, or Interest
5. Photos of the Project Site
6. Basic Standards Submissions (Erosion & Sedimentation Control Report)
7. General Standards Submissions (Stormwater Management Report)

Drawings:

Civil Site Plan Set, Dated 04/29/2021

**DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF LAND RESOURCES**

Stormwater Application Form

FOR DEP USE

L- _____

ATS# _____

FEES PAID _____

DATE RECEIVED _____

PLEASE TYPE OR PRINT IN INK

This application is for (Check the one that applies):		☒ New application		☐ Amendment	
1. Name of Applicant:	Hammond House, LLC		5. Name of Agent:	Sam Lebel	
2. Applicant's Mailing Address:	94 South Street, Yarmouth, ME 04096		6. Agent's Mailing Address:	65 Hanover St., Portland, ME 04101	
3. Applicant's Phone #:	207-838-3410		7. Agent's Phone #:	207-775-2655	
4. Email address (REQUIRED-license will be sent via email):	kevin@gravitysports.org		8. E-mail address (REQUIRED-license will be sent via email)	wsavage@acorn-engineering.com	
9. Location of Project: (Road, Street, Rt.#)	Dalton street		10. Town:	Portland	
			11. County:	Cumberland	
12. Type of Direct Watershed: (Check all that apply)	☐ Lake not most at risk ☐ Lake most at risk ☐ Lake most at risk, severely blooming ☐ River, stream or brook ☐ Urban impaired stream ☒ Freshwater wetland ☐ Coastal wetland ☐ Wellhead of public water supply		13. Amount of Disturbed Area:	Total Amt. = 2.50 acres	
			14. Amount of Developed Area:	☒ 1 or more acres, but less than 5 acres ☐ 5 acres or more Total Amt. = 1.58 acres	
			15. Amount of Impervious Area:	☐ less than 20,000 sq. ft. ☐ 20,000 sq. ft. to 1 acre ☒ 1 to 3 acres ☐ 3 or more acres Total Amount of Impervious Acres =	
16. Applicable Standards: (Check all that apply)	☐ Stormwater PBR ☒ Basic standards ☒ General standards: BMP ☐ General standards: phosphorus ☐ Flooding standard ☐ Urban impaired stream standards ☐ Other: _____		17. Type of Stormwater Control:	☐ Vegetative (e.g. buffers) ☒ Structural (e.g. underdrained filters, ponds, infiltration structures)	
18. Exceptions &/or Waivers Requested:	BMP Standards ▼		Urban impaired stream standard ▼		Flooding Standard ▼
	☒ Pretreatment measures ☐ Discharge to ocean/major river segment ☐ Linear portion of project ☐ Utility corridor ☐ Redevelopment		☐ Developed area not landscaped or impervious ☐ Redevelopment		☐ Discharge to ocean/major river segment ☐ Insignificant increase in peak flow
19. Proposed Start Date and Brief Project Description:	The project anticipates construction by Fall 2021. The project proposed 4 residential buildings with 12 units each, for a total of 48 units. The project will be served with a private access drive and accompanying utilities				
20. Size of Lot or Parcel:	☐ _____ sq. ft., or	☒ 3.51 acres	UTM Easting:	2928445.50	UTM Northing: 309711.74
21. Title, Right or Interest:	☒ own ☐ lease ☐ purchase option ☐ written agreement				
22. Deed Reference Numbers:	Book#:	Page:	24. Map and Lot Numbers:	Map #:	Lot #:
				427	K001001
23. DEP Staff Previously Contacted:		25. Project started prior to application?	☐ Yes ☒ No	Completed?	☐ Yes ☐ No

SIGNATURES / CERTIFICATIONS ON PAGE 2

26. Resubmission of Application?	☐ Yes → ☒ No	If yes, previous application #		Previous project manager:	
27. Written Notice of Violation?	☐ Yes → ☒ No	If yes, name of DEP enforcement staff involved:			
28. Detailed Directions to the Project Site:		From I-295N, take exit 8 for ME-26N/Washington Ave., turn right on to Veranda St. for .2 miles and turn left onto Dalton Street.			
29. Stormwater Permit by Rule Submissions ▼		30. Stormwater Application Submissions ▼			
☐ This form (including signature page) ☐ Fee ☐ Topographic Map ☐ Plan or Drawing ☐ Photos of Area		☒ This form (including signature page) ☒ Fee ☒ Proof of title, right or interest ☒ Certificate of good standing (if applicable) ☒ Photos of Area ☐ Copy of Public Notice		☐ Professional & Notice Certification ☒ Basic standards submissions ☒ General standards submissions ☐ Flooding standard submissions ☐ Other standard submissions ☐ Compensation Fee (if required)	
31. FEES, Amount Enclosed:		DELEGATED REVIEW - FEE THROUGH CSS PORTAL			
Does the agent have an interest in the project? If yes, what is the interest?: ☐ Yes → ☒ No					

IMPORTANT: IF THE SIGNATURE BELOW IS NOT THE APPLICANT'S SIGNATURE, ATTACH LETTER OF AGENT AUTHORIZATION SIGNED BY THE APPLICANT.

By signing below the applicant (or authorized agent), certifies that he or she has read and understood the following:

CERTIFICATIONS/ SIGNATURES

"I certify under penalty of law that I have personally examined the information submitted in this document and all attachments thereto and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe the information is true, accurate, and complete. I am aware there are significant penalties for submitting false information, including the possibility of fine and imprisonment. I authorize the Department to enter the property that is the subject of this application, at reasonable hours, including buildings, structures or conveyances on the property, to determine the accuracy of any information provided herein.	
Further, I hereby authorize the DEP to send me an electronically signed decision on the license I am applying for with this application by E-mailing the decision to the electronic address located on the front page of this application (see #4 for the applicant and #9 for the agent."	
Signed: <u>Sum Lebel</u>	Title <u>P.E., Project Engineer</u> Date: <u>4.28.2021</u>
Notice of Intent to Comply with Maine Construction General Permit	With this Stormwater Law application form and my signature below, I am filing notice of my intent to carry out work which meets the requirements of the Maine Construction General Permit (MCGP). I have read and will comply with all of the MCGP standards. Signed <u>Sum Lebel</u> Date: <u>4.28.2021</u>

NOTE: If a Notice of Intent is required, you must file a Notice of Termination (attached as Form G) within 20 days of completing permanent stabilization of the project site.

ADDITIONAL SIGNATURES/CERTIFICATIONS

The person responsible for preparing this application and/or attaching pertinent site and design information hereto, by signing below, certifies that the application for stormwater approval is complete and accurate to the best of his/her knowledge.

Signature: Sam Lebel

Name (print): Sam Lebel, PE

Date: 6-21-2021

Re/Cert/Lic No: 16505

Engineer X

Geologist _____

Soil Scientist _____

Land Surveyor _____

Site Evaluator _____

Active Member of the Maine Bar _____

Professional Landscape Architect _____

Public Notice: Notice of Intent to File

Please take notice that

Hammond House, LLC

94 South Street, Yarmouth ME, 04096

phone: 207-838-3410

(Name, Address and Phone # of Applicant)

is intending to file a Stormwater Law permit application with the Maine Department of Environmental Protection pursuant to the provisions of 38 M.R.S.A. § 420-D on or about
June 18, 2021

(anticipated filing date)

This application is for

The proposed residential development of 4 buildings with 48 dwelling units and associated parking.

(description of the project)

Dalton/Sherwood Street, Portland Maine

(project location)

A request for a public hearing or a request that the Board of Environmental Protection assume jurisdiction over this application must be received by the Department in writing, no later than 20 days after the application is found by the Department to be complete and is accepted for processing. A public hearing may or may not be held at the discretion of the Commissioner or Board of Environmental Protection. Public comment on the application will be accepted throughout the processing of the application.

The application will be filed for public inspection at the Department of Environmental Protection's office in Portland,
Augusta or Bangor) (circle one) during normal working hours. A copy of the application may also be seen at the municipal

offices in Portland, Maine.
(town)

Written public comments may be sent to the regional office in Portland, Augusta, or Bangor where the application is filed for public inspection.

MDEP, Central Maine Regional Office, 17 State House Station, Augusta, Maine 04333

MDEP, Southern Maine Regional Office, 312 Canco Road, Portland, Maine 04103

MDEP, Eastern Maine Regional Office, 106 Hogan Road, Bangor, Maine 04401

Certificate of Good Standing

Please see the attached Certificate of Good Standing from the Department of the Secretary of State for Hammond House, LLC.





MAINE

Department of the Secretary of State
Bureau of Corporations, Elections and Commissions

Corporate Name Search

Information Summary

[Subscriber activity report](#)

This record contains information from the CEC database and is accurate as of: Wed Mar 10 2021 13:47:39. Please print or save for your records.

Legal Name	Charter Number	Filing Type	Status
HAMMOND HOUSE, LLC	20194089DC	LIMITED LIABILITY COMPANY (DOMESTIC)	GOOD STANDING

Filing Date	Expiration Date	Jurisdiction
01/14/2019	N/A	MAINE

Other Names (A=Assumed ; F=Former)

NONE

Clerk/Registered Agent

THOMAS B. FEDERLE
254 COMMERCIAL STREET
PORTLAND, ME 04101

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List of Filings

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Obtain additional information:

Certificate of Existence [\(more info\)](#)

[Short Form without amendments \(\\$30.00\)](#) [Long Form with amendments \(\\$30.00\)](#)

You will need Adobe Acrobat version 3.0 or higher in order to view PDF files.
If you encounter problems, visit the [troubleshooting page](#).



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our [Feedback](#) page.

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PURCHASE AND SALE AGREEMENT

("days" means business days unless otherwise noted, see paragraph 23)

March 9, 2021
Offer Date

March 9, 2021 Effective Date
Effective Date is defined in Paragraph 23 of this Agreement.

1. PARTIES: This Agreement is made between KEVIN O'ROURKE ("Buyer") and D/S/H Hammer House LLC ("Seller").

2. DESCRIPTION: Subject to the terms and conditions hereinafter set forth, Seller agrees to sell and Buyer agrees to buy ☒ all part of (if "part of" see para. 26 for explanation) the property situated in municipality of PORTLAND, County of CUMBERLAND, State of Maine, located at Lots numbered 100, 101, 103 and 103 and described in deed(s) recorded at said County's Registry of Deeds Book(s) 8 10, Page(s) 1 21.

3. FIXTURES: The Buyer and Seller agree that all fixtures, including but not limited to existing storm windows, screens, shades and/or blinds, shutters, curtain rods, built-in appliances, heating sources/systems including gas and/or kerosene-fired heaters and wood/pellet stoves, sump pump, electrical fixtures, landscaping, and NA are included with the sale except for the following: NA.
Seller represents that all mechanical components of fixtures will be operational at the time of closing except: NA.

4. PERSONAL PROPERTY: The following items of personal property as viewed on NA are included with the sale at no additional cost, in "as is" condition with no warranties: NA.

5. PURCHASE PRICE/EARNEST MONEY: For such Deed and conveyance Buyer agrees to pay the total purchase price of NA. Buyer ☐ has delivered; or ☐ will deliver to the Agency within NA days of the Effective Date, a deposit of earnest money in the amount of \$ NA. Buyer agrees that an additional deposit of earnest money in the amount of \$ NA will be delivered NA.
If Buyer fails to deliver the initial or additional deposit in compliance with the above terms Seller may terminate this Agreement. This right to terminate ends once Buyer has delivered said deposit(s). The remainder of the purchase price shall be paid by wire, certified, cashier's or trust account check upon delivery of the Deed.

This Purchase and Sale Agreement is subject to the following conditions:

6. ESCROW AGENT/ACCEPTANCE: NA ("Agency") shall hold said earnest money and act as escrow agent until closing; this offer shall be valid until NA (date) ☐ AM ☐ PM; and, in the event of non-acceptance, this earnest money shall be returned promptly to Buyer.

7. TITLE AND CLOSING: A deed, conveying good and merchantable title in accordance with the Standards of Title adopted by the Maine Bar Association shall be delivered to Buyer and this transaction shall be closed and Buyer shall pay the balance due and execute all necessary papers on See Addendum (closing date) or before, if agreed in writing by both parties. If Seller is unable to convey in accordance with the provisions of this paragraph, then Seller shall have a reasonable time period, not to exceed 30 calendar days, from the time Seller is notified of the defect, unless otherwise agreed to in writing by both Buyer and Seller, to remedy the title. Seller hereby agrees to make a good-faith effort to cure any title defect during such period. If, at the later of the closing date set forth above or the expiration of such reasonable time period, Seller is unable to remedy the title, Buyer may close and accept the deed with the title defect or may terminate this Agreement in which case the parties shall be relieved of any further obligations hereunder and any earnest money shall be returned to the Buyer.

8. DEED: The property shall be conveyed by a Quitclaim Deed w/covenants, and shall be free and clear of all encumbrances except covenants, conditions, easements and restrictions of record which do not materially and adversely affect the continued current use of the property.

9. POSSESSION, OCCUPANCY, AND CONDITION: Unless otherwise agreed in writing, possession and occupancy of premises, free of tenants and occupants, shall be given to Buyer immediately at closing. Said premises shall then be broom clean, free of all possessions and debris, and in substantially the same condition as at present, excepting reasonable use and wear. Buyer shall have the right to view the property within 24 hours prior to closing.

10. RISK OF LOSS, DAMAGE, DESTRUCTION AND INSURANCE: Prior to closing, risk of loss, damage, or destruction of premises shall be assumed solely by the Seller. Seller shall keep the premises insured against fire and other extended casualty risks prior to closing. If the premises are damaged or destroyed prior to closing, Buyer may either terminate this Agreement and be refunded the earnest money, or close this transaction and accept the premises "as-is" together with the assignment of the insurance proceeds relating thereto.

Revised 2018

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Buyer(s) Initials KOR

Seller(s) Initials TH

Vitalius Real Estate Group, LLC, 306 Congress Street Portland, ME 4101
Briton Vitalius

Phone: (207)541-3755

Fax:

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11. FUEL/UTILITIES/PRORATIONS: Buyer ☐ shall ☒ shall not pay Seller at closing for all fuel in any tanks remaining on the property calculated as of the closing date or such earlier date as required to comply with lender requirements, if any. The amount owed, if any, shall be determined using the most recently available cash price of the company that last delivered the fuel. Metered utilities such as electricity, water and sewer will be paid through the date of closing by Seller. The following items, where applicable, shall be prorated as of the date of closing: collected rent, association fees, (other) _____. The day of closing is counted as a Seller day. Real estate taxes shall be prorated as of the date of closing (based on municipality's fiscal year). Seller is responsible for any unpaid taxes for prior years. If the amount of said taxes is not known at the time of closing, they shall be apportioned on the basis of the taxes assessed for the preceding year with a reapportionment as soon as the new tax rate and valuation can be ascertained, which latter provision shall survive closing. Buyer and Seller will each pay their transfer tax as required by State of Maine.

12. DUE DILIGENCE: Neither Seller nor Licensee makes any warranties regarding the condition, permitted use or value of Sellers' real or personal property, or any representations as to compliance with any federal, state or municipal codes, including, but not limited to, fire, life safety, electrical and plumbing. Buyer is encouraged to seek information from professionals regarding any specific issue or concern.

☐ Buyer's obligation to close under this Agreement is not subject to any due diligence investigations. Buyer is relying completely upon Buyer's own opinion as to the condition of the property.

☒ Buyer's obligation to close under this Agreement is subject to Buyer's satisfaction with the results of any due diligence investigations undertaken. Buyer shall have June 1, 2016 days from the Effective Date of this Agreement to perform such due diligence investigations as Buyer deems necessary which may include, without limitation, any or all of the following:

General Building	Square Footage	Zoning	Survey/MLI	Habitat Review/Waterfowl
Sewage Disposal	Code Conformance	Pests	Lead Paint	Coastal Shoreland Septic
Water Quality	Registered Farmland	Pool	Flood Plain	Energy Audit
Water Quantity	Environmental Scan	Insurance	Chimney	Lot Size/Acreage
Air Quality	Smoke/CO Detectors	Mold	Tax Status*	Arsenic Wood/Water (see par. 13)

All investigations will be done at Buyer's expense by persons chosen by Buyer in Buyer's sole discretion. Seller agrees to cooperate with Buyer and shall give Buyer and Buyer's agents and consultants reasonable access to the property and its systems and fixtures in order to undertake the above investigations. If the result of any investigation is unsatisfactory to Buyer, Buyer may terminate this Agreement by notifying Seller in writing within the specified number of days, and any earnest money shall be returned to Buyer. If the result of any investigation is unsatisfactory to Buyer in Buyer's sole discretion, and Buyer wishes to pursue remedies other than voiding the Agreement, Buyer must do so to full resolution within the time period set forth above; otherwise this contingency is waived. If Buyer does not notify Seller that an investigation is unsatisfactory within the time period set forth above, this contingency is waived by Buyer.

* If the property is enrolled in the Maine Tree Growth Tax program, Seller agrees to provide Buyer with the current Forest Management and Harvest Plan within _____ days. ☐ Yes ☒ No

13. PROPERTY DISCLOSURE FORM: Buyer acknowledges receipt of Property Disclosure Form and the information developed by the Maine Center for Disease Control and Prevention regarding arsenic in private water supplies and arsenic in treated wood.

14. FINANCING: Buyer's obligation to close:

☒ is not subject to a financing contingency. Buyer has provided Seller with acceptable proof of the funds.

☐ is not subject to a financing contingency. Buyer shall provide proof of the funds acceptable to Seller within _____ days. If such proof is unacceptable to Seller, Seller may terminate this Agreement no later than _____ days from receipt. If proof of funds is not provided within such time period, Seller may terminate this Agreement which right shall end once such proof is received, however Seller retains the agreed upon time period to terminate if such proof is unacceptable. If Seller terminates in either case, the earnest money shall be returned to Buyer.

☐ is subject to financing as follows:

- Buyer's obligation to close is subject to Buyer obtaining a _____ loan of _____ % of the purchase price, at an interest rate not to exceed _____ % and amortized over a period of _____ years. Buyer is under a good faith obligation to seek and obtain financing on these terms. If such financing is not available to Buyer as of the closing date, Buyer is not obligated to close and may terminate this Agreement in which case the earnest money shall be returned to Buyer.
- Buyer to provide Seller with letter from lender showing that Buyer has made application for loan specified in (a) and, subject to verification of information, is qualified for the loan requested within _____ days from the Effective Date of the Agreement. If Buyer fails to provide Seller with such letter within said time period, Seller may terminate this Agreement and the earnest money shall be returned to Buyer. This right to terminate ends once Buyer's letter is received.
- Buyer hereby authorizes, instructs and directs its lender to communicate the status of the Buyer's loan application to Seller, Seller's licensee and Buyer's licensee.
- After (b) is met, if the lender notifies Buyer that it is unable or unwilling to provide said financing, Buyer is obligated to provide Seller with the written documentation of the loan denial within two days of receipt. After notifying Seller, Buyer shall have _____ days to provide Seller with a letter from another lender showing that Buyer has made application for loan specified in (a) and, subject to verification of information, is qualified for the loan requested. If Buyer fails to provide Seller with such letter within said time period, Seller may terminate this Agreement and the earnest money shall be returned to Buyer. This right to terminate ends once Buyer's letter is received.
- Buyer agrees to pay no more than _____ points. Seller agrees to pay up to \$ _____ toward Buyer's actual pre-pays, points and/or closing costs, but no more than allowable by Buyer's lender.
- Buyer's ability to obtain financing ☐ is ☒ is not subject to the sale of another property. See addendum ☐ Yes ☐ No.
- Buyer may choose to pay cash instead of obtaining financing. If so, Buyer shall notify Seller in writing including providing proof of funds and the Agreement shall no longer be subject to financing, and Seller's right to terminate pursuant to the provisions of this paragraph shall be void.

15. BROKERAGE DISCLOSURE: Buyer and Seller acknowledge they have been advised of the following relationships:

NA () of ()
Licensee MLS ID Agency MLS ID
is a ☐ Seller Agent ☐ Buyer Agent ☐ Disc Dual Agent ☐ Transaction Broker
NA () of ()
Licensee MLS ID Agency MLS ID
is a ☐ Seller Agent ☐ Buyer Agent ☐ Disc Dual Agent ☐ Transaction Broker

If this transaction involves Disclosed Dual Agency, the Buyer and Seller acknowledge the limited fiduciary duties of the agents and hereby consent to this arrangement. In addition, the Buyer and Seller acknowledge prior receipt and signing of a Disclosed Dual Agency Consent Agreement.

16. DEFAULT/RETURN OF EARNEST MONEY: Buyer's failure to fulfill any of Buyer's obligations hereunder shall constitute a default and Seller may employ all legal and equitable remedies, including without limitation, termination of this Agreement and forfeiture by Buyer of the earnest money. Seller's failure to fulfill any of Seller's obligations hereunder shall constitute a default and Buyer may employ all legal and equitable remedies, including without limitation, termination of this Agreement and return to Buyer of the earnest money. Agency acting as escrow agent has the option to require written releases from both parties prior to disbursing the earnest money to either Buyer or Seller. In the event that the Agency is made a party to any lawsuit by virtue of acting as escrow agent, Agency shall be entitled to recover reasonable attorney's fees and costs which shall be assessed as court costs in favor of the prevailing party.

17. MEDIATION: Earnest money or other disputes within the jurisdictional limit of small claims court will be handled in that forum. All other disputes or claims arising out of or relating to this Agreement or the property addressed in this Agreement (other than requests for injunctive relief) shall be submitted to mediation in accordance with generally accepted mediation practices. Buyer and Seller are bound to mediate in good faith and to each pay half of the mediation fees. If a party fails to submit a dispute or claim to mediation prior to initiating litigation (other than requests for injunctive relief), then that party will be liable for the other party's legal fees in any subsequent litigation regarding that same matter in which the party who failed to first submit the dispute or claim to mediation loses in that subsequent litigation. This clause shall survive the closing of the transaction.

18. PRIOR STATEMENTS: Any representations, statements and agreements are not valid unless contained herein. This Agreement completely expresses the obligations of the parties and may only be amended in writing, signed by both parties.

19. HEIRS/ASSIGNS: This Agreement shall extend to and be obligatory upon heirs, personal representatives, successors, and assigns of the Seller and the assigns of the Buyer.

20. COUNTERPARTS: This Agreement may be signed on any number of identical counterparts with the same binding effect as if the signatures were on one instrument. Original or faxed or other electronically transmitted signatures are binding.

21. SHORELAND ZONE SEPTIC SYSTEM: Seller represents that the property ☐ does ☒ does not contain a septic system within the Shoreland Zone. If the property does contain a septic system located in the Shoreland Zone, Seller agrees to provide certification at closing indicating whether the system has/has not malfunctioned within 180 calendar days prior to closing.

22. NOTICE: Any notice, communication or document delivery requirements hereunder may be satisfied by providing the required notice, communication or documentation to or from the parties or their Licensee. Only withdrawals of offers and counteroffers will be effective upon communication, verbally or in writing.

23. EFFECTIVE DATE/BUSINESS DAYS: This Agreement is a binding contract when the last party signing has caused a paper or electronic copy of the fully executed agreement to be delivered to the other party which shall be the Effective Date. Licensee is authorized to fill in the Effective Date on Page 1 hereof. Except as expressly set forth to the contrary, the use of the term "days" in this Agreement, including all addenda made a part hereof, shall mean business days defined as excluding Saturdays, Sundays and any observed Maine State/Federal holidays. Deadlines in this Agreement, including all addenda, expressed as "within x days" shall be counted from the Effective Date, unless another starting date is expressly set forth, beginning with the first day after the Effective Date, or such other established starting date, and ending at 5:00 p.m. Eastern Time on the last day counted. Unless expressly stated to the contrary, deadlines in this Agreement, including all addenda, expressed as a specific date shall end at 5:00 p.m. Eastern Time on such date.

24. CONFIDENTIALITY: Buyer and Seller authorize the disclosure of the information herein to the real estate licensees, attorneys, lenders, appraisers, inspectors, investigators and others involved in the transaction necessary for the purpose of closing this transaction. Buyer and Seller authorize the lender and/or closing agent preparing the closing disclosure and/or settlement statement to release a copy of the closing disclosure and/or settlement statement to the parties and their licensees prior to, at and after the closing.

25. ADDENDA: Lead Paint - ☐ Yes ☐ No ; Other - ☒ Yes ☐ No Explain: _____

The Property Disclosure Form is not an addendum and not part of this Agreement.

26. OTHER CONDITIONS:

27. GENERAL PROVISIONS:

- a. A copy of this Agreement is to be received by all parties and, by signature, receipt of a copy is hereby acknowledged. If not fully understood, contact an attorney. This is a Maine contract and shall be construed according to the laws of Maine.
- b. Seller acknowledges that State of Maine law requires buyers of property owned by non-resident sellers to withhold a prepayment of capital gains tax unless a waiver has been obtained by Seller from the State of Maine Revenue Services.
- c. Buyer and Seller acknowledge that under Maine law payment of property taxes is the legal responsibility of the person who owns the property on April 1, even if the property is sold before payment is due. If any part of the taxes is not paid when due, the lien will be filed in the name of the owner as of April 1 which could have a negative impact on their credit rating. Buyer and Seller shall agree at closing on their respective obligations regarding actual payment of taxes after closing. Buyer and Seller should make sure they understand their obligations agreed to at closing and what may happen if taxes are not paid as agreed.
- d. Buyer acknowledges that Maine law requires continuing interest in the property and any back up offers to be communicated by the listing agent to the Seller.
- e. Whenever this Agreement provides for earnest money to be returned or released, agency acting as escrow agent must comply with the Maine Real Estate Commission rules which may require written notices or obtaining written releases from both parties.

28. ELECTRONIC SIGNATURES: Pursuant to the Maine Uniform Electronic Transactions Act and Digital Signature Act, the parties authorize and agree to the use of electronic signatures as a method of signing/initialing this Agreement, including all addenda. The parties hereby agree that either party may sign electronically by utilizing an electronic signature service.

Buyer's Mailing address is 94 SOUTH ST. YARMOUTH, ME 04096

[Signature]

3/9/21

BUYER

DATE

BUYER

DATE

Seller accepts the offer and agrees to deliver the above-described property at the price and upon the terms and conditions set forth and agrees to pay agency a commission for services as specified in the listing agreement.

Seller's Mailing address is 16017 DAYSAILOR TRAIL LAKEWOOD RANCH FL 34202

[Signature]

SELLER

DATE

SELLER

DATE

COUNTER-OFFER

Seller agrees to sell on the terms and conditions as detailed herein with the following changes and/or conditions:

The parties acknowledge that until signed by Buyer, Seller's signature constitutes only an offer to sell on the above terms and the offer will expire unless accepted by Buyer's signature with communication of such signature to Seller by (date) _____ (time) _____ AM _____ PM.

SELLER

DATE

SELLER

DATE

The Buyer hereby accepts the counter offer set forth above.

BUYER

DATE

BUYER

DATE

EXTENSION

The closing date of this Agreement is extended until _____ DATE

SELLER

DATE

SELLER

DATE

BUYER

DATE

BUYER

DATE



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ADDENDUM TO PURCHASE AGREEMENT

Effective Date: March 9 2021

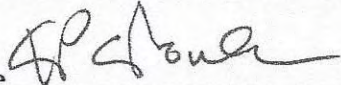
I. The Parties. This Addendum hereby becomes part of the Purchase Agreement between 1 individual(s) known as Kevin O'Rourke ("Buyer") and 1 individual(s) known as Thomas Farr dba Fortune Capital ("Seller") authorized on March 9 2021 ("Agreement") for the residential property located at F Street, Portland , Maine, 04103 ("Property").

II. Amendment(s). Buyer and Seller agree that the Agreement shall be amended as follows:

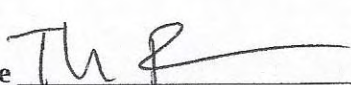
Buyer and Seller agree to extend due diligence until August 1, 2021 if City approvals have not been received by June 1, 2021.

III. Other Terms. All other terms and conditions of the Agreement shall remain the same. This Addendum shall go into effect on the date of the undersigned parties.

Buyer's Signature
Kevin O'Rourke

 Date 3/9/21

Seller's Signature
Thomas Farr dba Fortune Capital

 Date 3/15/21

DocuSign Envelope ID: F2F8A8B9-2B97-468E-965D-02ACCE4657C3

PURCHASE AND SALE AGREEMENT

("days" means business days unless otherwise noted, see paragraph 23)

Offer Date November 4, 2020

Effective Date 11/10/2020
Effective Date is defined in Paragraph 23 of this Agreement.

1. PARTIES: This Agreement is made between Hammond House LLC

Walter H. Libby III, Lucy M. Copp, Madeline F. Morrill, Mark W. Libby

("Buyer") and
("Seller").

2. DESCRIPTION: Subject to the terms and conditions hereinafter set forth, Seller agrees to sell and Buyer agrees to buy ☒ all part of (if "part of" see para. 26 for explanation) the property situated in municipality of Portland County of Cumberland State of Maine, located at 29 Dalton St & Street F Parcels and described in deed(s) recorded at said County's Registry of Deeds Book(s) see section 26 Page(s) see section 26

3. FIXTURES: The Buyer and Seller agree that all fixtures, including but not limited to existing storm windows, screens, shades and/or blinds, shutters, curtain rods, built-in appliances, heating sources/systems including gas and/or kerosene-fired heaters and wood/pellet stoves, sump pump, electrical fixtures, hard-wired generators, landscaping, and XXXXXX are included with the sale except for the following: no exceptions
Seller represents that all mechanical components of fixtures will be operational at the time of closing except: As Is Condition

4. PERSONAL PROPERTY: The following items of personal property as viewed on October 12, 2020 are included with the sale at no additional cost, in "as is" condition with no warranties: kitchen appliances

5. PURCHASE PRICE/EARNEST MONEY: For such Deed and conveyance Buyer agrees to pay the total purchase price of \$450,000.00. Buyer ☐ has delivered; or ☒ will deliver to the Agency within 3 days of the Effective Date, a deposit of earnest money in the amount \$ 10,000.00. Buyer agrees that an additional deposit of earnest money in the amount of \$ XXXXXXXX will be delivered XXXXXXXXXXXX. If Buyer fails to deliver the initial or additional deposit in compliance with the above terms Seller may terminate this Agreement. This right to terminate ends once Buyer has delivered said deposit(s). The remainder of the purchase price shall be paid by wire, certified, cashier's or trust account check upon delivery of the Deed.

This Purchase and Sale Agreement is subject to the following conditions:

6. ESCROW AGENT/ACCEPTANCE: RE/MAX By The Bay ("Agency") shall hold said earnest money and act as escrow agent until closing; this offer shall be valid until 11/10/20 November 6, 2020 (date) 5:00 ☐ AM ☒ PM; and, in the event of non-acceptance, this earnest money shall be returned promptly to Buyer.

7. TITLE AND CLOSING: A deed, conveying good and merchantable title in accordance with the Standards of Title adopted by the Maine Bar Association shall be delivered to Buyer and this transaction shall be closed and Buyer shall pay the balance due and execute all necessary papers on See Section 26 (closing date) or before, if agreed in writing by both parties. If Seller is unable to convey in accordance with the provisions of this paragraph, then Seller shall have a reasonable time period, not to exceed 30 calendar days, from the time Seller is notified of the defect, unless otherwise agreed to in writing by both Buyer and Seller, to remedy the title. Seller hereby agrees to make a good-faith effort to cure any title defect during such period. If, at the later of the closing date set forth above or the expiration of such reasonable time period, Seller is unable to remedy the title, Buyer may close and accept the deed with the title defect or may terminate this Agreement in which case the parties shall be relieved of any further obligations hereunder and any earnest money shall be returned to the Buyer.

8. DEED: The property shall be conveyed by a Quitclaim Deed With Covenant deed, and shall be free and clear of all encumbrances except covenants, conditions, easements and restrictions of record which do not materially and adversely affect the continued current use of the property.

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Buyer(s) Initials KPAR

Seller(s) Initials MM

RE/MAX By The Bay, 281 Veranda Portland ME 04101
David Banks

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Phone: 248.553.7343 Fax: 248.553.7344
www.zipform.com

29 Indian St

9. **POSSESSION, OCCUPANCY, AND CONDITION:** Unless otherwise agreed in writing, possession and occupancy of premises, free of tenants and occupants, shall be given to Buyer immediately at closing. Said premises shall then be broom clean, free of all possessions and debris, and in substantially the same condition as at present, excepting reasonable use and wear. Buyer shall have the right to view the property within 24 hours prior to closing.

10. **RISK OF LOSS, DAMAGE, DESTRUCTION AND INSURANCE:** Prior to closing, risk of loss, damage, or destruction of premises shall be assumed solely by the Seller. Seller shall keep the premises insured against fire and other extended casualty risks prior to closing. If the premises are damaged or destroyed prior to closing, Buyer may either terminate this Agreement and be refunded the earnest money, or close this transaction and accept the premises "as is" together with an assignment of the insurance proceeds relating thereto. #10 continued... renegotiate the purchase price agreeable to both buyer and seller.

11. **FUEL/UTILITIES/PRORATIONS:** Buyer ☐ shall ☒ shall not pay Seller at closing for all fuel in any tanks remaining on the property calculated as of the closing date or such earlier date as required to comply with lender requirements, if any. The amount owed, if any, shall be determined using the most recently available cash price of the company that last delivered the fuel. Metered utilities such as electricity, water and sewer will be paid through the date of closing by Seller. The following items, where applicable, shall be prorated as of the date of closing: collected rent, association fees, (other) _____. The day of closing is counted as a Seller day. Real estate taxes shall be prorated as of the date of closing (based on municipality's fiscal year). Seller is responsible for any unpaid taxes for prior years. If the amount of said taxes is not known at the time of closing, they shall be apportioned on the basis of the taxes assessed for the preceding year with a reapportionment as soon as the new tax rate and valuation can be ascertained, which latter provision shall survive closing. Buyer and Seller will each pay their transfer tax as required by State of Maine.

12. **DUE DILIGENCE:** Neither Seller nor Licensee makes any warranties regarding the condition, permitted use or value of Sellers' real or personal property, or any representations as to compliance with any federal, state or municipal codes, including, but not limited to, fire, life safety, electrical and plumbing. Buyer is encouraged to seek information from professionals regarding any specific issue or concern.

☐ Buyer's obligation to close under this Agreement is not subject to any due diligence investigations. Buyer is relying completely upon Buyer's own opinion as to the condition of the property.

☒ Buyer's obligation to close under this Agreement is subject to Buyer's satisfaction with the results of any due diligence investigations undertaken. Buyer shall have May 1, 2021* days from the Effective Date of this Agreement to perform such due diligence investigations as Buyer deems necessary which may include, but are not limited to, any or all of the following:

General Building	Square Footage	Zoning	Survey/MLI	Habitat Review/Waterfowl
Sewage Disposal	Code Conformance	Pests	Lead Paint	Shoreland Septic
Water Quality	Registered Farmland	Pool	Flood Plain	Energy Audit
Water Quantity	Environmental Scan	Insurance	Chimney	Lot Size/Acreage
Air Quality	Smoke/CO Detectors	Mold	Tax Status*	Arsenic Wood/Water (see par. 13)

All investigations will be done at Buyer's expense by persons chosen by Buyer in Buyer's sole discretion. Seller agrees to cooperate with Buyer and shall give Buyer and Buyer's agents and consultants reasonable access to the property and its systems and fixtures in order to undertake the above investigations. Buyer agrees to take reasonable steps to return the property to its pre-inspection condition. If the result of any investigation is unsatisfactory to Buyer, Buyer may terminate this Agreement by notifying Seller in writing within the specified number of days, and any earnest money shall be returned to Buyer. If the result of any investigation is unsatisfactory to Buyer in Buyer's sole discretion, and Buyer wishes to pursue remedies other than voiding the Agreement, Buyer must do so to full resolution within the time period set forth above; otherwise this contingency is waived. If Buyer does not notify Seller that an investigation is unsatisfactory within the time period set forth above, this contingency is waived by Buyer.

* If the property is enrolled in the Maine Tree Growth Tax program, Seller agrees to provide Buyer with the current Forest Management and Harvest Plan within ____ days. ☐ Yes ☒ No

13. **PROPERTY DISCLOSURE FORM:** Buyer acknowledges receipt of Property Disclosure Form and the information developed by the Maine Center for Disease Control and Prevention regarding arsenic in private water supplies and arsenic in treated wood.

KPAR

MM

14. FINANCING: Buyer's obligation to close:

- ☒ is not subject to a financing contingency. Buyer has provided Seller with acceptable proof of the funds. Buyer is not subject to a financing contingency. Buyer shall provide proof of the funds acceptable to Seller within _____ days. If such proof is unacceptable to Seller, Seller may terminate this Agreement no later than _____ days from receipt. If proof of funds is not provided within such time period, Seller may terminate this Agreement which right shall end once such proof is received, however Seller retains the agreed upon time period to terminate if such proof is unacceptable. If Seller terminates in either case, the earnest money shall be returned to Buyer.
- ☐ Buyer's ability to purchase ☐ is ☐ is not subject to the sale of another property. See addendum ☐ Yes ☐ No.
- a. Buyer's obligation to close is subject to financing as follows:
Buyer's obligation to close is subject to Buyer obtaining a _____ loan of _____ % of the purchase price, at an interest rate not to exceed _____ % and amortized over a period of _____ years. Buyer is under a good faith obligation to seek and obtain financing on these terms. If such financing is not available to Buyer as of the closing date, Buyer is not obligated to close and may terminate this Agreement in which case the earnest money shall be returned to Buyer.
- b. Buyer to provide Seller with letter from lender showing that Buyer has made application for loan specified in (a) and, subject to verification of information, is qualified for the loan requested within _____ days from the Effective Date of the Agreement. If Buyer fails to provide Seller with such letter within said time period, Seller may terminate this Agreement and the earnest money shall be returned to Buyer. This right to terminate ends once Buyer's letter is received.
- c. Buyer hereby authorizes, instructs and directs its lender to communicate the status of the Buyer's loan application to Seller, Seller's licensee and Buyer's licensee.
- d. After (b) is met, if the lender notifies Buyer that it is unable or unwilling to provide said financing, Buyer is obligated to provide Seller with the written documentation of the loan denial within two days of receipt. After notifying Seller, Buyer shall have _____ days to provide Seller with a letter from another lender showing that Buyer has made application for loan specified in (a) and, subject to verification of information, is qualified for the loan requested. If Buyer fails to provide Seller with such letter within said time period, Seller may terminate this Agreement and the earnest money shall be returned to Buyer. This right to terminate ends once Buyer's letter is received.
- e. Buyer agrees to pay no more than _____ points. Seller agrees to pay up to \$ _____ toward Buyer's actual pre-pays, points and/or closing costs, but no more than allowable by Buyer's lender.
- f. Buyer's ability to obtain financing ☐ is ☐ is not subject to the sale of another property. See addendum ☐ Yes ☐ No.
- g. Buyer may choose to pay cash instead of obtaining financing. If so, Buyer shall notify Seller in writing including providing proof of funds and the Agreement shall no longer be subject to financing, and Seller's right to terminate pursuant to the provisions of this paragraph shall be void and Seller's obligations pursuant to 14e shall remain in full force and effect.

15. BROKERAGE DISCLOSURE: Buyer and Seller acknowledge they have been advised of the following relationships:

_____ () of _____
Licensee _____ MLS ID _____ Agency _____ MLS ID _____
is a ☐ Seller Agent ☐ Buyer Agent ☐ Disc Dual Agent ☐ Transaction Broker

David Banks (002090) of **RE/MAX By The Bay** (1150)
Licensee _____ MLS ID _____ Agency _____ MLS ID _____
is a ☐ Seller Agent ☒ Buyer Agent ☐ Disc Dual Agent ☐ Transaction Broker

If this transaction involves Disclosed Dual Agency, the Buyer and Seller acknowledge the limited fiduciary duties of the agents and hereby consent to this arrangement. In addition, the Buyer and Seller acknowledge prior receipt and signing of a Disclosed Dual Agency Consent Agreement.

16. DEFAULT/RETURN OF EARNEST MONEY: Buyer's failure to fulfill any of Buyer's obligations hereunder shall constitute a default and Seller may employ all legal and equitable remedies, including without limitation, termination of this Agreement and forfeiture by Buyer of the earnest money. Seller's failure to fulfill any of Seller's obligations hereunder shall constitute a default and Buyer may employ all legal and equitable remedies, including without limitation, termination of this Agreement and return to Buyer of the earnest money. Agency acting as escrow agent has the option to require written releases from both parties prior to disbursing the earnest money to either Buyer or Seller. In the event that the Agency is made a party to any lawsuit by virtue of acting as escrow agent, Agency shall be entitled to recover reasonable attorney's fees and costs which shall be assessed as court costs in favor of the prevailing party.

17. MEDIATION: Earnest money or other disputes within the jurisdictional limit of small claims court will be handled in that forum. All other disputes or claims arising out of or relating to this Agreement or the property addressed in this Agreement (other than requests for injunctive relief) shall be submitted to mediation in accordance with generally accepted mediation practices. Buyer and Seller are bound to mediate in good faith and to each pay half of the mediation fees. If a party fails to submit a dispute or claim to mediation prior to initiating litigation (other than requests for injunctive relief), then that party will be liable for the other party's legal fees in any subsequent litigation regarding that same matter in which the party who failed to first submit the dispute or claim to mediation loses in that subsequent litigation. This clause shall survive the closing of the transaction.

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Buyer(s) Initials

Seller(s) Initials

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39 Dalton St

18. **PRIOR STATEMENTS:** Any representations, statements and **agreements** are not valid unless contained herein. This Agreement completely expresses the obligations of the parties and may only be amended in writing, signed by both parties.
19. **HEIRS/ASSIGNS:** This Agreement shall extend to and be obligatory upon heirs, personal representatives, successors, and assigns of the Seller and the assigns of the Buyer.
20. **COUNTERPARTS:** This Agreement may be signed on any number of identical counterparts with the same binding effect as if the signatures were on one instrument. Original or faxed or other electronically transmitted signatures are binding.
21. **SHORELAND ZONE SEPTIC SYSTEM:** Seller represents that the property ☐ does ☒ does not contain a septic system within the Shoreland Zone. If the property does contain a septic system located in the Shoreland Zone, Seller agrees to provide certification at closing indicating whether the system has/has not malfunctioned within 180 calendar days prior to closing.
22. **NOTICE:** Any notice, communication or document delivery requirements hereunder may be satisfied by providing the required notice, communication or documentation to or from the parties or their Licensee. Only withdrawals of offers and counteroffers will be effective upon communication, verbally or in writing.
23. **EFFECTIVE DATE/BUSINESS DAYS:** This Agreement is a binding contract when the last party signing has caused a paper or electronic copy of the fully executed agreement to be delivered to the other party which shall be the Effective Date. Licensee is authorized to fill in the Effective Date on Page 1 hereof. Except as expressly set forth to the contrary, the use of the term "days" in this Agreement, including all addenda made a part hereof, shall mean business days defined as excluding Saturdays, Sundays and any observed Maine State/Federal holidays. Deadlines in this Agreement, including all addenda, expressed as "within x days" shall be counted from the Effective Date, unless another starting date is expressly set forth, beginning with the first day after the Effective Date, or such other established starting date, and ending at 5:00 p.m. Eastern Time on the last day counted. Unless expressly stated to the contrary, deadlines in this Agreement, including all addenda, expressed as a specific date shall end at 5:00 p.m. Eastern Time on such date.
24. **CONFIDENTIALITY:** Buyer and Seller authorize the disclosure of the information herein to the real estate licensees, attorneys, lenders, appraisers, inspectors, investigators and others involved in the transaction necessary for the purpose of closing this transaction. Buyer and Seller authorize the lender and/or closing agent preparing the closing disclosure and/or settlement statement to release a copy of the closing disclosure and/or settlement statement to the parties and their licensees prior to, at and after the closing.
25. **ADDENDA:** Lead Paint - ☒ Yes ☐ No ; Other - ☒ Yes ☐ No Explain: Addendum 1, Possession after Closing
- The Property Disclosure Form is not an addendum and not part of this Agreement.
26. **OTHER CONDITIONS:** At transfer of title, Seller will pay RE/MAX By The Bay a 2.5% commission on the sales price.

27. GENERAL PROVISIONS:

- A copy of this Agreement is to be received by all parties and, by signature, receipt of a copy is hereby acknowledged. If not fully understood, contact an attorney. This is a Maine contract and shall be construed according to the laws of Maine.
- Seller acknowledges that State of Maine law requires buyers of property owned by non-resident sellers to withhold a prepayment of capital gains tax unless a waiver has been obtained by Seller from the State of Maine Revenue Services.
- Buyer and Seller acknowledge that under Maine law payment of property taxes is the legal responsibility of the person who owns the property on April 1, even if the property is sold before payment is due. If any part of the taxes is not paid when due, the lien will be filed in the name of the owner as of April 1 which could have a negative impact on their credit rating. Buyer and Seller shall agree at closing on their respective obligations regarding actual payment of taxes after closing. Buyer and Seller should make sure they understand their obligations agreed to at closing and what may happen if taxes are not paid as agreed.
- Buyer acknowledges that Maine law requires continuing interest in the property and any back up offers to be communicated by the listing agent to the Seller.
- Whenever this Agreement provides for earnest money to be returned or released, agency acting as escrow agent must comply with the Maine Real Estate Commission rules which may require written notices or obtaining written releases from both parties.

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Buyer(s) Initials

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Seller(s) Initials

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WBY

JC

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*

29 Dallas St

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28. **ELECTRONIC SIGNATURES:** Pursuant to the Maine Uniform Electronic Transactions Act and Digital Signature Act, the parties authorize and agree to the use of electronic signatures as a method of signing/initialing this Agreement, including all addenda. The parties hereby agree that either party may sign electronically by utilizing an electronic signature service.

Buyer's Mailing address is

Harvard House LLC

11/4/2020

BUYER *Harvard House LLC*

DATE

BUYER

DATE

BUYER

DATE

BUYER

DATE

Seller accepts the offer and agrees to deliver the above-described property at the price and upon the terms and conditions set forth and agrees to pay agency a commission for services as specified in the listing agreement.

Seller's Mailing address is

Walter H. Libby III

11/10/2020

SELLER *Walter H. Libby III*

DATE

SELLER *Lacy M. Copp*

11-10-20

DATE

SELLER *Madeline Morrill*

11/10/2020

SELLER *Madeline F. Morrill*

DATE

* *Mark W. Libby*SELLER *Mark W. Libby*

DATE

COUNTER-OFFER

Seller agrees to sell on the terms and conditions as detailed herein with the following changes and/or conditions:

The parties acknowledge that until signed by Buyer, Seller's signature constitutes only an offer to sell on the above terms and the offer will expire unless accepted by Buyer's signature with communication of such signature to Seller by (date) _____ (time) _____ ☐ AM ☐ PM.

SELLER

DATE

SELLER

DATE

SELLER

DATE

SELLER

DATE

The Buyer hereby accepts the counter offer set forth above.

BUYER

DATE

BUYER

DATE

BUYER

DATE

BUYER

DATE

EXTENSION

The closing date of this Agreement is extended until _____

DATE

SELLER

DATE

SELLER

DATE

SELLER

DATE

SELLER

DATE

BUYER

DATE

BUYER

DATE

BUYER

DATE

BUYER

DATE



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ADDENDUM 1 TO AGREEMENTAddendum to contract dated November 4, 2020between Walter H. Libby III, Lucy M. Copp, Madeline F. Morrill, Mark W. Libby

(hereinafter "Seller")

and Hammond House LLC

(hereinafter "Buyer")

property located at 29 Dalton St & Street F Parcels, Portland, ME 04103-5211

Continuation of Paragraph 2: Subject to the terms and conditions hereinafter set forth, Seller agrees to sell and Buyer agrees to buy all of the property situated in municipality of Portland, County of Cumberland, State of Maine, located at Dalton Street & Street F and described in deed(s) recorded at said County's Registry of Book 11647 Page 187 and Book 15054 Page 170 and further described as 2.674 acres on the boundary survey completed by Owen Haskell, INC, dated September 16, 2015, Job No. 2015-193P for Walter H. Libby III, Lucy M. Copp, Madeline F. Morrill & Mark W. Libby and including half of Dalton Street owned by Sellers. Sellers will attempt to acquire and transfer to buyer part of Queen property to half of the right of way for Dalton Street.

Continuation of Paragraph 7: Buyer and Seller agree to close within 15 calendar days of received City approvals.

Continued... See Addendum Addendum Terms and Conditions 1

Parties acknowledge Agency's advice to seek legal, tax and other professional advice as necessary in connection with sale/purchase of property.

DocuSigned by:
[Signature] 11/4/2020
Buyer CD341502F44E5 Date
Hammond House LLC

Buyer _____ Date _____

Buyer _____ Date _____

Buyer _____ Date _____

[Signature] 11/10/2020
Seller _____ Date
Walter H. Libby III

[Signature] 11/10/20
Seller _____ Date
Lucy M. Copp

DocuSigned by:
[Signature] 11/10/2020
Seller _____ Date
Madeline Morrill

[Signature] 11/10/2020
Seller _____ Date
Madeline F. Morrill

[Signature] 11/10/2020
Seller _____ Date
Mark W. Libby

[Signature] 11/10/2020
Seller _____ Date
Mark W. Libby



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RE/MAX By The Bay, 181 Vermont Portland ME 04101
David Banks

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Phone: 287.553.7362

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ADDENDUM

PROPERTY: 29 Dalton St & Street F Parcels, Portland, ME 04103-5211

1) Addendum Terms and Conditions

***Continuation of Paragraph 12: Buyer and Seller agree to extend due diligence to 5pm on July 1, 2021 if City approvals have not been received by 5pm on May 1, 2021.**

Seller to provide Buyer with Property Disclosure within 5 business days

Date: 11/4/2020

DocuSigned by:

KPA
Signature

Date:

11/10/2020

DocuSigned by:

Madeline Morill
Signature

Date:

Walter Phillips
Signature

Date:

** Mch 2u Luby*
Signature

Addendum

RE/MAX By The Bay, 281 Verranda Portland ME 04101
David Rankin

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Phone: 287.551.7282 Fax: 287.551.7190
www.lane.com

29 Dalton St

POSSESSION AFTER CLOSING ADDENDUM

To Agreement dated

Walter H. Libby III, Lucy M. Copp, Madeline F. Morrill, Mark W. LibbyNovember 4, 2020

, between

and Hammond House LLC

("Seller")

for property located at 29 Dalton St & Street F Parcels, Portland, ME 04103-5211

("Buyer")

Notwithstanding anything to the contrary in the Agreement, Buyer and Seller agree as follows:

Seller shall be entitled to retain possession of the property for up to 30 calendar days from the date of closing at which time Seller shall deliver possession of the property to Buyer. Seller shall deliver the property in substantially the same condition as exists on the Effective Date of the Agreement. Seller shall be responsible for ordinary maintenance and repair of the property and the cost of fuel oil and utilities, including but not limited to electrical service, telephone service, water and sewer assessments, if any, to the property until possession of the property is delivered by Seller to Buyer. Fuel oil shall be prorated as of the date possession is delivered to Buyer at the then prevailing market price of company that delivered fuel. Seller agrees to indemnify and hold Buyer harmless for any costs, expenses, losses, damages, or other liabilities of any kind and nature resulting from Seller's occupancy of the property after closing. Seller accepts full responsibility for any of Seller's personal property remaining in or on the property after closing and agrees to hold Buyer harmless for any damage to or loss of such personal property. Seller shall maintain public liability insurance and insurance on Seller's personal property until possession is delivered by Seller to Buyer. Risk of loss by fire or otherwise shall be borne by Seller until closing. In addition to the above-referenced costs, Seller shall pay Buyer \$1000.00 per month per calendar day in advance for rental of the property. At closing, Buyer shall withhold \$ 0.00 from the net proceeds due Seller as a security deposit. At closing, the parties shall enter into the Maine Residential Lease developed by the Maine Attorney General, or such other lease agreement as mutually agreed to by the parties, further describing the rights and obligations of the parties.

The indemnification provisions of this addendum shall survive the closing or other expiration of the Agreement.

Agreement by:

[Signature]11/4/2020

Buyer

Date

Hammond House LLC

Seller

Walter H. Libby III11/10/2020

Buyer

Date

Seller

Lucy M. Copp11-10-20

Buyer

Date

Seller

Madeline Morrill11/10/2020

Buyer

Date

Seller

* Mark W. LibbyDate

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RE/MAX By The Bay, 261 Vermont Portland ME 04101

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29 Dalton St

Photos of the Project Site





Figure 1. *Location of Portland Trails Connection (Facing approx. north on Sherwood)*



Figure 2. *Facing approx. east on Sherwood*





Figure 3. Existing Shed and Stockade Fence Near Paper Street



Figure 4. Chain-link Fence near Presumpscot School (Facing Approx. northwest)





Figure 5. Facing approx. south while located near chain-link Fence adjacent to Presumpscot School



Figure 6. Facing approx. east while looking down Dalton Street





Figure 7. Facing approx. north while looking into site



Figure 8. Location of Wetland in Site





Figure 9. Facing west towards chain-link fence along Presumpscot school



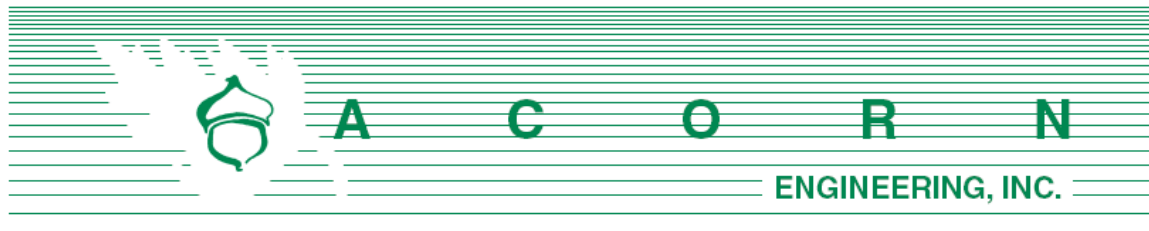
Figure 10. Facing east while located on site



Basic Standards Submissions

Please see the attached document, Erosion and Sedimentation Control Plan, developed in accordance with the Basic Standards submission requirements.





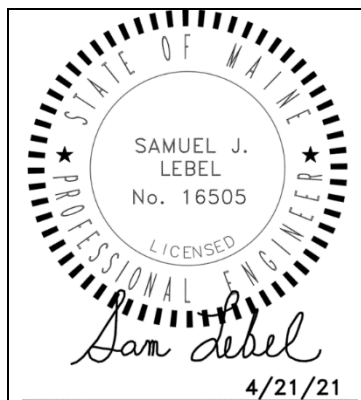
K. EROSION & SEDIMENTATION **CONTROL REPORT**

Prepared For:

**Hammond House, LLC
94 South Street
Yarmouth, Maine 04096**

Prepared By:

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



April 2021

INTRODUCTION

Acorn Engineering, Inc. has been retained by Hammond House, LLC to provide civil engineering services for the proposed residential development at the end of Dalton Street in Portland, Maine. The proposed project includes the construction of 4 separate buildings with a total of 48 dwelling units.

The following Erosion and Sedimentation Control Report was developed in accordance with the City of Portland Technical Manual – Section 5 – Portland Stormwater Management Standards and the Maine DEP Chapter 500 Stormwater Management Appendix A and B (1), Amended August 12, 2015. This narrative also meets the standards required in the Maine DEP’s Erosion & Sediment Control BMP’s Manual, revised in 2016.

1.0 EXISTING CONDITIONS

The proposed project site is located at the end of Dalton Street in Portland, Maine. A boundary and topographic survey has been prepared by Owen Haskell, Inc. dated December 11th, 2020.

The property is in the R5 Residential Zone. Abutting Uses include residential except for the elementary school that abuts the site to the northwest.

The 3.72 acre site consists of varying slopes. To the northern corner of the site the land slopes at approximately 7% from west to east down into a pair of wetlands near the center of the site. To the east of the wetlands the site slopes roughly 2% to the wetlands. The south of the site slopes to the west with grades dropping off towards the abutters at roughly 33%.

1.1 Existing Soils

Onsite soil information includes the following:

- Soil Conservation Service Medium Intensity Soil Survey for Cumberland County
- United States Department of Agriculture Web Soil Survey

Given the soils information, listed above, no onsite wastewater is proposed; the applicant does not intend to perform a more intense hydric soil boundary delineation because the waiver requirements set forth in the City of Portland Technical Manual – Section 7 – Soil Survey, Rev. 6/17/11 are met.

The area within and surrounding the project includes soil types listed in the table below. The susceptibility of soils to erosion is indicated on a relative “K” scale of values over a range of 0.02 to 0.69. Higher “K” values indicate more erodible soils.

Table 1 - “K” Value	
Soils Type	Subsurface
Buxton Silt Loam	0.37



Cut and fill land	0.20
Elmwood fine sandy loam	0.20
Suffield silt loam	0.32

The soil “K” value for the soil, listed above, shows a medium to low susceptibility to erosion. The site’s susceptibility to erosion is from the USDA Soil Survey. Although the soil “K” value shows a low susceptibility to erosion, implementation of the proposed Erosion & Sedimentation Measures by the contractor will be of the utmost importance given the sustained slope throughout the site.

1.2 Existing Erosion Problems

There are no signs of erosion.

1.3 Critical Areas

Critical areas that would require special attention during construction are any exposed slopes, particularly to the northern and south eastern portions of the site along with the wetlands located near the center of the site.

1.4 Protected Natural Resource

Wetlands exist onsite, as delineated by Mark Hampton Associated, Inc. in May of 2018. The project is not located with a watershed classified as an Urban Impaired Stream by the Maine DEP.

1.5 Previous Construction Activity (5 years)

Acorn Engineering, Inc. is not aware of any construction related activities within the project limits within the past 5 years.

1.6 Timber Harvesting

Acorn Engineering, Inc. is not aware of any timber harvesting within the past five years.



2.0 EROSION CONTROL MEASURES AND SITE STABILIZATION

As part of the site development, the following temporary and permanent erosion and sedimentation control devices shall be implemented. Devices shall be installed as described in this report or within the plan set. See the Maine Erosion and Sediment Control Handbook for Construction: Best Management Practices for further reference.

2.1 Temporary Erosion Control Measures

The following temporary erosion and sedimentation control measures are planned for the project's construction period:

2.1.1 Crushed stone stabilized construction entrances shall be placed at all access points to the project site where there are disturbed areas. The following specifications shall be followed at a minimum:

- Stone size shall be 2-3 inches, or reclaimed or recycled concrete equivalent.
- The thickness of the entrance stone layer shall be no less than 6 inches.
- The entrance shall not be less than 20 feet wide, however not less than the full width of points where ingress or egress occurs. The length shall not be less than 50 feet in length.
- Geotextile fabric (woven or non-woven) shall be placed over the entire entrance area.
- The entrance/exit shall be maintained to the extent that it will prevent the tracking of sediment onto public road ways.

2.1.2 Siltation fence or erosion control berm shall be installed down gradient of any disturbed areas to trap runoff borne sediments until permanent stabilization is achieved. The silt fence or erosion control berm shall be installed per the details provided in the plan set and inspected before and immediately after each rainfall and at least daily during prolonged rainfall. Repairs shall be made if there are any signs of erosion or sedimentation below the fence line or berm. If there are signs of undercutting at the center or the edges, or impounding of large volumes of water behind the fence or berm, the barrier shall be replaced with a stone check dam.

2.1.3 Hay mulch including hydro seeding is intended to provide cover for denuded or seeded areas until revegetation is established. Mulch placed between April 15th and November 1st on slopes of less than 15 percent shall be covered by fabric netting and anchored with staples in accordance with the manufacturer's recommendation. Mulch placed between November 1st and April 15th on slopes equal to or steeper than 8 percent and equal to or flatter than 2:1 shall use mats or fabric netting and anchored with staples in accordance with the manufacturer's recommendation.

2.1.4 At any time of the year, all slopes greater than 3:1 shall be stabilized with Double Net Erosion Control Blanket Bionet SC150BN by North American



Green or Approved Equal, or Erosion Control Mix Slope Protection as detailed within the plans.

- 2.1.5 Dalton and Sherwood streets shall be swept to control mud and dust from the construction site as necessary. Add additional stone to the stabilized construction entrance to minimize the tracking of material off the site and onto the surrounding roadways.
 - 2.1.6 During demolition, clearing and grubbing operations, stone check dams shall be installed at any areas of concentrated flow. The maximum height of the check dam shall not exceed 2 feet. The center of the check dam shall be 6 inches below the outer edges of the dam. The contractor shall mulch the side slopes and install stone check dams for all newly excavated ditch lines within 24 hours of their creation.
 - 2.1.7 Silt fence stake spacing shall not exceed 6 feet unless the fence is supported with 14-gauge wire in which case the maximum spacing shall not exceed 10 feet. The silt fence shall be “toed” into the ground.
 - 2.1.8 Storm drain inlet protection shall be provided to storm drains using any of the following: hay bale drop inlet structures, silt fence drop inlet sediment filter, gravel and wire mesh drop inlet sediment filter, or curb inlet sediment filter. Barriers shall be inspected after every rainfall event and repaired as necessary. Sediments shall be removed when accumulation has reached $\frac{1}{2}$ the design height.
 - 2.1.9 Dust control shall be accomplished using any of the following: water, calcium chloride, stone, or an approved MDEP product. Dust control shall be applied as needed to accomplish dust control.
 - 2.1.10 Temporary loam, seed, and mulching shall be used in areas where no other erosion control measure is used. Application rates for seeding are provided at the end of this report.
 - 2.1.11 Stockpiles shall be stabilized within 7 days of formation unless a scheduled rain event occurs prior to the 7-day window, in which case the stockpile shall be stabilized prior to the rain event. Methods of stabilization shall be mulch, erosion control mix, or erosion control blankets/mats. Silt fence or a wood waste compost filter berm shall be placed downhill of any soil stockpile location.
 - 2.1.12 For disturbance between November 1 and April 15, please refer to winter stabilization plan in this report and the Maine Erosion and Sediment Control BMP manual for further information.
 - 2.1.13 It is of the utmost importance that stormwater runoff and potential sediment from the construction site be diverted around the proposed underdrains until the trench is backfilled.
- 2.2 Permanent Erosion Control Measures



The following permanent erosion control measures are intended for post disturbance areas of the project.

2.2.1 All disturbed areas during construction, not subject to other proposed conditions, shall receive a minimum 4" of loam, limed, and mulched. Erosion control blankets or mats shall be placed over the mulch in areas noted in paragraph 4.1 of this report.

2.2.2 All stormwater devices shall be installed and tributary areas stabilized prior receiving stormwater.

2.2.3 Refer to the Maine Erosion and Sediment Control BMP manual for additional information.

3.0 EROSION AND SEDIMENTATION CONTROL PLAN

3.1 The Construction Management & Erosion Control Plan is included within the plan set.

4.0 DETAILS AND SPECIFICATIONS

4.1 Erosion & Sedimentation Control Details and Specifications are included in the plan set.

5.0 STABILIZATION PLAN FOR WINTER CONSTRUCTION

Winter Construction consists of earthwork disturbance between the dates of November 1 and April 15. If a construction site is not stabilized with pavement, a road gravel base, 75% mature vegetation cover or riprap by November 15, then the site shall be protected with over-winter stabilization. Any area not stabilized with pavement, vegetation, mulching, erosion control mix, erosion control mats, riprap, or gravel base on a road shall be considered open.

The contractor shall limit the work area to areas that work will occur in during the subsequent 15 days and so that it can be mulched one day prior to a snow event. The contractor shall stabilize work areas prior to opening additional work areas to minimize areas without erosion control measures.

The following measures shall be implemented during winter construction periods:

5.1 Sediment Barriers

During frozen conditions, sediment barriers may consist of erosion control mix berms or any other recognized sediment barriers as frozen soil prevents the proper installation of hay bales or silt fences.

5.2 Mulching



All areas shall be considered to be denuded until seeded and mulched. Hay and straw mulch shall be applied at a rate of 150 lb. per 1,000 square feet or 3 tons/acre (twice the normal accepted rate of 75-lbs./1,000 s.f. or 1.5 tons/acre) and shall be properly anchored. Erosion control mix must be applied with a minimum 4-inch thickness. Mulch shall not be spread on top of snow. The snow shall be removed down to a one-inch depth or less prior to application. After each day of final grading, the area shall be properly stabilized with anchored hay or straw or erosion control matting. An area shall be considered to have been stabilized when exposed surfaces have been either mulched or adequately anchored so that ground surface is not visible through the mulch. Between the dates of November 1 and April 15, all mulch shall be anchored by either mulch netting, tracking or wood cellulose fiber. The cover will be considered sufficient when the ground surface is not visible through the mulch. After November 1st, mulch and anchoring of all exposed soil shall occur at the end of each final grading workday.

5.3 Soil Stockpiling

Stockpiles of soil or subsoil shall be mulched for over winter protection with hay or straw at twice the normal rate or with a four-inch layer of erosion control mix. This shall be done within 24 hours of stocking and re-established prior to any rainfall or snowfall.

5.4 Seeding

Between the dates of October 15th and April 1st, loam or seed shall not be required. During periods of above freezing temperatures finished areas shall be fine graded and either protected with mulch or temporarily seeded and mulched until the final treatment can be applied. If the date is after November 1st and if the exposed area has not been loamed, final grading with a uniform surface, then the area may be dormant seeded at a rate of 3 times higher than specified for permanent seed and then mulched.

Dormant seeding may be placed prior to the placement of mulch or erosion control blankets. If dormant seeding is used for the site, all disturbed areas shall receive 4" of loam and seed at an application rate of 5 lbs./1,000 s.f. All areas seeded during the winter shall be inspected in the spring for adequate catch. All areas insufficiently vegetated (less than 75% catch) shall be revegetated by replacing loam, seed and mulch. If dormant seeding is not used for the site, all disturbed areas shall be revegetated in the spring.



5.5 Over winter stabilization of disturbed soils

By September 15th, all disturbed soils on areas having a slope less than 15% shall be seeded and mulched. If the disturbed areas are not stabilized by this date, then one of the following actions shall be taken to stabilize the soil for late fall and winter:

- Stabilize the soil with temporary vegetation – By October 1st, seed the disturbed soil with winter rye at a seeding rate of 3lbs per 1,000 s.f., lightly mulch the seeded soil with hay or straw at 75 lbs per 1,000 s.f., and anchor the mulch with plastic netting. Monitor growth of the rye over the next 30 days. If the rye fails to grow at least three inches or fails to cover at least 75% of the disturbed soil before November 1st, then mulch the area for over-winter protection.
- Stabilize the soil with sod – Stabilize the disturbed soil with properly installed sod by October 1st. Proper installation includes pinning the sod onto the soil with wire pins, rolling the sod to guarantee contact between the sod and underlying soil, and watering the sod to promote root growth into the disturbed soil.
- Stabilize the soil with mulch – By November 15th, mulch the disturbed soil by spreading hay or straw at a rate of at least 150 lbs per 1,000 s.f. on the area so that no soil is visible through the mulch. Immediately after applying the mulch, anchor the mulch with plastic netting to prevent wind from moving the mulch off the disturbed soil.

5.6 Over winter stabilization of disturbed slopes

All stone-covered slopes shall be constructed and stabilized by November 15th. All slopes to be vegetated shall be seeded and mulched by September 1st. A slope is considered a grade greater than 15%. If a slope to be vegetated is not stabilized by September 1st, then one of the following action shall be taken to stabilize the slope for late fall and winter:

- Stabilize the soil with temporary vegetation and erosion control mats – By October 1st the disturbed slope shall be seeded with winter rye at a seeding rate of 3 lbs per 1,000 s.f. and then install erosion control mats or anchored mulch over the seeding. If the rye fails to grow at least three inches or fails to cover at least 75% of the slope by November 1st, then the contractor shall cover the slope with a layer of erosion control mix or with stone riprap.
- Stabilize the soil with sod – The disturbed slope shall be stabilized with properly installed sod by October 1st. Proper installation includes the contractor pinning the sod onto the slope with wire pins, rolling the sod to guarantee contact between the sod and underlying soil, and watering the sod to promote root growth into the disturbed soil. The contractor shall not use late-season sod installation to stabilize slopes having a grade greater than 3H:1V or having groundwater seeps on the slope face.



- Stabilize the soil with erosion control mix – Erosion control mix shall be properly installed by November 15th. The contractor shall not use erosion control mix to stabilize slopes having grades greater than 2H:1V or having groundwater seeps on the slope face.
- Stabilize the soil with stone riprap – Place a layer of stone riprap on the slope by November 15th. A registered professional engineer shall be hired to determine the stone size needed for stability on the slope and to design a filter layer for underneath the riprap.

6.0 INSPECTION AND MAINTENANCE

A person with knowledge of erosion and stormwater control, including the standards and conditions in the permit, shall conduct periodic visual inspections of installed erosion control measures. The frequency of inspection shall occur at least once every two weeks, as well as after a “storm event”. A “storm event” shall consist 0.5 inches of rain within a 24-hour period. The following Erosion and Sediment Control - Best Management Practices (BMP's) shall inspected in the manner as described.

6.1 Sediment Barriers

Hay bale barriers, silt fences and filter berms shall be inspected and repaired for the following if there are any signs of erosion or sedimentation below them. If there are signs of undercutting at the center or the edges of the barrier, or impounding of large volumes of water behind them, sediment barriers shall be replaced with a temporary check dam. Should the fabric on a silt fence or filter barrier decompose or become ineffective prior to the end of the expected usable life and the barrier is still necessary, the fabric shall be replaced promptly. Sediment deposits should be removed when deposits reach approximately one-half the height of the barrier. Filter berms should be reshaped as needed. Any sediment deposits remaining in place after the silt fence or filter barrier is no longer required should be dressed to conform to the existing grade, prepared and seeded.

6.2 Stabilized Stone Construction Entrances

The exit shall be maintained in a condition that will prevent tracking of sediment onto public rights-of-way. When the control pad becomes ineffective, the stone shall be removed along with the collected soil material and redistributed on site in a stable manner. The entrance should then be reconstructed. The contractor shall sweep or wash pavement at exits, which have experienced mud-tracking on to the pavement or traveled way. When washing is required, it shall be done on an area stabilized with aggregate, which drains into an approved sediment trapping device. All sediment shall be prevented from entering storm drains, ditches, or waterways.

6.3 Mulched Areas



All mulches must be inspected periodically, in particular after rainstorms, to check for rill erosion. If less than 90% of the soil surface is covered by mulch, additional mulch shall be immediately applied. Nets must be inspected after rain events for dislocation or failure. If washouts or breakage occur, re-install the nets as necessary after repairing damage to the slope. Where mulch is used in conjunction with ornamental plantings, inspect periodically throughout the year to determine if mulch is maintaining coverage of the soil surface. Repair as needed.

6.4 Dust Control

When temporary dust control measures are used, repetitive treatment shall be applied as needed to accomplish control.

6.5 Stormwater Appurtenances

All underdrains, storm drains, and catch basins need to be operating effectively and free of debris.

6.6 Erosion and Sedimentation Control Inspections:

Acorn Engineering has personnel qualified to conduct Erosion and Sedimentation Control Inspections. For further information, contact:

Contact: Will Savage, PE
Telephone: (207) 775-2655

Qualifications:

- Maine Professional Engineering License #11419
- Maine DEP - Certified in Maintenance & Inspection of Stormwater BMP's Cert #14
- Certified Erosion, Sediment and Storm Water Inspector (CESSWI) Cert #0293
- Certified Professional in Erosion and Sediment Control (CPESC) Cert. #4620

The Contractor has sole responsibility for complying with the Erosion and Sedimentation Report/Plan, including control of fugitive dust. The Contractor shall be responsible for any monetary penalties resulting from failure to comply with these standards.



7.0 IMPLEMENTATION SCHEDULE

The following implementation sequence is intended to maximize the effectiveness of the above described erosion control measures. Contractors should avoid overexposing disturbed areas and limit the amount of stabilization area.

1. Install a stabilized construction entrance in all locations where construction traffic will enter and exit the site.
2. Install perimeter silt fence or erosion control berm.
3. Install all other erosion control devices as necessary throughout the remainder of this schedule.
4. Commence installation of drainage infrastructure.
5. Prioritize the downhill side to contain runoff within the site while providing an engineered outlet to the municipal storm drain system within Sherwood Street.
6. Commence earthwork operations, associated with the parking lot construction.
7. Commence installation of utilities.
8. Continue earthwork and grading to subgrade as necessary for construction.
9. Complete installation of drainage infrastructure, as well as other utility work.
10. Complete remaining earthwork operations.
11. Install sub-base and base gravels in paved areas.
12. Install paving, curbing and brickwork.
13. Loam, lime, fertilize, seed and mulch disturbed areas and complete all landscaping.
14. Once the site is stabilized and mulching of landscape areas is complete, remove all temporary erosion control measures.
15. Touch up areas without a vigorous catch of grass with loam and seed.
16. Complete site signage and striping.
17. Execute proper maintenance of all temporary and permanent erosion control measures throughout the project.

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

The contractor shall re-vegetate disturbed areas as rapidly as possible. All areas shall be permanently stabilized within 7 days of final grading or before a storm event. The contractor shall incorporate planned inlets and drainage systems as early as possible into the construction phase.

8.0 CONCLUSION

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



9.0 ATTACHMENTS

- Temporary Seeding Plan
- Permanent Seeding Plan



TEMPORARY SEEDING PLAN

Site Preparation

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

Seedbed Preparation

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

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

Seeding

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

Seed	Pounds / 1,000 S.F.	Recommended Seeding Dates
Winter Rye	2.57	Aug-15 to Oct-1
Oats	1.84	Apr-1 to Jul-1 Aug-15 to Sep-15
Annual Ryegrass	0.92	Apr-1 to Jul-1
Sudangrass	0.92	May-15 to Aug-15
Perennial	0.92	Aug-15 to Sep-15

Mulching

Mulch shall be applied at a rate of 70 lbs – 90 lbs per 1,000 square feet. The mulch shall be installed at a minimum depth of 4 inches. The seeded area shall be mulched immediately after seed is applied. Mulching during the winter season shall be double the normal amount.

Conclusion

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



PERMANENT SEEDING PLAN

Site Preparation

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

Seedbed Preparation

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

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

Seeding

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

Seed	Pounds / 1,000 S.F.
Kentucky Bluegrass	0.46
Creeping Red Fescue	0.46
Perennial Ryegrass	0.11
Total	1.03

Mulching

Mulch shall be applied at a rate of 70 lbs – 90 lbs per 1,000 square feet. The mulch shall be installed at a minimum depth of 4 inches. The seeded area shall be mulched immediately after seed is applied. Mulching during the winter season shall be double the normal amount.

Recommendations

Permanent seeding is recommended to be completed in the spring. Later summer seeding is allowed if completed prior to September 1st. If seeding cannot be accomplished during the periods recommended for permanent seeding, then the contractor shall perform temporary seeding per the temporary seeding plan.

Conclusion

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



General Standards Submissions

The following Stormwater Management Report and corresponding attachments have been developed in accordance with the General Standards submission requirements.

Phosphorous export calculations were not performed for the proposed redevelopment as Phosphorous Standards do not apply.



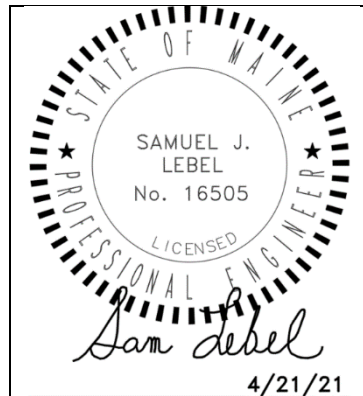
J. STORMWATER MANAGEMENT **REPORT**

Prepared For:

Hammond House, LLC
94 South Street
Yarmouth, Maine 04096

Prepared By:

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



April 2021



INTRODUCTION

Acorn Engineering, Inc. has been retained by Hammond House, LLC to provide civil engineering services for the proposed development off the end of Dalton Street in Portland, Maine, now known as Winchester Woods. The property consists of approximately 3.72 acres of land and contains the following parcels (Chart, Book, Lot, 428-A-008-013, 427-I-007-009, 427-K-001-004, 427-L-005-008 and 427-L-012, 427-N-001-004 and 427-N-012).

A stormwater analysis was prepared to demonstrate that the project will meet the requirements set forth by Maine DEP Chapter 500 Basic and General Standards and the following requirements from the City of Portland (the City):

- City of Portland Land Use Ordinance Article 14.6.2.D.
- City of Portland Technical Manual – Section 5 – Portland Stormwater Management Standards and Maine DEP Chapter 500 Stormwater Management.

EXISTING CONDITIONS

The proposed project site is located at the end of Dalton Street in Portland, Maine. A boundary and topographic survey developed by Owen Haskell, Inc. has been included within this submission package. The site primarily consists of wooded area with two drainage subcatchments. The first subcatchment is located to the southwestern corner of the site near Sherwood Street. The land slopes at roughly 15% from west to east towards an abutter on Sherwood. The second subcatchment comprises the majority of the site and generally drains internally within the site towards a pair of wetlands which our understanding were originally constructed as manmade detention basins with an outlet control structure. The southern most wetland area contains an engineered outlet control structure to meter stormwater runoff into the municipal separated storm sewer system (MS4) within Sherwood Street. These “wetlands” serve as a major collection point of stormwater in the neighborhood between Veranda St, Presumpscot St, and the railroad that runs parallel with I-295.

PROPOSED DEVELOPMENT

The project features the development of a planned unit residential development (PRUD) which a development program outlined within the land use ordinance and generally follows the principles of cluster subdivision planning where infrastructure is denser and more efficient in lieu and as a result, greater open space opportunities are available. The site will consist of four separate residential buildings with a total of 48 dwelling units, each building will be served with associated parking and utilities. Overall, the project proposes to develop 1.58 acres of the lot with 1.24 acres consisting of impervious area.

The site has been graded to slope with the existing topography while providing for appropriate slopes in the parking lot. The slopes on the outside of the parking areas that are not part of a stormwater system will be appropriately stabilized per the specifications in the plans and are anticipated to be heavily landscaped for further slope protection and buffering.

The majority of the site's runoff, including 95% of the new impervious area, will be collected via a storm drain system which will then be piped to one of the four proposed Underdrained Subsurface Sand Filters (USSF) where stormwater will first be pretreated via the isolator row which provides initial settlement and filtration of contaminants. Water will then flow vertically through the sand filter providing water quality improvements and outlet via a 4" underdrain. At each 4" outlet to the downstream drain manhole, orifices through the use of drilled holes in pipe caps will be utilized to help reduce the flow rate leaving the various USSF's. An outlet control structure will then serve as the common junction point from all four USSF systems which features two orifices and an overflow weir, allowing for greater control of the various storm peak flowrates.

The discharge from this system will ultimately flow to a level lip spreader before entering the bottom of the detention basin/wetland area. The spreader will also collect the discharge that's being intercepted from the off-site run-on to the site, primarily from the elementary school. The plans and design have been coordinated with the previously submitted project at the school which generated peak flowrates for each storm. The bypass system designed as part of the Dalton St project has been designed to keep this flow, some of which will also flow through a USSF on the school site, separate. Furthermore, the storm drain design can accommodate a 25 year storm and will functionally return this off-site run on to its pre-existing point of interest, the detention basin/wetlands.

The development will be served by the Portland Water District, CMP, Spectrum, Consolidated Communications, Unitil, and municipal sewer and storm systems. Utility mains and services have been coordinated with each respective utility company.

GENERAL STANDARDS – WATER QUALITY

The proposal is to provide primary water quality and quantity control through four separate Underdrained Subsurface Sand Filters (USSF) which have been designed in accordance with the Maine DEP BMP guidelines and are proposed to treat no less than 95% of the new impervious area and no less than 80% of the new developed area.

The underdrained subsurface sand filters were sized to meet or exceed the requirements set forth within the MDEP Volume III BMPs Technical Design Manual, Chapter 7.3. Filter BMP systems have shown to be effective at filtering out and removing a wide range of pollutants from stormwater runoff.

Impervious Treatment Area

The stormwater runoff shall first flow into the StormTech Isolator Row which will provide initial treatment of the larger sized pollutants. The stormwater will flow vertically through the sand filter layer. The treated stormwater will then be collected within perforated pipes and released slowly into the downstream system by an orifice on the end of the 4" underdrain outlet at an attenuated rate before it enters further engineered attenuation in an outlet control structure.

The treatment of the impervious and developed surfaces by the BMPs are as follows:

Table 1 - Impervious Treatment Area Table					
	Existing Imp. Area (SF)	Proposed Total Imp. Area (SF)	Net Change in Imp. Area (SF)	Proposed Imp. Area with Treatment (SF)	% Overall New Imp. Area Treated
USSFs	2,245	56,100	53,855	50,895	95%

Table 2 – Developed Area Treatment Area Table					
	Existing Dev. Area (SF)	Proposed Total Dev. Area (SF)	Net Change in Dev. Area (SF)	Proposed Dev. Area with Treatment (SF)	% Overall New Dev. Area Treated
USSFs	30,492	99,142	68,650	54,610	80%

As shown above, the project anticipates meeting the required treatment for new impervious and developed surfaces with the filter BMPs.

Filter Area Sizing

A calculation for sand filter area is necessary to meet the requirements below the surface of the USSF. As defined in the Volume III: BMPs Technical Design Manual, Chapter 7, the surface area of the filter shall be no less than the sum of 5% of the tributary impervious area and 2% of the tributary vegetated area. The filter area is calculated by the following formula:

$$[(\text{Imp. SF} \times 0.05) + (\text{Veg. SF} \times 0.02)] = \text{Filter Area (SF)}$$

Please refer to Table 2 below.

Table 2 – Total Filter Surface Area, displays the proposed USSF sizing requirements, actual size and the percentage of required area.

Table 3 – Total Filter Surface Area		
	Required Filter Area (SF)	Actual Filter Area (SF)
USSF 1	337	416
USSF 2	694	760
USSF 3	687	760
USSF 4	909	948

As shown, the size of the soil filter area will meet and exceed the surface area requirements.



Isolator Row Sizing

The isolator row was sized based upon a letter from Mark Bergeron, Director of the MDEP Bureau of Land Resources, to StormTech dated July 29, 2016. The calculation that Mr. Bergeron references to determine the minimum number of stormwater chambers needed for the isolator row is defined as the one-year peak flow rate divided by the specific flow rate of the chamber. To be conservative, the two-year peak flow rate was used from the HydroCAD model and divided by the flow rate of the MC-3500 chamber (0.3 cfs).

Table 4 – Isolator Row Sizing			
	2-Year Peak Flow (cfs)	Required Chambers	Provided Chambers
USSF 1	0.47	2	6
USSF 2	0.98	4	12
USSF 3	0.95	4	12
USSF 4	1.27	5	15

Water Quality Volume

In accordance with the Volume III: BMPs Technical Design Manual, a water quality volume of 1.0 inches times the tributary impervious area plus 0.4 inches times the tributary vegetated area is required to be treated by the USSF. The water quality volume is calculated by the following formula:

$$\left(\frac{\text{Imp. SF} \times 1.0''}{12''/1'} \right) + \left(\frac{\text{Veg. SF} \times 0.4''}{12''/1'} \right) = \text{Treatment Volume (CF)}$$

The proposed water quality volume is as follows:

Table 5 – Water Quality Volume Table				
	Vegetated Area (SF)	Impervious Area (SF)	Treatment Volume Required (CF)	Treatment Volume Provided (CF)
USSF 1	256	6,638	562	787
USSF 2	1,496	13,274	1,156	1,460
USSF 3	930	13,373	1,145	1,416
USSF 4	1,444	17,609	1,516	1,748

As shown, the size of the combined water quality volume will meet and exceed the treatment volume requirements. Values from the HydroCAD calculations are attached to this report.



The treatment volume was calculated by using the HydroCAD model and the rainfall that produces 18" of ponding within the chambers. The storage volume within the crushed stone and chambers – the two layers above the filter sand – is then added together to calculate the water quality volume.

A vertical orifice is modeled in HydroCAD at the outlet control structure to detain the stormwater for an approximate 24 hour time frame. The orifice for the water quantity volume is then set above the peak elevation determined for the water quality volume. Given that the outlet control structure is located downstream of the four USSFs, it is difficult to provide appropriate attenuation using the outlet control structure alone. To compensate, an orifice is modeled on each of the four underdrain outlets from the USSFs. This will provide for further control on the infiltration rates through the USSFs. The orifice is intended to be a PVC cap placed on the outfall pipe (no glue) with the orifice drilled into the cap eccentrically. The PVC cap can be easily inspected, removed or replaced if necessary. The orifice shall be placed at the end of the via an orifice on the end of each underdrain outlet from the USSFs, as well as a water quality and quantity orifice within the outlet control structure downstream of the proposed BMPs. Provided the infiltration rates of the water quality volume through the sand filter are variable, a water quality outlet is modeled to provide the required minimum 24-hour release

As shown above, the project anticipates meeting and exceeding the required treatment for new impervious surfaces and developed area through the use of four USSFs. Additionally, the plethora of native plants and catch basins will provide additional water quality benefits in addition to the treatment of the USSF.

FLOODING STANDARD – WATER QUANTITY

The proposed project was modeled using HydroCAD to verify that the post-development conditions do not exceed the pre-development conditions. A 24-hour SCS Type III storm distribution for the 2, 10, and 25-year storm events were used. The corresponding rainfall amounts for these storms are 3.10", 4.60", and 5.80" respectively. Due to the numerous variables, and inherent inaccuracies with the modeling program used to calculate stormwater runoff it is custom at Acorn Engineering, Inc. to round to the nearest whole number. However due to the small size of the project and the minimal existing flows, the stormwater runoff shall be rounded to the nearest tenth of a cubic feet per second (cfs).

Time of Concentration (Tc)

The times of concentration for subcatchments in both the pre and post conditions were calculated by entering the flow path with the associated ground cover and slopes. HydroCAD then calculated the Tc's and incorporated the total Tc for each subcatchment into the model. When the calculated Tc was less than six minutes (0.1 hours), a direct entry of six minutes was used as advised by the TR-55 model. Consistent with previous submissions and best practices, the sheet flow length for any Tc path was capped at 100 feet.

Curve Number (CN)

Within the pre-development model, the vegetated areas were considered grass/wood land cover in poor condition. This determination was made after multiple site visits that observed exposed soils with little to no organic duff layer. As such, although the land is wooded, the vegetative cover and surface condition would be considered in poor condition due to animal burrowing, disposal of debris, utilization of the site as an encampment and walking paths, general urban conditions, and little to no understory growth.

The post development landscaped areas were given a good rating within either the B or C hydrologic soil group depending on the underlying soil type. This assumption is reinforced given the aggressive landscape plan which will feature more porous conditions that are appropriately mulched along with future extensive root systems and canopy cover that will exist once the landscaping has matured.

Pre-development Calculations

The site consists of wooded area and wetlands in the predevelopment condition, for the purpose of this analysis the land has been divided into two separate sub catchments. The first sub catchment is located to the southwestern corner of the site near Sherwood Street. The land slopes at roughly 15% from west to east towards an abutter on Sherwood. The second sub catchment makes up the rest of the site which sees drainage internally within the site towards a pair of wetlands. The southern most wetland contains an outlet control structure to meter stormwater runoff into the municipal system within Sherwood Street.

Peak flow rates for the pre-development storm events are as follows:

Table 6 – Pre-Development Peak Stormwater Flows			
Drainage Area	2-Year Storm Event (cfs)	10-Year Storm Event (cfs)	25-Year Storm Event (cfs)
POI #1	0	0	1
POI #2	4	9	13
POI #3	5	9	13

Post-development Calculations

The drainage patterns from the pre and post conditions remain relatively the same, but with the post condition seeing four separate sub catchments that are dedicated for the treatment of runoff generated primarily by roof and pavement via the four (4) USSFs. The subcatchments are as follows:

- Subcatchment 1 – This is comprised of the untreated impervious area towards the entrance to the site that will be directed towards the MS4 in Sherwood St.
- Subcatchment 2 – This subcatchment consists mainly of landscaped area that will not



be treated via the proposed USSFs and will be directed to one of the two (2) wetlands on site, as it currently does.

- Subcatchments 2.1-2.4 – These subcatchments are responsible for the water quality treatment required by the DEP and City. All of the runoff within these sub catchments will be directed towards the proposed USSFs.

The post-development calculations include changes to the land use, and the compensation provided by the USSF's and associated engineered orifices. The following table represents comparison of pre- development and post-development condition peak runoff rates for the proposed development and tributary areas.

Table 7 – Post-Development Peak Stormwater Flows			
Drainage Area	2-Year Storm Event (cfs)	10-Year Storm Event (cfs)	25-Year Storm Event (cfs)
POI #1	0	0	0
POI #2	2	5	10
POI #3	2	5	11

Table 8 – Comparison of Peak Flows						
Drainage Area	2-Year Storm Event (cfs)		10-Year Storm Event (cfs)		25-Year Storm Event (cfs)	
	Pre	Post	Pre	Post	Pre	Post
POI #1	0	0	1	0	1	0
POI #2	4	2	8	5	12	10
POI #3 (Total)	4	2	9	5	12	11

As shown in Table 7 and 8, the net impact of the post development peak flows will remain at or below the predevelopment levels. A post-development watershed map developed for this project can be viewed in Attachment B, and a copy of the HydroCAD calculations is included within Attachment C of this report.

SOILS

Onsite soil information includes the following:

- Soil Conservation Service Medium Intensity Soil Survey for Cumberland County
- United States Department of Agriculture Web Soil Survey
- Soil borings completed in April 2021 by Summit Geoengineering Services

Given the soils information, listed above, no onsite wastewater is proposed; the applicant does not intend to perform a more intense hydric soil boundary delineation because the



waiver requirements set forth in the City of Portland Technical Manual – Section 7 – Soil Survey, Rev. 6/17/11 are met.

The area within and surrounding the project includes soil types listed in the table below. The susceptibility of soils to erosion is indicated on a relative “K” scale of values over a range of 0.02 to 0.69. Higher “K” values indicate more erodible soils.

Table 9 - “K” Value	
Soils Type	Subsurface
Buxton Silt Loam	0.37
Cut and fill land	0.20
Elmwood fine sandy loam	0.20
Suffield silt loam	0.32

The soil “K” value for the soil, listed above, shows a low to medium susceptibility to erosion. The site’s susceptibility to erosion is sourced from the Soil Conservation Service Medium Intensity Soil Survey for Cumberland County. Although the soil “K” value shows a low to medium susceptibility to erosion, implementation of the proposed Erosion & Sedimentation Measures by the contractor will be of the utmost importance given the sustained slope throughout the site.

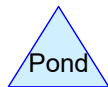
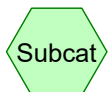
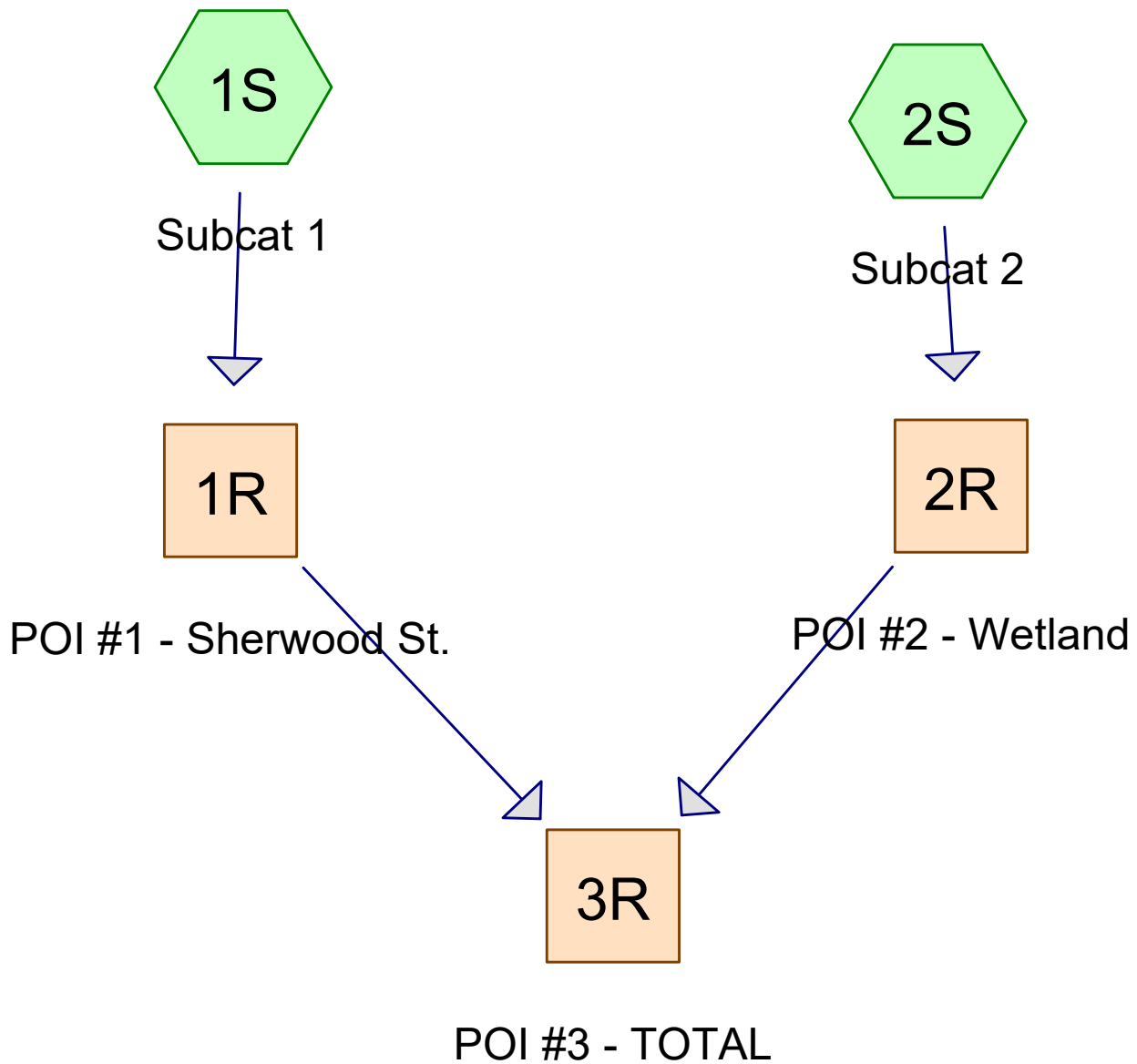
CONCLUSION

The proposed development was designed to meet the requirements implemented by the MDEP under the Stormwater Management Statute (38 M.R.S.A. § 420-D) as well as the City of Portland Technical Manual – Section 5 – Portland Stormwater Management Standards. The proposed project as designed is not anticipated to cause flooding or erosion problems within the subject site, abutters’ sites, nor within the right-of-way. Overall, the project will provide an improvement to stormwater runoff and overall management from several perspective as outlined above.

ATTACHMENTS

Attachment A: Pre-Development Watershed Map
 Attachment B: Post-Development Watershed Map
 Attachment C: HydroCAD Calculations
 Attachment D: Soil Survey





Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.435	61	>75% Grass cover, Good, HSG B (2S)
0.137	74	>75% Grass cover, Good, HSG C (2S)
0.050	98	Roof Tops (2S)
0.002	98	Unconnected roofs, HSG C (1S)
0.662	73	Woods/grass comb., Poor, HSG B (2S)
2.431	82	Woods/grass comb., Poor, HSG C (2S)
0.118	82	Woods/grass combo, Poor, HSG C (1S)
3.835	78	TOTAL AREA

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Soil Listing (all nodes)

Area (acres)	Soil Group	Subcatchment Numbers
0.000	HSG A	
1.097	HSG B	2S
2.689	HSG C	1S, 2S
0.000	HSG D	
0.050	Other	2S
3.835		TOTAL AREA

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Ground Covers (all nodes)

HSG-A (acres)	HSG-B (acres)	HSG-C (acres)	HSG-D (acres)	Other (acres)	Total (acres)	Ground Cover	Subcatchment Numbers
0.000	0.435	0.137	0.000	0.000	0.572	>75% Grass cover, Good	2S
0.000	0.000	0.000	0.000	0.050	0.050	Roof Tops	2S
0.000	0.000	0.002	0.000	0.000	0.002	Unconnected roofs	1S
0.000	0.662	2.431	0.000	0.000	3.093	Woods/grass comb., Poor	2S
0.000	0.000	0.118	0.000	0.000	0.118	Woods/grass combo, Poor	1S
0.000	1.097	2.689	0.000	0.050	3.835	TOTAL AREA	

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

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Time span=1.00-36.00 hrs, dt=0.01 hrs, 3501 points

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

Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment1S: Subcat 1

Runoff Area=5,216 sf 1.50% Impervious Runoff Depth=1.46"

Tc=6.0 min CN=82 Runoff=0.20 cfs 0.015 af

Subcatchment2S: Subcat 2

Runoff Area=161,833 sf 1.34% Impervious Runoff Depth=1.20"

Flow Length=244' Tc=10.6 min CN=78 Runoff=4.36 cfs 0.372 af

Reach 1R: POI #1 - Sherwood St.

Inflow=0.20 cfs 0.015 af

Outflow=0.20 cfs 0.015 af

Reach 2R: POI #2 - Wetland

Inflow=4.36 cfs 0.372 af

Outflow=4.36 cfs 0.372 af

Reach 3R: POI #3 - TOTAL

Inflow=4.52 cfs 0.386 af

Outflow=4.52 cfs 0.386 af

Total Runoff Area = 3.835 ac Runoff Volume = 0.386 af Average Runoff Depth = 1.21"
98.66% Pervious = 3.783 ac 1.34% Impervious = 0.052 ac

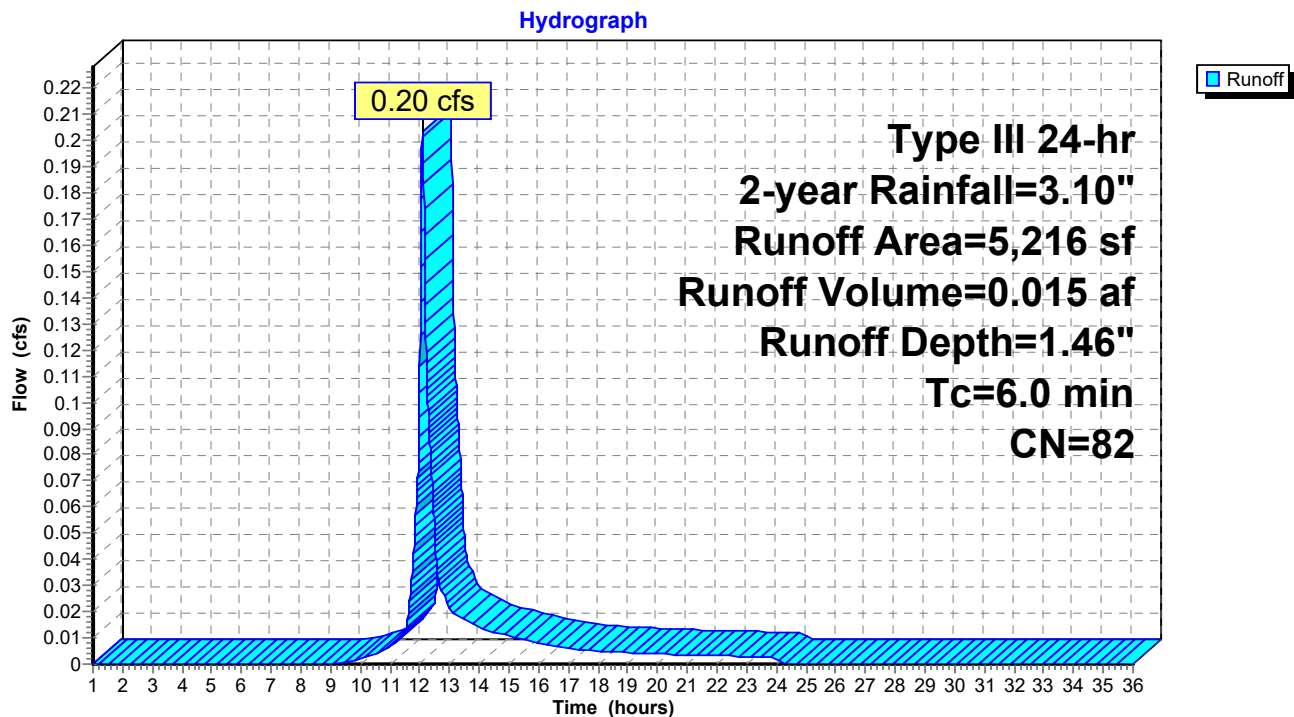
Summary for Subcatchment 1S: Subcat 1

Runoff = 0.20 cfs @ 12.09 hrs, Volume= 0.015 af, Depth= 1.46"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-year Rainfall=3.10"

	Area (sf)	CN	Description
*	5,138	82	Woods/grass combo, Poor, HSG C
	78	98	Unconnected roofs, HSG C
	5,216	82	Weighted Average
	5,138		98.50% Pervious Area
	78		1.50% Impervious Area
	78		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, Steep Slopes to Grassed Ditch

Subcatchment 1S: Subcat 1

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

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Summary for Subcatchment 2S: Subcat 2

Runoff = 4.36 cfs @ 12.15 hrs, Volume= 0.372 af, Depth= 1.20"

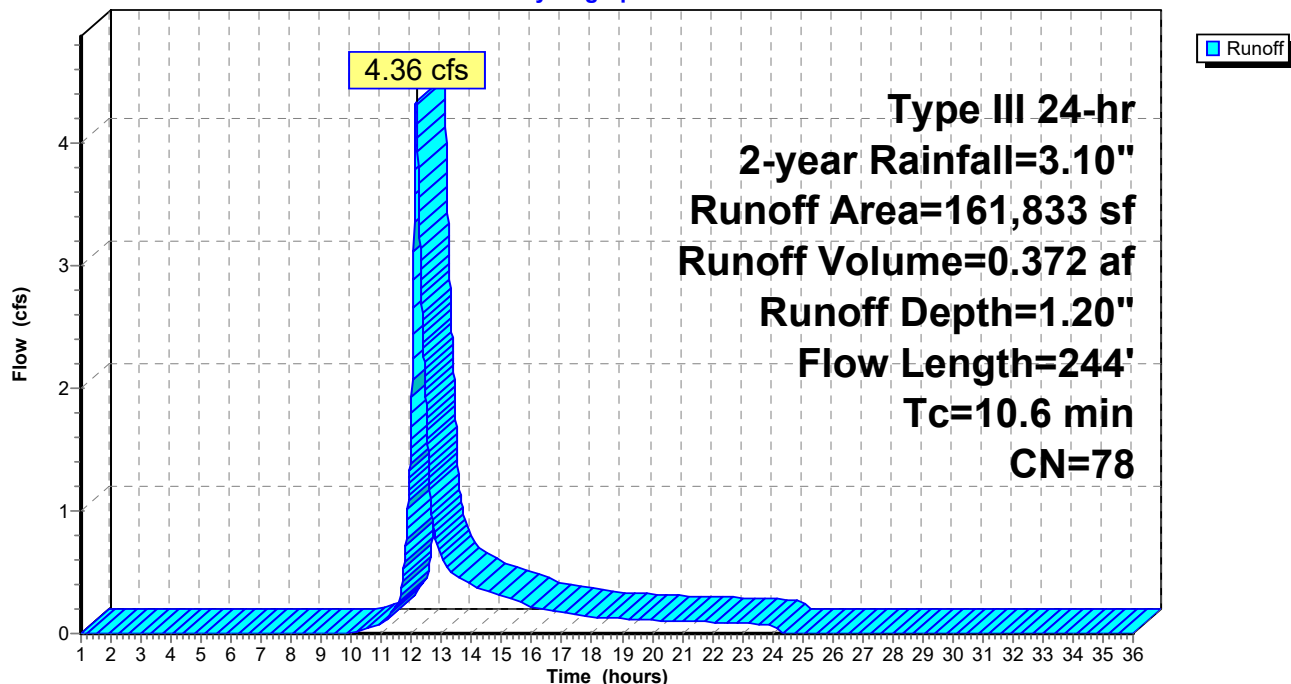
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-year Rainfall=3.10"

Area (sf)	CN	Description
* 2,167	98	Roof Tops
* 105,916	82	Woods/grass comb., Poor, HSG C
28,832	73	Woods/grass comb., Poor, HSG B
18,938	61	>75% Grass cover, Good, HSG B
5,980	74	>75% Grass cover, Good, HSG C
161,833	78	Weighted Average
159,666		98.66% Pervious Area
2,167		1.34% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.7	100	0.0200	0.17		Sheet Flow, A to B Grass: Short n= 0.150 P2= 3.27"
0.7	110	0.0300	2.60		Shallow Concentrated Flow, B to C Grassed Waterway Kv= 15.0 fps
0.2	34	0.2400	2.45		Shallow Concentrated Flow, C to D Woodland Kv= 5.0 fps
10.6	244	Total			

Subcatchment 2S: Subcat 2

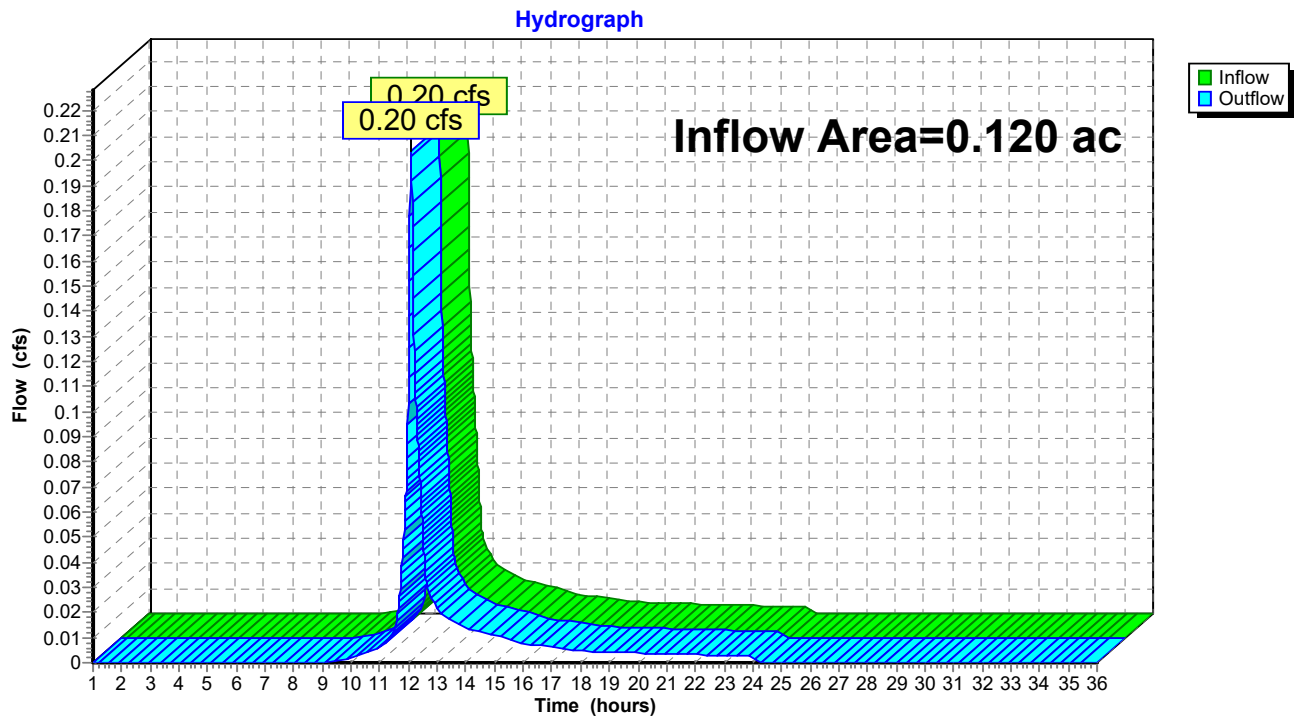
Hydrograph



Summary for Reach 1R: POI #1 - Sherwood St.

Inflow Area = 0.120 ac, 1.50% Impervious, Inflow Depth = 1.46" for 2-year event
Inflow = 0.20 cfs @ 12.09 hrs, Volume= 0.015 af
Outflow = 0.20 cfs @ 12.09 hrs, Volume= 0.015 af, Atten= 0%, Lag= 0.0 min

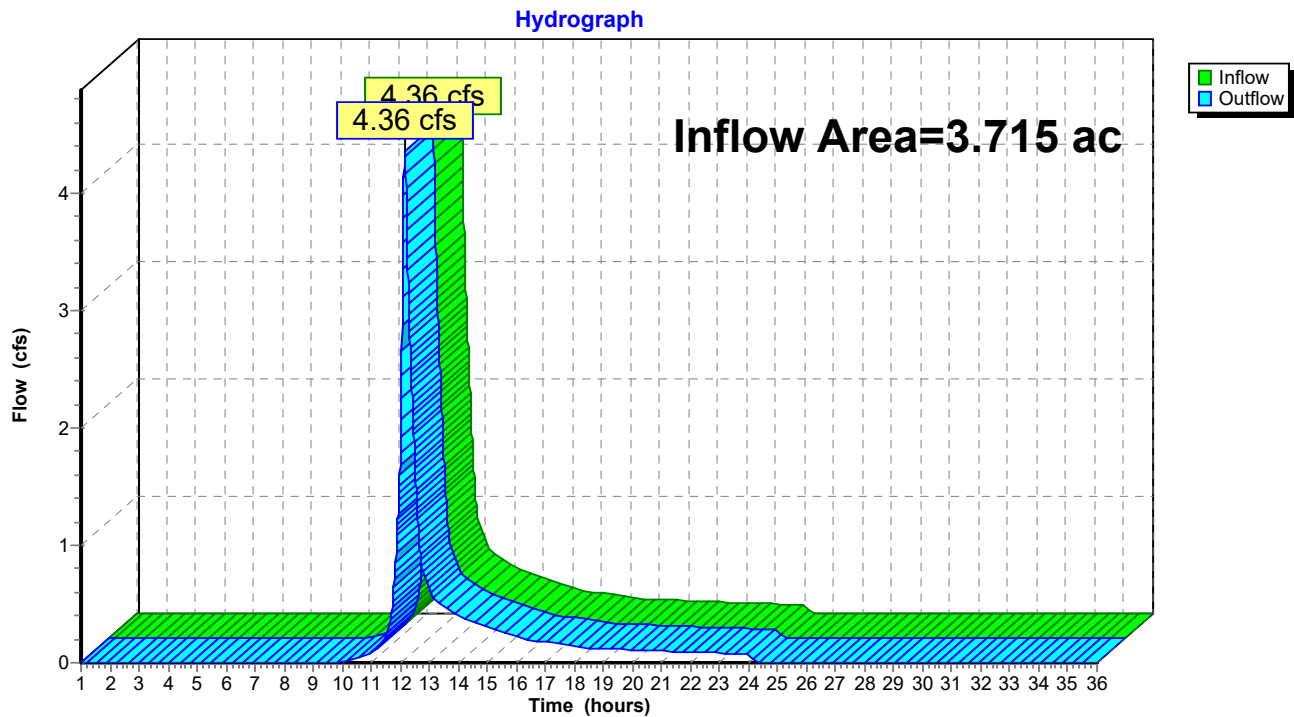
Routing by Dyn-Stor-Ind method, Time Span= 1.00-36.00 hrs, dt= 0.01 hrs

Reach 1R: POI #1 - Sherwood St.

Summary for Reach 2R: POI #2 - Wetland

Inflow Area = 3.715 ac, 1.34% Impervious, Inflow Depth = 1.20" for 2-year event
Inflow = 4.36 cfs @ 12.15 hrs, Volume= 0.372 af
Outflow = 4.36 cfs @ 12.15 hrs, Volume= 0.372 af, Atten= 0%, Lag= 0.0 min

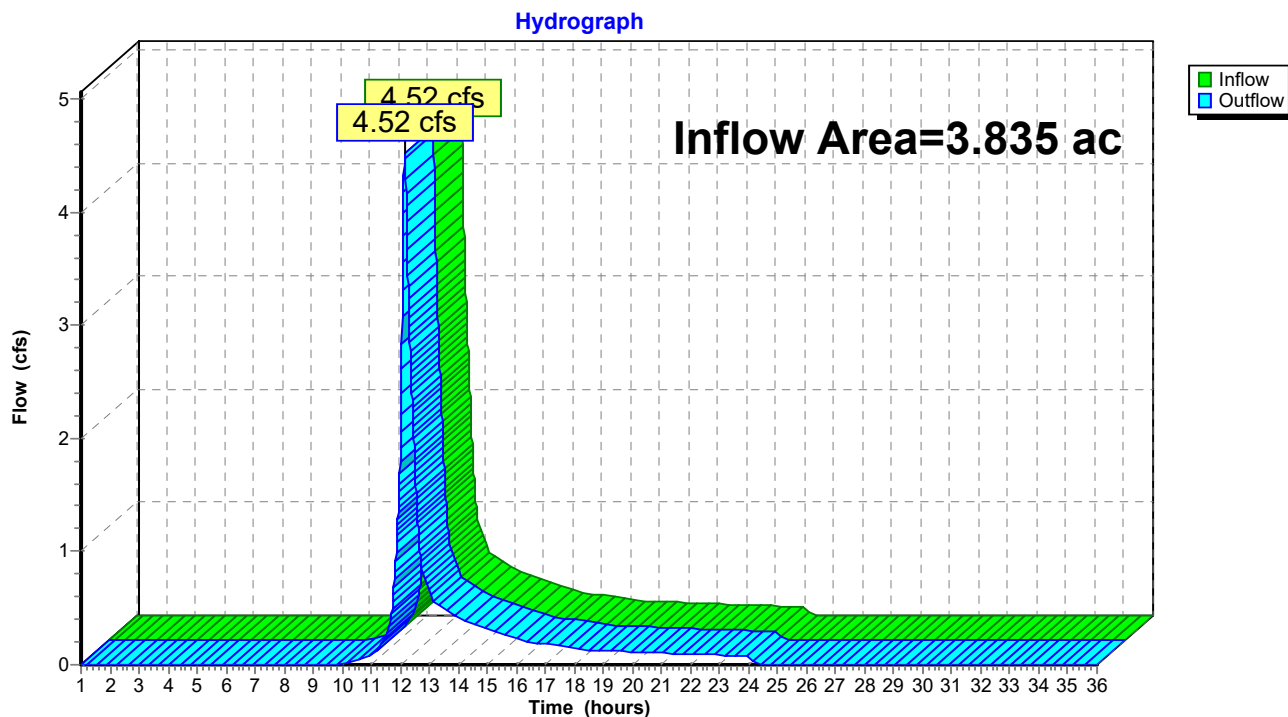
Routing by Dyn-Stor-Ind method, Time Span= 1.00-36.00 hrs, dt= 0.01 hrs

Reach 2R: POI #2 - Wetland

Summary for Reach 3R: POI #3 - TOTAL

Inflow Area = 3.835 ac, 1.34% Impervious, Inflow Depth = 1.21" for 2-year event
Inflow = 4.52 cfs @ 12.15 hrs, Volume= 0.386 af
Outflow = 4.52 cfs @ 12.15 hrs, Volume= 0.386 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 1.00-36.00 hrs, dt= 0.01 hrs

Reach 3R: POI #3 - TOTAL

Pre Development_4-20-21*Type III 24-hr 10-year Rainfall=4.60"*

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Time span=1.00-36.00 hrs, dt=0.01 hrs, 3501 points

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

Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment1S: Subcat 1

Runoff Area=5,216 sf 1.50% Impervious Runoff Depth=2.72"

Tc=6.0 min CN=82 Runoff=0.38 cfs 0.027 af

Subcatchment2S: Subcat 2

Runoff Area=161,833 sf 1.34% Impervious Runoff Depth=2.38"

Flow Length=244' Tc=10.6 min CN=78 Runoff=8.85 cfs 0.735 af

Reach 1R: POI #1 - Sherwood St.

Inflow=0.38 cfs 0.027 af

Outflow=0.38 cfs 0.027 af

Reach 2R: POI #2 - Wetland

Inflow=8.85 cfs 0.735 af

Outflow=8.85 cfs 0.735 af

Reach 3R: POI #3 - TOTAL

Inflow=9.16 cfs 0.763 af

Outflow=9.16 cfs 0.763 af

Total Runoff Area = 3.835 ac Runoff Volume = 0.763 af Average Runoff Depth = 2.39"
98.66% Pervious = 3.783 ac 1.34% Impervious = 0.052 ac

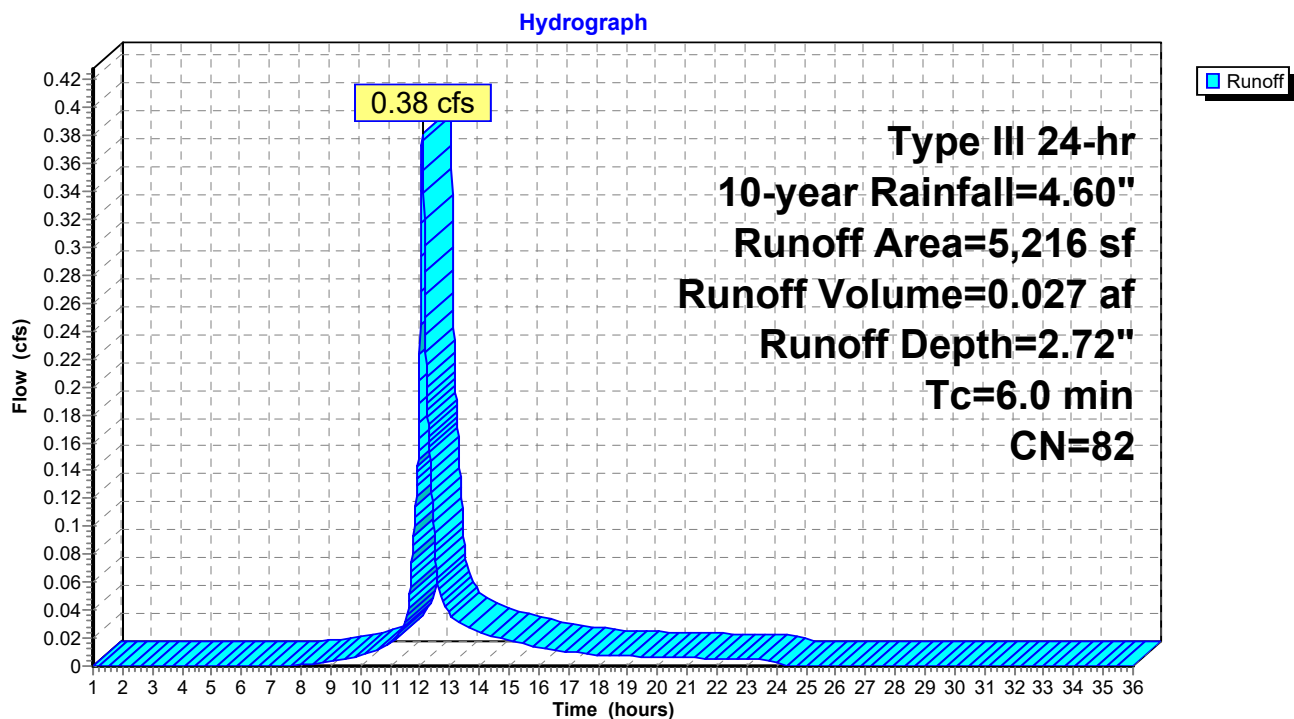
Summary for Subcatchment 1S: Subcat 1

Runoff = 0.38 cfs @ 12.09 hrs, Volume= 0.027 af, Depth= 2.72"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-year Rainfall=4.60"

Area (sf)	CN	Description
* 5,138	82	Woods/grass combo, Poor, HSG C
78	98	Unconnected roofs, HSG C
5,216	82	Weighted Average
5,138		98.50% Pervious Area
78		1.50% Impervious Area
78		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, Steep Slopes to Grassed Ditch

Subcatchment 1S: Subcat 1

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

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Summary for Subcatchment 2S: Subcat 2

Runoff = 8.85 cfs @ 12.15 hrs, Volume= 0.735 af, Depth= 2.38"

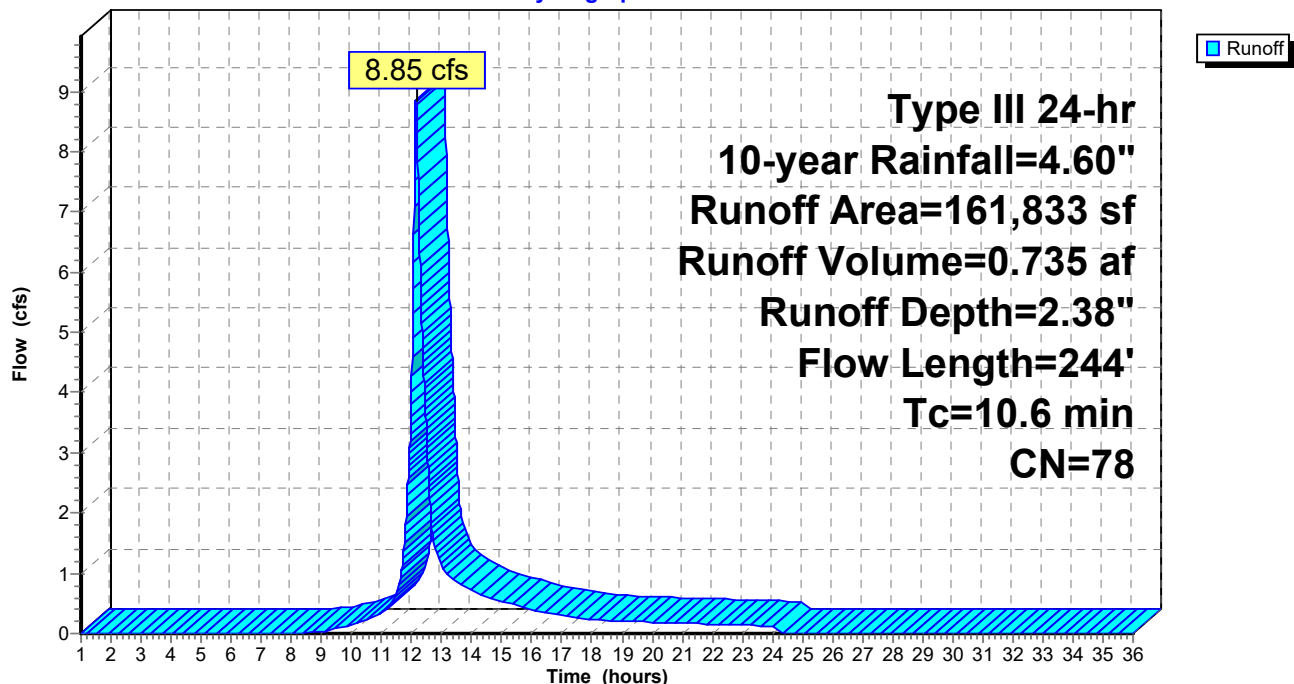
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-year Rainfall=4.60"

	Area (sf)	CN	Description
*	2,167	98	Roof Tops
*	105,916	82	Woods/grass comb., Poor, HSG C
	28,832	73	Woods/grass comb., Poor, HSG B
	18,938	61	>75% Grass cover, Good, HSG B
	5,980	74	>75% Grass cover, Good, HSG C
	161,833	78	Weighted Average
	159,666		98.66% Pervious Area
	2,167		1.34% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.7	100	0.0200	0.17		Sheet Flow, A to B Grass: Short n= 0.150 P2= 3.27"
0.7	110	0.0300	2.60		Shallow Concentrated Flow, B to C Grassed Waterway Kv= 15.0 fps
0.2	34	0.2400	2.45		Shallow Concentrated Flow, C to D Woodland Kv= 5.0 fps
10.6	244	Total			

Subcatchment 2S: Subcat 2

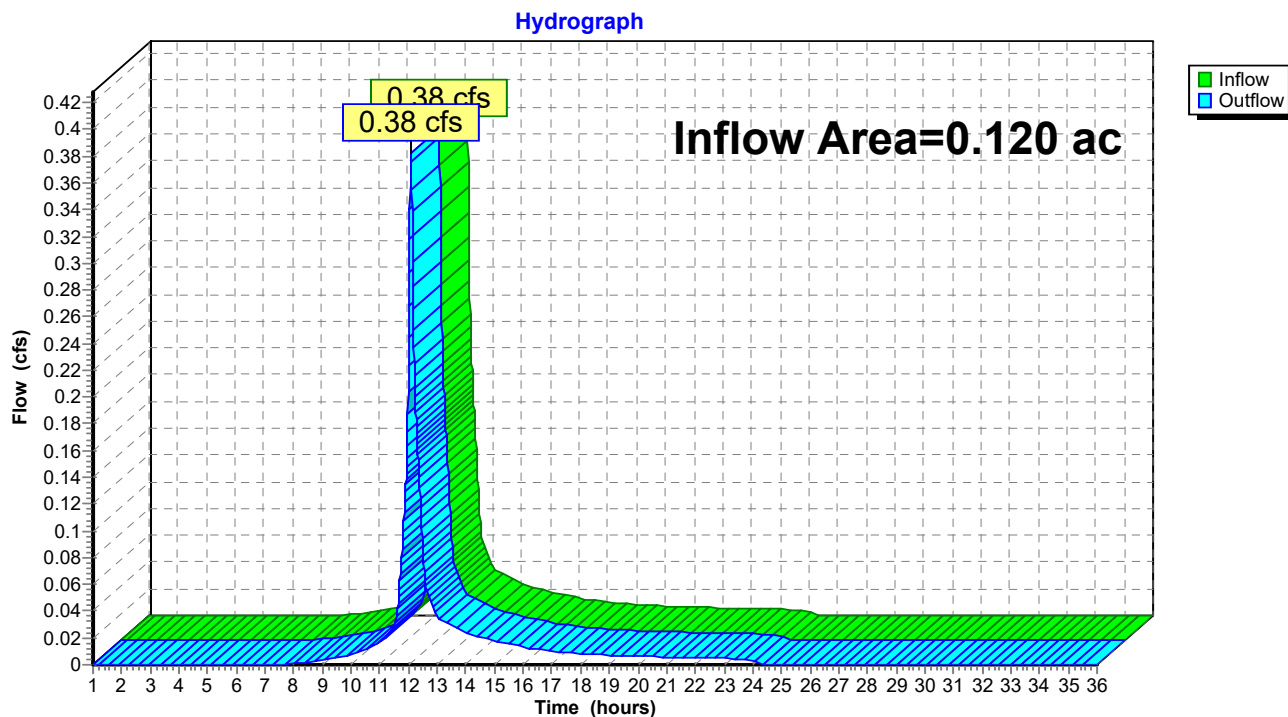
Hydrograph



Summary for Reach 1R: POI #1 - Sherwood St.

Inflow Area = 0.120 ac, 1.50% Impervious, Inflow Depth = 2.72" for 10-year event
Inflow = 0.38 cfs @ 12.09 hrs, Volume= 0.027 af
Outflow = 0.38 cfs @ 12.09 hrs, Volume= 0.027 af, Atten= 0%, Lag= 0.0 min

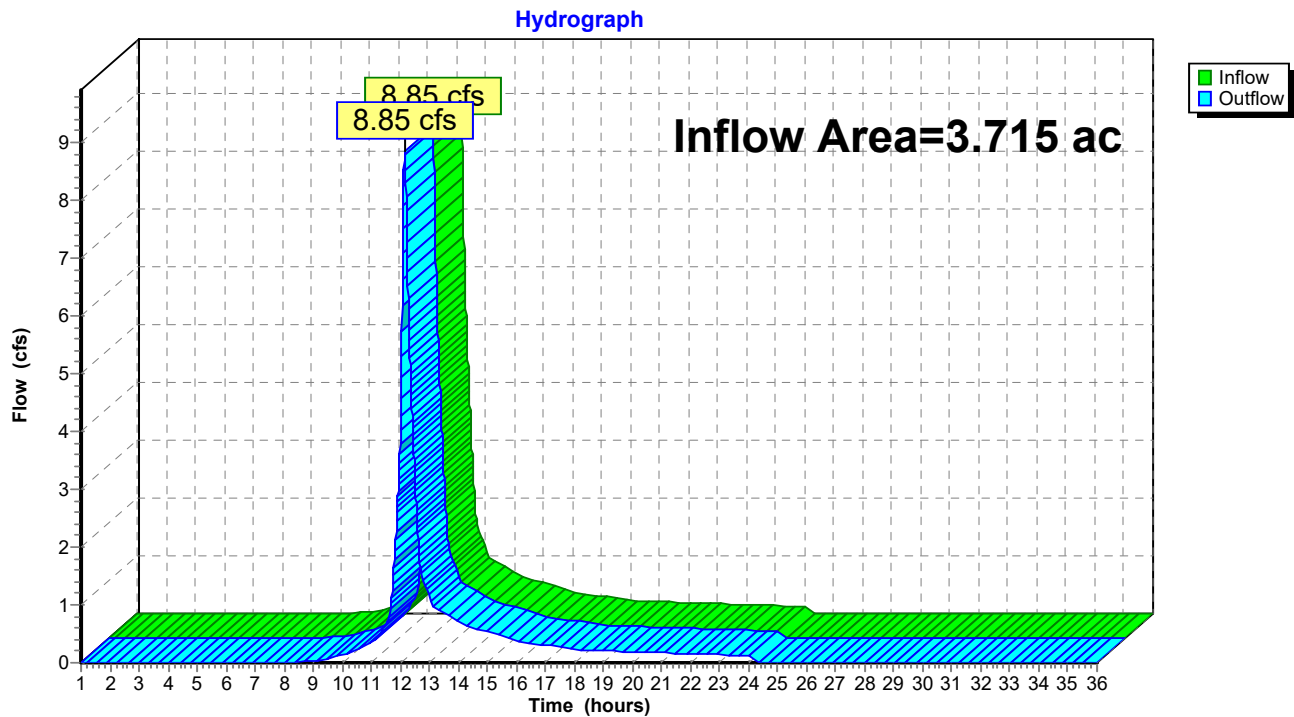
Routing by Dyn-Stor-Ind method, Time Span= 1.00-36.00 hrs, dt= 0.01 hrs

Reach 1R: POI #1 - Sherwood St.

Summary for Reach 2R: POI #2 - Wetland

Inflow Area = 3.715 ac, 1.34% Impervious, Inflow Depth = 2.38" for 10-year event
Inflow = 8.85 cfs @ 12.15 hrs, Volume= 0.735 af
Outflow = 8.85 cfs @ 12.15 hrs, Volume= 0.735 af, Atten= 0%, Lag= 0.0 min

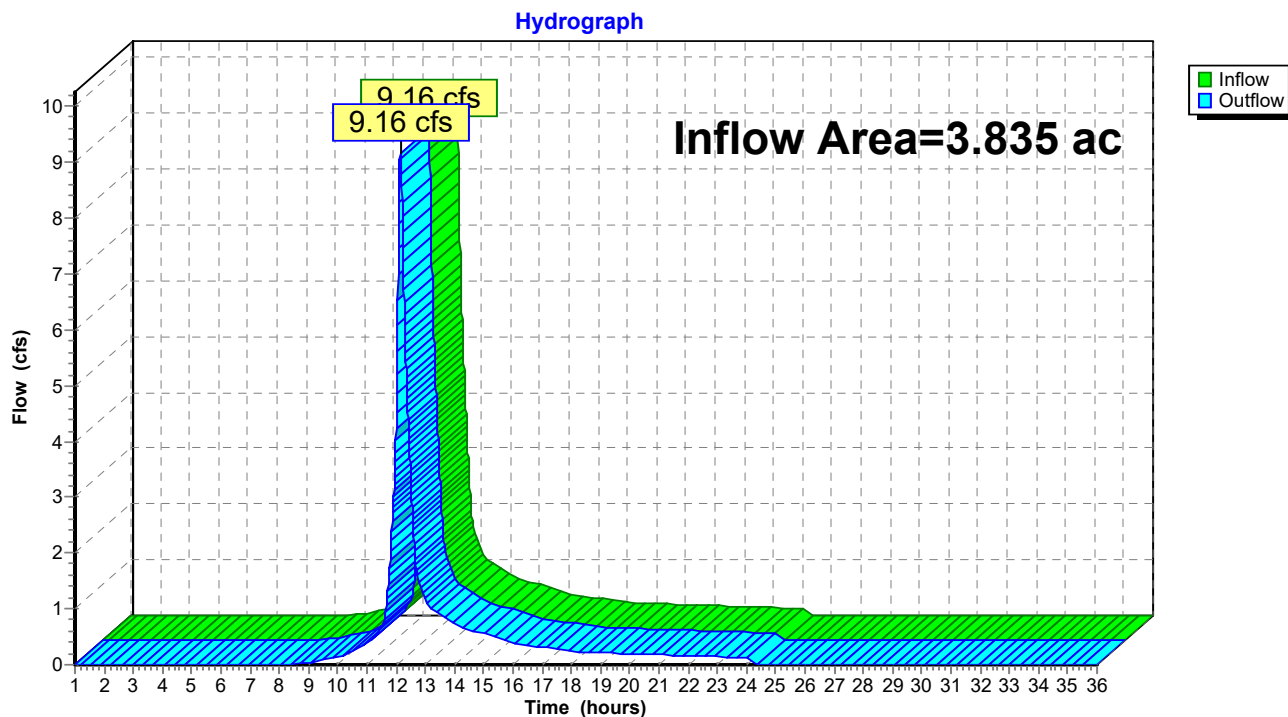
Routing by Dyn-Stor-Ind method, Time Span= 1.00-36.00 hrs, dt= 0.01 hrs

Reach 2R: POI #2 - Wetland

Summary for Reach 3R: POI #3 - TOTAL

Inflow Area = 3.835 ac, 1.34% Impervious, Inflow Depth = 2.39" for 10-year event
Inflow = 9.16 cfs @ 12.15 hrs, Volume= 0.763 af
Outflow = 9.16 cfs @ 12.15 hrs, Volume= 0.763 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 1.00-36.00 hrs, dt= 0.01 hrs

Reach 3R: POI #3 - TOTAL

Pre Development_4-20-21*Type III 24-hr 25-year Rainfall=5.80"*

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Time span=1.00-36.00 hrs, dt=0.01 hrs, 3501 points

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

Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment1S: Subcat 1

Runoff Area=5,216 sf 1.50% Impervious Runoff Depth=3.80"

Tc=6.0 min CN=82 Runoff=0.53 cfs 0.038 af

Subcatchment2S: Subcat 2

Runoff Area=161,833 sf 1.34% Impervious Runoff Depth=3.40"

Flow Length=244' Tc=10.6 min CN=78 Runoff=12.70 cfs 1.054 af

Reach 1R: POI #1 - Sherwood St.

Inflow=0.53 cfs 0.038 af

Outflow=0.53 cfs 0.038 af

Reach 2R: POI #2 - Wetland

Inflow=12.70 cfs 1.054 af

Outflow=12.70 cfs 1.054 af

Reach 3R: POI #3 - TOTAL

Inflow=13.13 cfs 1.091 af

Outflow=13.13 cfs 1.091 af

Total Runoff Area = 3.835 ac Runoff Volume = 1.091 af Average Runoff Depth = 3.42"
98.66% Pervious = 3.783 ac 1.34% Impervious = 0.052 ac

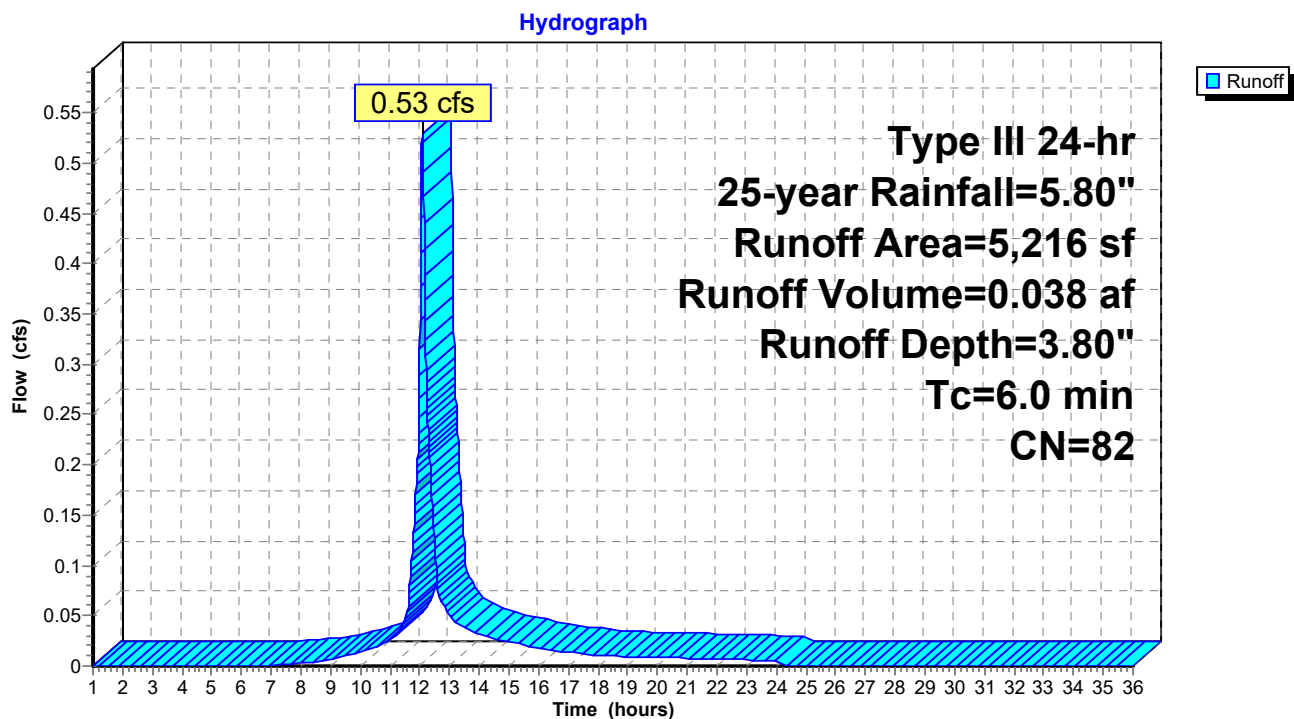
Summary for Subcatchment 1S: Subcat 1

Runoff = 0.53 cfs @ 12.09 hrs, Volume= 0.038 af, Depth= 3.80"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-year Rainfall=5.80"

	Area (sf)	CN	Description
*	5,138	82	Woods/grass combo, Poor, HSG C
	78	98	Unconnected roofs, HSG C
	5,216	82	Weighted Average
	5,138		98.50% Pervious Area
	78		1.50% Impervious Area
	78		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, Steep Slopes to Grassed Ditch

Subcatchment 1S: Subcat 1

Summary for Subcatchment 2S: Subcat 2

Runoff = 12.70 cfs @ 12.15 hrs, Volume= 1.054 af, Depth= 3.40"

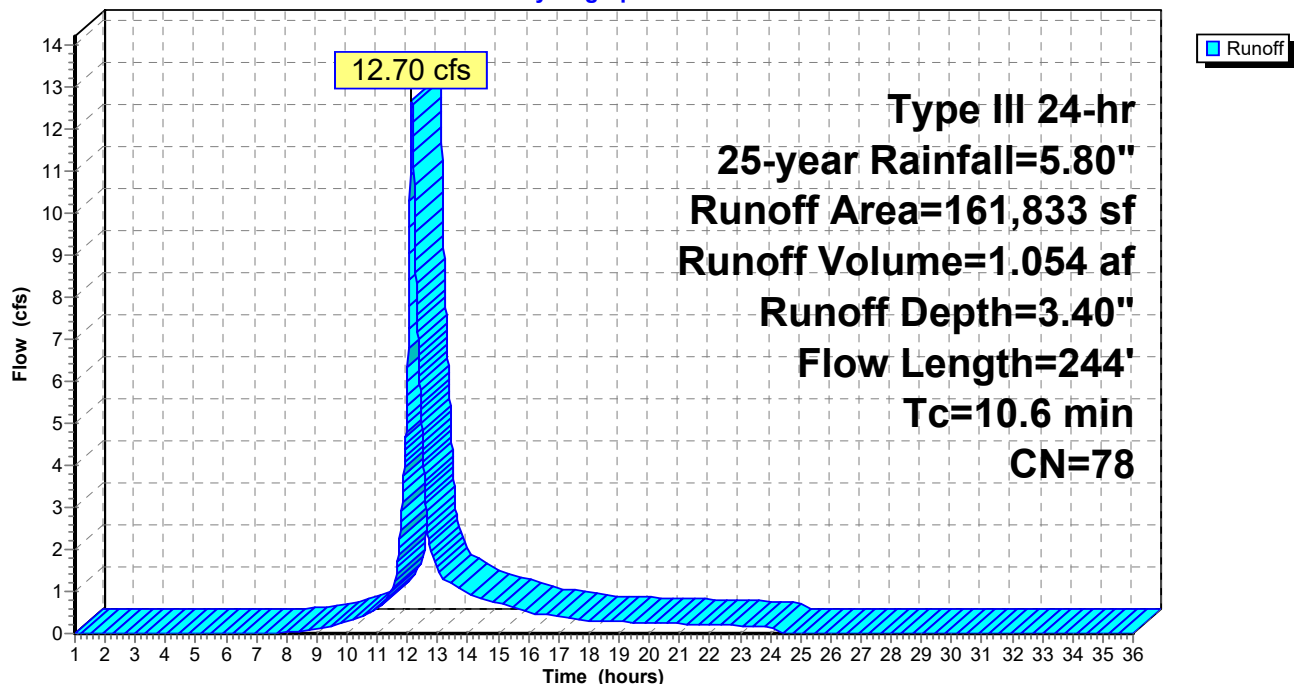
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-year Rainfall=5.80"

Area (sf)	CN	Description
* 2,167	98	Roof Tops
* 105,916	82	Woods/grass comb., Poor, HSG C
28,832	73	Woods/grass comb., Poor, HSG B
18,938	61	>75% Grass cover, Good, HSG B
5,980	74	>75% Grass cover, Good, HSG C
161,833	78	Weighted Average
159,666		98.66% Pervious Area
2,167		1.34% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.7	100	0.0200	0.17		Sheet Flow, A to B Grass: Short n= 0.150 P2= 3.27"
0.7	110	0.0300	2.60		Shallow Concentrated Flow, B to C Grassed Waterway Kv= 15.0 fps
0.2	34	0.2400	2.45		Shallow Concentrated Flow, C to D Woodland Kv= 5.0 fps
10.6	244	Total			

Subcatchment 2S: Subcat 2

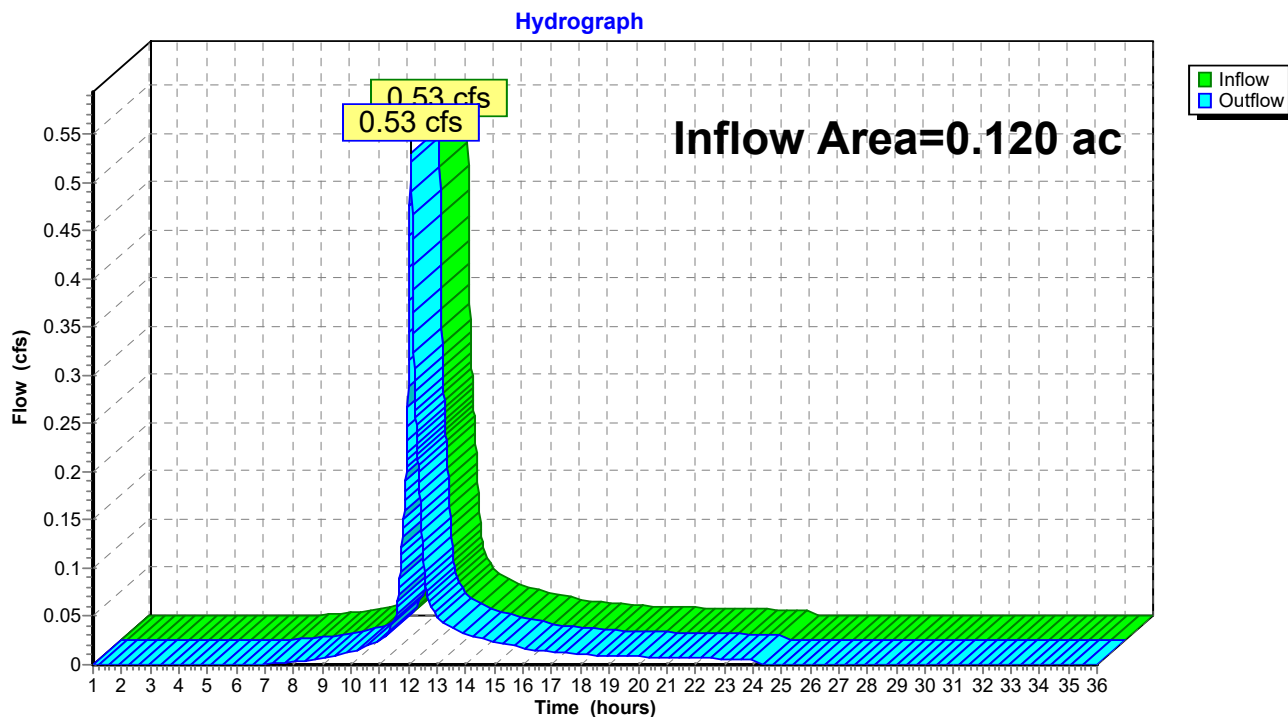
Hydrograph



Summary for Reach 1R: POI #1 - Sherwood St.

Inflow Area = 0.120 ac, 1.50% Impervious, Inflow Depth = 3.80" for 25-year event
Inflow = 0.53 cfs @ 12.09 hrs, Volume= 0.038 af
Outflow = 0.53 cfs @ 12.09 hrs, Volume= 0.038 af, Atten= 0%, Lag= 0.0 min

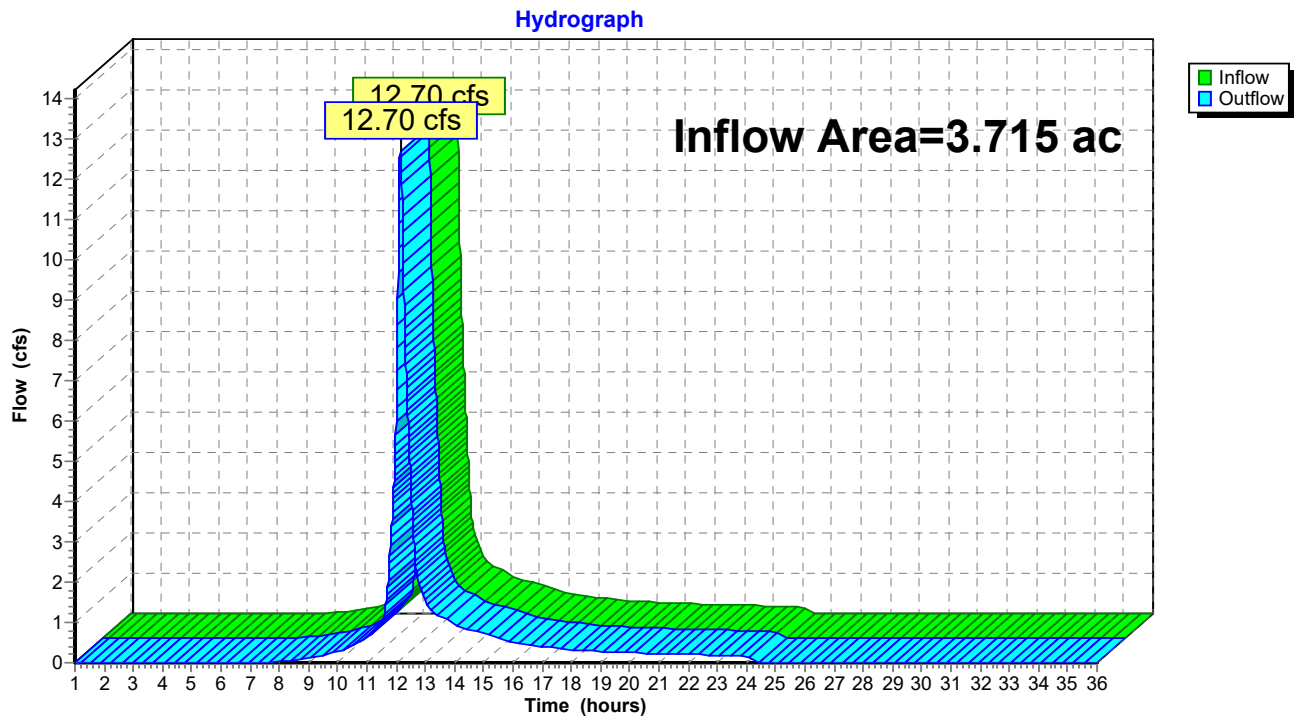
Routing by Dyn-Stor-Ind method, Time Span= 1.00-36.00 hrs, dt= 0.01 hrs

Reach 1R: POI #1 - Sherwood St.

Summary for Reach 2R: POI #2 - Wetland

Inflow Area = 3.715 ac, 1.34% Impervious, Inflow Depth = 3.40" for 25-year event
Inflow = 12.70 cfs @ 12.15 hrs, Volume= 1.054 af
Outflow = 12.70 cfs @ 12.15 hrs, Volume= 1.054 af, Atten= 0%, Lag= 0.0 min

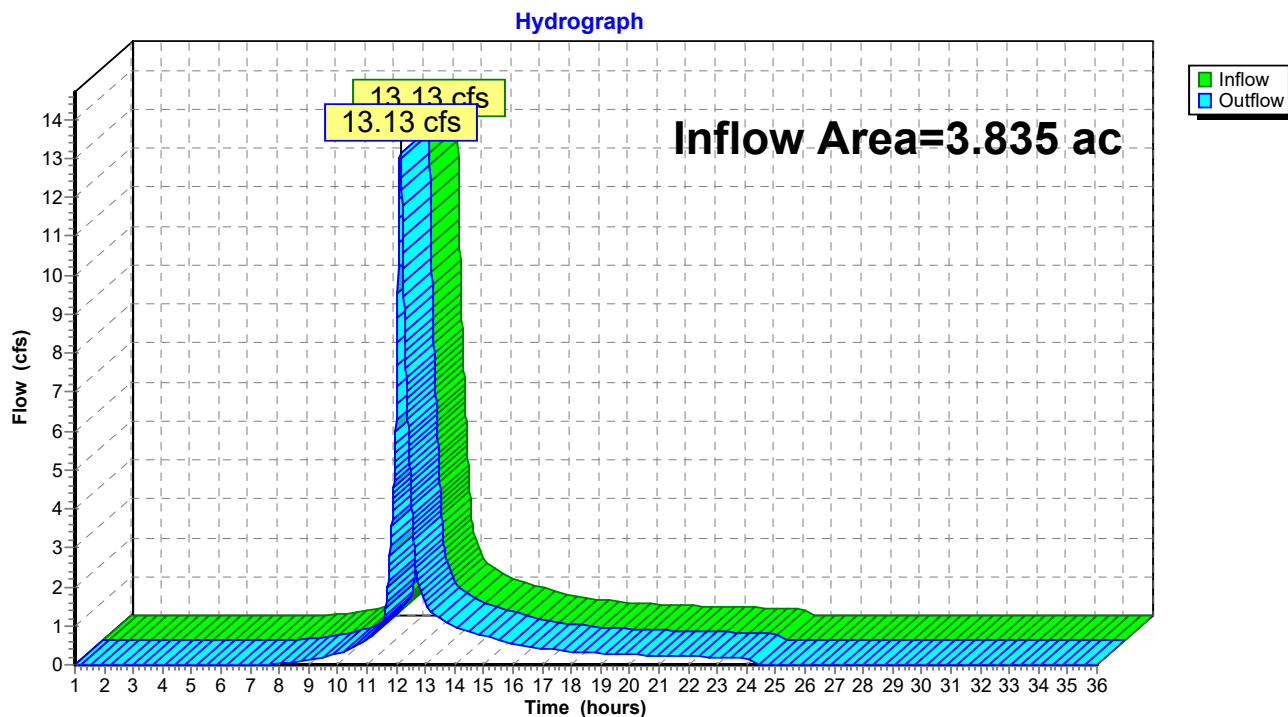
Routing by Dyn-Stor-Ind method, Time Span= 1.00-36.00 hrs, dt= 0.01 hrs

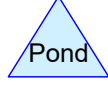
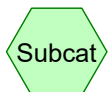
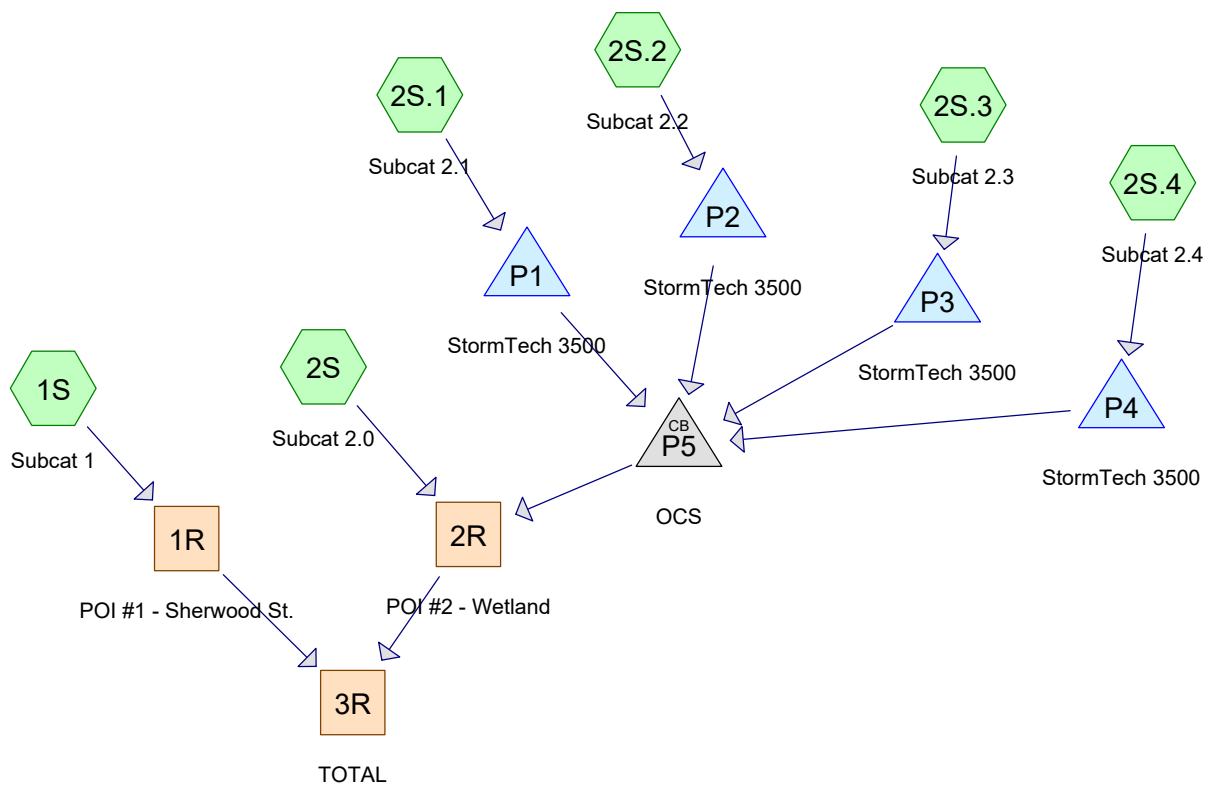
Reach 2R: POI #2 - Wetland

Summary for Reach 3R: POI #3 - TOTAL

Inflow Area = 3.835 ac, 1.34% Impervious, Inflow Depth = 3.42" for 25-year event
Inflow = 13.13 cfs @ 12.14 hrs, Volume= 1.091 af
Outflow = 13.13 cfs @ 12.14 hrs, Volume= 1.091 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 1.00-36.00 hrs, dt= 0.01 hrs

Reach 3R: POI #3 - TOTAL



Routing Diagram for Post Development_4-21-21
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Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.580	61	>75% Grass cover, Good, HSG B (2S)
1.253	74	>75% Grass cover, Good, HSG C (2S, 2S.1, 2S.2, 2S.3, 2S.4)
0.066	98	Concrete Pads / Patio / Stairs (2S)
0.137	70	Cr. Stone (2S)
0.047	70	Cr. Stone/Misc. Vegetation (1S)
0.152	98	Pavement (2S.1)
1.016	98	Pavement/Roofs (2S.2, 2S.3, 2S.4)
0.053	98	Road/Sidewalk (1S)
0.529	66	Woods, Poor, HSG B (2S)
3.835	79	TOTAL AREA

Post Development_4-21-21

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Soil Listing (all nodes)

Area (acres)	Soil Group	Subcatchment Numbers
0.000	HSG A	
1.109	HSG B	2S
1.253	HSG C	2S, 2S.1, 2S.2, 2S.3, 2S.4
0.000	HSG D	
1.473	Other	1S, 2S, 2S.1, 2S.2, 2S.3, 2S.4
3.835		TOTAL AREA

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Ground Covers (all nodes)

HSG-A (acres)	HSG-B (acres)	HSG-C (acres)	HSG-D (acres)	Other (acres)	Total (acres)	Ground Cover	Subcatchment Numbers
0.000	0.580	1.253	0.000	0.000	1.833	>75% Grass cover, Good	2S, 2S.1, 2S.2, 2S.3, 2S.4
0.000	0.000	0.000	0.000	0.066	0.066	Concrete Pads / Patio / Stairs	2S
0.000	0.000	0.000	0.000	0.137	0.137	Cr. Stone	2S
0.000	0.000	0.000	0.000	0.047	0.047	Cr. Stone/Misc. Vegetation	1S
0.000	0.000	0.000	0.000	0.152	0.152	Pavement	2S.1
0.000	0.000	0.000	0.000	1.016	1.016	Pavement/Roofs	2S.2, 2S.3, 2S.4
0.000	0.000	0.000	0.000	0.053	0.053	Road/Sidewalk	1S
0.000	0.529	0.000	0.000	0.000	0.529	Woods, Poor	2S
0.000	1.109	1.253	0.000	1.473	3.835	TOTAL AREA	

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Pipe Listing (all nodes)

Line#	Node Number	In-Invert (feet)	Out-Invert (feet)	Length (feet)	Slope (ft/ft)	n	Diam/Width (inches)	Height (inches)	Inside-Fill (inches)
1	P1	18.80	14.00	20.0	0.2400	0.010	12.0	0.0	0.0
2	P1	13.60	10.00	125.0	0.0288	0.010	1.0	0.0	0.0
3	P2	12.80	12.70	10.0	0.0100	0.010	1.5	0.0	0.0
4	P2	18.00	17.25	4.0	0.1875	0.010	12.0	0.0	0.0
5	P3	11.58	11.40	10.0	0.0180	0.010	1.5	0.0	0.0
6	P3	16.80	16.00	5.5	0.1455	0.010	12.0	0.0	0.0
7	P4	10.83	10.75	20.0	0.0040	0.010	2.0	0.0	0.0
8	P4	16.05	15.00	10.0	0.1050	0.010	12.0	0.0	0.0
9	P5	7.95	7.80	34.0	0.0044	0.010	18.0	0.0	0.0

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

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Time span=1.00-36.00 hrs, dt=0.01 hrs, 3501 points x 2

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

Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment1S: Subcat 1	Runoff Area=4,385 sf 53.04% Impervious Runoff Depth=1.67" Tc=6.0 min CN=85 Runoff=0.20 cfs 0.014 af
Subcatchment2S: Subcat 2.0	Runoff Area=107,660 sf 2.68% Impervious Runoff Depth=0.77" Flow Length=244' Tc=10.6 min CN=70 Runoff=1.67 cfs 0.159 af
Subcatchment2S.1: Subcat 2.1	Runoff Area=6,893 sf 96.29% Impervious Runoff Depth=2.76" Tc=6.0 min CN=97 Runoff=0.47 cfs 0.036 af
Subcatchment2S.2: Subcat 2.2	Runoff Area=14,770 sf 89.87% Impervious Runoff Depth=2.65" Tc=6.0 min CN=96 Runoff=0.98 cfs 0.075 af
Subcatchment2S.3: Subcat 2.3	Runoff Area=14,303 sf 93.50% Impervious Runoff Depth=2.65" Tc=6.0 min CN=96 Runoff=0.95 cfs 0.073 af
Subcatchment2S.4: Subcat 2.4	Runoff Area=19,053 sf 92.42% Impervious Runoff Depth=2.65" Tc=6.0 min CN=96 Runoff=1.27 cfs 0.097 af
Reach 1R: POI #1 - Sherwood St.	Inflow=0.20 cfs 0.014 af Outflow=0.20 cfs 0.014 af
Reach 2R: POI #2 - Wetland	Inflow=2.00 cfs 0.436 af Outflow=2.00 cfs 0.436 af
Reach 3R: TOTAL	Inflow=2.15 cfs 0.450 af Outflow=2.15 cfs 0.450 af
Pond P1: StormTech 3500	Peak Elev=18.69' Storage=956 cf Inflow=0.47 cfs 0.036 af Outflow=0.02 cfs 0.034 af
Pond P2: StormTech 3500	Peak Elev=17.33' Storage=1,477 cf Inflow=0.98 cfs 0.075 af Outflow=0.09 cfs 0.075 af
Pond P3: StormTech 3500	Peak Elev=16.01' Storage=1,416 cf Inflow=0.95 cfs 0.073 af Outflow=0.09 cfs 0.072 af
Pond P4: StormTech 3500	Peak Elev=15.28' Storage=1,763 cf Inflow=1.27 cfs 0.097 af Outflow=0.15 cfs 0.097 af
Pond P5: OCS	Peak Elev=10.42' Inflow=0.35 cfs 0.278 af Outflow=0.35 cfs 0.278 af

Total Runoff Area = 3.835 ac Runoff Volume = 0.453 af Average Runoff Depth = 1.42"
66.42% Pervious = 2.547 ac 33.58% Impervious = 1.288 ac

Summary for Subcatchment 1S: Subcat 1

Runoff = 0.20 cfs @ 12.09 hrs, Volume= 0.014 af, Depth= 1.67"

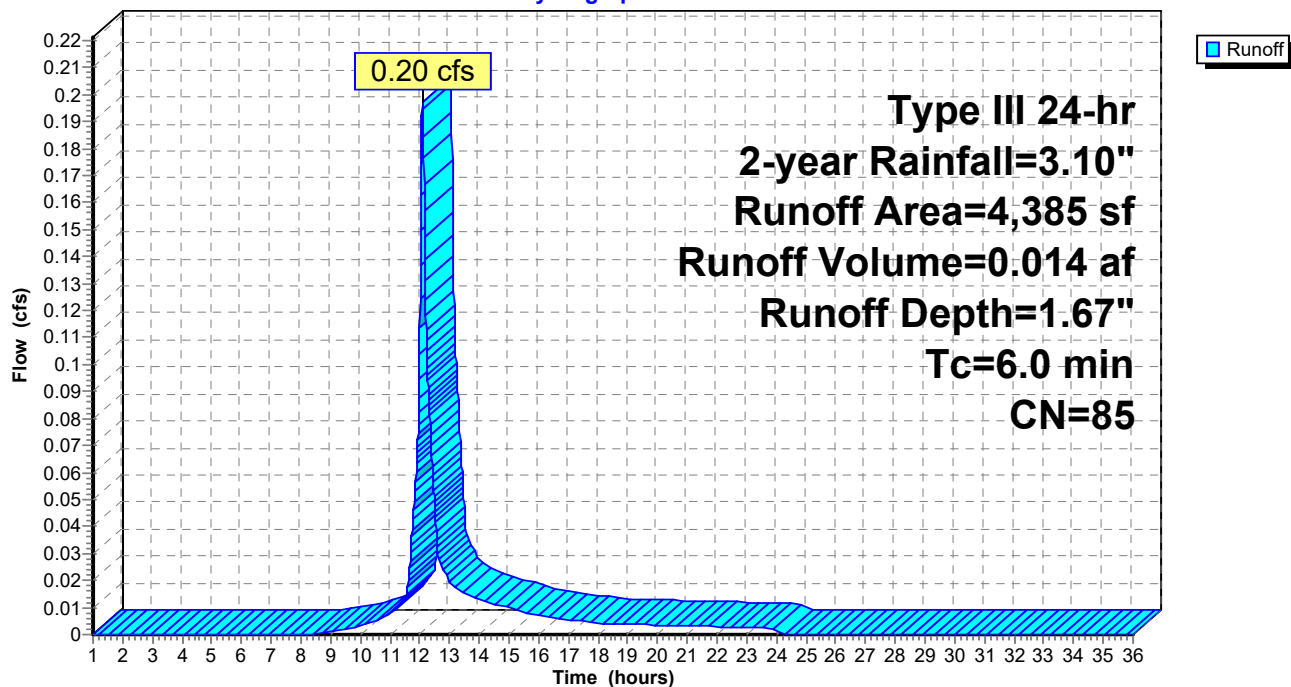
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-year Rainfall=3.10"

	Area (sf)	CN	Description
*	2,059	70	Cr. Stone/Misc. Vegetation
*	2,326	98	Road/Sidewalk
	4,385	85	Weighted Average
	2,059		46.96% Pervious Area
	2,326		53.04% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, Steep banks to pipe flow

Subcatchment 1S: Subcat 1

Hydrograph



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

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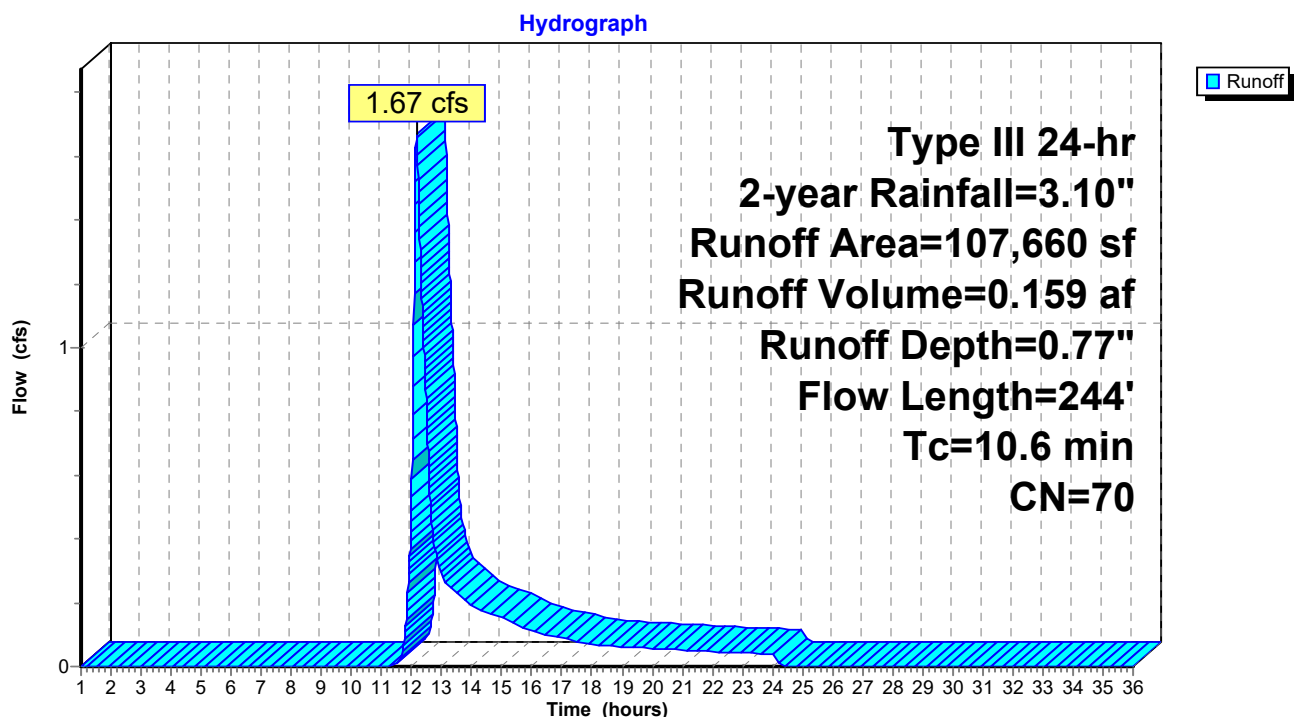
Summary for Subcatchment 2S: Subcat 2.0

Runoff = 1.67 cfs @ 12.17 hrs, Volume= 0.159 af, Depth= 0.77"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-year Rainfall=3.10"

Area (sf)	CN	Description
* 2,882	98	Concrete Pads / Patio / Stairs
23,059	66	Woods, Poor, HSG B
* 5,983	70	Cr. Stone
50,476	74	>75% Grass cover, Good, HSG C
25,260	61	>75% Grass cover, Good, HSG B
107,660	70	Weighted Average
104,778		97.32% Pervious Area
2,882		2.68% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.7	100	0.0200	0.17		Sheet Flow, A to B Grass: Short n= 0.150 P2= 3.27"
0.7	110	0.0300	2.60		Shallow Concentrated Flow, B to C Grassed Waterway Kv= 15.0 fps
0.2	34	0.2400	3.43		Shallow Concentrated Flow, C to D Short Grass Pasture Kv= 7.0 fps
10.6	244	Total			

Subcatchment 2S: Subcat 2.0

Summary for Subcatchment 2S.1: Subcat 2.1

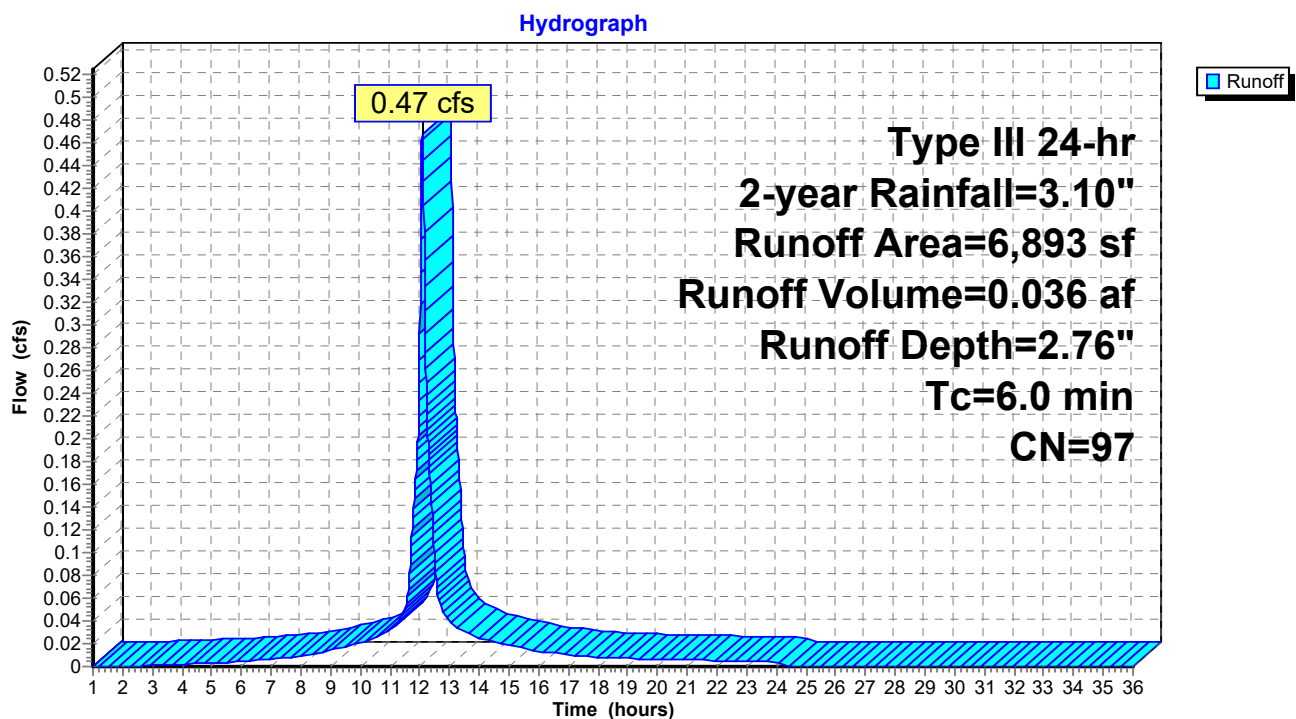
Runoff = 0.47 cfs @ 12.08 hrs, Volume= 0.036 af, Depth= 2.76"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-year Rainfall=3.10"

	Area (sf)	CN	Description
*	6,637	98	Pavement
	256	74	>75% Grass cover, Good, HSG C
	6,893	97	Weighted Average
	256		3.71% Pervious Area
	6,637		96.29% Impervious Area

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

Subcatchment 2S.1: Subcat 2.1



Summary for Subcatchment 2S.2: Subcat 2.2

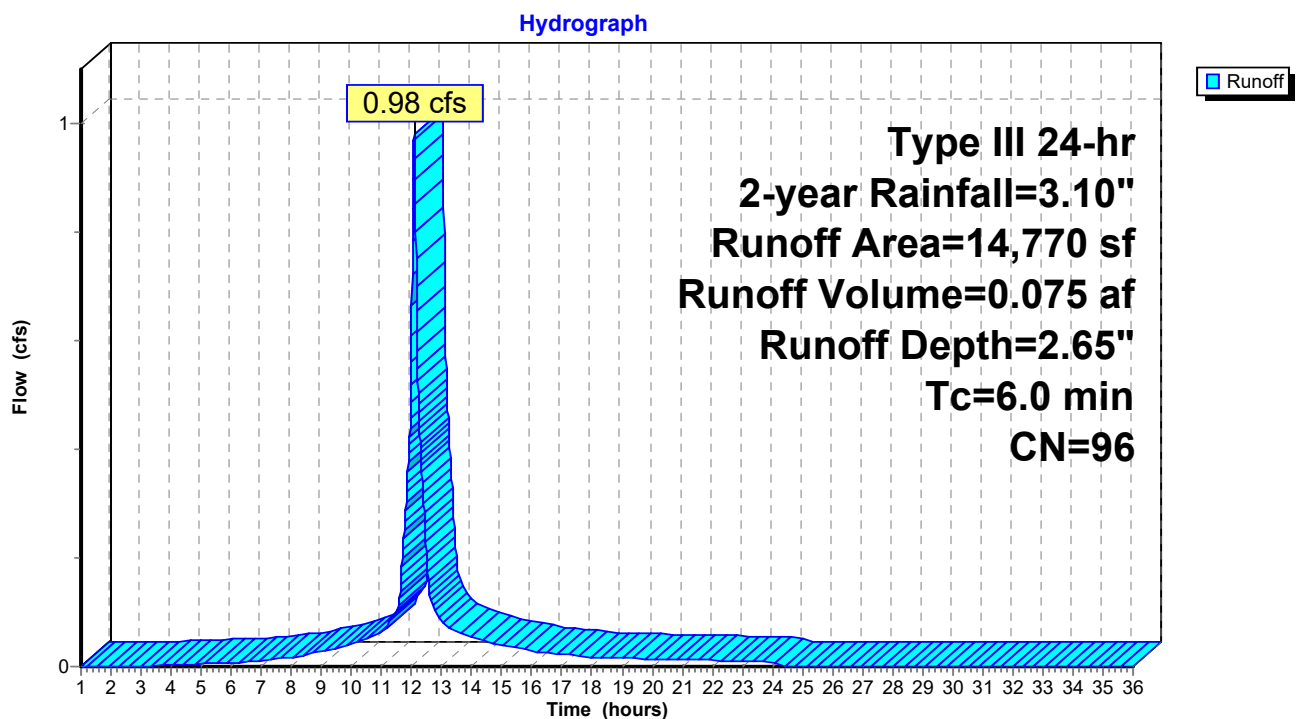
Runoff = 0.98 cfs @ 12.08 hrs, Volume= 0.075 af, Depth= 2.65"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-year Rainfall=3.10"

	Area (sf)	CN	Description
*	13,274	98	Pavement/Roofs
	1,496	74	>75% Grass cover, Good, HSG C
	14,770	96	Weighted Average
	1,496		10.13% Pervious Area
	13,274		89.87% Impervious Area

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

Subcatchment 2S.2: Subcat 2.2



Summary for Subcatchment 2S.3: Subcat 2.3

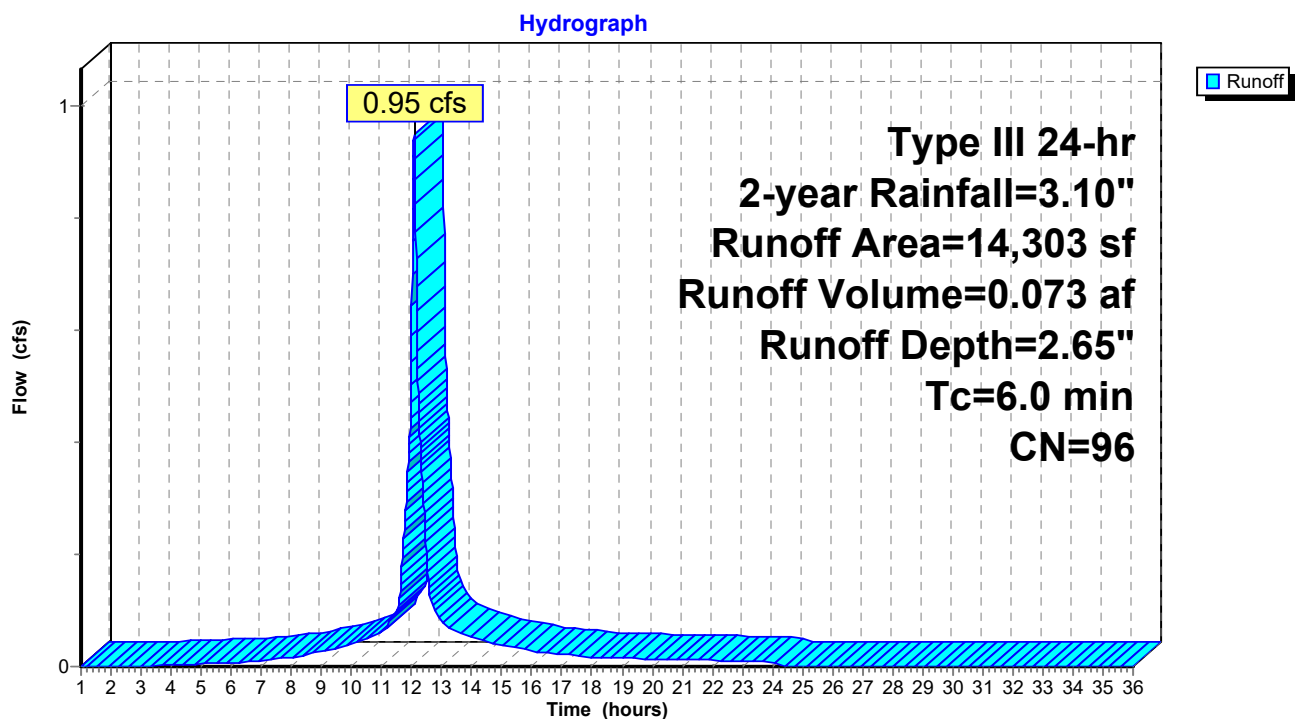
Runoff = 0.95 cfs @ 12.08 hrs, Volume= 0.073 af, Depth= 2.65"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-year Rainfall=3.10"

	Area (sf)	CN	Description
*	13,373	98	Pavement/Roofs
	930	74	>75% Grass cover, Good, HSG C
	14,303	96	Weighted Average
	930		6.50% Pervious Area
	13,373		93.50% Impervious Area

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

Subcatchment 2S.3: Subcat 2.3



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

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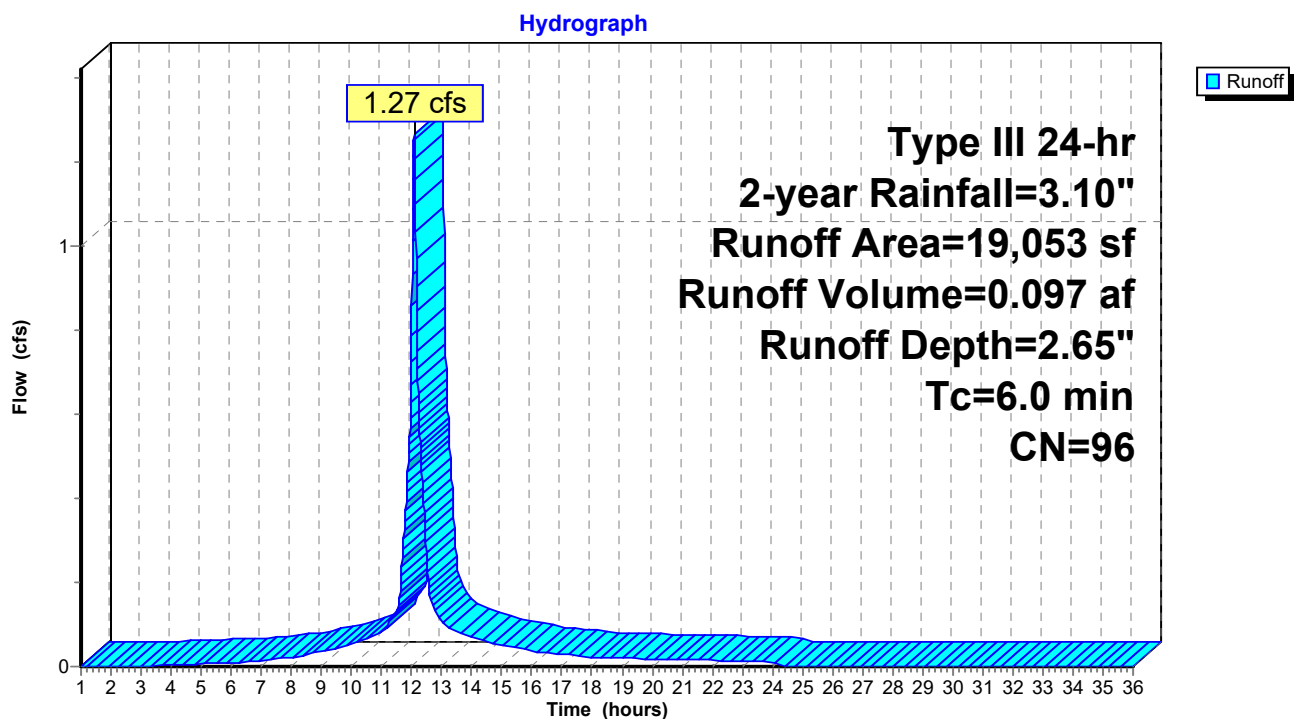
Summary for Subcatchment 2S.4: Subcat 2.4

Runoff = 1.27 cfs @ 12.08 hrs, Volume= 0.097 af, Depth= 2.65"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-year Rainfall=3.10"

	Area (sf)	CN	Description
*	17,609	98	Pavement/Roofs
	1,444	74	>75% Grass cover, Good, HSG C
	19,053	96	Weighted Average
	1,444		7.58% Pervious Area
	17,609		92.42% Impervious Area

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

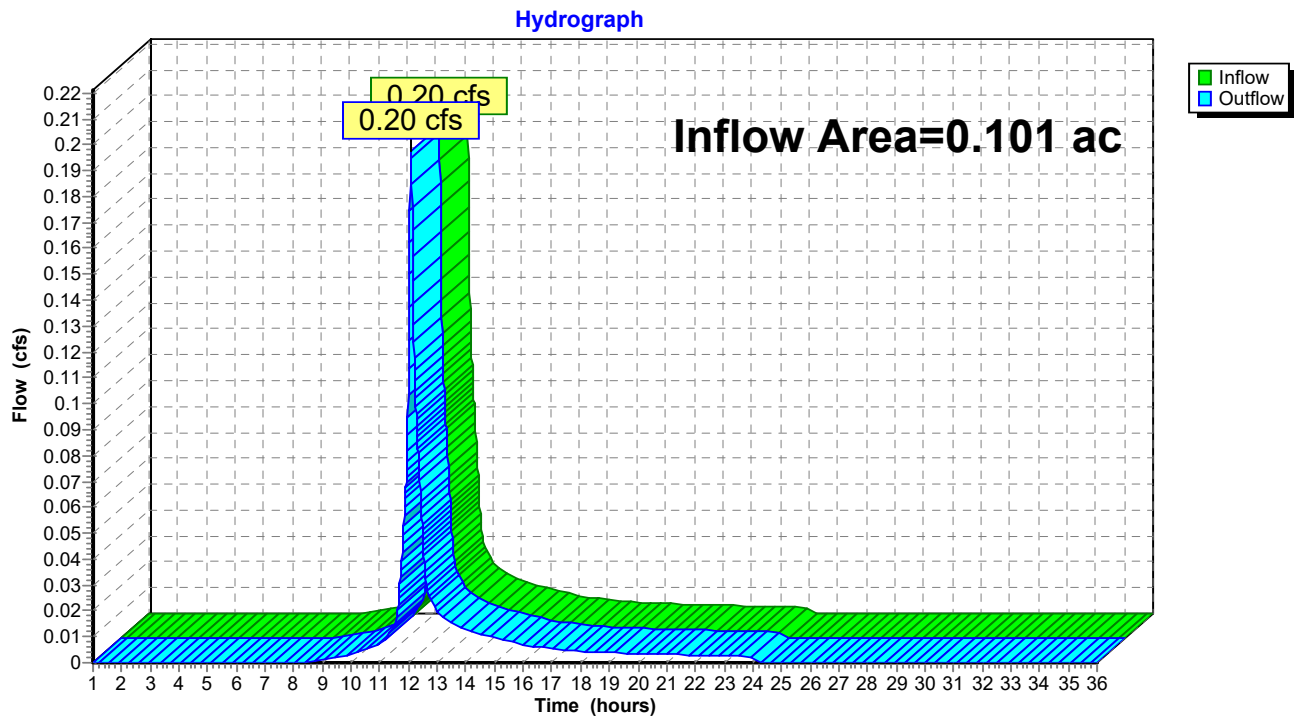
Subcatchment 2S.4: Subcat 2.4

Summary for Reach 1R: POI #1 - Sherwood St.

Inflow Area = 0.101 ac, 53.04% Impervious, Inflow Depth = 1.67" for 2-year event
 Inflow = 0.20 cfs @ 12.09 hrs, Volume= 0.014 af
 Outflow = 0.20 cfs @ 12.09 hrs, Volume= 0.014 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 1.00-36.00 hrs, dt= 0.01 hrs / 2

Reach 1R: POI #1 - Sherwood St.

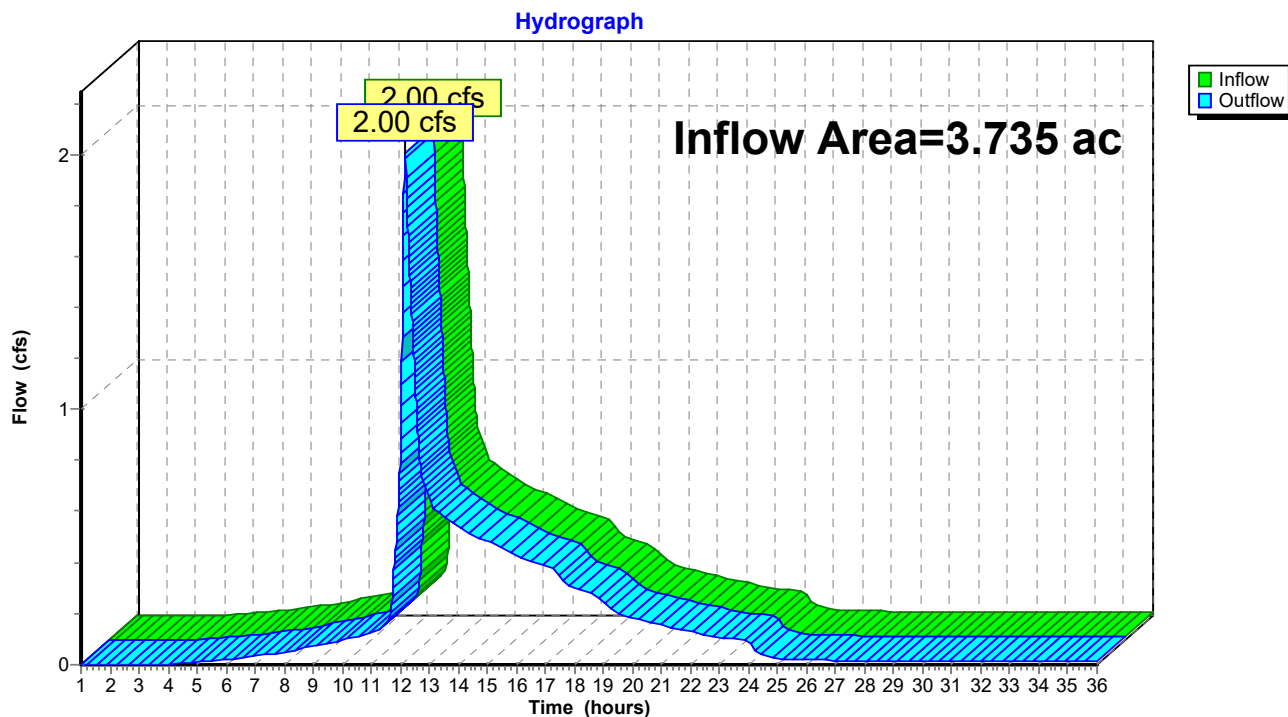


Summary for Reach 2R: POI #2 - Wetland

Inflow Area = 3.735 ac, 33.06% Impervious, Inflow Depth > 1.40" for 2-year event
 Inflow = 2.00 cfs @ 12.17 hrs, Volume= 0.436 af
 Outflow = 2.00 cfs @ 12.17 hrs, Volume= 0.436 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 1.00-36.00 hrs, dt= 0.01 hrs / 2

Reach 2R: POI #2 - Wetland



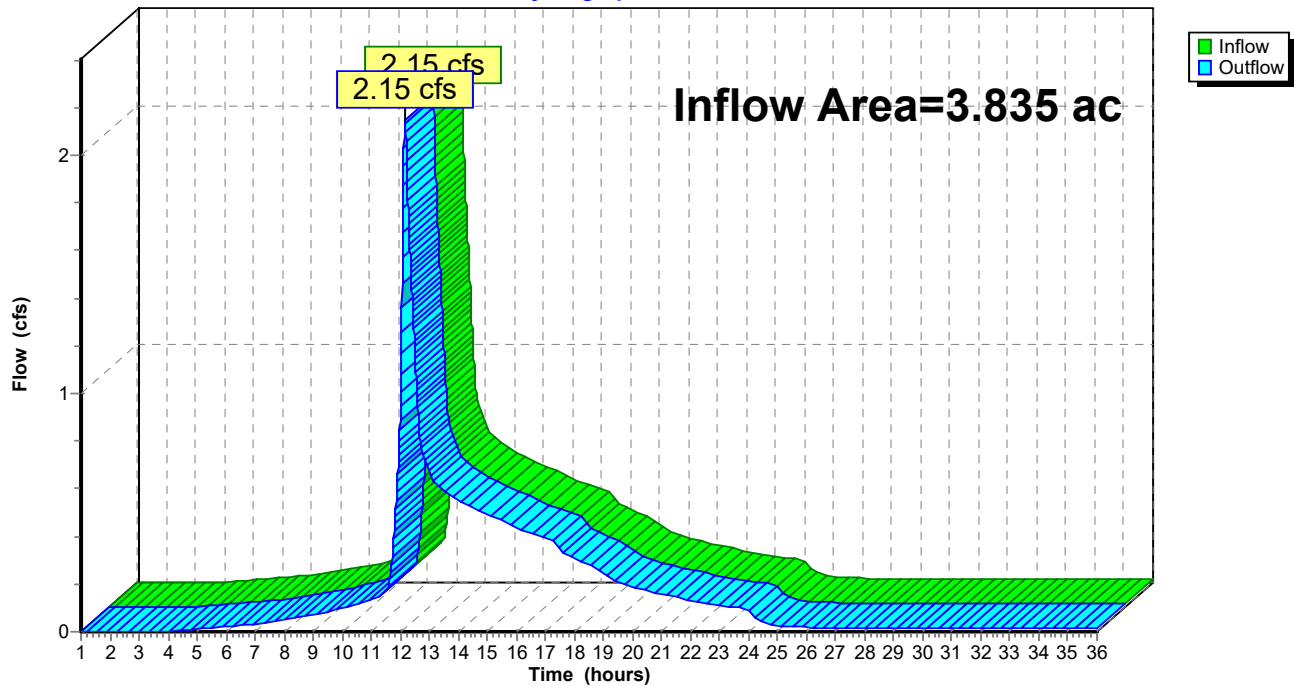
Summary for Reach 3R: TOTAL

Inflow Area = 3.835 ac, 33.58% Impervious, Inflow Depth > 1.41" for 2-year event
 Inflow = 2.15 cfs @ 12.16 hrs, Volume= 0.450 af
 Outflow = 2.15 cfs @ 12.16 hrs, Volume= 0.450 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 1.00-36.00 hrs, dt= 0.01 hrs / 2

Reach 3R: TOTAL

Hydrograph



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Summary for Pond P1: StormTech 3500

Inflow Area = 0.158 ac, 96.29% Impervious, Inflow Depth = 2.76" for 2-year event
 Inflow = 0.47 cfs @ 12.08 hrs, Volume= 0.036 af
 Outflow = 0.02 cfs @ 15.54 hrs, Volume= 0.034 af, Atten= 97%, Lag= 207.2 min
 Primary = 0.02 cfs @ 15.54 hrs, Volume= 0.034 af

Routing by Dyn-Stor-Ind method, Time Span= 1.00-36.00 hrs, dt= 0.01 hrs / 2
 Peak Elev= 18.69' @ 15.54 hrs Surf.Area= 1,247 sf Storage= 956 cf

Plug-Flow detention time= 565.9 min calculated for 0.034 af (93% of inflow)
 Center-of-Mass det. time= 527.0 min (1,293.9 - 766.8)

Volume	Invert	Avail.Storage	Storage Description
#1	16.10'	448 cf	21.76'W x 19.10'L x 4.50'H Stone 1,870 cf Overall - 749 cf Embedded = 1,121 cf x 40.0% Voids
#2	16.60'	749 cf	ADS_StormTech MC-3500 d +Cap x 6 Inside #1 Effective Size= 70.4"W x 45.0"H => 15.33 sf x 7.17'L = 110.0 cf Overall Size= 77.0"W x 45.0"H x 7.50'L with 0.33' Overlap 6 Chambers in 3 Rows Cap Storage= +14.9 cf x 2 x 3 rows = 89.4 cf
#3	14.60'	31 cf	21.76'W x 19.10'L x 1.50'H Sand 623 cf Overall x 5.0% Voids
#4	13.60'	163 cf	21.76'W x 19.10'L x 1.00'H Crushed Stone 416 cf Overall - 7 cf Embedded = 408 cf x 40.0% Voids
#5	13.85'	7 cf	4.0" Round Underdrain Storage Inside #4 L= 85.1'
		1,399 cf	Total Available Storage

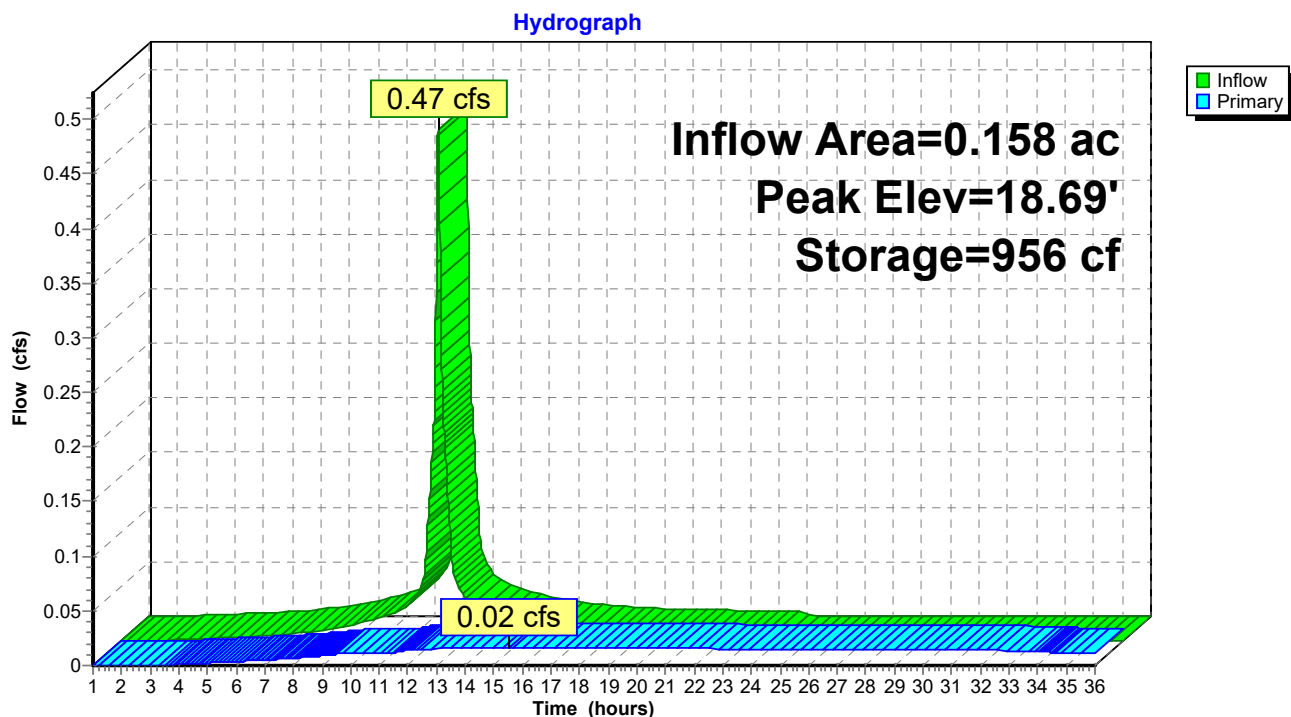
Device	Routing	Invert	Outlet Devices
#1	Primary	18.80'	12.0" Round Bypass Overflow L= 20.0' Ke= 0.900 Inlet / Outlet Invert= 18.80' / 14.00' S= 0.2400 '/ Cc= 0.900 n= 0.010, Flow Area= 0.79 sf
#2	Primary	13.60'	1.0" Round Underdrain & Orifice L= 125.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 13.60' / 10.00' S= 0.0288 '/ Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 0.01 sf

Primary OutFlow Max=0.02 cfs @ 15.54 hrs HW=18.69' TW=10.06' (Dynamic Tailwater)

1=Bypass Overflow (Controls 0.00 cfs)

2=Underdrain & Orifice (Barrel Controls 0.02 cfs @ 2.91 fps)

Pond P1: StormTech 3500



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

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Summary for Pond P2: StormTech 3500

Inflow Area = 0.339 ac, 89.87% Impervious, Inflow Depth = 2.65" for 2-year event
 Inflow = 0.98 cfs @ 12.08 hrs, Volume= 0.075 af
 Outflow = 0.09 cfs @ 12.89 hrs, Volume= 0.075 af, Atten= 90%, Lag= 48.3 min
 Primary = 0.09 cfs @ 12.89 hrs, Volume= 0.075 af

Routing by Dyn-Stor-Ind method, Time Span= 1.00-36.00 hrs, dt= 0.01 hrs / 2
 Peak Elev= 17.33' @ 12.89 hrs Surf.Area= 2,317 sf Storage= 1,477 cf

Plug-Flow detention time= 161.8 min calculated for 0.075 af (100% of inflow)
 Center-of-Mass det. time= 161.4 min (936.4 - 775.0)

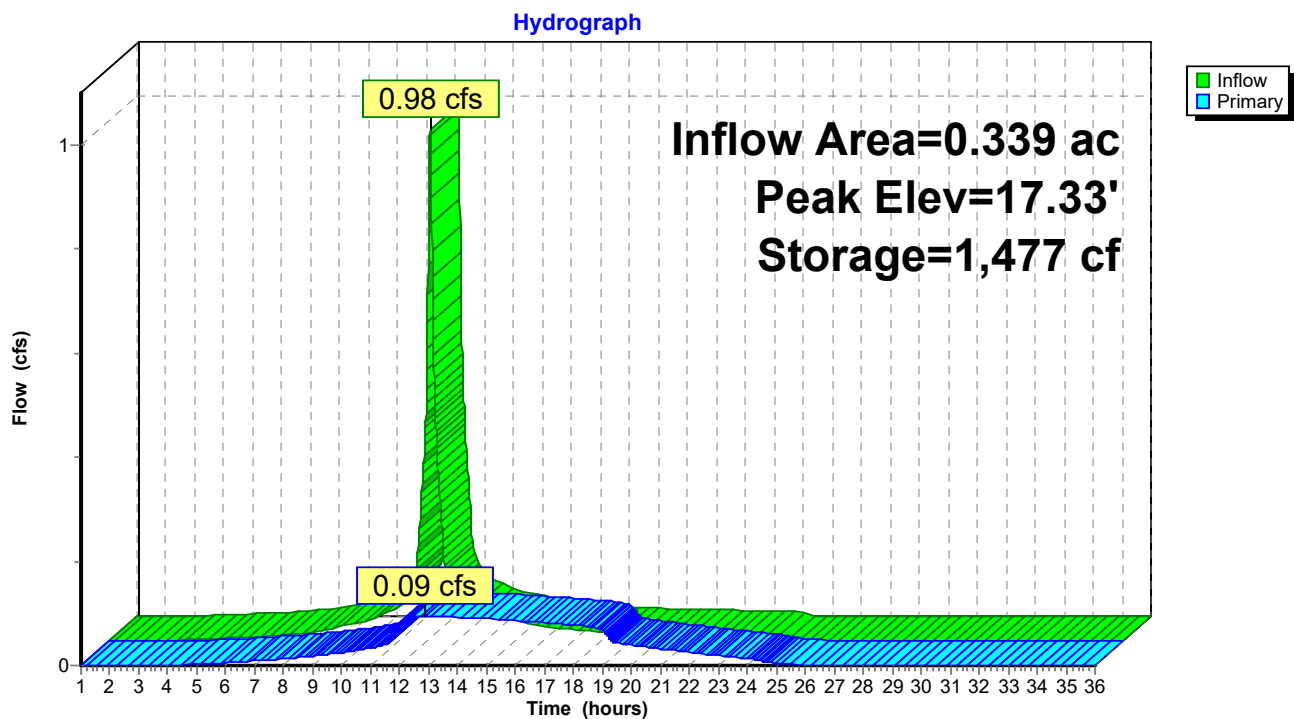
Volume	Invert	Avail.Storage	Storage Description
#1	15.30'	815 cf	28.93'W x 26.70'L x 4.50'H Stone 3,476 cf Overall - 1,439 cf Embedded = 2,037 cf x 40.0% Voids
#2	15.80'	1,439 cf	ADS_StormTech MC-3500 d +Cap x 12 Inside #1 Effective Size= 70.4"W x 45.0"H => 15.33 sf x 7.17'L = 110.0 cf Overall Size= 77.0"W x 45.0"H x 7.50'L with 0.33' Overlap 12 Chambers in 4 Rows Cap Storage= +14.9 cf x 2 x 4 rows = 119.2 cf
#3	13.80'	58 cf	28.93'W x 26.70'L x 1.50'H Sand 1,159 cf Overall x 5.0% Voids
#4	12.80'	303 cf	28.93'W x 26.70'L x 1.00'H Crushed Stone 772 cf Overall - 14 cf Embedded = 759 cf x 40.0% Voids
#5	13.05'	14 cf	4.0" Round Underdrain Storage Inside #4 L= 157.0'
		2,629 cf	Total Available Storage

Device	Routing	Invert	Outlet Devices
#1	Primary	12.80'	1.5" Round Underdrain & Orifice L= 10.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 12.80' / 12.70' S= 0.0100 '/ Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 0.01 sf
#2	Primary	18.00'	12.0" Round Bypass Overflow L= 4.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 18.00' / 17.25' S= 0.1875 '/ Cc= 0.900 n= 0.010, Flow Area= 0.79 sf

Primary OutFlow Max=0.09 cfs @ 12.89 hrs HW=17.33' TW=10.42' (Dynamic Tailwater)

1=Underdrain & Orifice (Barrel Controls 0.09 cfs @ 7.72 fps)
 2=Bypass Overflow (Controls 0.00 cfs)

Pond P2: StormTech 3500



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

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Summary for Pond P3: StormTech 3500

Inflow Area = 0.328 ac, 93.50% Impervious, Inflow Depth = 2.65" for 2-year event
 Inflow = 0.95 cfs @ 12.08 hrs, Volume= 0.073 af
 Outflow = 0.09 cfs @ 12.86 hrs, Volume= 0.072 af, Atten= 90%, Lag= 46.5 min
 Primary = 0.09 cfs @ 12.86 hrs, Volume= 0.072 af

Routing by Dyn-Stor-Ind method, Time Span= 1.00-36.00 hrs, dt= 0.01 hrs / 2
 Peak Elev= 16.01' @ 12.86 hrs Surf.Area= 2,317 sf Storage= 1,416 cf

Plug-Flow detention time= 154.9 min calculated for 0.072 af (100% of inflow)
 Center-of-Mass det. time= 154.7 min (929.6 - 775.0)

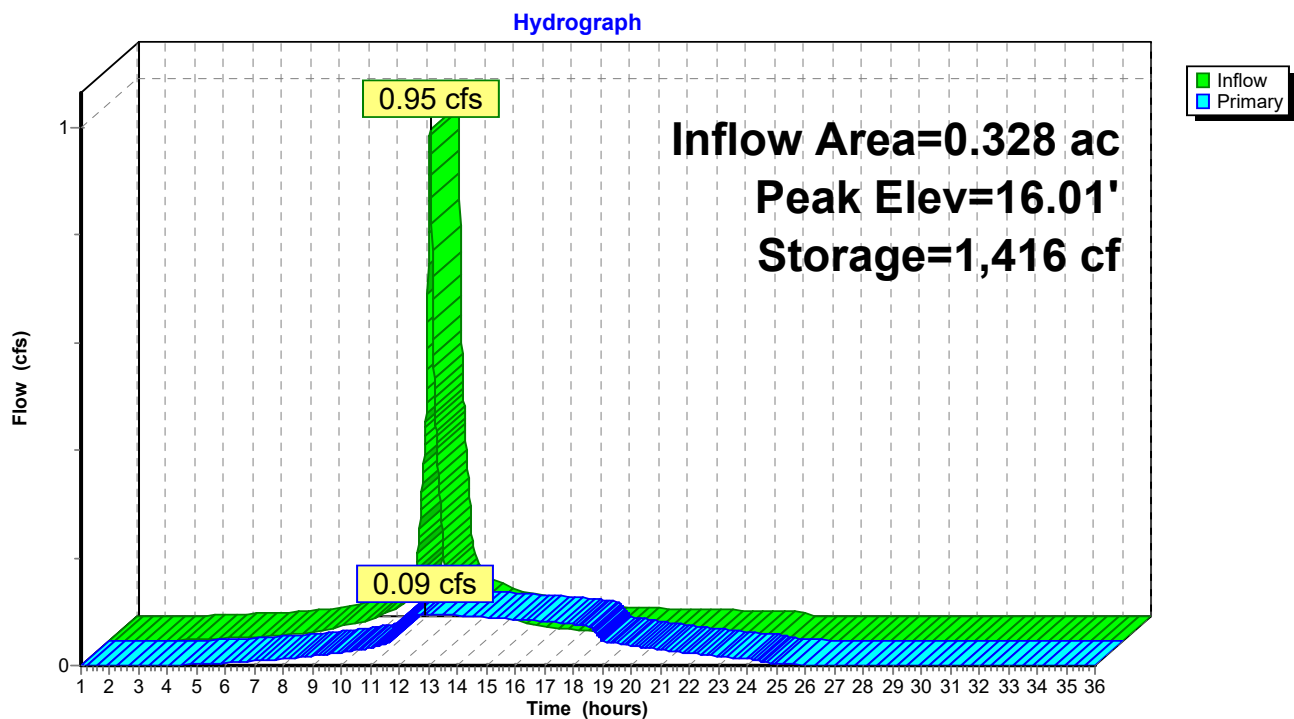
Volume	Invert	Avail.Storage	Storage Description
#1	14.08'	815 cf	28.93'W x 26.70'L x 4.50'H Stone 3,476 cf Overall - 1,439 cf Embedded = 2,037 cf x 40.0% Voids
#2	14.58'	1,439 cf	ADS_StormTech MC-3500 d +Cap x 12 Inside #1 Effective Size= 70.4"W x 45.0"H => 15.33 sf x 7.17'L = 110.0 cf Overall Size= 77.0"W x 45.0"H x 7.50'L with 0.33' Overlap 12 Chambers in 4 Rows Cap Storage= +14.9 cf x 2 x 4 rows = 119.2 cf
#3	12.58'	58 cf	28.93'W x 26.70'L x 1.50'H Sand 1,159 cf Overall x 5.0% Voids
#4	11.58'	303 cf	28.93'W x 26.70'L x 1.00'H Crushed Stone 772 cf Overall - 14 cf Embedded = 759 cf x 40.0% Voids
#5	11.83'	14 cf	4.0" Round Underdrain Storage Inside #4 L= 157.0'
		2,629 cf	Total Available Storage

Device	Routing	Invert	Outlet Devices
#1	Primary	11.58'	1.5" Round Underdrain & Orifice L= 10.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 11.58' / 11.40' S= 0.0180 '/ Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 0.01 sf
#2	Primary	16.80'	12.0" Round Bypass Overflow L= 5.5' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 16.80' / 16.00' S= 0.1455 '/ Cc= 0.900 n= 0.010, Flow Area= 0.79 sf

Primary OutFlow Max=0.09 cfs @ 12.86 hrs HW=16.01' TW=10.42' (Dynamic Tailwater)

1=Underdrain & Orifice (Barrel Controls 0.09 cfs @ 7.70 fps)
 2=Bypass Overflow (Controls 0.00 cfs)

Pond P3: StormTech 3500



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

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Summary for Pond P4: StormTech 3500

Inflow Area = 0.437 ac, 92.42% Impervious, Inflow Depth = 2.65" for 2-year event
 Inflow = 1.27 cfs @ 12.08 hrs, Volume= 0.097 af
 Outflow = 0.15 cfs @ 12.68 hrs, Volume= 0.097 af, Atten= 88%, Lag= 35.6 min
 Primary = 0.15 cfs @ 12.68 hrs, Volume= 0.097 af

Routing by Dyn-Stor-Ind method, Time Span= 1.00-36.00 hrs, dt= 0.01 hrs / 2
 Peak Elev= 15.28' @ 12.68 hrs Surf.Area= 2,845 sf Storage= 1,763 cf

Plug-Flow detention time= 119.9 min calculated for 0.097 af (100% of inflow)
 Center-of-Mass det. time= 119.4 min (894.3 - 775.0)

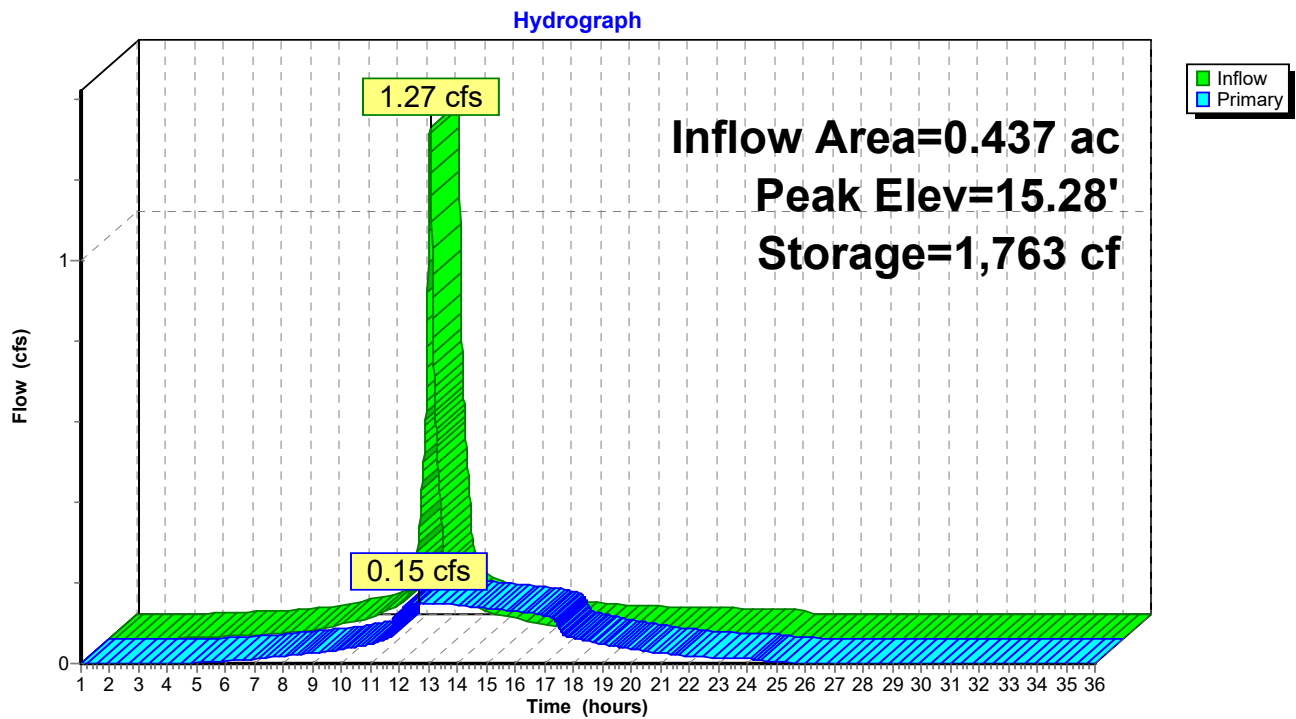
Volume	Invert	Avail.Storage	Storage Description
#1	13.33'	988 cf	36.10'W x 26.27'L x 4.50'H Stone 4,268 cf Overall - 1,798 cf Embedded = 2,469 cf x 40.0% Voids
#2	13.83'	1,798 cf	ADS_StormTech MC-3500 d +Cap x 15 Inside #1 Effective Size= 70.4"W x 45.0"H => 15.33 sf x 7.17'L = 110.0 cf Overall Size= 77.0"W x 45.0"H x 7.50'L with 0.33' Overlap 15 Chambers in 5 Rows Cap Storage= +14.9 cf x 2 x 5 rows = 149.0 cf
#3	11.83'	71 cf	36.10'W x 26.27'L x 1.50'H Sand 1,423 cf Overall x 5.0% Voids
#4	10.83'	372 cf	36.10'W x 26.27'L x 1.00'H Crushed Stone 948 cf Overall - 17 cf Embedded = 931 cf x 40.0% Voids
#5	11.08'	17 cf	4.0" Round Underdrain Storage Inside #4 L= 197.0'
		3,247 cf	Total Available Storage

Device	Routing	Invert	Outlet Devices
#1	Primary	10.83'	2.0" Round Underdrain & Orifice L= 20.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 10.83' / 10.75' S= 0.0040 '/ Cc= 0.900 n= 0.010, Flow Area= 0.02 sf
#2	Primary	16.05'	12.0" Round Bypass Overflow L= 10.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 16.05' / 15.00' S= 0.1050 '/ Cc= 0.900 n= 0.010, Flow Area= 0.79 sf

Primary OutFlow Max=0.15 cfs @ 12.68 hrs HW=15.28' TW=10.42' (Dynamic Tailwater)

1=Underdrain & Orifice (Barrel Controls 0.15 cfs @ 6.87 fps)
 2=Bypass Overflow (Controls 0.00 cfs)

Pond P4: StormTech 3500



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

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Summary for Pond P5: OCS

Inflow Area = 1.263 ac, 92.50% Impervious, Inflow Depth > 2.64" for 2-year event
 Inflow = 0.35 cfs @ 12.79 hrs, Volume= 0.278 af
 Outflow = 0.35 cfs @ 12.79 hrs, Volume= 0.278 af, Atten= 0%, Lag= 0.0 min
 Primary = 0.35 cfs @ 12.79 hrs, Volume= 0.278 af

Routing by Dyn-Stor-Ind method, Time Span= 1.00-36.00 hrs, dt= 0.01 hrs / 2

Peak Elev= 10.42' @ 12.79 hrs

Flood Elev= 21.00'

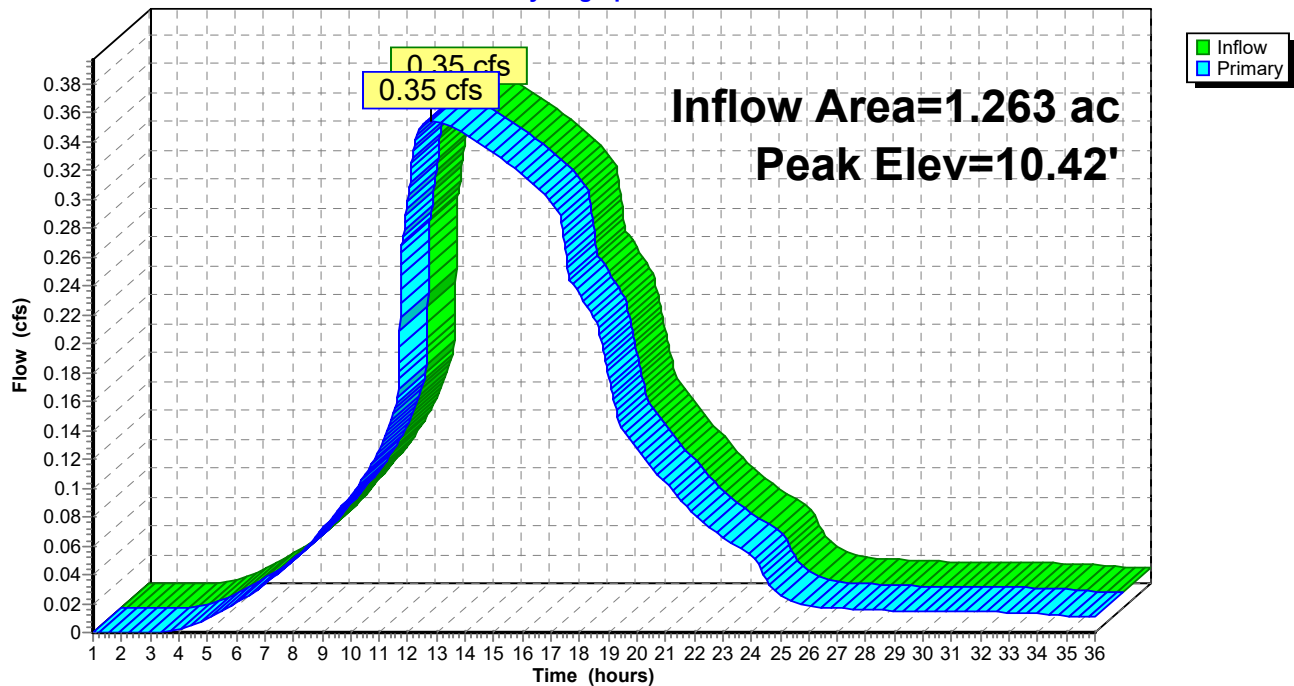
Device	Routing	Invert	Outlet Devices
#1	Primary	7.95'	18.0" Round 18" Outlet L= 34.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 7.95' / 7.80' S= 0.0044 '/ Cc= 0.900 n= 0.010, Flow Area= 1.77 sf
#2	Device 1	8.05'	3.0" Vert. Quality Orifice C= 0.600
#3	Device 1	12.50'	6.0" Vert. Quantity Orifice C= 0.600
#4	Device 1	15.40'	6.0' long x 0.7' 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 Coef. (English) 2.76 2.82 2.93 3.09 3.18 3.22 3.27 3.30 3.32 3.31 3.32

Primary OutFlow Max=0.35 cfs @ 12.79 hrs HW=10.42' TW=0.00' (Dynamic Tailwater)

- ↑ **1=18" Outlet** (Passes 0.35 cfs of 8.81 cfs potential flow)
- ↑ **2=Quality Orifice** (Orifice Controls 0.35 cfs @ 7.22 fps)
- ↑ **3=Quantity Orifice** (Controls 0.00 cfs)
- ↑ **4=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond P5: OCS

Hydrograph



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

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Time span=1.00-36.00 hrs, dt=0.01 hrs, 3501 points x 2

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

Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment1S: Subcat 1	Runoff Area=4,385 sf 53.04% Impervious Runoff Depth=3.00" Tc=6.0 min CN=85 Runoff=0.35 cfs 0.025 af
Subcatchment2S: Subcat 2.0	Runoff Area=107,660 sf 2.68% Impervious Runoff Depth=1.74" Flow Length=244' Tc=10.6 min CN=70 Runoff=4.20 cfs 0.359 af
Subcatchment2S.1: Subcat 2.1	Runoff Area=6,893 sf 96.29% Impervious Runoff Depth=4.25" Tc=6.0 min CN=97 Runoff=0.71 cfs 0.056 af
Subcatchment2S.2: Subcat 2.2	Runoff Area=14,770 sf 89.87% Impervious Runoff Depth=4.14" Tc=6.0 min CN=96 Runoff=1.50 cfs 0.117 af
Subcatchment2S.3: Subcat 2.3	Runoff Area=14,303 sf 93.50% Impervious Runoff Depth=4.14" Tc=6.0 min CN=96 Runoff=1.45 cfs 0.113 af
Subcatchment2S.4: Subcat 2.4	Runoff Area=19,053 sf 92.42% Impervious Runoff Depth=4.14" Tc=6.0 min CN=96 Runoff=1.93 cfs 0.151 af
Reach 1R: POI #1 - Sherwood St.	Inflow=0.35 cfs 0.025 af Outflow=0.35 cfs 0.025 af
Reach 2R: POI #2 - Wetland	Inflow=4.57 cfs 0.791 af Outflow=4.57 cfs 0.791 af
Reach 3R: TOTAL	Inflow=4.84 cfs 0.816 af Outflow=4.84 cfs 0.816 af
Pond P1: StormTech 3500	Peak Elev=19.09' Storage=1,072 cf Inflow=0.71 cfs 0.056 af Outflow=0.29 cfs 0.051 af
Pond P2: StormTech 3500	Peak Elev=18.35' Storage=2,045 cf Inflow=1.50 cfs 0.117 af Outflow=0.49 cfs 0.117 af
Pond P3: StormTech 3500	Peak Elev=17.13' Storage=2,042 cf Inflow=1.45 cfs 0.113 af Outflow=0.42 cfs 0.113 af
Pond P4: StormTech 3500	Peak Elev=16.44' Storage=2,562 cf Inflow=1.93 cfs 0.151 af Outflow=0.58 cfs 0.151 af
Pond P5: OCS	Peak Elev=14.20' Inflow=1.72 cfs 0.432 af Outflow=1.72 cfs 0.432 af

Total Runoff Area = 3.835 ac Runoff Volume = 0.821 af Average Runoff Depth = 2.57"
66.42% Pervious = 2.547 ac 33.58% Impervious = 1.288 ac

Summary for Subcatchment 1S: Subcat 1

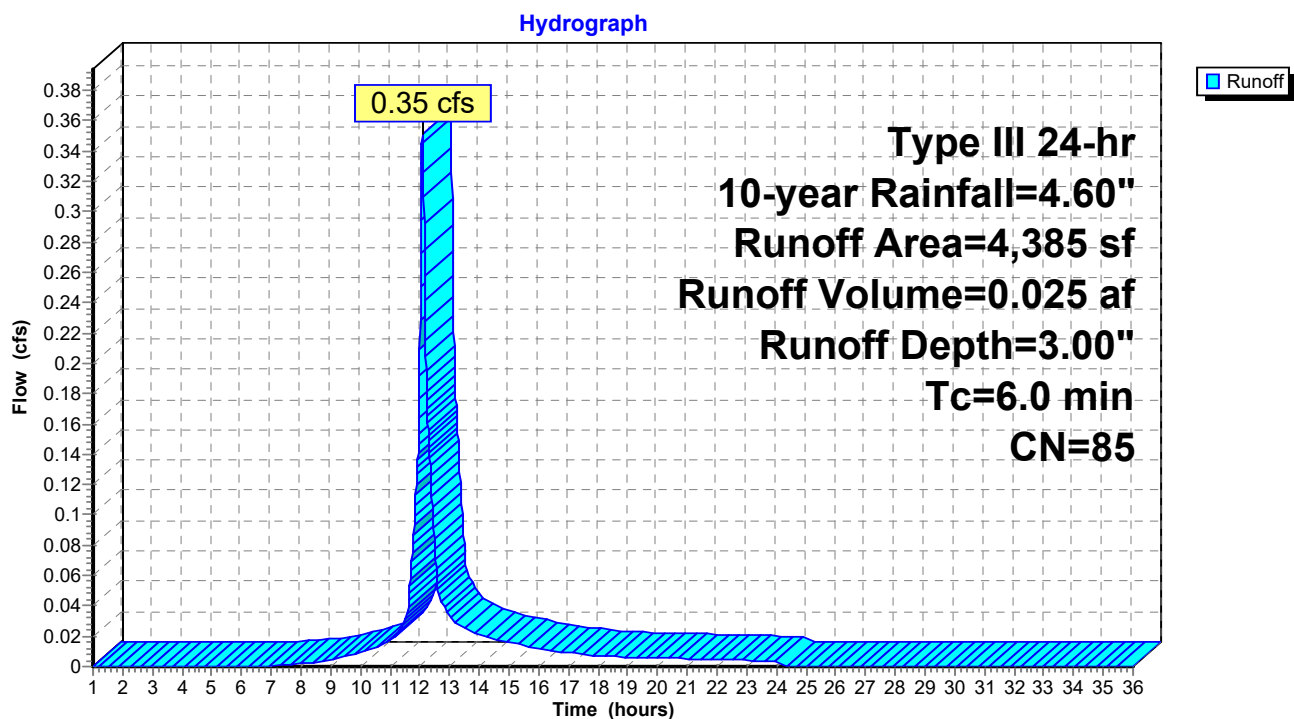
Runoff = 0.35 cfs @ 12.09 hrs, Volume= 0.025 af, Depth= 3.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-year Rainfall=4.60"

	Area (sf)	CN	Description
*	2,059	70	Cr. Stone/Misc. Vegetation
*	2,326	98	Road/Sidewalk
	4,385	85	Weighted Average
	2,059		46.96% Pervious Area
	2,326		53.04% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, Steep banks to pipe flow

Subcatchment 1S: Subcat 1



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

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Summary for Subcatchment 2S: Subcat 2.0

Runoff = 4.20 cfs @ 12.15 hrs, Volume= 0.359 af, Depth= 1.74"

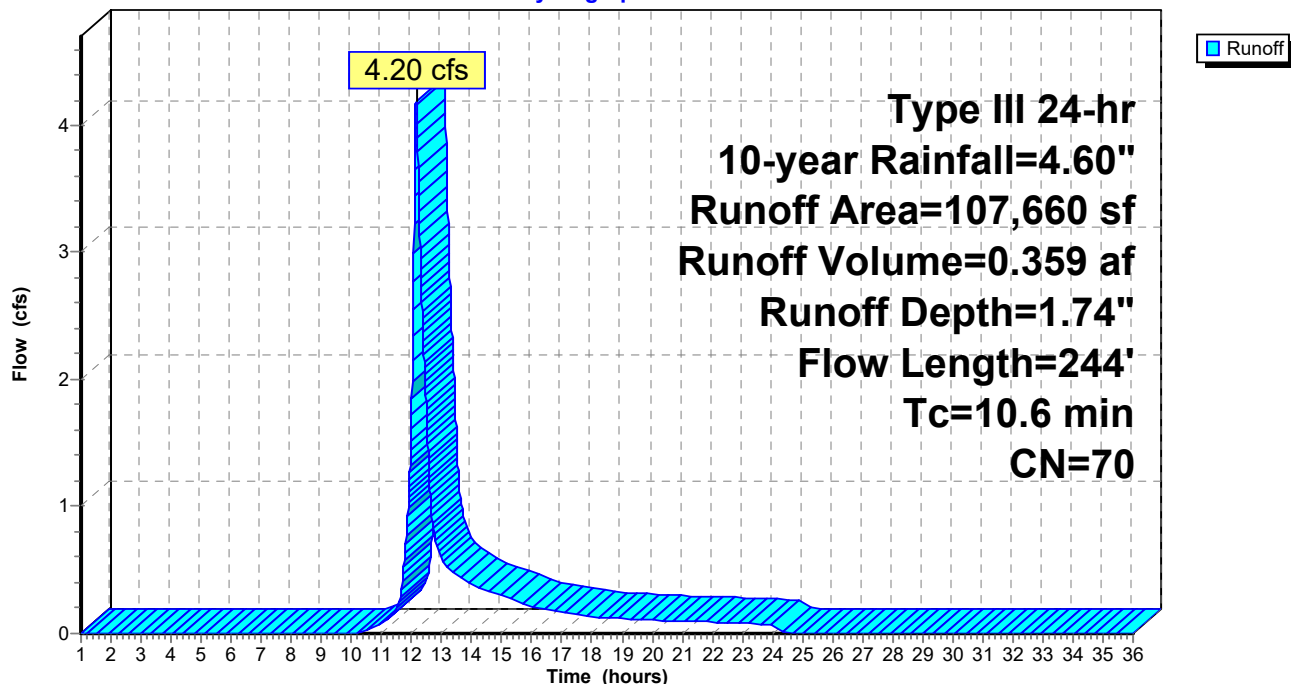
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-year Rainfall=4.60"

Area (sf)	CN	Description
* 2,882	98	Concrete Pads / Patio / Stairs
23,059	66	Woods, Poor, HSG B
* 5,983	70	Cr. Stone
50,476	74	>75% Grass cover, Good, HSG C
25,260	61	>75% Grass cover, Good, HSG B
107,660	70	Weighted Average
104,778		97.32% Pervious Area
2,882		2.68% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.7	100	0.0200	0.17		Sheet Flow, A to B Grass: Short n= 0.150 P2= 3.27"
0.7	110	0.0300	2.60		Shallow Concentrated Flow, B to C Grassed Waterway Kv= 15.0 fps
0.2	34	0.2400	3.43		Shallow Concentrated Flow, C to D Short Grass Pasture Kv= 7.0 fps
10.6	244	Total			

Subcatchment 2S: Subcat 2.0

Hydrograph



Summary for Subcatchment 2S.1: Subcat 2.1

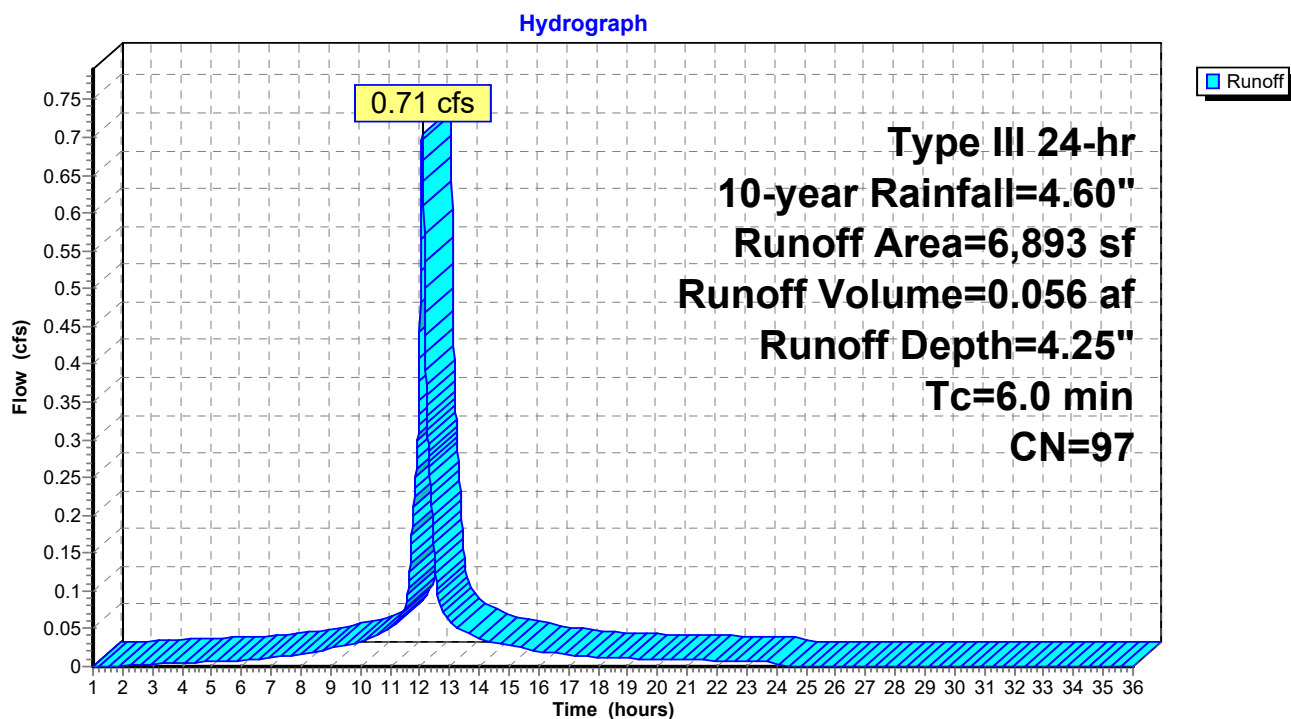
Runoff = 0.71 cfs @ 12.08 hrs, Volume= 0.056 af, Depth= 4.25"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-year Rainfall=4.60"

	Area (sf)	CN	Description
*	6,637	98	Pavement
	256	74	>75% Grass cover, Good, HSG C
	6,893	97	Weighted Average
	256		3.71% Pervious Area
	6,637		96.29% Impervious Area

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

Subcatchment 2S.1: Subcat 2.1



Summary for Subcatchment 2S.2: Subcat 2.2

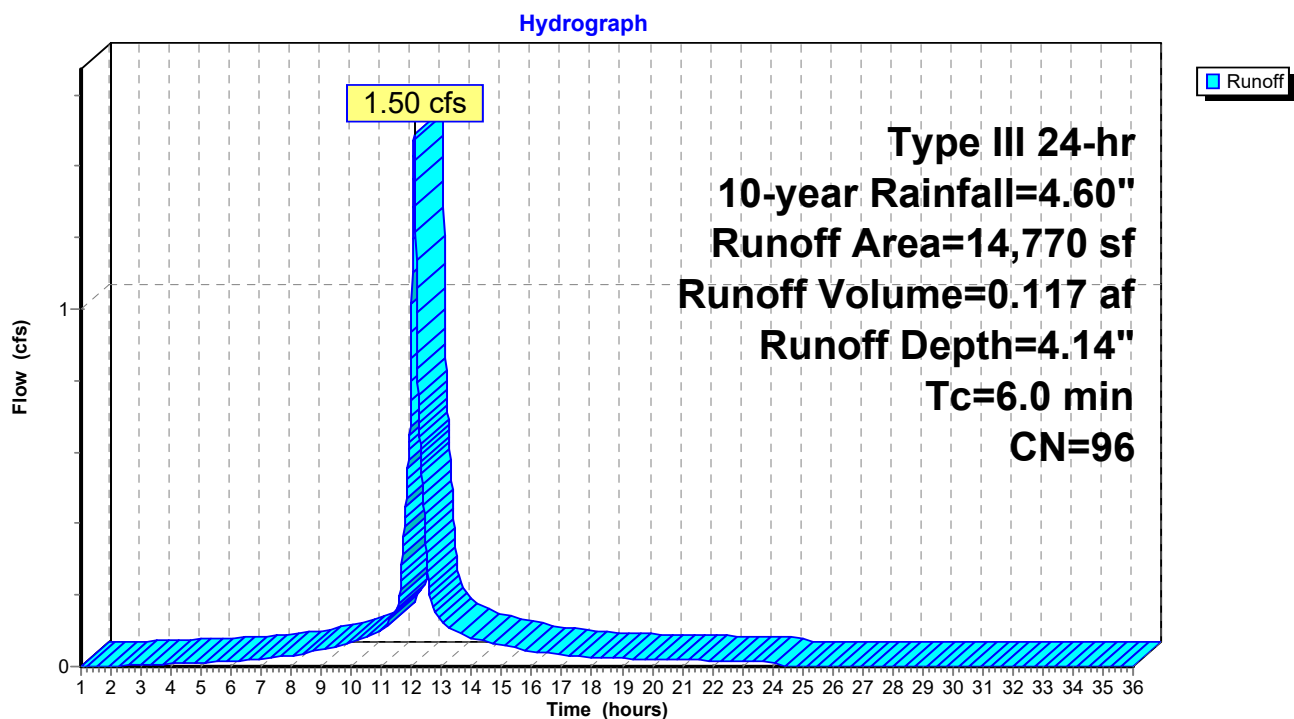
Runoff = 1.50 cfs @ 12.08 hrs, Volume= 0.117 af, Depth= 4.14"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-year Rainfall=4.60"

	Area (sf)	CN	Description
*	13,274	98	Pavement/Roofs
	1,496	74	>75% Grass cover, Good, HSG C
	14,770	96	Weighted Average
	1,496		10.13% Pervious Area
	13,274		89.87% Impervious Area

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

Subcatchment 2S.2: Subcat 2.2



Summary for Subcatchment 2S.3: Subcat 2.3

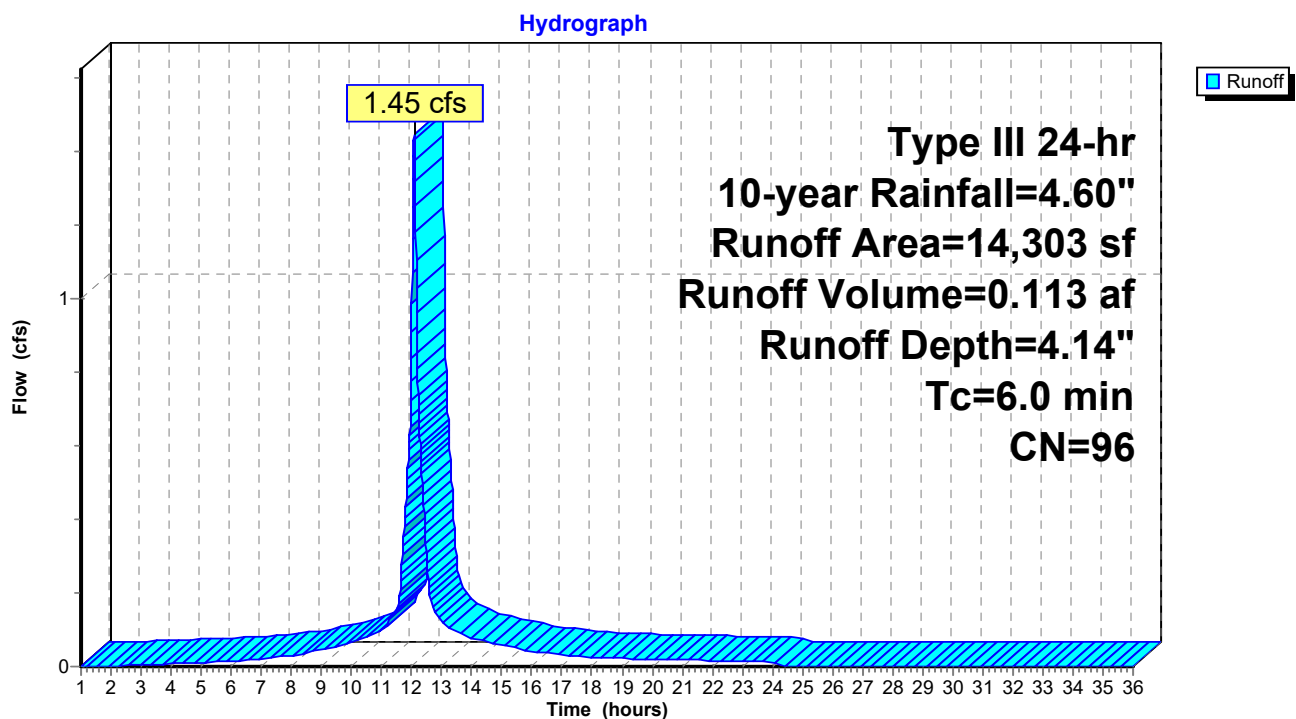
Runoff = 1.45 cfs @ 12.08 hrs, Volume= 0.113 af, Depth= 4.14"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-year Rainfall=4.60"

	Area (sf)	CN	Description
*	13,373	98	Pavement/Roofs
	930	74	>75% Grass cover, Good, HSG C
	14,303	96	Weighted Average
	930		6.50% Pervious Area
	13,373		93.50% Impervious Area

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

Subcatchment 2S.3: Subcat 2.3



Summary for Subcatchment 2S.4: Subcat 2.4

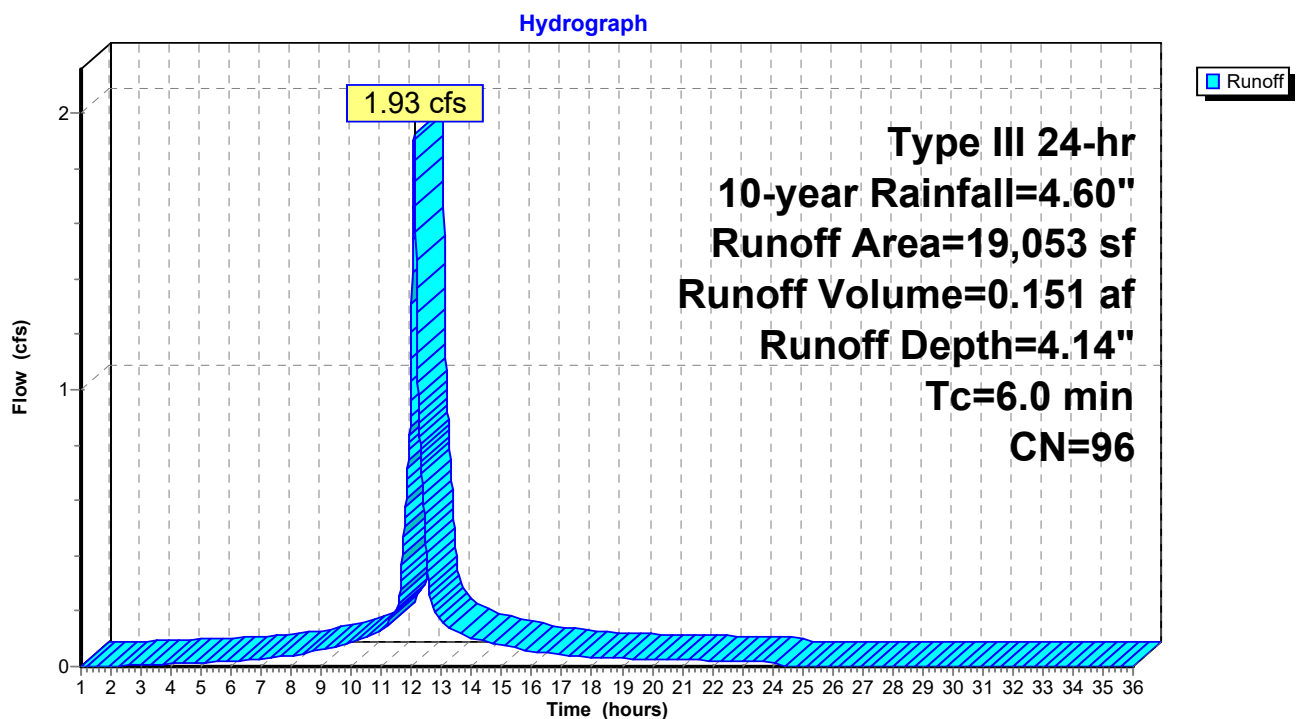
Runoff = 1.93 cfs @ 12.08 hrs, Volume= 0.151 af, Depth= 4.14"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-year Rainfall=4.60"

	Area (sf)	CN	Description
*	17,609	98	Pavement/Roofs
	1,444	74	>75% Grass cover, Good, HSG C
	19,053	96	Weighted Average
	1,444		7.58% Pervious Area
	17,609		92.42% Impervious Area

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

Subcatchment 2S.4: Subcat 2.4

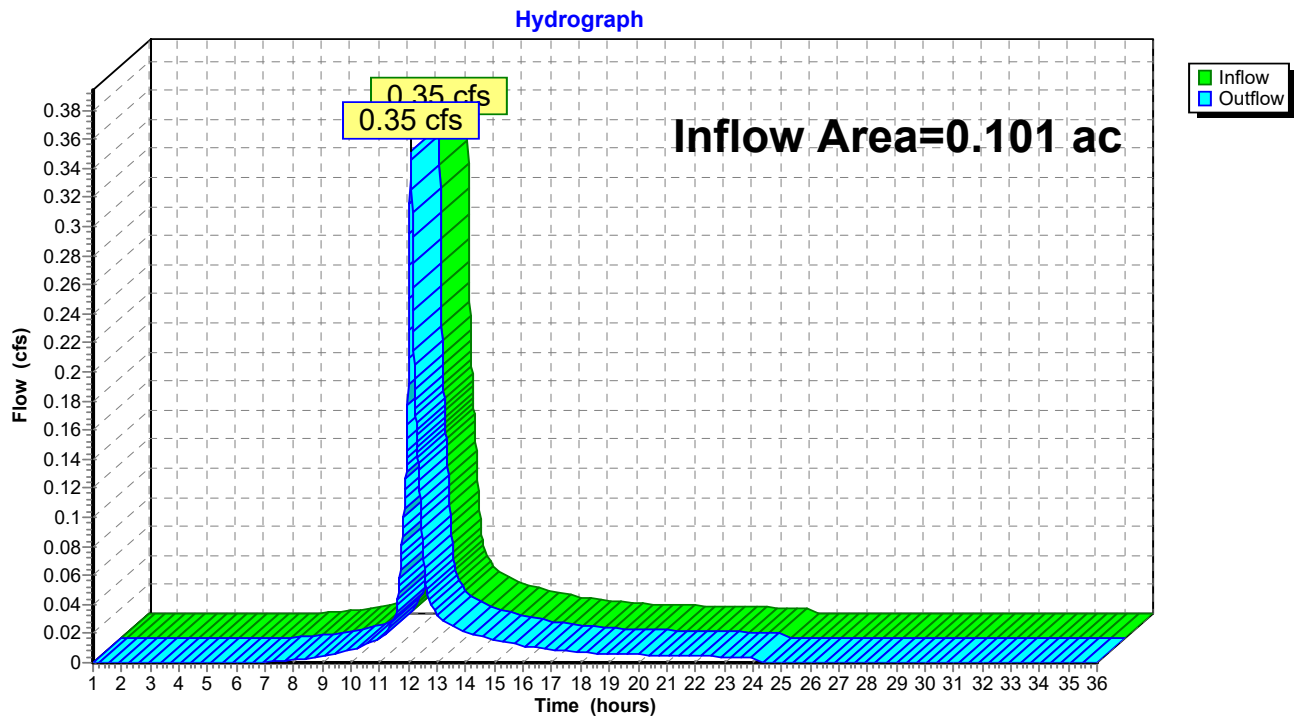


Summary for Reach 1R: POI #1 - Sherwood St.

Inflow Area = 0.101 ac, 53.04% Impervious, Inflow Depth = 3.00" for 10-year event
 Inflow = 0.35 cfs @ 12.09 hrs, Volume= 0.025 af
 Outflow = 0.35 cfs @ 12.09 hrs, Volume= 0.025 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 1.00-36.00 hrs, dt= 0.01 hrs / 2

Reach 1R: POI #1 - Sherwood St.

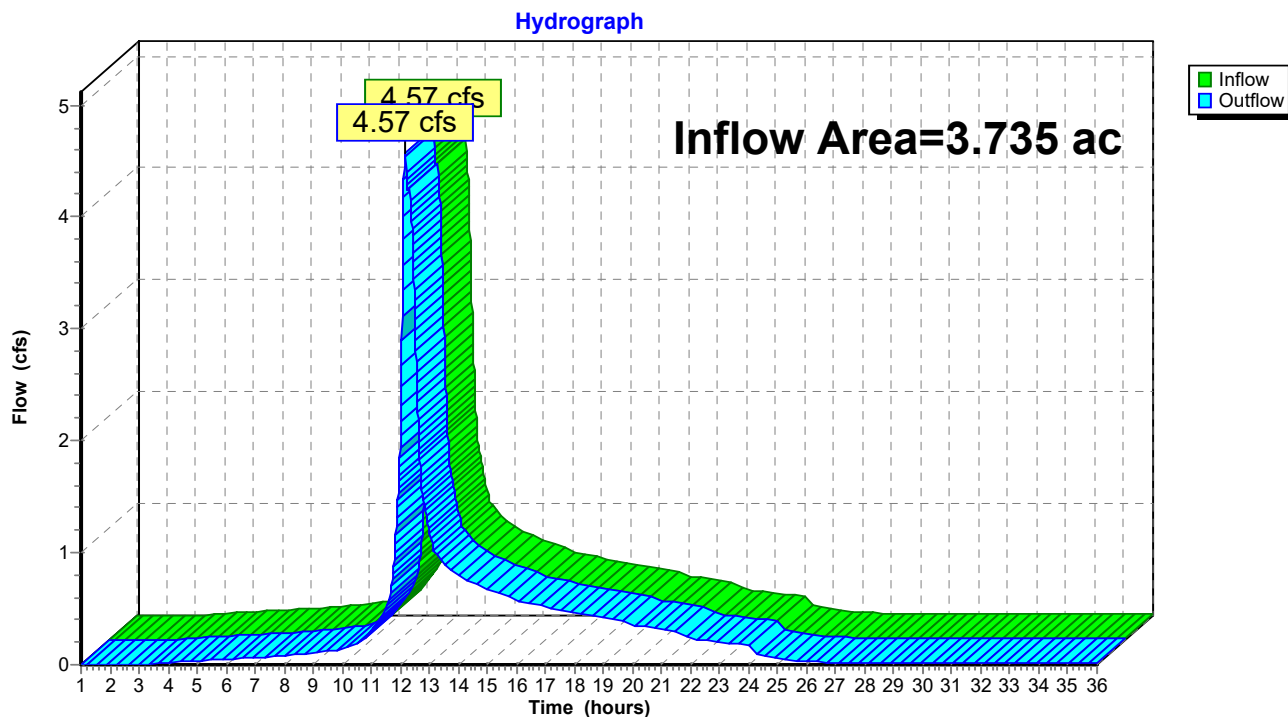


Summary for Reach 2R: POI #2 - Wetland

Inflow Area = 3.735 ac, 33.06% Impervious, Inflow Depth > 2.54" for 10-year event
 Inflow = 4.57 cfs @ 12.16 hrs, Volume= 0.791 af
 Outflow = 4.57 cfs @ 12.16 hrs, Volume= 0.791 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 1.00-36.00 hrs, dt= 0.01 hrs / 2

Reach 2R: POI #2 - Wetland



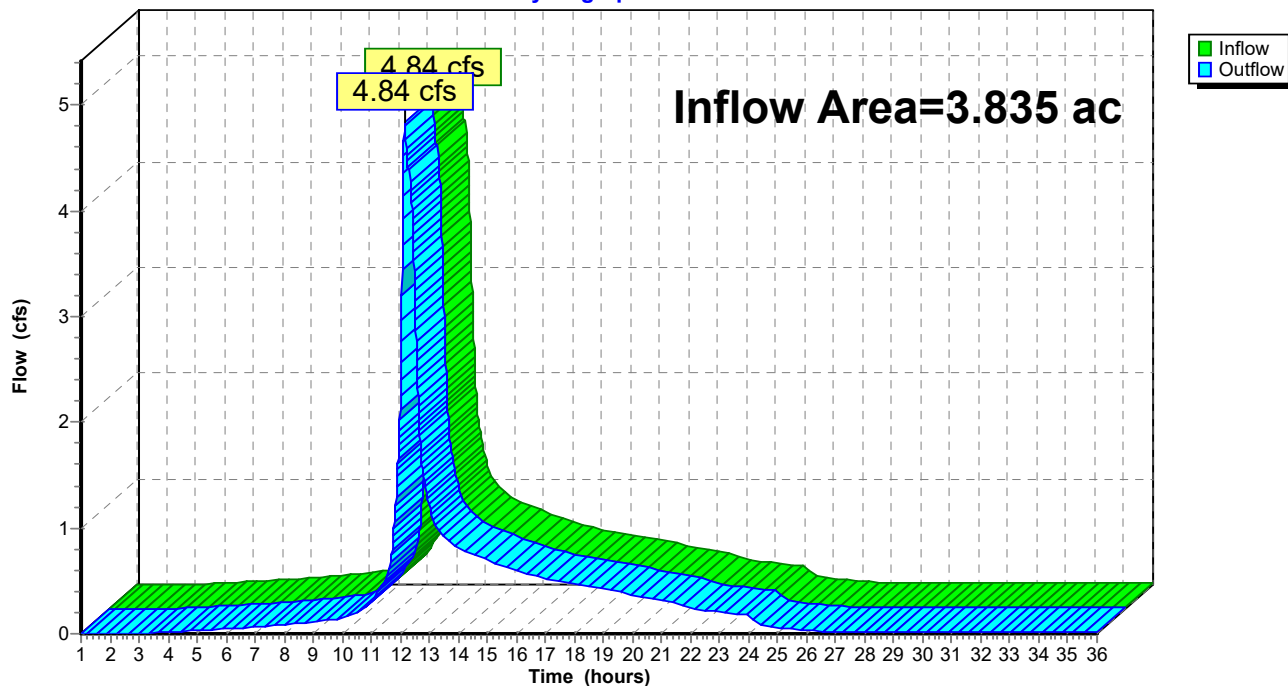
Summary for Reach 3R: TOTAL

Inflow Area = 3.835 ac, 33.58% Impervious, Inflow Depth > 2.55" for 10-year event
 Inflow = 4.84 cfs @ 12.15 hrs, Volume= 0.816 af
 Outflow = 4.84 cfs @ 12.15 hrs, Volume= 0.816 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 1.00-36.00 hrs, dt= 0.01 hrs / 2

Reach 3R: TOTAL

Hydrograph



Summary for Pond P1: StormTech 3500

Inflow Area = 0.158 ac, 96.29% Impervious, Inflow Depth = 4.25" for 10-year event
 Inflow = 0.71 cfs @ 12.08 hrs, Volume= 0.056 af
 Outflow = 0.29 cfs @ 12.28 hrs, Volume= 0.051 af, Atten= 58%, Lag= 11.8 min
 Primary = 0.29 cfs @ 12.28 hrs, Volume= 0.051 af

Routing by Dyn-Stor-Ind method, Time Span= 1.00-36.00 hrs, dt= 0.01 hrs / 2
 Peak Elev= 19.09' @ 12.28 hrs Surf.Area= 1,247 sf Storage= 1,072 cf

Plug-Flow detention time= 411.8 min calculated for 0.051 af (91% of inflow)
 Center-of-Mass det. time= 367.2 min (1,124.7 - 757.5)

Volume	Invert	Avail.Storage	Storage Description
#1	16.10'	448 cf	21.76'W x 19.10'L x 4.50'H Stone 1,870 cf Overall - 749 cf Embedded = 1,121 cf x 40.0% Voids
#2	16.60'	749 cf	ADS_StormTech MC-3500 d +Cap x 6 Inside #1 Effective Size= 70.4"W x 45.0"H => 15.33 sf x 7.17'L = 110.0 cf Overall Size= 77.0"W x 45.0"H x 7.50'L with 0.33' Overlap 6 Chambers in 3 Rows Cap Storage= +14.9 cf x 2 x 3 rows = 89.4 cf
#3	14.60'	31 cf	21.76'W x 19.10'L x 1.50'H Sand 623 cf Overall x 5.0% Voids
#4	13.60'	163 cf	21.76'W x 19.10'L x 1.00'H Crushed Stone 416 cf Overall - 7 cf Embedded = 408 cf x 40.0% Voids
#5	13.85'	7 cf	4.0" Round Underdrain Storage Inside #4 L= 85.1'
		1,399 cf	Total Available Storage

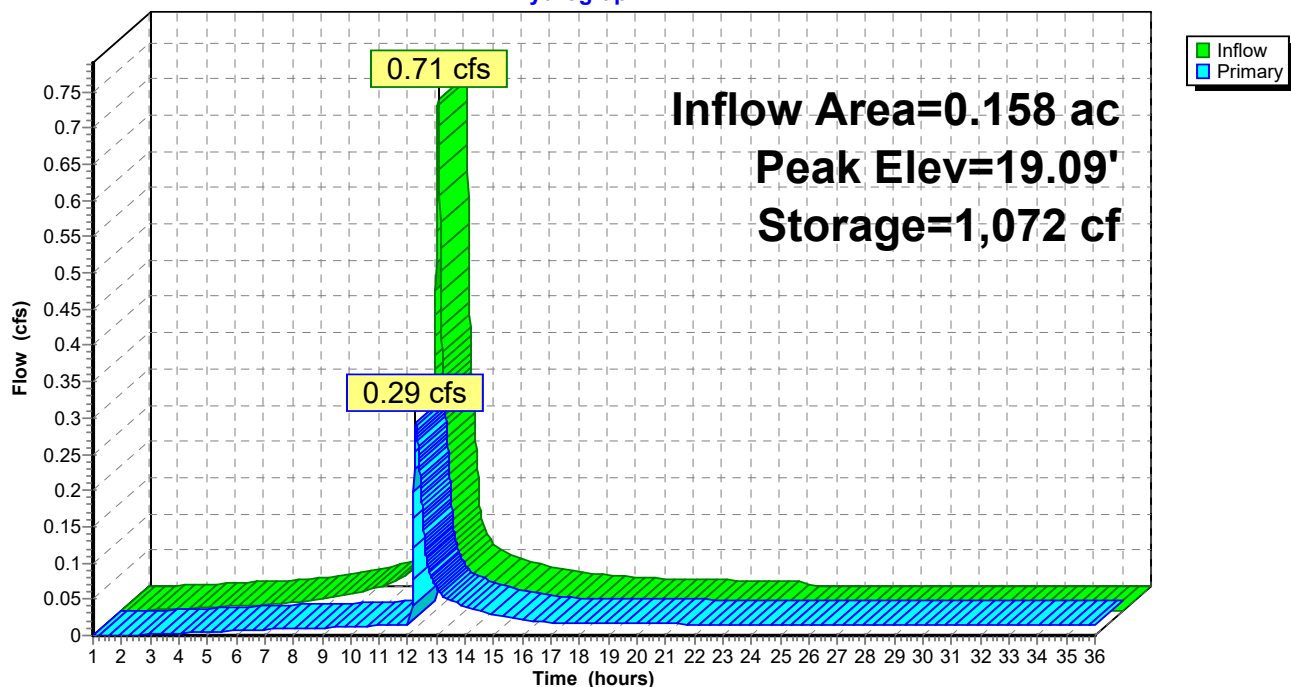
Device	Routing	Invert	Outlet Devices
#1	Primary	18.80'	12.0" Round Bypass Overflow L= 20.0' Ke= 0.900 Inlet / Outlet Invert= 18.80' / 14.00' S= 0.2400 '/ Cc= 0.900 n= 0.010, Flow Area= 0.79 sf
#2	Primary	13.60'	1.0" Round Underdrain & Orifice L= 125.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 13.60' / 10.00' S= 0.0288 '/ Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 0.01 sf

Primary OutFlow Max=0.29 cfs @ 12.28 hrs HW=19.09' TW=13.28' (Dynamic Tailwater)

1=Bypass Overflow (Inlet Controls 0.28 cfs @ 1.46 fps)
 2=Underdrain & Orifice (Outlet Controls 0.01 cfs @ 2.39 fps)

Pond P1: StormTech 3500

Hydrograph



Summary for Pond P2: StormTech 3500

Inflow Area = 0.339 ac, 89.87% Impervious, Inflow Depth = 4.14" for 10-year event
 Inflow = 1.50 cfs @ 12.08 hrs, Volume= 0.117 af
 Outflow = 0.49 cfs @ 12.37 hrs, Volume= 0.117 af, Atten= 67%, Lag= 17.2 min
 Primary = 0.49 cfs @ 12.37 hrs, Volume= 0.117 af

Routing by Dyn-Stor-Ind method, Time Span= 1.00-36.00 hrs, dt= 0.01 hrs / 2
 Peak Elev= 18.35' @ 12.37 hrs Surf.Area= 2,317 sf Storage= 2,045 cf

Plug-Flow detention time= 174.0 min calculated for 0.117 af (100% of inflow)
 Center-of-Mass det. time= 173.8 min (938.2 - 764.4)

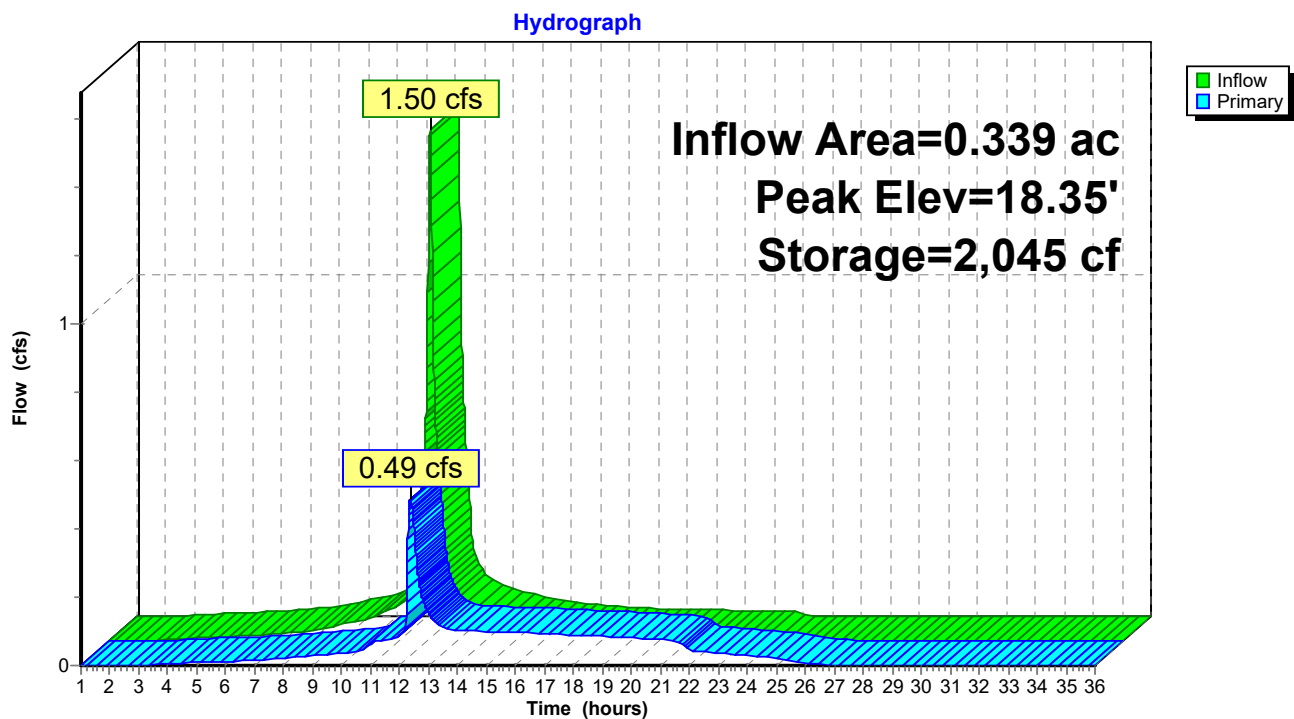
Volume	Invert	Avail.Storage	Storage Description
#1	15.30'	815 cf	28.93'W x 26.70'L x 4.50'H Stone 3,476 cf Overall - 1,439 cf Embedded = 2,037 cf x 40.0% Voids
#2	15.80'	1,439 cf	ADS_StormTech MC-3500 d +Cap x 12 Inside #1 Effective Size= 70.4"W x 45.0"H => 15.33 sf x 7.17'L = 110.0 cf Overall Size= 77.0"W x 45.0"H x 7.50'L with 0.33' Overlap 12 Chambers in 4 Rows Cap Storage= +14.9 cf x 2 x 4 rows = 119.2 cf
#3	13.80'	58 cf	28.93'W x 26.70'L x 1.50'H Sand 1,159 cf Overall x 5.0% Voids
#4	12.80'	303 cf	28.93'W x 26.70'L x 1.00'H Crushed Stone 772 cf Overall - 14 cf Embedded = 759 cf x 40.0% Voids
#5	13.05'	14 cf	4.0" Round Underdrain Storage Inside #4 L= 157.0'
		2,629 cf	Total Available Storage

Device	Routing	Invert	Outlet Devices
#1	Primary	12.80'	1.5" Round Underdrain & Orifice L= 10.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 12.80' / 12.70' S= 0.0100 '/ Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 0.01 sf
#2	Primary	18.00'	12.0" Round Bypass Overflow L= 4.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 18.00' / 17.25' S= 0.1875 '/ Cc= 0.900 n= 0.010, Flow Area= 0.79 sf

Primary OutFlow Max=0.49 cfs @ 12.37 hrs HW=18.35' TW=14.18' (Dynamic Tailwater)

1=Underdrain & Orifice (Outlet Controls 0.09 cfs @ 7.43 fps)
 2=Bypass Overflow (Inlet Controls 0.40 cfs @ 1.60 fps)

Pond P2: StormTech 3500



Summary for Pond P3: StormTech 3500

Inflow Area = 0.328 ac, 93.50% Impervious, Inflow Depth = 4.14" for 10-year event
 Inflow = 1.45 cfs @ 12.08 hrs, Volume= 0.113 af
 Outflow = 0.42 cfs @ 12.41 hrs, Volume= 0.113 af, Atten= 71%, Lag= 19.7 min
 Primary = 0.42 cfs @ 12.41 hrs, Volume= 0.113 af

Routing by Dyn-Stor-Ind method, Time Span= 1.00-36.00 hrs, dt= 0.01 hrs / 2
 Peak Elev= 17.13' @ 12.41 hrs Surf.Area= 2,317 sf Storage= 2,042 cf

Plug-Flow detention time= 176.2 min calculated for 0.113 af (100% of inflow)
 Center-of-Mass det. time= 176.1 min (940.5 - 764.4)

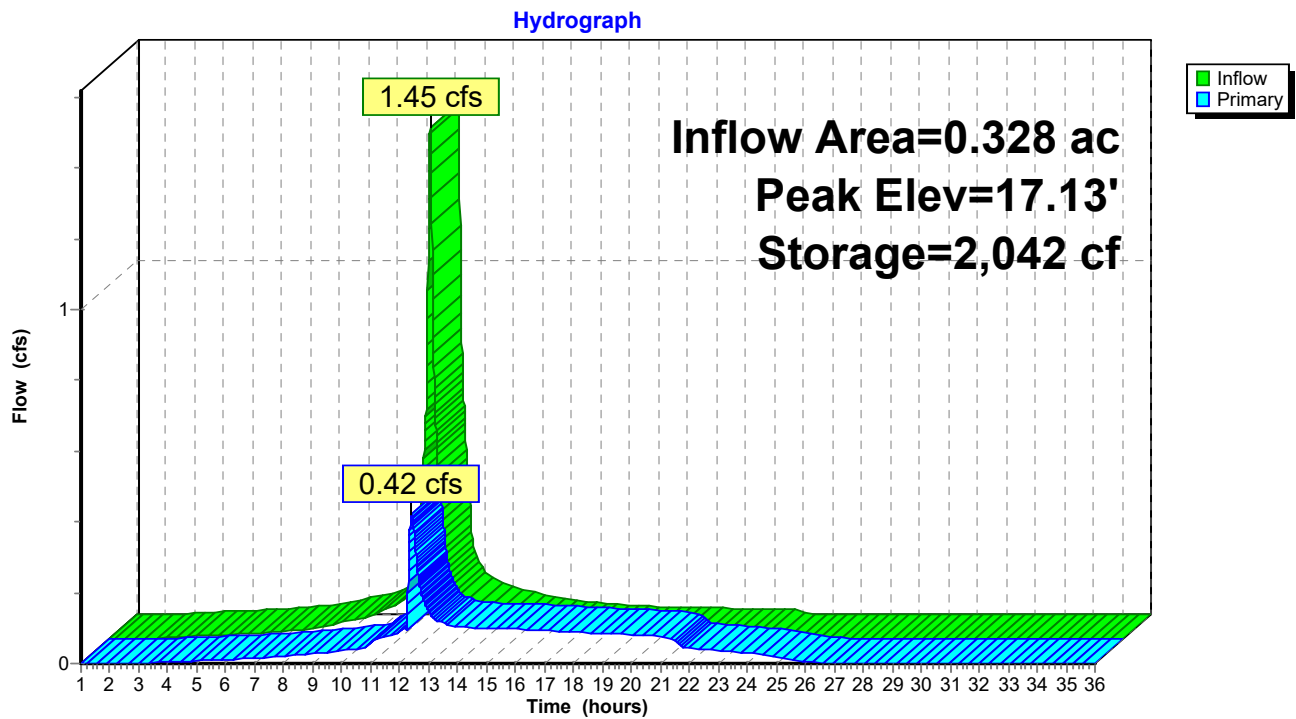
Volume	Invert	Avail.Storage	Storage Description
#1	14.08'	815 cf	28.93'W x 26.70'L x 4.50'H Stone 3,476 cf Overall - 1,439 cf Embedded = 2,037 cf x 40.0% Voids
#2	14.58'	1,439 cf	ADS_StormTech MC-3500 d +Cap x 12 Inside #1 Effective Size= 70.4"W x 45.0"H => 15.33 sf x 7.17'L = 110.0 cf Overall Size= 77.0"W x 45.0"H x 7.50'L with 0.33' Overlap 12 Chambers in 4 Rows Cap Storage= +14.9 cf x 2 x 4 rows = 119.2 cf
#3	12.58'	58 cf	28.93'W x 26.70'L x 1.50'H Sand 1,159 cf Overall x 5.0% Voids
#4	11.58'	303 cf	28.93'W x 26.70'L x 1.00'H Crushed Stone 772 cf Overall - 14 cf Embedded = 759 cf x 40.0% Voids
#5	11.83'	14 cf	4.0" Round Underdrain Storage Inside #4 L= 157.0'
		2,629 cf	Total Available Storage

Device	Routing	Invert	Outlet Devices
#1	Primary	11.58'	1.5" Round Underdrain & Orifice L= 10.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 11.58' / 11.40' S= 0.0180 '/ Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 0.01 sf
#2	Primary	16.80'	12.0" Round Bypass Overflow L= 5.5' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 16.80' / 16.00' S= 0.1455 '/ Cc= 0.900 n= 0.010, Flow Area= 0.79 sf

Primary OutFlow Max=0.42 cfs @ 12.41 hrs HW=17.13' TW=14.15' (Dynamic Tailwater)

1=Underdrain & Orifice (Outlet Controls 0.08 cfs @ 6.27 fps)
 2=Bypass Overflow (Inlet Controls 0.34 cfs @ 1.54 fps)

Pond P3: StormTech 3500



Summary for Pond P4: StormTech 3500

Inflow Area = 0.437 ac, 92.42% Impervious, Inflow Depth = 4.14" for 10-year event
 Inflow = 1.93 cfs @ 12.08 hrs, Volume= 0.151 af
 Outflow = 0.58 cfs @ 12.40 hrs, Volume= 0.151 af, Atten= 70%, Lag= 19.2 min
 Primary = 0.58 cfs @ 12.40 hrs, Volume= 0.151 af

Routing by Dyn-Stor-Ind method, Time Span= 1.00-36.00 hrs, dt= 0.01 hrs / 2
 Peak Elev= 16.44' @ 12.40 hrs Surf.Area= 2,845 sf Storage= 2,562 cf

Plug-Flow detention time= 137.5 min calculated for 0.151 af (100% of inflow)
 Center-of-Mass det. time= 137.2 min (901.6 - 764.4)

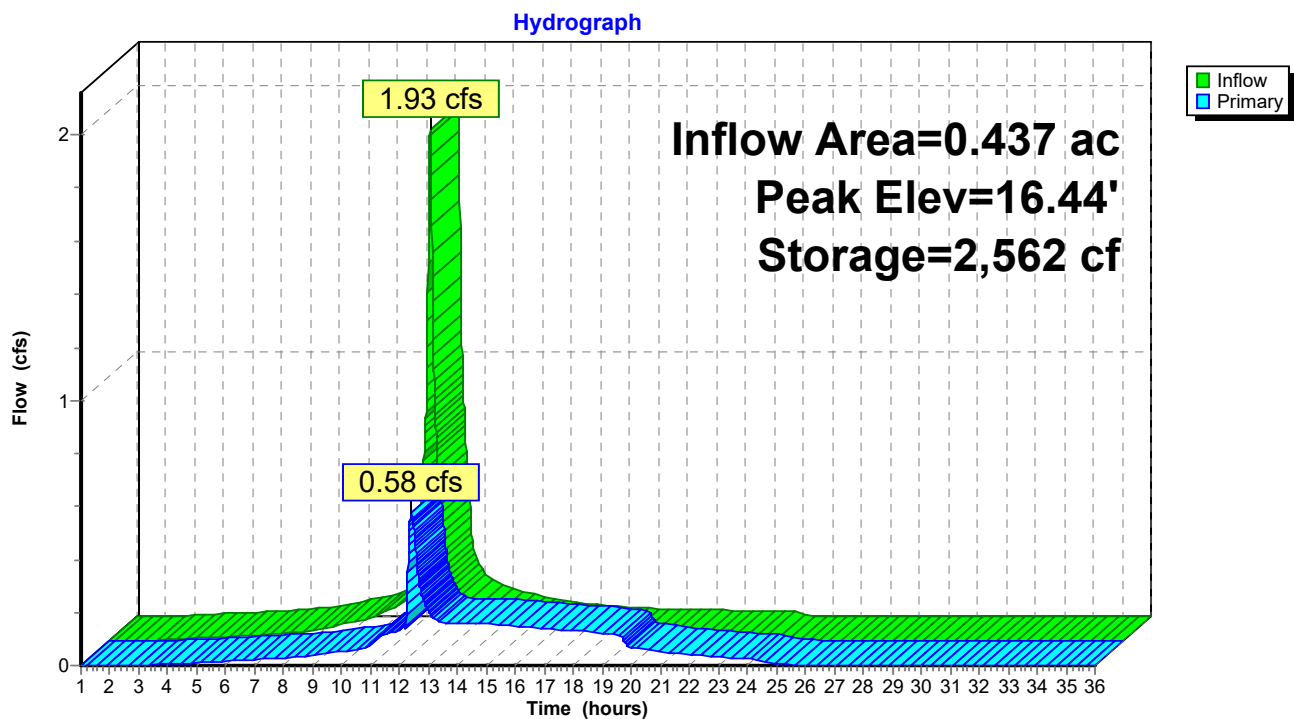
Volume	Invert	Avail.Storage	Storage Description
#1	13.33'	988 cf	36.10'W x 26.27'L x 4.50'H Stone 4,268 cf Overall - 1,798 cf Embedded = 2,469 cf x 40.0% Voids
#2	13.83'	1,798 cf	ADS_StormTech MC-3500 d +Cap x 15 Inside #1 Effective Size= 70.4"W x 45.0"H => 15.33 sf x 7.17'L = 110.0 cf Overall Size= 77.0"W x 45.0"H x 7.50'L with 0.33' Overlap 15 Chambers in 5 Rows Cap Storage= +14.9 cf x 2 x 5 rows = 149.0 cf
#3	11.83'	71 cf	36.10'W x 26.27'L x 1.50'H Sand 1,423 cf Overall x 5.0% Voids
#4	10.83'	372 cf	36.10'W x 26.27'L x 1.00'H Crushed Stone 948 cf Overall - 17 cf Embedded = 931 cf x 40.0% Voids
#5	11.08'	17 cf	4.0" Round Underdrain Storage Inside #4 L= 197.0'
		3,247 cf	Total Available Storage

Device	Routing	Invert	Outlet Devices
#1	Primary	10.83'	2.0" Round Underdrain & Orifice L= 20.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 10.83' / 10.75' S= 0.0040 '/ Cc= 0.900 n= 0.010, Flow Area= 0.02 sf
#2	Primary	16.05'	12.0" Round Bypass Overflow L= 10.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 16.05' / 15.00' S= 0.1050 '/ Cc= 0.900 n= 0.010, Flow Area= 0.79 sf

Primary OutFlow Max=0.58 cfs @ 12.40 hrs HW=16.44' TW=14.18' (Dynamic Tailwater)

1=Underdrain & Orifice (Outlet Controls 0.11 cfs @ 4.94 fps)
 2=Bypass Overflow (Inlet Controls 0.47 cfs @ 1.67 fps)

Pond P4: StormTech 3500



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

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Summary for Pond P5: OCS

Inflow Area = 1.263 ac, 92.50% Impervious, Inflow Depth > 4.10" for 10-year event
 Inflow = 1.72 cfs @ 12.39 hrs, Volume= 0.432 af
 Outflow = 1.72 cfs @ 12.39 hrs, Volume= 0.432 af, Atten= 0%, Lag= 0.0 min
 Primary = 1.72 cfs @ 12.39 hrs, Volume= 0.432 af

Routing by Dyn-Stor-Ind method, Time Span= 1.00-36.00 hrs, dt= 0.01 hrs / 2

Peak Elev= 14.20' @ 12.39 hrs

Flood Elev= 21.00'

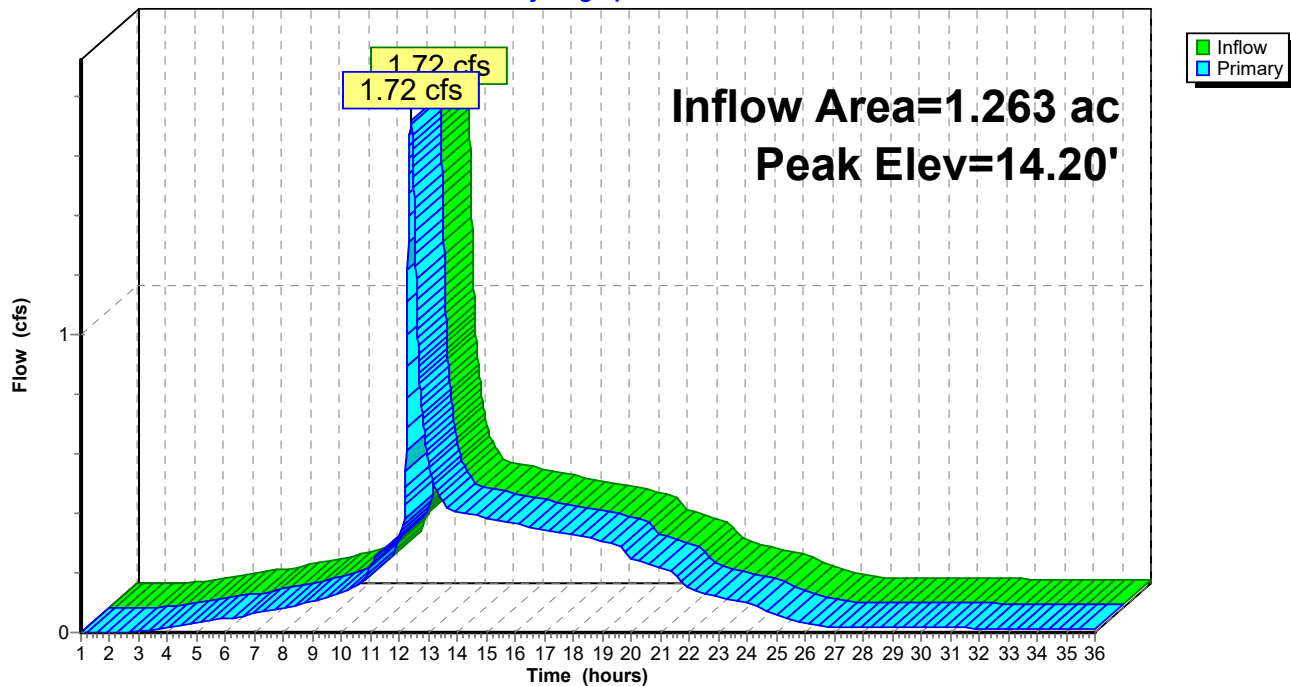
Device	Routing	Invert	Outlet Devices
#1	Primary	7.95'	18.0" Round 18" Outlet L= 34.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 7.95' / 7.80' S= 0.0044 ' / ' Cc= 0.900 n= 0.010, Flow Area= 1.77 sf
#2	Device 1	8.05'	3.0" Vert. Quality Orifice C= 0.600
#3	Device 1	12.50'	6.0" Vert. Quantity Orifice C= 0.600
#4	Device 1	15.40'	6.0' long x 0.7' 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 Coef. (English) 2.76 2.82 2.93 3.09 3.18 3.22 3.27 3.30 3.32 3.31 3.32

Primary OutFlow Max=1.72 cfs @ 12.39 hrs HW=14.20' TW=0.00' (Dynamic Tailwater)

- ↑ **1=18" Outlet** (Passes 1.72 cfs of 15.75 cfs potential flow)
- ↑ **2=Quality Orifice** (Orifice Controls 0.58 cfs @ 11.81 fps)
- ↑ **3=Quantity Orifice** (Orifice Controls 1.14 cfs @ 5.79 fps)
- ↑ **4=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond P5: OCS

Hydrograph



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

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Time span=1.00-36.00 hrs, dt=0.01 hrs, 3501 points x 2
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
 Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment1S: Subcat 1	Runoff Area=4,385 sf 53.04% Impervious Runoff Depth=4.11" Tc=6.0 min CN=85 Runoff=0.48 cfs 0.035 af
Subcatchment2S: Subcat 2.0	Runoff Area=107,660 sf 2.68% Impervious Runoff Depth=2.65" Flow Length=244' Tc=10.6 min CN=70 Runoff=6.51 cfs 0.545 af
Subcatchment2S.1: Subcat 2.1	Runoff Area=6,893 sf 96.29% Impervious Runoff Depth=5.44" Tc=6.0 min CN=97 Runoff=0.89 cfs 0.072 af
Subcatchment2S.2: Subcat 2.2	Runoff Area=14,770 sf 89.87% Impervious Runoff Depth=5.33" Tc=6.0 min CN=96 Runoff=1.90 cfs 0.151 af
Subcatchment2S.3: Subcat 2.3	Runoff Area=14,303 sf 93.50% Impervious Runoff Depth=5.33" Tc=6.0 min CN=96 Runoff=1.84 cfs 0.146 af
Subcatchment2S.4: Subcat 2.4	Runoff Area=19,053 sf 92.42% Impervious Runoff Depth=5.33" Tc=6.0 min CN=96 Runoff=2.45 cfs 0.194 af
Reach 1R: POI #1 - Sherwood St.	Inflow=0.48 cfs 0.035 af Outflow=0.48 cfs 0.035 af
Reach 2R: POI #2 - Wetland	Inflow=10.44 cfs 1.101 af Outflow=10.44 cfs 1.101 af
Reach 3R: TOTAL	Inflow=10.77 cfs 1.136 af Outflow=10.77 cfs 1.136 af
Pond P1: StormTech 3500	Peak Elev=19.30' Storage=1,127 cf Inflow=0.89 cfs 0.072 af Outflow=0.75 cfs 0.066 af
Pond P2: StormTech 3500	Peak Elev=18.62' Storage=2,180 cf Inflow=1.90 cfs 0.151 af Outflow=1.16 cfs 0.151 af
Pond P3: StormTech 3500	Peak Elev=17.38' Storage=2,170 cf Inflow=1.84 cfs 0.146 af Outflow=1.03 cfs 0.146 af
Pond P4: StormTech 3500	Peak Elev=16.73' Storage=2,742 cf Inflow=2.45 cfs 0.194 af Outflow=1.34 cfs 0.194 af
Pond P5: OCS	Peak Elev=15.63' Inflow=4.12 cfs 0.556 af Outflow=4.12 cfs 0.556 af

Total Runoff Area = 3.835 ac Runoff Volume = 1.142 af Average Runoff Depth = 3.57"
66.42% Pervious = 2.547 ac 33.58% Impervious = 1.288 ac

Summary for Subcatchment 1S: Subcat 1

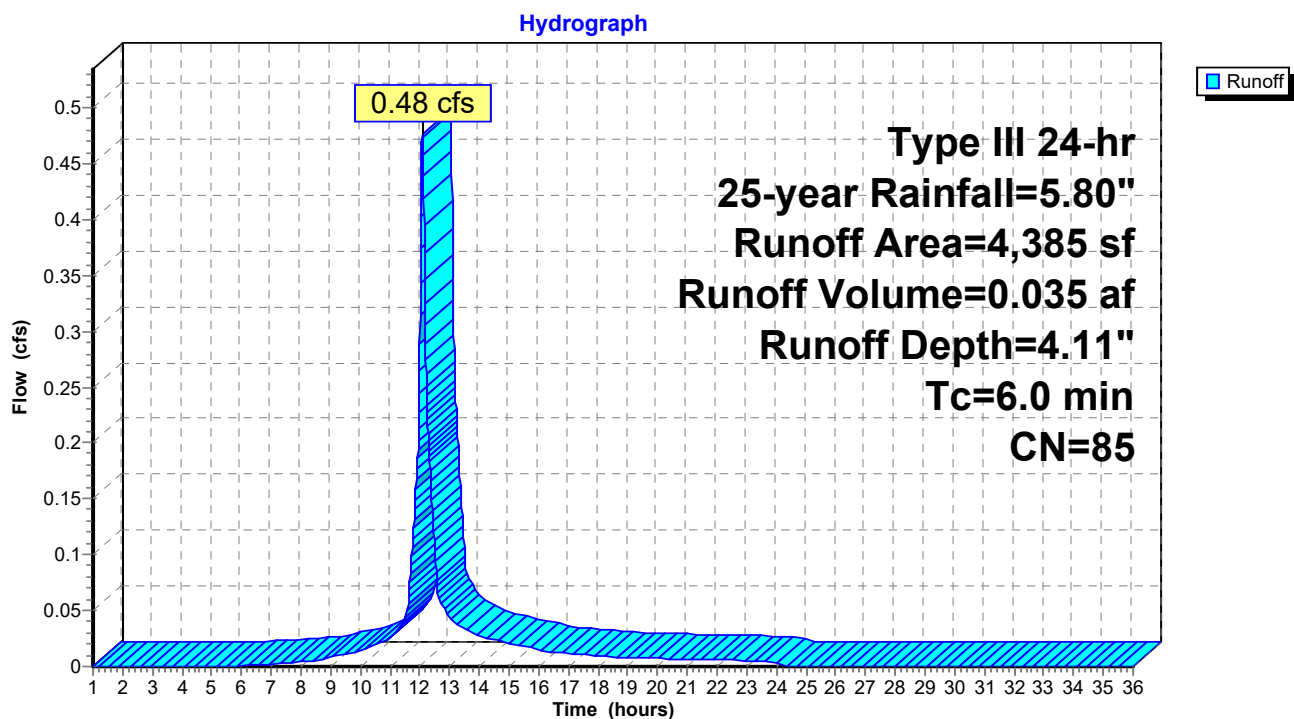
Runoff = 0.48 cfs @ 12.09 hrs, Volume= 0.035 af, Depth= 4.11"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-year Rainfall=5.80"

	Area (sf)	CN	Description
*	2,059	70	Cr. Stone/Misc. Vegetation
*	2,326	98	Road/Sidewalk
	4,385	85	Weighted Average
	2,059		46.96% Pervious Area
	2,326		53.04% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, Steep banks to pipe flow

Subcatchment 1S: Subcat 1



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

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Summary for Subcatchment 2S: Subcat 2.0

Runoff = 6.51 cfs @ 12.15 hrs, Volume= 0.545 af, Depth= 2.65"

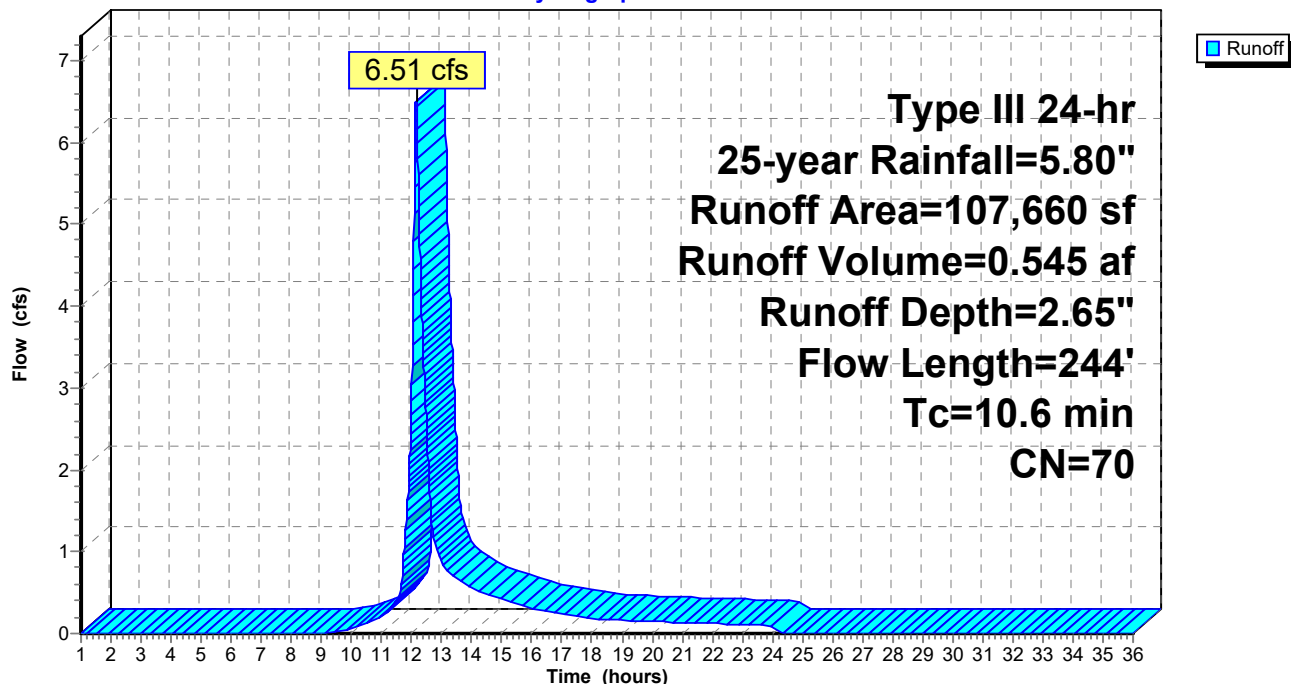
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-year Rainfall=5.80"

Area (sf)	CN	Description
* 2,882	98	Concrete Pads / Patio / Stairs
23,059	66	Woods, Poor, HSG B
* 5,983	70	Cr. Stone
50,476	74	>75% Grass cover, Good, HSG C
25,260	61	>75% Grass cover, Good, HSG B
107,660	70	Weighted Average
104,778		97.32% Pervious Area
2,882		2.68% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.7	100	0.0200	0.17		Sheet Flow, A to B Grass: Short n= 0.150 P2= 3.27"
0.7	110	0.0300	2.60		Shallow Concentrated Flow, B to C Grassed Waterway Kv= 15.0 fps
0.2	34	0.2400	3.43		Shallow Concentrated Flow, C to D Short Grass Pasture Kv= 7.0 fps
10.6	244	Total			

Subcatchment 2S: Subcat 2.0

Hydrograph



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

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Summary for Subcatchment 2S.1: Subcat 2.1

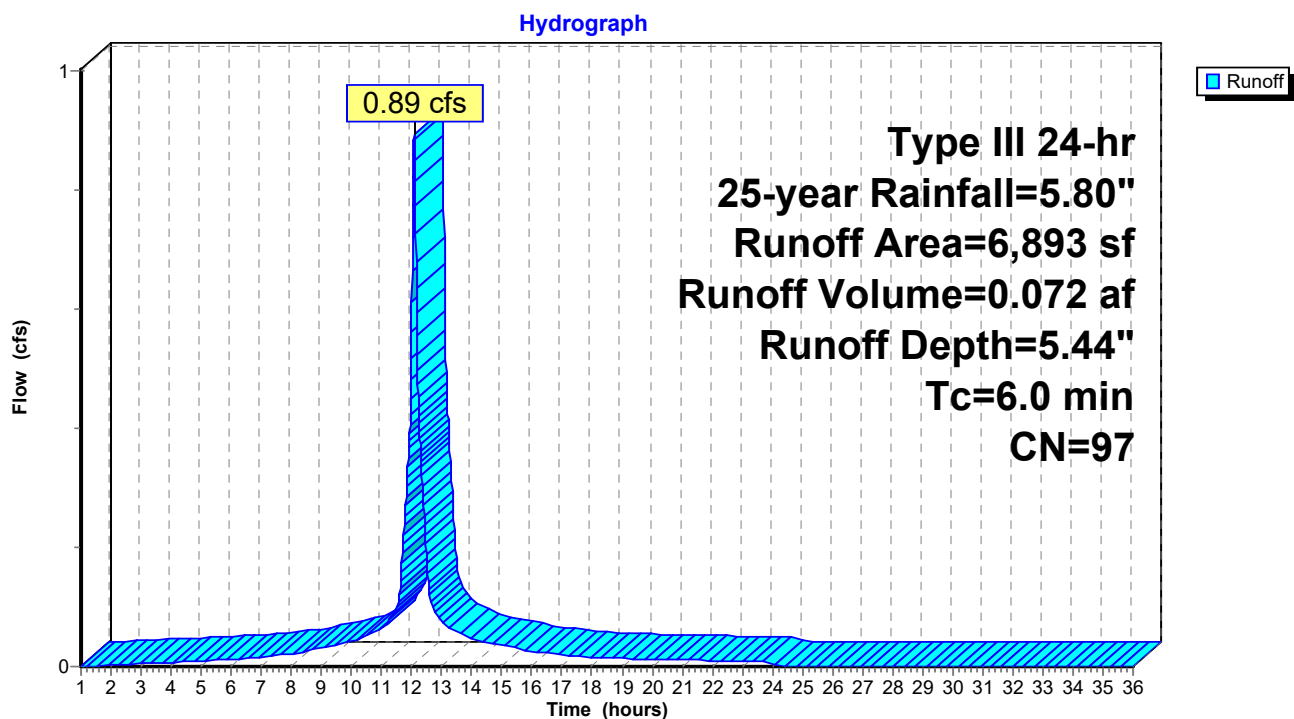
Runoff = 0.89 cfs @ 12.08 hrs, Volume= 0.072 af, Depth= 5.44"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-year Rainfall=5.80"

	Area (sf)	CN	Description
*	6,637	98	Pavement
	256	74	>75% Grass cover, Good, HSG C
	6,893	97	Weighted Average
	256		3.71% Pervious Area
	6,637		96.29% Impervious Area

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

Subcatchment 2S.1: Subcat 2.1



Summary for Subcatchment 2S.2: Subcat 2.2

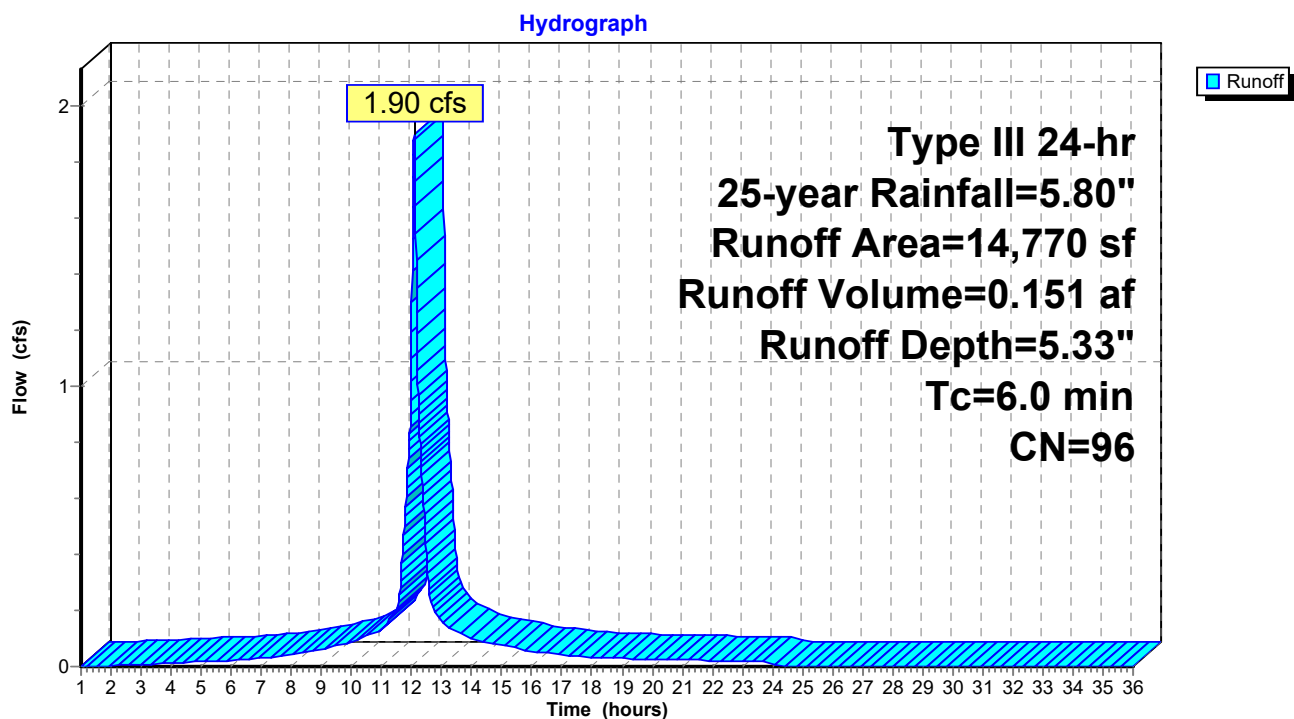
Runoff = 1.90 cfs @ 12.08 hrs, Volume= 0.151 af, Depth= 5.33"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-year Rainfall=5.80"

	Area (sf)	CN	Description
*	13,274	98	Pavement/Roofs
	1,496	74	>75% Grass cover, Good, HSG C
	14,770	96	Weighted Average
	1,496		10.13% Pervious Area
	13,274		89.87% Impervious Area

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

Subcatchment 2S.2: Subcat 2.2



Summary for Subcatchment 2S.3: Subcat 2.3

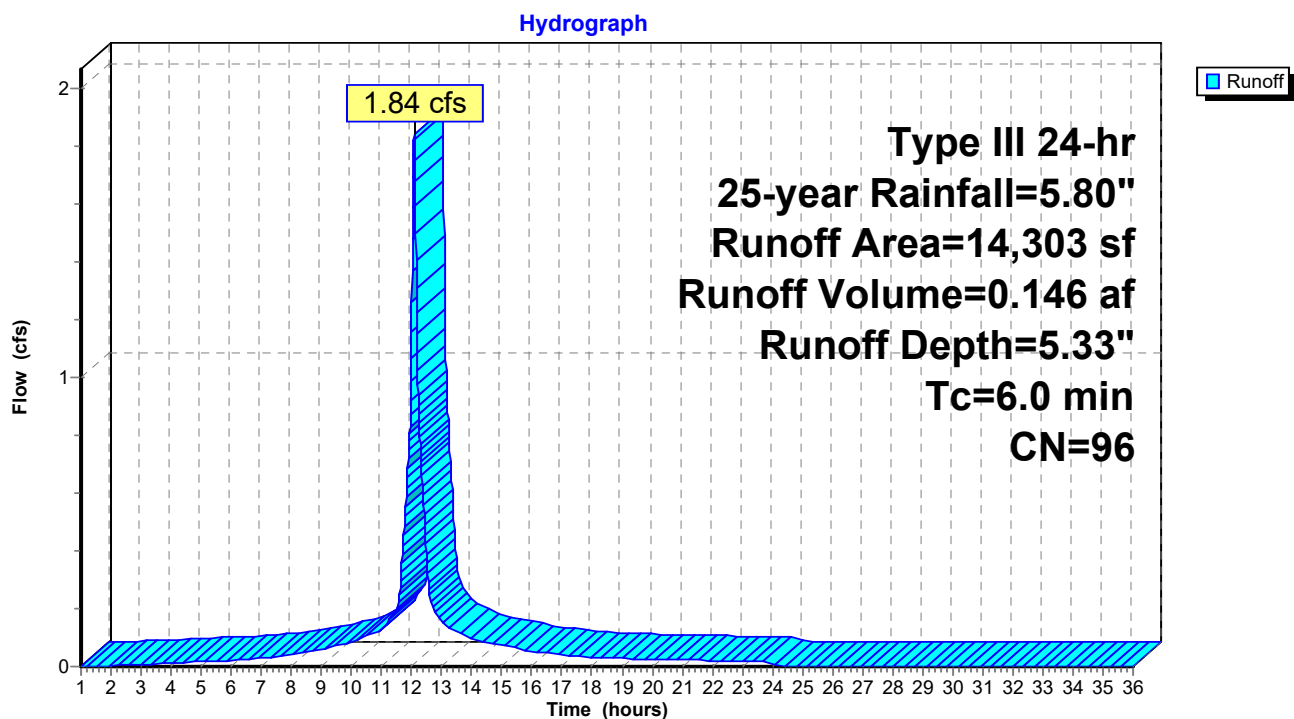
Runoff = 1.84 cfs @ 12.08 hrs, Volume= 0.146 af, Depth= 5.33"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-year Rainfall=5.80"

	Area (sf)	CN	Description
*	13,373	98	Pavement/Roofs
	930	74	>75% Grass cover, Good, HSG C
	14,303	96	Weighted Average
	930		6.50% Pervious Area
	13,373		93.50% Impervious Area

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

Subcatchment 2S.3: Subcat 2.3



Summary for Subcatchment 2S.4: Subcat 2.4

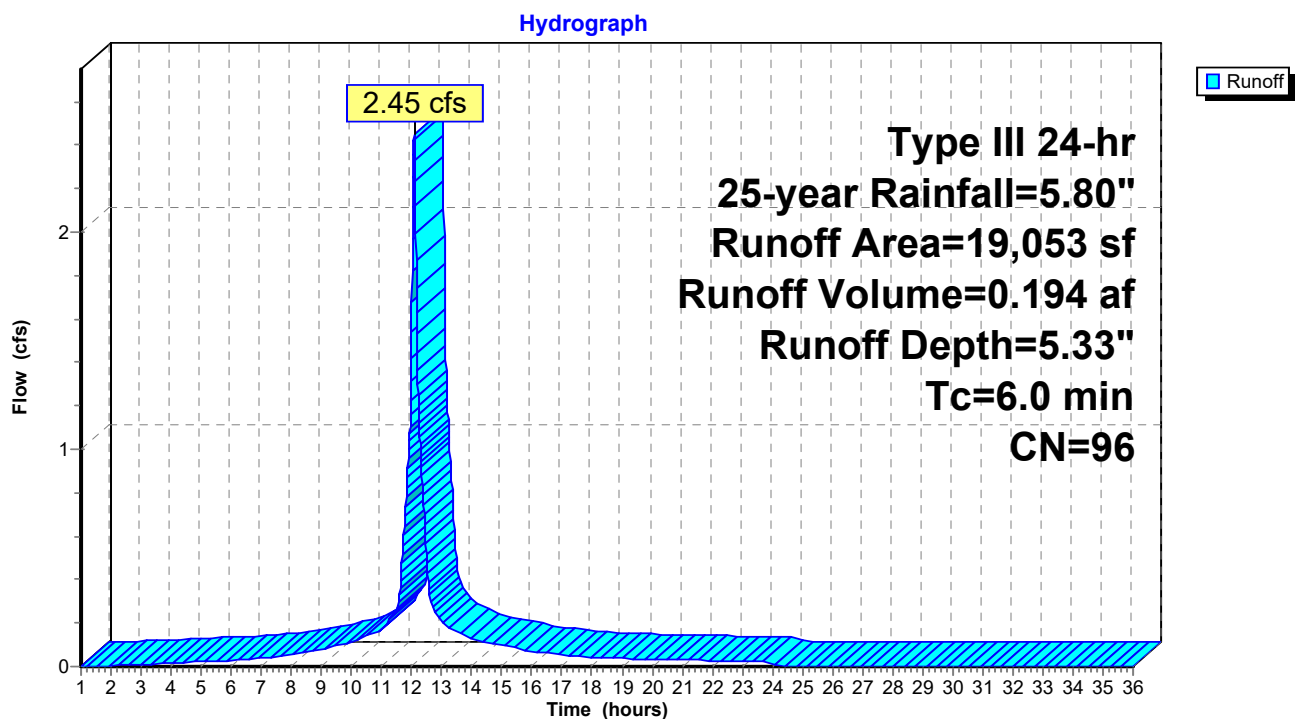
Runoff = 2.45 cfs @ 12.08 hrs, Volume= 0.194 af, Depth= 5.33"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-year Rainfall=5.80"

	Area (sf)	CN	Description
*	17,609	98	Pavement/Roofs
	1,444	74	>75% Grass cover, Good, HSG C
	19,053	96	Weighted Average
	1,444		7.58% Pervious Area
	17,609		92.42% Impervious Area

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

Subcatchment 2S.4: Subcat 2.4

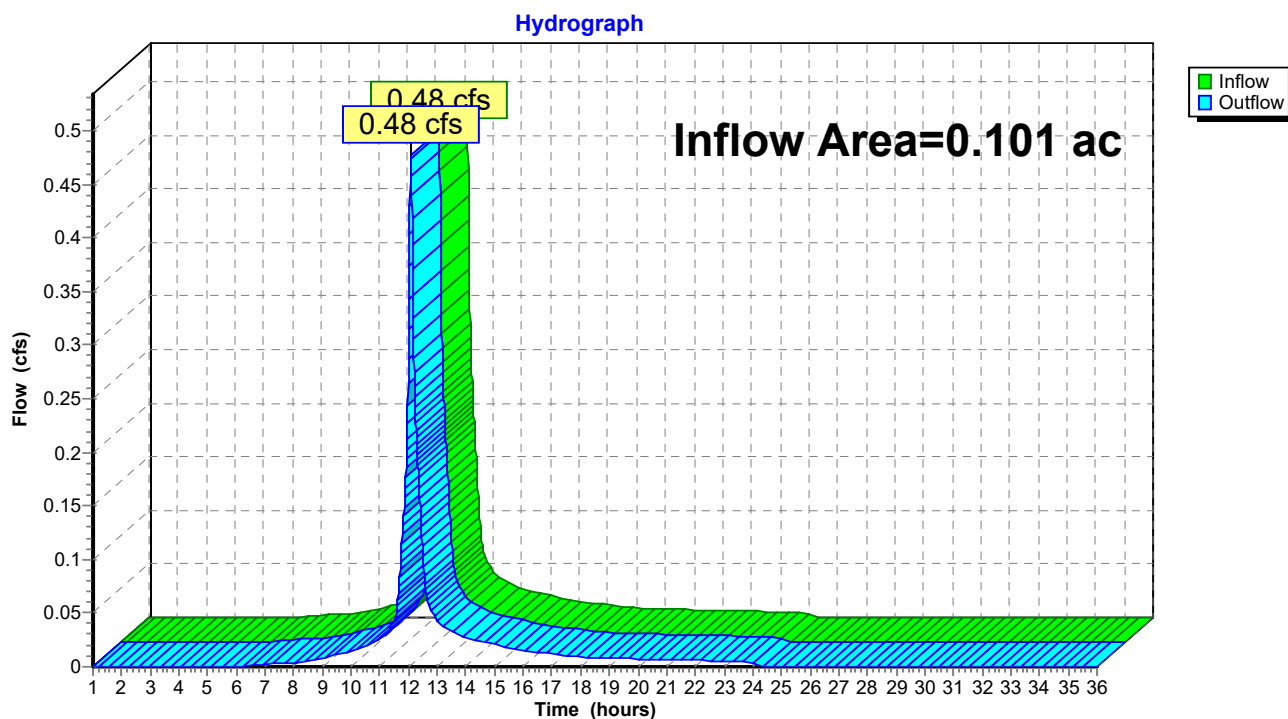


Summary for Reach 1R: POI #1 - Sherwood St.

Inflow Area = 0.101 ac, 53.04% Impervious, Inflow Depth = 4.11" for 25-year event
 Inflow = 0.48 cfs @ 12.09 hrs, Volume= 0.035 af
 Outflow = 0.48 cfs @ 12.09 hrs, Volume= 0.035 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 1.00-36.00 hrs, dt= 0.01 hrs / 2

Reach 1R: POI #1 - Sherwood St.

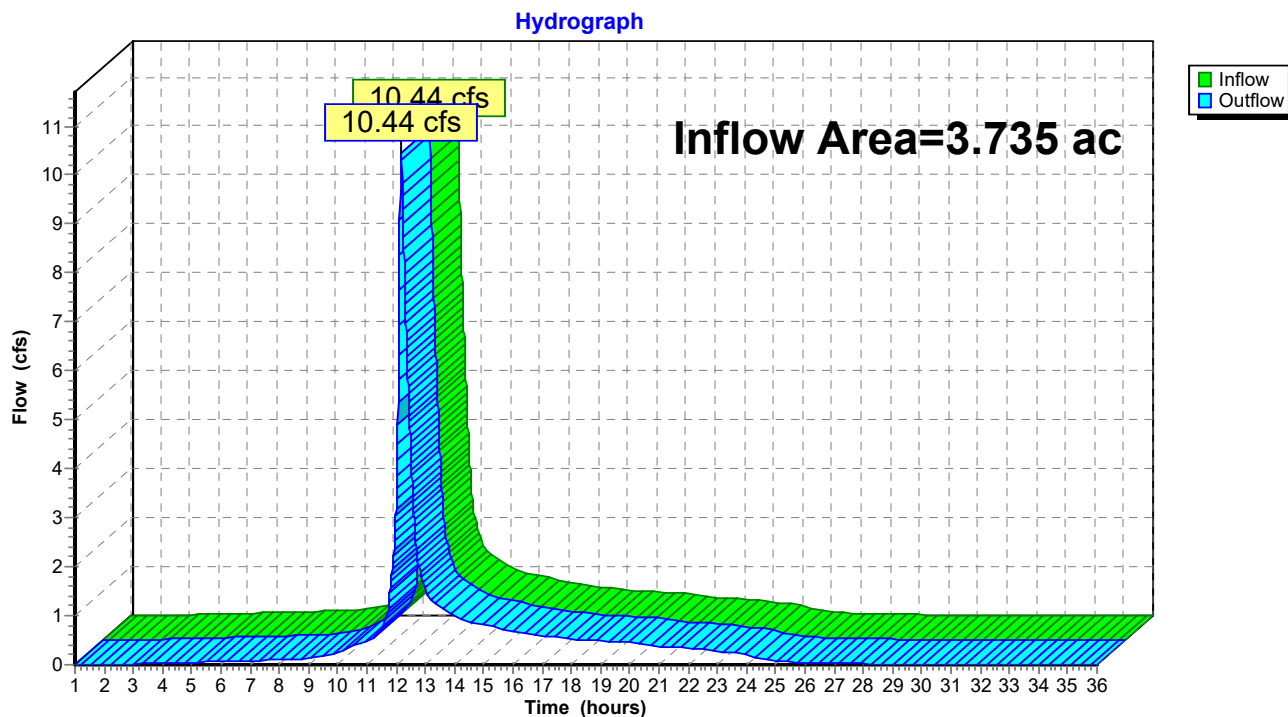


Summary for Reach 2R: POI #2 - Wetland

Inflow Area = 3.735 ac, 33.06% Impervious, Inflow Depth > 3.54" for 25-year event
 Inflow = 10.44 cfs @ 12.17 hrs, Volume= 1.101 af
 Outflow = 10.44 cfs @ 12.17 hrs, Volume= 1.101 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 1.00-36.00 hrs, dt= 0.01 hrs / 2

Reach 2R: POI #2 - Wetland



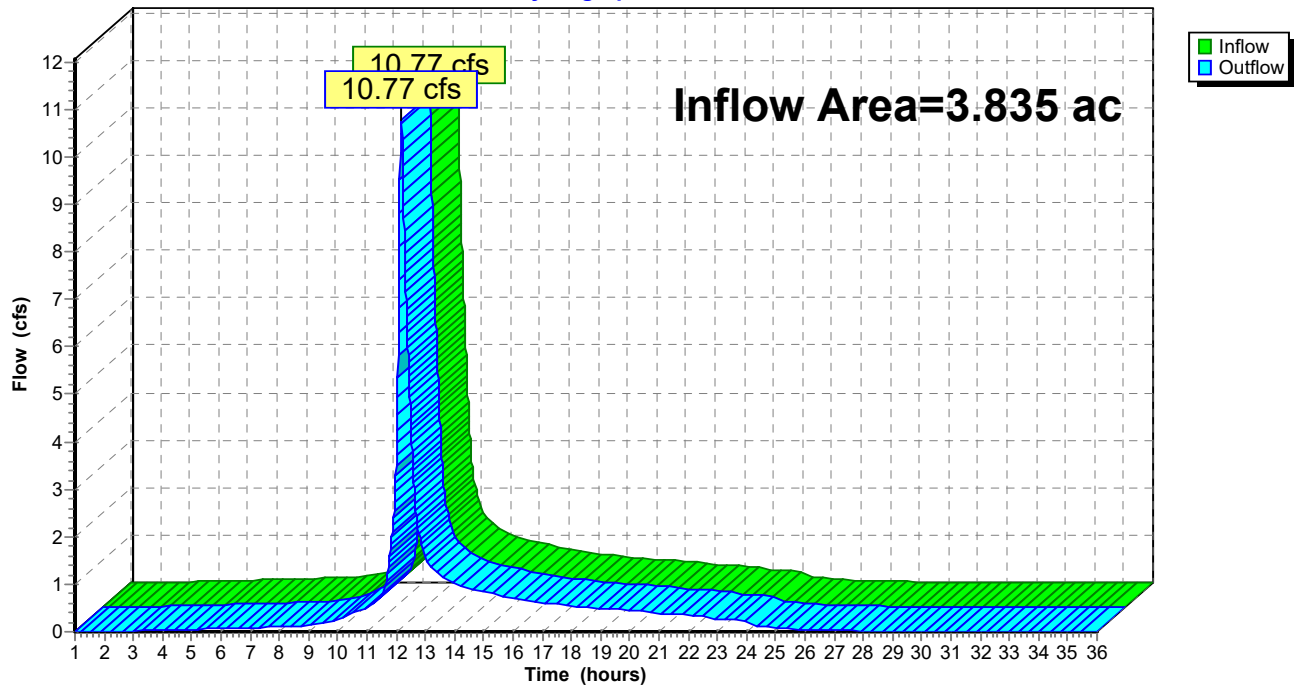
Summary for Reach 3R: TOTAL

Inflow Area = 3.835 ac, 33.58% Impervious, Inflow Depth > 3.55" for 25-year event
 Inflow = 10.77 cfs @ 12.17 hrs, Volume= 1.136 af
 Outflow = 10.77 cfs @ 12.17 hrs, Volume= 1.136 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 1.00-36.00 hrs, dt= 0.01 hrs / 2

Reach 3R: TOTAL

Hydrograph



Summary for Pond P1: StormTech 3500

Inflow Area = 0.158 ac, 96.29% Impervious, Inflow Depth = 5.44" for 25-year event
 Inflow = 0.89 cfs @ 12.08 hrs, Volume= 0.072 af
 Outflow = 0.75 cfs @ 12.14 hrs, Volume= 0.066 af, Atten= 16%, Lag= 3.1 min
 Primary = 0.75 cfs @ 12.14 hrs, Volume= 0.066 af

Routing by Dyn-Stor-Ind method, Time Span= 1.00-36.00 hrs, dt= 0.01 hrs / 2
 Peak Elev= 19.30' @ 12.14 hrs Surf.Area= 1,247 sf Storage= 1,127 cf

Plug-Flow detention time= 332.3 min calculated for 0.066 af (92% of inflow)
 Center-of-Mass det. time= 288.9 min (1,041.7 - 752.8)

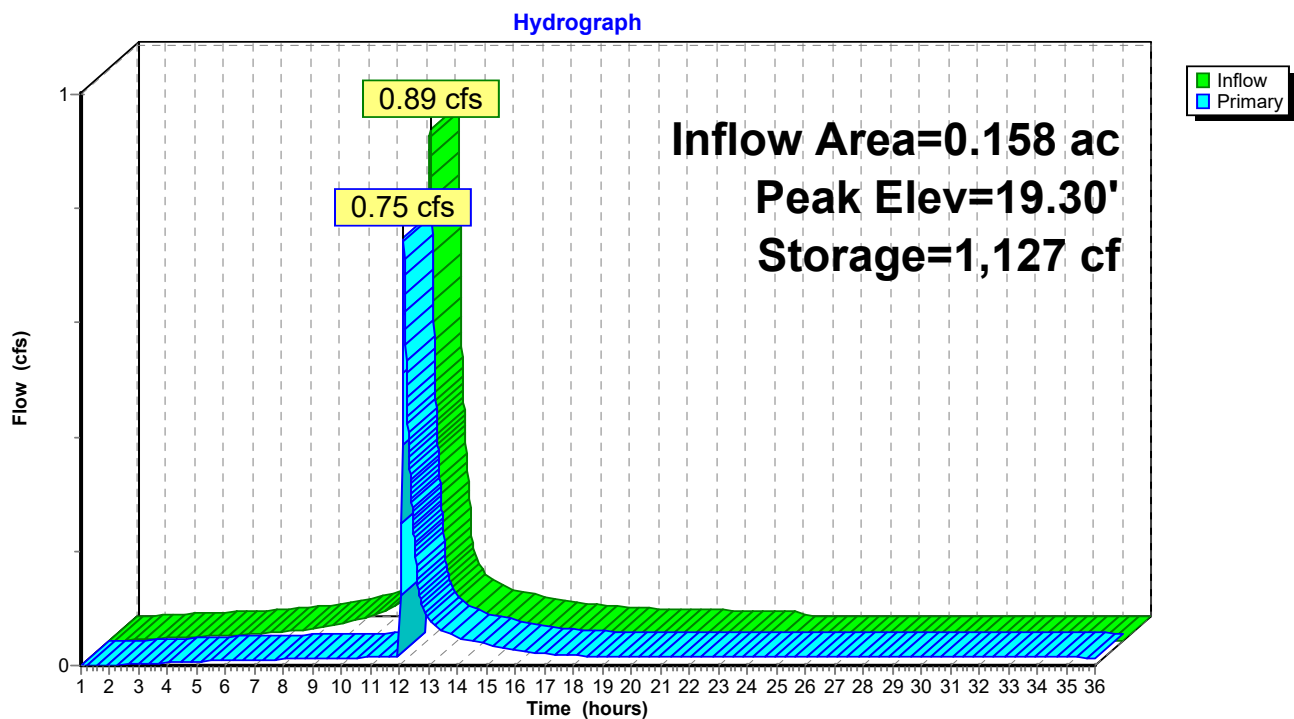
Volume	Invert	Avail.Storage	Storage Description
#1	16.10'	448 cf	21.76'W x 19.10'L x 4.50'H Stone 1,870 cf Overall - 749 cf Embedded = 1,121 cf x 40.0% Voids
#2	16.60'	749 cf	ADS_StormTech MC-3500 d +Cap x 6 Inside #1 Effective Size= 70.4"W x 45.0"H => 15.33 sf x 7.17'L = 110.0 cf Overall Size= 77.0"W x 45.0"H x 7.50'L with 0.33' Overlap 6 Chambers in 3 Rows Cap Storage= +14.9 cf x 2 x 3 rows = 89.4 cf
#3	14.60'	31 cf	21.76'W x 19.10'L x 1.50'H Sand 623 cf Overall x 5.0% Voids
#4	13.60'	163 cf	21.76'W x 19.10'L x 1.00'H Crushed Stone 416 cf Overall - 7 cf Embedded = 408 cf x 40.0% Voids
#5	13.85'	7 cf	4.0" Round Underdrain Storage Inside #4 L= 85.1'
		1,399 cf	Total Available Storage

Device	Routing	Invert	Outlet Devices
#1	Primary	18.80'	12.0" Round Bypass Overflow L= 20.0' Ke= 0.900 Inlet / Outlet Invert= 18.80' / 14.00' S= 0.2400 '/ Cc= 0.900 n= 0.010, Flow Area= 0.79 sf
#2	Primary	13.60'	1.0" Round Underdrain & Orifice L= 125.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 13.60' / 10.00' S= 0.0288 '/ Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 0.01 sf

Primary OutFlow Max=0.75 cfs @ 12.14 hrs HW=19.30' TW=15.53' (Dynamic Tailwater)

1=Bypass Overflow (Inlet Controls 0.74 cfs @ 1.89 fps)
 2=Underdrain & Orifice (Outlet Controls 0.01 cfs @ 1.92 fps)

Pond P1: StormTech 3500



Summary for Pond P2: StormTech 3500

Inflow Area = 0.339 ac, 89.87% Impervious, Inflow Depth = 5.33" for 25-year event
 Inflow = 1.90 cfs @ 12.08 hrs, Volume= 0.151 af
 Outflow = 1.16 cfs @ 12.18 hrs, Volume= 0.151 af, Atten= 39%, Lag= 6.0 min
 Primary = 1.16 cfs @ 12.18 hrs, Volume= 0.151 af

Routing by Dyn-Stor-Ind method, Time Span= 1.00-36.00 hrs, dt= 0.01 hrs / 2
 Peak Elev= 18.62' @ 12.18 hrs Surf.Area= 2,317 sf Storage= 2,180 cf

Plug-Flow detention time= 155.6 min calculated for 0.151 af (100% of inflow)
 Center-of-Mass det. time= 155.4 min (914.4 - 759.0)

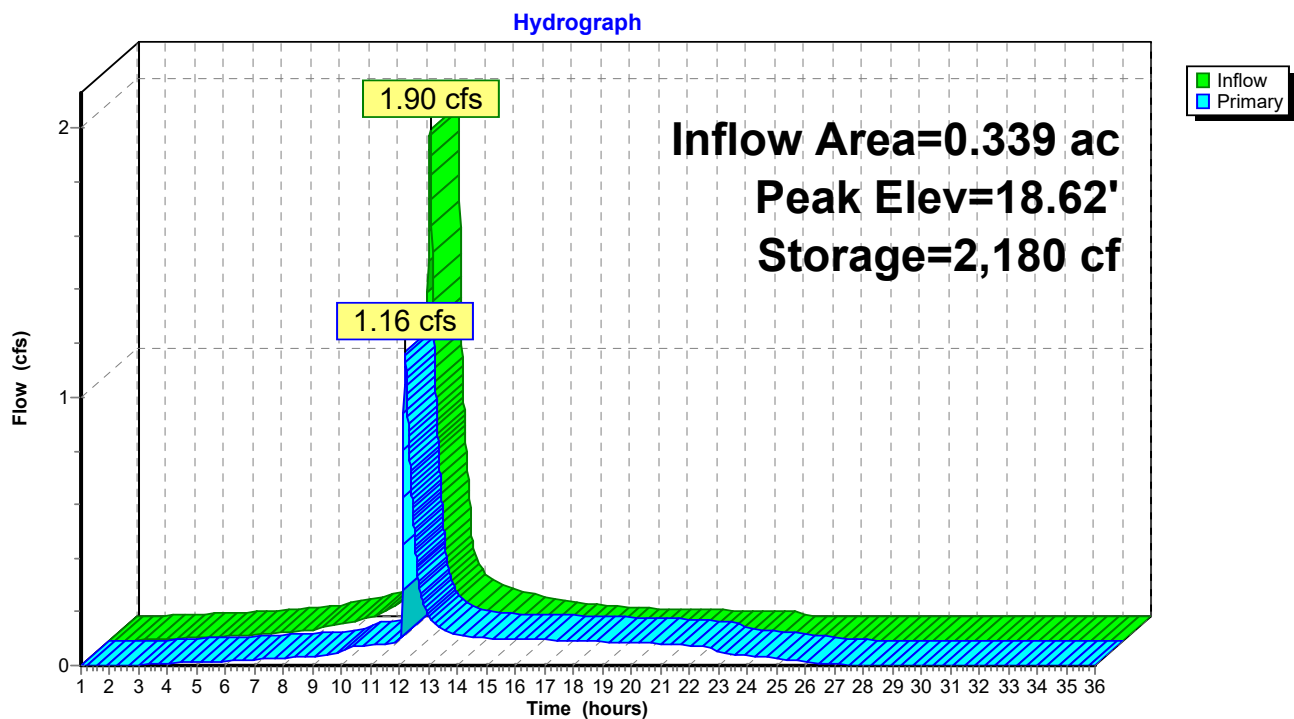
Volume	Invert	Avail.Storage	Storage Description
#1	15.30'	815 cf	28.93'W x 26.70'L x 4.50'H Stone 3,476 cf Overall - 1,439 cf Embedded = 2,037 cf x 40.0% Voids
#2	15.80'	1,439 cf	ADS_StormTech MC-3500 d +Cap x 12 Inside #1 Effective Size= 70.4"W x 45.0"H => 15.33 sf x 7.17'L = 110.0 cf Overall Size= 77.0"W x 45.0"H x 7.50'L with 0.33' Overlap 12 Chambers in 4 Rows Cap Storage= +14.9 cf x 2 x 4 rows = 119.2 cf
#3	13.80'	58 cf	28.93'W x 26.70'L x 1.50'H Sand 1,159 cf Overall x 5.0% Voids
#4	12.80'	303 cf	28.93'W x 26.70'L x 1.00'H Crushed Stone 772 cf Overall - 14 cf Embedded = 759 cf x 40.0% Voids
#5	13.05'	14 cf	4.0" Round Underdrain Storage Inside #4 L= 157.0'
		2,629 cf	Total Available Storage

Device	Routing	Invert	Outlet Devices
#1	Primary	12.80'	1.5" Round Underdrain & Orifice L= 10.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 12.80' / 12.70' S= 0.0100 '/ Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 0.01 sf
#2	Primary	18.00'	12.0" Round Bypass Overflow L= 4.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 18.00' / 17.25' S= 0.1875 '/ Cc= 0.900 n= 0.010, Flow Area= 0.79 sf

Primary OutFlow Max=1.16 cfs @ 12.18 hrs HW=18.62' TW=15.63' (Dynamic Tailwater)

1=Underdrain & Orifice (Outlet Controls 0.08 cfs @ 6.29 fps)
 2=Bypass Overflow (Inlet Controls 1.09 cfs @ 2.12 fps)

Pond P2: StormTech 3500



Summary for Pond P3: StormTech 3500

Inflow Area = 0.328 ac, 93.50% Impervious, Inflow Depth = 5.33" for 25-year event
 Inflow = 1.84 cfs @ 12.08 hrs, Volume= 0.146 af
 Outflow = 1.03 cfs @ 12.20 hrs, Volume= 0.146 af, Atten= 44%, Lag= 7.0 min
 Primary = 1.03 cfs @ 12.20 hrs, Volume= 0.146 af

Routing by Dyn-Stor-Ind method, Time Span= 1.00-36.00 hrs, dt= 0.01 hrs / 2
 Peak Elev= 17.38' @ 12.20 hrs Surf.Area= 2,317 sf Storage= 2,170 cf

Plug-Flow detention time= 157.5 min calculated for 0.146 af (100% of inflow)
 Center-of-Mass det. time= 157.4 min (916.4 - 759.0)

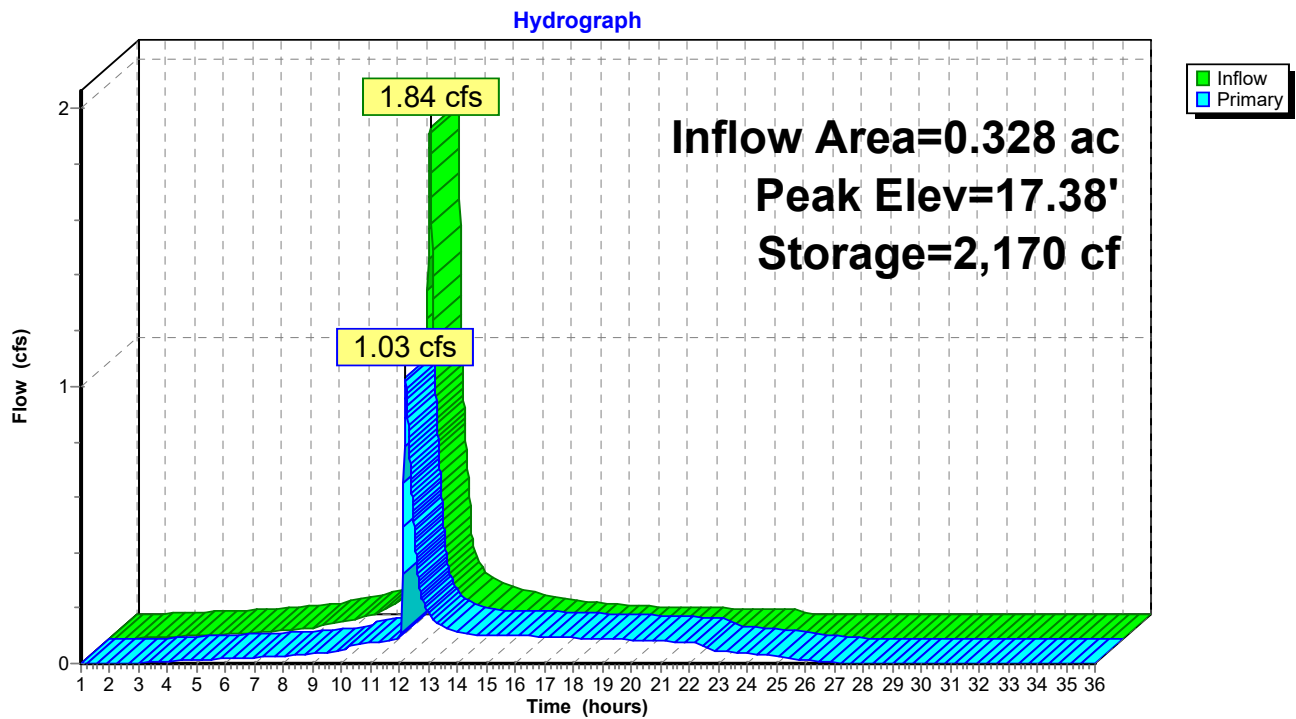
Volume	Invert	Avail.Storage	Storage Description
#1	14.08'	815 cf	28.93'W x 26.70'L x 4.50'H Stone 3,476 cf Overall - 1,439 cf Embedded = 2,037 cf x 40.0% Voids
#2	14.58'	1,439 cf	ADS_StormTech MC-3500 d +Cap x 12 Inside #1 Effective Size= 70.4"W x 45.0"H => 15.33 sf x 7.17'L = 110.0 cf Overall Size= 77.0"W x 45.0"H x 7.50'L with 0.33' Overlap 12 Chambers in 4 Rows Cap Storage= +14.9 cf x 2 x 4 rows = 119.2 cf
#3	12.58'	58 cf	28.93'W x 26.70'L x 1.50'H Sand 1,159 cf Overall x 5.0% Voids
#4	11.58'	303 cf	28.93'W x 26.70'L x 1.00'H Crushed Stone 772 cf Overall - 14 cf Embedded = 759 cf x 40.0% Voids
#5	11.83'	14 cf	4.0" Round Underdrain Storage Inside #4 L= 157.0'
		2,629 cf	Total Available Storage

Device	Routing	Invert	Outlet Devices
#1	Primary	11.58'	1.5" Round Underdrain & Orifice L= 10.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 11.58' / 11.40' S= 0.0180 '/ Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 0.01 sf
#2	Primary	16.80'	12.0" Round Bypass Overflow L= 5.5' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 16.80' / 16.00' S= 0.1455 '/ Cc= 0.900 n= 0.010, Flow Area= 0.79 sf

Primary OutFlow Max=1.03 cfs @ 12.20 hrs HW=17.38' TW=15.63' (Dynamic Tailwater)

1=Underdrain & Orifice (Outlet Controls 0.06 cfs @ 4.81 fps)
 2=Bypass Overflow (Inlet Controls 0.97 cfs @ 2.05 fps)

Pond P3: StormTech 3500



Summary for Pond P4: StormTech 3500

Inflow Area = 0.437 ac, 92.42% Impervious, Inflow Depth = 5.33" for 25-year event
 Inflow = 2.45 cfs @ 12.08 hrs, Volume= 0.194 af
 Outflow = 1.34 cfs @ 12.20 hrs, Volume= 0.194 af, Atten= 46%, Lag= 7.3 min
 Primary = 1.34 cfs @ 12.20 hrs, Volume= 0.194 af

Routing by Dyn-Stor-Ind method, Time Span= 1.00-36.00 hrs, dt= 0.01 hrs / 2
 Peak Elev= 16.73' @ 12.20 hrs Surf.Area= 2,845 sf Storage= 2,742 cf

Plug-Flow detention time= 124.5 min calculated for 0.194 af (100% of inflow)
 Center-of-Mass det. time= 124.3 min (883.3 - 759.0)

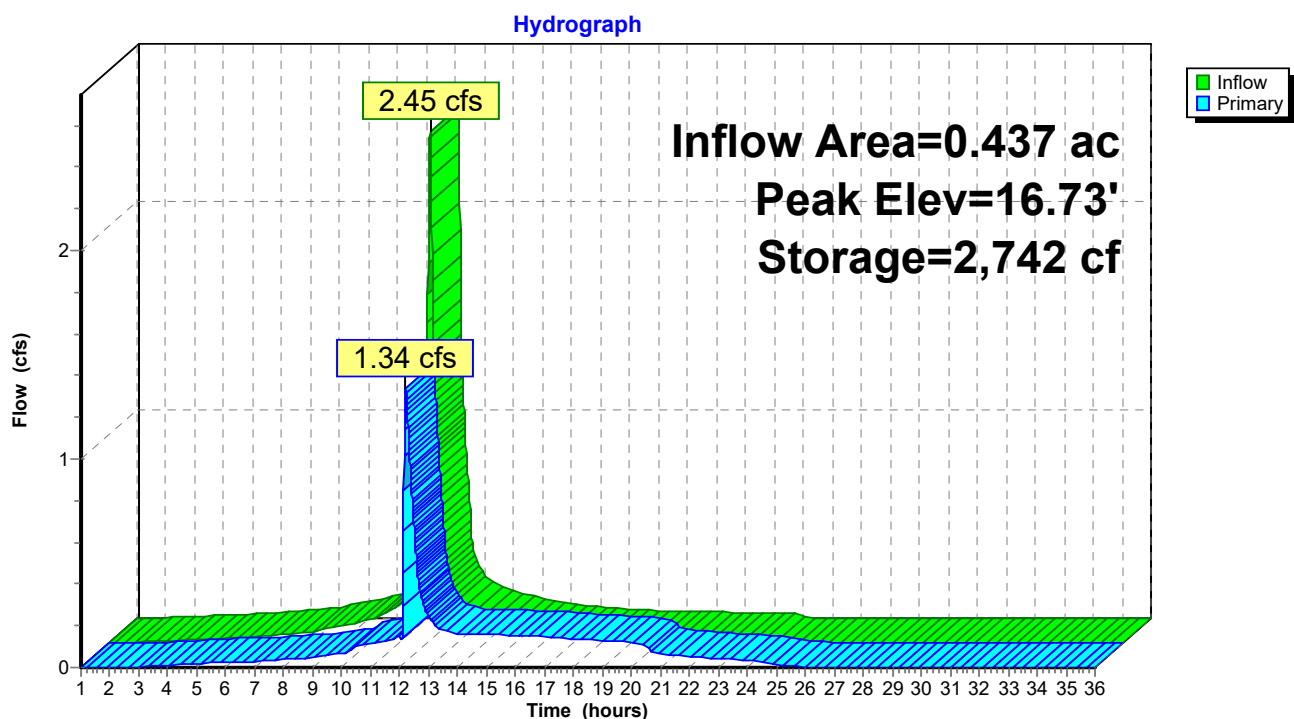
Volume	Invert	Avail.Storage	Storage Description
#1	13.33'	988 cf	36.10'W x 26.27'L x 4.50'H Stone 4,268 cf Overall - 1,798 cf Embedded = 2,469 cf x 40.0% Voids
#2	13.83'	1,798 cf	ADS_StormTech MC-3500 d +Cap x 15 Inside #1 Effective Size= 70.4"W x 45.0"H => 15.33 sf x 7.17'L = 110.0 cf Overall Size= 77.0"W x 45.0"H x 7.50'L with 0.33' Overlap 15 Chambers in 5 Rows Cap Storage= +14.9 cf x 2 x 5 rows = 149.0 cf
#3	11.83'	71 cf	36.10'W x 26.27'L x 1.50'H Sand 1,423 cf Overall x 5.0% Voids
#4	10.83'	372 cf	36.10'W x 26.27'L x 1.00'H Crushed Stone 948 cf Overall - 17 cf Embedded = 931 cf x 40.0% Voids
#5	11.08'	17 cf	4.0" Round Underdrain Storage Inside #4 L= 197.0'
		3,247 cf	Total Available Storage

Device	Routing	Invert	Outlet Devices
#1	Primary	10.83'	2.0" Round Underdrain & Orifice L= 20.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 10.83' / 10.75' S= 0.0040 '/ Cc= 0.900 n= 0.010, Flow Area= 0.02 sf
#2	Primary	16.05'	12.0" Round Bypass Overflow L= 10.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 16.05' / 15.00' S= 0.1050 '/ Cc= 0.900 n= 0.010, Flow Area= 0.79 sf

Primary OutFlow Max=1.33 cfs @ 12.20 hrs HW=16.73' TW=15.63' (Dynamic Tailwater)

1=Underdrain & Orifice (Outlet Controls 0.08 cfs @ 3.45 fps)
 2=Bypass Overflow (Inlet Controls 1.26 cfs @ 2.22 fps)

Pond P4: StormTech 3500



Summary for Pond P5: OCS

Inflow Area = 1.263 ac, 92.50% Impervious, Inflow Depth > 5.28" for 25-year event
 Inflow = 4.12 cfs @ 12.19 hrs, Volume= 0.556 af
 Outflow = 4.12 cfs @ 12.19 hrs, Volume= 0.556 af, Atten= 0%, Lag= 0.0 min
 Primary = 4.12 cfs @ 12.19 hrs, Volume= 0.556 af

Routing by Dyn-Stor-Ind method, Time Span= 1.00-36.00 hrs, dt= 0.01 hrs / 2

Peak Elev= 15.63' @ 12.19 hrs

Flood Elev= 21.00'

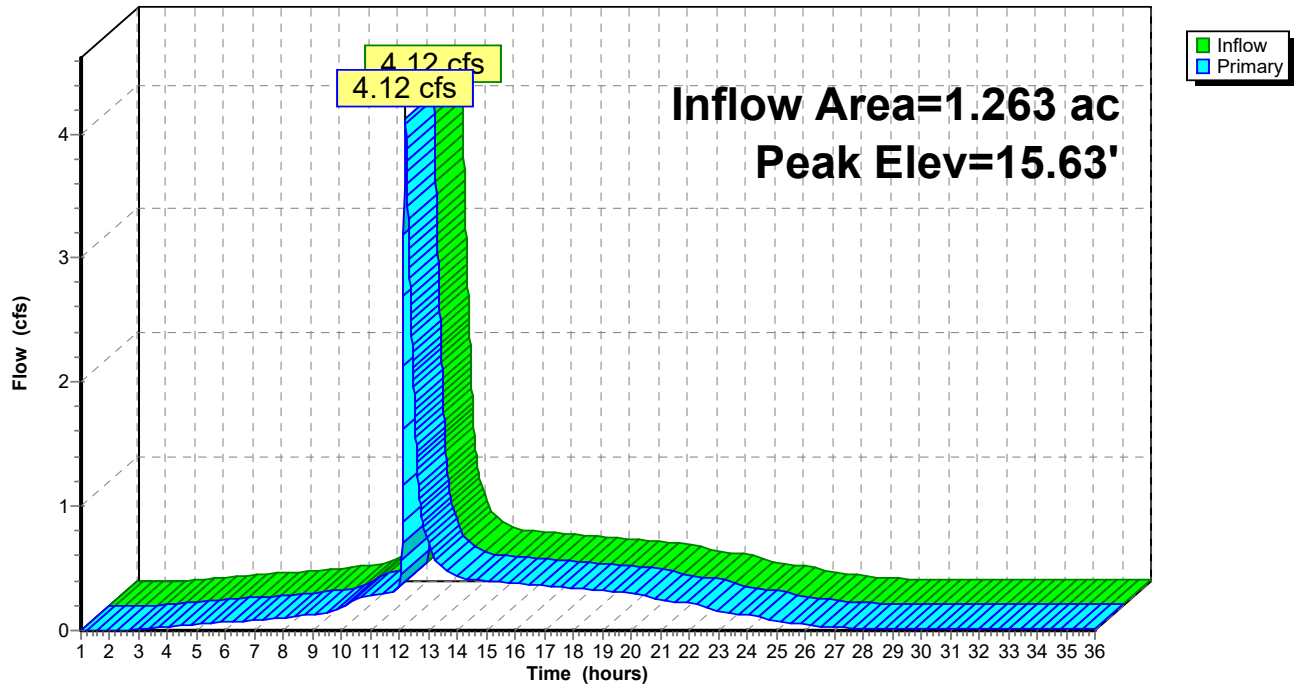
Device	Routing	Invert	Outlet Devices
#1	Primary	7.95'	18.0" Round 18" Outlet L= 34.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 7.95' / 7.80' S= 0.0044 '/' Cc= 0.900 n= 0.010, Flow Area= 1.77 sf
#2	Device 1	8.05'	3.0" Vert. Quality Orifice C= 0.600
#3	Device 1	12.50'	6.0" Vert. Quantity Orifice C= 0.600
#4	Device 1	15.40'	6.0' long x 0.7' 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 Coef. (English) 2.76 2.82 2.93 3.09 3.18 3.22 3.27 3.30 3.32 3.31 3.32

Primary OutFlow Max=4.12 cfs @ 12.19 hrs HW=15.63' TW=0.00' (Dynamic Tailwater)

- 1=18" Outlet (Passes 4.12 cfs of 17.69 cfs potential flow)
- 2=Quality Orifice (Orifice Controls 0.65 cfs @ 13.15 fps)
- 3=Quantity Orifice (Orifice Controls 1.61 cfs @ 8.18 fps)
- 4=Broad-Crested Rectangular Weir (Weir Controls 1.87 cfs @ 1.34 fps)

Pond P5: OCS

Hydrograph





United States
Department of
Agriculture

NRCS

Natural
Resources
Conservation
Service

A product of the National
Cooperative Soil Survey,
a joint effort of the United
States Department of
Agriculture and other
Federal agencies, State
agencies including the
Agricultural Experiment
Stations, and local
participants

Custom Soil Resource Report for Cumberland County and Part of Oxford County, Maine



March 11, 2021

Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (<http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/>) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (<https://offices.sc.egov.usda.gov/locator/app?agency=nrcs>) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

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How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

Custom Soil Resource Report

identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Custom Soil Resource Report Soil Map



MAP LEGEND

Area of Interest (AOI)

 Area of Interest (AOI)

Soils

 Soil Map Unit Polygons

 Soil Map Unit Lines

 Soil Map Unit Points

Special Point Features

 Blowout

 Borrow Pit

 Clay Spot

 Closed Depression

 Gravel Pit

 Gravelly Spot

 Landfill

 Lava Flow

 Marsh or swamp

 Mine or Quarry

 Miscellaneous Water

 Perennial Water

 Rock Outcrop

 Saline Spot

 Sandy Spot

 Severely Eroded Spot

 Sinkhole

 Slide or Slip

 Sodic Spot

 Spoil Area

 Stony Spot

 Very Stony Spot

 Wet Spot

 Other

 Special Line Features

Water Features

 Streams and Canals

Transportation

 Rails

 Interstate Highways

 US Routes

 Major Roads

 Local Roads

Background

 Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Cumberland County and Part of Oxford County, Maine
Survey Area Data: Version 17, Jun 5, 2020

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Data not available.

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
BuC2	Buxton silt loam, 8 to 15 percent slopes	0.1	3.6%
Cu	Cut and fill land	0.0	0.0%
EmB	Elmwood fine sandy loam, 0 to 8 percent slopes	1.1	29.9%
SuD2	Suffield silt loam, 15 to 25 percent slopes, eroded	2.6	66.5%
Totals for Area of Interest		3.8	100.0%

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate

pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Cumberland County and Part of Oxford County, Maine

BuC2—Buxton silt loam, 8 to 15 percent slopes

Map Unit Setting

National map unit symbol: 2x1by
Elevation: 10 to 490 feet
Mean annual precipitation: 33 to 60 inches
Mean annual air temperature: 36 to 52 degrees F
Frost-free period: 90 to 160 days
Farmland classification: Not prime farmland

Map Unit Composition

Buxton and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Buxton

Setting

Landform: Marine terraces, river valleys
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Linear
Across-slope shape: Convex
Parent material: Fine glaciomarine deposits

Typical profile

Ap - 0 to 7 inches: silt loam
Bw1 - 7 to 18 inches: silt loam
Bw2 - 18 to 23 inches: silty clay loam
BC - 23 to 35 inches: silty clay loam
C - 35 to 65 inches: silty clay

Properties and qualities

Slope: 8 to 15 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Moderately well drained
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.14 in/hr)
Depth to water table: About 17 to 24 inches
Frequency of flooding: None
Frequency of ponding: None
Maximum salinity: Nonsaline (0.0 to 1.9 mmhos/cm)
Available water capacity: High (about 9.1 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3e
Hydrologic Soil Group: C/D
Hydric soil rating: No

Minor Components

Lamoine

Percent of map unit: 7 percent

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Landform: Marine terraces, river valleys
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Base slope
Down-slope shape: Concave
Across-slope shape: Linear
Hydric soil rating: No

Scantic

Percent of map unit: 5 percent
Landform: Marine terraces, river valleys
Landform position (two-dimensional): Toeslope, footslope
Landform position (three-dimensional): Base slope
Down-slope shape: Concave
Across-slope shape: Concave
Hydric soil rating: Yes

Buxton, >15% slopes

Percent of map unit: 3 percent
Landform: Marine terraces, river valleys
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Linear
Across-slope shape: Convex
Hydric soil rating: No

Cu—Cut and fill land

Map Unit Setting

National map unit symbol: blh4
Elevation: 10 to 2,200 feet
Mean annual precipitation: 30 to 55 inches
Mean annual air temperature: 37 to 46 degrees F
Frost-free period: 70 to 195 days
Farmland classification: Not prime farmland

Map Unit Composition

Cut and fill land: 90 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Cut And Fill Land

Typical profile

H1 - 0 to 65 inches: very gravelly sandy loam

Properties and qualities

Slope: 0 to 35 percent
Drainage class: Moderately well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to very high (0.06 to 20.00 in/hr)
Depth to water table: About 24 to 42 inches

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Available water capacity: Moderate (about 6.6 inches)

Minor Components

Windsor

Percent of map unit: 2 percent
Landform: Kames, outwash terraces
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Riser
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Elmwood

Percent of map unit: 2 percent
Landform: Stream terraces
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Hollis

Percent of map unit: 2 percent
Landform: Hills
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Base slope
Down-slope shape: Convex
Across-slope shape: Convex
Hydric soil rating: No

Tidal marsh

Percent of map unit: 2 percent
Landform: Tidal flats
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Dip
Down-slope shape: Concave
Across-slope shape: Concave
Hydric soil rating: Yes

Buxton

Percent of map unit: 2 percent
Landform: Coastal plains
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

EmB—Elmwood fine sandy loam, 0 to 8 percent slopes

Map Unit Setting

National map unit symbol: blh8
Elevation: 10 to 900 feet
Mean annual precipitation: 36 to 55 inches
Mean annual air temperature: 39 to 46 degrees F
Frost-free period: 90 to 195 days
Farmland classification: All areas are prime farmland

Map Unit Composition

Elmwood and similar soils: 88 percent
Minor components: 12 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Elmwood

Setting

Landform: Stream terraces
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Coarse-loamy glaciolacustrine deposits

Typical profile

H1 - 0 to 8 inches: fine sandy loam
H2 - 8 to 25 inches: sandy loam
H3 - 25 to 65 inches: silty clay loam

Properties and qualities

Slope: 0 to 8 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Moderately well drained
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately high (0.00 to 0.20 in/hr)
Depth to water table: About 18 to 36 inches
Frequency of flooding: None
Frequency of ponding: None
Available water capacity: High (about 9.7 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2w
Hydrologic Soil Group: B
Hydric soil rating: No

Minor Components

Swanton

Percent of map unit: 7 percent
Landform: Stream terraces
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: Yes

Melrose

Percent of map unit: 3 percent
Landform: Stream terraces
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Riser
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Whately

Percent of map unit: 2 percent
Landform: Stream terraces
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Tread
Down-slope shape: Concave
Across-slope shape: Concave
Hydric soil rating: Yes

SuD2—Suffield silt loam, 15 to 25 percent slopes, eroded

Map Unit Setting

National map unit symbol: blk2
Elevation: 10 to 900 feet
Mean annual precipitation: 34 to 48 inches
Mean annual air temperature: 43 to 46 degrees F
Frost-free period: 90 to 160 days
Farmland classification: Not prime farmland

Map Unit Composition

Suffield and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Suffield

Setting

Landform: Coastal plains
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Riser

Custom Soil Resource Report

Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Fine glaciolacustrine deposits

Typical profile

H1 - 0 to 6 inches: silt loam
H2 - 6 to 23 inches: silt loam
H3 - 23 to 33 inches: silty clay
H4 - 33 to 65 inches: silty clay

Properties and qualities

Slope: 15 to 25 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Moderately well drained
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately high (0.00 to 0.20 in/hr)
Depth to water table: About 18 to 36 inches
Frequency of flooding: None
Frequency of ponding: None
Available water capacity: High (about 9.5 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6e
Hydrologic Soil Group: C
Hydric soil rating: No

Minor Components

Hartland

Percent of map unit: 7 percent
Landform: Coastal plains
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Riser
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Suffield, slopes <15%

Percent of map unit: 3 percent
Landform: Coastal plains
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Riser
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Belgrade

Percent of map unit: 3 percent
Landform: Coastal plains
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Riser
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Suffield, slopes >25%

Percent of map unit: 2 percent

Custom Soil Resource Report

Landform: Coastal plains

Landform position (two-dimensional): Backslope

Landform position (three-dimensional): Riser

Down-slope shape: Linear

Across-slope shape: Linear

Hydric soil rating: No

References

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- United States Department of Agriculture, Natural Resources Conservation Service. National forestry manual. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/home/?cid=nrcs142p2_053374
- United States Department of Agriculture, Natural Resources Conservation Service. National range and pasture handbook. <http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/landuse/rangepasture/?cid=stelprdb1043084>

Custom Soil Resource Report

United States Department of Agriculture, Natural Resources Conservation Service. National soil survey handbook, title 430-VI. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/scientists/?cid=nrcs142p2_054242

United States Department of Agriculture, Natural Resources Conservation Service. 2006. Land resource regions and major land resource areas of the United States, the Caribbean, and the Pacific Basin. U.S. Department of Agriculture Handbook 296. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_053624

United States Department of Agriculture, Soil Conservation Service. 1961. Land capability classification. U.S. Department of Agriculture Handbook 210. http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_052290.pdf

ADDRESS: IN THE VICINITY OF: 157 SHERWOOD STREET
& 33 DALTON STREET

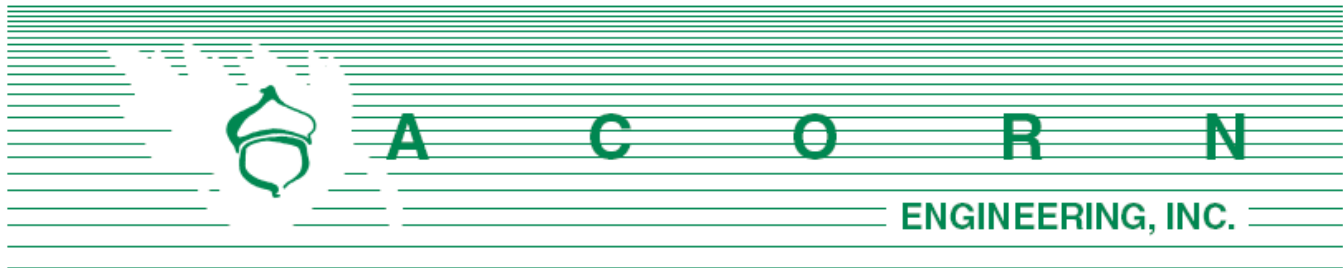
MEETING DATE:
JULY 13, 2021

APPLICATION ID: PL-001532-2021

NOTICE OF PUBLIC MEETING

CITY OF PORTLAND PLANNING BOARD

Find agenda at: www.portlandmaine.gov/agendas
For more information, call (207) 874-8719



Planning Division
 City of Portland, Maine
 Attn: Shukria Wiar
 389 Congress Street, 4th Floor
 Portland, ME 04101

July 2, 2021

Subject: Winchester Woods - Notice of Public Meeting Certification

I, Sam Lebel, hereby certify that (2) notice of neighborhood meeting signs were posted on July 2, 2021, prior to the July 13, 2021 Planning Board Meeting for the proposed project PL-001532-2021 located in the vicinity of 157 Sherwood Street and 33 Dalton Street. Photo documentation of sign in-situ:



Sign Location Near 33 Dalton Street

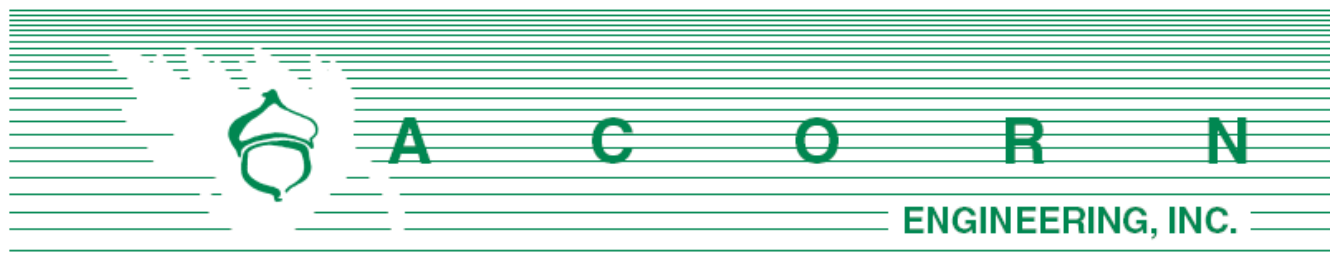


Sign Location Near 157 Sherwood Street

Note that it is the applicant's responsibility to remove the notice of public meeting sign within three days following the date of the meeting.

Signed,

Sam Lebel, P.E.
 Project Manager
 Acorn Engineering, Inc.



Planning Division
 City of Portland, Maine
 Attn: Charles Tetelman
 389 Congress Street, 4th Floor
 Portland, ME 04101

September 30, 2021

Subject: Winchester Woods - Notice of Public Meeting Certification

I, Sam Lebel, hereby certify that (2) notice of neighborhood meeting signs were posted on September 30, 2021, prior to the October 12, 2021 Planning Board Meeting for the proposed project PL-001532-2021 located in the vicinity of 157 Sherwood Street and 33 Dalton Street. Photo documentation of sign in-situ:



Sign Location Near 33 Dalton Street



Sign Location Near 157 Sherwood Street

Note that it is the applicant's responsibility to remove the notice of public meeting sign within three days following the date of the meeting.

Signed,

Sam Lebel, P.E.
 Project Manager
 Acorn Engineering, Inc.

ADDRESS: IN THE VICINITY OF
157 SHERWOOD STREET
& 33 DALTON STREET

APPLICATION ID: PL-001532-2021

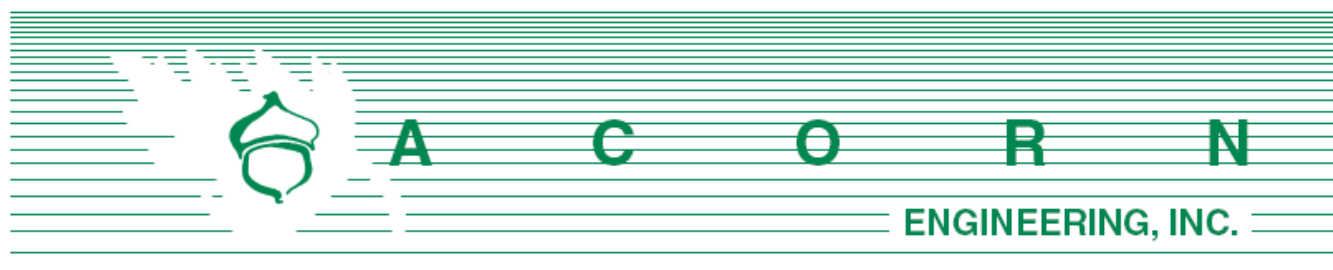
MEETING DATE:

October 12, 2021

NOTICE OF PUBLIC MEETING CITY OF PORTLAND PLANNING BOARD

Find agenda at: www.portlandmaine.gov/agendas

For more information, call (207) 874-8719



Charles Tetelman, Planner
 Planning Division, City of Portland
 389 Congress Street
 Portland, ME 04101

October 7, 2021

Subject: Comment Response Letter
 Winchester Woods – Portland, Maine

On behalf of Winchester Woods LLC and the rest of the project team, we are pleased to respond to the final round of comments received.

To facilitate the review, comments are provided below in italics followed by the project team's response.

General

City Planning Staff

Comment – *Some of the associated Project Data seems inconsistent across a few submitted documents. Could you please confirm the following information:*

- Property Size
- Building Footprint (per unit/total)
- Building Floor Area
- Area of Wetlands on Property
- Impervious Surface Area

Response –

- Property Size:
 - PRUD Property: 3.51 acres
 - New single family/duplex lots: 0.16 acres each (0.32 acres total)
- Building Footprint
 - 704 SF (1 bedroom) and 907 SF (2 bedroom)
 - 46,920 sf (total project)
- Area of Wetlands on Property: 0.32 acres
- Total Impervious Surface Area: 1.30 acres

Comment – *Please provide a Photometric Plan including Street Lighting along the proposed sidewalk on Winchester Drive.*

Response – A Photometric Plan has been prepared by Swaney Lighting Associates and has been included with this submission.

Zoning

Comment – Please provide an updated calculation for Net Land Area. Section 7.2 defines net land area. The following items need to be subtracted from the total lot area: Areas of special flood hazard, existing water courses, wetlands, and slopes > 25%. There is a discrepancy with the calculations on C-10 and the zoning Analysis Table that gives the total lot size as 3-4 acres and the chart on C-10 gives the "area of lots" as 3.2 acres. City Staff calculations of Net Land Area differ from calculation provided. At 3-2 acres, the city calculated 37 dwelling units (46 units with density bonus). At 3-4 acres, the city calculated 40 units (50 units with the density bonus.) A short narrative summarizing the calculations would also be appreciated.

Response – The definition of Net Land Area has been taken into account since the original submission of this project and is outlined in a chart on Sheet C-10.

The total land area of the PRUD is 3.51 acres which includes all of the paper street, but does not include the 2 new parcels at the end of Dalton. 3.2 acres represents the base net land area when subtracting the portions of the paper street that the Applicant does not immediately abut. To be conservative, these sections were not counted towards the net land area. As previously discussed with – and agreed to by – City Staff, portions of the paper street that the Applicant does abut were included within the base net land area. For example, along the stretch from STA 1+30 to 4+80, a 25' wide strip was counted towards the base net land area. Beyond that point heading east, the Applicant owns both sides of the paper street, therefore the entire 50' wide stretch was included within the base net land area. The Applicant does not own land abutting the paper street for the first 100 feet of the paper street and therefore none of that land area was attributed to the base net land area.

To further clarify the chart on Sheet C-10, of the 0.27 acres that exceed 25% slopes, 0.04 of that 0.27 acres are located in the wetlands and should be subtracted from the "slope reduction" since it is already being reduced via the wetland category. Therefore, 3.2 acres – 0.32 acres (wetlands) – 0.23 acres (slopes) = 2.65 acres. 2.65 acres then equates to 48.1 allowable units after applying the 25% density bonus for providing the workforce units on site. 48 residential units are proposed as part of the PRUD.

Transportation

City Planning Staff

Comment – Please update the parking information on Sheet C-10 to include the final number of parking spots including ADA Accessible spaces, Bicycle Parking Spaces, and EV Charging Stations.

Response – Please refer to the updated parking table which breaks out the final parking numbers.

Comment – Please indicate on the Site Plan the location of EV Charging Stations and the ADA spot to be located on Dalton Street.

Response – A note has been added to the plans clarifying the City's requirement of providing 20% EV spaces in parking lots with more than 5 spaces. The final location of the EV Charging Stations will be determined at a later date closer to construction once the electrical engineer and CMP have



agreed on an underground layout give CMP typically requires local approvals before providing their final design. The note on the Site Plan is intended to enforce this requirement.

Please note the ADA parking spot on Dalton Street has been removed due to the ADA accessible ramp provided from the parking bays off Winchester Drive down to the multipurpose recreation field. We believe this approach to be in line with the ADA's expectations which provides an inclusive site that gives everyone the same opportunity and pathway.

Comment – *The sidewalk along Winchester Drive requires Street Lighting.*

Response – Illuminated bollards (with the option for small light posts) have been added along Winchester Drive to provide lighting near the sidewalk. A photometric plan has been prepared and can be seen with this submission.

DPW Traffic Engineer

Comment – *Some level of traffic analysis regarding Sherwood Street and Veranda Street would be helpful as well as a crash analysis along Sherwood. This does not need to be a full-fledged traffic analysis that includes items beyond the scope of this request.*

Response – Crash data from 2018 to 2021 at the intersection of Veranda and Sherwood as well as Presumpscot and Sherwood has been obtained from the Maine DOT and has been included as an attachment to the traffic memo. According to the MDOT, of the six recorded crashes at both intersections, five have been property damage only, and one crash resulted in an injury. Neither intersection meets the MDOT criteria for a high crash location.

Water Quality, Stormwater, & Infrastructure

City Planning Staff

Comment – *Please provide Ability to Serve letters from appropriate utility companies and a capacity letter from PWD.*

Response – We have included the latest ability to serve confirmations with this submission package. We are still awaiting PWD's final letter and will forward it upon receipt. We have been in close coordination with the PWD MEANS team throughout the process and expect the ability to serve confirmation is imminent as we've worked through utility edits per their request which are reflected in the plan set accompanying this letter.

Comment - *Please include the square footage of the Wetlands on the site plans. 13,939 sq. ft. was mentioned at some point but not sure where that information is provided.*

Response – There are 0.32 acres (13,939 SF) of wetlands located within the property line, as calculated from the linework within the CADD model. This number is shown on Sheet C-10 within the Net Residential Land Area calculations. The majority of the wetlands do not exist on the subject parcel, but rather neighbors' properties.



Comment – *Peer reviewers remain concerned regarding capacity of site/wetlands to prevent flooding. Dalton Street has been previously flooded (either 2018 or 2019). Please provide additional information regarding the capacity of nearby wetlands.*

Response – This project is required to provide treatment for 95% of the new impervious area and 80% of the developed area, both of which are being met. By virtue of the requirement for quality, the stormwater BMP's will also provide quantity control. In this case, the project includes a design that provides extra detention and capacity through the use of Maine DEP approved subsurface chambers which detain, treat, cool, and slowly outlet the collected stormwater from the pavement and roofs to the wetlands where water currently drains to.

As you can see from the below excerpt from the stormwater management report, the peak flowrates generated by the proposed development (“post”) will be lower than the existing or “pre” development flowrates. This means the development will be holding onto the runoff longer than the current condition, giving the wetlands/drain basin and its existing outlet control structure a longer time period to handle and discharge the collected flows. This project has met and exceeded the requirements by the implementation of a robust drainage plan that features a plethora of stormwater infrastructure in tandem with a thoughtfully engineered site that routes 95% of the new impervious area to the BMP's providing treatment and attenuation prior to a slow, metered discharge over the course of 24-48 hours through a proposed outlet control structure.

Table 8 – Comparison of Peak Flows						
Drainage Area	2-Year Storm Event (cfs)		10-Year Storm Event (cfs)		25-Year Storm Event (cfs)	
	Pre	Post	Pre	Post	Pre	Post
Wetlands/Manmade Drainage Basin	4	2	8	5	12	9

DPW Water Resources

Comment - *There are concerns if the current site layout (parking lots for example) minimizes impervious cover. Have the developers considered alternative configurations that would preserve more natural resources and provide for a vegetated buffer to the wetlands on site? In many areas, construction of site features such as the pre-cast concrete retaining wall and the active recreation field are likely to encroach upon the wetlands.*

Response – Various layouts have been explored and this is the most efficient model to provide the housing. The previous site plan submitted to the city featured slightly less impervious area, but given the 50' paper street was required to be devoid of structures, the buildings and parking were adjusted to be clear of the paper street right-of-way and moved closer to the wetlands/manmade drainage basin.

Overall, the project has been designed to find the optimal balance between a functional place for residents to live and providing open green space. The project does not propose to fill any “wetlands” which are understood to be manmade drainage features. Lastly, we have added more vegetation to the proposed landscape plan including between the buildings and parking lots, as well as around the perimeter. It should be noted the parking count for this project is well below comparable



apartment projects in the Greater Portland area, therefore impervious area has been minimized while facilitating a feasible, marketable project that brings 48 new residences to the City of Portland, including 12 units deed restricted for affordability.

Comment - *Looking at the Construction Management and ESC Plans, is the secondary construction entrance on Dalton needed.*

Response – Ultimately the construction entrance locations will be determined by the Site Contractor as part of their means and methods. It is expected that the contractor will utilize Sherwood Street as the primary access; however, Dalton Street will provide an effective secondary means of access for certain aspects of the project such as drainage, the ADA ramp installation, and demolition of the existing dilapidated single-family home.

Landscaping & Environmental Quality

City Arborist

Comment - *The Winchester Woods site contains a significant number of mature Red Oak and perhaps a few more rare, Shagbark Hickory. Shagbark Hickory shows up as a significant tree type in Portland and we found a mature tree near the cemetery border. City Arborist assessment of the site conditions and the proposed development scale would easily categorize the proposed development as not recognizing the existing native tree canopy and its role to control stormwater. Recommendation: An updated Landscape Plan showing the significant trees is needed along with reconfiguring the plan to save buffer trees along the project edges. A smaller or clustered, rearranged development could achieve saving some of the mature native Red Oak.*

Response – The project team has conducted a tree survey which has been implemented into the plans. As seen, a considerable amount of existing trees will be maintained. The healthiest trees in particular, adjacent to the proposed PRUD open space, will provide shade and aesthetic value to the residents as they utilize their designated rec space. We have also better clarified which trees are to remain around the project border. Please refer to the revised Landscape Plan, L-1.

Comment – *Tree & Landscape: The proposed development could use a greener look with much more tree planting. The number of surface parking and building cover does not present much in that opportunity. Options should include additional tree planting to meet desire parking lot standards.*

Response – The Landscape Plan has been revised to include more plantings of varying sizes and species, including deciduous trees and the inclusion of the existing trees which are to remain. It should be noted that subsurface utilities do limit the opportunity for proposed street trees in some cases; however, the design team has incorporated larger plantings where feasible. Additionally, the planting spaces in front of each building have increased by 20%.

Comment – *Parks, Recreation, and Facilities is requesting that wooden split rail fence be installed along the property line to our historic Grand Trunk Cemetery and that buffer planting is installed to ensure tranquility of this special place.*



Response – A wood split rail fence has been added to the plans along with a buffer planting along this property line.

Please let us know if you have any additional questions or comments.

Sincerely,

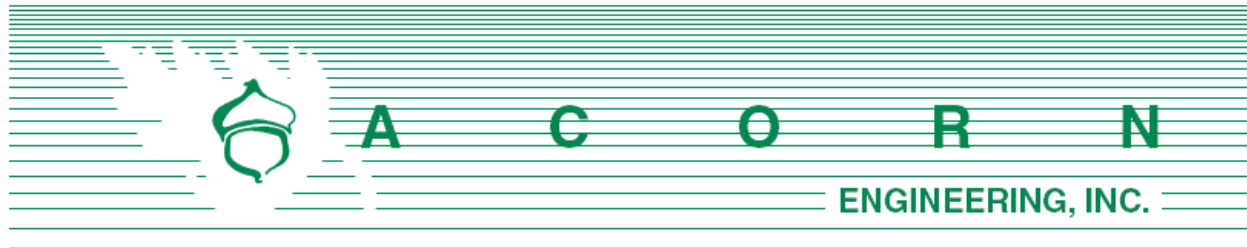


Samuel J. Lebel, P.E.
Project Manager
Acorn Engineering, Inc.



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





Traffic Memo

The proposed four building, forty-eight unit development located off of Sherwood Street includes sixty-three parking spaces in the form of parking bays and on-street parking located along Winchester Drive. Pedestrian access to the site is provided with a connection to the Sherwood sidewalk. Public access to the Portland Trails walking path is provided with a sidewalk along Winchester Drive. The site is in close proximity to Metro Bus Stops that will allow for different commute and travel options than standard vehicular travel. Also given the site's location to the Portland peninsula, we expect bicycle travel to be another major form of travel from the site.

The trip generation for the proposed project has been estimated using the Institute of Transportation Engineers (ITE) "Trip Generation" 10th Edition publication. The land uses utilized in the calculations consist entirely of Residential mid-rise apartments. Please note that this analysis slightly overestimates the total trip generation as twelve of the dwelling units will be workforce housing, ITE provides supplemental rates for affordable housing which would project a lower trip generation for the project than the standard mid-rise apartment rates.

Trip Generation

Trip generation is based upon tables presented in the tenth edition of the Institute of Transportation's Engineers "TRIP GENERATION" manual. The following trip rates were applied:

Land-Use #221: Multi-family Housing (Mid-Rise)

Weekday AM Peak Hour (Street)	= 0.36 trips/unit
Weekday PM Peak Hour (Street)	= 0.44 trips/unit
Weekday AM Peak Hour (Generator)	= 0.32 trips/unit
Weekday PM Peak Hour (Generator)	= 0.41 trips/unit
Saturday Peak Hour (Generator)	= 0.44 trips/unit
Sunday Peak Hour (Generator)	= 0.39 trips/unit

Table 1, below, provides a summary of the trip generation for the development. Please note that the peak trip generation is highlighted as well as the peak PCE trip generation. The site anticipates mail truck deliveries as well as weekly trash pickup from a private hauler. The hauler will be scheduled by the owner the pickup during times of low traffic movement in the site.

Table 1 – Peak Hour Trip Generation		
	Peak Hour Trip Generation	Peak Hour PCE Trip Generation
AM Peak Hour (Street)	17 trips	17 trips
PM Peak Hour (Street)	21 trips	22 trips ¹
AM Peak Hour (Generator)	15 trips	15 trips
PM Peak Hour (Generator)	20 trips	20 trips
Saturday Peak Hour (Generator)	21 trips	21 trips
Sunday Peak Hour (Generator)	19 trips	19 trips
¹ Assumes 1 mail truck delivery between 4pm-6pm		

Note that the peak hour PCE trip generation is below the 25 trip threshold set forth by the City's Technical Manual (Section 1.1) that would require a traffic study for the project. Should there be any questions regarding the calculations highlighted above, please feel free to reach out with any questions.

Sincerely,



Sam Lebel, P.E.
Project Manager
Acorn Engineering, Inc.





Maine Public Crash Query Tool

Set Search Criteria

Set Search Criteria

Now that you have created a query and viewed the map results, simply modify the search criteria again to create a new set of crashes to map.

Step 1: Select a location (i.e. state-wide, city/town, county **OR** a police dept.)

- ☐State-Wide
- ☒City/Town
- ☐County
- ☐Police Dept.
- ☐MPO

Portland

Step 2: Select single year or multi-year.

- ☐Single Year
- ☒Multi-Year

Step 3: Select Year(s).

2018

 to

2021

Step 4: Select Type of Crash.

All Types of Crash

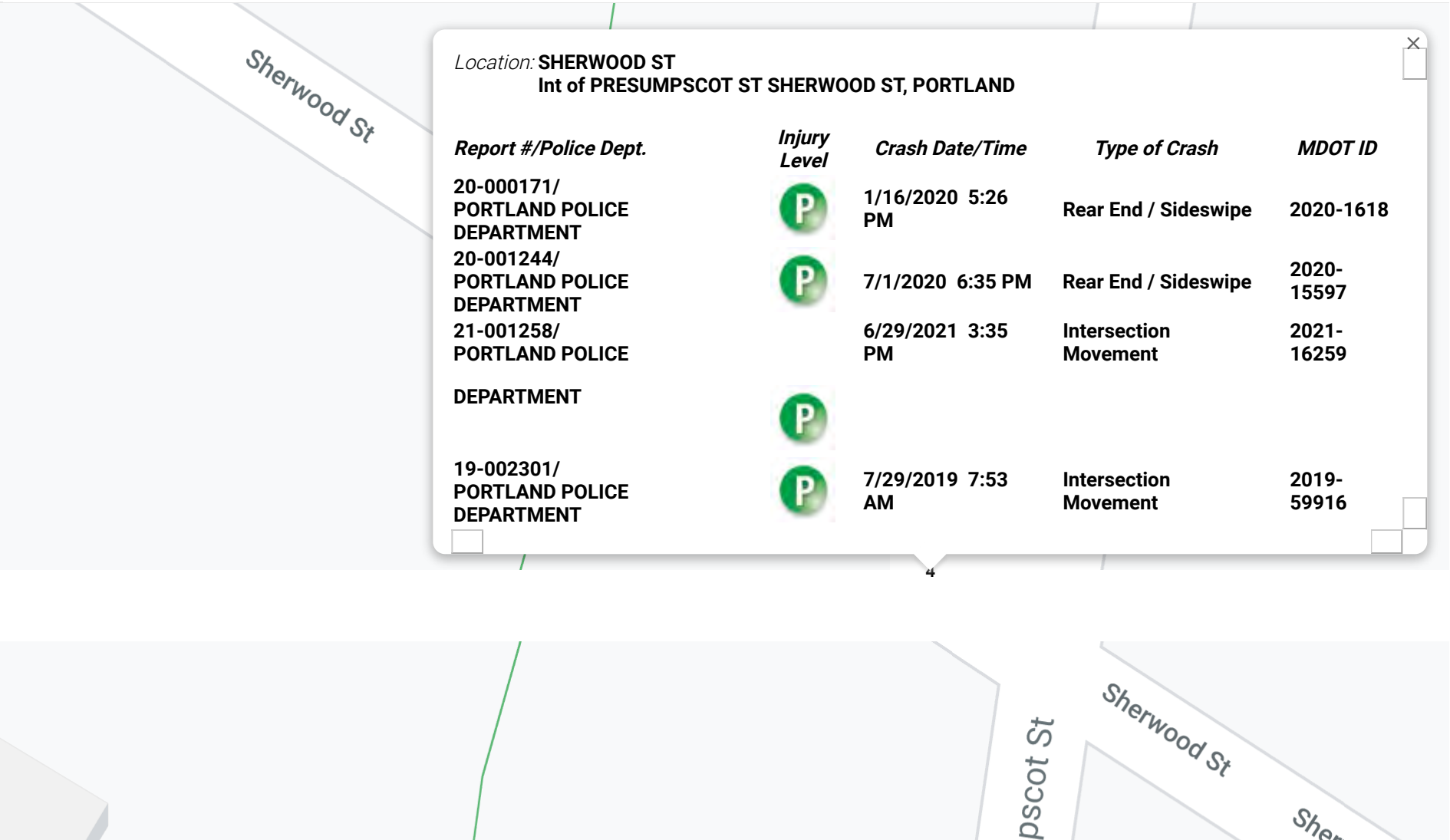
Step 5: Select what to view.

- ☒All Crashes
- ☐Fatal Crashes
- ☐Injury Crashes
- ☐Property Damage Only Crashes

Step 6: Limit crashes to specific behavior.

All/All Types of Crash Crashes - Year: 2018 To 2021 City or Town: Portland

Number of crashes returned: **8,965** Number of crashes mapped: **8,964**





Maine Public Crash Query Tool

Home | Statistics | **Maps** | High Crash Locations | IMPORTANT: User Notes

Set Search Criteria

Set Search Criteria

☐ Single Year ☒ Multi-Year

Step 3: Select Year(s).

2018

to

2021

Step 4: Select Type of Crash.

All Types of Crash

Step 5: Select what to view.

- ☒ All Crashes
- ☐ Fatal Crashes
- ☐ Injury Crashes
- ☐ Property Damage Only Crashes

Step 6: Limit crashes to specific behavior.

- ☒ All Crashes
- ☐ Speeding
- ☐ OUI Involved
- ☐ Distracted
- ☐ UnRestrained

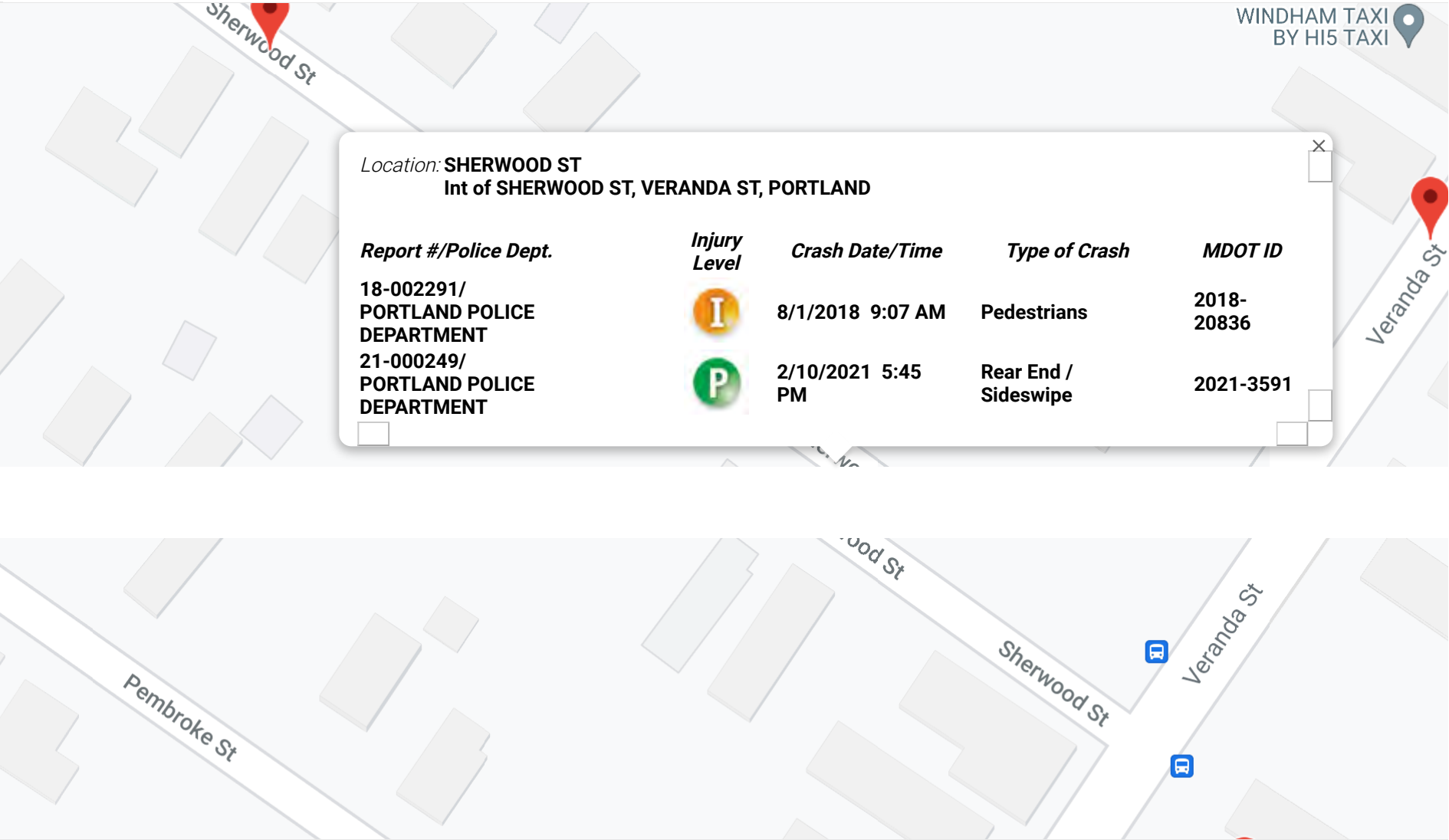
Final Step: Submit Query. Press the button below to submit your query and view results.

Submit Query



All/All Types of Crash Crashes - Year: 2018 To 2021 City or Town: Portland

Number of crashes returned: 8,965 Number of crashes mapped: 8,964



GENERALCity Planning Staff

- Some of the associated Project Data seems inconsistent across a few submitted documents. Could you please confirm the following information:
 - Property Size
 - Building Footprint (per unit/total)
 - Building Floor Area
 - Area of Wetlands on property
 - Impervious Surface Area
- Please provide a Photometric Plan including Street Lighting along the proposed sidewalk on Winchester Drive.

Zoning

- Please provide an updated calculation for Net Land Area. Section 7.2 defines net land area. The following items need to be subtracted from the total lot area: Areas of special flood hazard, existing water courses, wetlands, and slopes > 25%. There is a discrepancy with the calculations on C-10 and the zoning Analysis Table that gives the total lot size as 3.4 acres and the chart on C-10 gives the “area of lots” as 3.2 acres. City Staff calculations of Net Land Area differ from calculation provided. At 3.2 acres, the city calculated 37 dwelling units (46 units with density bonus). At 3.4 acres, the city calculated 40 units (50 units with the density bonus). A short narrative summarizing the calculations would also be appreciated.

TRANSPORTATIONCity Planning Staff

- Please update the parking information on Sheet C-10 to include the final number of parking spots including ADA Accessible spaces, Bicycle Parking Spaces, and EV Charging Stations.
- Please indicate on the Site Plan the location of EV Charging Stations and the ADA Accessible spot to be located on Dalton Street.
- The sidewalk along Winchester Drive requires Street Lighting.

DPW Traffic Engineer

- Some level of traffic analysis regarding Sherwood Street and Veranda Street would be helpful as well as a crash analysis along Sherwood. This does not need to be a full-fledged traffic analysis that includes items beyond the scope of this request.

WATER QUALITY, STORMWATER, & INFRASTRUCTURE

City Planning Staff

- Please provide Ability to Serve letters from appropriate utility companies and a capacity letter from PWD.
- Please include the square footage of the Wetlands on the site plans. 13,939 sq. ft. was mentioned at some point but not sure where that information is provided.
- Peer reviewers remain concerned regarding capacity of site/wetlands to prevent flooding. Dalton Street has been previously flooded (either 2018 or 2019). Please provide additional information regarding the capacity of nearby wetlands.

DPW Water Resources

- There are concerns if the current site layout (parking lots for example) minimizes impervious cover. Have the developers considered alternative configurations that would preserve more natural resources and provide for a vegetated buffer to the wetlands on site? In many areas, construction of site features such as the pre-cast concrete retaining wall and the active recreation field are likely to encroach upon the wetlands.
- Looking at the Construction Management and ESC Plans, is the secondary construction entrance on Dalton needed?

LANDSCAPING & ENVIRONMENTAL QUALITY

City Arborist

- The Winchester Woods site contains a significant number of mature Red Oak and perhaps a few more rare, Shagbark Hickory. Shagbark Hickory shows up as a significant tree type in Portland and we found a mature tree near the cemetery border. City Arborist assessment of the site conditions and the proposed development scale would easily categorize the proposed development as not recognizing the existing native tree canopy and its role to control stormwater.
- Recommendation: An updated Landscape Plan showing the significant trees is needed along with reconfiguring the plan to save buffer trees along the project edges. A smaller or clustered, rearranged development could achieve saving some of the mature native Red Oak.
- Tree & Landscape: The proposed development could use a greener look with much more tree planting. The number of surface parking and building cover does not present much in that opportunity. Options should include additional tree planting to meet desire parking lot standards.
- Parks, Recreation, and Facilities is requesting that wooden split rail fence be installed along the property line to our historic Grand Trunk Cemetery and that buffer planting is installed to ensure tranquility of this special place.



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

Date: August 17, 2021

Re: Wastewater Capacity Authorization

Address: 0 Dalton Street

Applicant: Hammond House LLC

Planner: Shukria Wiar

Anticipated Wastewater Flow:

Estimate of Anticipated Design Flows				
Development	Unit Size	Number of Units	Gallons per Day per Unit	Total Gallons per Day
Existing flow to be removed				
Vacant				0
Proposed flow				
Multiple Family Dwelling Units	1-Bedroom	24	120	2880
Multiple Family Dwelling Units	2-Bedroom	24	180	4320
Net Change				+ 7,200
*Values based on STATE OF MAINE: SUBSURFACE WASTEWATER DISPOSAL RULES, most recent edition				

Comments:

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

You are reminded that the sewers you are proposing to connect into convey both sanitary and stormwater (Combined Sewer) and therefore a backflow preventer is suggested.

If the City can be of further assistance, please contact me at all 874-8840 or brad@portlandmaine.gov

Sincerely,
 CITY OF PORTLAND

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

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

cbranch@portlandmaine.gov • www.portlandmaine.gov

To: Shukria Wiar, Planner, Planning & Urban Development Department

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

Date: July 7 2021

Subject: 50 Dalton Street – Inclusionary Zoning Conditional Use

50 Dalton Street triggers consideration under Chapter 14, Section 18.2, Affordable Housing.

All developments of ten (10) units or more are conditional uses subject to Planning Board review on the condition that they comply with the requirements set forth in Chapter 14, Section 18.2 of the Zoning Ordinance.

Chapter 14, Section 18.2.3, Ensuring Workforce Housing, requires at least twenty-five percent (25%) of the dwelling units in the development shall meet the definition of Workforce Housing units for sale or for rent. The ordinance under Section 18.2.3 5 also requires the number of bedrooms in the units shall be no less than 10% of the total number of bedrooms in the development. The Workforce units must be integrated with the rest of the development. The minimum term of affordability is the longest term permitted under federal, state, and local laws (18.2.4 C). In accordance with Section 18.2.4 E, projects that are subject to Section 18.2.3 that choose to provide the required workforce housing units on site are eligible for a 25% increase in total permitted units. If an eligible project as defined under Subsection 18.2.2 is also subject to Subsection 18.2.3, the applicant shall have the option of utilizing either the bonus under Subsection 18.2.4 E or any other bonuses they are eligible for under Subsections 18.2.4 A and 18.2.4 B but not both.

The development located at 0 Dalton Street proposes the creation of 48 dwelling units of rental housing consisting of twenty-four (24) one-bedroom units, and twenty-four (24) two-bedroom units. The Workforce Units would be restricted to households earning up to 80% of Area Median Income (AMI). Based on the requirements outlined in Section 18.2, and the Density and Dimensional Bonuses and Reductions in Section 18.2.4 E, the development is required to provide; a minimum of twelve (12) workforce units on site. The Applicant has elected to provide twelve (12) Workforce Units composed of no less than six (6) one-bedroom units, and six (6) two-bedroom units on-site, to satisfy the ordinance's minimum requirements. As such, the project has met the minimum requirements set forth in Section 18.2.

Staff recommends the Planning Board Approve this Conditional Use provided the Applicant and the City enter into an agreed upon Affordable Housing Agreement (AHA) for a minimum of twelve (12) workforce units.

The Affordable Housing Agreement will outline the details of the affordability restrictions placed on the Workforce Units and will be filed as a covenant to the 0 Dalton Street property's deed with the Cumberland County Registry of Deeds before a Certificate of Occupancy may be issued.

Sincerely,

Victoria Volent
Housing Program Manager



Planning and Urban Development Department Planning Division

Subject: R-5 PRUD Design Review – 0 Dalton Street
Written by: Caitlin Cameron, Urban Designer
Date of Review: Tuesday, May 18 2021

The planned residential unit development project at 0 Dalton Street was reviewed according to the *City of Portland Design Manual* standards by Caitlin Cameron, Urban Designer, Andrew Tufts, Planner, and Shukria Wiar, Planner against the standards of the *Planned Residential Unit Developments in the R5 Residential Zones* (Section (h) of the Design Manual).

Design Review Comments:

- Please clarify whether the elevations or the rendering is the correct version of the design.

(h) Planned Residential Unit Development (PRUDs) in the R-5 Residential Zones

Standard (1) a. Design Relationship to the Site

Building/ street placement is responsive to the site conditions avoiding development of wetlands and preserving some of the existing vegetation. These buildings are set apart from the existing residential streets and will not share the same streetscape.

Standard (1) b. Internal Design Character and Relationship to the Surrounding Neighborhood

Context – The Sherwood and Dalton streets are considered to be the neighborhood context – these are small-scale homes with natural finish clapboard, hipped and gable roofs, elevated ground floors with porches/stoops, and simple, regular window patterns.

- Character: The overall design character should be cohesive with the existing residential development, however, the proposal includes residential buildings of a larger scale and not directly sharing the same streetscape. The proposal should take cues from the characteristics of residential buildings but should not be expected to replicate single-family homes. Those characteristics include a single siding material (clapboard), clear primary roof form with subsidiary dormers, transitional entrance (stoop, canopy, or porch), corner boards, overhanging eaves, double-hung windows. The proposal uses one cladding material – clapboard (though vinyl is less preferable to fiber cement board), a hipped roof with dormers at the entrances, vertical oriented windows in a regular rhythm. The entrances appear institutional or commercial in character because 1) the canopy is overly tall and should be reduced in height to a more residential scale 2) the use of capitols and columns is not consistent with the character of this residential area 3) the entrance canopy is very shallow in depth.
- Height, scale, and massing: The roof profile of a hipped roof with a subsidiary cross gable/dormer is somewhat referential of the existing buildings. The proposed buildings

are a larger scale in footprint and height than those around it and the cross-gable form, though providing some variation in the massing.

- Massing/Roof Variation: Because the building contains more than 2 units, the project must provide variation in roof and façade character through changes in façade setback, roof configuration, and projecting or recessed building elements. The building includes a cross-gable roof to provide some of this variation. Massing variation is accomplished through the roof form, the projecting façade plane at the entrances, and the stacked decks.

Standard (1) c. Recreation and Open Space

1. External buffers: The project includes a fence and landscaping, existing vegetation as external buffers to the edges of the property.
2. Internal buffers: Some parking provided directly in front of building – screening not possible in this scenario. Some landscape screening is provided between drive and residential units and surface parking.

The individual patios require more privacy – screening/landscaping and railings to buffer from surface parking areas and to provide privacy from all directions.

3. Passive recreational open space: The multi-function open space includes landscape and benches for passive recreation.
4. Active recreational open space: The existing trail crosses through the property and will be maintained/enhanced. In addition, the multi-function field allows for the possibility of recreation/play. Staff ask whether an amenity such as play equipment can be added to the site.
5. Private open spaces: Each unit has access to private decks. The current size and orientation of these decks are not conducive to comfortable, functional, private space. Some revisions are proposed to better meet the standard and provide useable/functional spaces:
 - extend the footprint of the ground floor patios to provide more functional space allowing the mechanical room to serve as a dividing screen.
 - provide better screening/privacy as mentioned above
 - consider moving the decks from the street-facing façade to the side elevations to create privacy and more comfortable space.

Public comments re: Major Site Plan and Subdivision; 0 Dalton Street; Hammond House, LLC., Applicant

Subscribe ☐

0 views

**Benjamin Algeo**

Jul 11, 2021, 11:54:07 PM (9 hours ago)



to planni...@portlandmaine.gov

Dear Portland Planning Board Members,

My name is Ben Algeo, I am a renter who lives at 116 Sherwood St., and I am submitting the following written comments in support of the proposed 48-unit Planned Residential Unit Development at 0 Dalton Street. This proposed development includes needed workforce housing, and will help our community grow in a sustainable and equitable way.

I would also like to express my support for the staff recommendation on page 6 of the Planning Board Report, that the applicant "[c]onduct a speed study on Sherwood Street and assess the need for traffic calming strategies." It seems like Sherwood Street is used by some drivers as a through-street from Veranda Street to Presumpscot Street and vice-versa. There is significant pedestrian traffic on Sherwood Street—much of it coming from the nearby Presumpscot Elementary School—and the prevalence of speeding cars is a serious hazard. I worry that without appropriate traffic calming measures, the proposed development may exacerbate that problem. If the applicant is not required to conduct this study, I hope the City will consider it.

Thank you for your time and attention.

Sincerely,

Benjamin Algeobenjamin.algeo@gmail.com

207-939-8516

Heather Doolittle

to planni...@portlandmaine.gov, Ashley Lepre, shuk...@portlandmaine.gov

May 19, 2021, 6:48:24 PM (2 days ago)



Dear Planning Board Members,

We are the property owners and primary residents of 155 Sherwood St, an abutting property to the proposed development in the vicinity of 0 Dalton Street. We have reviewed the proposed plans and have a number of concerns related to the development, as currently shown.

Attached is a letter documenting our concerns for your review and consideration.

Best,

Heather Doolittle and Ashley Lepre

HEATHER DOOLITTLE & ASHLEY LEPRE
155 SHERWOOD ST.
PORTLAND, ME 04103

MAY 19, 2021

PLANNING AND URBAN DEVELOPMENT BOARD
CITY OF PORTLAND
389 CONGRESS STREET
PORTLAND, ME 04101

Re: Response to Proposed Development in the Vicinity of 0 Dalton Street

Dear Planning Board Members,

I am writing in response to the recent Notice from the City regarding the proposed development in the vicinity of 0 Dalton Street (PL-001532-2021). As an abutting property owner of the proposed development, we have a few concerns regarding development as currently proposed, listed below.

1. **Invasive Plant Species:** The parcels for redevelopment are significantly impacted by the invasive species of bamboo know as Japanese Knotweed. This robust plant is very challenging to remediate and often takes years of continued effort to control the growth. Further, Japanese Knotweed is able to grow from broken off plant fragments, making disturbance of the plant during removal challenging to achieve without further spreading to the site and surrounding area. When plant stress is not properly managed, the species can grow laterally in the ground over distances of up to 65 feet. The proposed development documents provide no mention of knotweed mapping, management, or control. Typical site work and excavation provides significant risk to further spreading Japanese Knotweed in the area. We request that the extent of knotweed in the parcels is evaluated and that a management plan is developed and reviewed by the City Arborist and Maine DEP.
2. **Site Grading:** The proposed site grading slopes towards the rear of my property, 155 Sherwood Street, and does not provide adequate stormwater collection along the driveway, risking increase runoff, flooding, and water damage to my house, garage, and property.
3. **Wetlands Impact:** as proposed, the development comes within 30 feet of the existing wetland. The wetland is home to numerous species of birds, including mallard ducks and Great Blue Heron, as well as provides critical habitat for smaller species including turtles, frogs, and salamanders. The development threatens this vibrant habitat by removing the forested buffer that slows runoff and recharges the groundwater.
4. **Stormwater Collection:** 0 Dalton Street drainage currently feeds the existing wetland. Regrading and stormwater collection risks to wetland recharge and longevity.
5. **Impervious Surface:** the proposed development installs impervious surface (concrete, pavement, buildings) on approximately 90% of the site, excluding wetland area. This will have a significant impact on ambient temperature, water quality, and groundwater recharge in this area.

6. **Construction Traffic:** Adjacent to the Presumpscot Elementary School, the timing of this project may coincide with renovations at the school. Two significant construction projects cooccurring in this small residential neighborhood will have a significant impact on traffic and quality of life for residents.
7. **Loss of Greenspace:** Access to greenspace is part of sustainable urban development. The existing Portland Trail off Sherwood Street will be shortened by ~1/2 length as a result of the new street access to the proposed development. This highly trafficked trail is used for walking, biking, birding among other activities. In many ways this trail serves as the only park in East Deering north of Washington Ave. As shown on the Portland City Map of Parks, Trails, and Playgrounds, East Deering has much lower density of outdoor recreational spaces available than the rest of the City, a trend that becomes further significant when adjusting for the primarily residential makeup of this neighborhood. The proposed development both decreases greenspace and increases density in East Deering.
8. **Privacy:** Proposed Plantings indicate loam and seed only with no privacy screening along the proposed driveway. I request plantings capable of providing privacy along the drive to account for the loss of the 55-ft wide section of forest.
9. **Aesthetic:** The exterior architecture shown in the proposed renderings neither matches nor elevates the aesthetic of surrounding homes. While it may seek to translate the materiality and form of a small, 1-story home, the fact is that it is a different and new building type to the area. Mimicry is not the same as belonging. As Portland rapidly grows and the development of more R5 parcels is all but guaranteed, it is essential to set a precedent for design excellence through thoughtful use of innovative materials, forms and ideas. We request a design workshops that are open to public participation that will address the exterior treatment of the proposed development as well as other opportunities to participate in design considerations.
10. **Aesthetic:** The proposed development is for three-story buildings. The majority of the houses in this neighborhood are 1-2 story buildings. The added height, proposed grading, and natural topography of the surrounding area will result in the proposed development towering over existing homes. For reference, existing multi-unit buildings in East Deering are only two stories and at lower elevations.
11. **Traffic:** The proposal indicates no mention of added traffic. Existing significant bottleneck points include the Washington Ave and Veranda St Intersection and the Presumpscot St and Washington Ave Intersection. Additionally, Sherwood Street is a small, quite residential street where children frequently play, ride bikes, and walk to the Presumpscot School. Increased traffic on Sherwood Street is a concern for both public safety, noise pollution, air quality, and quality of life for current residents.
12. **No Mention of the intended occupants:** The proposed development does not specify if these units will be occupied by renters or owners. This information has implications on the character of this development and its impact on our neighborhood.
13. **No mention of property management plan:** there is currently no mention of how the property and landscaping will be maintained, where dumpsters will be located, where yard waste will be deposited, etc.
14. **No mention of construction schedule/expected date of competition:** Throughout the duration of construction, noise, sight and traffic disturbances are likely. Further, the potential sale of our

property will likely be negatively impacted during this time. We request to be informed of the expected construction schedule including expected start date, expected completion date and expected date of occupation.

This development is an opportunity to set a high standard of excellence for R5 development throughout Portland. If executed with care, expertise, and thoughtfulness on how we choose to grow our community, it could foster support for the continued development of higher density housing throughout Portland. However, the opposite is also possible. These are our initial concerns related to the proposed development as currently understood. We look forward to having them addressed and intend to remain involved and aware of further planning. Thank you for your time.

Respectfully,

Heather Doolittle and Ashley Lepre

Project adjacent to Dalton/Sherwood St. & my idea to change traffic pattern

Marianna Russo

Aug 30, 2021

to planni...@portlandmaine.gov, shuk...@portlandmaine.gov

Hello,

My name is Marianna Russo, my family & I live at 140 Sherwood St. I am writing about the proposed project which will create more traffic problems on Sherwood St. With Sherwood St being the only access to the project there will be increased traffic on our road, which is already a cut through for people avoiding traffic delays on Washington Ave. Sherwood is the only through street that runs parallel to Washington Ave. Traffic speeds up & down our part of Sherwood St., from Prescumcott to Veranda. The speeds most often exceed the posted speed limits.

Then there's the school traffic, school busses, parents picking up/dropping off kids, foot traffic walking to school, etc.,.

Trying to get out of our driveways is a nightmare, fighting the traffic who use our street as a cut through during morning & afternoon commutes.

On top of all that is the safety of us residents who live on this street, who walk our dogs, children etc. I am disabled and am in a wheelchair, I can walk short distances with crutches, I get my exercise by walking up & down the street with my crutches & braces. I cannot get out of the way fast enough for some people who drive 35mph+ down our street. I've almost been hit by traffic several times as I try to cross over to sidewalk on opposite side of street.

Our street has been a trouble spot for people speeding up & down to avoid lights & traffic, residents have continually complained to city personnel. We've had 2 dogs get hit by speeding cars in last few years. We've had countless side mirrors ripped off by traffic trying to squeeze through, and recently a family members car was totaled by someone who hit it & took off.

So here's my idea is to make this part of Sherwood St. from Veranda to Prescumcott either 1 way or dead end it if you want to go through with the proposal. This will significantly cut down outside traffic for those avoiding traffic jams on Washington Ave. It will be safer for the whole neighborhood & the surrounding project you want to build. I would not object to the project if you change traffic pattern on Sherwood St. I think it would ease a lot of residents minds about the increase traffic flow & safety of our residents, children & animals.

Thank-you

Marianna Russo

I can be reach by phone [207-650-6188](tel:207-650-6188)



Michael Long

May 14, 2021, 4:11:05 PM (3 days ago)



to planni...@portlandmaine.gov, aza...@portlandmaine.gov

Hello,

I live within the 1000' buffer zone for the proposed 0 Dalton Street residential unit development. The planned development will negatively impact some of the last remaining greenspace in the neighborhood, paving over much of the existing walking trail that runs between Sherwood St and the Settlers' cemetery. I cannot in good conscience oppose this development during our housing crisis, but do believe that the developers should be required to offset some of their negative impacts on surrounding parcels.

Specifically, two major areas on the proposed development are seriously infested with invasive Japanese knotweed. A building permit should be contingent on the developer filing a plan to eradicate this knotweed both on their own parcel (along the north edge of the proposed recreational space) and also along the portion of walking path abutting the Presumpscot Elementary School ballfield. Furthermore the plan should account for responsible disposal of excavated material and vegetation to avoid spreading this knotweed elsewhere.

Lastly I would be curious if there will be a requirement for the developer to make any improvements to the wetland area. Perhaps a small dam would be useful for retaining more water and providing better habitat for birds and amphibians?

Michael

3. NORMAL REVIEWS BY LOCAL BUILDING DEPARTMENT. NOTIFY 48 HOURS PRIOR TO REQUIRED REVIEW.

- 5.4. SPECIAL INSPECTOR SHALL BE EMPLOYED BY THE OWNER AND COORDINATED BY THE CONTRACTOR.

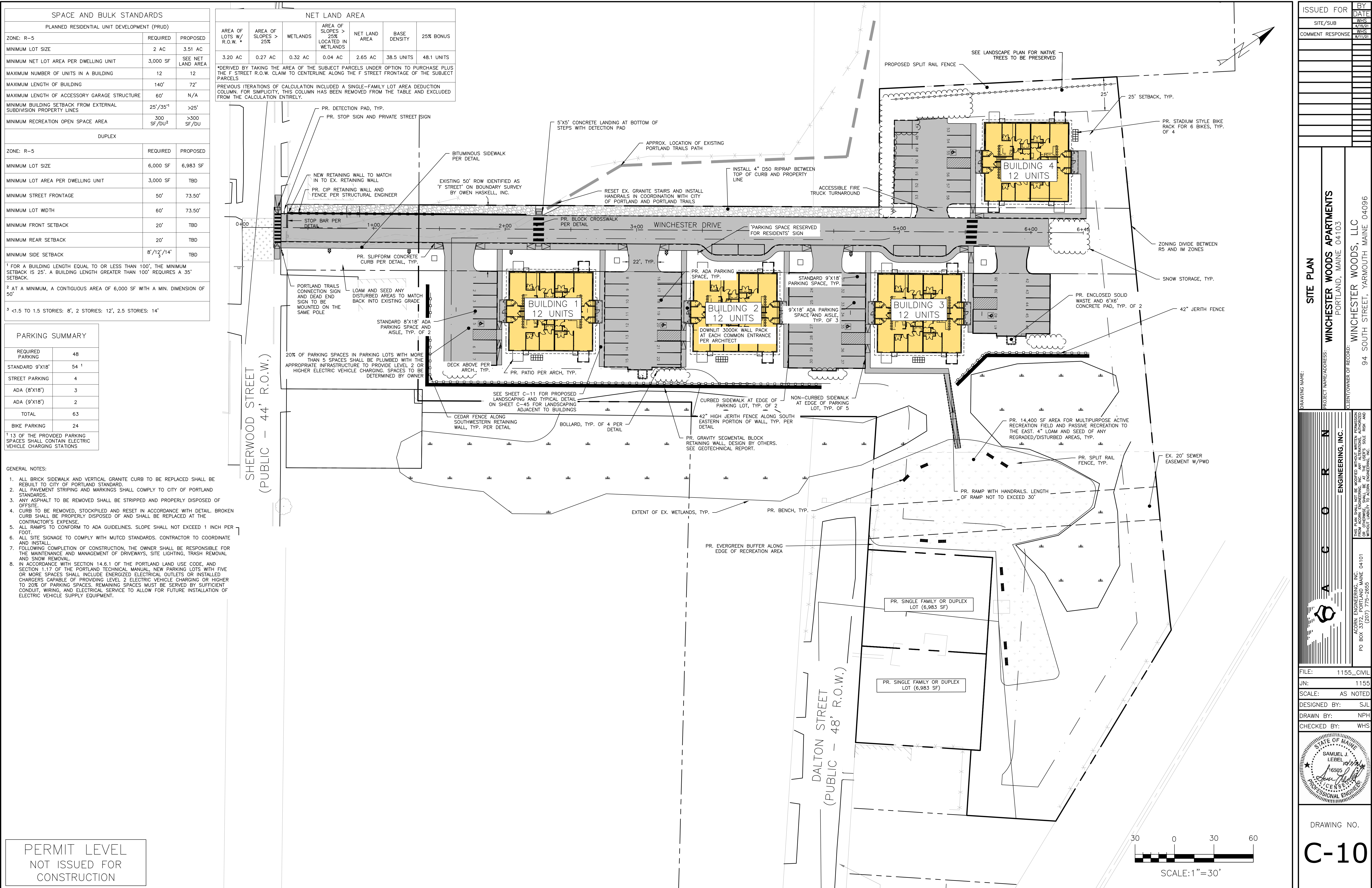
7. ALL SUBGRADE PREPARATION IS SUBJECT TO THE RECOMMENDATIONS OF THE PROJECT GEOTECHNICAL ENGINEER, IF APPLICABLE.

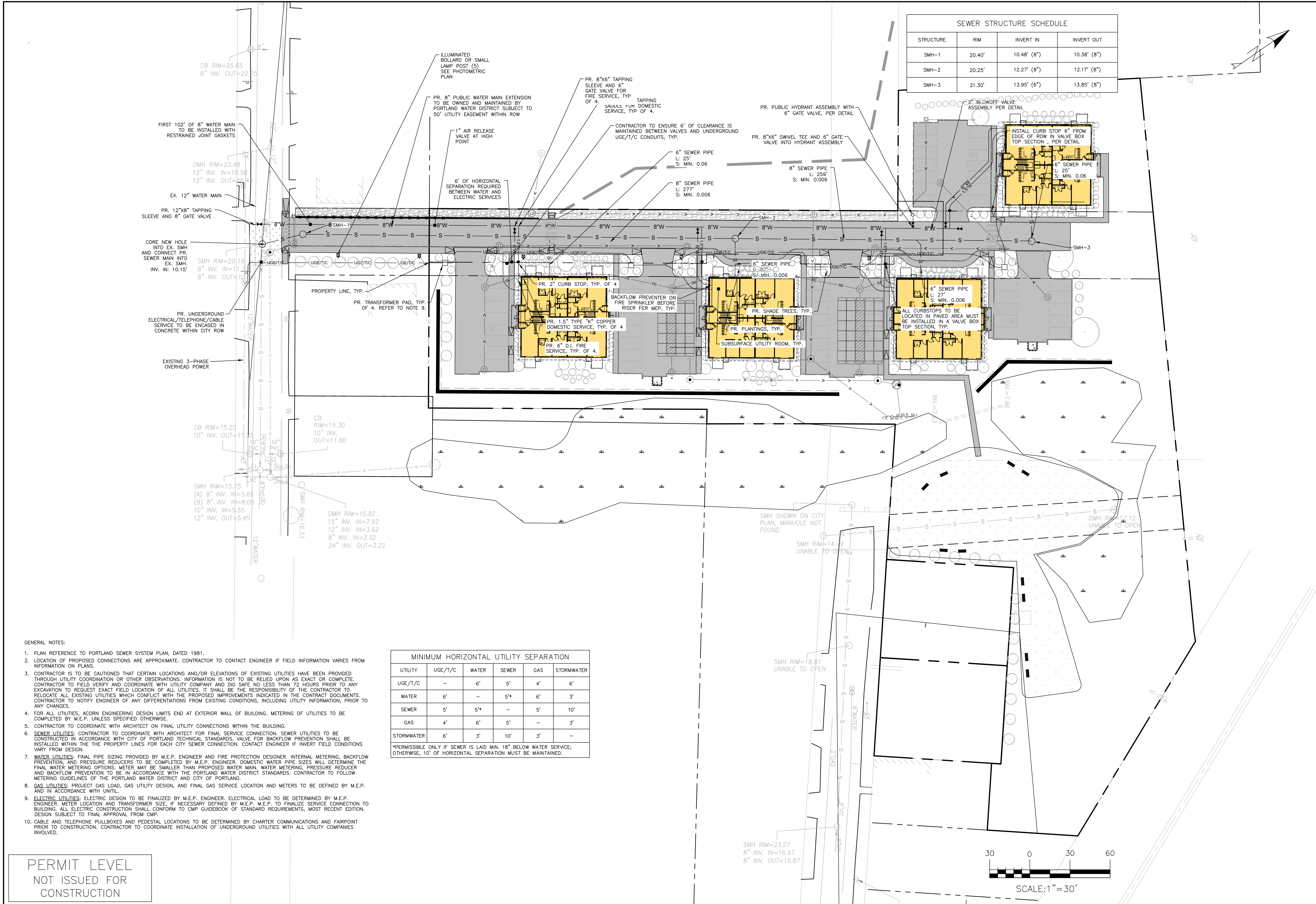
7. REFER TO THE EROSION CONTROL DETAILS & NOTES FOR ADDITIONAL INFORMATION.

23. ALL ADJUSTMENTS TO FINISHED GRADE ARE TO BE COMPLETED BY THE CONTRACTOR. THE CONTRACTOR SHALL CONFIRM STRUCTURES THAT REQUIRE ADJUSTMENT WITH THE ENGINEER OR OWNERS REPRESENTATIVE PRIOR TO ADJUSTING FRAMES.

4. THE CLIENT HAS NOT REQUESTED NOR HAS ACORN COMPLETED A PHASE I – ENVIRONMENTAL SITE ASSESSMENT FOR THE PROPERTY.

DRAWING NO.
C-02





SEWER STRUCTURE SCHEDULE			
STRUCTURE	RIM	INVERT IN	INVERT OUT
SMH-1	20.40'	10.48' (8")	10.38' (8")
SMH-2	20.25'	12.27' (8")	12.17' (8")
SMH-3	21.30'	13.95' (6")	13.85' (8")

MINIMUM HORIZONTAL UTILITY SEPARATION					
UTILITY	UGE/T/C	WATER	SEWER	GAS	STORMWATER
UGE/T/C	—	6'	5'	4'	6'
WATER	6'	—	5'	6'	3'
SEWER	5'	5'	—	5'	10'
GAS	4'	6'	5'	—	3'
STORMWATER	6'	3'	10'	3'	—
*PERMISSIBLE ONLY IF SEWER IS LAID MIN. 18" BELOW WATER SERVICE; OTHERWISE, 10' OF HORIZONTAL SEPARATION MUST BE MAINTAINED.					

- GENERAL NOTES:
1. PLAN REFERENCE TO PORTLAND SEWER SYSTEM PLAN, DATED 1981.
 2. LOCATION OF PROPOSED CONNECTIONS ARE APPROXIMATE. CONTRACTOR TO CONTACT ENGINEER IF FIELD INFORMATION VARIES FROM INFORMATION ON PLANS.
 3. CONTRACTOR IS TO BE CAUTIONED THAT CERTAIN LOCATIONS AND/OR ELEVATIONS OF EXISTING UTILITIES HAVE BEEN PROVIDED THROUGH UTILITY COORDINATION OR OTHER OBSERVATIONS. INFORMATION IS NOT TO BE RELIED UPON AS EXACT OR COMPLETE. CONTRACTOR TO FIELD VERIFY AND COORDINATE WITH UTILITY COMPANY AND DIG SAFE NO LESS THAN 72 HOURS PRIOR TO ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF ALL UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS INDICATED IN THE CONTRACT DOCUMENTS. CONTRACTOR TO NOTIFY ENGINEER OF ANY DIFFERENTIATIONS FROM EXISTING CONDITIONS, INCLUDING UTILITY INFORMATION, PRIOR TO ANY CHANGES.
 4. FOR ALL UTILITIES, ACORN ENGINEERING DESIGN LIMITS END AT EXTERIOR WALL OF BUILDING. METERING OF UTILITIES TO BE COMPLETED BY M.E.P. UNLESS SPECIFIED OTHERWISE.
 5. CONTRACTOR TO COORDINATE WITH ARCHITECT ON FINAL UTILITY CONNECTIONS WITHIN THE BUILDING.
 6. SEWER UTILITIES: CONTRACTOR TO COORDINATE WITH FINAL SERVICE CONNECTION. SEWER UTILITIES TO BE CONSTRUCTED IN ACCORDANCE WITH CITY OF PORTLAND TECHNICAL STANDARDS. VALVE FOR BACKFLOW PREVENTION SHALL BE INSTALLED WITHIN THE THE PROPERTY LINES FOR EACH CITY SEWER CONNECTION. CONTACT ENGINEER IF INVERT FIELD CONDITIONS VARY FROM DESIGN.
 7. WATER UTILITIES: FINAL PIPE SIZING PROVIDED BY M.E.P. ENGINEER AND FIRE PROTECTION DESIGNER. INTERNAL METERING, BACKFLOW PREVENTION, AND PRESSURE REDUCERS TO BE COMPLETED BY M.E.P. ENGINEER. DOMESTIC WATER PIPE SIZES WILL DETERMINE THE FINAL WATER METERING OPTIONS. METER MAY BE SMALLER THAN PROPOSED WATER MAIN. WATER METERING, PRESSURE REDUCER AND BACKFLOW PREVENTION TO BE IN ACCORDANCE WITH THE PORTLAND WATER DISTRICT STANDARDS. CONTRACTOR TO FOLLOW METERING GUIDELINES OF THE PORTLAND WATER DISTRICT AND CITY OF PORTLAND.
 8. GAS UTILITIES: PROJECT GAS LOAD, GAS UTILITY DESIGN, AND FINAL GAS SERVICE LOCATION AND METERS TO BE DEFINED BY M.E.P. AND IN ACCORDANCE WITH UNTIL.
 9. ELECTRIC UTILITIES: ELECTRIC DESIGN TO BE FINALIZED BY M.E.P. ENGINEER. ELECTRICAL LOAD TO BE DETERMINED BY M.E.P. ENGINEER. METER LOCATION AND TRANSFORMER SIZE, IF NECESSARY DEFINED BY M.E.P. M.E.P. TO FINALIZE SERVICE CONNECTION TO BUILDING. ALL ELECTRIC CONSTRUCTION SHALL CONFORM TO CMP GUIDEBOOK OF STANDARD REQUIREMENTS, MOST RECENT EDITION. DESIGN SUBJECT TO FINAL APPROVAL FROM CMP.
 10. CABLE AND TELEPHONE PULLBOXES AND PEDESTAL LOCATIONS TO BE DETERMINED BY CHARTER COMMUNICATIONS AND FAIRPOINT PRIOR TO CONSTRUCTION. CONTRACTOR TO COORDINATE INSTALLATION OF UNDERGROUND UTILITIES WITH ALL UTILITY COMPANIES INVOLVED.

PERMIT LEVEL
NOT ISSUED FOR
CONSTRUCTION

ISSUED FOR BY DATE
SITE/SUB WHS 7/15/21
COMMENT RESPONSE WHS 8/11/21

UTILITY PLAN
PROJECT NAME/ADDRESS: WINCHESTER WOODS APARTMENTS
PORTLAND, MAINE 04103
CLIENT/OWNER OF RECORD: WINCHESTER WOODS, LLC
94 SOUTH STREET, YARMOUTH MAINE 04096

ACORN ENGINEERING, INC.
PO BOX 3372, PORTLAND MAINE 04101
(207) 779-2885

STATE OF MAINE
SAMUEL J. LEBEL
16505
LICENSED PROFESSIONAL ENGINEER
DESIGN

FILE: 1155_CIVIL
JN: 1155
SCALE: AS NOTED
DESIGNED BY: SJL
DRAWN BY: NPH
CHECKED BY: WHS

DRAWING NO.
C-20

- GENERAL NOTES:
1. PLAN REFERENCE TO PORTLAND SEWER SYSTEM PLAN, DATED 1981.
 2. ALL WORK WITHIN THE CITY STREET RIGHT OF WAY SHALL MEET CITY OF PORTLAND TECHNICAL MANUAL STANDARDS.
 3. DESIGN OF TEMPORARY SOIL RESTRAINT MEASURES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR IF NECESSARY FOR CONSTRUCTION.
 4. CONTRACTOR SHALL ENSURE THAT UNDERDRAINS ARE CONSTRUCTED WITH POSITIVE OUTLET TO PROPOSED CONNECTIONS.
 5. CATCH BASIN INLET PROTECTION TO BE INSTALLED WITHIN ANY STRUCTURES DOWNGRADIENT OF ACTIVE CONSTRUCTION.
 6. SEDIMENTATION BARRIERS ARE TO BE INSTALLED DOWNGRADIENT OF ALL ACTIVE CONSTRUCTION WORK PER DETAIL. BARRIERS TO NOT EXTEND PAST PROPERTY LINES; BARRIERS SHOWN OFFSET FROM PROPERTY LINES ON PLANS FOR VISUAL PURPOSES ONLY.
 7. ANY SLOPE BETWEEN AND INCLUDING 2:1 TO 3:1 SHALL BE STABILIZED WITH ECB. SLOPES STEEPER THAN 2:1 SHALL BE REINFORCED WITH TRM. SEE DETAILS.
 8. ALL UNDERDRAINS SHALL HAVE A MINIMUM SLOPE OF 0.20%.
 9. ALL CATCH BASINS SHALL HAVE A 3' SUMP AT A MINIMUM AND BE EQUIPPED WITH "CASCADE-TYPE" 24"x24" SQUARE GRATES AS SHOWN IN THE MAINE DOT STANDARD DETAILS, MOST RECENT EDITION.
 10. ALL STORM DRAIN SHALL BE EITHER PVC SDR 35, OR ADS N-12 DUAL WALL, OR APPROVED EQUIVALENT.
 11. ALL STRUCTURES 4' INSIDE DIA. UNLESS OTHERWISE NOTED.
 12. COORDINATE DOWNSPOUT LOCATIONS WITH ARCHITECT. ANY DOWNSPOUT NOT ROUTE TO A SUBSURFACE ROOF LEADER SHALL OUTLET ONTO A SPLASH STONE AND HAVE POSITIVE DRAINAGE AWAY FROM ANY BUILDINGS.
 13. CONTRACTOR IS RESPONSIBLE FOR ENSURING PIPE MATERIAL IS RATED FOR PROPOSED DEPTHS.

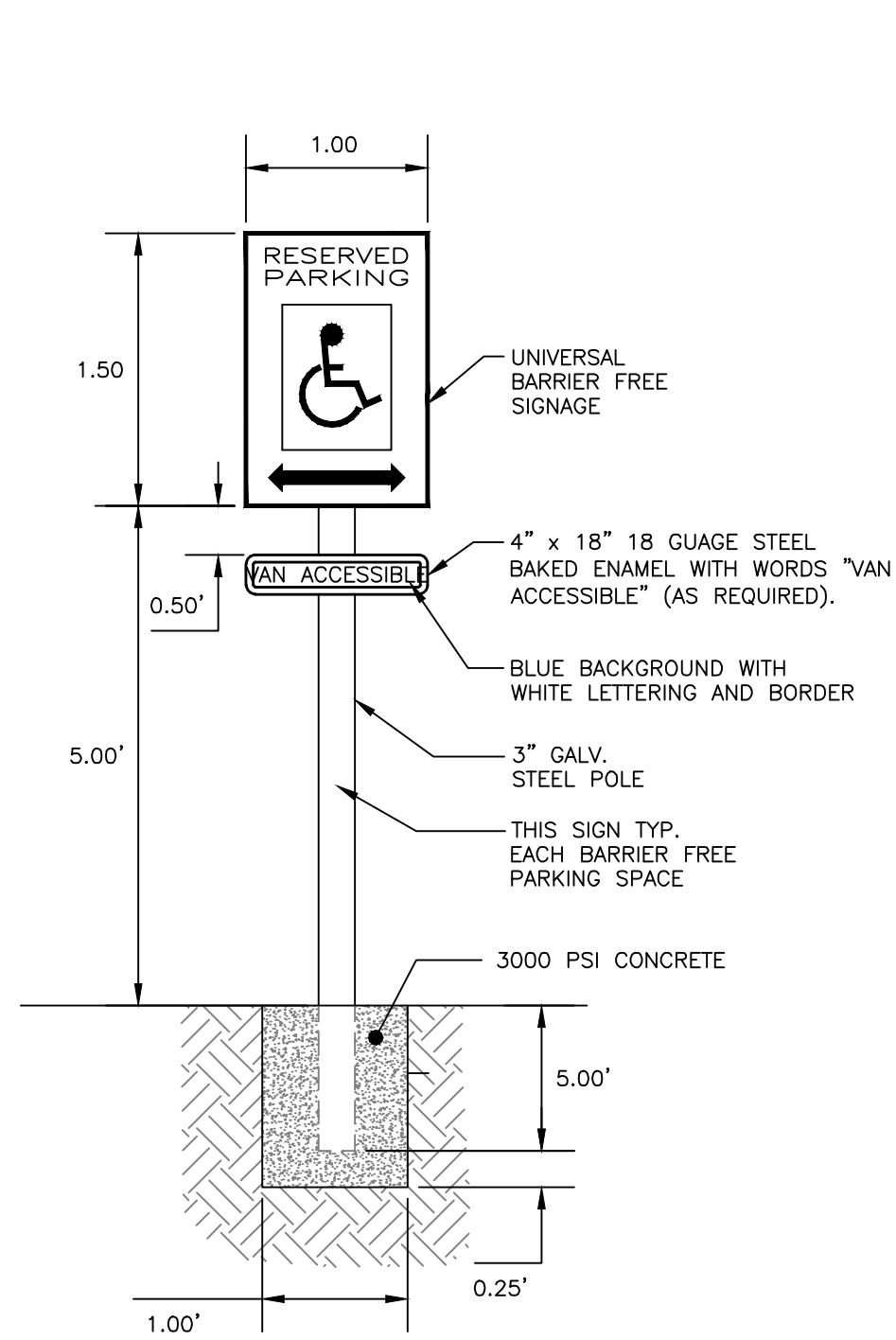
STRUCTURE TABLE				
NAME	DIA	RIM	INV. IN (SIZE)	INV. OUT (SIZE)
CB-1	48"	20.40'	16.80' (6")	14.00' (12")
CB-1.1	48"	22.13'		18.17' (12")
CB-1.2	48"	22.32'	17.91' (12") 19.60' (6")	17.81' (6")
CB-2	48"	22.61'	17.65' (6")	17.55' (6")
CB-2.1	48"	21.12'		15.76' (12")
CB-2.2	48"	21.31'	16.58' (12") 17.70' (6") 17.70' (6")	16.48' (12")
CB-3	48"	21.52'	16.85' (6")	16.75' (12")
CB-3.1	48"	20.12'		17.00' (6")
CB-3.2	48"	20.30'	14.72' (12") 17.10' (6") 17.10' (6")	17.00' (6")
CB-4.2	48"	20.04'		15.70' (12")
CB-5.1	48"	20.30'		15.30' (12")
CB-11	48"	21.39'	16.20' (15") 16.20' (8")	16.10' (15")
CB-12	48"	21.46'	17.35' (15")	17.25' (15")
CB-14	48"	20.44'	14.95' (12")	14.85' (12")
CB-15	48"	19.83'	14.96' (12") 15.53' (12")	15.43' (12")
DMH-1	48"	18.56'	11.38' (18") 16.00' (12") 11.38' (4")	11.28' (18")
DMH-2	48"	20.69'	12.96' (4") 17.00' (12")	12.86' (18")
DMH-6	48"	20.00'	12.50' (12")	12.40' (12")
DMH-7	48"	21.25'	15.54' (15")	8.01' (18")
OCS	48"	20.30'	11.00' (18")	9.07' (18")

PERMIT LEVEL
NOT ISSUED FOR
CONSTRUCTION



ISSUED FOR	BY
SITE/SUB	DATE
COMMENT RESPONSE	DATE
GRADING & DRAINAGE PLAN	
PROJECT NAME/ADDRESS: WINCHESTER WOODS APARTMENTS PORTLAND, MAINE 04103	
CLIENT/OWNER OF RECORD: WINCHESTER WOODS, LLC 94 SOUTH STREET, YARMOUTH MAINE 04096	
DRAWING NAME: GRADING & DRAINAGE PLAN	
ENGINEERING, INC.	
ACORN ENGINEERING, INC. PO BOX 3372, PORTLAND MAINE 04101 (207) 775-2885	
FILE:	1155_CIVIL
JN:	1155
SCALE:	AS NOTED
DESIGNED BY:	SJL
DRAWN BY:	NPH
CHECKED BY:	WHS
STATE OF MAINE SAMUEL J. LEBEL 16505 LICENSED PROFESSIONAL ENGINEER	
DRAWING NO. C-30	

1. ALL ASPECTS OF RESERVED PARKING SIGN CONSTRUCTION SHALL BE IN ACCORDANCE WITH MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, 2009 OR MOST RECENT EDITION
2. SIGN SHALL BE CONSTRUCTED AS SIGN R7-B UNDER THE "PARKING AND STANDING SIGNS AND PLAQUES" (R7 SERIES) WITHIN THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, 2009 OR MOST RECENT EDITION. VAN ACCESSIBILITY SHALL BE CONSTRUCTED AS SIGN R7-8a OR R7-8b.
3. SIGN POST CONSTRUCTION AND MOUNTING SHALL BE IN ACCORDANCE WITH CHAPTER 2A OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, 2009 OR MOST RECENT EDITION.

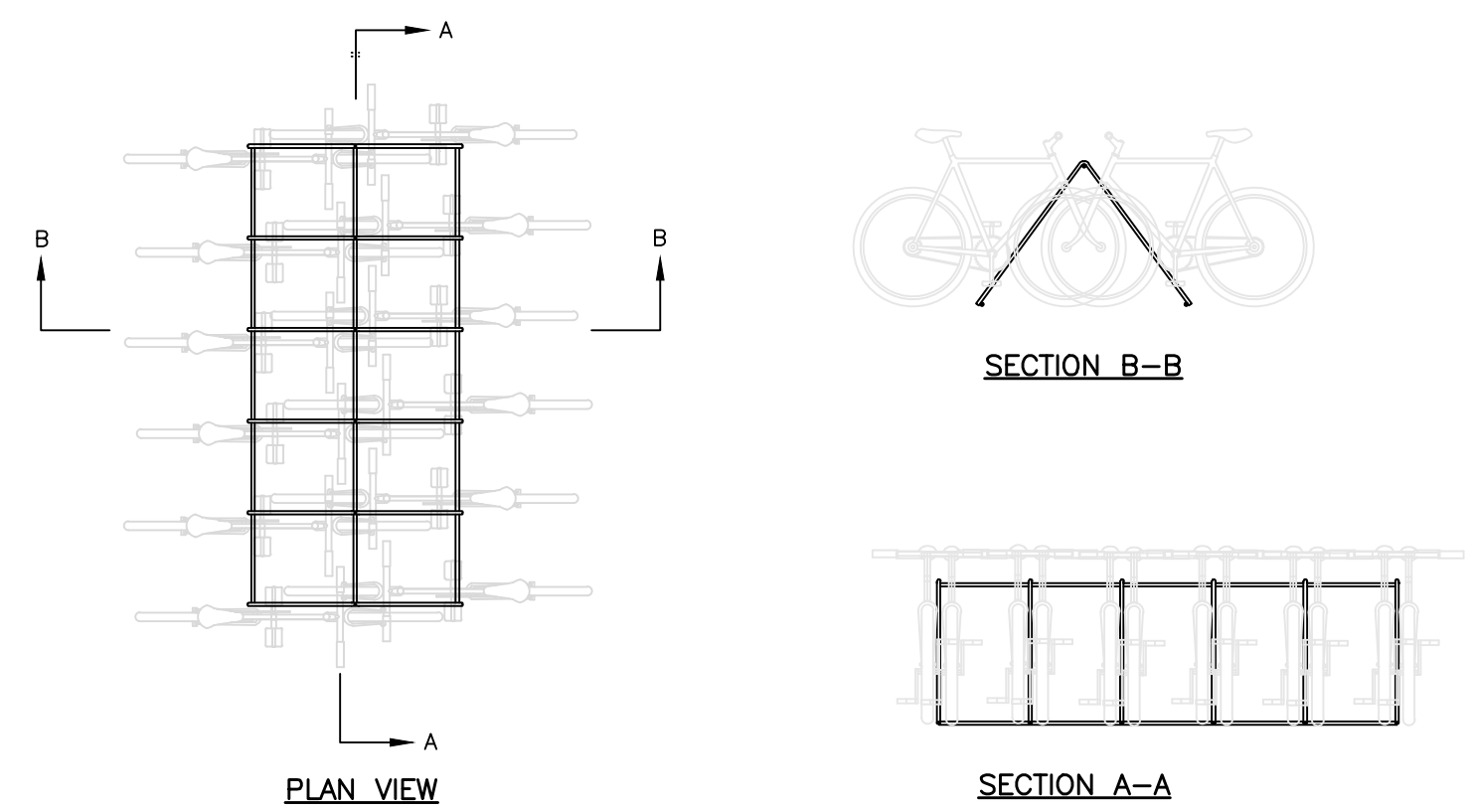


Technical drawing of a wheelchair symbol with dimensions and material specifications:

- Overall Dimensions:**
 - Top: 7'-0"
 - Right: 7'-0"
 - Bottom: 3'-6"
 - Left: 3'-1"
- Symbol Components and Dimensions:**
 - Wheel:** R=1'-8"
 - Seat:** 1'-0" (width), 4" (TYP.) (height)
 - Backrest:** 2'-0" (height), 1'-0" (width), 5" (thickness)
 - Armrest:** 23" (length), 1'-0" (width)
 - Footrest:** 1'-0" (width), 8" (height)
 - Base:** 8" (width), 3" (height)
 - Clearance:** 1'-6" (from base to right edge)
- Material Specifications:**
 - WHITE REFLECTIVE PAINT
 - NON-SKID BLUE PAINT
- Other Labels:**
 - R=6"
 - 3'-1"
 - 8"
 - 3"
 - 1'-6"
 - 8"
 - 1'-0"
 - 23"
 - 4" (TYP.)
 - 1'-0"
 - 2'-0"
 - 5"
 - 7'-0"
 - 7'-0"
 - 3'-6"
 - CL OF PARKING SPACE

NOTES:

1. BICYCLE RACK SHALL HAVE CAPACITY FOR FOURTEEN BICYCLES.
2. BICYCLE RACK PARTS SHALL BE OF UNIFORM COLOR AND SHALL BE FINISHED IN ACCORDANCE WITH PRODUCT SPECIFICATION. PAINT OF PORTLAND TECHNICAL STANDARDS ALL BICYCLE RACKS WITHIN THE RIGHT-OF-WAY SHALL MATCH THE FURNITURE COLOR FOR THAT LOCATION AS DESCRIBED IN THE MUNICIPAL LIGHTING STANDARDS; IF NO DESIGNATED COLOR FOR THAT AREA EXISTS, BICYCLE RACKS SHALL BE BLACK.
3. BICYCLE RACK SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S MOST RECENT INSTALLATION RECOMMENDATIONS, AND SHALL BE INSTALLED WITH A SURFACE MOUNT UNLESS OTHERWISE APPROVED BY ENGINEER.
4. BICYCLE RACK SHALL BE "DERO EVENT RACK", AS MANUFACTURED BY DERO BIKE RACKS.
5. MANUFACTURER'S RECOMMENDED OFFSETS SHALL BE ENFORCED WHERE POSSIBLE.



NOTE:

1. TIPDOWNS 7' IN LENGTH SHALL BE PROVIDED AS SEEN ON PLANS

The diagram shows a cross-section of a curb and sidewalk assembly. A 2" bituminous sidewalk is shown on the left, transitioning to a 3/4" radius curb. The curb is 6" high and 6" wide. A 6" reveal is shown on the right side of the curb. The curb is made of bituminous pavement. A 6" dimension is shown for the base of the curb. A note indicates to refer to collector pavement profile and bituminous sidewalk details for base and surface materials. Another note indicates to install epoxy on binder course prior to curb placement.

2" BITUMINOUS SIDEWALK

3/4" RADIUS

6"

6"

6" REVEAL

BITUMINOUS PAVEMENT

REFER TO COLLECTOR PAVEMENT PROFILE AND BITUMINOUS SIDEWALK DETAILS FOR BASE AND SURFACE MATERIALS

INSTALL EPOXY ON BINDER COURSE PRIOR TO CURB PLACEMENT

Diagram illustrating the dimensions of the number 3. The height is 12" and the width is 8".

- NOTES:
1. NUMBERS TO BE PAINTED AS THE SAME COLOR AS THE CORRESPONDING PARKING SPACE.
 2. BOTTOM OF NUMBER TO BE FLUSH WITH THE FRONT OF THE PARKING SPACE.

NOTE:
ALL PIPES SHALL BE TOPPED
WITH A DECORATIVE COVER.
MODEL TO BE DECIDED UPON
BY OWNER AND ARCHITECT.

6" GALVANIZED STEEL
PIPE WITH CONCRETE
FIT AND ROUNDED TOP

3'-0"

6'-0"

5'-0"

SYM. ABOUT C
WHEN IN GROUPS

PAVEMENT OR
FINISH GRADE

CONCRETE (REFER TO
ABOVE GROUND LP
DETAIL)

BOLLARD POST FILLED
WITH CONCRETE

3000 PSI MINIMUM
P.C. CONCRETE (TYP.)

3" MIN.

1'-6"

NOTE:

1. CROSSWALKS TO BE BUILT IN CONFORMANCE WITH MUTCD STANDARDS, LATEST EDITION.
2. CROSSWALKS ARE TO BE PAINTED WHITE MEETING MAINE DOT SPECIFICATIONS.
3. BLOCKS TO BE PARALLEL TO THE DIRECTION OF CAR TRAFFIC.

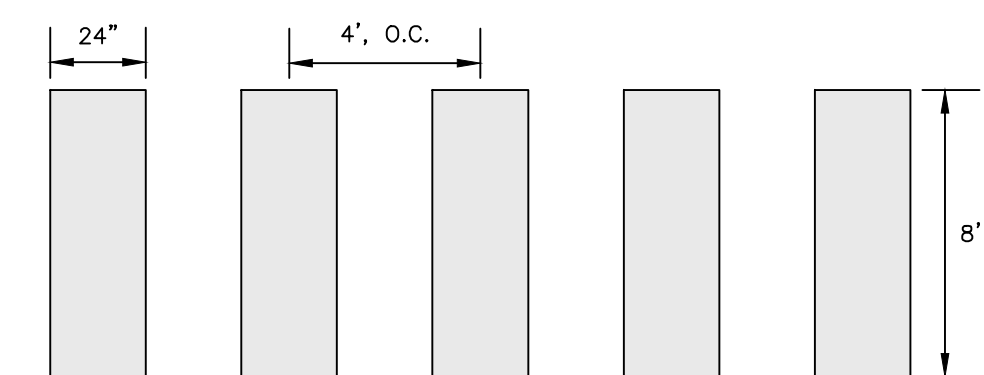


Diagram illustrating the layout of a 18' wide accessible parking space, showing various components and dimensions:

- 18' SEE SITE PLAN:** Overall width of the parking space.
- 90°:** Angle indicating the orientation of the space.
- STRIPING 3' O.C. @ 45°:** Diagonal striping pattern in the adjacent travel lane.
- BARRIER FREE PARKING SIGN (TYP.):** Sign indicating accessible parking.
- 4" WIDE TRAFFIC PAINT STRIPE:** Stripe separating the parking space from the travel lane.
- TYPICAL WHITE PAINT ON BITUMINOUS PAVEMENT AND YELLOW PAINT ON PORTLAND CEMENT PAVEMENT:** Color requirements for the stripe.
- STRIPING FOR ANY NON-BARRIER FREE PARKING SPACE WITH A WIDTH LESS THAN 9' OR A LENGTH LESS THAN 18' SHALL BE PAINTED BLUE.** Requirement for blue striping in smaller spaces.
- ADA SYMBOL (TYP.):** Symbol indicating accessible parking.
- SIZE VARIES SEE SITE PLAN:** Variable dimensions for the space.
- 8':** Dimensions for the three sections of the parking space.

PERMIT LEVEL
NOT ISSUED FOR
CONSTRUCTION

[illegible]

SITE DETAILS - 2

WINCHESTER WOODS APARTMENTS

WINCHESTER WOODS, LLC

WINCHESTER WOODS, LLC
94 SOUTH STREET, YARMOUTH, ME 04096

PROJECT NAME:

CLIENT:



A C O R N
ENGINEERING, INC.

FILE: 1155 CIVIL

N: 1155

CALE:	NTS
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DESIGNED BY: SJL

RAWN BY: JHG

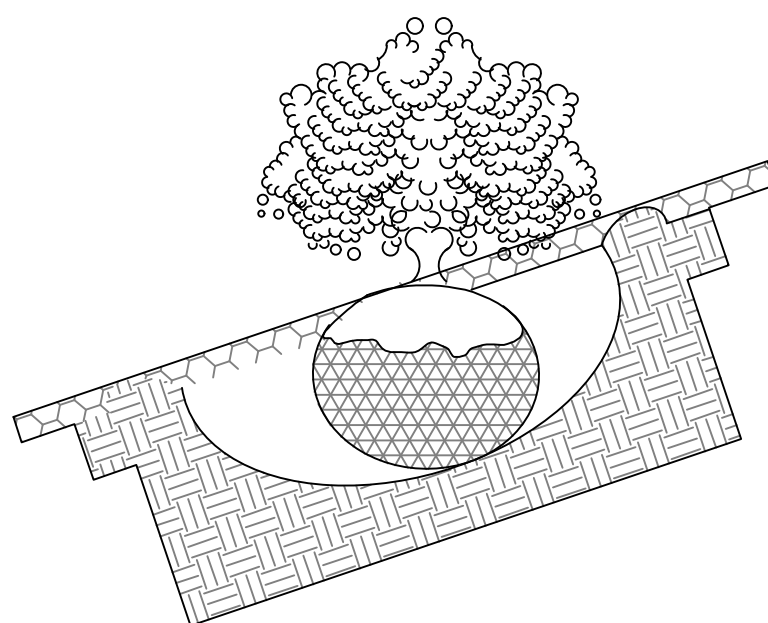
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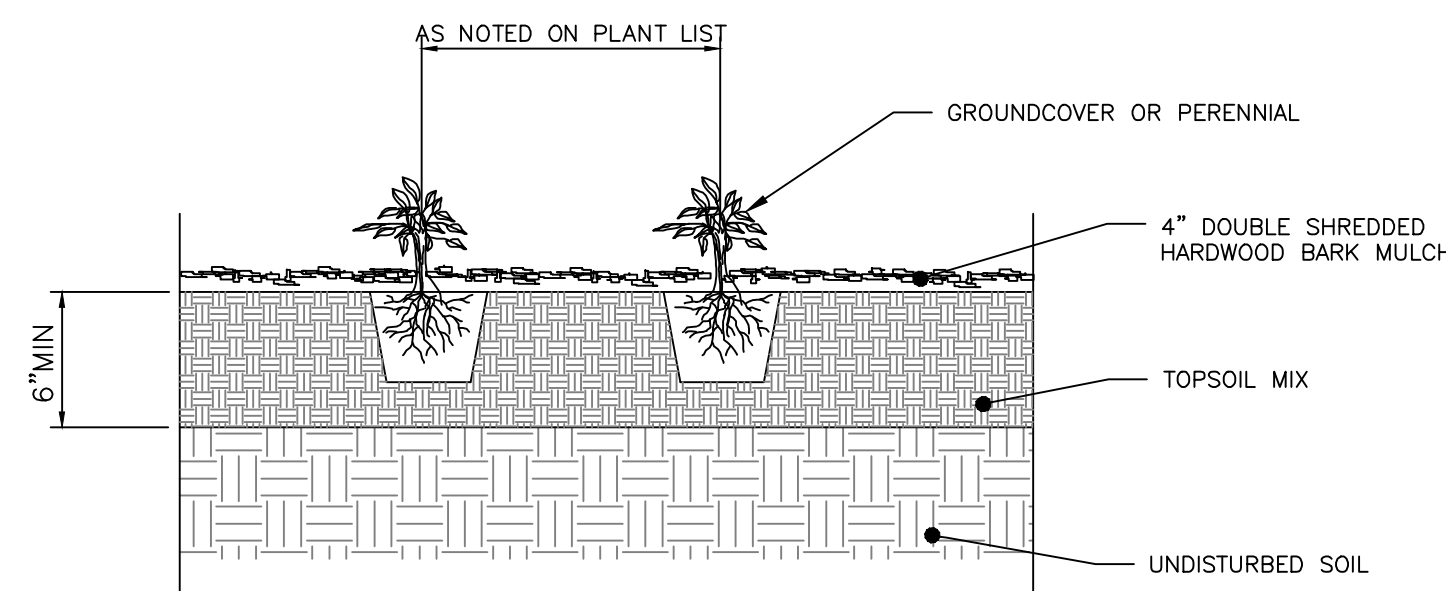
DRAWING NO.

C-41

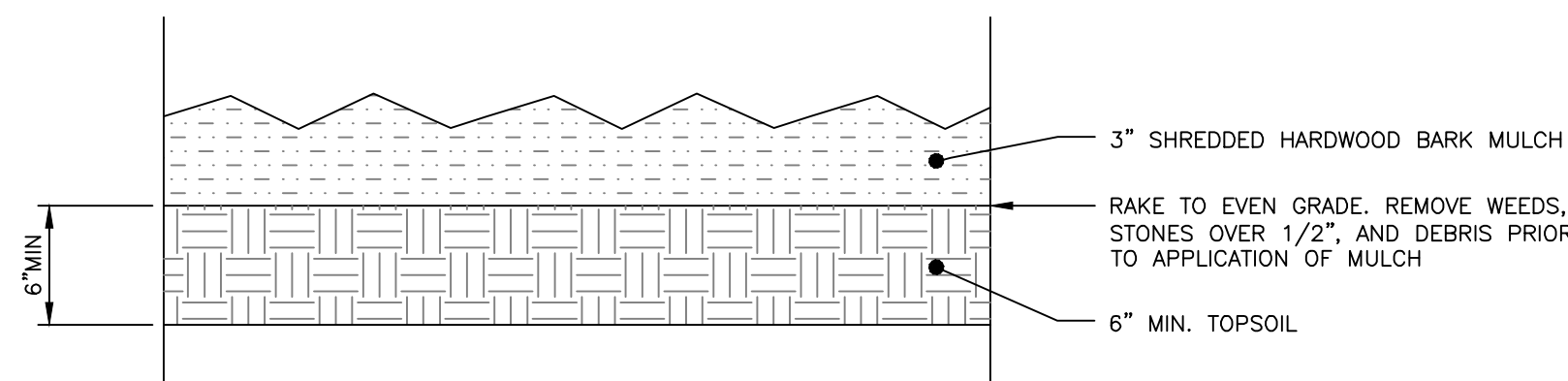
1. DIG HOLE AT LEAST 2 TIMES THE DIAMETER OF THE ROOT BALL AND AS DEEP AS THE ROOT BALL (NO DEEPER). SEED ROOT BALL CENTERED, WITH THE TOP AT DOWNHILL EDGE OF THE HOLE.
2. BACKFILL WITH TOPSOIL, FIRM, FRAGMENT FREE. THE CHARACTERISTICS OF TOPSOIL IN THE VICINITY WHICH PRODUCE A HEAVY GROWTH. TOPSOIL SHALL CONTAIN NOT LESS THAN 6% NOR MORE THAN 20% ORGANIC MATTER. TOP SOIL SHALL HAVE A pH VALUE OF NOT LESS THAN 5.5 NOR MORE THAN 7.5.
3. CONTAINER GROWN STOCK - REMOVE CONTAINER PROTECTING THE ROOT BALL. GENTLY COMB OUT THE ROOTS. PRUNE DAMAGED ROOTS.
4. BACKFILL TO A DEPTH NOT TO EXCEED 8" THEN WATER SUFFICIENTLY TO SETTLE TOPSOIL. REPEAT SOIL BACKFILL, WATER, DRAIN. TOPSOIL SHALL BE TAMPED UNDER EDGES OF THE BALLED PLANTS. BACKFILL TO FINISH GRADE AND CREATE AN EARTHEN SAUCER. SOAK PLANTS TWICE THE FIRST TIME.



TYPICAL PLANTING
NOT TO SCALE

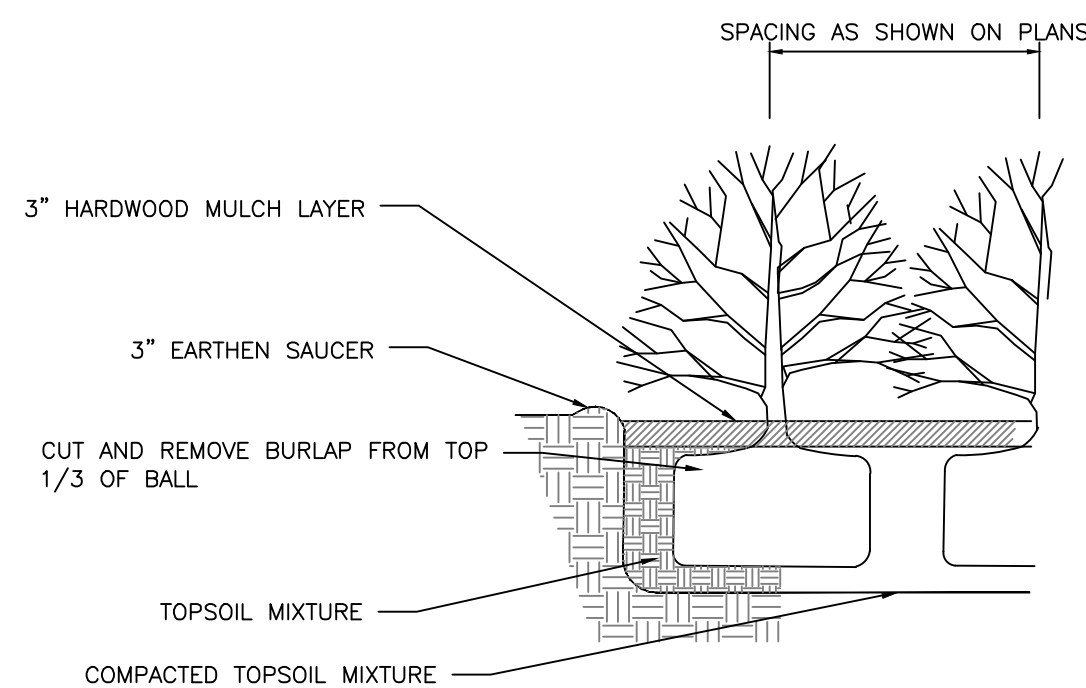


PERENNIAL PLANTING DETAIL
NOT TO SCALE

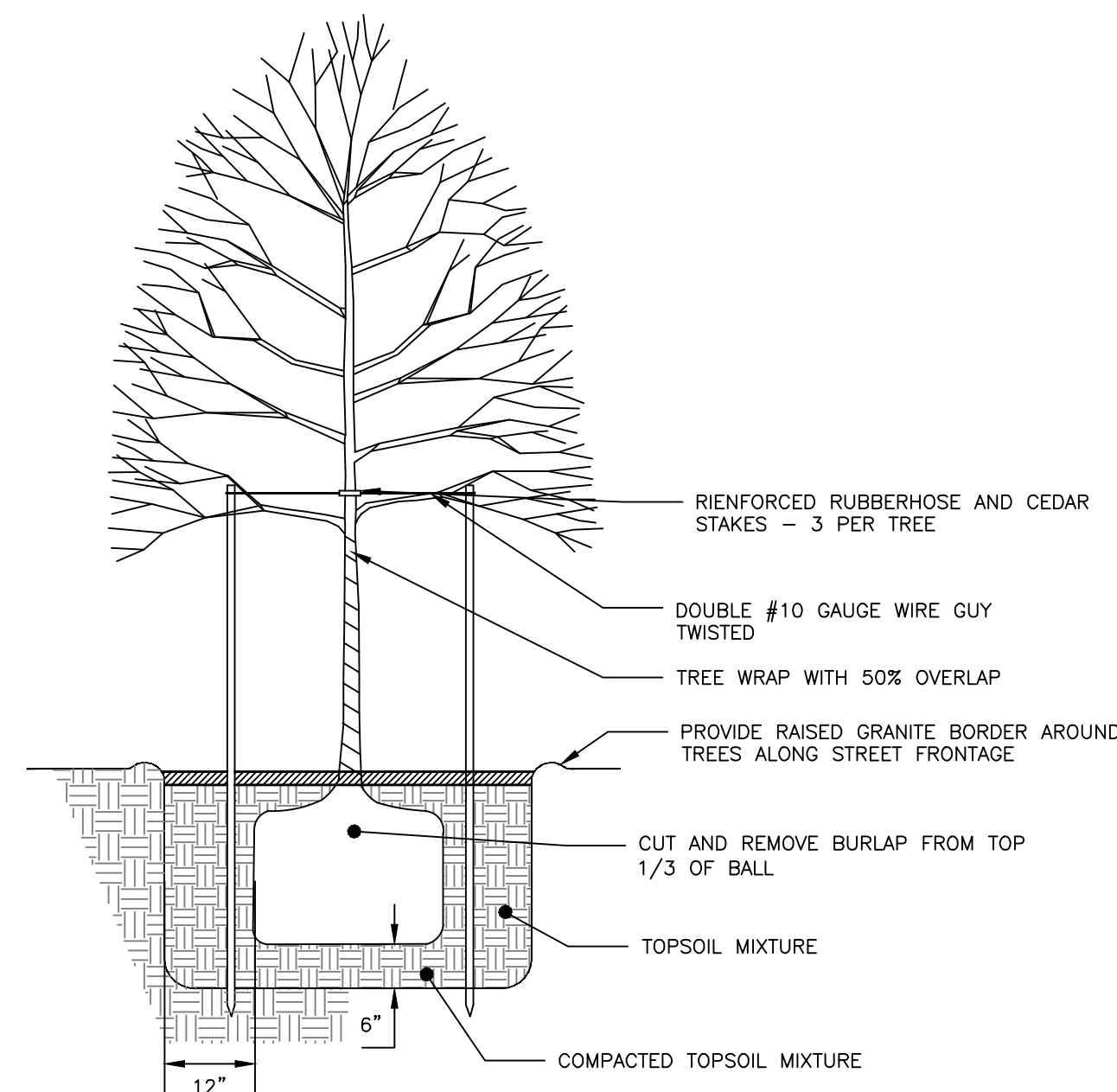


BARK MULCH DETAIL
NOT TO SCALE

1. ALL PLANT SELECTION AND INSTALLATION WILL BE IN COMPLIANCE WITH THE CITY OF PORTLAND TECHNICAL MANUAL (SECTION 4).
2. CONTRACTOR TO VERIFY ALL UTILITIES ON PROPERTY AND TO PROTECT ALL UTILITIES DURING EXCAVATION FOR PLANTS.
3. IF THERE IS A DISCREPANCY BETWEEN THE NUMBER OF PLANTS SHOWN ON THE PLAN AND THE NUMBER OF PLANTS SHOWN IN PLANT LIST (IF ANY), THE NUMBER OF PLANTS SHOWN ON PLAN WILL TAKE PRECEDENCE.
4. ALL MATERIAL SHALL COMPLY WITH THE LATEST EDITION OF THE AMERICAN STANDARD FOR NURSERY STOCK, AMERICAN ASSOCIATION OF NURSERYMAN.
5. ALL DISTURBED AREAS NOT TO BE PAVED OR PLANTED SHALL BE LOAMED AND SEEDED AS SHOWN. THE SEED MIX SPECIFICATIONS ARE AS FOLLOWS: LESCO FINE FESCUE LINKS BLEND OF 35% HARD FESCUE, 35% CREEPING REED FESCUE, 20% CHEWINGS FESCUE AND 10% SHEEP FESCUE. ADD 5% LITTLE BLUESTEM AND 5% NORTHEAST WILDFLOWER SEED MIXTURE BY WEIGHT TO THE LINKS BLEND.
6. FOR PRICING PURPOSES, PROVIDE A PER TREE UNIT COST FOR STAKING AND GUYING. IF STAKING AND GUYING IS REQUIRED, REMOVE TREE WRAP, STAKES, AND GUY WIRES AT END OF FIRST GROWING SEASON.
7. FOR TREE PLANTING IN LAWN AREAS, ANY DISTURBED LAWN SHALL BE LOAMED AND SEEDED AS NECESSARY.
8. NEW TREES TO BE INSTALLED WITH A SLOW RELEASE WATERING BAG.
9. CONTRACTOR TO BE HELD RESPONSIBLE FOR THE WATERING AND MAINTENANCE OF ALL PLANT MATERIAL AND LANDSCAPING IMPROVEMENTS FOR AT LEAST 30 DAYS FOLLOWING INSTALLATION. FOLLOWING THIS PERIOD, THE LANDOWNER OR PROPERTY MANAGEMENT SHALL BE RESPONSIBLE FOR CONTINUED WATERING AND MAINTENANCE. CONTRACTOR TO MAINTAIN A ONE YEAR WARRANTY ON ALL PLANTINGS FOLLOWING FINAL INSTALLATION.
10. ALL PROPOSED PLANTS SHALL BE LOCATED AS SHOWN ON THE PLANS. CONTRACTOR TO NOTIFY ENGINEER WHEN PLANTINGS HAVE BEEN MOBILIZED ON SITE. ENGINEER TO INSPECT AND ACCEPT OR REJECT ANY SPECIMENS ON THE BASIS OF APPARENT HEALTH, HARDINESS, AND CONFORMANCE WITH THE PLANTING SCHEDULE. REJECTED SPECIMENS ARE TO BE REJECTED BY THE CONTRACTOR AT NO ADDED COST TO THE OWNER. ACCEPTANCE DOES NOT WAIVE THE REQUIRED ONE YEAR PLANTING WARRANTY.



SHRUB PLANTING DETAIL
NOT TO SCALE



TREE PLANTING DETAIL
NOT TO SCALE

PERMIT LEVEL
NOT ISSUED FOR
CONSTRUCTION

[illegible]

LANDSCAPING DETAILS

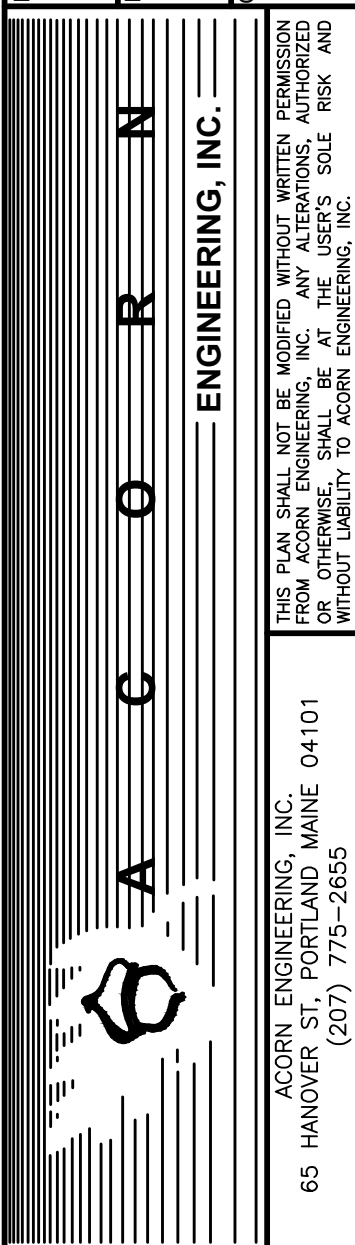
WINCHESTER WOODS APARTMENTS

WINCHESTER WOODS, LLC
94 SOUTH STREET, YARMOUTH, ME 04096

DRAWING NAME:

PROJECT NAME:

CLIENT:



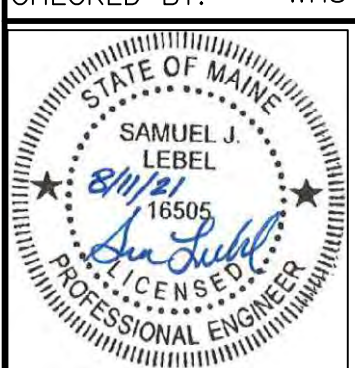
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JN:	1155
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SCALE: NTS

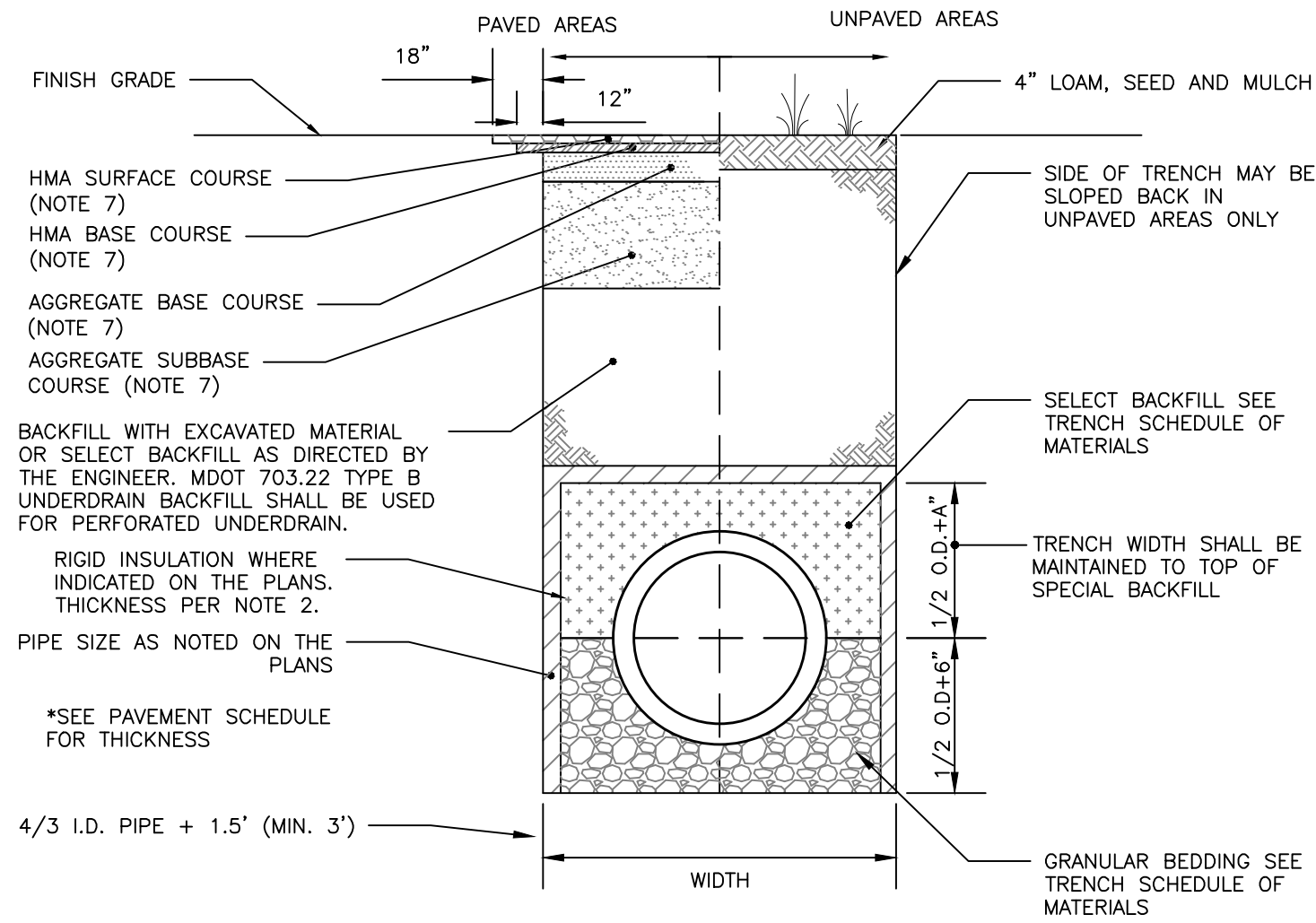
DESIGNED BY: SJL

DRAWN BY: JHG



DRAWING NO.

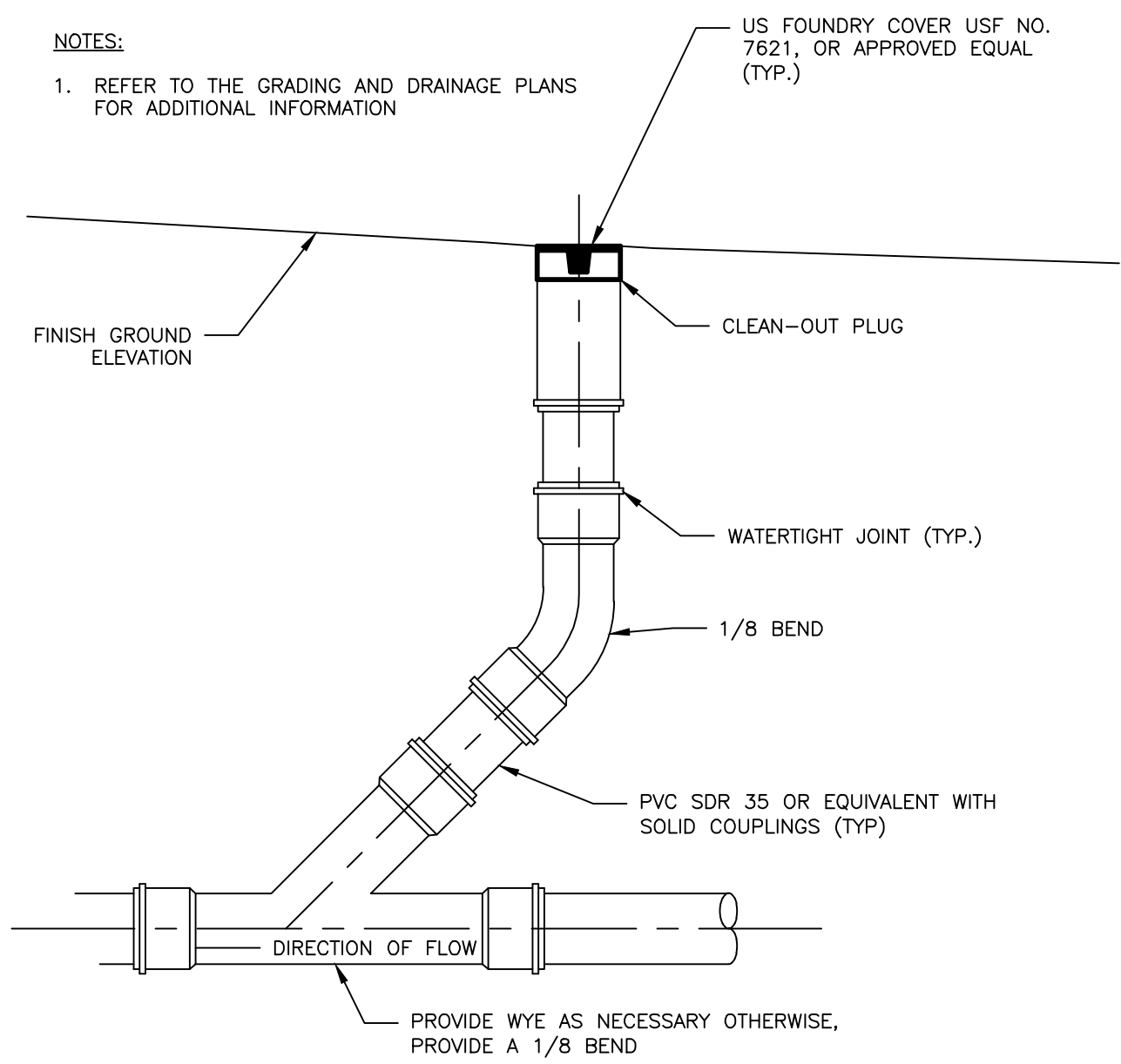
C-42



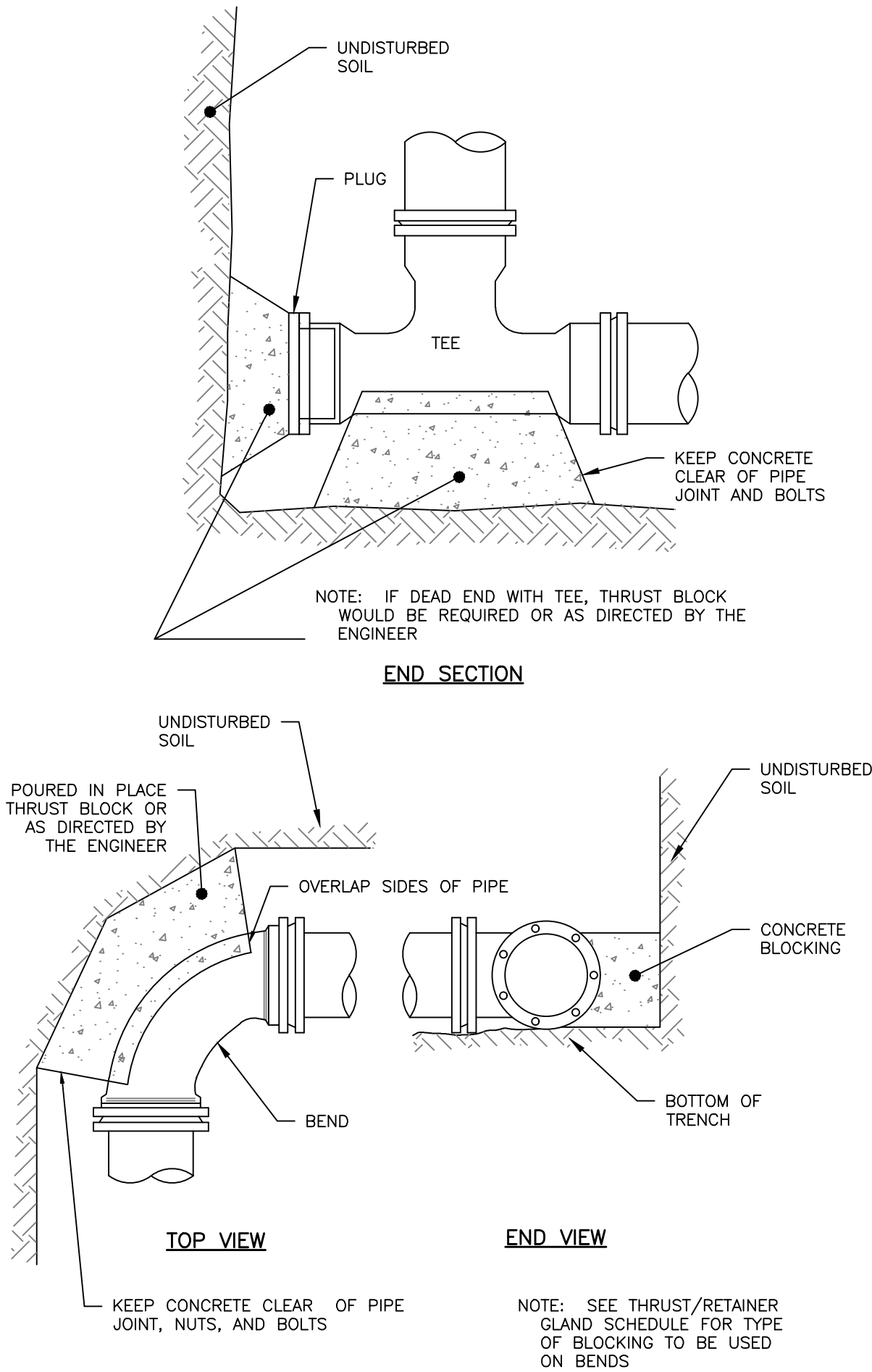
SCHEDULE OF MATERIALS		
TYPE OF PIPE	GRANULAR BEDDING	SELECT BACKFILL
CMP DUCTILE IRON RCP	MDOT 703.22 TYPE B UD BACKFILL	MDOT 703.22 TYPE B UD BACKFILL
PVC/HDPE	MDOT 703.22 TYPE C 3/4\" CRUSHED STONE	MDOT 703.22 TYPE B UD BACKFILL
CMP	MDOT 703.22 TYPE C 3/4\" CRUSHED STONE	MDOT 703.22 TYPE C 3/4\" CRUSHED STONE

- NOTES:
- BRACING AND SHEETING OR OTHER TRENCH PROTECTION TO BE PROVIDED TO MEET APPLICABLE STATE AND O.S.H.A. SAFETY STANDARDS. ALL SUCH TRENCH PROTECTION TO BE THE RESPONSIBILITY OF THE CONTRACTOR.
 - PIPE COVER BETWEEN 2' AND 3' SHALL INCLUDE 4" THICK OF RIGID INSULATION. COVER BETWEEN 3' AND 4' SHALL INCLUDE 2" THICK RIGID INSULATION. OTHER UTILITIES: ADD 2" OF RIGID INSULATION FOR EACH FOOT OF COVER LESS THAN THE MINIMUM DEPTH. WIDTH OF INSULATION SHALL BE FOUR TIMES THE DIAMETER OF THE PIPE WITH A MINIMUM WIDTH OF 30".
 - INSTALL WARNING TAPE DIRECTLY ABOVE UTILITIES AT THE TOP OF SUBGRADE.
 - MINIMUM COVER
 - 2'-0" - STORM DRAIN
 - 5'-0" - SEWER
 - NO TREES SHALL BE PLANTED WITHIN 5' OF A SEWER PIPE OR SERVICE
 - THIS DETAIL SHALL BE APPLIED ONLY TO DRAINAGE PIPE TRENCHES OUTSIDE OF THE CITY OF PORTLAND ROW.
 - THICKNESS AS NOTED BY SURFACE DETAILS

INTERNAL STORM DRAIN AND SEWER TYPICAL TRENCH SECTION
NOT TO SCALE

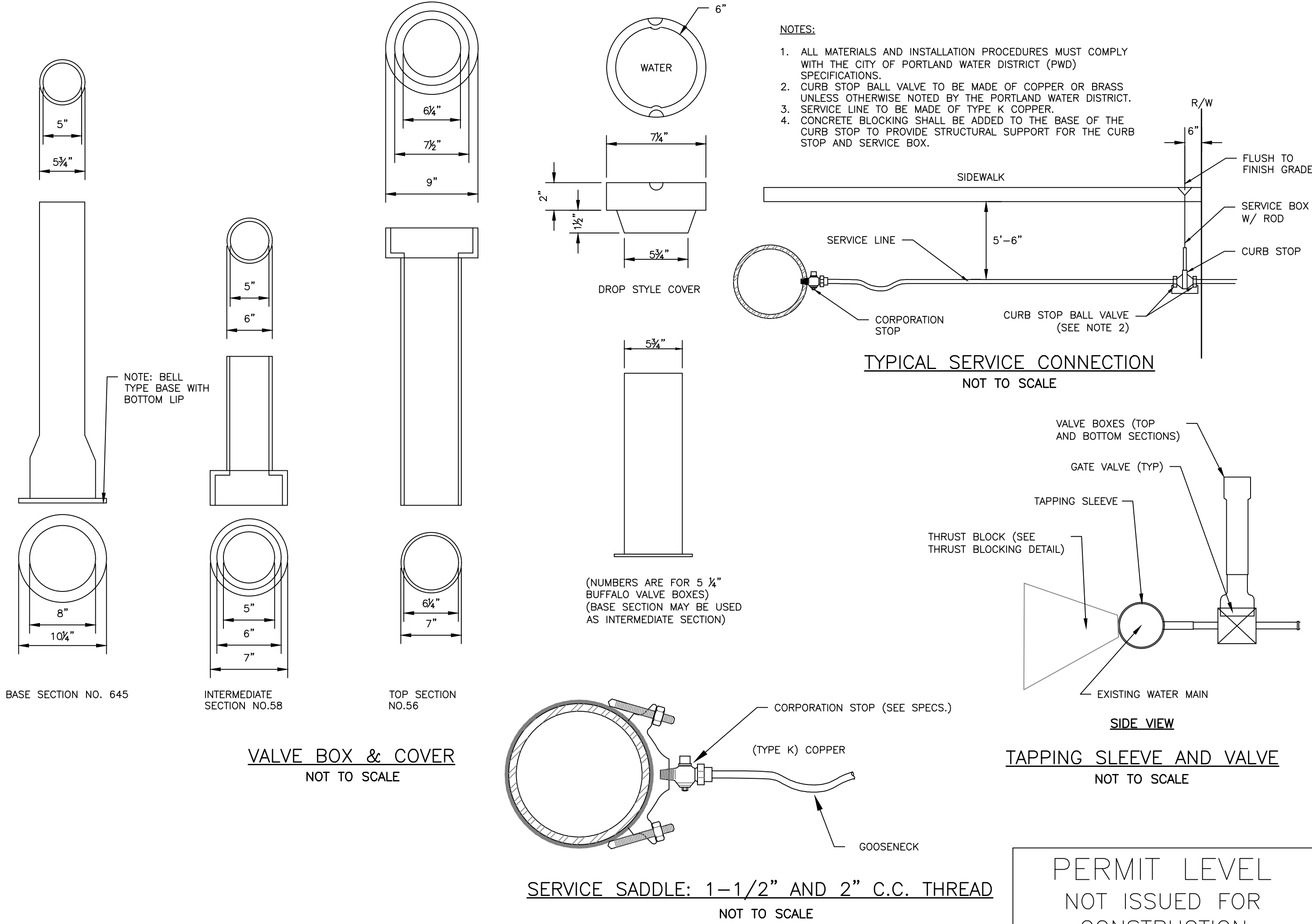


CLEANOUT DETAIL
NOT TO SCALE



REGULAR BEND

THRUST BLOCKING
NOT TO SCALE



- NOTES:
- ALL MATERIALS AND INSTALLATION PROCEDURES MUST COMPLY WITH THE CITY OF PORTLAND WATER DISTRICT (PWD) SPECIFICATIONS.
 - CURB STOP BALL VALVE TO BE MADE OF COPPER OR BRASS UNLESS OTHERWISE NOTED BY THE PORTLAND WATER DISTRICT.
 - SERVICE LINE TO BE MADE OF TYPE K COPPER.
 - CONCRETE BLOCKING SHALL BE ADDED TO THE BASE OF THE CURB STOP TO PROVIDE STRUCTURAL SUPPORT FOR THE CURB STOP AND SERVICE BOX.

TYPICAL SERVICE CONNECTION
NOT TO SCALE

BASE SECTION NO. 645

INTERMEDIATE SECTION NO.58

TOP SECTION NO.56

VALVE BOX & COVER
NOT TO SCALE

SERVICE SADDLE: 1-1/2" AND 2" C.C. THREAD
NOT TO SCALE

PERMIT LEVEL
NOT ISSUED FOR
CONSTRUCTION

ISSUED FOR	BY
SITE/SUB	DATE
COMMENT RESPONSE	WHS
	4/19/21
	8/11/21

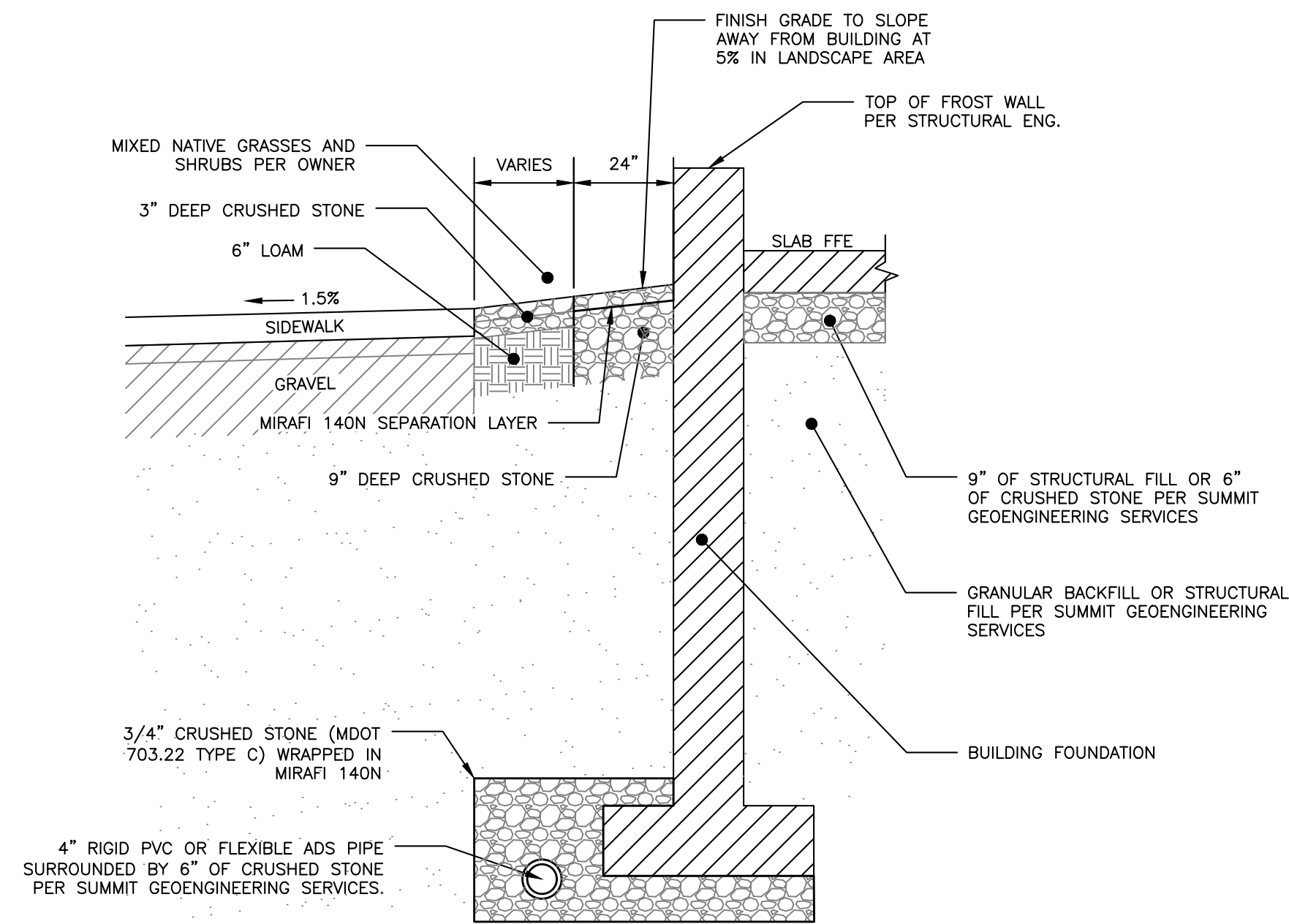
UTILITY DETAILS - 2	WINCHESTER WOODS APARTMENTS
PROJECT NAME:	WINCHESTER WOODS, LLC
CLIENT:	94 SOUTH STREET, YARMOUTH, ME 04096

ACORN ENGINEERING, INC.	ENGINEERING, INC.
65 HANOVER ST, PORTLAND MAINE 04101	(207) 775-2655

FILE:	1155_CIVIL
JN:	1155
SCALE:	NTS
DESIGNED BY:	SUL
DRAWN BY:	JHG
CHECKED BY:	WHS

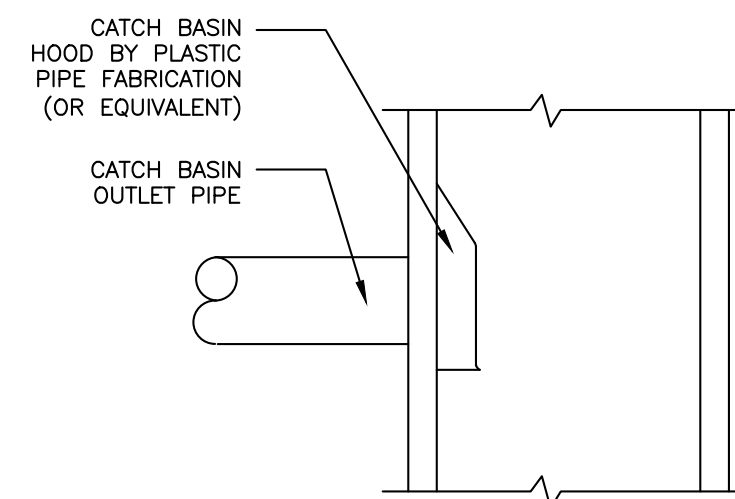


DRAWING NO.
C-44

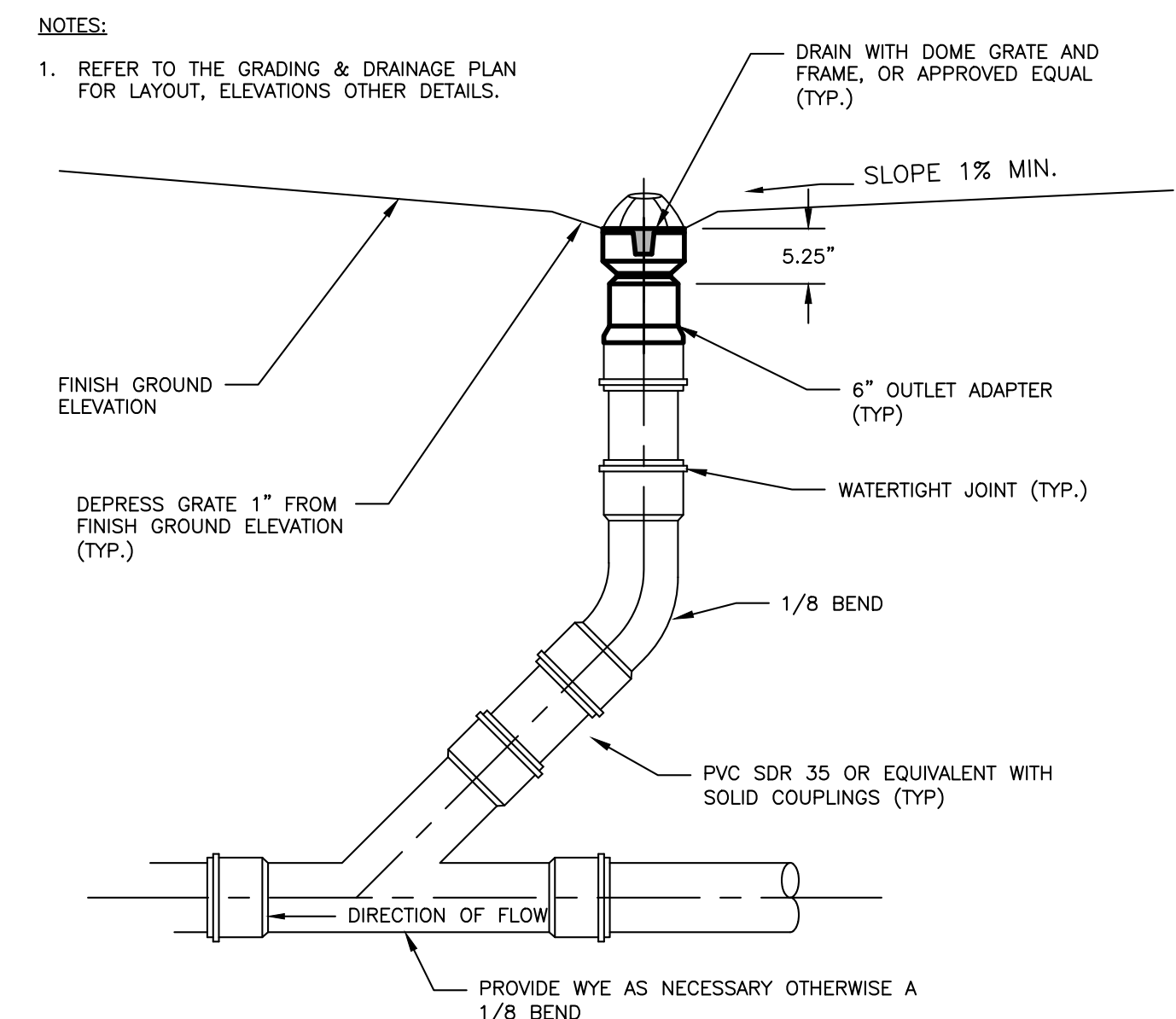


DALTON FOUNDATION DRAIN DETAIL
NOT TO SCALE

- NOTES:
1. INSTALL CATCH BASIN HOODS IN ALL CATCH BASINS WITH A 12" OR 15" OUTLET PIPE.
 2. PREFERRED STYLE DESIGNED TO ELIMINATE CEMENTING OF THE TRAP.
 3. REFER TO MANUFACTURER'S RECOMMENDATIONS FOR INSTALLATION REQUIREMENTS

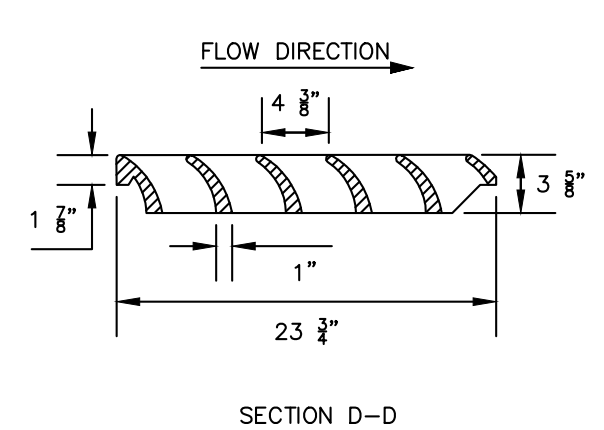
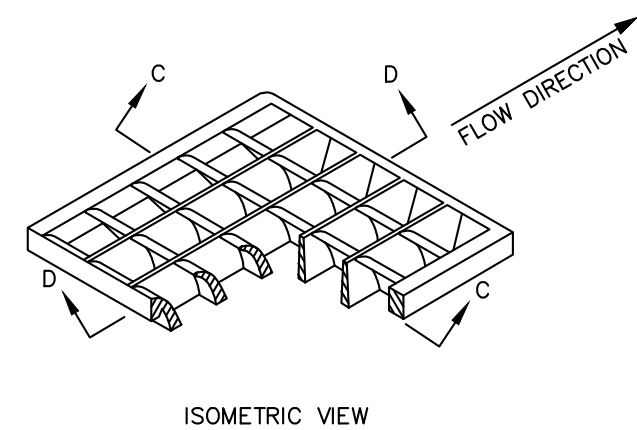
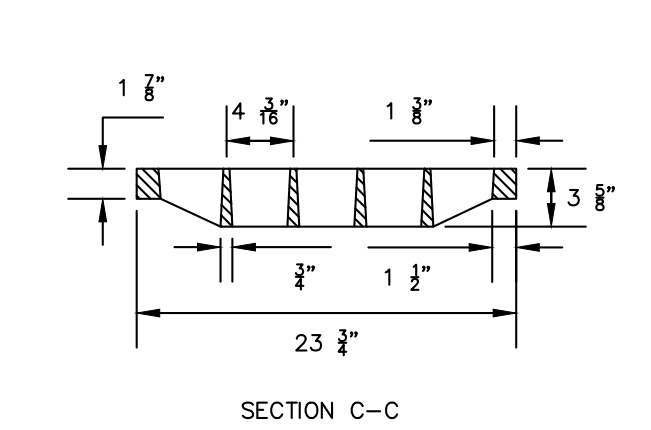
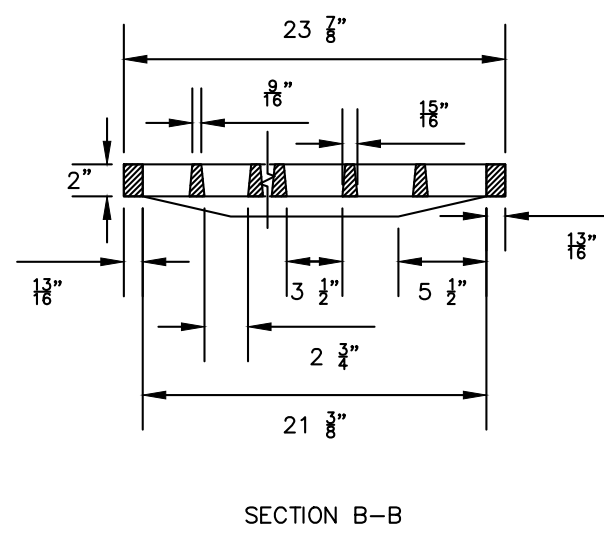
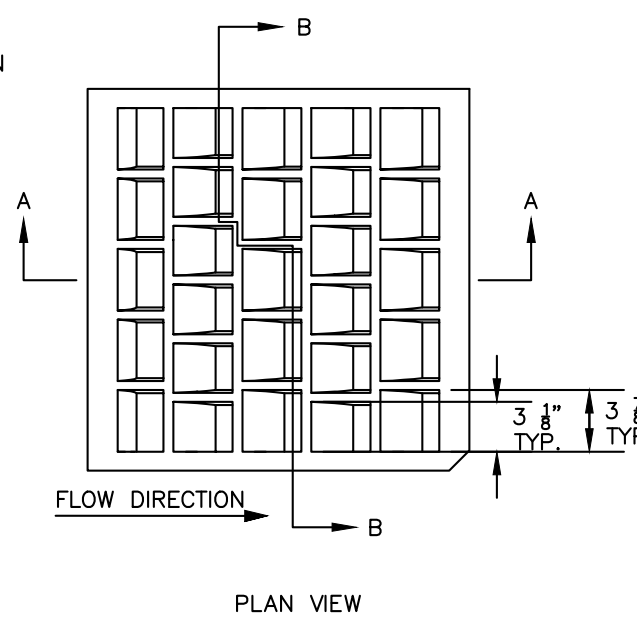
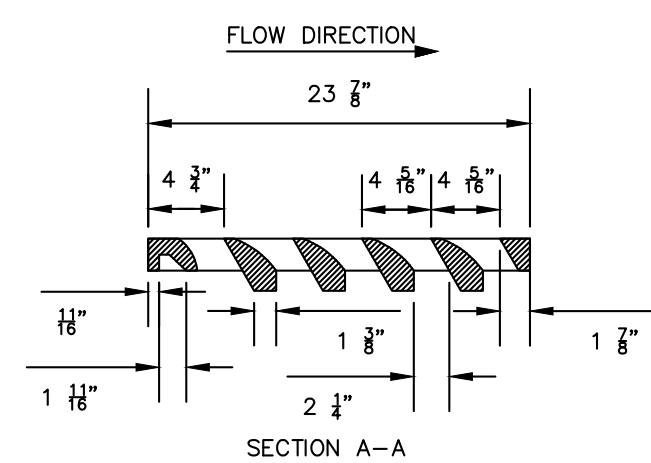


CATCH BASIN HOOD DETAIL
NOT TO SCALE

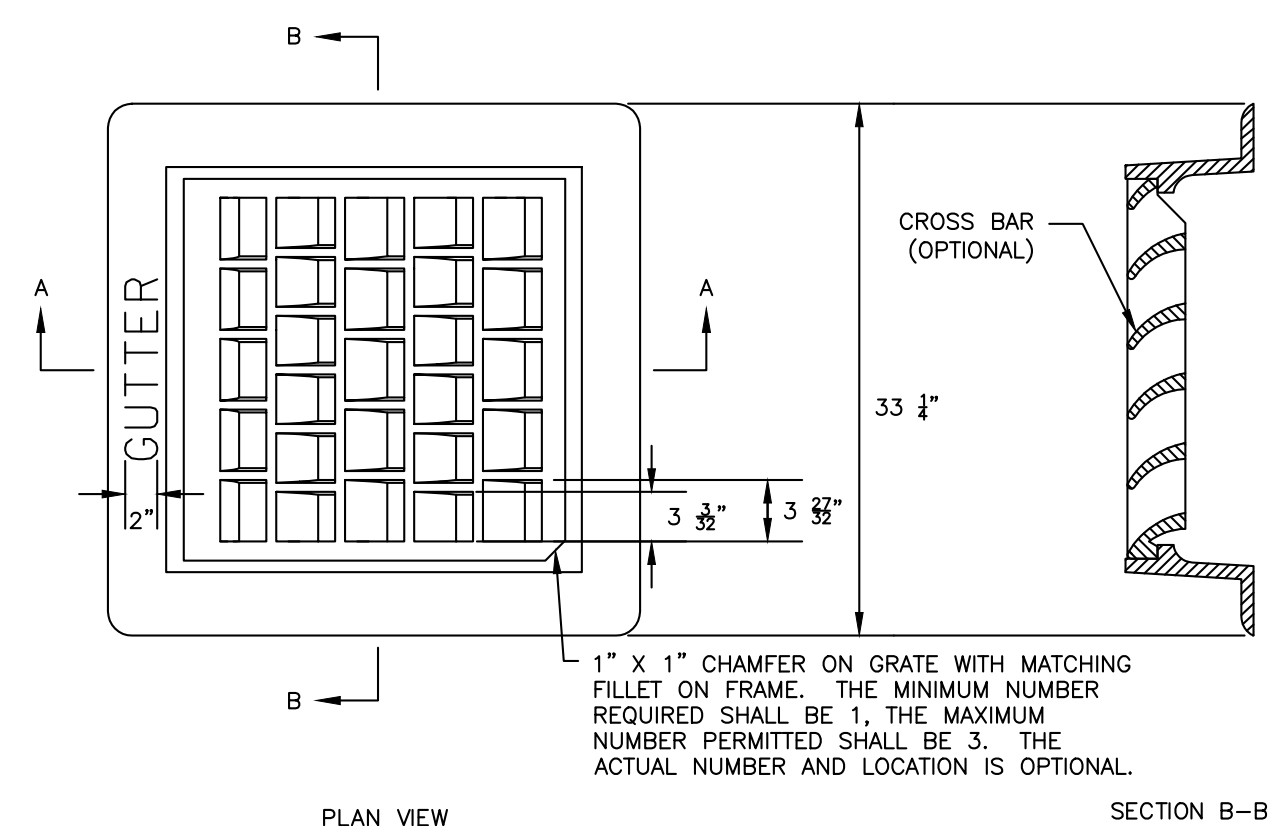
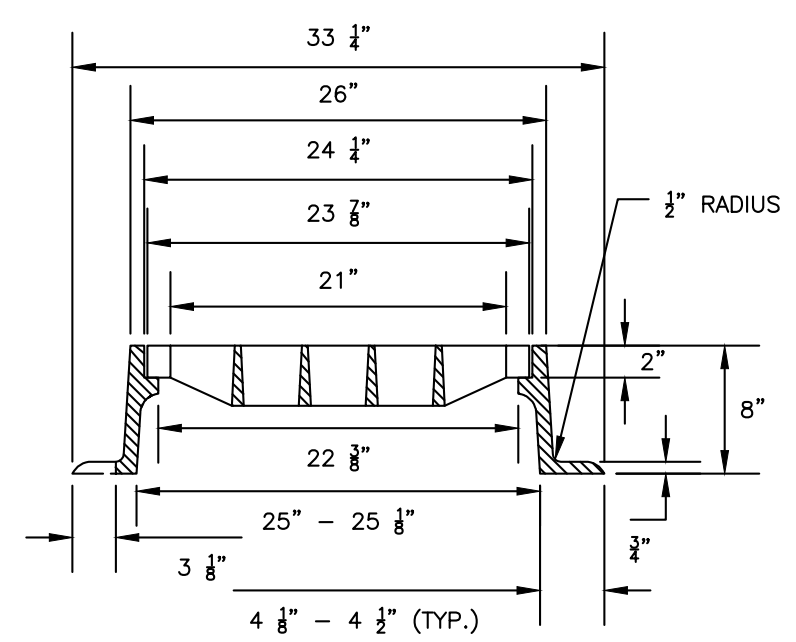


INLINE DRAIN DETAIL WITH BEEHIVE GRATE
NOT TO SCALE

- NOTES:
1. TYPE "A" FRAMES ARE TO HAVE 3 FLANGES.
 2. TYPE "B" FRAMES ARE TO HAVE 4 FLANGES.
 3. THE WORD "GUTTER" IS TO BE MOLDED INTO THE BACK FLANGE - TYPE "B" ONLY.
 4. FRAMES AND GRATES ARE TO BE GRAY CAST IRON OR DUCTILE IRON CONFORMING TO AASHTO M306.
 5. DIMENSIONS ARE NOMINAL.



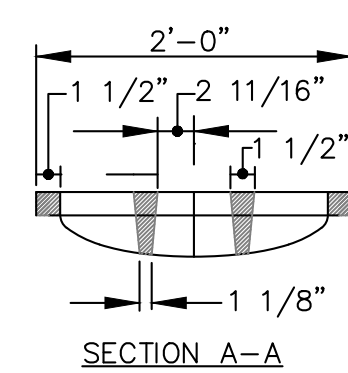
GRATE DETAIL



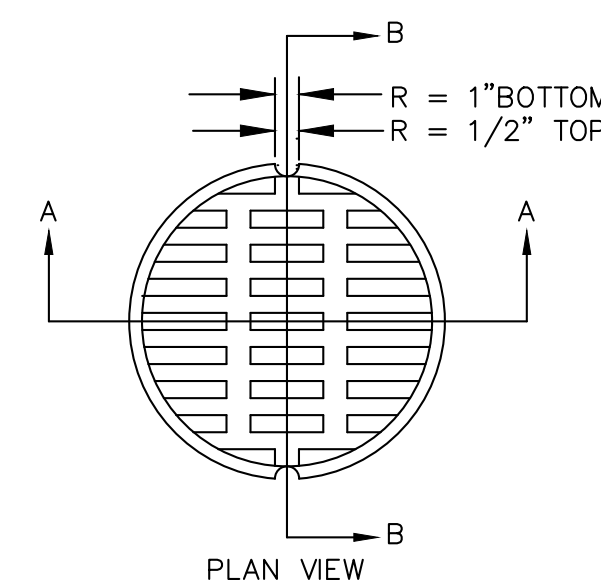
FRAME DETAIL

CATCH BASIN FRAME & GRATE - SQUARE
NOT TO SCALE

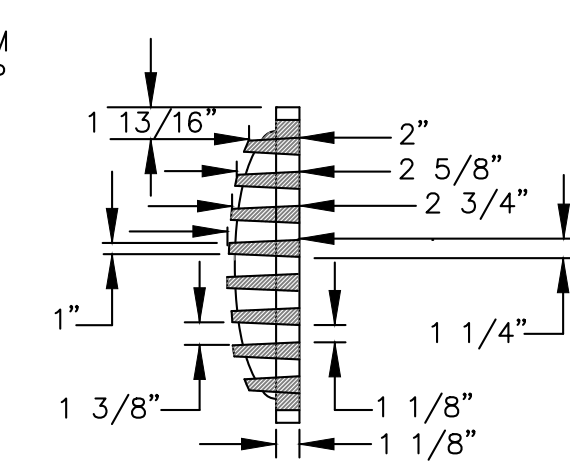
1. APPROVED CATCH BASIN FRAMES:
 - 1.1. EAST JORDAN = 7375Z
 - 1.2. NEENAH = R-3248
 - 1.3. OR APPROVED EQUAL
2. APPROVED CATCH BASIN GRATES
 - 2.1. EAST JORDAN = 2440M
 - 2.2. NEENAH = R-3248
 - 2.3. OR APPROVED EQUAL



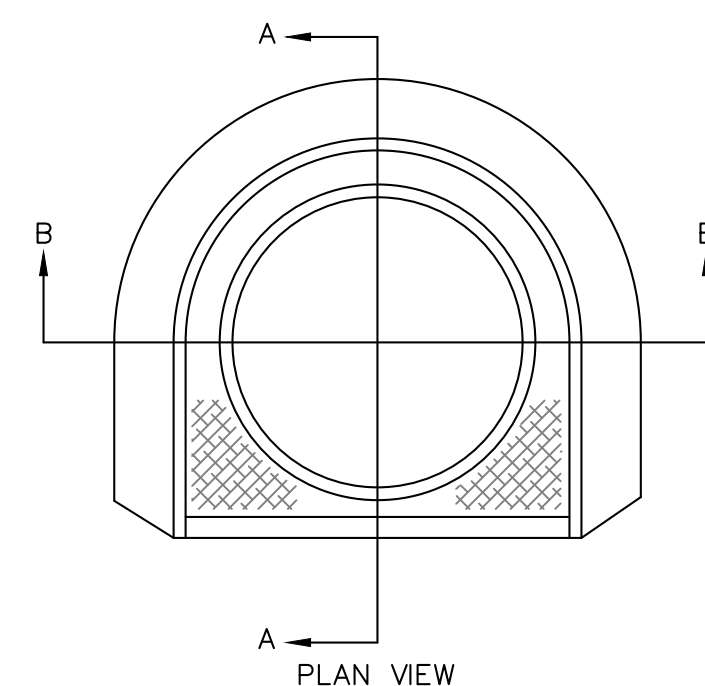
SECTION A-A



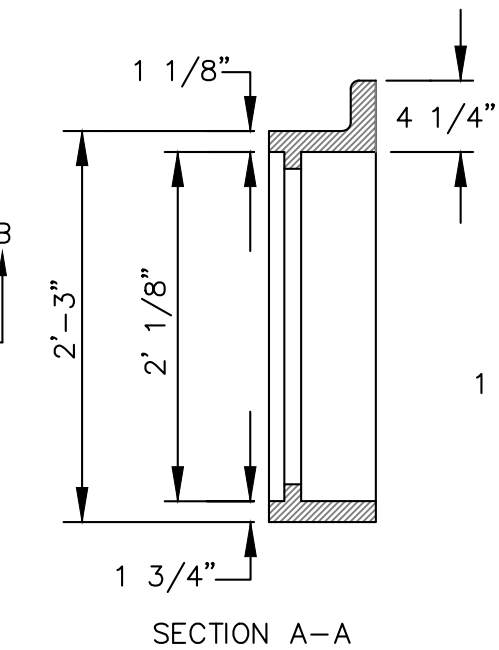
GRATE DETAIL



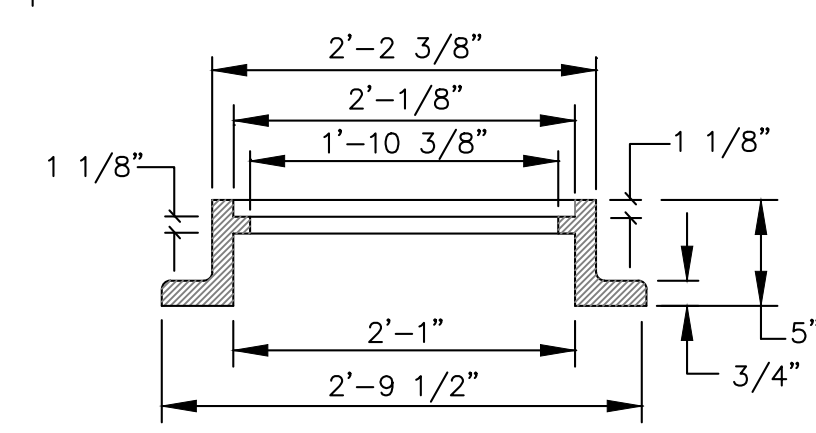
SECTION B-B



PLAN VIEW



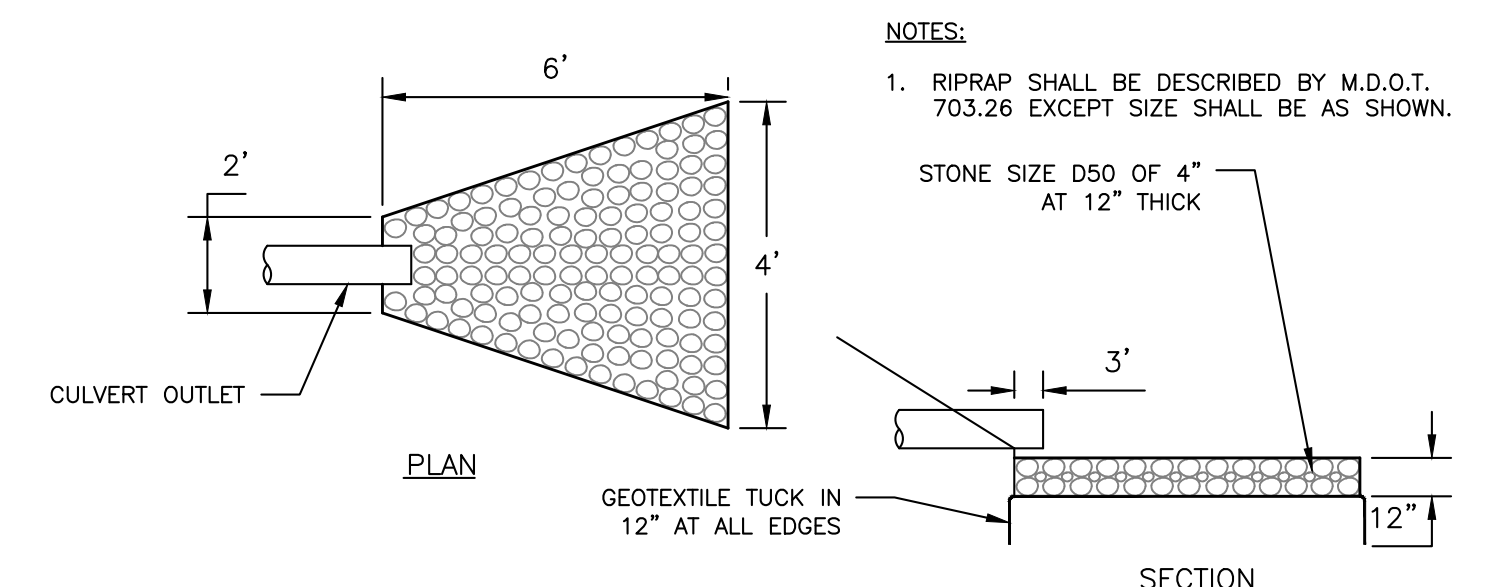
SECTION A-A



SECTION B-B

FRAME DETAIL

CATCH BASIN FRAME & GRATE
NOT TO SCALE



RIPRAP OUTLET APRON DETAIL
NOT TO SCALE

- NOTES:
1. RIPRAP SHALL BE DESCRIBED BY M.D.O.T. 703.26 EXCEPT SIZE SHALL BE AS SHOWN.

ISSUED FOR	BY
SITE/SUB	DATE
COMMENT RESPONSE	WHS
	8/17/21

DRAINAGE DETAILS

PROJECT NAME: WINCHESTER WOODS APARTMENTS

CLIENT: WINCHESTER WOODS, LLC

94 SOUTH STREET, YARMOUTH, ME 04096

DRAWING NAME: WINCHESTER WOODS APARTMENTS

PROJECT NAME: WINCHESTER WOODS APARTMENTS

CLIENT: WINCHESTER WOODS, LLC

94 SOUTH STREET, YARMOUTH, ME 04096

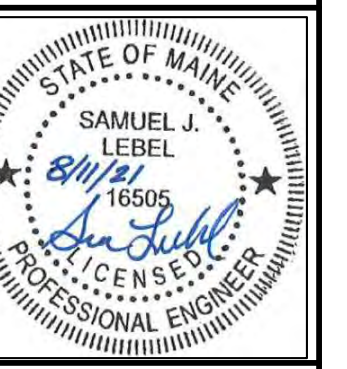
ACORN ENGINEERING, INC. ENGINEERING, INC.

65 HANOVER ST., PORTLAND, MAINE 04101

(207) 775-2655

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

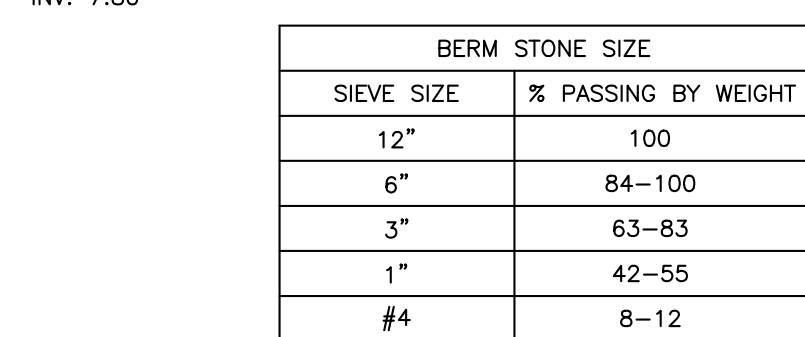
FILE:	1155_CIVIL
JN:	1155
SCALE:	NTS
DESIGNED BY:	SJL
DRAWN BY:	JHG
CHECKED BY:	WHS



DRAWING NO.

C-45

PERMIT LEVEL
NOT ISSUED FOR
CONSTRUCTION



NOTES:

1. FIELDSTONE, ROUGH QUARRIED STONE, BLASTED LEDGE ROCK OR TAILINGS ARE ACCEPTABLE BERM MATERIALS.
2. MEDIAN STONE SIZE TO BE APPROX 3 INCHES AT A MAXIMUM SIZE OF 6 INCHES. SEE TABLE.



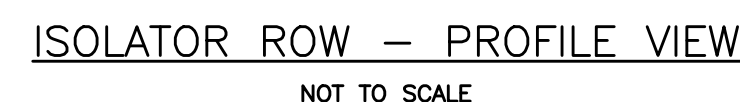
1. ALL DESIGN SPECIFICATIONS FOR STORMTECH MC-3500 CHAMBERS SHALL BE IN ACCORDANCE WITH THE STORMTECH DESIGN MANUAL.
2. THE INSTALLATION OF STORMTECH MC-3500 CHAMBERS SHALL BE IN ACCORDANCE WITH THE LATEST STORMTECH INSTALLATION INSTRUCTIONS.
3. THE CONTRACTOR IS ADVISED TO REVIEW AND UNDERSTAND THE INSTALLATION INSTRUCTIONS PRIOR TO BEGINNING SYSTEM INSTALLATION. CALL 1-888-892-2694 OR VISIT WWW.STORMTECH.COM TO RECEIVE A COPY OF THE LATEST STORMTECH INSTALLATION INSTRUCTIONS.
4. CHAMBERS SHALL MEET THE DESIGN REQUIREMENTS AND LOAD FACTORS SPECIFIED IN SECTION 12.12 OF THE LATEST EDITION OF THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS.

1. THE LAYOUT AND DIMENSION OF THE SUBSURFACE DETENTION MAY BE MODIFIED WITH AN ENGINEER APPROVED EQUIVALENT WHICH PROVIDES EQUAL DETENTION STORAGE AND WATER QUALITY TREATMENT.
2. PER CITY OF PORTLAND REQUIREMENT, THE SUBSURFACE DETENTION SHALL BE INSPECTED BY THE DESIGN ENGINEER AT THE FOLLOWING INTERVALS:

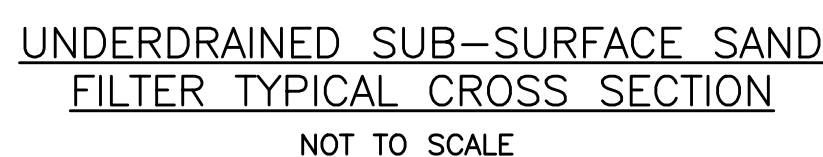
- AFTER PRELIMINARY CONSTRUCTION OF THE SUBSURFACE DETENTION GRADES
- ONE SITE VISIT DURING THE INSTALLATION OF THE IMPERVIOUS LINER
- ONE SITE VISIT AFTER THE UNDERDRAINS ARE INSTALLED BUT BEFORE THEY ARE BACKFILLED
- DURING THE CONSTRUCTION OF THE SAND FILTER LAYER
- DURING THE INSTALLATION OF THE STORMTECH ISOLATOR ROW
- BEFORE BACKFILLING THE STORMTECH UNITS

3. THE FIRST YEAR OF MAINTENANCE SHALL BE PERFORMED BY THE MANUFACTURER TO ENSURE THAT THE SYSTEM IS OPERATING ACCORDING TO THE ESTABLISHED SPECIFICATIONS.

4. REFERENCE THE MANUFACTURER'S GUIDE FOR THE OPERATION AND MAINTENANCE PLAN.



- NOTES:
1. REFER TO THE MAINE DEP TECHNICAL DESIGN MANUAL SECTION 7.3 FOR ADDITIONAL DESIGN DETAILS.
 2. SAND LAYER COMPACT IN 6" LIFTS TO 92% MAXIMUM DRY DENSITY IN ACCORDANCE WITH ASTM D-1557



SCHEDULE			
	ITEM	USSF 1	USSF 2
A	FINISHED GRADE	PER C-30	PER C-30
B	TOP OF CRUSHED STONE	20.05'	18.18'
C	TOP OF CHAMBER	19.55'	17.68'
D	OVERFLOW	16.80'	14.93'
E	BOTTOM OF CHAMBER	15.80'	13.93'
F	TOP OF SAND	15.30'	13.43'
G	BOTTOM OF SAND	13.80'	12.93'
H	BOTTOM OF SYSTEM	12.80'	11.93'
	ORIFICE DIAMETER *	2.5"	3"

* PROVIDE CAP WITH DRILLED HOLE AT CONNECTION POINT TO DOWNSTREAM DMH

* PROVIDE CAP WITH DRILLED HOLE AT CONNECTION
POINT TO DOWNSTREAM DMH

1. ALL CONCRETE TO HAVE A MIN. OF 4,000 PSI COMPRESSIVE STRENGTH AT 28 DAYS.
2. DESIGN LOAD FOR H-20 WHEEL LOAD.
3. CATCH BASIN TO CONFORM TO ASTM-C478 SPECIFICATIONS.
4. REINFORCE TO 0.12 IN SQ./LF.
5. JOINTS SEALED WITH BUTYL RUBBER.
6. POLYPROPYLENE STEPS 12" O.C.



PERMIT LEVEL
NOT ISSUED FOR
CONSTRUCTION

AS PART OF THE SITE DEVELOPMENT, THE FOLLOWING TEMPORARY AND PERMANENT EROSION AND SEDIMENTATION CONTROL DEVICES SHALL BE IMPLEMENTED. DEVICES SHALL BE INSTALLED AS DESCRIBED IN THIS REPORT OR WITHIN THE PLAN SET. SEE THE MAINE EROSION AND SEDIMENT CONTROL HANDBOOK FOR CONSTRUCTION BEST MANAGEMENT PRACTICES FOR FURTHER REFERENCE.

THE FOLLOWING TEMPORARY EROSION AND SEDIMENTATION CONTROL MEASURES ARE PLANNED FOR THE PROJECT'S CONSTRUCTION PERIOD

- ## 1.2 PERMANENT EROSION CONTROL MEASURES

THE FOLLOWING PERMANENT EROSION CONTROL MEASURES ARE INTENDED FOR POST DISTURBANCE AREAS OF THE PROJECT

- 1.2.1 ALL DISTURBED AREAS DURING CONSTRUCTION, NOT SUBJECT TO OTHER PROPOSED CONDITIONS, SHALL RECEIVE A MINIMUM 4" OF LOAM, LIMED, AND MULCHED. EROSION CONTROL BLANKETS OR MATS SHALL BE PLACED OVER THE MULCH IN AREAS NOTED IN PARAGRAPH 4.1 OF THIS REPORT.
- 1.2.2 ALL STORMWATER DEVICES SHALL BE INSTALLED AND TRIBUTARY AREAS STABILIZED PRIOR RECEIVING STORMWATER.
- 1.2.3 REFER TO THE MAINE EROSION AND SEDIMENT CONTROL BMP MANUAL FOR ADDITIONAL INFORMATION.

2.1 THE EROSION AND SEDIMENTATION CONTROL PLAN IS INCLUDED WITHIN THE PLAN SET.

3.1 EROSION CONTROL DETAILS AND SPECIFICATIONS ARE INCLUDED IN THE PLAN SET

WINTER CONSTRUCTION CONSISTS OF EARTHWORK DISTURBANCE BETWEEN THE DATES OF NOVEMBER 15 AND APRIL 15. IF A CONSTRUCTION SITE IS NOT STABILIZED WITH PAVEMENT, A ROAD GRAVEL BASE, 75% MATURE VEGETATION COVER OR RIPRAP BY NOVEMBER 15, THEN THE SITE SHALL BE PROTECTED WITH WINTER-WITERS STABILIZATION. ANY AREA NOT STABILIZED WITH PAVEMENT, VEGETATION, MULCHING, EROSION CONTROL MIX, EROSION CONTROL MATS, RIPRAP, OR GRAVEL BASE ON A ROAD SHALL BE CONSIDERED OPEN.

THE CONTRACTOR SHALL LIMIT THE WORK AREA TO AREAS THAT WORK WILL OCCUR IN DURING THE SUBSEQUENT 15 DAYS AND SO THAT IT CAN BE MULCHED ONE DAY PRIOR TO A SNOW EVENT. THE CONTRACTOR SHALL STABILIZE WORK AREAS PRIOR TO OPENING ADDITIONAL WORK AREAS TO MINIMIZE AREAS WITHOUT EROSION CONTROL MEASURES.

THE FOLLOWING MEASURES SHALL BE IMPLEMENTED DURING WINTER CONSTRUCTION PERIODS

DURING FROZEN CONDITIONS, SEDIMENT BARRIERS MAY CONSIST OF EROSION CONTROL MIX BERMS OR ANY OTHER RECOGNIZED SEDIMENT BARRIERS AS FROZEN SOIL PREVENTS THE PROPER INSTALLATION OF HAY BALES OR SILT FENCES.

ALL AREAS SHALL BE CONSIDERED TO BE DENUDED UNTIL SEEDED AND MULCHED. HAY AND STRAW MULCH SHALL BE APPLIED AT A RATE OF 150 LB. PER 1,000 SQUARE FEET OR 3 TONS/ACRE (TWICE THE NORMAL APPLICATION RATE) OF 75-LBS./1,000 SF. OR 1.5 TONS/ACRE) AND SHALL BE PROPERLY ANCHORED. EROSION CONTROL MAT SHALL BE APPLIED WITH A MINIMUM 4 INCH THICKNESS. MULCH SHALL NOT BE SPREAD ON TOP OF SNOW. THE SNOW SHALL BE REMOVED DOWN TO A ONE-INCH DEPTH PRIOR TO ANY LESS PRIORITY GRADING OR OTHER WORK. FINAL GRADING SHALL BE PROPERLY STABILIZED BY EITHER HAY OR STRAW OR EROSION CONTROL MAT. IF WATLING AN AREA SHALL BE CONSIDERED TO HAVE BEEN STABILIZED WHEN EXPOSED SURFACES HAVE BEEN EITHER MULCHED OR ADEQUATELY ANCHORED SO THAT GROUND SURFACE IS NOT VISIBLE THROUGH THE MULCH. BETWEEN THE DATES OF NOVEMBER 1 AND APRIL 15, ALL MULCH SHALL BE ANCHORED BY EITHER MULCH NETTING, TRACKING OR WOOD CELLULOSE FIBER. THE COVER WILL BE CONSIDERED SUFFICIENT WHEN THE GROUND SURFACE IS NOT VISIBLE THROUGH THE MULCH AFTER NOVEMBER 1ST, MULCH AND ANCHORING OF ALL EXPOSED SOIL SHALL OCCUR AT THE END OF EACH FINAL GRADING WORKDAY.

STOCKPILES OF SOIL OR SUBSOIL SHALL BE MULCHED FOR OVER WINTER PROTECTION WITH HAY OR STRAW AT TWICE THE NORMAL RATE OR WITH A FOUR-INCH LAYER OF EROSION CONTROL MIX. THIS SHALL BE DONE WITHIN 24 HOURS OF STOCKING AND RE-ESTABLISHED PRIOR TO ANY RAINFALL OR SNOWFALL.

BETWEEN THE DATES OF OCTOBER 15TH AND APRIL 1ST, LOAM OR SEED SHALL NOT BE REQUIRED. DURING PERIODS OF ABOVE FREEZING TEMPERATURES FINISHED AREAS SHALL BE FINE GRADED AND EITHER RESEEDED WITH MULCH OR TEMPORARILY SEEDED AND MULCHED UNTIL SUCH TIME AS THE FINAL TREATMENT CAN BE APPLIED. IF THE DATE IS AFTER NOVEMBER 1ST AND IF THE EXPOSED AREA HAS NOT BEEN LOAMED, FINAL GRADING WITH A UNIFORM SURFACE, THEN THE AREA MAY BE DORMANT SEEDS AT A RATE OF 3 TIMES HIGHER THAN SPECIFIED FOR PERMANENT SEED AND THEN MULCHED.

AREAS SHALL RECEIVE 4" OF LOAM AND SEED AT AN APPLICATION RATE OF 5 LBS/1,000 S.F. ALL AREAS SEEDED DURING THE WINTER SHALL BE INSPECTED IN THE SPRING FOR ADEQUATE CATCH. ALL AREAS INSUFFICIENTLY VEGETATED (LESS THAN 75% CATCH) SHALL BE REVEGETATED BY REPLACING LOAM, SEED AND MULCH. IF DORMANT SEEDING IS NOT USED FOR THE SITE, ALL DISTURBED AREAS SHALL BE REVEGETATED IN THE SPRING.

4.5 OVER WINTER STABILIZATION OF DISTURBED SOILS

BY SEPTEMBER 15TH, ALL DISTURBED SOILS ON AREAS HAVING A SLOPE LESS THAN 15% SHALL BE SEEDDED AND MULCHED. IF THE DISTURBED AREAS ARE NOT STABILIZED BY THIS DATE, THEN ONE OF THE FOLLOWING ACTIONS SHALL BE TAKEN TO STABILIZE THE SOIL FOR LATE FALL AND WINTER:

- STABILIZE THE SOIL WITH TEMPORARY VEGETATION – BY OCTOBER 1ST, SEED THE DISTURBED SOIL WITH WINTER RYE AT A SEEDING RATE OF 3LBS PER 1,000 S.F. LIGHTLY MULCH THE SEEDED SOIL WITH HAY OR STRAW AT 75 LBS PER 1,000 S.F., AND ANCHOR THE MULCH WITH PLASTIC NETTING. MONITOR GROWTH OF RYE OVER THE NEXT 30 DAYS. IF THE RYE FAILS TO GROW AT LEAST THREE INCHES OR FAILS TO COVER AT LEAST 75% OF THE DISTURBED SOIL BEFORE NOVEMBER 1ST, RESEED THE SOIL WITH WINTER RYE AT A SEEDING RATE OF 3LBS PER 1,000 S.F.
- STABILIZE THE SOIL WITH MULCH – STABILIZE THE DISTURBED SOIL WITH PROPERLY INSTALLED SOD BY OCTOBER 1ST. PROPER INSTALLATION INCLUDES PINNING THE SOD ONTO THE SOIL WITH WIRE PINS, ROLLING THE SOD TO GUARANTEE CONTACT BETWEEN THE SOD AND UNDERLYING SOIL, AND WATERING THE SOD TO PROMOTE ROOT GROWTH INTO THE DISTURBED SOIL.
- STABILIZE THE SOIL WITH MULCH – BY NOVEMBER 15TH, MULCH THE DISTURBED SOIL BY SPREADING HAY OR STRAW AT A RATE OF AT LEAST 150 LBS PER 1,000 S.F. ON THE AREAS WHERE NO SOD IS VISIBLE THROUGH THE MULCH. IMMEDIATELY AFTER APPLYING THE MULCH, ANCHOR THE MULCH WITH PLASTIC NETTING TO PREVENT WIND FROM MOVING THE MULCH OFF THE DISTURBED SOIL.

ALL STONE-COVERED SLOPES SHALL BE CONSTRUCTED AND STABILIZED BY NOVEMBER 15TH. ALL SLOPES TO BE VEGETATED SHALL BE SEEDING AND MULCHED BY SEPTEMBER 1ST. A SLOPE IS CONSIDERED A GRADE GREATER THAN 15%. IF A SLOPE TO BE VEGETATED IS NOT STABILIZED BY SEPTEMBER 1ST, THEN ONE OF THE FOLLOWING ACTION SHALL BE TAKEN TO STABILIZE THE SLOPE FOR LATE FALL AND WINTER:

- STABILIZE THE SOIL WITH TEMPORARY VEGETATION AND EROSION CONTROL MATS - BY OCTOBER 1ST THE DISTURBED SLOPE SHALL BE SEEDED WITH WINTER RYE LAI AT A SEEDING RATE OF 3 LBS PER 1,000 S.F. AND THEN INSTALL EROSION CONTROL MATS OR ANCHORED MULCH OVER THE SEEDING. IF THE RYE FAILS TO GROW AT LEAST THREE INCHES OR FAILS TO COVER AT LEAST 75% F THE SLOPE BY NOVEMBER 1ST, THEN THE CONTRACTOR SHALL COVER THE SLOPE WITH A LAYER OF EROSION CONTROL STONE RIPRAP.
- STABILIZE THE SOIL WITH SOD - THE DISTURBED SLOPE SHALL BE STABILIZED WITH PROPERLY INSTALLED SOD BY OCTOBER 1ST. PROPER INSTALLATION INCLUDES THE CONTRACTOR PINNING THE SOD ONTO THE SLOPE WITH WIRE PINS, ROLLING THE SOD TO GUARANTEE CONTACT BETWEEN THE SOD AND UNDERLYING SOIL, AND WATERING THE SOD TO PROMOTE ROOT GROWTH INTO THE DISTURBED SOIL. THE CONTRACTOR SHALL NOT USE LATE-SEASON SOD INSTALLATION TO STABILIZE SLOPES HAVING A GRADE GREATER THAN 3H:1V OR HAVING GROUNDWATER SEEPS ON THE SLOPE FACE.
- STABILIZE THE SOIL WITH EROSION CONTROL MIX - EROSION CONTROL MIX SHALL BE PROPERLY INSTALLED BY NOVEMBER 15TH. THE CONTRACTOR SHALL NOT USE EROSION CONTROL MIX ON SLOPES HAVING GRADES GREATER SEEPS ON THE SLOPE FACE.
- STABILIZE THE SOIL WITH STONE RIPRAP - PLACE A LAYER OF STONE RIPRAP ON THE SLOPE BY NOVEMBER 15TH. A REGISTERED PROFESSIONAL ENGINEER SHALL BE HIRED TO DETERMINE THE STONE SIZE NEEDED FOR STABILITY ON THE SLOPE AND TO DESIGN A FILTER LAYER FOR UNDERNEATH THE RIPRAP.

A PERSON WITH KNOWLEDGE OF EROSION AND STORMWATER CONTROL, INCLUDING THE STANDARDS AND CONDITIONS IN THE PERMIT, SHALL CONDUCT PERIODIC VISUAL INSPECTIONS OF INSTALLED EROSION CONTROL MEASURES. THE FREQUENCY OF INSPECTION SHALL OCCUR AT LEAST ONCE EVERY TWO WEEKS, AS WELL AS AFTER A "STORM EVENT". A "STORM EVENT" SHALL CONSIST OF 0.5 INCHES OF RAIN WITHIN A 24 HOUR PERIOD. THE FOLLOWING EROSION AND SEDIMENT CONTROL - BEST MANAGEMENT PRACTICES (BMP'S) SHALL INSPECTED IN THE MANNER AS DESCRIBED.

ANY BALE BARRIERS, SILT FENCES AND OTHER BERMS SHALL BE INSPECTED AND REPAIRED FOR THE FOLLOWING IF THERE ARE ANY SIGNS OF EROSION OR SEDIMENTATION BELOW THEM: IF THERE ARE SIGNS OF UNDERCUTTING AT THE CENTER OR THE EDGES OF THE BARRIER, OR POUNDING OF LARGE VOLUMES OF WATER BEHIND THEM, SEDIMENT BARRIERS SHALL BE REPLACED WITH A TEMPORARY CHECK DAM. SHOULD THE FABRIC ON A SILT FENCE OR FILTER BARRIER DECOMPOSE OR BECOME INEFFECTIVE PRIOR TO THE END OF THE EXPECTED USABLE LIFE AND THE BARRIER IS STILL NECESSARY, THE FABRIC SHALL BE REPLACED PROMPTLY. SEDIMENT DEPOSITS SHALL BE REMOVED AS THEY ACCUMULATE. SEDIMENT DEPOSITS REACHING APPROXIMATELY ONE-HALF THE HEIGHT OF THE BARRIER FILTER BENCH SHOULD BE RESHAPED AS NEEDED. ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE SILT FENCE OR FILTER BARRIER IS NO LONGER REQUIRED SHOULD BE DRESSED TO CONFORM TO THE EXISTING GRADE, PREPARED AND SEEDED.

THE EXIT SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. WHEN THE CONTROL PAD BECOMES INEFFECTIVE, THE STONE SHALL BE REMOVED ALONG WITH THE COLLECTED SOIL MATERIAL AND REDISTRIBUTED ON SITE IN A STABLE MANNER. THE ENTRANCE SHOULD THEN BE RECONSTRUCTED. THE CONTRACTOR SHALL SWEEP OR WASH PAVEMENT AT EXITS, WHICH HAVE EXPERIENCED MUD-TRACKING ON TO THE PAVEMENT OR TRAVELED WAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH AGGREGATE, WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE. ALL SEDIMENT SHALL BE PREVENTED FROM ENTERING STORM DRAINS, DITCHES, OR WATERWAYS.

ALL MULCHES MUST BE INSPECTED PERIODICALLY, IN PARTICULAR AFTER RAINSTORMS, TO CHECK FOR RILL EROSION. IF LESS THAN 90% OF THE SOIL SURFACE IS COVERED BY MULCH, ADDITIONAL MULCH SHALL BE IMMEDIATELY APPLIED. NETS MUST BE INSPECTED AFTER RAIN EVENTS FOR DISLOCATION OR FAILURE. IF WASHOUTS OR BREAKAGE OCCUR, RE-INSTALL THE NETS AS NECESSARY AFTER REPAIRING DAMAGE TO THE SLOPE. WHERE MULCH IS USED IN CONJUNCTION WITH ORNAMENTAL PLANTINGS, INSPECT PERIODICALLY THROUGHOUT THE YEAR TO DETERMINE IF MULCH IS MAINTAINING COVERAGE OF THE SOIL SURFACE. REPAIR AS NEEDED.

WHEN TEMPORARY DUST CONTROL MEASURES ARE USED, REPETITIVE TREATMENT SHALL BE APPLIED AS NEEDED TO ACCOMPLISH CONTROL

ALL UNDERDRAINS, STORM DRAINS, AND CATCH BASINS NEED TO BE OPERATING EFFECTIVELY AND FREE OF DEBRIS.

ACORN ENGINEERING HAS PERSONNEL QUALIFIED TO CONDUCT EROSION AND SEDIMENTATION CONTROL INSPECTIONS. FOR FURTHER INFORMATION CONTACT:

CONTACT: WILL SAVAGE, PE
TELEPHONE: (207) 775-2655

QUALIFICATIONS:

- MAINE PROFESSIONAL ENGINEERING LICENSE #11419
- MAINE DEP – CERTIFIED IN MAINTENANCE & INSPECTION OF STORMWATER BMP'S CERT #14
- CERTIFIED EROSION, SEDIMENT AND STORM WATER INSPECTOR (CESSWI) CERT #0293
- CERTIFIED PROFESSIONAL IN EROSION AND SEDIMENT CONTROL (CPESC) CERT. #4620

THE CONTRACTOR HAS SOLE RESPONSIBILITY FOR COMPLYING WITH THE EROSION AND SEDIMENTATION REPORT/PLAN, INCLUDING CONTROL OF FUGITIVE DUST. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY MONETARY PENALTIES RESULTING FROM FAILURE TO COMPLY WITH THESE STANDARDS.

THE FOLLOWING IMPLEMENTATION SEQUENCE IS INTENDED TO MAXIMIZE THE EFFECTIVENESS OF THE ABOVE DESCRIBED EROSION CONTROL MEASURES. CONTRACTORS SHOULD AVOID OVEREXPOSING DISTURBED AREAS AND LIMIT THE AMOUNT OF STABILIZATION AREA.

1. INSTALL A STABILIZED CONSTRUCTION ENTRANCE IN ALL LOCATIONS WHERE CONSTRUCTION TRAFFIC WILL ENTER AND EXIT THE SITE.
2. INSTALL PERIMETER SILT FENCE OR EROSION CONTROL BERM.
3. INSTALL ALL OTHER EROSION CONTROL DEVICES AS NECESSARY THROUGHOUT THE REMAINDER OF THIS SCHEDULE.
4. COMMENCE INSTALLATION OF DRAINAGE INFRASTRUCTURE.
5. PRIORITIZE THE DOWNHILL RETAINING AND FOUNDATION WALLS TO CONTAIN RUNOFF WITHIN THE SITE WHILE PROVIDING AN ENGINEERED OUTLET WITH SILTATION BARRIER TO THE MUNICIPAL STORMWATER SYSTEM WITHIN SHERWOOD STREET.
6. COMMENCE EARTHWORK OPERATIONS, WALL AND FOUNDATION INSTALLATION.
7. COMMENCE INSTALLATION OF UTILITIES.
8. CONTINUE EARTHWORK AND GRADING TO SUBGRADE AS NECESSARY FOR CONSTRUCTION.
9. COMPLETE INSTALLATION OF DRAINAGE INFRASTRUCTURE, AS WELL AS OTHER UTILITY WORK.
10. COMPLETE REMAINING EARTHWORK OPERATIONS.
11. INSTALL SUB-BASE AND BASE GRASSES IN PAVED AREAS.
12. INSTALL PAVING, CURBING AND BRICKWORK.
13. LOAM, LIME, FERTILIZE, SEED AND MULCH DISTURBED AREAS AND COMPLETE ALL LANDSCAPING.
14. ONCE THE SITE IS STABILIZED, 90% CATCH OF GRASS HAS BEEN OBTAINED, OR MULCHING OF LANDSCAPE AREAS IS COMPLETE REMOVE ALL TEMPORARY EROSION CONTROL MEASURES.
15. TOUCH UP AREAS WITHOUT A VIGOROUS CATCH OF GRASS WITH LOAM AND SEED.
16. COMPLETE SITE SIGNAGE AND STRIPING.
17. EXECUTE PROPER MAINTENANCE OF ALL TEMPORARY AND PERMANENT EROSION CONTROL MEASURES THROUGHOUT THE PROJECT.

THE ABOVE IMPLEMENTATION SEQUENCE SHOULD BE GENERALLY FOLLOWED BY THE SITE CONTRACTOR. HOWEVER, THE CONTRACTOR MAY CONSTRUCT SEVERAL ITEMS CONCURRENTLY. THE CONTRACTOR SHALL SUBMIT TO THE OWNER A SCHEDULE OF THE COMPLETION OF THE CONSTRUCTION OF EACH OF THE ITEMS LISTED ABOVE. THE CONTRACTOR SHALL NOT CONSTRUCT MORE THAN ONE ITEM ABOVE, UNLESS THE CONTRACTOR HAS FIRST OBTAINED THE WRITTEN APPROVAL OF THE OWNER. DURING THE FOLLOWING 30 DAYS.

THE CONTRACTOR SHALL RE-VEGETATE DISTURBED AREAS AS RAPIDLY AS POSSIBLE. ALL AREAS SHALL BE PERMANENTLY STABILIZED WITHIN 7 DAYS OF FINAL GRADING OR BEFORE A STORM EVENT. THE CONTRACTOR SHALL INCORPORATE PLANNED INLETS AND DRAINAGE SYSTEMS AS EARLY AS POSSIBLE INTO THE CONSTRUCTION PHASE.

THE ABOVE EROSION CONTROL NARRATIVE IS INTENDED TO MINIMIZE THE DEVELOPMENT IMPACT BY IMPLEMENTING TEMPORARY AND PERMANENT EROSION CONTROL MEASURES. THE CONTRACTOR SHALL ALSO REFER TO THE MAINE EROSION AND SEDIMENT CONTROL BMP MANUAL FOR ADDITIONAL INFORMATION.

SITE PREPARATION

THE SEEDED AREAS SHALL BE FEASIBLY GRADED OUT TO PROVIDE THE USE OF EQUIPMENT FOR SEEDBED PREPARATION, SEEDING, MULCH APPLICATION, AND MULCH ANCHORING. IF NECESSARY, THE SITE MAY REQUIRE ADDITIONAL TEMPORARY EROSION CONTROL MEASURES OUTLINED IN THE EROSION CONTROL REPORT.

FERTILIZER SHALL BE APPLIED TO THE SITE AT A RATE OF 13.8 POUNDS PER 1,000 SQUARE FEET. THE COMPOSITION OF THE FERTILIZER SHALL BE 10-10-10 (N-P2O5-K2O) OR EQUIVALENT.

LIMESTONE SHALL BE APPLIED TO THE SITE AT A RATE OF 138 POUNDS PER 1,000 SQUARE FEET.

THE COMPOSITION AND AMOUNT OF TEMPORARY SEED APPLIED TO A SITE SHALL BE DETERMINED BY THE FOLLOWING TABLE:

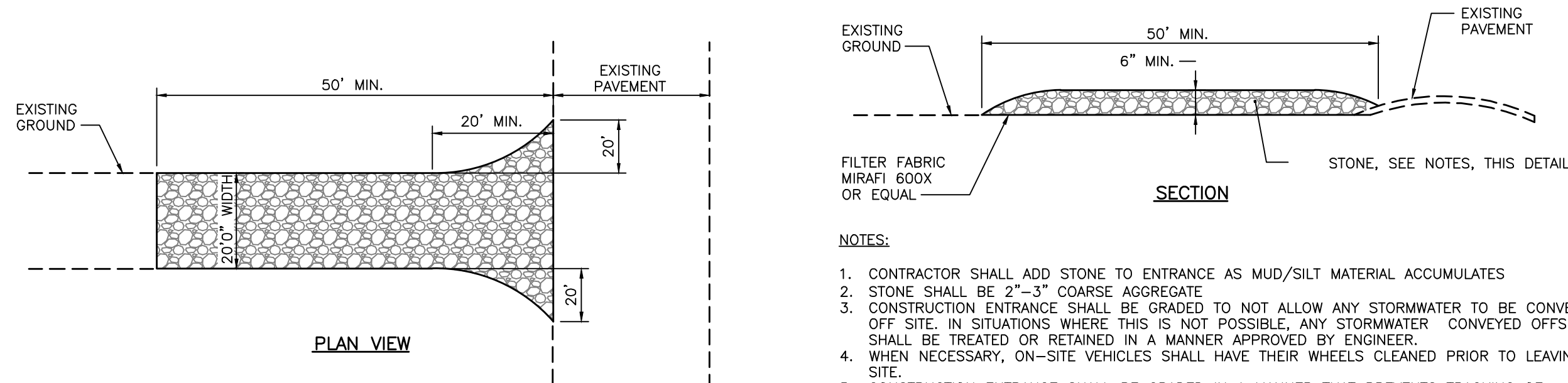
PERMANENT SEED APPLICATION RATES	
SEED	LBS / ACRE
KENTUCKY BLUEGRASS	20.00
CREEPING RED FESCUE	20.00
PERENNIAL RYEGRASS	4.80
TOTAL	44.8 LBS/ACRE

MULCH SHALL BE HARDWOOD AND APPLIED AT A RATE OF 70 LBS - 90 LBS PER 1,000 SQUARE FEET. THE MULCH SHALL BE INSTALLED AT A MINIMUM DEPTH OF 4 INCHES. THE SEEDED AREA SHALL BE MULCHED IMMEDIATELY AFTER SEED IS APPLIED. MULCHING DURING THE WINTER SEASON SHALL BE DOUBLE THE NORMAL AMOUNT. REFER TO DETAIL FOR MORE INFORMATION.

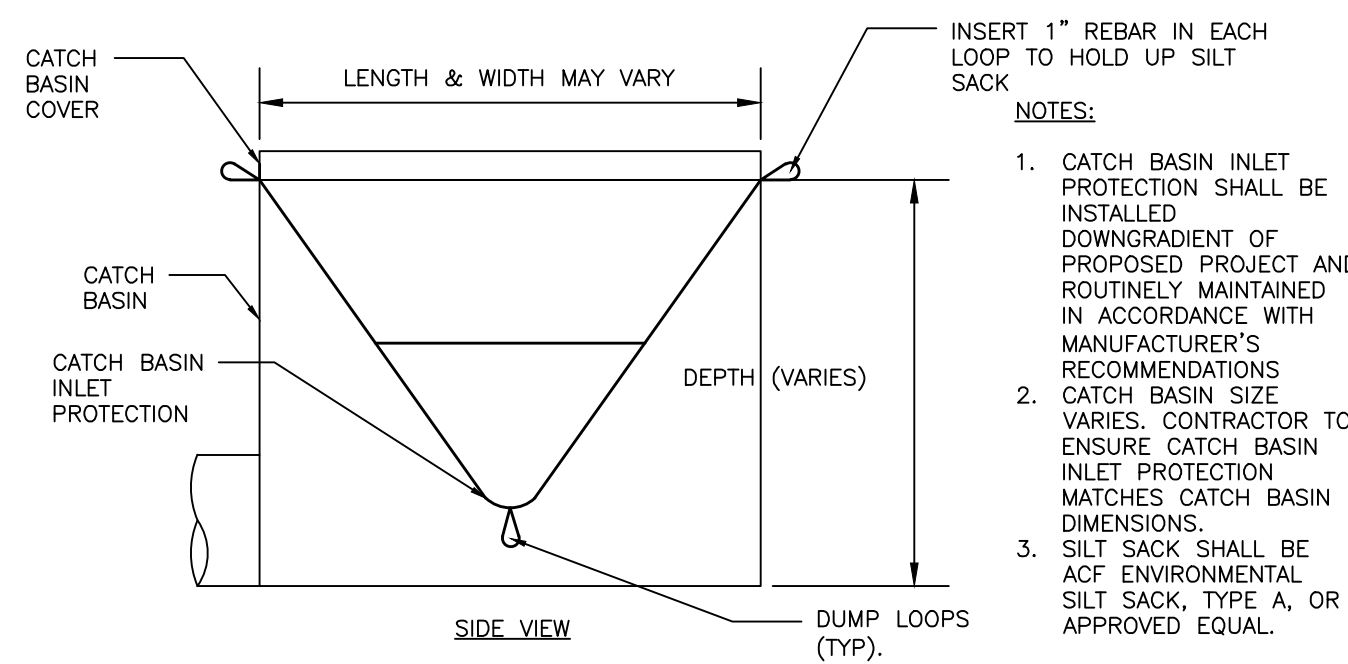
PLEASE REFER TO THE MAINE EROSION AND SEDIMENT CONTROL BMP MANUAL FOR ADDITIONAL INFORMATION PERTAINING TO TEMPORARY SEEDING AND MULCHING

- *NOTE:
IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR
STAKE LENGTHS GREATER THAN 6" MAY BE NECESSARY
TO PROPERLY SECURE THE ECB.

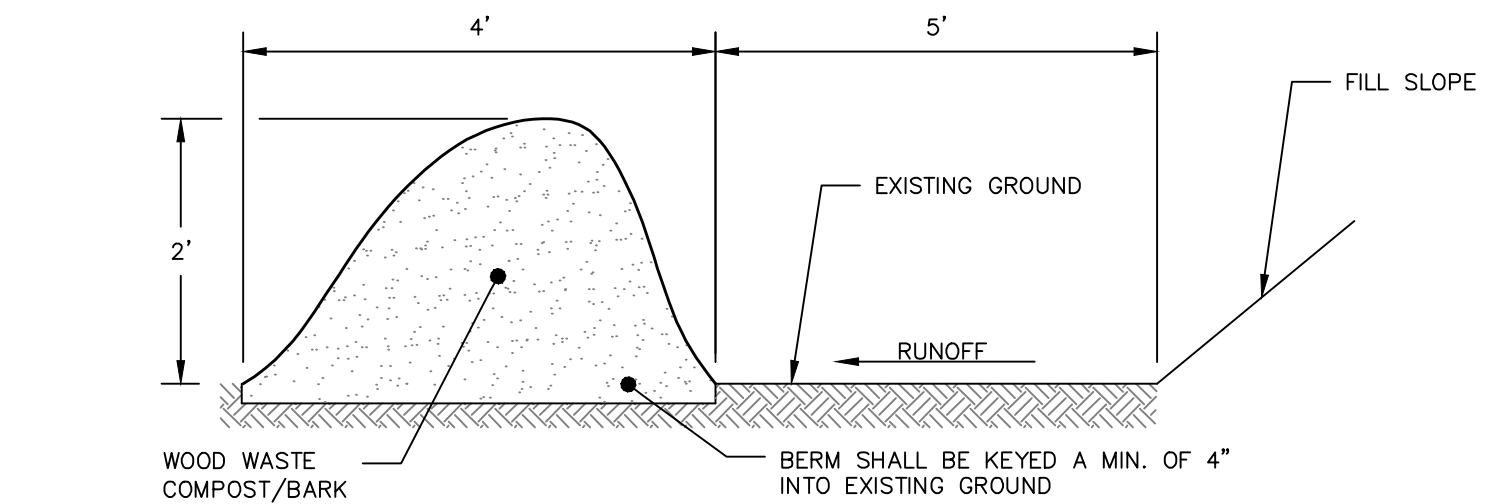
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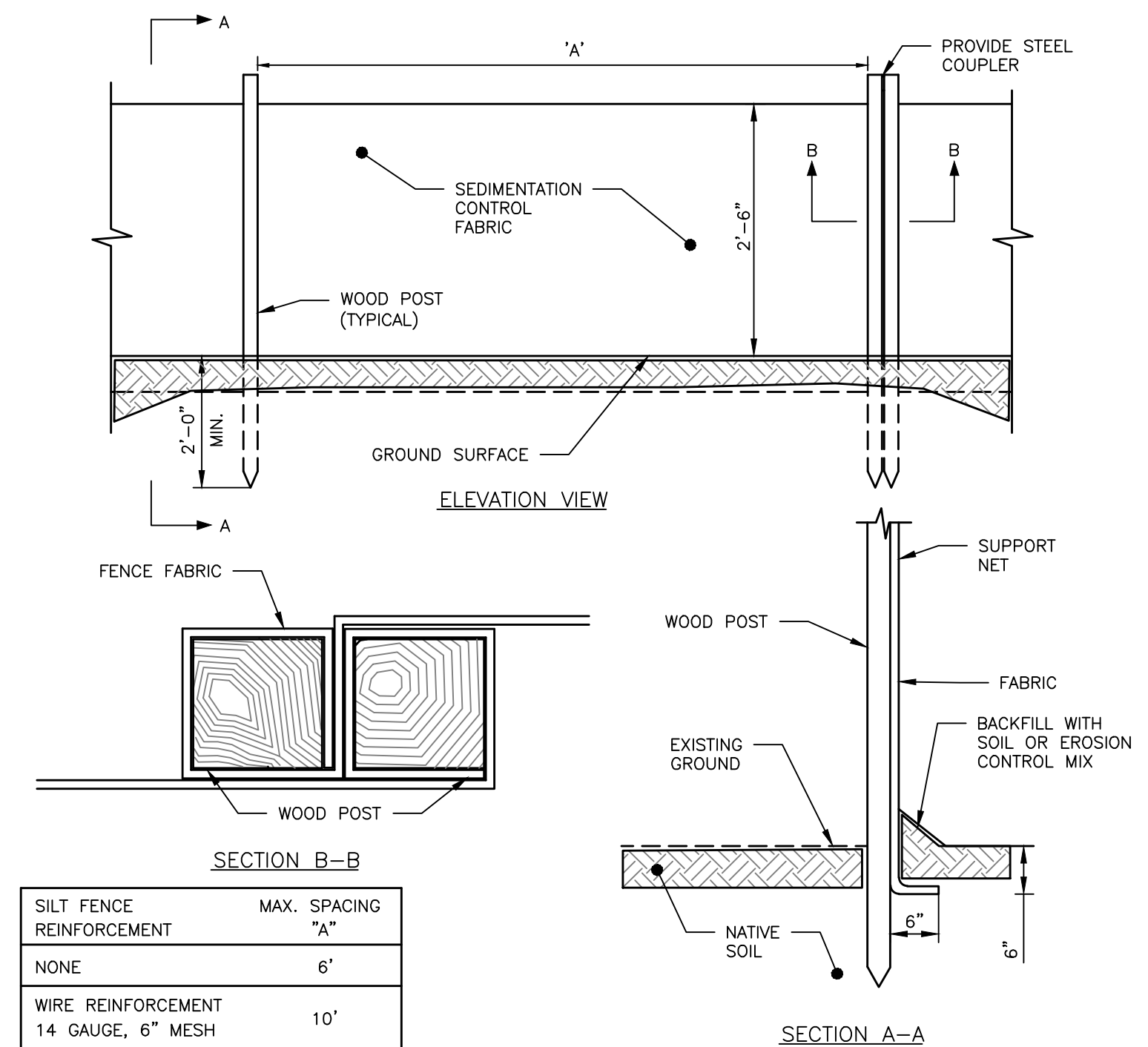


NOT TO SCALE



NOT TO SCALE

- NOTES:
1. THE FENCE SHOULD BE ANCHORED TO RESIST PULL-OUT, AND BE STRETCHED TIGHTLY BETWEEN STAKES TO PREVENT SAGGING.
 2. WHEN JOINTS ARE NECESSARY, FILTER CLOTH SHOULD BE SPLICED BY WRAPPING END STAKES TOGETHER.
 3. IN AREAS WHERE THE FLAP CANNOT BE KEYPED PROPERLY (DUE TO FROZEN GROUND, BEDROCK, STONY SOIL, ROOTS, NEAR A PROTECTED NATURAL RESOURCE, ETC.), THE SILT FENCE SHOULD BE ANCHORED WITH AGGREGATE, CRUSHED STONE, EROSION CONTROL MIX, OR OTHER MATERIAL.



NOT TO SCALE

PERMIT LEVEL
NOT ISSUED FOR
CONSTRUCTION

ISSUED FOR	BY
	DATE
SITE/SUB	WHS
	4/15/21
COMMENT RESPONSE	WHS
	8/11/21

EROSION & SEDIMENTATION CONTROL DETAILS

WINCHESTER WOODS APARTMENTS

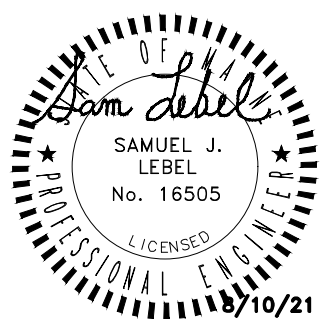
WINCHESTER WOODS, LLC
94 SOUTH STREET, YARMOUTH, ME 04096



A C O R N
ENGINEERING, INC.

65 DANFORTH ST, PORTLAND MAINE 04101
ACORN ENGINEERING, INC.
(207) 775-2655

FILE:	1155_CIVIL
IN:	1155
SCALE:	NTS
DESIGNED BY:	SJL
DRAWN BY:	JHG
CHECKED BY:	WHS



DRAWING NO.
C-48

1. FOR INFORMATION REGARDING PROPOSED GROUND LEVEL LAYOUT, REFER TO SITE PLAN, SHEET C-10, MOST RECENT VERSION.
2. FOR INFORMATION REGARDING PROPOSED UTILITIES, REFER TO THE UTILITY PLAN, SHEET C-20, MOST RECENT VERSION.
3. FOR INFORMATION REGARDING PROPOSED GRADING AND STORMWATER, REFER TO THE GRADING AND STORMWATER PLAN, SHEET C-21, MOST RECENT VERSION.
4. UTIL TABULATION PROVIDED BY ARCHETYPE ARCHITECTS; REFER TO ARCHITECTURAL PLANS FOR FLOOR PLANS AND BUILDING HEIGHTS.
5. TOTAL SITE AREA (EXCLUDING SINGLE FAMILY LOT) INCLUDES 3.37 ACRES (146,625.08 S.F.). EXISTING UTILITIES ARE SHOWN ON THE UTILITY AND TOPOGRAPHICAL MAP WITH EXISTING CONDITIONS PROVIDED BY OWEN HASKELL, INC. ON A PLAN TITLED BOUNDARY SURVEY AT DALTON STREET & F STREET, PORTLAND, MAINE DATED DECEMBER 2020.
6. AS OF 3/17/2021, THE SITE IS ENTIRELY BOUNDED BY THE R5 ZONE PER THE CITY OF PORTLAND ZONING ORDINANCE.
7. LOCUS AERIAL IS SHOWN ON THE CITY OF PORTLAND ASSESSOR'S MAP CHART, BOOK, LOT: 428-A--008, 428-A--009, 428-A--010, 428-A--011, 428-A--012, 428-A--013, 427--007, 427--008, 427--009, 427--K--001, 427--K--002, 427--K--003, 427--K--004, 427--L--005, 427--N--001, 427--N--002, 427--N--003, 427--N--004, 427--N--012. THE MENTIONED LOTS HAVE BEEN RECENTLY COMBINED INTO TWO PARCELS.
8. FLOOD DEVELOPMENT REMAINS OUTSIDE THE 100-YR FEMA FLOODPLAIN PER THE NATIONAL FLOOD INSURANCE PROGRAM, FLOOD INSURANCE RATE MAP COMMUNITY--PANEL NUMBER 230051 0007 C, INDEX DATED 12/8/1998.
9. ALL BUILDING CORNER OFFSETS TO BOUNDARY LINES ARE FROM CORNERBOARDS AND NOT BUILDING FOUNDATION UNLESS OTHERWISE NOTED.
10. THIS SHEET IS THE SUBDIVISION PLAT FOR THE CREATION OF UP TO FORTY-EIGHT (48) DWELLING UNITS ON THE EXISTING SUBJECT PROPERTY.
11. ANY PROPERTY MARKER PROPOSED WITHIN A PEDESTRIAN OR VEHICULAR WAY SHALL BE FLUSH OR BELOW GRADE AT THE DISCRETION OF THE PROFESSIONAL LAND SURVEYOR AND/OR ENGINEER.
12. THE OWNER SHALL BE RESPONSIBLE FOR THE MAINTENANCE AND MANAGEMENT OF DRAINWAYS, STORMWATER DEVICES, SITE LIGHTING, TRASH REMOVAL, RETAINING WALLS, AND SNOW REMOVAL.
13. THE OWNER SHALL BE RESPONSIBLE FOR COMPLYING WITH THE CONDITIONS OF CHAPTER 302 STORMWATER INCLUDING ARTICLE III, POST-CONSTRUCTION STORMWATER MANAGEMENT PLAN, WHICH IS REQUIRED BY THE CITY OF PORTLAND. THE CITY OF PORTLAND HAS A MINIMUM. IN ADDITION, THE OWNER SHALL BE RESPONSIBLE FOR COMPLYING WITH THE CONDITIONS OF THE SUBMITTED STORMWATER MANAGEMENT PLAN AND THE APPROVED PLANS, CITY SUPERVISORS AND STATE REQUIREMENTS.
14. THE OWNER MUST COMPLY TO THE FOLLOWING AS APPROVED BY THE CITY:
 - 14.1. POST-CONSTRUCTION STORMWATER MANAGEMENT AGREEMENT:

ALL PROPOSED EASEMENTS TO BE REVIEWED BY OWEN HASKELL, INC. AND RECORDED IN CCRD. ALL EXISTING EASEMENTS ARE TO REMAIN.

ALL PROPOSED EASEMENTS TO BE REVIEWED BY OWEN HASKELL, INC. AND RECORDED IN CCRD.
ALL EXISTING EASEMENTS ARE TO REMAIN.

1. A 20' WIDE SEWER EASEMENT TO PORTLAND WATER DISTRICT AS RECORDED IN THE CUMBERLAND COUNTY REGISTRY OF DEEDS BOOK 3939, PAGE 146.

SURVEY NOTES:

BOOK AND PAGE REFERENCES ARE TO THE CUMBERLAND COUNTY REGISTRY OF DEEDS.

2. BEARINGS ARE GRID NORTH, MAINE STATE PLANE COORDINATE SYSTEM, NAD83, WEST ZONE.

3. ELEVATIONS ARE BASED ON U.S. NAVY DATUM, 1929, FROM CDS PROPERTY LINE TO THE

4. EXISTING CONDITIONS PLAN BY OWEN HASKELL, INC., DATED 12/11/20 FOR BENCHMARK

5. LOCATIONS.

6. UTILIZATION ON THIS PLAN IS APPROXIMATE, BASED ON LOCATION OF VISIBLE FEATURES

7. AND INFORMATION CONTAINED ON PLANS AND DRAWINGS PROVIDED BY OTHERS. DISGASE AND/OR

8. THE APPROPRIATE UTILITIES SHOULD BE CONTACTED PRIOR TO ANY CONSTRUCTION.

9. BEARINGS ARE GRID NORTH AS BASED ON COORDINATES PROVIDED ON PLAN REF. 4. FOR THE

10. TWO FOOT OFFSET, THE CUMBERLAND COUNTY RECORDS SHOW DALTON STREET AND SHERWOOD

11. STREET.

12. THE CITY ENGINEERING DEPARTMENT BLUE SHEET FOR VERANDA STREET SHOWS A WIDENING AT

13. DALTON STREET OF 10.5 FEET. PLAN REF. 3 SHOWS THE WIDENING AS A LITTLE LESS THAN 10.5

14. FEET WIDE AND SHOWS AN ANGLE POINT IN THE OLD VERANDA STREET AT THE RAILROAD

15. CROSSING. THIS ANGLE POINT IS NOT SHOWN ON THE BLUE SHEET OR ON PLAN REF. 4, BUT IS

16. INDICATED IN THE RECORDS OF THE CITY ENGINEER. THE CITY ENGINEER HAS NOT SHOWN

17. THE OLD LAYOUT OF VERANDA STREET AS MATCHING THE LINE SHOWN ON PLAN REF. 1. IT ALSO

18. SHOWS THE 1930 NEW LAYOUT OF VERANDA STREET, WHICH APPARENTLY IS AS SHOWN ON PLAN

19. REF. 2. THE OLD LAYOUT OF VERANDA STREET IS SHOWN ON PLAN REF. 1. THE LAYOUT OF

20. THE LOTS ON PLAN REFERENCE 1.

21. PLAN REFERENCE 1 SHOWS DALTON STREET AS 50 FEET WIDE, BUT THE CITY ACCEPTANCE WAS

22. FOR A STREET 40 FEET WIDE. BASED ON PLAN REF. 3, A TWO FOOT GAP WAS CREATED

23. BETWEEN THE CITY STREET LINE AND THE SUBDIVISION STREET LINE ON THE EAST SIDE OF

24. DALTON STREET. THE EXACT STATUS OF THAT STRIP IS UNKNOWN.

25. THE ENGINEER HAS NOT SHOWN THE WIDENING ON DALTON STREET TO MATCH THE LINES ON PLAN

26. REFERENCE 1. CONFUSION MAY HAVE OCCURRED BASED ON THE 1930 WIDENING OF VERANDA

27. STREET.

28. PLAN REFERENCE 1 AND 2 DO NOT SHOW DIMENSIONS TO THE LINE NOW OF THE RAILROAD.

29. PLAN REFERENCE 7 APPEARS TO SHOW A FENCE ALONG THE COMMON LINE AND SHOWS A

30. DISTANCE OF 81 FEET ALONG THE CEMETERY. THE DEED TO THE RAILROAD HAS A DIMENSION OF

31. 81 FEET ALONG SOME REMAINING FENCE. THE CITY ENGINEER HAS NOT SHOWN THE FENCE

32. LINE INCLUDES MORE LAND THAT IS SHOWN ON PLAN REFERENCE 1 AND 2. A BOUNDARY

33. AGREEMENT IS RECOMMENDED WITH THE RAILROAD.

34. PLAN REFERENCE FOUR SHOWS EVIDENCE OF THE COMMON LINE WAS FOUND.

35. THE LINE SHOWN HEREIN IS BASED ON THE DIMENSIONS ON PLAN REF. 2. A BOUNDARY

36. AGREEMENT IS RECOMMENDED WITH THE CITY.

37. THE CITY ENGINEER HAS ESTABLISHED THE DIMENSIONS SHOWN ON PLAN REFERENCE 2

38. STARTING AT PRESUMPSCOT STREET. THIS DOES NOT EXACTLY MATCH THE PROJECTION OF

39. CHURCHILL STREET FROM WASHINGTON AVENUE, WHICH SHOULD BE THE SAME.

40. THE CITY ENGINEER HAS NOT SHOWN THE RIGHTS OF THE CITY OR THE UNACCEPTED

41. PORTIONS OF DALTON STREET, STREET F AND STREET C ARE UNKNOWN.

42. TAX LOT 427-N-12 APPEARS TO BE A GORE BETWEEN THE LOTS OF PLAN REF. 1 AND 2. THE

43. CITY RECORDS SHOW THE GORE IS OWNED BY THE CITY. THE GORE IS NOT SHOWN ON AN

44. UNCORRECTED VERSION OF PLAN REF. 1 IN THE RECORDS OF H.I. AND E.C. JORDAN-SURVEYORS.

45. THE PORTION OF THE GORE NORTH OF THE NORTHWESTERLY EXTENSION OF THE SOUTHWESTERLY

46. SIDEWALK OF DALTON STREET IS OWNED AS SHOWN ON PLAN REF. 1. THE PORTION OF THE

47. EXTENSION IS NOT SHOWN ON THE TAX MAP BUT IS SHOWN AS PART OF THE LAND OF QUEEN.

48. THERE MAY BE A TITLE QUESTION ON THE GORE.

49. THE CITY ENGINEER HAS NOT APPEARED TO EXTEND BEYOND THE PROPERTY LINE. THE

50. RAILROAD MAY HAVE GAINED RIGHTS UP TO A FENCE.

51. PLAN REFERENCE 9 INCORRECTLY SHOWS THE NORTHEAST LINE 149 SHERWOOD EXTENDS TO

52. STREET REF. 10. THE RECORDS SHOW THE LINE TO 186 FEET. THE CITY ENGINEER HAS

53. AND WHAT IS SHOWN ON THIS PLAN, THIS CREATES AN OVERLAP ON PLAN REFERENCE 10.

54. WHICH THIS SURVEYOR BELIEVES IS PART OF THIS SURVEYED PREMISES.

55. ELEVATIONS ARE BASED ON CITY DATUM, BENCH MARK: CITY POINT MDOT-PO-295, ELEVATION

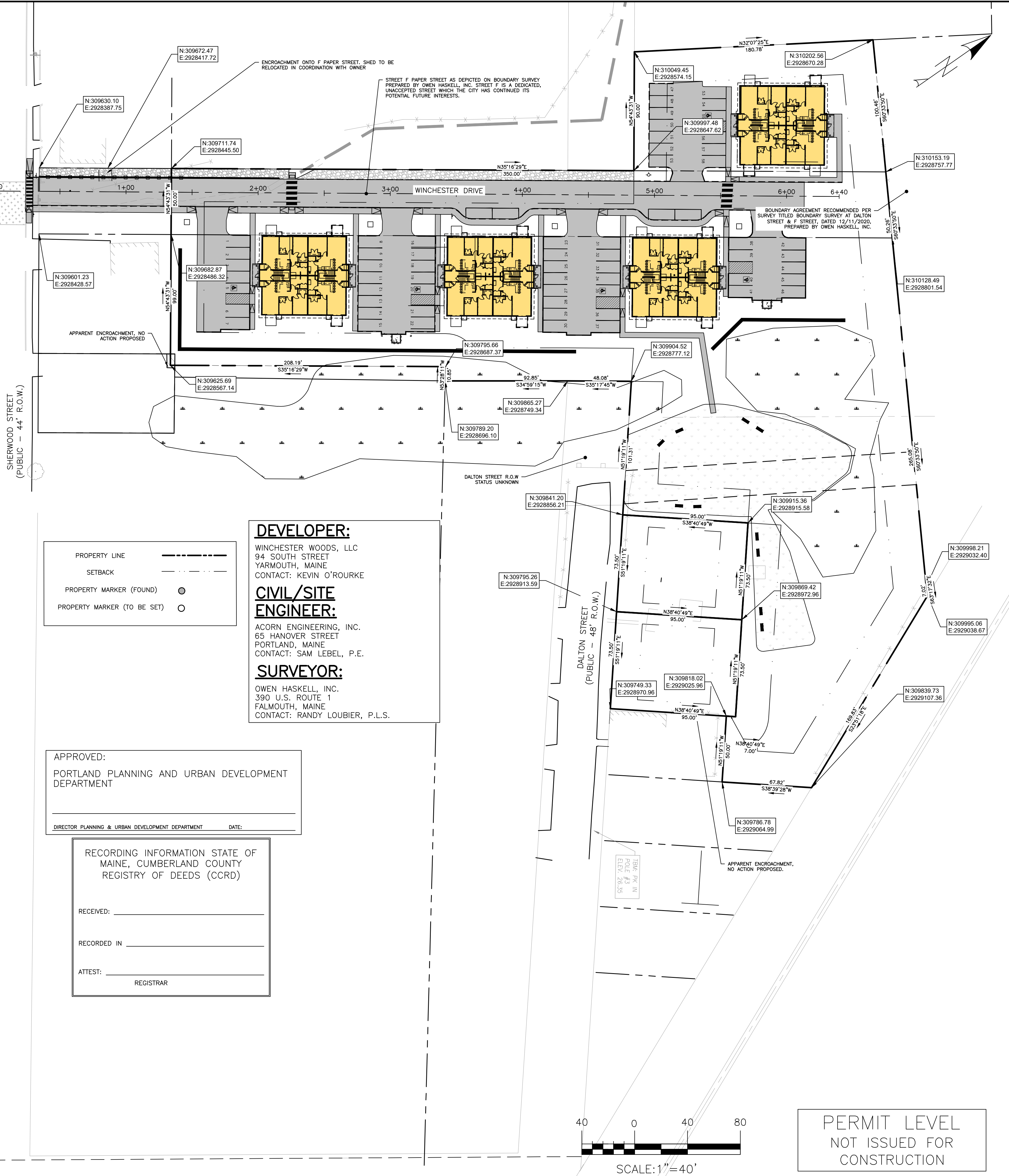
56. 120.0'.

1. "PLAN OF LUNT PROPERTY EAST DEERING, ME. SURVEYED BY E.C. JORDAN, C.E. 1874" RECORDED IN PLAN BOOK 7 PAGE 25.
2. "A PLAN OF LAND OWNED BY MRS. MARY S. LUNT OF WESTBROOK SURVEYED & LOTTED AUGUST 1885 BY JAMES JOHNSON CIV. ENG." RECORDED IN PLAN BOOK 2 PAGE 51.
3. "WORKING PLAN OF LUNT PROPERTY AFTER 1890 BY H.H. & E.C. JORDAN - SURVEYORS OF SHERWOOD, DALTON, AND VERANDA STREETS.
4. "CITY OF PORTLAND, MAINE PUBLIC WORKS DEPARTMENT ENGINEERING SECTION VERANDA STREET MONUMENT LAYOUT PLAN WASHINGTON AVENUE TO RICHMOND STREET JANUARY 1996"
5. "PLAN OF PROPERTY IN PORTLAND, MAINE MADE FOR PORTLAND WATER DISTRICT PRESUMPSCOT ESTUARY INTERCEPT 9-21-1976 H.H. & E.C. JORDAN - SURVEYORS."
6. "CITY OF PORTLAND CITY PROPERTY" MAP 210 LAND CONVEYED TO THE CITY OF PORTLAND FOR PRESUMPSCOT ELEMENTARY SCHOOL.
7. "DEERING STATION MAP ATLANTIC & ST. LAWRENCE R.R. OPERATED BY THE CANADIAN NATIONAL RAILWAY CO. STATION 86752+40 TO STATION 8615+93.5 JUNE 30, 1917"
8. "BOOK OF SURVEY OF DALTON STREET IN PORTLAND, MAINE MADE FOR WALTER H. LIBBY III, LUCY M. COPP, MADELINE F. MORRILL & MARK W. LIBBY" SEP. 16, 2015 REV. 1.
9. "11-07-16 BY OWEN KASCELL, INC.
10. "PLAN OF PROPERTY 30-32 DALTON STREET, PORTLAND, MAINE MADE FOR MARJORIE A. QUINN 10/10/16 STEPHEN J. MARTIN, PLT."
11. "SURVEY OF LAND OF 149 SHERWOOD STREET PORTLAND, MAINE FOR ROB TWOMBLY 12-8-09 PREPARED BY ELY WILSTON-HILL"
12. "UNTTITLED PLAN PREPARED BY H.H. JORDAN CIVIL ENGINEER DATED JUNE 8, 1943 BELIEVED TO BE OWNED BY GEORGE AND KATHLEEN HAMILLIAN.



UNIT TABULATION		BLDG 2 (TBD)	745 SF	BLDG 3 (TBD)	907 SF
UNIT NUMBER	SIZE (SF) ¹	BLDG 2 (TBD)	907 SF	BLDG 3 (TBD)	745 SF
BLDG 1 (TBD)	745 SF	BLDG 2 (TBD)	745 SF	BLDG 3 (TBD)	907 SF
BLDG 1 (TBD)	907 SF	BLDG 2 (TBD)	907 SF	BLDG 4 (TBD)	745 SF
BLDG 1 (TBD)	907 SF	BLDG 2 (TBD)	745 SF	BLDG 4 (TBD)	907 SF
BLDG 1 (TBD)	745 SF	BLDG 2 (TBD)	907 SF	BLDG 4 (TBD)	745 SF
BLDG 1 (TBD)	907 SF	BLDG 2 (TBD)	745 SF	BLDG 4 (TBD)	907 SF
BLDG 1 (TBD)	745 SF	BLDG 2 (TBD)	907 SF	BLDG 4 (TBD)	745 SF
BLDG 1 (TBD)	907 SF	BLDG 3 (TBD)	745 SF	BLDG 4 (TBD)	907 SF
BLDG 1 (TBD)	907 SF	BLDG 3 (TBD)	907 SF	BLDG 4 (TBD)	745 SF
BLDG 1 (TBD)	745 SF	BLDG 3 (TBD)	745 SF	BLDG 4 (TBD)	907 SF
BLDG 1 (TBD)	907 SF	BLDG 3 (TBD)	907 SF	BLDG 4 (TBD)	745 SF
BLDG 2 (TBD)	745 SF	BLDG 3 (TBD)	745 SF	BLDG 4 (TBD)	907 SF
BLDG 2 (TBD)	907 SF	BLDG 3 (TBD)	907 SF	BLDG 4 (TBD)	745 SF
BLDG 2 (TBD)	745 SF	BLDG 3 (TBD)	745 SF	BLDG 4 (TBD)	907 SF
BLDG 2 (TBD)	907 SF	BLDG 3 (TBD)	907 SF	¹ UNIT AREA MEASURED FROM OUTSIDE OF EXTERIOR WALLS TO THE CENTER OF SHARED WALLS	
BLDG 2 (TBD)	907 SF	BLDG 3 (TBD)	745 SF		

SPACE AND BULK STANDARDS		
PLANNED RESIDENTIAL UNIT DEVELOPMENT (PRUD)		
ZONE: R-5	REQUIRED	PROPOSED
MINIMUM LOT SIZE	2 AC	3.51 AC
MINIMUM NET LOT AREA PER DWELLING UNIT	3,000 SF	SEE NET LAND AREA
MAXIMUM NUMBER OF UNITS IN A BUILDING	12	12
MAXIMUM LENGTH OF BUILDING	140'	72'
MAXIMUM LENGTH OF ACCESSORY GARAGE STRUCTURE	60'	N/A
MINIMUM BUILDING SETBACK FROM EXTERNAL SUBDIVISION PROPERTY LINES	25'/35' ¹	>25'
MINIMUM RECREATION OPEN SPACE AREA	300 SF/DU ²	>300 SF/DU
DUPLEX		
ZONE: R-5	REQUIRED	PROPOSED
MINIMUM LOT SIZE	6,000 SF	6,983 SF
MINIMUM LOT AREA PER DWELLING UNIT	3,000 SF	TBD
MINIMUM STREET FRONTAGE	50'	73.50'
MINIMUM LOT WIDTH	60'	73.50'
MINIMUM FRONT SETBACK	20'	TBD
MINIMUM REAR SETBACK	20'	TBD
MINIMUM SIDE SETBACK	8'/12' ₃ /14'	TBD
¹ FOR A BUILDING LENGTH EQUAL TO OR LESS THAN 100', THE MINIMUM SETBACK IS 25'. A BUILDING LENGTH GREATER THAN 100' REQUIRES A 35' SETBACK.		
² AT A MINIMUM, A CONTIGUOUS AREA OF 6,000 SF WITH A MIN. DIMENSION OF 50'		
³ <1.5 TO 1.5 STORIES: 8', 2 STORIES: 12', 2.5 STORIES: 14'		



WINCHESTER WOODS, LLC
94 SOUTH STREET
YARMOUTH, MAINE
CONTACT: KEVIN O'ROURKE

ACORN ENGINEERING, INC.
65 HANOVER STREET
PORTLAND, MAINE
CONTACT: SAM LEBEL, P.E.

OWEN HASKELL, INC.
390 U.S. ROUTE 1
FALMOUTH, MAINE
CONTACT: RANDY LOUBIER, P.L.S.

PORTLAND PLANNING AND URBAN DEVELOPMENT
DEPARTMENT

DIRECTOR PLANNING & URBAN DEVELOPMENT DEPARTMENT

RECORDING INFORMATION STATE OF
MAINE, CUMBERLAND COUNTY
REGISTRY OF DEEDS (CCRD)

RECEIVED: _____

RECORDED IN _____

ATTEST: _____

REGISTRAR

¹ FOR A BUILDING LENGTH EQUAL TO OR LESS THAN 100', THE MINIMUM SETBACK IS 25'. A BUILDING LENGTH GREATER THAN 100' REQUIRES A 35' SETBACK.

² AT A MINIMUM, A CONTIGUOUS AREA OF 6,000 SF WITH A MIN. DIMENSION OF 50'

³ <1.5 TO 1.5 STORIES: 8', 2 STORIES: 12', 2.5 STORIES: 14'

[illegible]

WINCHESTER WOODS APARTMENTS
0 WINCHESTER DRIVE
PORTLAND, MAINE 04103

DRAWING NAME: SU

PROJECT NAME/ADDRESS:

R N
ENGINEERING, INC.

ACORN ENGINEERING, INC.
PO BOX 3372, PORTLAND MAINE 04101
(207) 775-2655

FILE:	1155_CIVIL
JN:	1155
SCALE:	AS NOTED
DESIGNED BY:	SJL
DRAWN BY:	NPH
CHECKED BY:	WHS

STATE OF MAINE
SAMUEL J. LEBEL
16505
10/7/14
LICENSED
PROFESSIONAL ENGINEER

DRAWING NO.

PLAT



A0.00

RENDERED VIEW

Date:
04/05/2021

Scale:

Revisions:

Project:
DALTON PRUD

Architect:
**ARCHETYPE
ARCHITECTS**
48 Union Wharf - Portland, Maine 04101

Consultant:

Prepared For:

Kevin O'Rourke

BUILDING CODE SUMMARY

Name of Project: Dalton Prud
Address: Portland, ME Zip Code
Owner/ Authorized Agent: Kevin O'Rourke Phone # () E-Mail kevin@gravitysports.org
Owned By: City/County Private State
Code Enforcement Jurisdiction: City Portland County State

CONTACT:
DESIGNER FIRM NAME LICENSE # TELEPHONE # E-MAIL
Architectural Archetype Architects David Lloyd 936 (207) 772-6022
Civil Acorn Engineering
Electrical Bennett Engineering Will Bennett
Fire Alarm Bennett Engineering Will Bennett
Plumbing Bennett Engineering Will Bennett
Mechanical Bennett Engineering Will Bennett
Sprinkler-Standpipe M2 Structural Engineers Matt Miller
Structural Retaining Walls >5' High
Other

Maine Uniform Building and Energy Code with references to 2018 NFPA 1 & NFPA 101

- 2015 International Building Code (IBC)
- 2015 International Existing Building Code (IEBC)
- 2015 International Energy Conservation Code (IECC)

New Construction Addition Renovation
1st Time Interior Completion
Shell/Core
Phased Construction – Shell/Core
Renovation

2015 INTERNATIONAL EXISTING BUILDING CODE:
Alteration: Prescriptive Repair Chapter 14
Level 1 Level II Level III
Historic Property Change of Use
CONSTRUCTED:(date) ORIGINAL OCCUPANCY(S) (Ch. 3):
RENOVATED: (date) CURRENT OCCUPANCY(S) (Ch. 3):

RISK CATEGORY (table 1604.5) Current: I II III IV
Proposed: I II III IV

BASIC BUILDING DATA (table 601)
Construction Type: I-A II-A III-A IV V-A
I-B II-B III-B V-B
mixed types utilizing Horizontal Building Separation Allowance per IBC 510.2
Sprinklers: No Partial Yes NFPA 13 NFPA 13R NFPA 13D
Standpipes: No Yes Class I II III Wet Dry
Flood Hazard Area: No Yes
Special Inspections Required per section 17: No Yes, see attached statement of special inspections

Gross Building Area:				
FLOOR	EXISTING (SQ.FT)	NEW (SQ.FT)	RENO/ALTER (SQ.FT)	SUB-TOTAL
6 th Floor		0		
5 th Floor		0		
4 th Floor		0		
3 rd Floor		3,821		
2 nd Floor		3,821		
Mezzanine		0		
1 st Floor		4072		
Basement		0		
TOTAL		11,914		

NOTE: THIS BUILDING REPEATED (4) TIMES. TOTAL BUILDING AREA = 47,936 SF

OCCUPANCY CLASSIFICATION 302:
Assembly Business Educational Factory Hazardous Institutional
A-1 A-2 A-3 A-4 A-5
F-1 Moderate F-2 Low
H-1 Deteronate H-2 Deflagrate H-3 Combust H-4 Health H-5 HPM
I-1 Condition I 2
I-2 Condition I 2
I-3 Condition I 2 3 4 5
I-4
Mercantile
Residential R-1 R-2 R-3 R-4
Storage S-1 Moderate S-2 Low High-piled
Parking Garage Open Enclosed Repair Garage
Utility and Miscellaneous

Accessory Occupancy Classification(s) 508.2:
N/A
Incidental Uses (Table 509): NONE
NFPA 101 Table 30.3.2.1.1 Hazardous Area Protection: NONE
Special Uses (Chapter 4 – List Code Sections) NONE
Special Provisions: (Chapter 5 – List Code Sections): NONE

506.2.3 Single Occupancy, Multistory Buildings:

Allowable Area =
The allowable area of a single-occupancy building with more than one story above grade plane shall be determined in accordance with Equation 5-2:

A_a = [A_r + (NS × I_f)] × S_a (Equation 5-2)

Allowable area = [21,000 + (7,000 × 1 (frontage increase not taken))] × 3 = 42,000 SF
EACH 11,914 SF BUILDING < 42,000 SF ALLOWABLE

where:
A_a = Allowable area (square feet).
A_t = Tabular allowable area factor (NS, S13R or SM value, as applicable) in accordance with Table 506.2.
NS = Tabular allowable area factor in accordance with Table 506.2 for a non sprinklered building (regardless of whether th building is sprinklered).
If = Area factor increase due to frontage (percent) as calculated in accordance with Section 506.3.
Actual number of building stories above grade plane, not to exceed three. For buildings equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.2, use the actual number of building storie above grade plane, not to exceed four.

No individual story shall exceed the allowable area (A_a) as determined by Equation 5-2 using the value of S_a = 1.

ALLOWABLE HEIGHT			
	ALLOWABLE: (TABLE 503)	SHOWN ON PLANS	CODE REFERENCE
Building Height in Feet (Table 504.3)	60	34'-0"	
Building Height in Stories (Table 504.4)	3	3	

¹ Provide code reference if the "Show on Plans" quantity is not based on Table 504.3 or 504.4.
² The maximum height of open parking garages must comply with Table 406.5.4

FIRE PROTECTION REQUIREMENTS

BUILDING ELEMENT	FIRE SEPARATION DISTANCE (FEET)	RATING REQ'D	NOTES	DETAIL # AND SHEET #	DESIGN # FOR RATED ASSEMBLY
Structural Frame, including columns, girders, trusses					
Bearing Walls					
Exterior					
North	0HR			W1, W2/A4.00	
East	0HR			W1, W2/A4.00	
West	0HR			W1/A4.00	
South	0HR			W1/A4.00	
Interior	0HR				
Nonbearing Walls and Partitions					
Exterior walls					
North				N/A	
East				N/A	
West				N/A	
South				N/A	
Interior walls and partitions	0				
Floor Construction Including supporting beams and joists	1HR			F2/A4.02	UL L528
Floor Ceiling Assembly	1HR			F2/A4.02	UL L528
Column Supporting Floors	0HR			N/A	
Roof Construction, including supporting beams and joists	0HR			R1,R2,R3/A4.02	GA FC5406, UL P531, UL P52
Roof Ceiling Assembly	0HR			N/A	
Column Supporting Roof	0HR			N/A	
Shaft Enclosures - Exit	1HR				
Shaft Enclosures - Other	1HR				
Corridor Separation	30 MIN.			W4/A4.01	UL U311
Occupancy/Fire Barrier Separation				W6/A4.01	UL305
Party/Fire Wall Separation	1 HR.				
Smoke Barrier Separation					
Smoke Partition					
Tenant/Dwelling Unit/ Sleeping Unit Separation	1 HR			W5/A4.01	
Incidental Use Separation	1 HR			N/A	

* Indicate section number permitting reduction

PERCENTAGE OF WALL OPENING CALCULATIONS

FIRE SEPARATION DISTANCE (FEET FROM PROPERTY LINES)	DEGREES OF OPENINGS PROTECTION (TABLE 705.8)	ALLOWABLE AREA (%)	ACTUAL SHOWN ON PLANS (%)
20'-0" MIN	Unprotected, Sprinklered	No Limit	>allowable

LIFE SAFETY SYSTEM REQUIREMENTS

Emergency Lighting: No Yes
Exit Signs: No Yes
Fire Alarm: No Yes
Smoke Detection Systems: No Yes Partial
Carbon Monoxide Detection: No Yes

LIFE SAFETY PLAN

Life Safety Plan Sheet #:
Fire and/or smoke rated wall locations (Chapter 7)
Assumed and real property line locations (if not on the site plan)
Exterior wall opening area with respect to distance to assumed property lines (705.8)
Occupancy types for each area as it relates to occupant load calculation (Table 1004.1.2)
Occupant loads for each area
Exit access travel distances (1017)
Common path of travel distances (1006.2.1 & 2006.3.2(1))
Dead end lengths (1020.4)
Clear exit widths for each exit door (NFPA 101 TABLE 7.3.3.1)
Maximum calculated occupant load capacity each exit door can accommodate based on egress width (1005.3)
Actual occupant load for each exit door
A schematic plan indicating where fire rated floor/ceiling and/or roof structure is provided for purposes of occupancy separation and supporting construction for a fire barrier/fire partition/smoke barrier.
Location of doors with panic hardware (1010.1.10) N/A
Location of doors with delayed egress locks and the amount of delay (1010.1.9.7) N/A
Location of doors with electromagnetic egress locks (1010.1.9.9) N/A
Location of doors equipped with hold-open devices N/A
Location of emergency escape windows (1030) N/A
The square footage of each fire area (202)
The square footage of each smoke compartment for Occupancy Classification I-2 (407.5) N/A
Note any code exceptions or table notes that may have been utilized regarding the items above

Section/Table/Note	Title

ACCESSIBLE DWELLING UNITS (SECTION 1107)

TOTAL UNITS	ANSI 117.1 ACCESSIBLE UNITS REQUIRED	ANSI 117.1 ACCESSIBLE UNITS PROVIDED	ANSI 117.1 TYPE A UNITS REQUIRED	ANSI 117.1 TYPE A UNITS PROVIDED	ANSI 117.1 TYPE B UNITS REQUIRED	ANSI 117.1 TYPE B UNITS PROVIDED	TOTAL ACCESSIBLE/TYP A/TYPE B UNITS PROVIDED
48	0	0	1	1	16	16	16

COMMENTS

ACCESSIBLE PARKING (SECTION 1106)

LOT OR PARKING AREA	TOTAL # OF PARKING SPACES		# OF ACCESSIBLE SPACES PROVIDED			TOTAL # ACCESSIBLE PROVIDED
	REQUIRED	PROVIDED	REGULAR WITH 5' ACCESS AISLE	13'2" ACCESS AISLE	8' ACCESS AISLE	
TOTAL						

PLUMBING FIXTURE REQUIREMENTS (2015 UPC)

USE		WATERCLOSETS			URINALS			LAVATORIES			SHOWERS / TUBS	DRINKING FOUNTAINS	
		MALE	FEMALE	UNISEX	MALE	FEMALE	UNISEX	MALE	FEMALE	UNISEX		REGULAR	ACCESSIBLE
SPACE	EXIST'G												
	NEW REQ'D												

SPECIAL APPROVALS

Special approval: (Local Jurisdiction, Department of Insurance, SCO, DPI, DHHS, ICC, etc., describe below)

ELEVATOR NOT REQUIRED
2 & 3-STORY RESIDENTIAL BUILDING
PER CODE PATH BELOW

The following language is taken from IBC 2015, and exempts the building from the requirements for an elevator, as the building is less than (4) stories.

1009.2.1 Elevators Required

In buildings where a required accessible floor is four or more stories above or below a level of exit discharge, not less than one required accessible means of egress shall be an elevator complying with Section 1009.4.

- Exceptions:
- In buildings equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.1 or 903.3.1.2, the elevator shall not be required on floors provided with a horizontal exit and located at or above the levels of exit discharge.
 - In buildings equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.1 or 903.3.1.2, the elevator shall not be required on floors provided with a ramp conforming to the provisions of Section 1012.

However, questions are often raised about the need for an accessible route (ie, an elevator) to the second and third floor. Exception 2 below eliminates the requirement for an accessible route to floors without accessible elements.

1104.4 Multistory Buildings and Facilities

At least one accessible route shall connect each accessible story and mezzanine in multilevel buildings and facilities.

- Exceptions:
- An accessible route is not required to stories and mezzanines that have an aggregate area of not more than 3,000 square feet (278.7 m2) and are located above and below accessible levels. This exception shall not apply to:
 - Multiple tenant facilities of Group M occupancies containing five or more tenant spaces used for the sales or rental of goods and where at least one such tenant space is located on a floor level above or below the accessible levels;
 - Stories or mezzanines containing offices of health care providers (Group B or I);
 - Passenger transportation facilities and airports (Group A-3 or B); or
 - Government buildings.
 - Stories or mezzanines that do not contain accessible elements or other spaces as determined by Section 1107 or 1108 are not required to be served by an accessible route from an accessible level.

Exception 3 below allows for all required Type A units to be located on the first floor.

1107.4 Accessible Route

At least one accessible route shall connect accessible building or facility entrances with the primary entrance of each Accessible unit, Type A unit and Type B unit within the building or facility and with

those exterior and interior spaces and facilities that serve the units.

- Exceptions:
- If due to circumstances outside the control of the owner, either the slope of the finished ground level between accessible facilities and buildings exceeds one unit vertical in 12 units horizontal (1:12), or where physical barriers or legal restrictions prevent the installation of an accessible route, a vehicular route with parking that complies with Section 1106 at each public or common use facility or building is permitted in place of the accessible route.
 - In Group I-3 facilities, an accessible route is not required to connect stories or mezzanines where Accessible units, all common use areas serving Accessible units and all public use areas are on an accessible route.
 - In Group R-2 facilities with Type A units complying with Section 1107.6.2.2.1, an accessible route is not required to connect stories or mezzanines where Type A units, all common use areas serving Type A units and all public use areas are on an accessible route.

The language below exempts upper floors without elevator service from containing accessible units.

1107.7.1 Structures Without Elevator Service

Where no elevator service is provided in a structure, only the dwelling units and sleeping units that are located on stories indicated in Sections 1107.7.1.1 and 1107.7.1.2 are required to be Type A units and Type B units, respectively. The number of Type A units shall be determined in accordance with Section 1107.6.2.2.1.

Type B units are only required on the ground floor per the section below.

1107.7.1.1 One Story With Type B Units Required

At least one story containing dwelling units or sleeping units intended to be occupied as a residence shall be provided with an accessible entrance from the exterior of the structure and all units intended to be occupied as a residence on that story shall be Type B units.

The exclusion of an elevator may prompt a question about the use of a single means of egress from the second and third floors. A single means of egress is allowed per the IBC 2015 language below. Emergency Escape and Rescue Openings per section 1030 will be provided.

1006.2.1 Egress Based on Occupant Load and Common Path of Egress Travel Distance

Two exits or exit access doorways from any space shall be provided where the design occupant load or the common path of egress travel distance exceeds the values listed in Table 1006.2.1.

- Exceptions:
- In Group R-2 and R-3 occupancies, one means of egress is permitted within and from individual dwelling units with a maximum occupant load of 20 where the dwelling unit is equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 or 903.3.1.2 and the common path of egress travel does not exceed 125 feet (38 100 mm).

Prepared For: Kevin O'Rourke

Consultant:

ARCHETYPE ARCHITECTS
48 Union Wharf - Portland, Maine 04101

Architect:

Project: DALTON PRUD

PORTLAND, ME

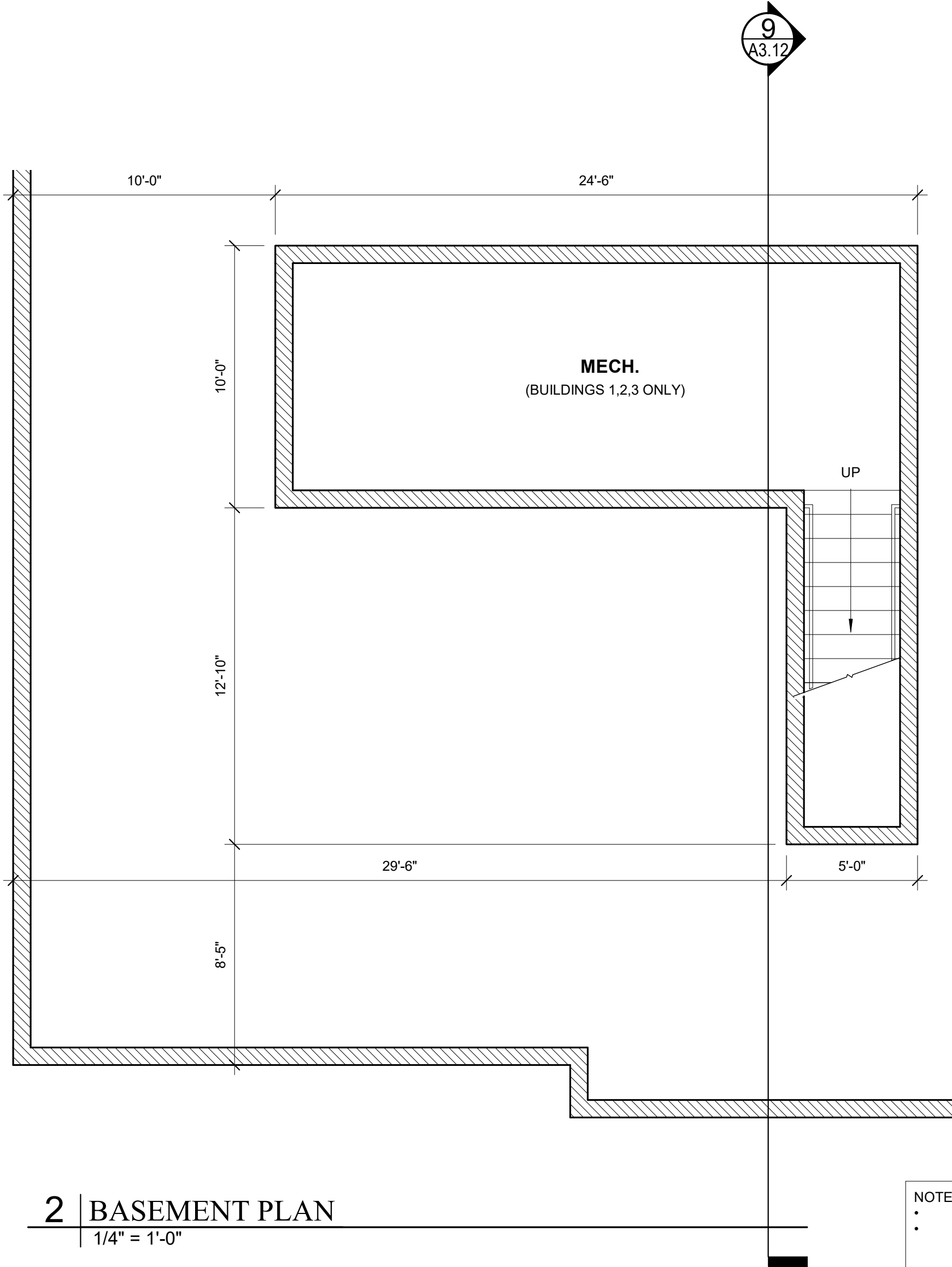
Revisions:

Scale:

Date: 04/05/2021

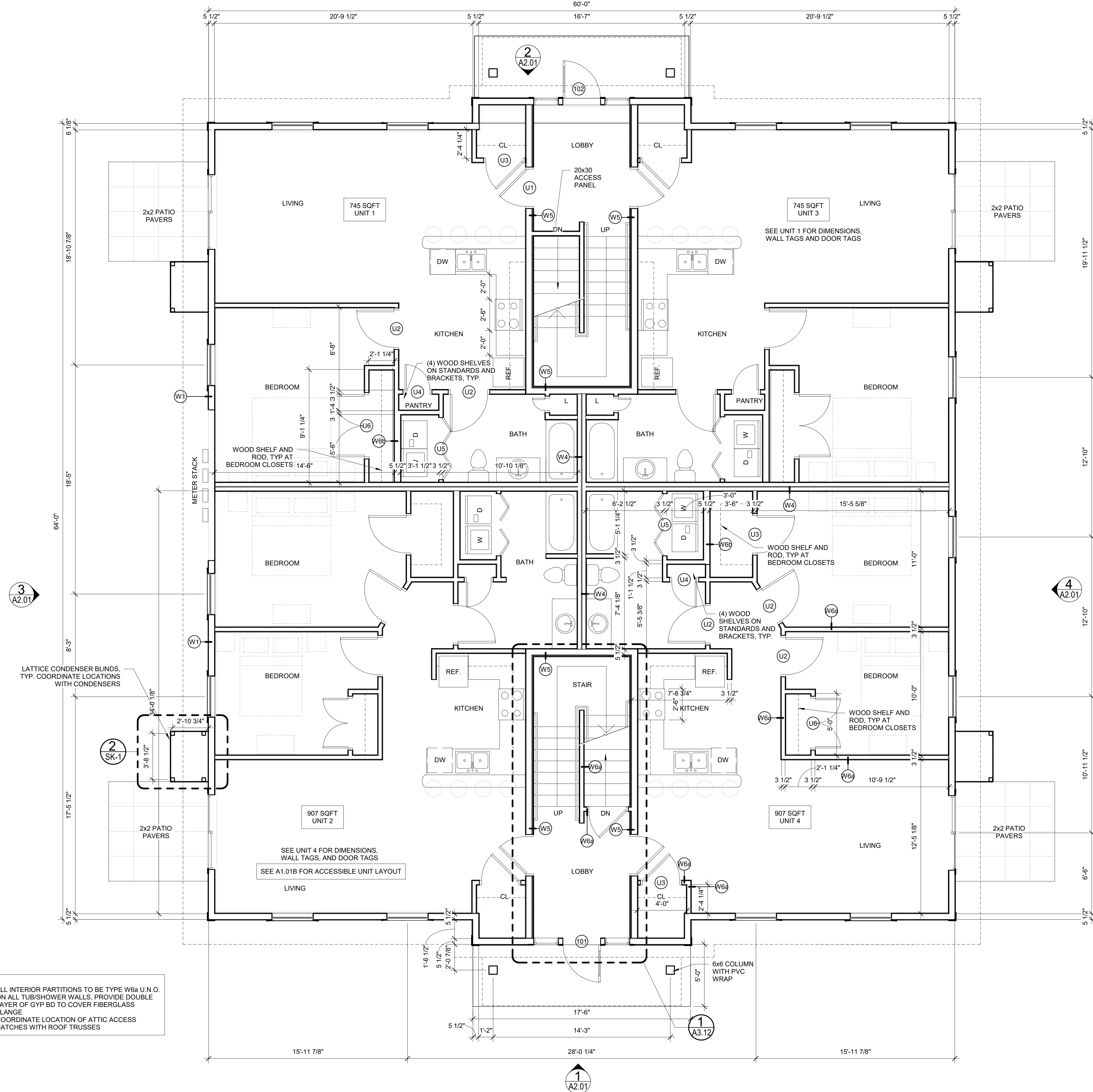
CODE SUMMARY

A0.01



2 BASEMENT PLAN
1/4" = 1'-0"

NOTE:
• ALL INTERIOR PARTITIONS TO BE TYPE W6a U.N.O.
• ON ALL TUB/SHOWER WALLS, PROVIDE DOUBLE LAYER OF GYP BD TO COVER FIBERGLASS FLANGE
• COORDINATE LOCATION OF ATTIC ACCESS HATCHES WITH ROOF TRUSSES



1 1ST FLOOR PLAN
1/4" = 1'-0"

Prepared For:
Kevin O'Rourke

Consultant:

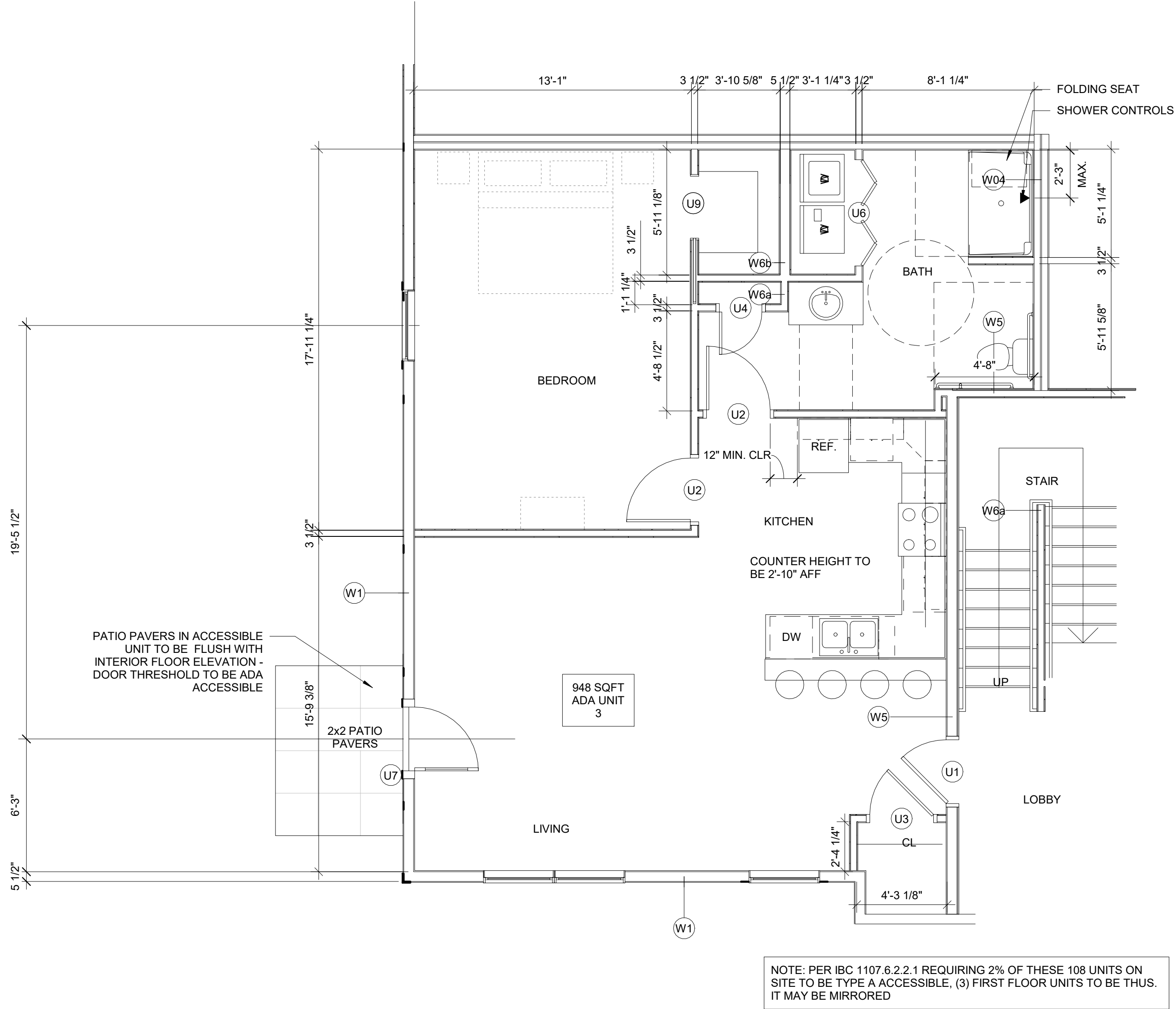
ARCHETYPE
ARCHITECTS
48 Union Wharf - Portland, Maine 04110

Project:
WINCHESTER
WOODS
PORTLAND, ME

Revisions:

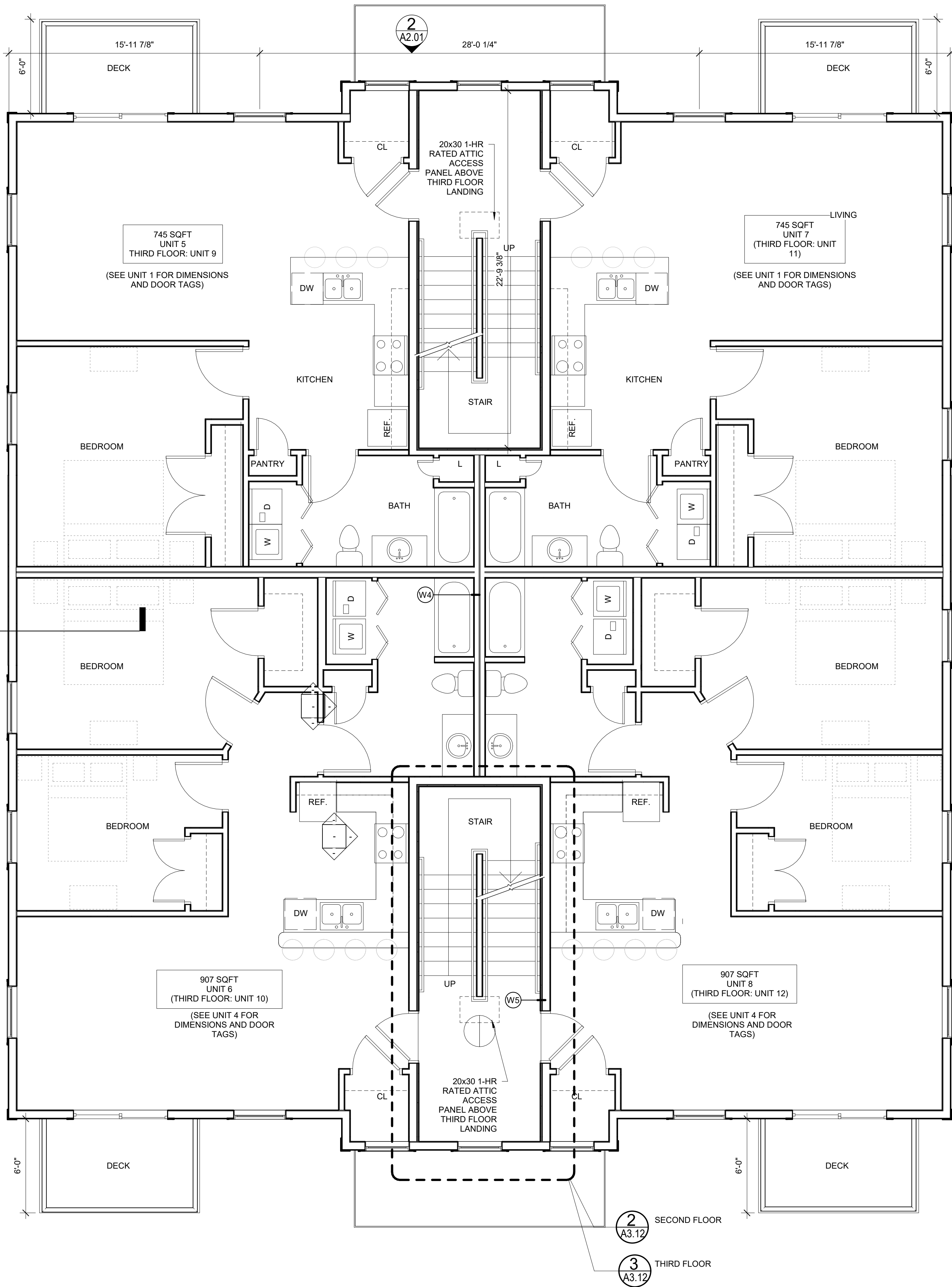
Date: 5/27/2021
Scale: 1/4" = 1'-0"
FIRST FLOOR PLAN

A1.01



1 | ACCESSIBLE UNIT
1/4" = 1'-0"

A1.01B		Date: 04/05/2021		Scale: 1/4" = 1'-0"	ACCESSIBLE FIRST FLOOR UNIT				
		Revisions:		Project: DALTON PRUD		Architect: ARCHETYPE ARCHITECTS 48 Union Wharf - Portland, Maine 0410	Consultant:	Prepared For: Kevin O'Rourke	
				PORTLAND, ME					



NOTE:

- ALL INTERIOR PARTITIONS TO BE TYPE W6a U.N.O.
- ON ALL TUB/SHOWER WALLS, PROVIDE DOUBLE LAYER OF GYP BD TO COVER FIBERGLASS FLANGE
- COORDINATE LOCATION OF ATTIC ACCESS HATCHES WITH ROOF TRUSSES

1 | SECOND FLOOR (THIRD FLOOR SIM.)
1/4" = 1'-0"

AREA		
Level	Area	# units
FIRST FLOOR	4062 SF	4
SECOND FLOOR	3921 SF	4
THIRD FLOOR	3921 SF	4

Prepared For:

Kevin O'Rourke

Address
City, State

Consultant:

ARCHETYPE
ARCHITECTS

48 Union Wharf - Portland, Maine 0410

Architect:

WINCHESTER
WOODS

PORTLAND, ME

Project:

SECOND/THIRD FLOOR
PLAN

Date:

5/27/2021

Scale:

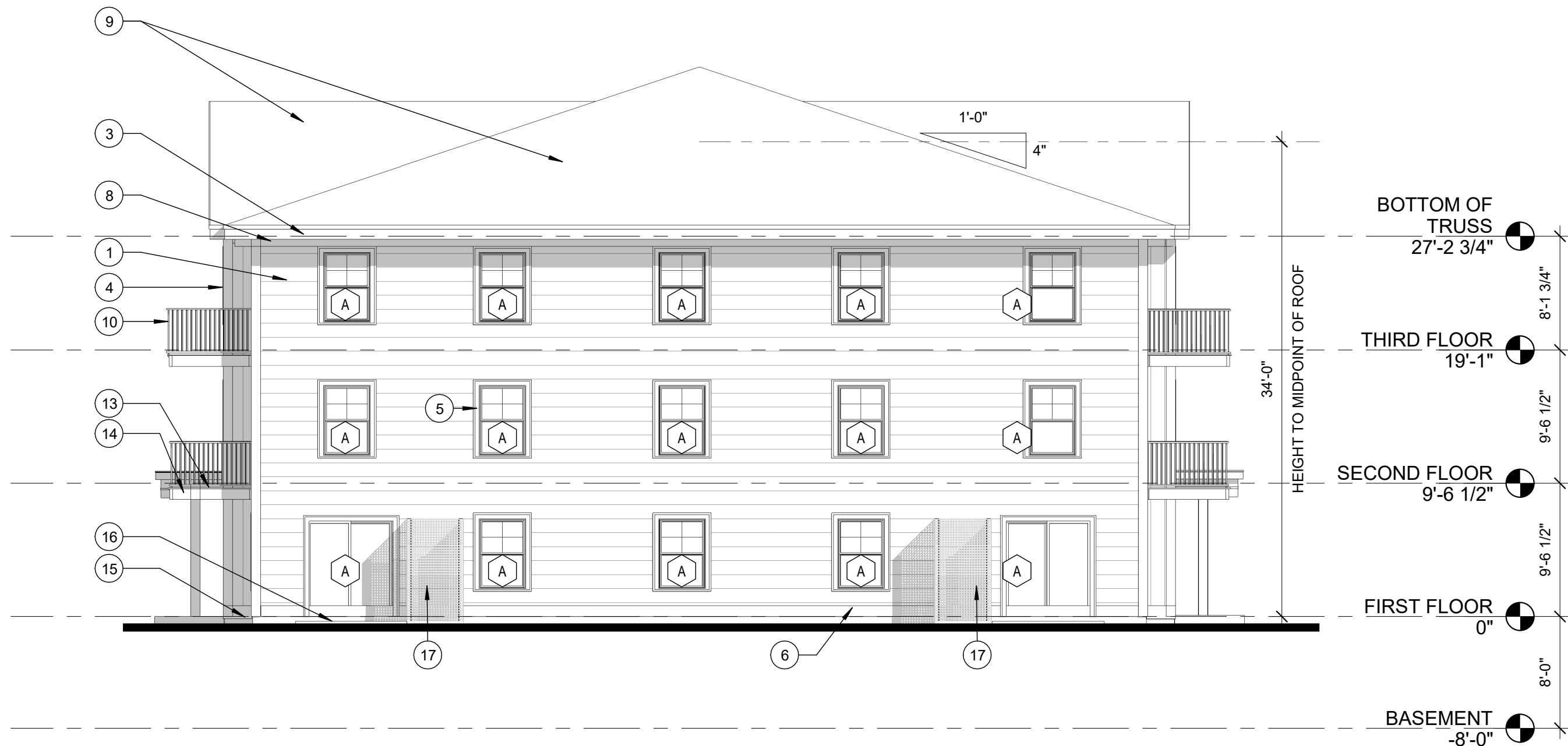
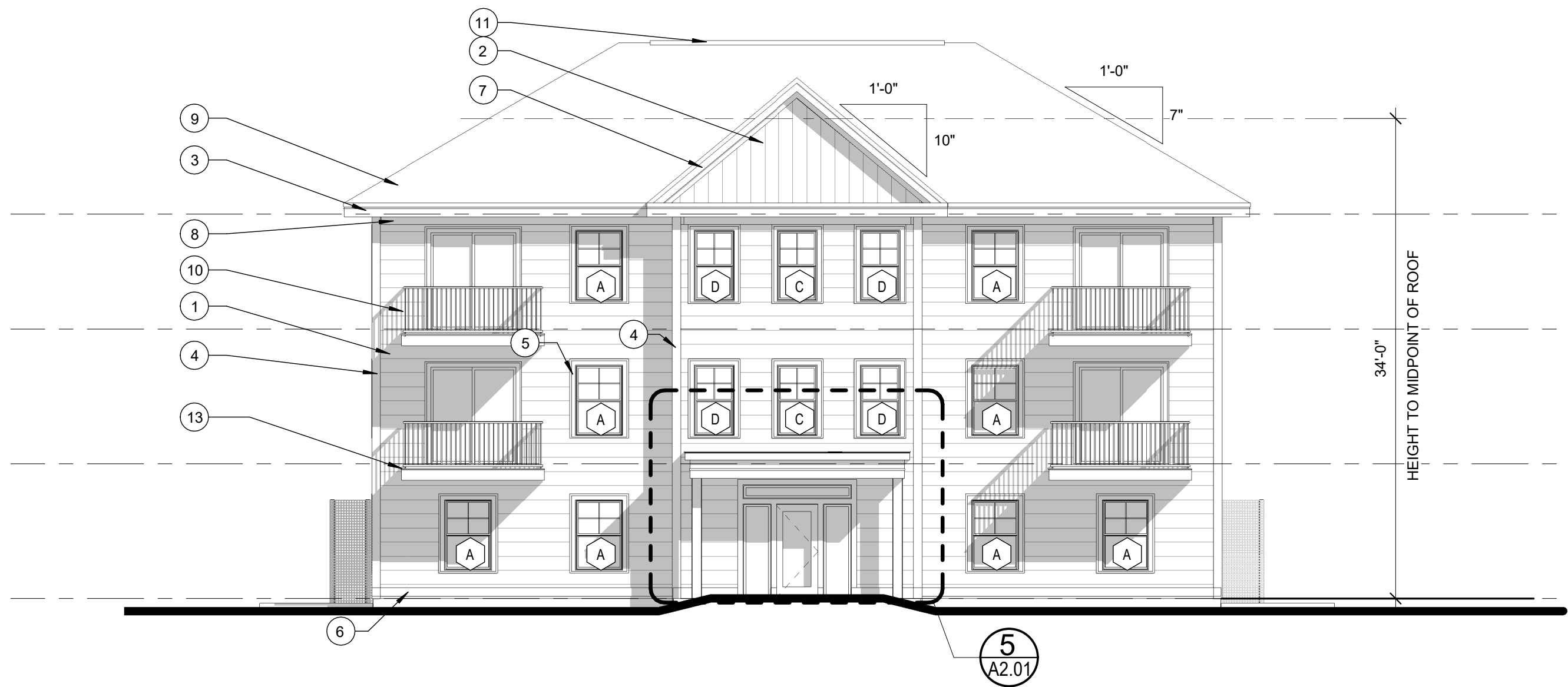
1/4" = 1'-0"

Revisions:

A1.02



1. VINYL SIDING - EQUAL TO CERTAINTED MONOGRAM 5" CLAPBOARD
2. VINYL BOARD AND BATTEN SIDING
3. 1x10 PVC FASCIA WITH 1x4 SHADOW BOARD - COLOR TO BE WHITE
4. 1x8 PVC CORNERBOARDS - COLOR TO BE WHITE
5. 1x4 PVC WINDOW TRIM W/ 1x2 TRIM AROUND PERIMETER
6. 1x10 PVC WATER TABLE
7. 1x10 PVC RAKE BOARD WITH 1x4 PVC SHADOW BOARD
8. 1x6 PVC FRIEZE
9. 30-YEAR ARCHITECTURAL ASPHALT SHINGLE
10. 42" HIGH VINYL RAILING AND BALUSTERS
11. CONTINUOUS RIDGE VENT
12. NOT USED
13. COMPOSITE DECKING
14. 1x10 PVC TRIM
15. 8" EXPOSED CONCRETE, TYP.
16. 2x2 CONCRETE PATIO PAVERS



Prepared For:
Kevin O'Rourke

Consultant:

ARCHETYPE
ARCHITECTS
48 Union Wharf - Portland, Maine 0410

Architect:

WINCHESTER
WOODS
PORTLAND, ME

Project:

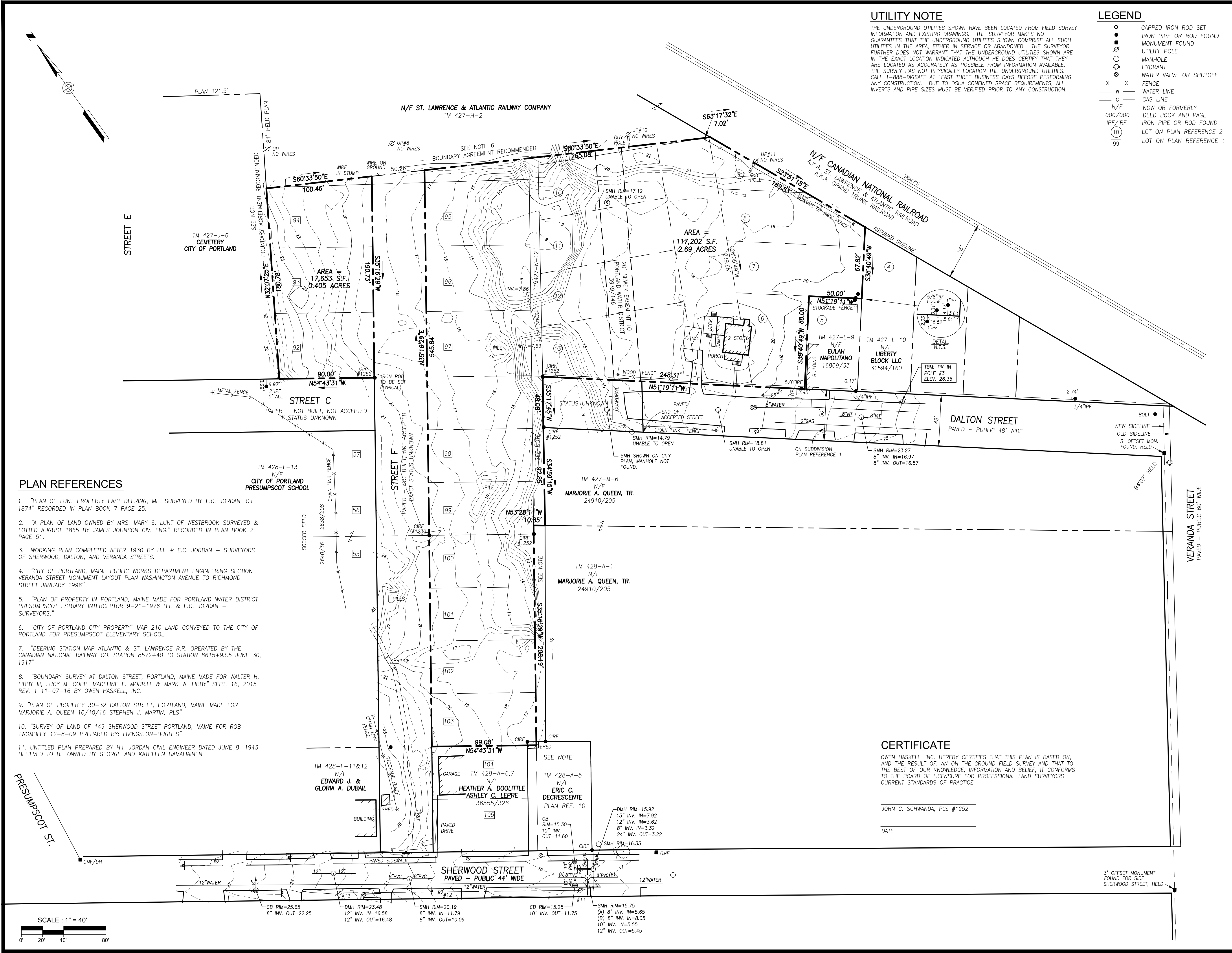
Revisions:

Scale: As indicated

Date: 5/27/2021

BUILDING ELEVATIONS

A2.01



UTILITY NOTE

THE UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND EXISTING DRAWINGS. THE SURVEYOR MAKES NO GUARANTEES THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH HE DOES CERTIFY THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM INFORMATION AVAILABLE. THE SURVEY HAS NOT PHYSICALLY LOCATION 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.

LEGEND

- CAPPED IRON ROD SET
- IRON PIPE OR ROD FOUND
- MONUMENT FOUND
- UTILITY POLE
- MANHOLE
- HYDRANT
- WATER VALVE OR SHUTOFF
- FENCE
- W WATER LINE
- G GAS LINE
- N/F NOW OR FORMERLY
- 000/000 DEED BOOK AND PAGE
- IPF/IRF IRON PIPE OR ROD FOUND
- 10 LOT ON PLAN REFERENCE 2
- 99 LOT ON PLAN REFERENCE 1

LOCATION MAP

GENERAL NOTES

- OWNERS OF RECORD:
HEIRS OF WALTER H. LIBBY, JR. AND MADELINE F. LIBBY, BOOK 12572 PAGE 110, TAX LOTS 427-I- 7,8,9; 427-K-1,2,3,4; 428-A-12,13
WALTER H. LIBBY, III, LUCY M. COPP, MADELINE F. MORRILL, AND MARK W. LIBBY, BOOK 11647 PAGE 187, TAX LOTS 427-L-5,6,7,8 FORTUNE CAPITAL GROUP, BOOK 26405 PAGE 133
TAX MAP 428-A LOTS 8-11

(NOTE - THE CITY OF PORTLAND ASSESSORS RECORDS SHOW MADELINE F. LIBBY AS THE OWNER OF ALL THESE LOTS AND INCLUDES TAX LOT 427-N-12, FOR WHICH NO DEED WAS FOUND, AND LOT 427-I-12 WHICH IS NOT SHOWN ON THE TAX MAP.)

- BEARINGS ARE GRID NORTH AS BASED ON COORDINATES PROVIDED ON PLAN REF. 4 FOR THE THREE FOOT OFFSET MONUMENTS SHOWN ON VERANDA STREET AT DALTON STREET AND SHERWOOD STREET.
- THE CITY ENGINEERING DEPARTMENT BLUE SHEET FOR VERANDA STREET SHOWS A WIDENING AT DALTON STREET OF 10.5 FEET. PLAN REF. 3 SHOWS THE WIDENING AS A LITTLE LESS THAN 10.5 FEET WIDE AND SHOWS AN ANGLE POINT IN THE OLD VERANDA STREET AT THE RAILROAD CROSSING. THIS ANGLE POINT IS NOT SHOWN ON THE BLUE SHEET OR ON PLAN REF. 4, BUT IS INDICATED IN THE 1888 LAYING OUT AND ACCEPTANCE OF DALTON STREET. PLAN REF. 3 SHOWS THE OLD LAYOUT OF VERANDA STREET AS MATCHING THE LINE SHOWN ON PLAN REF. 1. IT ALSO SHOWS THE 1930 NEW LAYOUT OF VERANDA STREET, WHICH APPARENTLY IS AS SHOWN ON PLAN REF. 4. THE OLD LINE, FROM PLAN REF. 3, WAS USED AS THE STARTING LINE FOR LAYING OUT THE LOTS ON PLAN REFERENCE 1.
- PLAN REFERENCE 1 SHOWS DALTON STREET AS 50 FEET WIDE, BUT THE CITY ACCEPTANCE WAS FOR A 48 FOOT WIDE STREET. BASED ON PLAN REF. 3, A TWO FOOT GAP WAS CREATED BETWEEN THE CITY STREET LINE AND THE SUBDIVISION STREET LINE ON THE EAST SIDE OF DALTON STREET. THE EXACT STATUS OF THAT STRIP IS UNKNOWN.
- THE LOT CORNER MARKERS FOUND ON DALTON STREET DO NOT MATCH THE LINES ON PLAN REFERENCE 1. CONFUSION MAY HAVE OCCURRED BASED ON THE 1930 WIDENING OF VERANDA STREET.
- PLAN REFERENCE 1 AND 2 DO NOT SHOW DIMENSIONS TO THE LINE NOW OF THE RAILROAD. PLAN REFERENCE 7 APPEARS TO SHOW A FENCE ALONG THE COMMON LINE AND SHOWS A DISTANCE OF 81 FEET ALONG THE CEMETERY. THE DEED TO THE RAILROAD HAS A DIMENSION OF 80 FEET. SOME REMAINS OF WIRE FENCE WERE FOUND ALONG THE LINE SHOWN HEREON. THIS LINE INCLUDES MORE LAND THAT IS SHOWN ON PLAN REFERENCE 1 AND 2. A BOUNDARY AGREEMENT IS RECOMMENDED WITH THE RAILROAD.
- NO DEED WAS FOUND FOR THE CEMETERY AND NO EVIDENCE OF THE PROPERTY LINE. THE RAILROAD MAY HAVE GAINED RIGHTS UP TO THE FENCE.
- THE LINE OF STREET F WAS ESTABLISHED BY THE DIMENSIONS SHOWN ON PLAN REFERENCE 2 STARTING AT PRESUMPSCOT STREET. THIS DOES NOT EXACTLY MATCH THE PROJECTION OF CHURCHILL STREET FROM WASHINGTON AVENUE, WHICH SHOULD BE THE SAME.
- THE STATUS OF, AND THE RIGHTS OF THESE OWNERS AND OTHERS IN, THE UNACCEPTED PORTIONS OF DALTON STREET, STREET F AND STREET C ARE UNKNOWN.
- TAX LOT 427-N-12 APPEARS TO BE A GORE BETWEEN THE LOTS OF PLAN REF. 1 AND 2. THE CITY TAX RECORDS INDICATE IT IS OWNED BY LIBBY. THIS GORE SEEMS TO BE SHOWN ON AN UNRECORDED VERSION OF PLAN REF. 1 IN THE RECORDS OF H.I. & E.C. JORDAN-SURVEYORS. THE PORTION OF THE GORE NORTH OF THE NORTHWESTERLY EXTENSION OF THE SOUTHWESTERLY SIDELINE OF DALTON STREET IS LABELED AS TAX LOT 427-N-12. THE GORE WEST OF SAID EXTENSION IS NOT SHOWN ON THE TAX MAP BUT IS SHOWN AS PART OF THE LAND OF QUEEN. THERE MAY BE A TITLE QUESTION ON THE GORE.
- THE FENCE ALONG THE RAILROAD APPEARS TO EXTEND BEYOND THE PROPERTY LINE. THE RAILROAD MAY HAVE GAINED RIGHTS UP TO THE FENCE.
- PLAN REFERENCE 9 INCORRECTLY SHOWS THE NORTHEAST LINE OF 149 SHERWOOD EXTENDS TO STREET F. DEED RESEARCH BACK TO 1882 CONFIRMS WHAT IS SHOWN ON PLAN REFERENCE 11 AND WHAT IS SHOWN ON THIS PLAN. THIS CREATES AN OVERLAP ONTO PLAN REFERENCE 10, WHICH THIS SURVEYOR BELIEVES IS PART OF THIS SURVEYED PREMISES.
- ELEVATIONS ARE BASED ON CITY DATUM, BENCH MARK: CITY POINT MDOT-PO-295, ELEVATION 12.0'.

PLAN REFERENCES

- "PLAN OF LUNT PROPERTY EAST DEERING, ME. SURVEYED BY E.C. JORDAN, C.E. 1874" RECORDED IN PLAN BOOK 7 PAGE 25.
- "A PLAN OF LAND OWNED BY MRS. MARY S. LUNT OF WESTBROOK SURVEYED & LOTTED AUGUST 1865 BY JAMES JOHNSON CIV. ENG." RECORDED IN PLAN BOOK 2 PAGE 51.
- WORKING PLAN COMPLETED AFTER 1930 BY H.I. & E.C. JORDAN - SURVEYORS OF SHERWOOD, DALTON, AND VERANDA STREETS.
- "CITY OF PORTLAND, MAINE PUBLIC WORKS DEPARTMENT ENGINEERING SECTION VERANDA STREET MONUMENT LAYOUT PLAN WASHINGTON AVENUE TO RICHMOND STREET JANUARY 1996"
- "PLAN OF PROPERTY IN PORTLAND, MAINE MADE FOR PORTLAND WATER DISTRICT PRESUMPSCOT ESTUARY INTERCEPTOR 9-21-1976 H.I. & E.C. JORDAN - SURVEYORS."
- "CITY OF PORTLAND CITY PROPERTY" MAP 210 LAND CONVEYED TO THE CITY OF PORTLAND FOR PRESUMPSCOT ELEMENTARY SCHOOL.
- "DEERING STATION MAP ATLANTIC & ST. LAWRENCE R.R. OPERATED BY THE CANADIAN NATIONAL RAILWAY CO. STATION 8572+40 TO STATION 8615+93.5 JUNE 30, 1917"
- "BOUNDARY SURVEY AT DALTON STREET, PORTLAND, MAINE MADE FOR WALTER H. LIBBY III, LUCY M. COPP, MADELINE F. MORRILL & MARK W. LIBBY" SEPT. 16, 2015 REV. 1 11-07-16 BY OWEN HASKELL, INC.
- "PLAN OF PROPERTY 30-32 DALTON STREET, PORTLAND, MAINE MADE FOR MARJORIE A. QUEEN 10/10/16 STEPHEN J. MARTIN, PLS"
- "SURVEY OF LAND OF 149 SHERWOOD STREET PORTLAND, MAINE FOR ROB TWOMBLY 12-8-09 PREPARED BY: LIVINGSTON-HUGHES"
- UNTITLED PLAN PREPARED BY H.I. JORDAN CIVIL ENGINEER DATED JUNE 8, 1943 BELIEVED TO BE OWNED BY GEORGE AND KATHLEEN HAMALAINEN.

CERTIFICATE

OWEN HASKELL, INC. HEREBY CERTIFIES THAT THIS PLAN IS BASED ON, AND THE RESULT OF, AN ON THE GROUND FIELD SURVEY AND THAT TO THE BEST OF OUR KNOWLEDGE, INFORMATION AND BELIEF, IT CONFORMS TO THE BOARD OF LICENSURE FOR PROFESSIONAL LAND SURVEYORS CURRENT STANDARDS OF PRACTICE.

JOHN C. SCHWANDA, PLS #1252

DATE

REV. 01 01-07-2021 TOPOGRAPHY ADDED

Boundary Survey
At
Dalton Street & F Street, Portland, Maine
Made for
Hammond House LLC
94 South Street, Yarmouth, Maine

OWEN HASKELL, INC.
PROFESSIONAL LAND SURVEYORS
390 US ROUTE 1, UNIT 10, FALMOUTH, ME 04105 TEL. 207-774-0424
DRAWN BY: SDG/JLW DATE: DEC. 11, 2020 JOB NO. 2020-346 P
CHECKED BY: JCS SCALE: 1" = 40' DRWG. NO. 1

GENERAL NOTES:

1. ALL PROPOSED GREEN SPACES AND ASSOCIATED PLANT SPECIES ARE TO COMPLY WITH THE CITY OF PORTLAND TECHNICAL STANDARDS. ANY SUBSTITUTIONS SHALL BE REVIEWED FOR APPROVAL BY THE CITY ARBORIST.
2. NO PLANTING WILL BE INSTALLED UNTIL ALL GRADING AND CONSTRUCTION HAS BEEN COMPLETED IN THE IMMEDIATE AREA.
3. CONTRACTOR TO VERIFY ALL UTILITIES ON PROPERTY AND TO PROTECT ALL UTILITIES DURING EXCAVATION FOR PLANTS.
4. ALL CONTAINER MATERIAL TO BE GROWN IN CONTAINER MINIMUM OF 6 MONTHS.
5. ALL MATERIAL SHALL COMPLY WITH THE LATEST EDITION OF THE AMERICAN STANDARD FOR NURSERY STOCK, AMERICAN ASSOCIATION OF NURSERYMEN.
6. CONTRACTOR SHALL REPAIR ALL DAMAGE TO PROPERTY FROM PLANTING OPERATIONS AT NO COST TO OWNER.
7. THE PROPERTY OWNER IS RESPONSIBLE FOR THE CONTINUED CARE AND MAINTENANCE OF THE LANDSCAPED AREA. NEW PLANTINGS THAT SHOW SIGNS OF CONSTRUCTION DAMAGE WITHIN A ONE YEAR PERIOD FOLLOWING CONSTRUCTION SHALL BE REJECTED AND REPLACED PRIOR TO ANY DEFECT GUARANTEE AT NO COST TO THE OWNER.
8. THE ENGINEER MAY TAG ALL PLANTS AT THE NURSERY AND INSPECT THEM AFTER DELIVERY TO THE SITE; ALL PLANT MATERIALS SHALL BE INSPECTED BY THE ENGINEER ON SITE PRIOR TO INSTALLATION.
9. THE MAJORITY OF SPECIES ARE SPECIFIED WITHIN THE MAINE DEP BUFFER ZONE PLANT LIST AND ARE NATIVE AND SALT & DROUGHT RESISTANT.
10. SEE PERMANENT SEEDING TABLE ON EROSION AND SEDIMENTATION CONTROL NOTES & DETAILS FOR LOAM AND SEED AREAS.

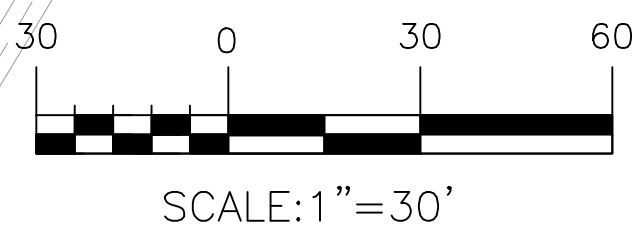
PLANT SCHEDULE				
ID	BOTANICAL NAME	COMMON NAME	QTY	SIZE
TREES				
AR	ACER RUBRUM	RED MAPLE	3	60"
RO	QUERCUS ROBUR X BICOLOR LONG	REGAL OAK	2	50"
SHRUBS				
CS	CORNUS SERICEA	REDTWIG DOGWOOD	25	5 GAL
FS	RHUS AROMATIC	LO-GRO FRAGRANT SUMAC	45	3'-4'
JC	JUNIPERUS CHINENSIS	BLUE POINT JUNIPER	37	5' TALL
PG	PICEA GLAUCA	DWARF ALBERTA SPRUCE	62	4'-6"
PERENNIAL/GROUNDCOVER				
SS	SALVIA SYLVESTRIS	SAGE MAY NIGHT	27	1 GAL.
RH	RUDBECKIA HIRTA	BLACK EYED SUSAN	29	1 GAL.

* DOES NOT INCLUDE NATIVE SHADE TOLERANT SHRUBS TO BE PLANTED ON SLOPE, SPECIES TYPE AND NUMBER TBD BASED ON AVAILABILITY

PERMIT LEVEL
NOT ISSUED FOR
CONSTRUCTION

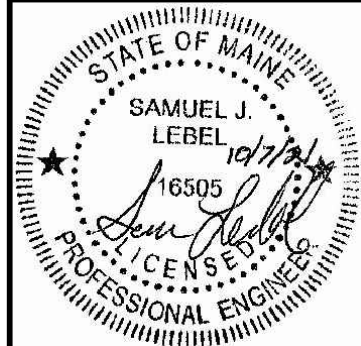
SHERWOOD STREET
(PUBLIC - 44' R.O.W.)

DALTON STREET
(PUBLIC - 48' R.O.W.)



ISSUED FOR	BY
SITE/SUB	WHS
COMMENT RESPONSE	WHS

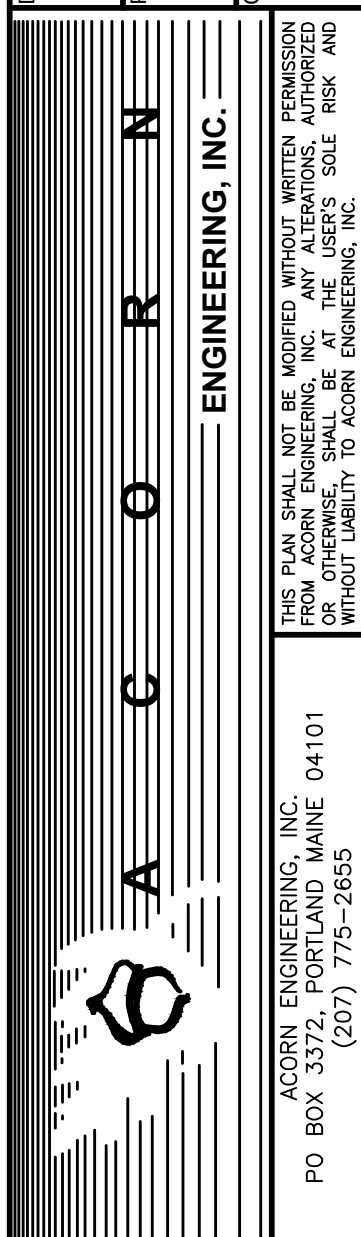
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JN:	1155
SCALE:	AS NOTED
DESIGNED BY:	SJL
DRAWN BY:	NPH
CHECKED BY:	WHS



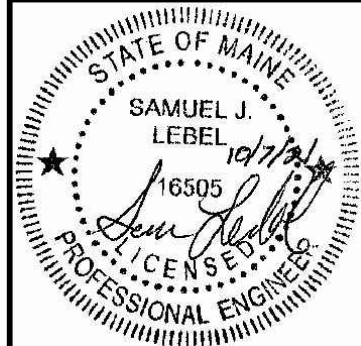
DRAWING NO.

L-1

DRAWING NAME: LANDSCAPE PLAN
PROJECT NAME/ADDRESS: WINCHESTER WOODS APARTMENTS
PORTLAND, MAINE 04103
CLIENT/OWNER OF RECORD: WINCHESTER WOODS, LLC
94 SOUTH STREET, YARMOUTH MAINE 04096

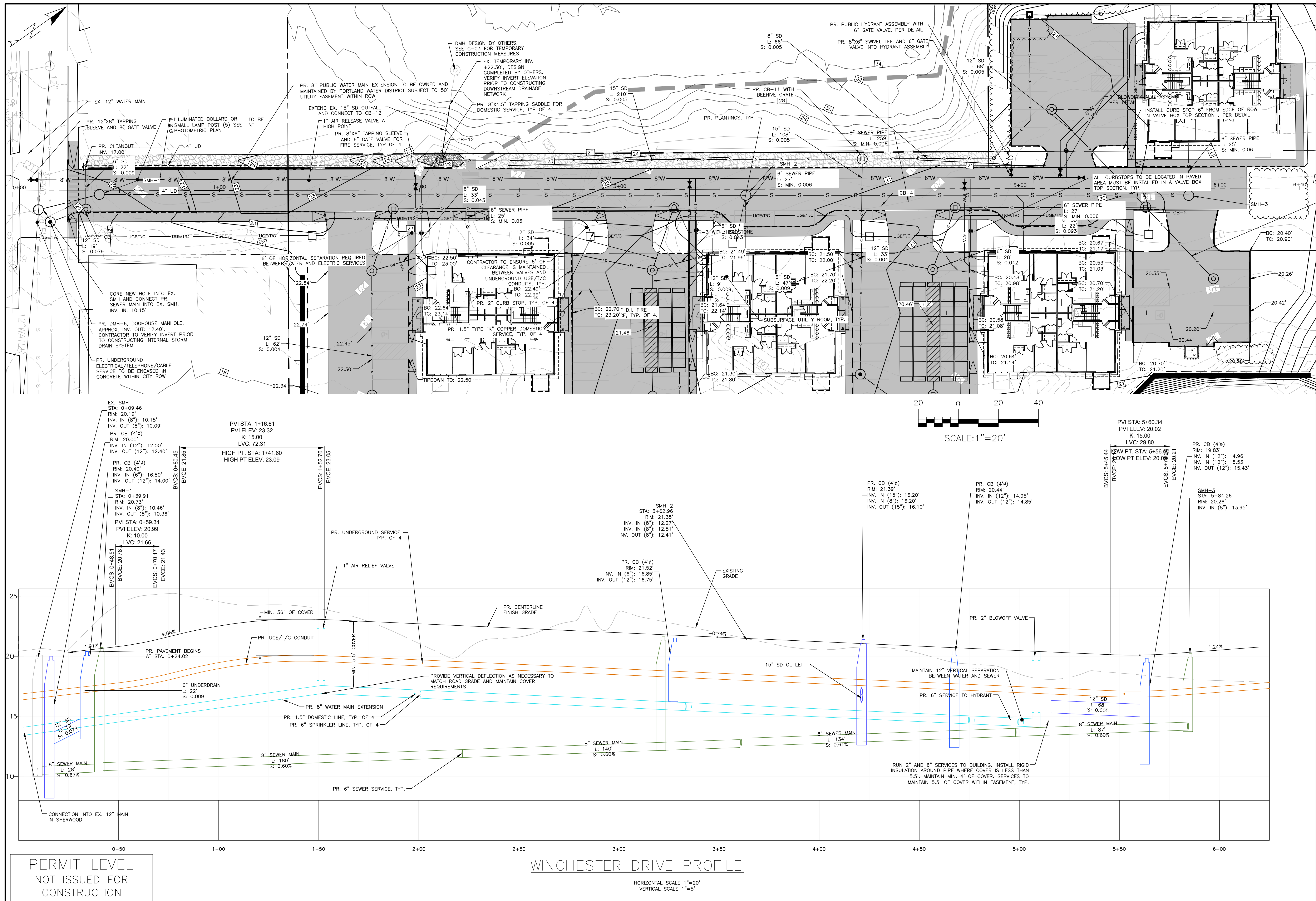


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DESIGNED BY:	SJL
DRAWN BY:	NPH
CHECKED BY:	WHS



DRAWING NO.

L-1

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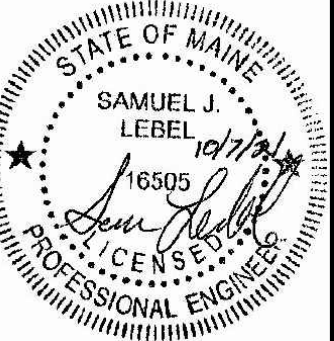
ROAD PROFILE

PROJECT NAME/ADDRESS: **WINCHESTER WOODS APARTMENTS**
PORTLAND, MAINE 04103

CLIENT/OWNER OF RECORD: **WINCHESTER WOODS, LLC**
94 SOUTH STREET, YARMOUTH MAINE 04096

THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM ACORN ENGINEERING, INC. ANY ALTERATIONS, ADDITIONS OR DELETIONS TO THIS PLAN SHALL BE THE SOLE RESPONSIBILITY WITHOUT LIABILITY TO ACORN ENGINEERING, INC. (207) 775-2655

FILE:	1155_CIVIL
IN:	1155
SCALE:	AS NOTED
DESIGNED BY:	SJL
DRAWN BY:	NPH
CHECKED BY:	WHS



DRAWING NO.

C-31

PLANNING BOARD REPORT PORTLAND, MAINE



Amendment to Previous Subdivision Approval
75 Chestnut Street
Level III Site Plan & Subdivision Amendment; IZ Conditional Use
PL-001611-2021
75 Chestnut Street Owner, LLC, Applicant

Submitted to:	Portland Planning Board	Prepared By:	Jimmy Dealaman
Public Hearing Date:	October 12, 2021	Date:	October 8, 2021

I. INTRODUCTION

75 Chestnut Street Owner LLC seeks an amendment to the previously-approved site plan, subdivision and Inclusionary Zoning conditional use approval in order to increase the total number of residential units from 52 to 54 within a seven story, mixed-use development at 75 Chestnut Street.

Amendments to a previously approved subdivision plat which result in an increase in the number of lots/units require approval by the Planning Board (Land Use Code Sec. 14-496 (c)). The application is being referred to the Planning Board for compliance with the City of Portland's Land Use Code Site Plan Standards, Section 14-526, Subdivision Standards, Section 14-497, and Inclusionary Zoning Conditional Use Standards, Section 14-487.



Fig. 1 - Development Site – Plan View

The Planning and Urban Development Department mailed 112 notices advertising this meeting to property owners within 500 feet of the site. A legal advertisement ran in the October 2nd and 3rd, 2021 editions of the *Portland Press Herald*.

Applicant: 75 Chestnut Street Owner LLC
Applicant Walsh Engineering Associates; Archetype
Representatives:

II. REQUIRED REVIEWS

The proposed amendment is to increase the number of residential units within the building from 52 to 54. The scope of the Planning Board's review is limited to only those standards impacted by the amendment. Where not specifically referenced in the report, the associated Planning Board approval dated December 13, 2016 (2016-184) and amended on April 17, 2018 (2018-046) and October 27th, 2020 (PL-001343-2020) remains applicable.

<i>Review</i>	<i>Applicable Standards</i>
Site Plan	Section 14-526
Subdivision	Section 14-497
Inclusionary Zoning Conditional Use	Section 14-487

III. PROJECT DATA

Existing Zoning	B-7 Mixed Development
Property Size	21,451 square feet
Existing Use	Lot Currently Under Construction
Proposed Use	54 residential units & 1 commercial unit
Proposed Development Program	Mixed Use (residential and commercial)

	<i>Previously Approved</i>	<i>Proposed</i>	<i>Net Change</i>
Building Footprint	9,763 sq ft	9,763 sq ft	No Change
Building Floor Area	75,350 sq ft	75,350 sq ft	No Change
Impervious Surface Area	13,457 sq ft	13,457 sq ft	No Change
Parking Spaces	52	54	2
Bicycle Parking Spaces	21	22	1
One-Bedroom Units	13	13	No Change
Two-Bedroom Units	39	41	2

IV. BACKGROUND

75 Chestnut Street was originally approved by the Planning Board at its December 13, 2016 meeting under application #2016.184; at that time, the development program included a new seven story mixed use building with 54 residential rental units and one commercial unit (described as a live-work space), as well as including a landscaped amenity area. 54 parking spaces were proposed to be leased from the abutting parking garage.

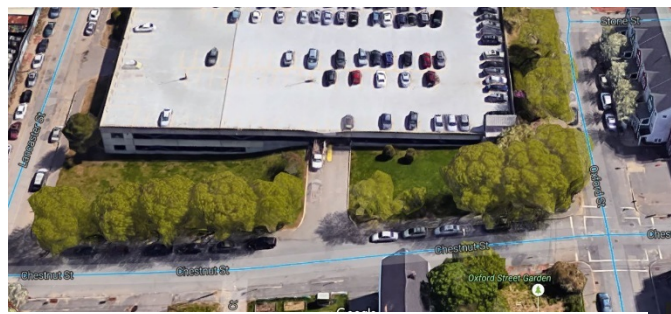


Fig. 2 - Proposed Development Site – Oblique

Following the original approval, the project returned to the board on February 14, 2017 to address a design-related condition, and again on April 17, 2018 for an amendment (#2018-046) to their original site plan/subdivision approval to reduce the number of residential units from 54 to 52, eliminating two one-bedroom units and altering how the building's design related to the right-of-way. The approval from 2018

included providing six workforce units on-site in order to meet the Inclusionary Zoning Requirements set forth in Section 14-487.

On October 28, 2020 the project was amended (PL-001343-2020) to modify the original Inclusionary Zoning conditions to facilitate the applicant paying a fee-in-lieu to the Housing Trust Fund instead of providing six workforce housing units on-site to meet City requirements. The Planning Board approved the amendment subject to the condition that the applicant pay an agreed upon fee-in-lieu of \$565,687 into the City's Housing Trust Fund.

The project was issued a building permit (BLDC2020-01423) on January 6, 2021 and is currently under construction.

V. PROPOSED DEVELOPMENT

The current proposal involves reconfiguring the internal floor plans to add two additional two-bedroom residential condominium units increasing the total units from 52 to 54 consisting of 13 one-bedroom units and 41 two-bedroom units. The addition of two units will not expand the building or involve any exterior site work. The amendment of a previously approved subdivision plat which results in an increased number of lots/units requires a site plan and subdivision approval by the Planning Board as well as an amendment to Inclusionary Zoning Conditional Use conditions of approval.

VI. RIGHT, TITLE, & INTEREST

The owner of the property is the 75 Chestnut Street Owner LLC. The applicant has provided a copy of quitclaim deed, recorded at the Cumberland County Registry of Deeds (Book 36510 Page 62, which demonstrates their right, title and interest in the property (Attachment J).

The existing plat includes six easements six easements and one license. Those include: i) The City of Portland grants a temporary construction easements and license for building footings in the public ROW; ii) Chestnut Garage LLC grants an easement for deck extensions over the adjacent garage to 75 Chestnut Street Owner LLC iii) 75 Chestnut Street Owner LLC grants an unaltered area (i.e. air rights) easement to Chestnut Garage LLC; iv) and easements granting access and maintenance for sidewalks from both owners to the City of Portland.

VII. FINANCIAL & TECHNICAL CAPACITY

The applicant has submitted a letter stating their financial ability to accomplish the project (Attachment I). The applicant's consultant team has also submitted background information of their respective firms as demonstration of their technical capacity to undertake the project (Attachment H).

VIII. ZONING ANALYSIS

The proposed development is located in the B-7 Mixed Development zone. The B-7 zone is intended to encourage dense development featuring a mix of uses such as housing, retail, and offices, and that emphasize a quality pedestrian experience. The applicant has submitted a Zoning analysis (Attachment G). In the B-7 zone there is no minimum lot area per dwelling unit required, so the increase of two additional units is permitted in this zone.

Staff have reviewed the amendment to the previous approval and finds that the amended proposal continues to meet all applicable zoning requirements.

IX. INCLUSIONARY ZONING CONDITIONAL USE STANDARDS (Section 14-487)

As required by the City's Inclusionary Zoning ordinance, residential developments with ten or more units are required to provide a minimum of ten percent of the dwelling units as Workforce Housing units, and the units themselves must contain in total, ten percent of the total bedroom count for the entire development. Alternatively, the applicant also has the option to pay a fee-in-lieu for those units to meet the requirement.

The City's Housing Program Manager reviewed the application (Attachment 1). With the project proposing 54 residential units, the applicant must provide a minimum of six units of workforce housing on-site or pay a proportional fee-in-lieu alternative. The applicant has elected to pay a fee-in-lieu of \$587,444 ($5.4 \times \$108,786$) to meet the requirement. Housing staff have reviewed the proposal and recommend that the standards can be met in this way and offer the following condition of approval:

Prior to the Issuance of a Certificate of Occupancy

1. *The applicant shall pay an agreed upon fee-in-lieu of \$587,444 into the City's Housing Trust Fund prior to issuance of the certificate of occupancy, or as an alternative to paying a fee-in-lieu, the applicant may provide the workforce housing on-site.*

The following provisions within the previous 2020 conditions of approval will become null and void upon being updated by the aforementioned new condition:

1. *The applicant shall pay an agreed upon fee-in-lieu of \$565,687 into the City's Housing Trust Fund prior to issuance of the certificate of occupancy.*

X. SUBDIVISION REVIEW STANDARDS (Section 14-497)

The proposed development has been reviewed by staff for conformance with the relevant review standards of Portland's Subdivision Ordinance and applicable regulations. The applicant's approved subdivision plat has been updated to reflect the proposed increase of two units and relevant staff review comments provided below pertain only to the amendment.

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 proposal does not include making any site changes, and will not result in any changes to the civil plans (Plan 9). Staff finds that the previously approved application materials have complied with these standards.
2. **Has sufficient water available and will not cause unreasonable burden on existing water supply (Section 14-497(a)(2 and 3))**
The Portland Water District has also provided an ability to serve letter for the project (Attachment K) indicating the District will be able to serve the development.
3. **Will not cause unreasonable highway or public road congestion or unsafe conditions with respect to use of the highway or public roads existing or proposed (Section 14-497(e))**
The traffic assessment submitted to Planning Board's in the 2016 application included 54 units, and continues to be acceptable to the City's Traffic Engineering Reviewer (Attachment 7).

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))

Staff have received an updated Wastewater Capacity Application from Public Works (Attachment 6) indicating that the project will not burden the City's ability to dispose of solid waste and sewage and stormwater.

5. Will not have an undue adverse effect on the scenic or natural beauty of the area, aesthetics, historic sites, significant wildlife habitat (Section 14-497(a)(8))

The proposal does not include making any exterior site changes, and will not result in any changes to the civil plans (Plan 9). Staff finds that the previously approved application materials have complied with these standards.

6. Is in conformance with the Comprehensive Plan (Section 14-497(a)(9))

The proposal includes increasing the total number of residential units within the building from 52 to 54. Staff finds that this amendment is in alignment with the goals and strategies of the City's comprehensive plan, specifically in that the proposal is keeping with the stated goals around increasing and modifying the overall housing supply city-wide to meet the needs of all Portland residents, affordability, and furthers the policy of enabling people who work in Portland to have the option to live in Portland. The project takes advantage of a central, on-peninsula location accessible to public transit and within walking distance to services. Goals and policies of both the state and the city, as described in the strategic plans that comprise Portland's Comprehensive Plan, relevant to the proposal have been included below:



Goal: “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.”

Goal: “Increase, preserve, and modify the overall supply of housing city-wide to meet the needs, preferences and financial capabilities of all Portland residents.”

Goal: “Pursue policies to enable people who work in Portland to have the option to live in Portland.”

7. Adequate financial and technical capacity (Section 14-497(a)(10))

See Section VII above.

8. Whenever situated, in whole or in part, within the watershed of any pond or lake or within 250 feet of any wetland, great pond, or river, will not adversely affect the quality of such body of water or unreasonably affect the shoreline of such body of water (Section 14-497(a)(11))

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

9. Will not, adversely affect the quality and quantity of groundwater (Section 14-497(a)(12))

The proposal does not include making any site changes, and will not result in any changes to the civil plans (Plan 9). Staff find that the previously approved application materials have complied with these standards.

10. Is or is not in a flood-prone area (Section 14-497(a)(13))

Per the FEMA flood maps, the site is not located within a flood zone.

11. Identify all potential wetlands within proposed subdivision (Section 14-497(a)(14))

The site does not include any existing wetlands.

12. Identify any river, stream, or brook within or abutting the proposed subdivision (Section 14-497(a)15)

No river, stream, or brook are located within or abutting the existing site.

XI. SITE PLAN STANDARDS (Section 14-526)

The proposed development has been reviewed by staff for conformance with the relevant review standards of the City of Portland's Site Plan Ordinance, Section 14-526. Staff comments are below.

1. Transportation Standards (Section 14-526(a))**A. Impact on surrounding street systems**

See Section X.1. above for applicable staff comments which address this standard.

B. Access and circulation and Public Transit Access

The proposal does not include making any site changes, and will not result in any amendments to the civil plans (Plan 9). Staff finds that the previously approved application materials have complied with these standards.

C. Parking

The applicant has submitted a license agreement with the adjacent Chestnut Street garage which was reviewed and determined to be acceptable by the City. The project complies with the parking requirements previously approved which were based on the adjacent parking garage making 1 parking space available for each residential unit. The City's consultant Traffic Engineering Reviewer has confirmed that the amendments do not alter the need for changes to prior conditions of approval which required the project to meet the City's requirements. Therefore, no changes to the parking are needed.

D. Transportation demand management (TDM)

The previously approved TDM Plan (Attachment L) incorporated 54 units. Therefore, no changes to the TDM plan are required.

2. Environmental Quality Standards (Section 14-526(b))

The proposal does not include making any site changes, and will not result in any amendments to the civil plans (Plan 9). Staff finds that the previously approved application materials have complied with these standards.

3. Public Infrastructure and Community Safety Standards (Section 14-526(c))**A. Consistency with City Master Plans**

See Section X.6. for review comments complying with this section.

B. Public safety and fire prevention

The proposal does not include making any site changes, and will not result in any amendments to the civil plans (Plan 9). Staff finds that the previously approved application materials have complied with these standards.

C. Availability and capacity of public utilities

Please see Section X.2. and X.4 for compliance with this standard.

4. Site Design Standards (Section 14-526(d))

The proposal does not include making any changes that are applicable to these sections, and will not result in any amendments to the civil and design plans (Plans 9 & 10). Staff finds that the previously approved application materials have complied with these standards.

XII. NEIGHBORHOOD MEETING & PUBLIC COMMENT

Applications involving subdivision of less than five units/lots are not required to conduct a neighborhood meeting (Land Use Code Sec. 14-32(c)).

At the time of writing this report, Planning staff have not received any written public comments.

XIII. STAFF RECOMMENDATION

Subject to the proposed motions and conditions of approval listed below, and pursuant to the waivers and conditions previously approved by the Planning Board, on December 13, 2016 (#2016-184), February 14, 2017, April 17, 2018 (#2018-046), all of which will remain in force, Planning Department staff recommends that the Planning Board approve the amendment of adding two additional residential units, as meeting the applicable standards of Portland's Land Use Code.

XIV. PROPOSED MOTIONS

The approved waivers and conditions approved by the Planning Board on December 13, 2016 (2016-184) and amended on April 17th, 2018 (2018-046) remain in force with the exception of the following amendments:

A. INCLUSIONARY ZONING CONDITIONAL USE

On the basis of the application, plans, reports and other information submitted by the applicant, findings and recommendations contained in the Planning Board Report for the public hearing on October 12, 2021 for application #PL-001611-2021 relevant to Portland's Inclusionary Zoning Conditional Use Standards and other regulations, and the testimony presented at the Planning Board hearing, the Planning Board [**finds/does not find**] the proposed conditional use for workforce housing meets the standards of Section 14-487 with the following condition(s), to be met prior to issuance of a Certificate of Occupancy:

PRIOR TO ISSUANCE OF CERTIFICATE OF OCCUPANCY

1. The applicant shall pay an agreed upon fee-in-lieu of \$587,444 into the City's Housing Trust Fund prior to issuance of the certificate of occupancy, *or as an alternative to paying a fee-in-lieu, the applicant may provide the workforce housing on-site.*

B. SUBDIVISION REVIEW

On the basis of the application, plans, reports and other information submitted by the applicant, findings and recommendations contained in the Planning Board Report for the public hearing on October 12, 2021 for application #PL-001611-2021 relevant to the subdivision regulations, and the testimony presented at the Planning Board hearing, the Planning Board [**finds/does not find**] that the plan is in conformance with the subdivision standards of the Land Use Code.

C. SITE PLAN REVIEW

On the basis of the application, plans, reports and other information submitted by the applicant; findings and recommendations contained in the Planning Board Report for the public hearing on October 12, 2021 for application #PL-001611-2021 relevant to the site plan regulations; and the testimony presented at the Planning Board hearing, the Planning Board [**finds/does not find**] that the plan is in conformance with the site plan standards of the Land Use Code .

XV. ATTACHMENTS

Report Attachments

1. Memo from Housing Program Manager, dated 9-30-2021
2. Planning Board Approval Letter (12-13-2016)
3. Planning Board Approval Letter (2-14-2017)
4. Planning Board Approval Letter (4-17-2018)
5. Planning Board Approval Letter (10-27-2020)
6. Wastewater Capacity Letter, dated 10.6.2021
7. Comments from Traffic Reviewer, dated 10.4.2021

Applicant's Submittal

- A. Project Description
- B. Site Plan Standards Narrative
- C. Subdivision Standards Narrative
- D. Summary of Easements
- E. Amendment Checklist
- F. Parking License
- G. Zoning Analysis Table
- H. Technical Ability
- I. Financial Capacity
- J. Deed
- K. PWD Ability to Serve Determination
- L. Approved TDM Plan (12-13-2016)

Plans

- Plan 1. A1.01 - First Floor Plan
- Plan 2. A1.02 – Second Floor Plan

- Plan 3. A2.00 - Building Elevation
- Plan 4. A2.01 - Building Elevation
- Plan 5. A2.02 - Building Elevations
- Plan 6. C1.1 - Subdivision Plan
- Plan 7. C1.1a - Subdivision Plan
- Plan 8. C1.1b - Subdivision Plan
- Plan 9. Approved Civil Plan Set (Amended 5-15-2020)



To: Brandon Mazer, Chair, Portland Planning Board

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

Date: September 30, 2021

Subject: 75 Chestnut Street – Inclusionary Zoning Conditional Use Amendment

Please note, 75 Chestnut Street is entitled to consideration under Division 30 regulations in effect as of the date of the September 13, 2016 Planning Board Public Hearing further defined as follows.

All developments of ten (10) units or more are conditional uses subject to Planning Board review on the condition that they comply with the requirements set forth in Division 30, Section 14-487 of the Zoning Ordinance.

Division 30, Section 14-487, Ensuring Workforce Housing, requires at least ten percent (10%) of the dwelling units in the development shall meet the definition of Workforce Housing units for sale or for rent. The number of units required is rounded down to a whole number whether the Workforce Units are provided on or off-site. As an alternative to providing workforce housing units, developers shall pay a fee-in-lieu of some or all of the units. A fractional fee-in-lieu would result when the calculation of a project's inclusionary obligation results in a fractional unit. The fee for affordable units not provided shall be \$100,000 per unit, adjusted annually in the same way as the fee under Division 29 for Housing Replacement. The in-lieu fee shall be paid into the Housing Trust Fund as defined in Sec. 14-489, on or before the date upon which a certificate of occupancy is issued.

On April 17, 2018, the Planning Board considered the Level III Subdivision and Site Plan application for an amendment to the proposals approved on December 13, 2016 and February 14, 2017. The amended proposals included a new 7-story building comprising of 52 residential apartments (rental), and one commercial unit at 75 Chestnut Street. The Inclusionary Zoning conditions approved by the Planning Board on December 13, 2016 (#2016-184) remain in force. During the December 13, 2016 Planning Board hearing, the applicant proposed the creation of 55 units of rental housing with six on-site workforce units (two studio units/one one-bedroom unit/three two-bedroom units). The Planning Board voted unanimously (7-0) that the conditional use was in conformance with the standards of the land use code and approved the conditional use application, subject to the following conditions of approval:

- i. Provided the Applicant and the City enter into an Affordable Housing Agreement (AHA) before a Building Permit may be issued.
- ii. The AHA will outline the details of the affordability restrictions placed on the workforce units and will be filed as a covenant to the 75 Chestnut Street property's deed with the Cumberland

County Registry of Deeds before a Certificate of Occupancy may be issued.

On October 27, 2020, the Planning Board considered the Level III Subdivision and Site Plan application for an amendment to the proposals approved on April 17, 2018, February 14, 2017, and December 13, 2016. The amendment to the most recently-approved Inclusionary Zoning condition of approval was a request to amend the Inclusionary Zoning Conditional Use approval to allow the applicant to fulfill the Inclusionary Zoning requirements by paying a fee-in-lieu based on the creation of 52 dwelling units. The proposed Inclusionary Zoning Conditional Use was amended to require a payment of \$565,687 (5.2 x \$108,786) into the City's Housing Trust Fund in-lieu of the creation of actual housing units for workforce households.

The applicant is now requesting an amendment to the October 27, 2020, April 17, 2018, February 14, 2017 and December 13, 2016 Planning Board approvals to amend the Inclusionary Zoning Conditional Use approval to reflect a change in the number of residential units from 52 to 54 units. The proposed project would thus be required to pay a total fee of \$587,444 (5.4 x \$108,786) into the City's Housing Trust Fund in-lieu of the creation of actual housing units for workforce households. As such, the project has met the minimum requirements set forth in Section 14-487.

Staff recommends the Planning Board Approve the amended Inclusionary Zoning Conditional Use provided the Applicant agrees to pay a fee-in-lieu of \$587,444 into the City's Housing Trust Fund on or before the date upon which a certificate of occupancy is issued.

Revised Motion for the Board to Consider:

On the basis of the application, plans, reports and other information submitted by the applicant; findings and recommendations contained in the Planning Board Report for the public hearing on October 12th, 2021 for application #PL-001611-20021 (75 Chestnut Street) relevant to the Conditional Use as authorized by Division 30, Section 14-487 Ensuring Workforce Housing; and the testimony presented at the Planning Board hearing:

The Planning Board finds the conditional use **(is/is not)** in conformance with the standards of the land use code and **(approves/does not approve)** the conditional use application, subject to the following condition of approval:

Prior to the Issuance of a Certificate of Occupancy

1. The applicant shall pay an agreed upon fee-in-lieu of \$587,444 into the City's Housing Trust Fund prior to issuance of the certificate of occupancy.

Attachment

1st Amended Subdivision Plan, revised on 5/6/2021

CITY OF PORTLAND, MAINE
PLANNING BOARD

Att. 2

Elizabeth Boepple, Chair
Sean Dundon, Vice Chair
Carol Morrisette
David Eaton
Kristien Nichols
Lisa Whited
Maggie Stanley

December 16, 2016

Lou Woods
A&M Partners Inc
120 Exchange Street
Portland ME 04101

Thomas S Greer, P.E.
Pinkham & Greer, Civil Engineers
28 Vannah Avenue
Portland ME 04103

Project Name: **Westerlea View Lofts: 54 unit residential development plus 1 commercial space**
Project ID: #2016-184 (Subdivision & Site Plan) and
#2016-185 (Conditional Use Inclusionary Zoning)
Address: 75 Chestnut Street CBL: 26/E/10
Applicant: A&M Partners Inc
Planner: Jean Fraser

Dear Sirs:

On December 13, 2016, the Planning Board considered a proposal for a new 7 story building comprising 54 residential apartments (rental), and one commercial unit, totaling approximately 75,800 sq ft, located at 75 Chestnut Street. One parking space per residential unit is proposed to be located in the existing abutting parking garage for the tenants of the new building, and the project also includes a landscaped amenity area. The Planning Board reviewed the proposal for conformance with the standards of the Subdivision, Site Plan, B-7 Zone and Inclusionary Zoning.

The Planning Board voted 7-0 to approve the application with the following waiver and conditions as presented below:

A. WAIVER

On the basis of the application, plans, reports and other information submitted by the applicant; findings and recommendations contained in the planning board report for the public hearing on December 13, 2016 for application 2016-184 (75 Chestnut Street) relevant to Portland's technical and design standards and other regulations; and the testimony presented at the planning board hearing:

1. The planning board voted 7-0 that it finds that the applicant has demonstrated that site constraints prevent the planting of all required street trees in the right-of-way. The planning board waives the site plan standard (*Section 14-526 (b) (iii)*) requiring one street tree per unit for multi-family development and concludes that the applicant shall contribute \$6,400 to Portland's tree fund.

B. SUBDIVISION

On the basis of the application, plans, reports and other information submitted by the applicant; findings and recommendations contained in the planning board report for the public hearing on December 13, 2016 for application 2016-184 (75 Chestnut Street) relevant to the subdivision regulations; and the testimony presented at the planning board hearing, the planning board voted 7-0 that the plan is in conformance with the subdivision standards of the land use code and approves the application, subject to the following conditions of approval, which must be met prior to the signing of the plat:

- i. The applicant shall submit a final subdivision plat for review and approval by Corporation Counsel, the Department of Public Works, and the Planning Authority;
- ii. The applicant shall provide drafts of all necessary easements, including but not limited to:
 - a. Temporary construction easement from the City of Portland to Westerlea View Lofts;
 - b. License from the City of Portland to Westerlea View Lofts for building footings;
 - c. Easement(s) for the deck extensions above the existing parking garage structures (air rights);
 - d. Access easement for sidewalks that are on the site property;
 - e. Easement or other legal document to secure required parking for the residential units;for review and approval by Corporation Counsel, the Department of Public Works, and the Planning Authority, with evidence of executed easements to be submitted prior to the issuance of a building permit.

C. SITE PLAN

On the basis of the application, plans, reports and other information submitted by the applicant, findings and recommendations contained in planning board report for the public hearing on December 13, 2016 for application 2016-184 (75 Chestnut Street) relevant to the Site Plan Ordinance and other regulations and the testimony presented at the Planning Board hearing:

The Planning Board voted 7-0 that the plan is in conformance with the site plan standards of the land use code, subject to the following conditions:

- i. That final proposals shall comply with the B7 Design Standards A-2, A-5, C-2, E-1 and E-3, particularly addressing:
 - a. Articulated roofline;
 - b. Massing and scale to transition and integrate with the residential context on Chestnut Street;
 - c. Pedestrian experience on Chestnut Street; and
 - d. Materiality;to be reviewed and approved by the Planning Board.
- ii. That the project is subject to the submitted Transportation Demand Management Plan dated October 2016, to include annual monitoring studies that comply with the requirements set out in the comments of the Traffic Engineering reviewer Tom Errico dated 12.9.2016; and
- iii. That the applicant submit a revised and more detailed plan for the amenity area between the building and Lancaster Street that demonstrates that the safety and security of the area meets CPTED standards eg re lighting, visual surveillance and similar issues including landscape features; and

- iv. That the applicant and all assigns shall comply with the conditions of Chapter 32 stormwater including Article III, post-construction storm water management, which specifies the annual inspections and reporting requirements. The developer/contractor/subcontractor must comply with conditions of the submitted construction stormwater management plan and sediment and erosion control plan dated 9.30.2016 based on City standards and State guidelines. A Maintenance Agreement for the stormwater drainage system shall be approved by Corporation Counsel and the Department of Public Works, and submitted, signed and recorded prior to the issuance of a Certificate of Occupancy with a copy to the Department of Public Works; and
- v. That plans showing details for the areas listed below shall be submitted to the Planning Authority for review and approval prior to the issuance of a building permit:
 - a. Patio/entrances on Oxford Street
 - b. Doors for entrance to parking garage on Chestnut Street
 - c. Decks over parking lot
 - d. Live-work unit
 - e. Parking layout (dimensioned) for ADA spaces and demonstration that it meets applicable state and federal standards regarding ADA van parking.
- vi. That the applicant shall revise plans and provide design details for the following elements in the City's Right of Way, for review and approval prior to the issuance of a building permit:
 - a. Driveway aprons on Oxford Street and Lancaster Street, noting a pedestrian accessibility route with a maximum 2% cross-slope, and whether full or partial adjustment to the grade of the driveway apron is required;
 - b. Grading adjustments for the sidewalk ramp construction at the corner of Chestnut Street and Lancaster Street to address the ponding of water that currently impacts the pedestrian walking route; and
 - c. The provision of an underground lighting conduit as part of the sidewalk reconstruction along the lot frontage on Oxford Street.
- vii. That the applicant shall submit details of the location, design and screening of façade and rooftop external heating, ventilation and other mechanical equipment, and associated information to document the sound levels meet the City's Site Plan, Zoning and Technical Standards, for review and approval by the Planning Authority; and
- viii. That the applicant address the Fire Department comments dated 9.7.2016; and
- ix. That the proposed building mounted wall sconces shall be installed so that the light is directed downward.

D. INCLUSIONARY ZONING CONDITIONAL USE

On the basis of the application, plans, reports and other information submitted by the applicant; findings and recommendations contained in the Planning Board Report for the public hearing on December 13, 2016 for application 2016-185 (75 Chestnut Street) relevant to the Conditional Use as authorized by Division 30, Section 14-487 Ensuring Workforce Housing; and the testimony presented at the planning board hearing, the planning board voted 7-0 that the Conditional Use is in conformance with the standards of the land use code and approves the application, subject to the following conditions of approval: *(continued)*

- i. Provided the Applicant and the City enter into an Affordable Housing Agreement (AHA) before a Building Permit may be issued.
- ii. The AHA will outline the details of the affordability restrictions placed on the workforce units and will be filed as a covenant to the 75 Chestnut Street property's deed with the Cumberland County Registry of Deeds before a Certificate of Occupancy may be issued.

The approval is based on the submitted plans and the findings related to site plan review standards as contained in the Planning Report for application #2016-184 and #2016-185, which is attached.

STANDARD CONDITIONS OF APPROVAL

Please note the following standard conditions of approval and requirements for all approved site plans:

1. **Subdivision Recording Plat** A revised recording plat listing all conditions of subdivision approval must be submitted for review and signature prior to the issuance of a performance guarantee. The performance guarantee must be issued prior to the release of the recording plat for recording at the Cumberland County Registry of Deeds.
2. **Subdivision Waivers** Pursuant to 30-A MRSA section 4406(B)(1), any waiver must be specified on the subdivision plan or outlined in a notice and the plan or notice must be recorded in the Cumberland County Registry of Deeds within 90 days of the final subdivision approval).
3. **Develop Site According to Plan** The site shall be developed and maintained as depicted on the site plan and in the written submission of the applicant. Modification of any approved site plan or alteration of a parcel which was the subject of site plan approval after May 20, 1974, shall require the prior approval of a revised site plan by the Planning Board or Planning Authority pursuant to the terms of Chapter 14, Land Use, of the Portland City Code.
4. **Separate Building Permits Are Required** This approval does not constitute approval of building plans, which must be reviewed and approved by the City of Portland's Permitting and Inspection Division.
5. **Site Plan Expiration** The site plan approval will be deemed to have expired unless work has commenced within one (1) year of the approval or within a time period up to three (3) years from the approval date as agreed upon in writing by the City and the applicant. Requests to extend approvals must be received before the one (1) year expiration date.
6. **Subdivision Plan Expiration** The subdivision approval is valid for up to three years from the date of Planning Board approval.
7. **Performance Guarantee and Inspection Fees** A performance guarantee covering the site improvements, inspection fee payment of 2.0% of the guarantee amount and six (6) final sets of plans must be submitted to and approved by the Planning Division and Public Works Department prior to the release of a subdivision plat for recording at the Cumberland County Registry of Deeds, and prior to the release of a building permit, street opening permit or certificate of occupancy for site plans. If you need to make any modifications to the approved plans, you must submit a revised site plan application for staff review and approval.
8. **Defect Guarantee** A defect guarantee, consisting of 10% of the performance guarantee, must be posted before the performance guarantee will be released.

9. **Preconstruction Meeting** Prior to the release of a building permit or site construction, a pre-construction meeting shall be held at the project site. This meeting will be held with the contractor, Development Review Coordinator, Public Work's representative and owner to review the construction schedule and critical aspects of the site work. At that time, the Development Review Coordinator will confirm that the contractor is working from the approved site plan. The site/building contractor shall provide three (3) copies of a detailed construction schedule to the attending City representatives. It shall be the contractor's responsibility to arrange a mutually agreeable time for the pre-construction meeting.
10. **Department of Public Works Permits** If work will occur within the public right-of-way such as utilities, curb, sidewalk and driveway construction, a street opening permit(s) is required for your site. Please contact Carol Merritt at 874-8300, ext. 8828. (Only excavators licensed by the City of Portland are eligible.)
11. **As-Built Final Plans** Final sets of as-built plans shall be submitted digitally to the Planning Division, on a CD or DVD, in AutoCAD format (*.dwg), release AutoCAD 2005 or greater.
12. **Mylar Copies** Mylar copies of the as-built drawings for the public streets and other public infrastructure in the subdivision must be submitted to the Public Works Department prior to the issuance of a certificate of occupancy.

The Development Review Coordinator must be notified five (5) working days prior to the date required for final site inspection. The Development Review Coordinator can be reached at the Planning Division at 874-8632. All site plan requirements must be completed and approved by the Development Review Coordinator prior to issuance of a Certificate of Occupancy. Please schedule any property closing with these requirements in mind.

If there are any questions, please contact Jean Fraser at (207) 874- 8728.

Sincerely,



Elizabeth Boepple, Chair
Portland Planning Board

Attachments:

1. Final B7 Design Review comments dated December 5, 2016
2. Fire Department comments dated December 13, 2016
3. Planning Board Report
4. City Code, Chapter 32
5. Sample Stormwater Maintenance Agreement
6. Performance Guarantee Packet

Electronic Distribution:

Jeff Levine, AICP, Director of Planning and Urban Development
Stuart O'Brien, City Planning Director
Barbara Barhydt, Development Review Services Manager
Jean Fraser, Planner
Philip DiPierro, Development Review Coordinator, Planning
Mike Russell, Director of Permitting and Inspections
Ann Machado, Zoning Administrator, Inspections Division
Jonathan Rioux, Inspections Division Deputy Director
Jeanie Bourke, Plan Reviewer/CEO, Inspections Division
Chris Branch, Director of Public Works
Katherine Earley, Engineering Services Manager, Public Works
Bill Clark, Project Engineer, Public Works

Doug Roncarati, Stormwater Coordinator, Public Works
Greg Vining, Associate Engineer, Public Works
Michelle Sweeney, Associate Engineer, Public Works
John Low, Associate Engineer, Public Works
Rhonda Zazzara, Field Inspection Coordinator, Public Works
Jeff Tarling, City Arborist, Public Works
Jeremiah Bartlett, Public Works
Keith Gautreau, Fire Department
Danielle West-Chuhta, Corporation Counsel
Thomas Errico, P.E., TY Lin Associates
Lauren Swett, P.E., Woodard and Curran
Rick Blackburn, Assessor's Department
Approval Letter File



Planning and Urban Development Department Planning Division

Subject: B7 Design Review – 75 Chestnut Street

Written by: Caitlin Cameron, Urban Designer

Date of Review: Monday, December 5, 2016

Design Review Criteria:

The project must meet the B-7 *Mixed Use Urban District Zone Design Principles & Standards* (Appendix 4 of the Design Manual).

Findings of the Design Review:

Below are the standards relevant to the Planning Board comments from the September 13, 2016 and October 18, 2016 workshops with staff comment. Those standards not listed in this memo are either met or not applicable.

Staff recommends a condition of approval that states: That final compliance with Design Standards A-2, A-5, C-2, D-1, D-4, E-1, E-3, E-4 shall be reviewed and approved by Planning staff to address the staff design comments dated 12.9.16 which primarily relate to material placement and design of the pedestrian realm.

Principle A: Urban Design

All development in Bayside shall be designed to create a strong urban identity and sense of place. Buildings may be a variety of architectural styles, particularly those that are innovative and express the aesthetic of the time in which they were built, and shall be organized according to principles of urban design that integrate with the urban fabric of surrounding neighborhoods and Portland as a whole. These principles shall . . . ensure sensitive transitions to surrounding neighborhoods, enhance the physical amenities of the neighborhood, and create a pedestrian oriented environment with safe and vital streets.

A-2: Edges and Transitions – *Transitions between larger scale, mixed use buildings and smaller-scale residential uses shall be designed so that there is a seamless connection to adjacent residential neighborhoods to ensure that these zones remain stable, quiet, and secure. This shall be achieved through the mitigation of height, massing, setbacks, materials, and details and design of the façade at the pedestrian level. . . . Larger scale developments may use public open spaces to provide transitions to lower scale uses.*

- To address the standard and the board comment, the applicant modified the massing on the Oxford Street façade. The revisions result in a graduated massing that places a four-story mass at the street, of similar scale and proportion to the residential architecture around it. The changes in plane are accentuated with changes in material. The façade continues to have a “secondary” presence on the street – Chestnut Street being the principal façade with the primary residential entrance. The secondary aspect of the façade is reflected in the design of the door and the smaller, elevated windows at the street to indicate the private use.
- On Chestnut Street, the detail and design of the façade at the pedestrian level should be strengthened to improve the sense of scale through revisions to material placement and the addition of articulation elements that relate to the pedestrian realm experience (Standards E-1, E-3, E-4).

A-5: Pedestrian Environment – *Development on public streets or public spaces shall be human scale at the pedestrian level and enhance the pedestrian environment through the use of elements at the first floor such as . . . fully functioning entries oriented to the street; active windows and storefronts; awnings and weather protection; outdoor seating and sales displays; adequately sized sidewalks; gathering spaces; trees and landscaping; street furniture; . . .*

- The project uses fenestration at the ground levels, entrances emphasize with canopies and material change, and open space at the end of the block.
- Where the standard is still not met is the detail and design of the building façade at the ground level. Little to no massing or façade variation is used to differentiate the ground floor – the result is a flat façade for the full 6 stories of the building. The staff recommends that the architecture team further articulate and detail the pedestrian level to create a sense of enclosure and the placement of materials to reflect the uses rather than arbitrary placement. These comments also apply to Standard E-1 Architectural Design, E-3 Massing, and E-4 Articulation.

A-7: Building Orientation – *The primary facades and entrances of buildings shall be oriented to streets, major pedestrian routes, or open spaces in order enhance the pedestrian-oriented environment.*

- The project faces onto two streets and is set close to the property line.
- Chestnut Street is treated like the primary façade with the primary residential entrance. Oxford Street is the secondary façade but addresses the street with a minor residential entrance, some visual interest and massing variation, and a maintenance of the street wall.

Principle C: Parking, Loading and Service Areas

C-2: Parking Entrances – *The entrance to parking garages shall respect the pedestrian realm and minimize the visual impact of the garage . . .*

- For CPTED concerns, staff recommended that the design of the “tunnel” to the garage entrance on Chestnut Street be revised – the applicant has addressed the concern by adding a gate at the façade. However, the design of that gate and vehicle entrance/exit should be clarified so as to not encroach on the sidewalk/pedestrian path. Car stacking should also be considered in the placement of the gate.

Principle D: Open Space and the Public Realm

D-1: Open Space Design – *Publicly-accessible parks, plazas, and other open space shall be accessible from sidewalks and surrounding buildings. . . . Pedestrian amenities such as seating, lighting, artwork, trash receptacles, etc. shall be compatible with the City’s Streetscape Standards for Bayside. . . . Solar access, wind protection, and landscaping shall be considered to enhance pedestrian comfort and provide a variety of sunny and shaded areas.*

- It is not clear whether the open space provided is accessible from the sidewalk. The space shown as plaza and seating is visible from the sidewalks, streets, and buildings as required by the standard. The amenity provided appears to be a paved area with seating that is under shade, and additional landscaping throughout the space. No lighting is proposed.

D-4: Pedestrian Amenities – *Pedestrian amenities shall comply with the City’s Technical Manual at a minimum, and also with the streetscape standards selected for Bayside.*

- Seating: One linear foot of seating for each thirty (30) square feet of open space, or 30 linear feet of pedestrian route shall be provided within publicly accessible open space.
- It is not clear whether the seating proposed in the open space meets this standard – what kind of seating and what linear feet of seating are proposed?

Principle E: Architectural Design

New development shall create a mixed-use, pedestrian-friendly setting that contributes to the context of the surrounding urban fabric and provides a sensitive transition to adjacent residential neighborhoods. . . . The scale, massing, and fenestration of new development shall reflect its context, . . .

E-1: Architectural Design – *New development in Bayside may be a variety of architectural styles, . . . and shall be organized according to principles of urban design that integrate with the urban fabric of surrounding neighborhoods and Portland as a whole. A respectful integration of contemporary design within the existing context shall complement, reinforce, and enhance the prevailing patterns and proportions of adjacent buildings without requiring imitation or repetition.*

- Overall, staff does not find the placement of materials to be contextual. In some cases, the materials correspond to the massing or use, but in other cases, materials change at corners or in arbitrary ways that result in a patchwork quilt effect that does not benefit the overall design nor does it relate to the pattern or use of materials in the context. Staff recommends a simplification of material placement (example below). Visual interest should be achieved through articulation rather than a material pastiche.

E-2: Height – *Heights along the edges of the B-7 Zone shall transition to the scale of adjacent neighborhood development through design elements such as variations in massing; articulation of the facades in intervals that reflect exiting structures or platting pattern, stepping the architecture to adjacent buildings and/or contextual proportions of building elements, use of architectural style and details such as roof lines, belt courses, cornices, or fenestration, and color or materials that derive from the less intensive zone.*

- The Planning Board's concerns regarding transition of height have been addressed by the revisions to the Oxford Street façade.

E-3: Massing – *Large expanses of undifferentiated façade or uniform cladding is not allowed along public rights of way. . . . The composition of a proposed building façade shall be defined by horizontal and vertical articulation, with vertical articulation being predominant, in keeping with the local context of the urban form.*

- As stated above, little to no massing or façade variation is used to differentiate the ground floor – the result is a flat façade for the full 6 stories of the building.

New buildings that are four stories or higher shall have three components: base, middle, and top.

- The base of the building should be more consistently defined, especially on the Chestnut Street side. At this point, that can best be achieved through articulation, material placement and detailing. The corner, double-height live-work unit could also be more substantially differentiated from the other masses of the building.

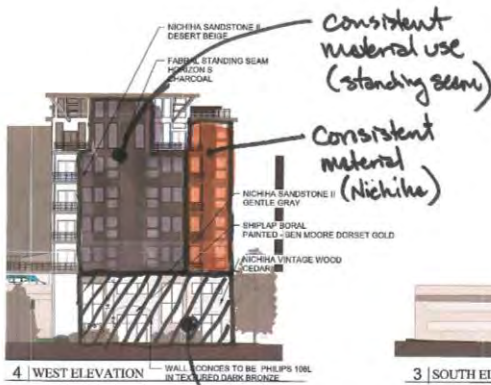
E-4: Articulation – *Facades visible from public rights of way shall incorporate design elements that break the facades into components scaled to the pedestrian, and to the context of other buildings on the street. This may be accomplished through an expression of the building's base, middle and top, vertical fenestration, variation in the planes of the façade, architectural details such as windows, doors, bays, balconies, cornices, reveals, expansion joints, trim, changes in color, texture, and material, permanent artwork, etc.*

- The project uses fenestration at the ground levels, entrances emphasize with canopies and material change, recessed bays at the upper floors, and open space at the end of the block.

The base of the building which relates to the pedestrian realm shall be designed with a high level of detailing and material quality utilizing the options listed above. . . . Buildings which are six and seven stories shall meet this standard on the first 24 feet, or the first two floors at a minimum.

- The level of detail and articulation on the Chestnut Street elevation is not sufficient, especially at the street level. Material changes are mostly arbitrary and other than at the entrance, do not correspond to uses or plane changes. Revisions to meet this standard could come in form of enclosure; articulation and detail (reveals, dimensional trim, material transitions, detail); placement of material that corresponds with uses

[see sketch next page]



Consistent material use differentiating this corner unit

Ped level articulation + match floor plans

MEMORANDUM

To: FILE

From: Jean Fraser

Subject: Application ID: 2016-184

Date: 12/13/2016

Comments Submitted by: Keith Gautreau/Fire on 9/7/2016

Fire Department Access shall have an unobstructed vertical clearance of not less than 13 ft 6 in. We will NOT be requiring this vertical clearance as emergency vehicles will not be entering the parking garage

Comments Submitted by: Keith Gautreau/Fire on 9/7/2016
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 4 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 9/7/2016

Emergency vehicle access is two sides only, Chestnut and Oxford. This is acceptable to the Fire Dept although because of the arrangement and height of the building I would like to require the overhead power line on Chestnut Street going to the transformer to be underground. This will drastically restrict the Aerial Ladder trucks operation at this proposed site.

Comments Submitted by: Keith Gautreau/Fire on 9/7/2016

I would like to see a letter from the Portland Water District of their ability to serve domestic and fire protection demand for the proposed high rise building.

Comments Submitted by: Keith Gautreau/Fire on 12/12/2016

I have received the Ability to Serve letter from PWD and the Authority Having Jurisdiction accepts.



PLANNING BOARD REPORT PORTLAND, MAINE

Westerlea View Lofts: 54 unit residential development plus 1 commercial space

75 Chestnut Street

Level III Subdivision and Site Plan
Conditional Use Inclusionary Zoning

A&M Partners Inc, Applicant

Project #2016-184 (Subdivision & Site Plan) Project
#2016-185 (Conditional Use Inclusionary Zoning) CBL:
26/E/10

Submitted to: Portland Planning Board Public Hearing Date: December 9 th , 2016	Prepared by: Jean Fraser, Planner Date: December 13 th , 2016
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I. INTRODUCTION

A&M Partners Inc have requested a final review of the proposed Westerlea View Lofts on Chestnut Street. A preliminary Level III Site Plan and Subdivision application was submitted at the end of July and the Planning Board has held two Workshops (9.13.16 and 10.18.16)

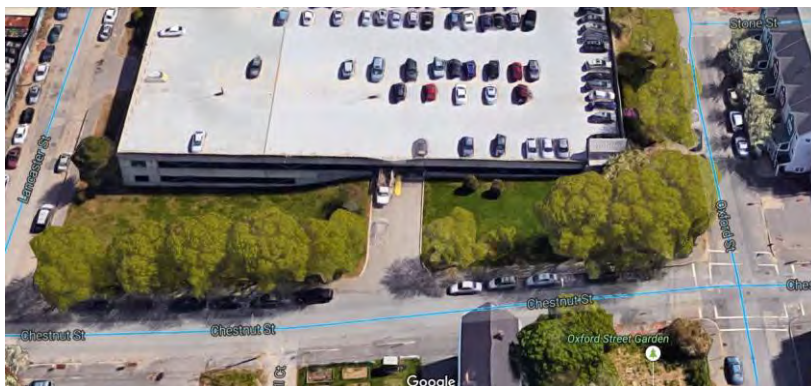
The project is located at the corner of Chestnut Street and Lancaster Street in the B7 zone. The proposal is for a 7 story 54 unit residential building (plus one commercial unit) to be constructed on part of the open area surrounding the Chestnut Street parking garage.

The proposal is subject to the Inclusionary Zoning ordinance and a separate conditional use application was submitted for review which proposes 5 units to meet the definition of workforce housing units.

The site abuts the R6 zone along Chestnut and Oxford Streets and is currently an amenity area comprising 10 mature locust street trees and an access drive to the middle level of the parking garage. The building would be constructed over the garage access.

Applicant: Lou Wood, A & M Partners, Inc
Agent and Engineer: Tom Greer, Pinkham & Greer
Architect: William Hopkins, Archetype

Required reviews and waivers:



Applicant's Proposal	Applicable Standards
New structure of 54 dwelling units	Subdivision Review
Multifamily building of 75,800 sq ft	Level III Site Plan Review and B-7 Design Review
New structure of 54 dwelling units	Inclusionary Zoning Section "Ensuring Workforce Housing" 14-487

Waiver Requests	Applicable Standards
Street trees – project includes 22 street trees, less than required (this application came in prior to the Amendment to the waiver provisions)	Site Plan Standard, <i>Section 14-526(b)2.b(iii)</i> and Technical Manual, <i>Section 4.6.1</i> . All multi-family development shall provide one street tree per unit. Waiver permitted where site constraints prevent it, to allow contribution of a proportionate amount to Tree Fund. <i>54 units less 22 street trees proposed or existing = 32 street trees required; contribution of \$6400 recommended, as the submission was prior to the new ordinance and technical standards regarding street trees.</i>

II. PROJECT DATA

SUBJECT	DATA
Existing Zoning	B-7
Existing Use	Parking garage and open, landscaped surrounds
Proposed Use	54 residential units & 1 commercial unit
Parcel Size	92,202 sq ft
Impervious Surface Area	
--Existing	53,832 sq ft
--Proposed	64,796 sq ft
--Net Change	10,964 sq ft
Total Disturbed Area	22,309 sq ft
Building Footprint	
--Existing	49,326 sq ft
--Proposed	59,126 sq ft
--Net Change	9,800 sq ft
Building Floor Area	
--Existing	147,978 sq ft (existing garage)
--Proposed	223,778 sq ft
-Net Change	75,800 sq ft
Residential	
- # of Existing Res. Units	0
- # of proposed Res. Units	54
- # of lots	2
- # of affordable housing units	6
Proposed Bedroom Mix	
-Efficiency Units	2
One-Bedroom Units	14
Two-Bedroom Units	38
Three-Bedroom Units	0
Parking Spaces	446 existing in garage, of which 54/55 spaces (1:1) proposed for tenants
Handicapped Spaces	2
Bicycle parking Spaces	44 (36 inside; 8 outside) (none existing)
Estimated Cost of the project:	\$5,850,000

III. EXISTING CONDITIONS

The proposal site abuts the west side of the 2-3 story parking garage, with the main frontage of the new building along Chestnut Street. The site slopes downhill about 20 feet from Oxford Street to Lancaster Street.

The building is proposed to be at the “top” of the slope at the corner of Chestnut and Oxford Streets and next to the pedestrian steps leading to the top deck of the parking garage- see photos right and below.



Corner of Oxford and Chestnut Streets



Looking towards site from garage deck

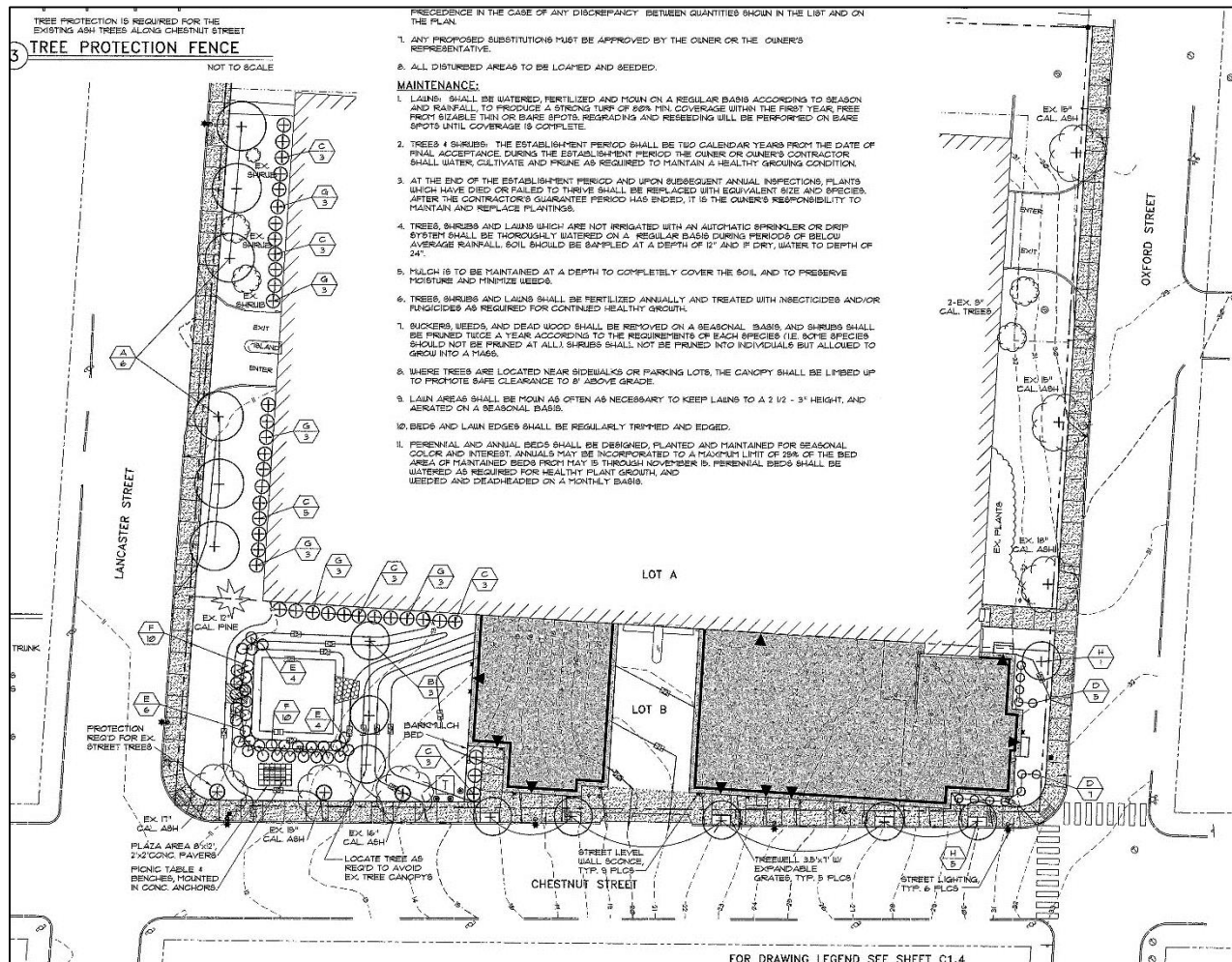
IV. PROPOSED DEVELOPMENT

The proposals in terms of the site layout have changed slightly by relocating the footprint 10 feet further away from Oxford Street ([Plan P4 Site Plan](#)). The proposed 7 story building abuts the parking garage and is built over the drive access to the garage. The main entrance to the building faces Chestnut Street and is located just uphill from the garage access drive. There is also an entrance from the parking lot to the elevator lobby and seven secondary entrances to specific units or rooms (eg community room) ([see Floor Plan in Plan P14](#)).

The sidewalk along Lancaster, Chestnut and Oxford Streets (ie whole of the lot) is proposed to be rebuilt in concrete based on the City’s new sidewalk materials standard. It was widened to 8 feet as recommended by staff and supported by the Board at the first Workshop. Seven of the ten existing mature trees along Chestnut would be removed ([Plan P2](#)) but the revised proposals add in 15 street trees along Lancaster, Chestnut and Oxford Streets.

The new building would provide 54 apartment units; these are understood to be market-rate apartments with the exception of 6 units proposed to meet the definition of “Work Force” housing. In addition, there is a 2-level unit next to the garage access drive that is considered commercial although it has been suggested it may be a “live-work”. It totals approximately 3550 sq ft., with an entrance on Chestnut Street and from the common amenity space on the north side. The first full level of apartments (floor 3) have cantilevered decks out over the top deck of the parking garage (see elevations, [Plan P13](#)), and a total of 42 units have balconies.

Final Landscape Plan (Plan P6):



V. PUBLIC COMMENT AND WORKSHOP DISCUSSIONS

This hearing was noticed to 160 neighbors and interested parties, and the public notice appeared in the *Portland Press-Herald* on December 5 & 6, 2016. The applicant held a Neighborhood Meeting on August 31, 2016. The Planning Division received two public comments from Louis Christen (PC1 and PC2) who is concerned that the building does not respect the nearby much lower buildings and should be lower.

As indicated in the table below the applicant has addressed most of the neighbor, staff and Planning Board comments although the footprint, general massing and maximum height have not been revised.

Issues raised at Workshops	Information/revisions submitted/included
Building needs better engagement with the community/street	Community room identified in ground level; re-orientation of entrance to live/work space so from Chestnut
Concern re height in context of neighborhood-transition to surrounding lower heights and public comment request to remove one floor	Neighborhood Architectural Overview (Attachment M) with sections and renderings and floorplans- overall massing has not changed except for stepbacks on Oxford Street elevation
Concern re siting and massing of building re R6; Oxford elevation seems like the "back"	Moved 10 ft from Oxford Street with additional stepbacks at upper levels on Oxford St elevation
Concern about design- using colors to break up bulk; lack of urban scale at street	Updated re entrances and one color for apartment walls (see Att. M)
Windows/apartments at ground level - Oxford facing apartments might better be a different use	Remain as apartments, but with entrances direct from Oxford Street sidewalk.
Street trees	Removing 7 existing and replaced with 5 new ones on Chestnut, plus adding 10 additional street trees on the lot

Site Landscape- screen blank wall of garage	Added viburnum along base of garage
Site landscape- outdoor recreational space- design and security	Added steel slatted picnic table on paved area
Site landscape- adding green elements	Trees and planting have been added- see Plan P6 .
Traffic safety analysis Lancaster and Chestnut	Submitted
Information about parking supply /demand /management	Attachment O provides additional information
Sidewalks- need to be widened to at least 8 feet	Sidewalks widened to 8 feet
Sidewalks- extend replacement to Lancaster & Oxford	Concrete sidewalk (as allowed under new standards, all at 8 ft wide) extended along all street frontages of larger (garage) site)
Street lighting	Added 6 street lights (Bayside medium) along Chestnut and Lancaster
ROW- ADA ramps at corners	Revised to meet staff recommendations
Stormwater - Peer Engineer comments	Addressed all comments except re PWD capacity letter
Clarification of external mechanicals on facades	Not specifically addressed
Parking- allow residents without car to have a rebate instead of parking space	The Traffic engineering reviewer considers this has been addressed (Attachment 5).
Bike parking- some inside and some on street for visitors	36 inside; 8 outside

VI. STAFF REVIEW

A. ZONING ASSESSMENT

The proposed development is on the edge of the B7 zone and faces the R6 zone on Chestnut and Oxford Streets. The B7 zone includes a number of unique requirements concerning setbacks and the length of the building wall.

The applicant has not confirmed the use of the “commercial” space between the garage entrance and Lancaster Street on the lowest floor and staff request details be submitted when available to ensure there are no zoning or site plan issues (see suggested condition of approval).

The applicant has submitted a Zoning Analysis ([Attachment C](#)) and staff consider that the proposed development meets all of the dimensional requirements of this zone. The

Bayside Height Overlay Map (2006) identifies the site as within the “Intermediate Height District” of 3 floors minimum and a maximum of 105 ft. The R6 zoned areas across Chestnut and Oxford Streets are identified as “Traditional Neighborhood Height” with a minimum of 2 floors and a maximum height of 55 feet.

[Plan P13](#) Building Elevations show the calculation for the average grade which is used to calculate the height based on the zoning definition of height. The average grade is 24.125 feet and top most roof structure is 104.0 feet (both from same datum) so the zoning height is 79.875 feet. A table of heights per zoning compared to “absolute” heights is included in section VI D to provide information in the context of the discussion of height transition from this site to abutting buildings.

The B7 Zoning ordinance also specifically requires compliance with the *B7 Design Principles and Standards*, which includes requirements for access and circulation, sidewalks and crosswalks, and lighting in addition to building design. The relevant building design standards are included in section VI D.



B. SUBDIVISION STANDARDS

14-496. Subdivision Plat Requirements

The applicant has submitted a draft plat which has been revised to address preliminary staff comments and will be finalized prior to signature in accordance with the standard condition of approval. The location of the five identified easements on the plat is one of the staff concerns.

14-497. General Requirements (a) Review Criteria

Water, Air Pollution and Soil Erosion

A revised Erosion Control Plan has been submitted (Plan 7) and staff find this is acceptable (Attachment X). The Portland Water District has just issued a water capacity letter and this will be available at the Hearing.

Traffic

The applicant has submitted the requested Traffic Assessments (Attachment H) and these are acceptable to the Traffic Engineering Reviewer (Attachment 5).

Parking

The applicant has noted that there is a 450 space parking garage abutting the project and in principle the parking supply is adequate. Under Zoning and Site Plan ordinances there is a requirement for additional information and this is discussed below.

Sanitary Sewer/Soils

The application has been reviewed by the consulting Peer Engineer (Attachments 4) and is acceptable subject to confirmation of wastewater capacity. The wastewater capacity letter has been received (Attachment G).

Storm water

The applicant proposes to manage stormwater impacts by collecting the stormwater and directing it to an underdrained soil filter at the corner of the site near Lancaster/Chestnut Streets. The revised submissions additional detail and address the Peer Engineer comments (Attachments 4).

Scenic Beauty and Street Trees

The proposal results in the removal of 7 of the 10 mature trees at the back of the sidewalk on Chestnut Street (Plan P2). The Landscape Plan has been revised to add 5 new maple street trees along Chestnut Street and 10 new trees elsewhere on the site. The street tree requirement is discussed under the Site Plan review.

Comprehensive Plan

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

Electrical Service

The Subdivision ordinance requires electrical service to be underground and the proposals have been revised to place the services crossing Chestnut Street underground (Plan P5).

C. SITE PLAN STANDARDS

14-526 Site Plan Standards

Traffic - Access, Circulation, Loading and Servicing

Staff have confirmed that they concur with the submitted traffic data and that no further action is required (Att. 5).

Right of Way

The applicant is proposing to reconstruct the sidewalk at least 8 feet in width and in concrete along the Chestnut, Oxford and Lancaster Streets in accordance with the Council's current materials policy. Staff recommend that this addresses the Technical Standards, but have noted that some details need to be revised to address drainage, slopes of the sidewalks where they cross aprons, and lighting requirements (Attachment 5). A suggested condition addresses this comment.

Public Transit Access - these do not apply to this project.

Parking

The applicant is proposing the provision of parking on a one to one ratio within the parking garage and has submitted a TDM ([Attachment N.](#)) and additional parking information ([Attachment O](#)) to clarify the proposed parking provision and how adequate spaces will be available for tenants including ADA spaces. The Planning Board is required to establish the parking requirement based on a submitted parking analysis. The Traffic Engineer Tom Errico has confirmed that both the number of spaces provided and the information is acceptable, subject to the TDM being implemented with annual monitoring studies that are carried out in accordance with specification included in the suggested condition of approval ([Attachment 5](#)). Further clarification regarding ADA required parking is also the subject of a suggested condition of approval.

Bicycle Parking

The proposals show 44 bicycle parking spaces (8 outside near the commercial space; 36 inside the parking garage) on the site plan and this meets the requirement of 2 bicycle parking spaces for every 5 dwelling units.

Snow Storage

This requirement does not apply.

Transportation Demand Management

The Site Plan ordinance requires that all Level III development in the B7 zone shall design and implement a Transportation Demand Management (TDM) Plan. The applicant has submitted a TDM Plan ([Attachment N](#)) and this is considered by staff to be acceptable subject to the annual monitoring studies being carried out in accordance with the reviewer's recommendations ([Attachment 5](#)). A suggested condition of approval reflects the reviewer comments.

Landscape Preservation / Site Landscaping and Screening

The proposals include viburnum planting around the base of the parking garage planting around the base of the building and around the rain garden, and 9 new street trees ([Plan P6](#)). Staff are concerned at the lack of detail regarding hardscape materials, character of the planting re CPTED issues, and boundary fencing along Oxford Street and in the amenity area; suggested conditions require further detail for review and approval by staff.

Street Trees

The proposals retain 7 existing street trees, add 5 street trees in the Chestnut Street ROW, and add 10 trees on the site near the ROW, giving a total of 22 street trees provided as part of the proposal.

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 bring the gated entrance to the parking garage (under the building) near to Chestnut Street and this addresses concerns regarding the previous proposal for a closed "tunnel" which limited surveillance and access control. The proposed amenity area between the building and Lancaster Street is not lit and includes grass and shrub planting. Staff are concerned that this area may not have any immediate surveillance from the building (as its next to the commercial space) and suggest a condition that allows for further consideration and review of the design details of this area to ensure it is as safe and secure as possible.

Fire Prevention

The Fire Department has provided comments which are subject of a suggested condition of approval ([Attachment 3](#).) One comment requested sight of the PWD capacity letter; this was provided this week and further comments are awaited.

Public Utilities

The Peer Engineer has reviewed the utilities and these are considered acceptable ([Attachment 4](#)).

Massing, Ventilation and Wind Impact

The Site Plan ordinance includes the following requirement in respect of wind impacts:

- a. *The bulk, location or height of proposed buildings and structures shall not result in health or safety problems from a reduction in ventilation to abutting structures or changes to the existing wind climate that would result in unsafe wind conditions for users of the site and/or adjacent public spaces.*

The submissions do not include any detailed information regarding the wind conditions anticipated to be created by the proposed 7 story building at this location. Staff do not consider that the proposed building would result in any problems or unsafe conditions.

Shadows

The applicant has submitted a Shadow Study ([Attachment J](#)). The shadows created by the building largely affect the parking garage.

Historic Resources- this does not apply to this project.

Exterior Lighting including Street Lighting

Building mounted lighting is proposed within the balconies and in sconces near the entrances; the specifications are included in [Attachment L](#). Staff consider these meet the technical requirements, subject to the sconces being mounted so they direct the light downward. This requirement is specified in a suggested condition of approval.

As noted in the discussion of public safety, the absence of pole lighting in the amenity area may present security and safety issues and a suggested condition requires that this be reviewed further.

Regarding street lighting in the ROW, the applicant has added three street lights to meet the staff requests regarding lighting in Chestnut Street and Lancaster Street. Technically the applicant could be requested (per Technical Standards and B7 *Design Standards*) to replace the street light fixtures along Oxford Street, but staff recommend that the applicant be requested to provide just the underground lighting conduit as part of the reconstruction of the sidewalk in order to allow for LED lighting in the future. The City has issued an RFP to update the street lighting, so the city would prefer to have the conduit for the future upgrades.

Noise and Vibration

The applicant has confirmed that rooftop appurtenances will be located on the roof without screening (set back) and staff assume this will include HVAC mechanicals. A public comment also asked about whether any mechanical devices would be protruding from the sides of the building. The suggested conditions address concerns about noise, screening and mechanical fixtures on the facades.

D. DESIGN STANDARDS

B-7 Zone Design Principles and Standards

The applicant has submitted an updated narrative explaining how the design has been revised to mitigate the height on the Oxford Street elevation, break up the roof line generally and modify entrances/uses at ground level ([Attachment M.](#)). These address the comments from the two PB Workshops (including public comments), which generally related to:

- Building needs better engagement with the community/street
- Concern re height in context of neighborhood- transition to surrounding lower heights
- Concern re siting and massing of building re R6
- Concern about design- using colors to break up bulk; lack of urban scale at street

The “Neighborhood Architectural Overview” in [Attachment M](#) also provides birds eye aerials, renderings, sections, floor plans and elevations to illustrate how the proposed building integrates into the existing urban fabric.

Both members of the public and the Board have focused on assessing the way the building “*ensures sensitive transitions to surrounding neighborhoods*” (B7 Design Standards- Principle A as extracted below) as this requires a sensitivity to existing buildings as well as to the zoning maximums for each zone. This issue is not only related to height, but also to the material placement and design of the pedestrian realm.

Height

The following tables have been prepared to help frame the final review of this issue in the context of the proposals where heights are shown based on two different ways of measuring height: the zoning height (height above the average grade) and the absolute height (height of the building at a particular point in relation to the grade at that location).

The absolute height of the proposed building (from Oxford Street) is shown as 71 feet on the elevation in Plan P13; this would be about 35 feet higher than the roof ridge of the townhouses opposite on Oxford Street, and 30-40 feet higher than the Pearl Place buildings further east on the same side of Oxford Street.

Table of proposed heights: (see Plan P13)

Heights of proposed elements of new building	Per zoning definition (height from average grade)	Absolute height (from grade at that location)	Maximum height allowed by zoning
Mezzanine at Oxford St facade	79.875 ft	71 ft approx	105 ft
Mezzanine at Lancaster St end	79.875 ft	86 ft 10 in	
Top of highest main floor at Oxford St end	71.875 ft	63 ft approx	
Top of highest floor at Lancaster St end	71.875 ft	78 ft 7 in	
Lowest stepback at Oxford St facade	59.875 ft	41 ft approx	

Table of Surrounding Zoning Heights allowed and Absolute Heights of existing buildings:

Surrounding zones on opposite side of street from the development	Maximum zone height allowed on opposite side of street	Absolute height of existing buildings nearby as noted
Chestnut Street	55 ft	40 ft approx. (one building on opposite side of Chestnut St)
Oxford Street	55 ft	35 ft approx. (row of buildings on opposite side of Oxford St)
Lancaster Street	105 ft	Existing parking lot
(Other side is parking garage)	105 ft	30-40 ft approx. (Pearl Place buildings nearest Oxford St on other side of garage)

Pedestrian Realm and Materials

The City's Urban Designer has provided comments on the final design in the context of the standards (Attachment 2) and recommends the following condition of approval:

That final proposals comply with Design Standards A-2, A-5, C-2, D-1, D-4, E-1, E-3, E-4 and shall be reviewed and approved by Planning staff to address the staff design comments dated 12.9.16 which primarily relate to material placement and design of the pedestrian realm.

The suggested condition is based on the following comments from the Urban Designer that address other aspects of the issue of "sensitive transitions" (Attachment 2):

Principle A: Urban Design

All development in Bayside shall be designed to create a strong urban identity and sense of place. Buildings may be a variety of architectural styles, particularly those that are innovative and express the aesthetic of the time in which they were built, and shall be organized according to principles of urban design that integrate with the urban fabric of surrounding neighborhoods and Portland as a whole. These principles shall . . . ensure sensitive transitions to surrounding neighborhoods, enhance the physical amenities of the neighborhood, and create a pedestrian oriented environment with safe and vital streets.

A-2: Edges and Transitions – *Transitions between larger scale, mixed use buildings and smaller-scale residential uses shall be designed so that there is a seamless connection to adjacent residential neighborhoods to ensure that these zones remain stable, quiet, and secure. This shall be achieved through the mitigation of height, massing, stepbacks, materials, and details and design of the façade at the pedestrian level. . . . Larger scale developments may use public open spaces to provide transitions to lower scale uses.*

- To address the standard and the board comment, the applicant modified the massing on the Oxford Street façade. The revisions result in a graduated massing that places a four-story mass at the street, of similar scale and proportion to the residential architecture around it. The changes in plane are accentuated with changes in material. The façade continues to have a “secondary” presence on the street – Chestnut Street being the principal façade with the primary residential entrance. The secondary aspect of the façade is reflected in the design of the door and the smaller, elevated windows at the street to indicate the private use.
- On Chestnut Street, the detail and design of the façade at the pedestrian level should be strengthened to improve the sense of scale through revisions to material placement and the addition of articulation elements that relate to the pedestrian realm experience (Standards E-1, E-3, E-4).

A-5: Pedestrian Environment – *Development on public streets or public spaces shall be human scale at the pedestrian level and enhance the pedestrian environment through the use of elements at the first floor such as . . . fully functioning entries oriented to the street; active windows and storefronts; awnings and weather protection; outdoor seating and sales displays; adequately sized sidewalks; gathering spaces; trees and landscaping; street furniture; . . .*

- The project uses fenestration at the ground levels, entrances emphasize with canopies and material change, and open space at the end of the block.
- Where the standard is still not met is the detail and design of the building façade at the ground level. Little to no massing or façade variation is used to differentiate the ground floor – the result is a flat façade for the full 6 stories of the building. The staff recommends that the architecture team further articulate and detail the pedestrian level to create a sense of enclosure and the placement of materials to reflect the uses rather than arbitrary placement. These comments also apply to Standard E-1 Architectural Design, E-3 Massing, and E-4 Articulation.

A-7: Building Orientation – *The primary facades and entrances of buildings shall be oriented to streets, major pedestrian routes, or open spaces in order enhance the pedestrian-oriented environment.*

- The project faces onto two streets and is set close to the property line.
- Chestnut Street is treated like the primary façade with the primary residential entrance. Oxford Street is the secondary façade but addresses the street with a minor residential entrance, some visual interest and massing variation, and a maintenance of the street wall.

Principle C: Parking, Loading and Service Areas

C-2: Parking Entrances – *The entrance to parking garages shall respect the pedestrian realm and minimize the visual impact of the garage . . .*

- For CPTED concerns, staff recommended that the design of the “tunnel” to the garage entrance on Chestnut Street be revised – the applicant has addressed the concern by adding a gate at the façade. However, the design of that gate and vehicle entrance/exit should be clarified so as to not encroach on the sidewalk/pedestrian path. Car stacking should also be considered in the placement of the gate.

Principle D: Open Space and the Public Realm

D-1: Open Space Design – *Publicly-accessible parks, plazas, and other open space shall be accessible from sidewalks and surrounding buildings. . . . Pedestrian amenities such as seating, lighting, artwork, trash receptacles, etc. shall be compatible with the City’s Streetscape Standards for Bayside. . . . Solar access, wind protection, and landscaping shall be considered to enhance pedestrian comfort and provide a variety of sunny and shaded areas.*

- It is not clear whether the open space provided is accessible from the sidewalk. The space shown as plaza and seating is visible from the sidewalks, streets, and buildings as required by the standard. The amenity provided appears to be a paved area with seating that is under shade, and additional landscaping throughout the space. No lighting is proposed.

D-4: Pedestrian Amenities – *Pedestrian amenities shall comply with the City's Technical Manual at a minimum, and also with the streetscape standards selected for Bayside.*

- Seating: One linear foot of seating for each thirty (30) square feet of open space, or 30 linear feet of pedestrian route shall be provided within publicly accessible open space.
- It is not clear whether the seating proposed in the open space meets this standard – what kind of seating and what linear feet of seating are proposed?

Principle E: Architectural Design

New development shall create a mixed-use, pedestrian-friendly setting that contributes to the context of the surrounding urban fabric and provides a sensitive transition to adjacent residential neighborhoods. . . . The scale, massing, and fenestration of new development shall reflect its context, . . .

E-1: Architectural Design – *New development in Bayside may be a variety of architectural styles, . . . and shall be organized according to principles of urban design that integrate with the urban fabric of surrounding neighborhoods and Portland as a whole. A respectful integration of contemporary design within the existing context shall complement, reinforce, and enhance the prevailing patterns and proportions of adjacent buildings without requiring imitation or repetition.*

- Overall, staff does not find the placement of materials to be contextual. In some cases, the materials correspond to the massing or use, but in other cases, materials change at corners or in arbitrary ways that result in a patchwork quilt effect that does not benefit the overall design nor does it relate to the pattern or use of materials in the context. Staff recommends a simplification of material placement (example below). Visual interest should be achieved through articulation rather than a material pastiche.

E-2: Height – *Heights along the edges of the B-7 Zone shall transition to the scale of adjacent neighborhood development through design elements such as variations in massing; articulation of the facades in intervals that reflect exiting structures or platting pattern, stepping the architecture to adjacent buildings and/or contextual proportions of building elements, use of architectural style and details such as roof lines, belt courses, cornices, or fenestration, and color or materials that derive from the less intensive zone.*

- The Planning Board's concerns regarding transition of height have been addressed by the revisions to the Oxford Street façade.

E-3: Massing – *Large expanses of undifferentiated façade or uniform cladding is not allowed along public rights of way. . . . The composition of a proposed building façade shall be defined by horizontal and vertical articulation, with vertical articulation being predominant, in keeping with the local context of the urban form.*

- As stated above, little to no massing or façade variation is used to differentiate the ground floor – the result is a flat façade for the full 6 stories of the building.

New buildings that are four stories or higher shall have three components: base, middle, and top.

- The base of the building should be more consistently defined, especially on the Chestnut Street side. At this point, that can best be achieved through articulation, material placement and detailing. The corner, double-height live-work unit could also be more substantially differentiated from the other masses of the building.

E-4: Articulation – *Façades visible from public rights of way shall incorporate design elements that break the facades into components scaled to the pedestrian, and to the context of other buildings on the street. This may be accomplished through an expression of the building's base, middle and top, vertical fenestration, variation in the planes of the façade, architectural details such as windows, doors, bays, balconies, cornices, reveals, expansion joints, trim, changes in color, texture, and material, permanent artwork, etc.*

- The project uses fenestration at the ground levels, entrances emphasize with canopies and material change, recessed bays at the upper floors, and open space at the end of the block.

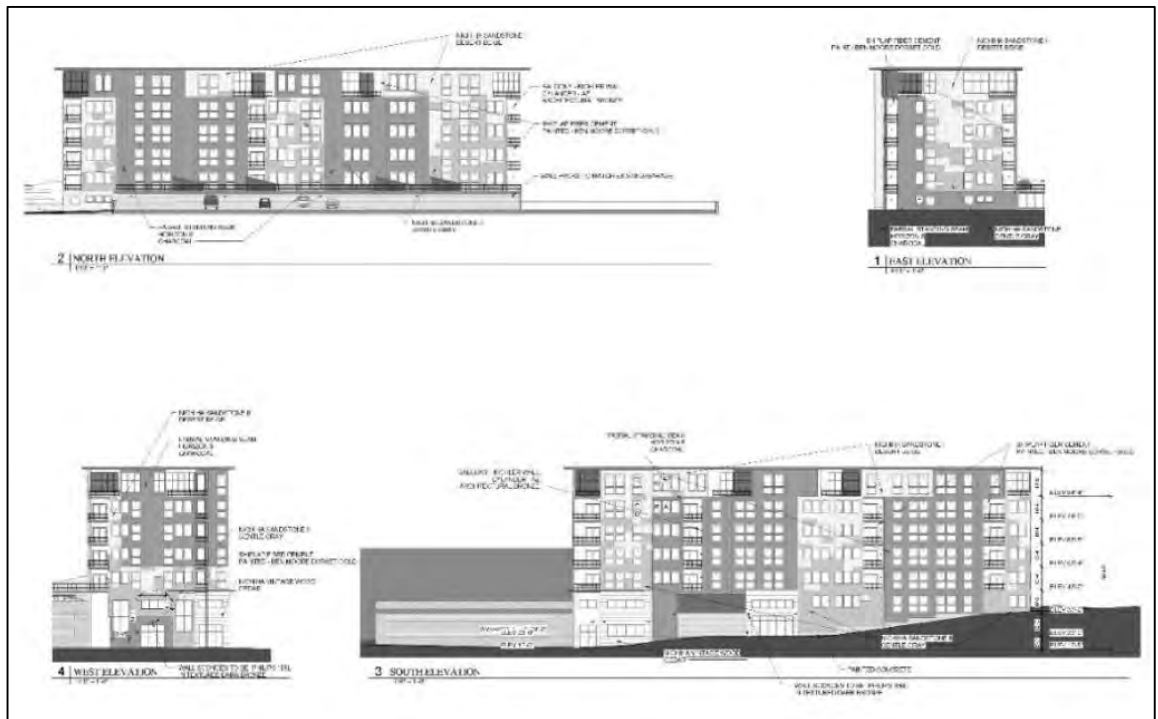
The base of the building which relates to the pedestrian realm shall be designed with a high level of detailing and material quality utilizing the options listed above. . . . Buildings which are six and seven stories shall meet this standard on the first 24 feet, or the first two floors at a minimum.

- The level of detail and articulation on the Chestnut Street elevation is not sufficient, especially at the street level. Material changes are mostly arbitrary and other than at the entrance, do not correspond to uses or plane changes. Revisions to meet this standard could come in form of enclosure; articulation and detail (reveals, dimensional trim, material transitions, detail); placement of material that corresponds with uses.

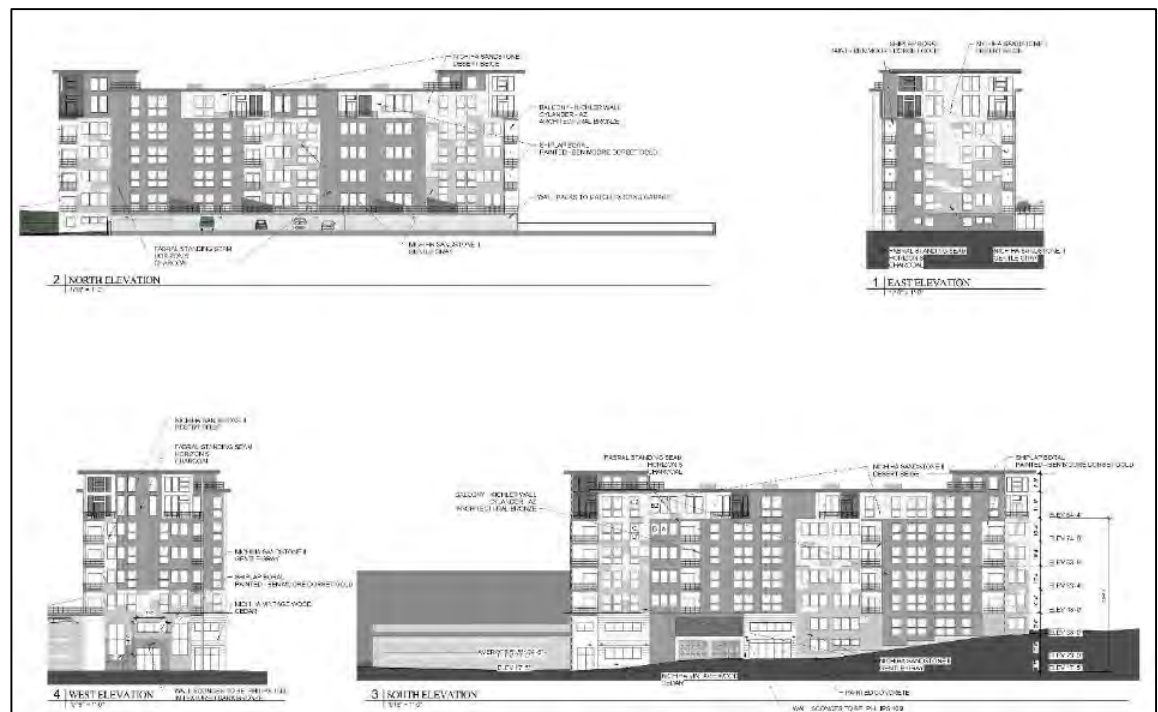
(see sketch in Attachment 2 annotating the elevations to clarify the comments)

The series of elevations below illustrates how the design has evolved from the original submissions to the final plans included in this Report:

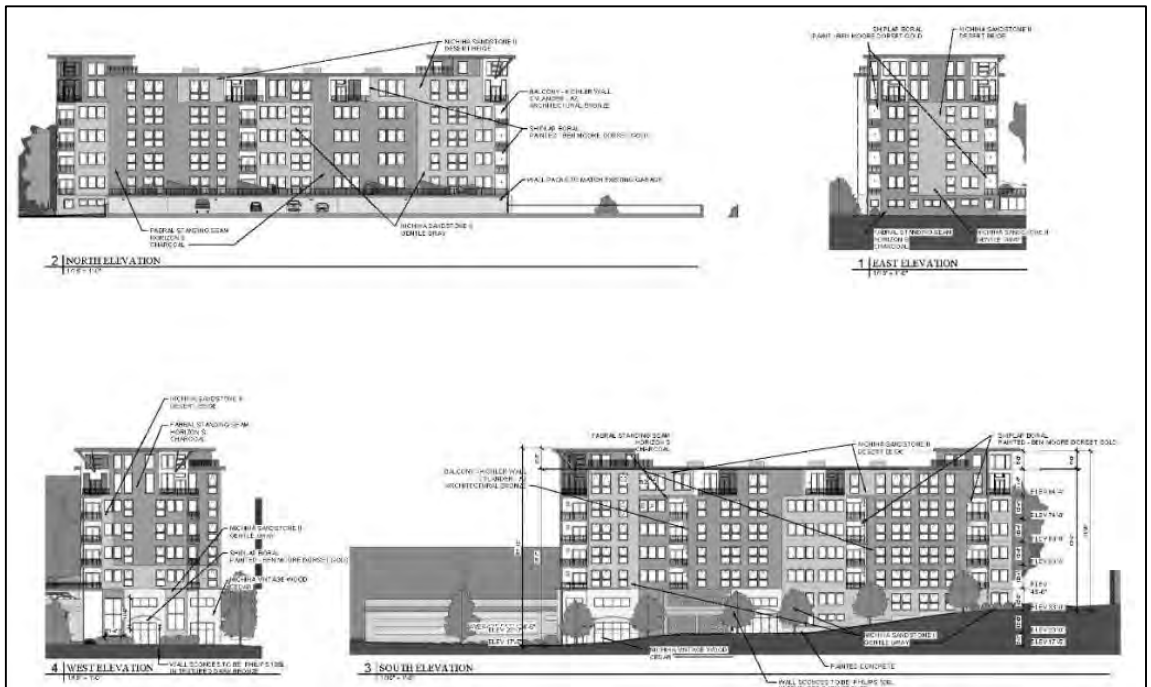
Initial submitted Elevations:



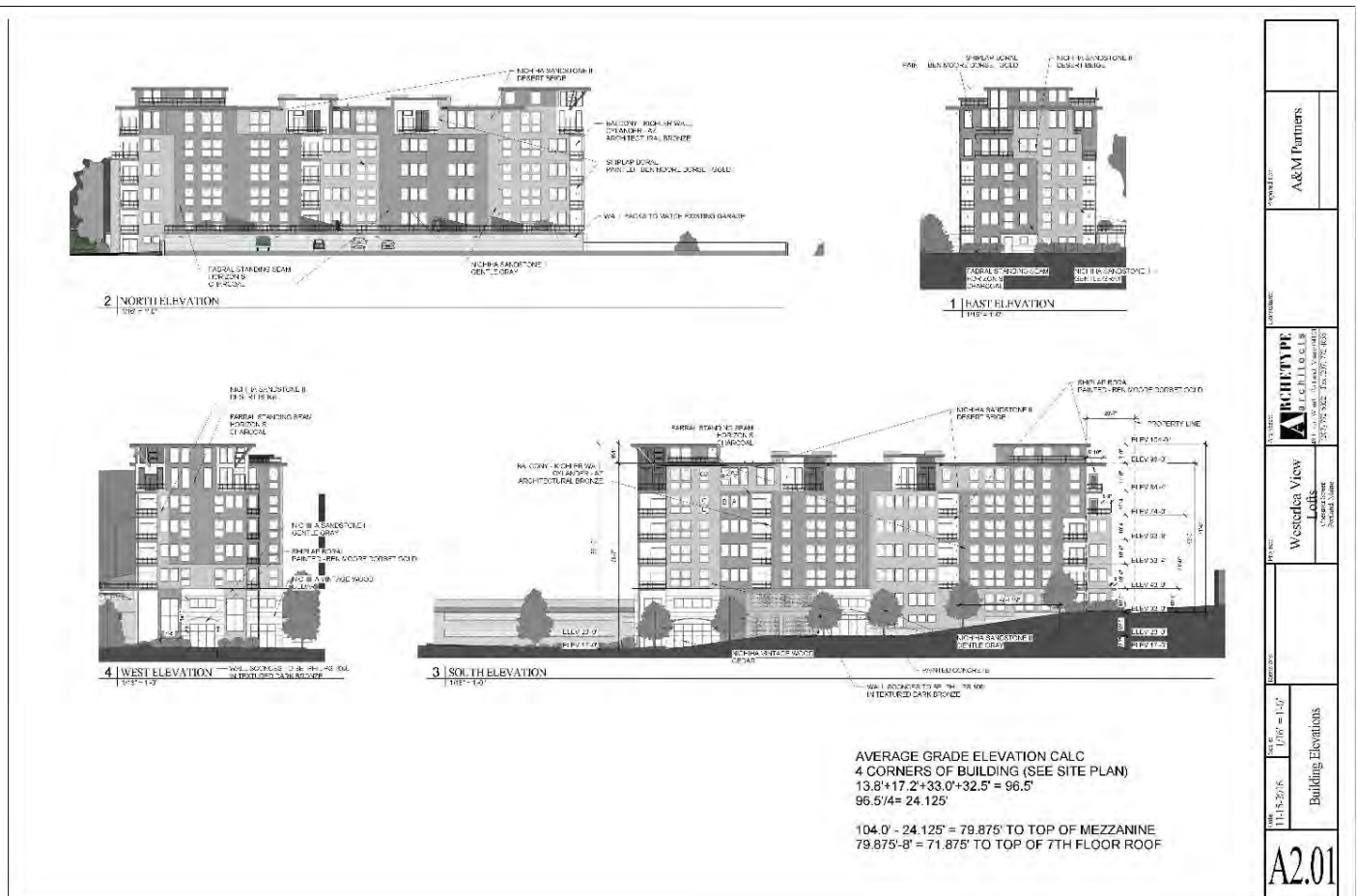
Elevations as presented to the first Workshop (see PB Memo 9.13.16):



**Revised elevations
submitted for
second Workshop
(see PB Memo
for 10.18.16)**



FINAL ELEVATIONS AND RENDERING (See Plan P13 & Attachment M)



Final elevations



Final Oxford Street frontage:



Final from Lancaster Street:



Multi-family and Other Housing Types Design Standard

This design standard also applies to this proposal and most of the standards are already included in the B7 Standards above. However, the standard regarding open space is relevant:

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;

Staff comment: 42 of the new units will have balconies, though about 5 of these are cantilevered over the top deck of the parking garage and may not serve an “open space function”. Clarification of the design and materials of the deck are requested and subject of a suggested condition of approval. The site includes an open amenity area near the corner of Chestnut Street and Lancaster Street, but this is partly taken up by the stormwater system and it is unclear how much of the area would serve as open space for resident/public access. A condition of approval requests further details of this area to ensure safety and security issues are addressed.

XII. INCLUSIONARY ZONING CONDITIONAL USE

Housing Planner Tyler Norod reviewed the Conditional Use for Affordable Housing application at 75 Chestnut Street. Conditional Use is authorized by Division 30, Section 14-487, Ensuring Workforce Housing, to secure the creation of Workforce Housing Units as part of new residential projects that propose 10 or more units. The ordinance requires a minimum of 10% of the project to be restricted for Workforce Households and that the number of bedrooms required under Section 14-487(e)3 be at least 10% of the total number of bedrooms made available as part of the project. The project located at 75 Chestnut Street proposes the creation of 54 residential rental units. Based on a total of a proposed 55 units (since the commercial unit has also been described as a live-work space), the project will be required to provide a minimum of five (5) on-site workforce units with a total of nine (9) bedrooms.

The project has proposed to provide six (6) workforce units on-site with a total of 9 bedrooms, the project has met the minimum requirements set forth in Section 14-487. These workforce units will be dispersed throughout the project with two (2) studios and two (2) two-bedroom units located on the second floor, one (1) one-bedroom unit located on the third floor, and one (1) two-bedroom unit located on the fifth floor.

The ordinance defines *Workforce housing unit for rent* to mean a dwelling unit which:

- (a) Is affordable to a household earning less than 100% of HUD AMI; and
- (b) Annual rent increases for that unit are limited by deed restriction or other legally binding agreement to the percentage increase in the HUD Greater Portland Metropolitan Statistical Area median income figures for a household of that size.

The memo from the Housing Planner confirms the project complies with the ordinance and includes a condition requiring an Affordable Housing Agreement to clarify and document the details of affordability restrictions. (Attachment 1).

XIII. STAFF RECOMMENDATION

Subject to the proposed motions and conditions of approval listed below, Planning Division staff recommends that the planning board approve the Site Plan, Subdivision and Conditional Use for the proposed residential development at 75 Chestnut Street (Westerlea View Lofts).

XIV. PROPOSED MOTIONS FOR THE BOARD TO CONSIDER

A. WAIVER

(This project was submitted before the recently adopted Street Tree Amendment that became effective on 12.7.2016)

On the basis of the application, plans, reports and other information submitted by the applicant; findings and recommendations contained in the planning board report for the public hearing on December 13, 2016 for application 2016-184 (75 Chestnut Street) relevant to Portland's technical and design standards and other regulations; and the testimony presented at the planning board hearing:

1. The planning board **finds/does not find** that the applicant has demonstrated that site constraints prevent the planting of all required street trees in the right-of-way. The planning board **waives/does not waive** the site plan standard (*Section 14-526 (b) (iii)*) requiring one street tree per unit for multi-family development and concludes that the applicant shall contribute \$6,400 to Portland's tree fund.

B. SUBDIVISION

On the basis of the application, plans, reports and other information submitted by the applicant; findings and recommendations contained in the planning board report for the public hearing on December 13, 2016 for application 2016-184 (75 Chestnut Street) relevant to the subdivision regulations; and the testimony presented at the planning board hearing, the planning board finds that the plan **is/is not** in conformance with the subdivision standards of the land use code and **approves/does not approve** the application, subject to the following conditions of approval, which must be met prior to the signing of the plat:

- i. The applicant shall submit a final subdivision plat for review and approval by Corporation Counsel, the Department of Public Works, and the Planning Authority;
- ii. The applicant shall provide drafts of all necessary easements, including but not limited to:
 - a. Temporary construction easement from the City of Portland to Westerlea View Lofts;
 - b. License from the City of Portland to Westerlea View Lofts for building footings;
 - c. Easement(s) for the deck extensions above the existing parking garage structures (air rights);
 - d. Access easement for sidewalks that are on the site property.

for review and approval by Corporation Counsel, the Department of Public Works, and the Planning Authority, with evidence of executed easements to be submitted prior to the issuance of a building permit.

C. SITE PLAN

On the basis of the application, plans, reports and other information submitted by the applicant, findings and recommendations contained in planning board report for the public hearing on December 13, 2016 for application 2016-184 (75 Chestnut Street) relevant to the Site Plan Ordinance and other regulations and the testimony presented at the Planning Board hearing:

The Planning Board finds that the plan **is / is not** in conformance with the site plan standards of the land use code, subject to the following conditions:

- i. That final proposals comply with Design Standards A-2, A-5, C-2, D-1, D-4, E-1, E-3, E-4 and shall be reviewed and approved by Planning staff to address the staff design comments dated 12.9.16 which primarily relate to material placement and design of the pedestrian realm; and
- ii. That the project is subject to the submitted Transportation Demand Management Plan dated October 2016, to include annual monitoring studies that comply with the requirements set out in the comments of the Traffic Engineering reviewer Tom Errico dated 12.9.2016; and
- iii. That the applicant submit a revised and more detailed plan for the amenity area between the building and Lancaster Street that demonstrates that the safety and security of the area meets CPTED standards eg re lighting, visual surveillance and similar issues including landscape features; and
- iv. That the applicant and all assigns shall comply with the conditions of Chapter 32 stormwater including Article III, post-construction storm water management, which specifies the annual inspections and reporting requirements. The developer/contractor/subcontractor must comply with conditions of the submitted construction stormwater management plan and sediment and erosion control plan dated 9.30.2016 based on City standards and State guidelines. A Maintenance Agreement for the stormwater drainage system shall be approved by Corporation Counsel and the Department of Public Works, and submitted, signed and recorded prior to the issuance of a Certificate of Occupancy with a copy to the Department of Public Works; and
- v. That plans showing details for the areas listed below shall be submitted to the Planning Authority for review and approval prior to the issuance of a building permit:
 - a. Patio/entrances on Oxford Street
 - b. Doors for entrance to parking garage on Chestnut Street
 - c. Decks over parking lot
 - d. Live-work unit
 - e. Parking layout (dimensioned) for ADA spaces and demonstration that it meets applicable state and federal standards regarding ADA van parking.
- vi. That the applicant shall revise plans and provide design details for the following elements in the City's Right of Way, for review and approval prior to the issuance of a building permit:
 - a. Driveway aprons on Oxford Street and Lancaster Street, noting a pedestrian accessibility route with a maximum 2% cross-slope, and whether full or partial adjustment to the grade of the driveway apron is required;
 - b. Grading adjustments for the sidewalk ramp construction at the corner of Chestnut Street and Lancaster Street to address the ponding of water that currently impacts the pedestrian walking route; and
 - c. The provision of an underground lighting conduit as part of the sidewalk reconstruction along the lot frontage on Oxford Street.
- vii. That the applicant shall submit details of the location, design and screening of façade and rooftop external heating, ventilation and other mechanical equipment, and associated information to document the sound levels meet the City's Site Plan, Zoning and Technical Standards, for review and approval by the Planning Authority; and
- viii. That the applicant address the Fire Department comments dated 9.7.2016; and
- ix. That the proposed building mounted wall sconces shall be installed so that the light is directed downward.

D. INCLUSIONARY ZONING CONDITIONAL USE

On the basis of the application, plans, reports and other information submitted by the applicant; findings and recommendations contained in the Planning Board Report for the public hearing on December 13, 2016 for application 2016-185 (75 Chestnut Street) relevant to the Conditional Use as authorized by Division 30, Section 14-487 Ensuring Workforce Housing; and the testimony presented at the planning board hearing, the planning board finds that the Conditional Use **is/is not** in conformance with the standards of the land use code and **approves/does not approve** the application, subject to the following conditions of approval:

- i. Provided the Applicant and the City enter into an Affordable Housing Agreement (AHA) before a Building Permit may be issued.
- ii. The AHA will outline the details of the affordability restrictions placed on the workforce units and will be filed as a covenant to the 75 Chestnut Street property's deed with the Cumberland County Registry of Deeds before a Certificate of Occupancy may be issued.

ATTACHMENTS TO THIS REPORT:

Attachments

1. Final Housing & Comm Dev Review of IZ
2. Final Design Review comments
3. Final Fire Department comments
4. Final Engineering Review comments
5. Final Traffic Engineering review comments
6. Final City Arborist comments

Public Comments (all received since project submitted)

- PC1. Louis Christen 9.12.16
PC2. Louis Christen 10.17.16

Applicants Final Submittal

- A. Cover Letter and Subdivision/Site Plan Applic. w/revised data sheet
- B. Cover letter & Inclusionary Zoning Cond. Use Applic.
- C. Zoning analysis
- D. B-7 Design Standards Compliance narrative
- E. Right, title and Interest
- F. Financial Capability letter
- G. Utility letters of capacity
- H. Traffic Assessments
- I. Stormwater Reports
- J. Shadow Study
- K. Neighborhood Meeting Certification
- L. Updated Lighting Specifications
- M. Updated Neighborhood Architectural Overview including revised perspectives
- N. TDM Plan
- O. Additional Parking Information

Final Plans

- P1. Boundary Survey
 - P2. Existing Conditions and Demolition Plan
 - P3. Draft Subdivision Plat
 - P4. Site Plan
 - P5. Grading and Utilities Plan
 - P6. Landscape Plan
 - P7. Erosion Control Plan
 - P8. Details
 - P9. Details
 - P10. Details
 - P11. Details
 - P12. Drainage analysis
 - P13. Building Elevations
 - P14. Floor Plans
- (Note- Perspectives and Renderings are in Att. M.)

CHAPTER 32 STORM WATER

Art. I. Prohibited Discharges, §§ 32-1--32-15

Art. II. Prohibited Discharges, §§ 32-16--32-35

Art. III. Post-Construction Stormwater Management, §§32-36-32-40

ARTICLE I. IN GENERAL

Sec. 32-1. Definitions.

For the purposes of this article, the terms listed below are defined as follows:

Applicant. "Applicant" means a person with requisite right, title or interest or an agent for such person who has filed an application for a project that is a post-construction stormwater management plan under this article.

Best management practices ("BMP"). "Best management practices" or "BMPs" means schedules or activities, combinations of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of waters of the state. BMPs also include treatment requirements, operating procedures, and practices to control plant site runoff, spills or leaks, sludge or waste disposal, or drainage from raw material storage.

Clean Water Act. "Clean Water Act" means the federal Water Pollution Control Act (33 U.S.C. § 1251 *et seq.* also known as the "Clean Water Act"), and any amendments thereto.

Discharge. "Discharge" means any spilling, leaking, pumping, pouring, emptying, dumping, disposal or other addition of pollutants to "waters of the state." "Direct discharge" or "point source" means any discernable, confined and discrete conveyance, including, but not limited to, any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, roll-off container, concentrated animal feeding operation or vessel or other floating craft, from which pollutants are or may be discharged.

Enforcement authority. "Enforcement authority" means the person(s) or entity authorized under section 32-3 of this article to administer and enforce this article.

Exempt person or discharge. "Exempt person or discharge" means any person who is subject to a multi-sector general permit for industrial activities, a permit for construction activity, a general permit for the discharge of storm water from the Maine department of transportation and the Maine turnpike authority

municipal separate storm sewer systems, or a general permit for the discharge of storm water from state or federally owned authority municipal separate storm sewer system facilities; and any non-storm water discharge permitted under a NPDES permit, waiver, or waste discharge license or order issued to the discharger and administered under the authority of the U.S. environmental protection agency ("EPA") or the Maine department of environmental ion ("DEP"). City of Portland

Municipality. "Municipality" means the city of Portland.

Municipal separate storm sewer system, or MS4. "Municipal separate storm sewer system" or "MS4," means conveyances for storm water, including, but not limited to, roads with systems, municipal streets, catch basins, curbs, , ditches, human-made channels or storm (other than publ owned treatment works and combined sewers) owned or by ity, sewer or sewage district, fire district, state agency or federal agency or other public entity that discharges ly to surface waters of the state.

National pollutant discharge elimination system (NPDES) storm water discharge permit. "National pollutant discharge elimination system (NPDES) storm water discharge permit" a permit issued by the EPA or by the DEP that authorizes the of pollutants to waters of the United States, whether the . . icable on an individual, group, or general area-wide basis.

Non-storm water discharge. "Non-storm water discharge" means any discharge to an MS4 that is not composed entirely of storm water.

Person. "Person" means any individual, firm, corporation, municipality, quasi-municipal corporation, state agency or federal agency or other legal entity which creates, initiates, originates or maintains a dis . . of storm water or a non-storm water discharge

Pollutant. "Pollutant" means dredged spoil, solid waste, junk, incinerator residue, sewage, refuse, effluent, , sewage sludge, munitions, chemicals, biological or radiological materials, oil, petroleum products or by-products, heat, wrecked or discarded equipment, rock, sand, dirt and industrial, municipal, domestic, commercial or agricultural wastes of any kind.

Post-construction stormwater management plan. "Post-construction stormwater management plan" means BMPs by a development project to meet the stormwater standards of Section V of the department of and urban 's Technical and Design Standards and Guidelines.

Premises. "Premises" means any building, lot, parcel of land, or portion of land, whether improved or unimproved, including adjacent sidewalks and , located within the muni from which di into the storm drainage system are or may be initiated, or maintained.

Qualified post-cons on stormwater tor. "Qualified post-construction stormwater inspector" means a person who conducts post-construction stormwater best management ice inspections for compensation and who has received the appropriate training for the same from DEP or otherwise meets DEP to perform said inspections

Regulated small MS4. " small means any small MS4 regulated by the State of Maine "general for the dis of storm water from small municipal separate storm sewer systems" dated July 1, 2008 ("general permit") or the general permits for the discharge of storm water from the Maine department of transportation and Maine turnpike authority small MS4s or state or federally owned or operated small MS4s, including all those located partially or entire within an urbanized area (UA).

Small municipal separate storm sewer system or small MS4. "Small l storm sewer system", or "small MS4," means any MS4 that is not covered by the I MS4 storm water program including municipally owned or operated storm sewer systems, state or federally-owned systems, such as colleges, universities, prisons, Maine department of transportation and Maine turnpike authority road and facilities, and mil bases and facilities.

Storm dra system. "Storm system" means the City of Portland's small MS4 and other conveyances for storm water located in areas outside the UA that drain into the regulated small MS4.

Storm water. "Storm water" means any storm water runoff, snowmelt runoff, and surface runoff and ; "Stormwater" has the same , as "storm water".

Urbanized area ("UAN). "Urbanized area" or "UA" means the areas of the State of Maine so defined by the latest decennial (2000) census by the U.S. Bureau of Census.
(Ord. No. 85-08/09, 10-20-08; Ord. No. 35-09/10, 8-17-09)

Sec. 32-2. Reserved.

Sec. 32-3. Reserved.

Sec. 32-4. Reserved.

Sec. 32-5. Reserved.
Sec. 32-6. Reserved.
Sec. 32-7. Reserved.
Sec. 32-8. Reserved.
Sec. 32-9. Reserved.
Sec. 32-10. Reserved.
Sec. 32-11. Reserved.
Sec. 32-12. Reserved.
Sec. 32-13. Reserved.
Sec. 32-14. Reserved.
Sec. 32-15. Reserved.

ARTICLE II. PROHIBITED DISCHARGES

Sec. 32-16. Applicability.

This Article shall apply to all persons discharging storm water and/or non-storm water discharges from any ses into the storm drainage system.

(Ord. No. 85-08/09, 10-20-08; Ord. No. 35-09/10, 8-17-09)

Sec. 32-17. Responsibility for administration.

The department of public services is the enforcement authority who shall administer, implement, and enforce the provisions of this article.

(Ord. No. 85-08/09, 10-20-08; Ord. No. 35-09/10, 8-17-09)

Sec. 32-18. Prohibition of non-storm water discharges.

(a) *General prohibition.* Except as allowed or exempted herein, no person shall create, initiate, originate or maintain a non-storm water discharge to the storm drainage system. Such non-storm water discharges are prohibited notwithstanding the fact that the city may have approved the connections, drains or conveyances by which a person di un-allowed non-storm water discharges to the storm drainage system.

(b) *Allowed non-storm water discharges.* The creation, initiation, origination and maintenance of the following non-storm water discharges to the storm drainage system is allowed:

- (1) Landscape irrigation; diverted stream flows; rising ground waters; uncontaminated flows from foundation drains; air conditioning and compressor condensate; irrigation water; flows from uncontaminated ; uncontaminated water from crawl space pumps; uncontaminated flows from footing drains; lawn runoff; flows from riparian habitats and wetlands; residual street wash water (where spills/leaks of toxic or hazardous materials have not

occurred, unless all spilled material has been removed and detergents are not used); hydrant flushing and fighting act runoff; water line flushing and discharges from water sources; individual residential car washing; and de-chlorinated swimming dis s.

- (2) Discharges specified in writing by the enforcement authority safety. as be necessary to protect public health and
- (3) . with verbal notification to the enforcement authority prior to the time of the test.

(c) *person or discharge.* This article shall not apply to an exempt person or dis that the enforcement authority may request from exempt persons and persons with exempt dis s of permits, notices of intent, licenses and orders from the EPA or DEP that authorize the discharge(s).
(Ord. No. 85-08/09, 10-20-08; Ord. No. 35-09/10, 8-17-09)

Sec. 32-19. Suspension of access to the city's small MS4.

The enforcement authority may, without notice, physically suspend discharge access to the storm drainage system to a person when such suspension is necessary to stop an actual or threatened non-storm water dis to the storm drainage system which presents or may present imminent and substantial to the environment, or to the health or welfare of persons, or to the storm drainage s or which may cause the to violate the terms of its environmental permits. Such suspension may include, but is not limited to, blocking pipes, constructing dams or taking other measures, public ways or public property, to physically block the dis or minimize a non-storm water discharge to the storm dra system. If a person fails to comply with a suspension order issued in an emergency, the enforcement authority may take such s as deemed necessary to or minimize to the storm s or to to persons.
(Ord. No. 85-08/09, 10-20-08; Ord. 8-17-09)

Sec. 32-20. Monitoring of discharges.

In order to determine compliance with this article, the enforcement may enter upon and es subject to this article at reasonable hours to ct the and connections thereon to the storm drainage system; and to conduct monitoring, sampling and te of the discharge to the storm drainage system
(Ord. No. 85-08/09, 10-20-08; Ord. No. 35-09/10, 8-17-09)

Sec. 32-21. Enforcement.

It shall be unlawful for any person to violate any sion of or to fail to comply with any of the requirements of this article. Whenever the enforcement authority believes that a person has violated this , the enforcement may enforce this article in accordance with 30-A M.R.S.A. § 4452.

(a) *Notice of violation.* Whenever the enforcement authority believes that a person has violated this article, the enforcement authority may order compliance with article by written notice of violation to that person indicating the nature of the violation and the action necessary to correct it, including, without limitation:

- (1) The elimination of non-storm water discharges to the storm drainage system, including, but not limited to, disconnection of the premises from the MS4.
- (2) The cessation of discharges, practices, or operations in violation of this article
- (3) At the Person's expense, the abatement or remediation (in accordance with best management ices in DEP rules and regulations) of non-storm water discharges to the storm drainage system and the restoration of any affected property; and/or
- (4) The payment of fines, of the city's remediation costs and of the city's reasonable administrative costs and attorneys' fees and costs. If abatement of a violation and/or restoration of affected property is required, the notice shall set forth a deadline within which such abatement or restoration must be completed.

(b) *Penalties/fines/injunctive relief.* In addition to the imposition of any other costs or penalties provided for herein, any person who violates this section shall be subject to fines, penalties and orders for injunctive relief and shall be responsible for the 's s fees and costs, all in accordance with 30-A M.R.S.A. § 4452. Each day such violation continues shall constitute a separate violation. Moreover, any person who violates this section also shall be responsible for any and all fines, penalties, damages and costs, including, but not limited to attorneys' fees and costs, incurred by the city for violation of federal and State environmental laws and

regulations caused by or related to that person's violation of this article; this responsibility shall be in addition to any fines, penalties or injunctive relief imposed under this section.

- (c) *Consent agreement.* The enforcement authority may, with the approval of the city manager, enter into a written consent agreement with the violator to address timely abatement of the violation(s) of this article for the purposes of eliminating violations of this article and of recovering fines, costs and fees without court action.
- (d) *1 of notice of violation.* Any person receiving a notice of violation or suspension notice may appeal the determination of the enforcement authority to the city manager or his or her designee. The notice of appeal must be received within 30 days from the date of receipt of the notice of violation. The city manager shall hold a hearing on the appeal within 30 days from the date of receipt of the notice of appeal, except that such hearing may be delayed by agreement of the city manager and the appellant. The city manager may affirm, reverse or modify the decision of the enforcement authority. A suspension under Section 32-5 of this article remains in effect unless or until lifted by the city manager or by a reviewing court. A person aggrieved by the decision of the city manager may appeal that decision to the Maine superior court within 45 days of the date of the city manager's decision pursuant to Rule BOB of the Maine Rules of Civil Procedure.
- (e) *Enforcement measures.* If the violation has not been corrected pursuant to the requirements set forth in the notice of violation, or, in the event of an appeal to the city manager, within 45 days of a decision of the manager affirming the enforcement authority's decision, then the enforcement authority may recommend that the corporation counsel's office file an enforcement action in a Maine court of jurisdiction under Rule BOK of the Maine Rules of Civil Procedure.
- (f) *Ultimate responsibility of discharger.* The standards set forth herein are minimum standards; therefore this article does not intend nor imply that compliance by any person will ensure that there will be no contamination, pollution, nor unauthorized discharge of pollutants into waters of the U.S. caused by said person. This article shall not create liability on the part of the city, or any officer or employee thereof for any act that

result from any person's reliance on this article or any administrative decision lawfully made hereunder.
(Ord. No. 85-08/09, 10-20-08; Ord. No. 35-09/10, 8-17-09)

Sec. 32-22. Severability.

The provisions of this article are hereby declared to be severable. If any provision, clause, sentence, or of this article or the ication thereof to any person, establishment, or circumstances shall be held invalid, such invalidity shall not affect the other provisions, clauses, sentences, or paragraphs or ication of this article.
(Ord. No. 85-08/09, 10-20-08; Ord. No. 35-09/10, 8-17-09)

Sec. 32-23. Reserved.
Sec. 32-24. Reserved.
Sec. 32-25. Reserved.
Sec. 32-26. Reserved.
Sec. 32-27. Reserved.
Sec. 32-28. Reserved.
Sec. 32-29. Reserved.
Sec. 32-30. Reserved.
Sec. 32-31. Reserved.
Sec. 32-32. Reserved.
Sec. 32-33. Reserved.
Sec. 32-34. Reserved.
Sec. 32-35. Reserved.

ARTICLE III. POST-CONSTRUCTION STORMWATER MANAGEMENT.

Sec. 32-36. Applicability.

This article applies to all development projects that require a stormwater management plan pursuant to section V of the department of planning and urban development's Technical and Design Standards and Guidelines.
(Ord. No. 35-09/10, 8-17-09)

Sec. 32-37. Post-construction stormwater management plan approval.

Notwithstanding any ordinance sion to the no icant for a ect to which this article is applicable shall for that development project unless the also receives approval for its post-construction stormwater management plan and for the best management practices (nBMPs") for that development project.
(Ord. No. 35-09/10, 9-17-09)

Sec. 32-38. Post-construction stormwater management plan compliance.

Any person owning, operating, or otherwise having control over a BMP required by a post construction stormwater management plan shall maintain the BMPs in accordance with the approved plan and shall demonstrate compliance with that plan as follows:

- (a) *Inspections.* The owner or operator of a BMP shall hire a qualified post-construction stormwater professional to at least annually, inspect the BMPs, including but not limited to any impervious areas, catch basins, swales, detention basins and ponds, pipes and related structures, in accordance with all municipal and state inspection, cleaning and maintenance requirements of the approved post-construction stormwater management plan.
- (b) *Maintenance and repair.* If the BMP requires maintenance, repair or replacement to function as intended by the approved post-construction stormwater management plan, the owner or operator of the BMP shall take corrective action(s) to address the deficiency or deficiencies as soon as possible after the deficiency is discovered and shall provide a record of the deficiency and corrective action(s) to the department of public services ("DPS") in the annual report.
- (c) *Annual Certification.* The owner or operator of a BMP or a qualified post-construction stormwater professional hired by that person, shall, on or by June 30 of each year, provide a completed and signed certification to DPS in a form provided by DPS, certifying that the person has inspected the BMP(s) and that the BMP(s) are properly maintained and functioning as intended by the approved post-construction stormwater management plan, that the person has performed maintenance or repair, and that the record of the deficiency and corrective action(s) taken.
- (d) *Filing fee.* Any person required to file an annual certification under this section shall include with the annual certification a filing fee established by DPS to pay the administrative and technical costs of review of the annual certification.
- (e) *Right of entry.* In order to determine compliance with this article and with the post-construction stormwater management plan, DPS may enter upon the property at reasonable hours with the consent of the owner, occupant or agent to inspect the BMPs.

Sec. 32-39. Enforcement.

It shall be unlawful for any person to violate any provision of or to fail to comply with any of the _____s of this article or of the post-construction stormwater management plan. Whenever the enforcement _____ believes that a _____on has violated this article, DPS may enforce this article in accordance with 30-A M.R.S.A. § 4452. Each day on which a violation exists shall constitute a _____ violation for purposes of this section.

- (a) *Notice of violation.* Whenever DPS believes that a person has violated this article or the post-construction stormwater management plan, DPS may order compliance by written notice of _____ to that person _____ the nature of the violation and _____ eh action necessary to correct it, including, without limitation:
- (1) The abatement of violations, and the cessation of practices or _____ in violation of this article or of the post-construction stormwater management plan;
 - (2) At the person's expense, compliance with BMPs required as a condition of _____ of the development project, the _____ r of BMPs and/or the restoration of any affected property; and/or
 - (3) The _____ of fines, of the City's remediation costs and of the City's reasonable administrative costs and attorneys' fees and costs.
 - (4) If abatement of a violation, compliance with BMPs, repair of BMPs and/or restoration of affected property is required, the notice shall set forth a deadline within which such abatement, compliance repair and/or restoration must be completed.
- (b) *Penalties/fines/injunctive relief.* In addition to the _____ sition of any other costs or penalties provided for herein, any person who violates this section shall be subject to fines, penalties and orders for injunctive relief and shall be responsible for the city's attorney's fees and costs, all in accordance with 30-A M.R.S.A. § 4452. Each day such violation continues shall constitute a separate violation. Moreover, any person who violates _____ s section also shall be responsible for any and all fines, penalties, damages and costs, including, but not limited to

attorneys' fees and costs, incurred by the city for violation of federal and state environmental laws and regulations caused by or related to that person's violation of this article; this responsibility shall be in addition to any _____s, fines or _____unctive relief _____ed under this section.

- (c) *Consent agreement.* The enforcement authority may, without approval of the city manager, enter into a written consent agreement with the violator to address timely abatement of the violation(s) of this article for the purposes of eliminating violations of this article and of recovering fines, costs and fees without court action.
- (d) *Appeal of notice of violation.* Any person _____ a notice of violation or suspension notice may appeal the determination of the enforcement authority to the manager or his or her designee. The notice of appeal must be received within 30 days from the date of receipt of the notice of violation. The city manager shall hold a hearing on the _____ within 30 _____ from the date of rece _____ of the notice of _____ that such _____ may be del _____ by _____ of the _____ manager and the appellant. The _____ ty manager may affirm, reverse or modify the decision of the DPS. A party aggrieved by the decision of the manager may appeal that decision to the Maine superior court within forty-five (45) days of the date of the manager's decision pursuant to Rule BOB of the Maine Rules of Civil Procedure.
- (e) *Enforcement measures.* If the violation has not been corrected _____ to the requirements set forth in the notice of violation, or _____, in the event of an appeal to the _____ manger, within _____ five (45) days of a decision of the city manager affirming the enforcement authority's decision, then the enforcement authority may recommend that the _____ counsel's office file an enforcement action in a Maine court of _____ jurisdiction under Rule BOK of the Maine Rules of Civil Procedure.

(Ord. No. 35-09/10, 8-17-09)

Sec. 32-40. Severability.

The provisions of this article are _____ declared to be severable. If any _____ ion, clause, sentence, or _____ of this article or the _____ ication thereof to any person, establishment, or circumstances shall be held invalid, such invalidity shall not affect the other _____ sions, clauses, sentences, or paragraphs or application of this article.

(Ord. No. 35-09/10, 8-17-09)

STORMWATER DRAINAGE SYSTEM MAINTENANCE AGREEMENT

For SUBDIVISIONS

IN CONSIDERATION OF the site plan and subdivision approval granted by the Planning Board of the City of Portland to the proposed _____ (name of developments and project number) shown on the Subdivision Plat (Exhibit A) recorded in Cumberland Registry of Deeds in Plan Book ____, Page ____ submitted by _____, and associated Grading, Drainage & Erosion Control Plan (*insert correct name of plan*) (Exhibit B) prepared by _____ (engineer/agent) of _____ (address) dated and pursuant to a condition thereof, _____ (name of owner), a Maine limited liability company with a principal place of business in Portland, Maine, and having a mailing address of _____, the owner of the subject premises, does hereby agree, for itself, its successors and assigns (the “Owner”), as follows:

Maintenance Agreement

That it, its successors and assigns, will, at its own cost and expense and at all times in perpetuity, maintain in good repair and in proper working order the _____ (*details of the system such as underdrained subsurface sand filter BMP system, rain gardens, storm drain pipes, underdrain pipes, catch basins*), (hereinafter collectively referred to as the “stormwater system”), as shown on the _____ Plan in Exhibit B and in strict compliance with the approved Stormwater Maintenance and Inspection Agreement (*insert correct name of document*) prepared for the Owner by _____ (copy attached in Exhibit C) and Chapter 32 of the Portland City Code.

Owner of the subject premises further agrees, at its own cost, to keep a Stormwater Maintenance Log. Such log shall be made available for inspection by the City of Portland upon reasonable notice and request.

Said agreement is for the benefit of the said City of Portland and all persons in lawful possession of said premises and abutters thereto; further, that the said City of Portland and said persons in lawful possession may enforce this Agreement by an action at law or in equity in any court of competent jurisdiction; further, that after giving the Owner written notice and a stated time to perform, the said City of Portland, by its authorized agents or representatives, may, but is not obligated to, enter upon said premises to maintain, repair, or replace said stormwater system in the event of any failure or neglect thereof, the cost and expense thereof to be reimbursed in full to the said City of Portland by the Owner upon written demand. Any funds owed to the City under this paragraph shall be secured by a lien on the property.

This Agreement shall also not be construed to allow any change or deviation from the requirements of the subdivision and/or site plan most recently and formally approved by the Planning Board of the City of Portland.

This agreement shall bind the undersigned only so long as it retains any interest in said premises, and shall run with the land and be binding upon the Owner's successors and assigns as their interests may from time to time appear.

The Owner agrees to record a copy of this Agreement in the Cumberland County Registry of Deeds within thirty (30) days of final execution of this Agreement. The Owner further agrees to provide a copy of this Agreement to any successor or assign and to forward to the City an Addendum signed by any successor or assign in which the successor or assign states that the successor or assign has read the Agreement, agrees to all its terms and conditions and the successor or assign will obtain and forward to the City's Department of Public Services and Department of Planning and Urban Development a similar Addendum from any other successor or assign.

For the purpose of this agreement and release "Owner" is any person or entity who is a successor or assign and has a legal interest in part, or all, of the real estate and any building. The real estate shown by chart, block and lot number in the records on file in the City Assessor's office shall constitute "the property" that may be entered by the City and lienied if the City is not paid all of its costs and charges following the mailing of a written demand for payment to the owner pursuant to the process and with the same force and effect as that established by 36 M.R.S.A. §§ 942 and 943 for real estate tax liens.

Any written notices or demands required by the agreement shall be complete on the date the notice is attached to one or more doors providing entry to any buildings and mailed by certified mail, return receipt requested or ordinary mail or both to the owner of record as shown on the tax roles on file in the City Assessor's Office.

If the property has more than one owner on the tax rolls, service shall be complete by mailing it to only the first listed owner. The failure to receive any written notice required by this agreement shall not prevent the City from entering the property and performing maintenance or repairs on the stormwater system, or any component thereof, or liening it or create a cause of action against the City.

Dated at Portland, Maine this ____ day of _____, 2014.

(*name of company*)

(*representative of owner, name and title*)

STATE OF MAINE
CUMBERLAND, ss.

Date: _____

Personally appeared the above-named _____ (*name and title*), and acknowledged the foregoing instrument to be his free act and deed in his said capacity.

Before me,

Notary Public/Attorney at Law

Print name: _____

Exhibit A: Subdivision Plat as recorded

Exhibit B: Approved Grading and Drainage Plan (*name of the plan showing the Stormwater System in detail*)

Exhibit C: Approved Stormwater Maintenance and Inspection Agreement



Performance Guarantee and Infrastructure Financial Contribution Packet

The municipal code requires that all development falling under site plan and/or subdivision review in the City of Portland be subject to a performance guarantee for various required site improvements. The code further requires developers to pay a fee for the administrative costs associated with inspecting construction activity to ensure that it conforms with plans and specifications.

The performance guarantee covers major site improvements related to site plan and subdivision review, such as paving, roadway, utility connections, drainage, landscaping, lighting, etc. A detailed itemized cost estimate is required to be submitted, which upon review and approval by the City, determines the amount of the performance guarantee. The performance guarantee will usually be a letter of credit from a financial institution, although escrow accounts are acceptable. The form, terms, and conditions of the performance guarantee must be approved by the City through the Planning Division. The performance guarantee plus a check to the City of Portland in the amount of 2.0% of the performance guarantee or as assessed by the planning or public works engineer, must be submitted prior to the issuance of any building permit for affected development.

Administration of performance guarantee and defect bonds is through the Planning Division. Inspections for improvements within existing and proposed public right-of-ways are the responsibility of the Department of Public Services. Inspections for site improvements are the responsibility of the Development Review Coordinator in the Planning Division.

Performance Guarantees will not be released by the City until all required improvements are completed and approved by the City and a Defect Bond has been submitted to and approved by the City.

If an infrastructure financial contribution is required by the City as part of a development approval, please complete the contribution form and submit it along with the designated contribution to the Planning Division. Please make checks payable to the City of Portland.

Attachments

1. Cost Estimate of Improvements Form
2. Performance Guarantee Letter of Credit Form (with private financial institution)
3. Performance Guarantee Escrow Account Form (with private financial institution)
4. Performance Guarantee Form with the City of Portland
5. Infrastructure Financial Contribution Form with the City of Portland

SUBDIVISION/SITE DEVELOPMENT
Cost Estimate of Improvements to be covered by Performance Guarantee

Date: _____

Name of Project: _____

Address/Location: _____

Application ID #: _____

Developer: _____

Form of Performance Guarantee: _____

Type of Development: Subdivision _____ Site Plan (Level I, II or III) _____

TO BE FILLED OUT BY THE APPLICANT:

PUBLIC

PRIVATE

<u>Item</u>	<u>Quantity</u>	<u>Unit Cost</u>	<u>Subtotal</u>	<u>Quantity</u>	<u>Unit Cost</u>	<u>Subtotal</u>
1. STREET/SIDEWALK						
Road/Parking Areas	_____	_____	_____	_____	_____	_____
Curbing	_____	_____	_____	_____	_____	_____
Sidewalks	_____	_____	_____	_____	_____	_____
Esplanades	_____	_____	_____	_____	_____	_____
Monuments	_____	_____	_____	_____	_____	_____
Street Lighting	_____	_____	_____	_____	_____	_____
Street Opening Repairs	_____	_____	_____	_____	_____	_____
Other	_____	_____	_____	_____	_____	_____
2. EARTH WORK						
Cut	_____	_____	_____	_____	_____	_____
Fill	_____	_____	_____	_____	_____	_____
3. SANITARY SEWER						
Manholes	_____	_____	_____	_____	_____	_____
Piping	_____	_____	_____	_____	_____	_____
Connections	_____	_____	_____	_____	_____	_____
Main Line Piping	_____	_____	_____	_____	_____	_____
House Sewer Service Piping	_____	_____	_____	_____	_____	_____
Pump Stations	_____	_____	_____	_____	_____	_____
Other	_____	_____	_____	_____	_____	_____
4. WATER MAINS	_____	_____	_____	_____	_____	_____
5. STORM DRAINAGE						
Manholes	_____	_____	_____	_____	_____	_____
Catchbasins	_____	_____	_____	_____	_____	_____
Piping	_____	_____	_____	_____	_____	_____
Detention Basin	_____	_____	_____	_____	_____	_____
Stormwater Quality Units	_____	_____	_____	_____	_____	_____
Other	_____	_____	_____	_____	_____	_____

6. SITE LIGHTING	_____	_____	_____	_____	_____	_____
7. EROSION CONTROL						
Silt Fence	_____	_____	_____	_____	_____	_____
Check Dams	_____	_____	_____	_____	_____	_____
Pipe Inlet/Outlet Protection	_____	_____	_____	_____	_____	_____
Level Lip Spreader	_____	_____	_____	_____	_____	_____
Slope Stabilization	_____	_____	_____	_____	_____	_____
Geotextile	_____	_____	_____	_____	_____	_____
Hay Bale Barriers	_____	_____	_____	_____	_____	_____
Catch Basin Inlet Protection	_____	_____	_____	_____	_____	_____
8. RECREATION AND OPEN SPACE AMENITIES	_____	_____	_____	_____	_____	_____
9. LANDSCAPING (Attach breakdown of plant materials, quantities, and unit costs)	_____	_____	_____	_____	_____	_____
10. MISCELLANEOUS	_____	_____	_____	_____	_____	_____
TOTAL:	_____			_____		
GRAND TOTAL:	_____			_____		

INSPECTION FEE (to be filled out by the City)

	PUBLIC	PRIVATE	TOTAL
A: 2.0% of totals:	_____	_____	_____
<u>or</u>			
B: Alternative Assessment:	_____	_____	_____
Assessed by:	_____	_____	_____
	(name)	(name)	

SAMPLE FORM

SITE PLAN/SUBDIVISION PERFORMANCE GUARANTEE LETTER OF CREDIT [ACCOUNT NUMBER]

[Date]

Jeff Levine
Director of Planning and Urban Development
City of Portland
389 Congress Street
Portland, Maine 04101

Re: [Insert: Name of Developer]
[Insert: Address of Project, Portland, Maine]
[Insert: Application ID #]

[Insert: Name of Bank] hereby issues its Irrevocable Letter of Credit for the account of [Insert: Name of Developer], (hereinafter referred to as “Developer”), held for the exclusive benefit of the City of Portland, in the aggregate amount of **[Insert: amount of original performance guarantee]**. These funds represent the estimated cost of installing site improvements as depicted on the **[Insert: subdivision and/ or site plan]**, approved on **[Insert: Date]** and as required under Portland Code of Ordinances Chapter 14 §§499, 499.5, 525 and Chapter 25 §§46 through 65.

This Letter of Credit is required under Portland Code of Ordinances Chapter 14 §§499, 499.5, 525 and Chapter 25 §46 through 65 and is intended to satisfy the Developer’s obligation, under Portland Code of Ordinances Chapter 14 §§501, 502 and 525, to post a performance guarantee for the above referenced development.

The City, through its Director of Planning and Urban Development and in his/her sole discretion, may draw on this Letter of Credit by presentation of a sight draft and the Letter of Credit and all amendments thereto, up to thirty (30) days before or sixty (60) days after its expiration, stating any one of the following:

1. the Developer has failed to satisfactorily complete the work on the improvements contained within the **[Insert: subdivision and/ or site plan]** approval, dated **[Insert date]**; or
2. the Developer has failed to deliver to the City a deed containing the metes and bounds description of any streets, easements or other improvements required to be deeded to the City; or

3. the Developer has failed to notify the City for inspections.

In the event of the Bank's dishonor of the City of Portland's sight draft, the Bank shall inform the City of Portland in writing of the reason or reasons thereof within three (3) business days of the dishonor.

After all underground work has been completed and inspected to the satisfaction of the Department of Public Services and Planning Division, including but not limited to sanitary sewers, storm drains, catch basins, manholes, electrical conduits, and other required improvements constructed chiefly below grade, the City of Portland Director of Planning and Urban Development or its Director of Finance as provided in Chapter 14 §501 of the Portland Code of Ordinances, may authorize the **[Bank]**, by written certification, to reduce the available amount of the escrowed money by a specified amount.

This performance guarantee will automatically expire on **[Insert date between April 16 and October 30 of the following year]** ("Expiration Date") or on the date when the City determines that all improvements guaranteed by this Letter of Credit are satisfactorily completed, whichever is later. It is a condition of this Letter of Credit that it is deemed to be automatically extended without amendment for period(s) of one year each from the current Expiration Date hereof, or any future Expiration Date, unless within thirty (30) days prior to any expiration, the Bank notifies the City by certified mail (restricted delivery to Ellen Sanborn, Director of Finance, City of Portland, 389 Congress Street, Portland, Maine 04101) that the Bank elects not to consider this Letter of Credit renewed for any such additional period.

In the event of such notice, the City, in its sole discretion, may draw hereunder by presentation of a sight draft drawn on the Bank, accompanied by this Letter of Credit and all amendments thereto, and a statement purportedly signed by the Director of Planning and Urban Development, at Bank's offices located at _____ stating that:

this drawing results from notification that the Bank has elected not to renew its Letter of Credit No. _____.

On its Expiration Date or on the date the City determines that all improvements guaranteed by this Letter of Credit are satisfactorily completed, this Performance Guarantee Letter of Credit shall be reduced by the City to ten (10) percent of its original amount and shall automatically convert to an Irrevocable Defect Letter of Credit. Written notice of such reduction shall be forwarded by the City to the Bank. The Defect Letter of Credit shall ensure the workmanship and durability of all materials used in the construction of the **[Insert: subdivision and/ or site plan]** approval, dated **[Insert: Date]** as required by City Code §14-501, 525 and shall automatically expire one (1) year from the date of its creation ("Termination Date").

The City, through its Director of Planning and Urban Development and in his/her sole discretion, may draw on the Defect Letter of Credit by presentation of a sight draft and this Letter of Credit and all amendments thereto, at Bank's offices located at _____, prior to the Termination Date, stating any one of the following:

1. the Developer has failed to complete any unfinished improvements; or
2. the Developer has failed to correct any defects in workmanship; or
3. the Developer has failed to use durable materials in the construction and installation of improvements contained within the [**Insert: subdivision and/ or site improvements**].

Date: _____

By: _____

[Name]

[Title]

Its Duly Authorized Agent

SAMPLE FORM

SITE PLAN/SUBDIVISION
PERFORMANCE GUARANTEE
ESCROW ACCOUNT
[ACCOUNT NUMBER]

[Date]

Jeff Levine
Director of Planning and Urban Development
City of Portland
389 Congress Street
Portland, Maine 04101

Re: [Insert: Name of Developer]
[Insert: Address of Project, Portland, Maine]
[Insert: Application ID #]

[Insert: Name of Bank] hereby certifies to the City of Portland that [Bank] will hold the sum of [Insert: amount of original performance guarantee] in an interest bearing account established with the Bank. These funds shall be held for the exclusive benefit of the City of Portland and shall represent the estimated cost of installing site improvements as depicted on the [Insert: subdivision and/or site plan], approved on [Insert: date] as required under Portland Code of Ordinances Chapter 14 §§499, 499.5, 525 and Chapter 25 §§46 through 65. It is intended to satisfy the Developer's obligation, under Portland Code of Ordinances Chapter 14 §§501, 502 and 525, to post a performance guarantee for the above referenced development. All costs associated with establishing, maintaining and disbursing funds from the Escrow Account shall be borne by [Insert: Developer].

[Bank] will hold these funds as escrow agent for the benefit of the City subject to the following:

The City, through its Director of Planning and Urban Development and in his/her sole discretion, may draw against this Escrow Account by presentation of a draft in the event that:

1. the Developer has failed to satisfactorily complete the work on the improvements contained within the [Insert: subdivision and/ or site plan] approval, dated [Insert date]; or
2. the Developer has failed to deliver to the City a deed containing the metes and bounds description of any streets, easements or other improvements required to be deeded to the City; or
3. the Developer has failed to notify the City for inspections.

In the event of the Bank's dishonor of the City of Portland's sight draft, the Bank shall inform the City of Portland in writing of the reason or reasons thereof within three (3) business days of the dishonor.

After all underground work has been completed and inspected to the satisfaction of the Department of Public Services and Planning Division, including but not limited to sanitary sewers, storm drains, catch basins, manholes, electrical conduits, and other required improvements constructed chiefly below grade, the City of Portland Director of Planning and Urban Development or its Director of Finance as provided in Chapter 14 §501 of the Portland Code of Ordinances, may authorize the **[Bank]**, by written certification, to reduce the available amount of the escrowed money by a specified amount.

This performance guarantee will automatically expire on **[Insert date between April 16 and October 30 of the following year]** ("Expiration Date") or on the date when the City determines that all improvements guaranteed by this Letter of Credit are satisfactorily completed, whichever is later. It is a condition of this agreement that it is deemed to be automatically extended without amendment for period(s) of one year each from the current Expiration Date hereof, or any future Expiration Date, unless within thirty (30) days prior to any expiration, the Bank notifies the City by certified mail (restricted delivery to Ellen Sanborn, Director of Finance, City of Portland, 389 Congress Street, Portland, Maine 04101) that the Bank elects not to consider the Escrow Account renewed for any such additional period.

In the event of such notice, the City, in its sole discretion, may draw against the Escrow Account by presentation of a sight draft drawn on the Bank and a statement purportedly signed by the Director of Planning and Urban Development, at Bank's offices located at _____ stating that:

this drawing results from notification that the Bank has elected not to renew its Letter of Credit No. _____.

On its Expiration Date or on the date the City determines that all improvements guaranteed by this Escrow Account are satisfactorily completed, this Performance Guarantee shall be reduced by the City to ten (10) percent of its original amount and shall automatically convert to an Irrevocable Defect Guarantee. Written notice of such reduction shall be forwarded by the City to the Bank. The Defect Guarantee shall ensure the workmanship and durability of all materials used in the construction of the **[Insert: subdivision and/ or site plan]** approval, dated **[Insert: Date]** as required by City Code §14-501, 525 and shall automatically expire one (1) year from the date of its creation ("Termination Date").

The City, through its Director of Planning and Urban Development and in his/her sole discretion, may draw on the Defect Guarantee by presentation of a sight draft at Bank's offices located at _____, prior to the Termination Date, stating any one of the following:

1. the Developer has failed to complete any unfinished improvements; or
2. the Developer has failed to correct any defects in workmanship; or
3. the Developer has failed to use durable materials in the construction and installation of improvements contained within the [**Insert: subdivision and/ or site improvements**].

Date: _____

By: _____

[Name]

[Title]

Its Duly Authorized Agent

Seen and Agreed to: [**Applicant**]

By: _____

**PERFORMANCE GUARANTEE
with the City of Portland**

Developer's Tax Identification Number: _____

Developer's Name and Mailing Address: _____

City Account Number: _____

Application ID #: _____

Application of _____ **[Applicant]** for _____ **[Insert street/Project Name]** at _____ **[Address]**, Portland, Maine.

The City of Portland (hereinafter the "City") will hold the sum of \$ _____ **[amount of performance guarantee]** on behalf of _____ **[Applicant]** in a non-interest bearing account established with the City. This account shall represent the estimated cost of installing _____ **[insert: subdivision and/ or site improvements (as applicable)]** as depicted on the subdivision/site plan, approved on _____ **[date]** as required under Portland Code of Ordinances Chapter 14 §§499, 499.5, 525 and Chapter 25 §§46 through 65. It is intended to satisfy the Applicant's obligation, under Portland Code of Ordinances Chapter 14 §§501, 502 and 525, to post a performance guarantee for the above referenced development.

The City, through its Director of Planning and Urban Development and in his/her sole discretion, may draw against this Escrow Account in the event that:

1. the Developer has failed to satisfactorily complete the work on the improvements contained within the _____ **[insert: subdivision and/ or site improvements (as applicable)]** approval, dated _____ **[insert date]**; or
2. the Developer has failed to deliver to the City a deed containing the metes and bounds description of any streets, easements or other improvements required to be deeded to the City; or
3. the Developer has failed to notify the City for inspections in conjunction with the installation of improvements noted in paragraph one.

The Director of Planning and Urban Development may draw on this Guarantee, at his/her option,

either thirty days prior to the expiration date contained herein, or s/he may draw against this escrow for a period not to exceed sixty (60) days after the expiration of this commitment; provided that the Applicant, or its representative, will give the City written notice, by certified mail (restricted delivery to Ellen Sanborn, Director of Finance, City of Portland, 389 Congress Street, Room 110, Portland, Maine) of the expiration of this escrow within sixty (60) days prior thereto.

After all underground work has been completed and inspected to the satisfaction of the Department of Public Works and Planning, including but not limited to sanitary sewers, storm drains, catch basins, manholes, electrical conduits, and other required improvements constructed chiefly below grade, the City of Portland Director of Planning and Urban Development or its Director of Finance as provided in Chapter 14 §501 of the Portland Code of Ordinances, may authorize the City to reduce the available amount of the escrowed money by a specified amount.

This Guarantee will automatically expire on **[Insert date between April 16 and October 30 of the following year]** ("Expiration Date") or on the date when the City determines that all improvements guaranteed by this Performance Guarantee are satisfactorily completed, whichever is later. At such time, this Guarantee shall be reduced by the City to ten (10) percent of its original amount and shall automatically convert to an Irrevocable Defect Guarantee. Written notice of such reduction and conversion shall be forwarded by the City to **[the applicant]**. The Defect Guarantee shall expire one (1) year from the date of its creation and shall ensure the workmanship and durability of all materials used in the construction of the **[Insert: Subdivision and/ or site plan]** approval, dated **[Insert: Date]** as required by City Code §14-501, 525.

The City, through its Director of Planning and Urban Development and in his/her sole discretion, may draw on the Defect Guarantee should any one of the following occur:

1. the Developer has failed to complete any unfinished improvements; or
2. the Developer has failed to correct any defects in workmanship;
or
3. the Developer has failed to use durable materials in the construction and installation of improvements contained within the **[Insert: subdivision and/ or site improvements]**.

Seen and Agreed to:

By: _____
[Applicant]

Date: _____

By: _____
****Planning Division Director

Date: _____

By: _____
Development Review Coordinator

Date: _____

Attach **Letter of Approval and Estimated Cost of Improvements** to this form.

Distribution

1. This information will be completed by Planning Staff.
2. The account number can be obtained by calling Cathy Ricker, ext. 8665.
3. The Agreement will be executed with one original signed by the Developer.
4. The original signed Agreement will be scanned by the Planning Staff then forwarded to the Finance Office, together with a copy of the Cash Receipts Set.
5. ****Signature required if over \$50,000.00.

Infrastructure Financial Contribution Form
Planning and Urban Development Department - Planning Division

Amount \$

City Account Number: 710-0000-236-98-00

Project Code: _____

(This number can be obtained by calling Cathy Ricker, x8665)

Project Name:

Application ID #:

Project Location:

Project Description:

Funds intended for:

Applicant's Name:

Applicant's Address:

Expiration:

☐ If funds are not expended or encumbered for the intended purpose by _____, funds, or any balance of remaining funds, shall be returned to contributor within six months of said date.

☐ Funds shall be permanently retained by the City.

☐ Other (describe in detail) _____

Form of Contribution:

☐ Escrow Account

☐ Cash Contribution

Interest Disbursement: Interest on funds to be paid to contributor only if project is not commenced.

Terms of Draw Down of Funds: The City shall periodically draw down the funds via a payment requisition from Public Works, which form shall specify use of City Account # shown above.

Date of Form:

Planner:

- Attach the approval letter, condition of approval or other documentation of the required contribution.
- One copy sent to the Applicant.

Electronic Distribution to:

Peggy Axelsen, Finance Department
Catherine Baier, Public Services Department
Barbara Barhydt, Planning Division
Jeremiah Bartlett, Public Services Department
Michael Bobinsky, Public Services Department
Diane Butts, Finance Department
Philip DiPierro, Planning Division
Katherine Earley, Public Services Department
Michael Farmer, Public Services Department
Alex Jaegerman, Planning Division
David Margolis Pineo, Public Services Department
Matt Rancourt, Public Services Department
Jeff Tarling, Public Services Department
Planner for Project

CITY OF PORTLAND, MAINE
PLANNING BOARD

Att. 3

Elizabeth Boepple, Chair
Sean Dundon, Vice Chair
Carol Morrisette
David Eaton
Kristien Nichols
Lisa Whited
Maggie Stanley

February 15, 2017

Lou Woods
A&M Partners Inc
120 Exchange Street
Portland ME 04101

Thomas S Greer, P.E.
Pinkham & Greer, Civil Engineers
28 Vannah Avenue
Portland ME 04103

Project Name: **Site Plan Condition i: Westerlea View Lofts: 54 unit residential development plus 1 commercial space**
Project ID: #2016-184 (Subdivision & Site Plan) and
#2016-185 (Conditional Use Inclusionary Zoning)
Address: 75 Chestnut Street CBL: 26/E/10
Applicant: A&M Partners Inc
Planner: Jean Fraser

Dear Sirs:

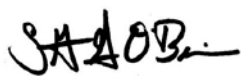
On February 14, 2017 the Planning Board voted unanimously that the applicant has met Site Plan condition of approval (i) from the approval letter dated December 16, 2016, requiring that the final proposals shall comply with the B7 Design Standards A-2, A-5, C-2, E-1, E-3 particularly addressing: a. Articulated roofline; b. Massing and scale to transition and integrate with the residential context on Chestnut Street; c. Pedestrian experience on Chestnut Street; and d. Materiality; To be reviewed and approved by the Planning Board.

The Board also voted unanimously that a revised Landscape Plan shall be submitted for review and approval by the Planning Authority that shows a replacement street tree. Please address this condition prior to the issuance of a building permit.

Please note that the conditions of approval and requirements for your approved Subdivision, Site Plan, and Inclusionary Zoning enumerated in your original approval letter dated December 16, 2016, still apply. This letter is attached for reference.

If there are any questions, please contact Jean Fraser at (207) 874-8728.

Sincerely,



Elizabeth Boepple, Chair
Portland Planning Board

Attachments: 1. Original Approval Letter (12/16/16)

cc. *Archetype* (attn. Bill Hopkins), 48 Union Wharf, Portland, ME 04101

Electronic Distribution:

cc.

Jeff Levine, AICP, Director of Planning and Urban Development
Stuart O'Brien, City Planning Director
Barbara Barhydt, Development Review Services Manager
Jean Fraser, Planner
Philip DiPierro, Development Review Coordinator, Planning
Mike Russell, Director of Permitting and Inspections
Ann Machado, Zoning Administrator, Inspections Division
Jonathan Rioux, Inspections Division Deputy Director
Jeanie Bourke, Plan Reviewer/CEO, Inspections Division
Chris Branch, Director of Public Works
Katherine Earley, Engineering Services Manager, Public Works
Bill Clark, Project Engineer, Public Works

Doug Roncarati, Stormwater Coordinator, Public Works
Greg Vining, Associate Engineer, Public Works
Michelle Sweeney, Associate Engineer, Public Works
John Low, Associate Engineer, Public Works
Rhonda Zazzara, Field Inspection Coordinator, Public Works
Jeff Tarling, City Arborist, Public Works
Jeremiah Bartlett, Public Works
Keith Gautreau, Fire Department
Danielle West-Chuhta, Corporation Counsel
Thomas Errico, P.E., TY Lin Associates
Lauren Swett, P.E., Woodard and Curran
Rick Blackburn, Assessor's Department
Approval Letter File

CITY OF PORTLAND, MAINE
PLANNING BOARD

Elizabeth Boepple, Chair
Sean Dundon, Vice Chair
Carol Morrisette
David Eaton
Kristien Nichols
Lisa Whited
Maggie Stanley

December 16, 2016

Lou Woods
A&M Partners Inc
120 Exchange Street
Portland ME 04101

Thomas S Greer, P.E.
Pinkham & Greer, Civil Engineers
28 Vannah Avenue
Portland ME 04103

Project Name: **Westerlea View Lofts: 54 unit residential development plus 1 commercial space**
Project ID: #2016-184 (Subdivision & Site Plan) and
#2016-185 (Conditional Use Inclusionary Zoning)
Address: 75 Chestnut Street CBL: 26/E/10
Applicant: A&M Partners Inc
Planner: Jean Fraser

Dear Sirs:

On December 13, 2016, the Planning Board considered a proposal for a new 7 story building comprising 54 residential apartments (rental), and one commercial unit, totaling approximately 75,800 sq ft, located at 75 Chestnut Street. One parking space per residential unit is proposed to be located in the existing abutting parking garage for the tenants of the new building, and the project also includes a landscaped amenity area. The Planning Board reviewed the proposal for conformance with the standards of the Subdivision, Site Plan, B-7 Zone and Inclusionary Zoning.

The Planning Board voted 7-0 to approve the application with the following waiver and conditions as presented below:

A. WAIVER

On the basis of the application, plans, reports and other information submitted by the applicant; findings and recommendations contained in the planning board report for the public hearing on December 13, 2016 for application 2016-184 (75 Chestnut Street) relevant to Portland's technical and design standards and other regulations; and the testimony presented at the planning board hearing:

1. The planning board voted 7-0 that it finds that the applicant has demonstrated that site constraints prevent the planting of all required street trees in the right-of-way. The planning board waives the site plan standard (*Section 14-526 (b) (iii)*) requiring one street tree per unit for multi-family development and concludes that the applicant shall contribute \$6,400 to Portland's tree fund.

B. SUBDIVISION

On the basis of the application, plans, reports and other information submitted by the applicant; findings and recommendations contained in the planning board report for the public hearing on December 13, 2016 for application 2016-184 (75 Chestnut Street) relevant to the subdivision regulations; and the testimony presented at the planning board hearing, the planning board voted 7-0 that the plan is in conformance with the subdivision standards of the land use code and approves the application, subject to the following conditions of approval, which must be met prior to the signing of the plat:

- i. The applicant shall submit a final subdivision plat for review and approval by Corporation Counsel, the Department of Public Works, and the Planning Authority;
- ii. The applicant shall provide drafts of all necessary easements, including but not limited to:
 - a. Temporary construction easement from the City of Portland to Westerlea View Lofts;
 - b. License from the City of Portland to Westerlea View Lofts for building footings;
 - c. Easement(s) for the deck extensions above the existing parking garage structures (air rights);
 - d. Access easement for sidewalks that are on the site property;
 - e. Easement or other legal document to secure required parking for the residential units;for review and approval by Corporation Counsel, the Department of Public Works, and the Planning Authority, with evidence of executed easements to be submitted prior to the issuance of a building permit.

C. SITE PLAN

On the basis of the application, plans, reports and other information submitted by the applicant, findings and recommendations contained in planning board report for the public hearing on December 13, 2016 for application 2016-184 (75 Chestnut Street) relevant to the Site Plan Ordinance and other regulations and the testimony presented at the Planning Board hearing:

The Planning Board voted 7-0 that the plan is in conformance with the site plan standards of the land use code, subject to the following conditions:

- i. That final proposals shall comply with the B7 Design Standards A-2, A-5, C-2, E-1 and E-3, particularly addressing:
 - a. Articulated roofline;
 - b. Massing and scale to transition and integrate with the residential context on Chestnut Street;
 - c. Pedestrian experience on Chestnut Street; and
 - d. Materiality;to be reviewed and approved by the Planning Board.
- ii. That the project is subject to the submitted Transportation Demand Management Plan dated October 2016, to include annual monitoring studies that comply with the requirements set out in the comments of the Traffic Engineering reviewer Tom Errico dated 12.9.2016; and
- iii. That the applicant submit a revised and more detailed plan for the amenity area between the building and Lancaster Street that demonstrates that the safety and security of the area meets CPTED standards eg re lighting, visual surveillance and similar issues including landscape features; and

- iv. That the applicant and all assigns shall comply with the conditions of Chapter 32 stormwater including Article III, post-construction storm water management, which specifies the annual inspections and reporting requirements. The developer/contractor/subcontractor must comply with conditions of the submitted construction stormwater management plan and sediment and erosion control plan dated 9.30.2016 based on City standards and State guidelines. A Maintenance Agreement for the stormwater drainage system shall be approved by Corporation Counsel and the Department of Public Works, and submitted, signed and recorded prior to the issuance of a Certificate of Occupancy with a copy to the Department of Public Works; and
- v. That plans showing details for the areas listed below shall be submitted to the Planning Authority for review and approval prior to the issuance of a building permit:
 - a. Patio/entrances on Oxford Street
 - b. Doors for entrance to parking garage on Chestnut Street
 - c. Decks over parking lot
 - d. Live-work unit
 - e. Parking layout (dimensioned) for ADA spaces and demonstration that it meets applicable state and federal standards regarding ADA van parking.
- vi. That the applicant shall revise plans and provide design details for the following elements in the City's Right of Way, for review and approval prior to the issuance of a building permit:
 - a. Driveway aprons on Oxford Street and Lancaster Street, noting a pedestrian accessibility route with a maximum 2% cross-slope, and whether full or partial adjustment to the grade of the driveway apron is required;
 - b. Grading adjustments for the sidewalk ramp construction at the corner of Chestnut Street and Lancaster Street to address the ponding of water that currently impacts the pedestrian walking route; and
 - c. The provision of an underground lighting conduit as part of the sidewalk reconstruction along the lot frontage on Oxford Street.
- vii. That the applicant shall submit details of the location, design and screening of façade and rooftop external heating, ventilation and other mechanical equipment, and associated information to document the sound levels meet the City's Site Plan, Zoning and Technical Standards, for review and approval by the Planning Authority; and
- viii. That the applicant address the Fire Department comments dated 9.7.2016; and
- ix. That the proposed building mounted wall sconces shall be installed so that the light is directed downward.

D. INCLUSIONARY ZONING CONDITIONAL USE

On the basis of the application, plans, reports and other information submitted by the applicant; findings and recommendations contained in the Planning Board Report for the public hearing on December 13, 2016 for application 2016-185 (75 Chestnut Street) relevant to the Conditional Use as authorized by Division 30, Section 14-487 Ensuring Workforce Housing; and the testimony presented at the planning board hearing, the planning board voted 7-0 that the Conditional Use is in conformance with the standards of the land use code and approves the application, subject to the following conditions of approval: *(continued)*

- i. Provided the Applicant and the City enter into an Affordable Housing Agreement (AHA) before a Building Permit may be issued.
- ii. The AHA will outline the details of the affordability restrictions placed on the workforce units and will be filed as a covenant to the 75 Chestnut Street property's deed with the Cumberland County Registry of Deeds before a Certificate of Occupancy may be issued.

The approval is based on the submitted plans and the findings related to site plan review standards as contained in the Planning Report for application #2016-184 and #2016-185, which is attached.

STANDARD CONDITIONS OF APPROVAL

Please note the following standard conditions of approval and requirements for all approved site plans:

1. **Subdivision Recording Plat** A revised recording plat listing all conditions of subdivision approval must be submitted for review and signature prior to the issuance of a performance guarantee. The performance guarantee must be issued prior to the release of the recording plat for recording at the Cumberland County Registry of Deeds.
2. **Subdivision Waivers** Pursuant to 30-A MRSA section 4406(B)(1), any waiver must be specified on the subdivision plan or outlined in a notice and the plan or notice must be recorded in the Cumberland County Registry of Deeds within 90 days of the final subdivision approval).
3. **Develop Site According to Plan** The site shall be developed and maintained as depicted on the site plan and in the written submission of the applicant. Modification of any approved site plan or alteration of a parcel which was the subject of site plan approval after May 20, 1974, shall require the prior approval of a revised site plan by the Planning Board or Planning Authority pursuant to the terms of Chapter 14, Land Use, of the Portland City Code.
4. **Separate Building Permits Are Required** This approval does not constitute approval of building plans, which must be reviewed and approved by the City of Portland's Permitting and Inspection Division.
5. **Site Plan Expiration** The site plan approval will be deemed to have expired unless work has commenced within one (1) year of the approval or within a time period up to three (3) years from the approval date as agreed upon in writing by the City and the applicant. Requests to extend approvals must be received before the one (1) year expiration date.
6. **Subdivision Plan Expiration** The subdivision approval is valid for up to three years from the date of Planning Board approval.
7. **Performance Guarantee and Inspection Fees** A performance guarantee covering the site improvements, inspection fee payment of 2.0% of the guarantee amount and six (6) final sets of plans must be submitted to and approved by the Planning Division and Public Works Department prior to the release of a subdivision plat for recording at the Cumberland County Registry of Deeds, and prior to the release of a building permit, street opening permit or certificate of occupancy for site plans. If you need to make any modifications to the approved plans, you must submit a revised site plan application for staff review and approval.
8. **Defect Guarantee** A defect guarantee, consisting of 10% of the performance guarantee, must be posted before the performance guarantee will be released.

9. **Preconstruction Meeting** Prior to the release of a building permit or site construction, a pre-construction meeting shall be held at the project site. This meeting will be held with the contractor, Development Review Coordinator, Public Work's representative and owner to review the construction schedule and critical aspects of the site work. At that time, the Development Review Coordinator will confirm that the contractor is working from the approved site plan. The site/building contractor shall provide three (3) copies of a detailed construction schedule to the attending City representatives. It shall be the contractor's responsibility to arrange a mutually agreeable time for the pre-construction meeting.
10. **Department of Public Works Permits** If work will occur within the public right-of-way such as utilities, curb, sidewalk and driveway construction, a street opening permit(s) is required for your site. Please contact Carol Merritt at 874-8300, ext. 8828. (Only excavators licensed by the City of Portland are eligible.)
11. **As-Built Final Plans** Final sets of as-built plans shall be submitted digitally to the Planning Division, on a CD or DVD, in AutoCAD format (*.dwg), release AutoCAD 2005 or greater.
12. **Mylar Copies** Mylar copies of the as-built drawings for the public streets and other public infrastructure in the subdivision must be submitted to the Public Works Department prior to the issuance of a certificate of occupancy.

The Development Review Coordinator must be notified five (5) working days prior to the date required for final site inspection. The Development Review Coordinator can be reached at the Planning Division at 874-8632. All site plan requirements must be completed and approved by the Development Review Coordinator prior to issuance of a Certificate of Occupancy. Please schedule any property closing with these requirements in mind.

If there are any questions, please contact Jean Fraser at (207) 874- 8728.

Sincerely,



Elizabeth Boepple, Chair
Portland Planning Board

Attachments:

1. Final B7 Design Review comments dated December 5, 2016
2. Fire Department comments dated December 13, 2016
3. Planning Board Report
4. City Code, Chapter 32
5. Sample Stormwater Maintenance Agreement
6. Performance Guarantee Packet

Electronic Distribution:

Jeff Levine, AICP, Director of Planning and Urban Development
Stuart O'Brien, City Planning Director
Barbara Barhydt, Development Review Services Manager
Jean Fraser, Planner
Philip DiPierro, Development Review Coordinator, Planning
Mike Russell, Director of Permitting and Inspections
Ann Machado, Zoning Administrator, Inspections Division
Jonathan Rioux, Inspections Division Deputy Director
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Keith Gautreau, Fire Department
Danielle West-Chuhta, Corporation Counsel
Thomas Errico, P.E., TY Lin Associates
Lauren Swett, P.E., Woodard and Curran
Rick Blackburn, Assessor's Department
Approval Letter File

CITY OF PORTLAND, MAINE

PLANNING BOARD

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 David Silk
 Austin Smith
 Maggie Stanley
 Lisa Whited

April 18, 2018

Lou Woods
 A & M Partners Inc
 120 Exchange Street
 Portland, ME 04101

Bill Hopkins
Archetype Architects
 48 Union Wharf
 Portland, ME 04101

Project Name: Westerlea View Lofts (Amendment to 2016/2017 Approval)
 Project ID: #2018-046
 Address: 75 Chestnut Street, Portland
 CBL: 026 E010
 Applicant: A & M Partners, Inc Lou Woods
 Planner: Jean Fraser

Dear Mr. Woods:

On April 17, 2018, the Planning Board considered the Level III Subdivision and Site Plan application for an amendment to the proposals approved on December 13, 2016 and February 14, 2017 (design condition) (#2016-184). The amended proposal includes a new 7 story building comprising 52 residential apartments (rental), and one commercial unit, totaling approximately 75,350 sq ft, located at 75 Chestnut Street. The amendments comprise primarily design and footprint modifications to the approved proposals that reduce the unit count by two 1-BR units and alter way the design relates to the ROW.

The Planning Board reviewed the proposed amendments for conformance with the standards of the Subdivision, Site Plan and B-7 Zone ordinances in the land use code. The approved Waivers and Inclusionary Zoning conditions approved by the Planning Board on December 13, 2016 (#2016-184) remain in force. The approved motions outlined below are largely the same as the previous conditions of approval with respect to the Subdivision and Site Plan ordinances, with one previous condition removed (met in the revised plans) and two conditions added or revised.

On the basis of the application, plans, reports and other information submitted by the applicant; findings and recommendations contained in the Planning Board report for the public hearing on April 17, 2018 for application 2018-046 relevant to Portland's site plan and subdivision ordinances, technical and design standards and other regulations; and the testimony presented at the Planning Board hearing, the Planning Board voted unanimously 6-0 (Silk absent) to approve the application with the following conditions as presented below:

Subdivision

The Planning Board voted unanimously (6-0 Silk absent) that the plan is in conformance with the subdivision standards of the land use code, subject to the following conditions of approval, which must be met prior to the signing of the plat unless otherwise stated:

- i. The applicant shall submit a final subdivision plat for review and approval by Corporation Counsel, the Department of Public Works, and the Planning Authority, addressing the staff comments and reflecting the subdivision and site plan conditions of approval;
- ii. That a lease agreement for the required parking, as contemplated by the submitted Reciprocal Agreement, be submitted for review and approval by the Corporation Counsel, the Department of Public Works, and the Planning Authority, and executed prior to the issuance of a building permit. Such lease to include the term, number, location and accessibility of handicapped spots and other details to meet the City's parking requirements. The rules and regulations governing the use of the parking spaces, as referenced in Article 6 of the Reciprocal Agreement, shall be submitted prior to the approval of the aforementioned lease; and
- iii. The applicant shall provide drafts of all necessary easements, including but not limited to:
 - a. Temporary construction easement from the City of Portland to Westerlea View Lofts;
 - b. License from the City of Portland to Westerlea View Lofts for building footings;
 - a. Easement(s) for the deck extensions above the existing parking garage structures (air rights); and
 - c. Access easement for sidewalks that are on the site property; for review and approval by Corporation Counsel, the Department of Public Works, and the Planning Authority, with evidence of executed easements to be submitted prior to the issuance of a building permit.

Development Review

The Planning Board voted unanimously (6-0 Silk absent) that the plan is in conformance with the site plan standards of the land use code, subject to the following conditions:

- i. That the project is subject to the submitted Transportation Demand Management Plan dated October 2016, to include annual monitoring studies that comply with the requirements set out in the comments of the Traffic Engineering reviewer Tom Errico dated 12.9.2016;
- ii. That the ROW plans along the Chestnut Street frontage be revised, for review and approval prior to the issuance of a building permit, to:
 - a. Provide a relatively straight 5 foot wide ADA clear sidewalk with no impediments (excepting tree grates in limited locations) within an overall width of a minimum of 8 feet sidewalk;
 - b. Provide at least 4 street trees in front of the building on Chestnut Street and 1 additional street tree nearby, taking into account the options suggested by the City Arborist dated 4.12.18; and
 - c. Show the locations and revised specifications for the four new street lamps to be installed by the applicant, to be coordinated with the street tree spacing.

- iii. That the applicant submit a revised and more detailed plan for the amenity area between the building and Lancaster Street that demonstrates that the safety and security of the area meets CPTED standards eg re lighting, visual surveillance and similar issues including landscape features;
- iv. That the applicant and all assigns shall comply with the conditions of Chapter 32 stormwater including Article III, post-construction storm water management, which specifies the annual inspections and reporting requirements. The developer/contractor/subcontractor must comply with conditions of the submitted construction stormwater management plan and sediment and erosion control plan dated 9.30.2016 based on City standards and State guidelines. A Maintenance Agreement for the stormwater drainage system shall be approved by Corporation Counsel and the Department of Public Works, and submitted, signed and recorded prior to the issuance of a Certificate of Occupancy with a copy to the Department of Public Works;
- v. That plans showing details for the areas listed below shall be submitted to the Planning Authority for review and approval prior to the issuance of a building permit:
 - a. Patio/entrances on Oxford Street
 - b. Doors for entrance to parking garage on Chestnut Street
 - c. Decks over parking lot
 - d. Live-work unit
 - e. Parking layout (dimensioned) for ADA spaces and demonstration that it meets applicable state and federal standards regarding ADA van parking;
- vi. That the applicant shall submit details of the location, design and screening of façade and rooftop external heating, ventilation and other mechanical equipment, and associated information to document the sound levels meet the City's Site Plan, Zoning and Technical Standards, for review and approval by the Planning Authority;
- vii. That the applicant address the Fire Department comments dated 9.7.2016; and
- viii. That the proposed building mounted wall sconces shall be installed so that the light is directed downward.

The approval is based on the submitted plans and the findings related to subdivision and site plan review standards contained in the Planning Board Report for application #2018-046, which is attached.

STANDARD CONDITIONS OF APPROVAL

Please Note: The following standard conditions of approval and requirements apply to all approved site plans:

1. Subdivision Recording Plat A revised recording plat, listing all conditions of subdivision approval, must be submitted to the Planning and Urban Development Department for review. Once approved, the plat shall be signed by the Planning Board prior to the issuance of a performance guarantee. The performance guarantee must be issued, prior to the release of the recording plat, for recording at the Cumberland County Registry of Deeds.

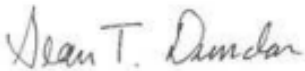
2. Subdivision Waivers Pursuant to 30-A MRSA section 4406(B)(1), any waiver must be specified on the subdivision plan or outlined in a notice. The plan or notice must be recorded in the Cumberland County Registry of Deeds within 90 days of the final subdivision approval.
3. Develop Site According to Plan The site shall be developed and maintained as depicted on the site plan and in the written submission of the applicant. Modification of any approved site plan or alteration of a parcel which was the subject of site plan approval after May 20, 1974, shall require the prior approval of a revised site plan by the Planning Board or Planning Authority pursuant to the terms of Chapter 14, Land Use, of the Portland City Code.
4. Separate Building Permits Are Required This approval does not constitute approval of building plans, which must be reviewed and approved by the City of Portland's Permitting and Inspections Department.
5. Site Plan Expiration The site plan approval will be deemed to have expired unless work has commenced within one (1) year of the approval or within a time period up to three (3) years from the approval date as agreed upon in writing by the City and the applicant. Requests to extend approvals must be received before the one (1) year expiration date.
6. Subdivision Expiration The subdivision approval is valid for up to three (3) years from the date of Planning Board approval.
7. Performance Guarantee and Inspection Fees A performance guarantee covering the site improvements, inspection fee payment of 2.0% of the guarantee amount and seven (7) final sets of plans must be submitted to and approved by the Planning and Urban Development Department and Public Works Department prior to the release of a building permit, street opening permit or certificate of occupancy for site plans. If you need to make any modifications to the approved plans, you must submit a revised site plan application for staff review and approval.
8. Defect Guarantee A defect guarantee, consisting of 10% of the performance guarantee, must be posted before the performance guarantee will be released.
9. Preconstruction Meeting Prior to the release of a building permit or site construction, a pre-construction meeting shall be held at the project site. This meeting will be held with the contractor, Development Review Coordinator, Public Works representative and owner to review the construction schedule and critical aspects of the site work. At that time, the Development Review Coordinator will confirm that the contractor is working from the approved site plan. The site/building contractor shall provide three (3) copies of a detailed construction schedule to the attending City representatives. It shall be the contractor's responsibility to arrange a mutually agreeable time for the pre-construction meeting.

10. Construction Management Plans The applicant, contractor and subcontractors are required to conform to the approved Construction Management Plan, and all conditions contained within the project's approval, for the entire duration of the project. Any amendments to the approved Construction Management Plan shall be reviewed and approved by the Department of Public Works prior to the execution. The Planning Authority and the Department of Public Works have the right to seek revisions to an approved Construction Management Plan. The applicant shall coordinate the project's construction schedule with the timing of nearby construction activities to avoid cumulative impacts on a neighborhood and prevent unsafe vehicle and pedestrian movements. Accordingly, nearby construction activities could involve a delay in the commencement of construction.
11. Department of Public Works Permits If work or obstructions will occur within the public right-of-way, such as utilities, curb, sidewalk, driveway construction, site deliveries and equipment siting, a Street Opening and/or Occupancy Permit (s) is required for your site. Please contact the Department of Public Works Permit Clerk at 874-8300, ext. 8828. (Only excavators licensed by the City of Portland are eligible.)
12. As-Built Final Plans Final sets of as-built plans shall be submitted digitally to the Planning and Urban Development Department, on a CD or DVD, in AutoCAD format (*.dwg), release AutoCAD 2005 or greater.
13. Mylar Copies Mylar copies of the as-built drawings for the public streets and other public infrastructure in the subdivision must be submitted to Public Works prior to the issuance of a certificate of occupancy.

The Development Review Coordinator must be notified five (5) working days prior to the date required for final site inspection. please contact the Planning and Urban Development Department at 874-8719 or 874-8721 to arrange inspections. All site plan requirements must be completed and approved by the Development Review Coordinator prior to issuance of a Certificate of Occupancy. Please schedule any property closing with these requirements in mind.

If there are any questions, please contact Jean Fraser, Planner, at (207) 874-8728 or jf@portlandmaine.gov

Sincerely,



Sean Dundon, Chair
Portland Planning Board

Attachments:

1. Traffic Engineering reviewer Tom Errico comments dated 12.9.2016
2. City Arborist comments dated 4.12.18
3. Fire Department comments dated 9.7.2016
4. Planning Board Report
5. Portland City Code: Chapter 32
6. Sample Stormwater Maintenance Agreement
7. Performance Guarantee Packet

Electronic Distribution:

Jeff Levine, AICP, Director of Planning and Urban Development
Stuart G. O'Brien, City Planning Director, Planning and Urban Development
Barbara Barhydt, Development Review Services Manager, Planning and Urban Development
Jean Fraser, Planner, Planning and Urban Development
Philip DiPierro, DRC, Planning and Urban Development
Mike Russell, Director of Permitting and Inspections
Ann Machado, Zoning Administrator, Permitting and Inspections
Jonathan Rioux, Deputy Director, Permitting and Inspections
Jeanie Bourke, Plan Reviewer/CEO, Permitting and Inspections
Chris Branch, Director of Public Works
Keith Gray, Senior Engineer, Public Works
Doug Roncarati, Stormwater Coordinator, Public Works
Jane Ward, Engineering, Public Works
Rhonda Zazzara, Construction Engineering Coordinator, Public Works
Jeff Tarling, City Arborist, Public Works
Jeremiah Bartlett, Transportation Systems Engineer, Public Works
William Scott, Chief Surveyor, Public Works
Mike Thompson, Fire
Danielle West-Chuhta, Corporation Counsel
Jennifer Thompson, Corporation Counsel
Victoria Volent, Housing Program Manager, Housing and Community Development
Thomas Errico, P.E., TY Lin Associates
Lauren Swett, P.E., Woodard and Curran
Christopher Huff, Assessor

75 Chestnut Street - Final Traffic Comments

1 message

Tom Errico <thomas.errico@tylin.com>

Fri, Dec 9, 2016 at 8:00 AM

To: Jean Fraser <jf@portlandmaine.gov>

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

<JBartlett@portlandmaine.gov>, Lauren Swett <lswett@woodardcurran.com>, Jeff Tarling
<jst@portlandmaine.gov>

Jean – The following is a status update of my previous comments and represents my final traffic comments.

November 3, 2016 Comments

- The City adopted a revised sidewalk materials policy and 75 Chestnut Street has two options for sidewalk material at this time:
 - Option 1: Continue to propose brick sidewalks and retain the bituminous material parking garage driveway aprons with required adjustments to provide a minimum 4-foot wide accessible route (maximum 2% cross slope) on the driveways.
 - Option 2: Provide concrete material sidewalks and continue the concrete material through the parking garage driveway aprons with provision of an accessible route as defined in Option 1.

Status: The applicant has revised the plans to concrete material or Option 2. Thus ALL site driveways (Lancaster and Oxford shall be included) shall be modified to concrete material according current City Policy.

Final Status: The applicant shall provide design details for driveway aprons on Oxford Street and Lancaster Street noting a pedestrian accessibility route with a maximum 2% cross-slope, and whether full or partial adjustment to the grade of the driveway apron is required.

- The plans should be revised to account for the following site plan street lighting requirements:

- The applicant is proposing four (4) street lights on Chestnut Street along the property frontage. It is suggested that the northern most light be located near the Lancaster Street corner and the remaining middle two (2) lights be spaced equidistant to all lights. It is also suggested that a greater separation between the light at the corner of Oxford Street and the tree box be provided.

Status: The plans have been revised and the light nearest Oxford Street shall be located as close to the corner as possible taking into account the corner sidewalk ramp.

Final Status: Jeff Tarling should confirm that adequate separation to the nearby tree is provided.

- Given the City's initiative to provide enhanced street illumination along Oxford Street, the applicant is not required to install lighting.

Status: I was incorrect in making my original comment. While standards require installation of street lights along the property frontage, the City is requesting that only underground conduit be installed for future light fixture installation due to reconstruction of the sidewalk by the applicant.

Final Status: The current plans do not include the requested conduit. A condition of approval shall be included noting that the applicant shall revise the plans to include lighting conduit for review and approval by the City.

- The applicant shall install street lights along the Lancaster Street property frontage. Given the likelihood of redevelopment on the opposite side of Lancaster Street, it is suggested that a staggered pattern be provided with 150-200 foot on center spacing.

Status: The plans propose one light near the Chestnut Street intersection. A second light fixture shall be installed on Lancaster Street near the easterly boundary.

Final Status: The plans have been revised and I have no further comment.

September 8, 2016

- The applicant shall conduct a traffic and safety assessment of the Chestnut Street/Lancaster Street intersection. The assessment shall consist of conducting intersection turning movement counts during the weekday AM and PM peak periods and evaluating crash information. The assessment should determine the appropriateness of the current two-way STOP configuration (which may cause confusion given other area intersection control conditions) and whether a four-way STOP condition is warranted.

Status: I reviewed the traffic data submitted and concur that no action is required of the applicant. I have no further comment.

Final Status: I have no further comment.

- The City Ordinance notes the following; Where construction is proposed of new structures having a total floor area in excess of fifty thousand (50,000) square feet, the planning board shall establish the parking requirement for such structures. The parking requirement shall be determined based upon a parking analysis submitted by the applicant and upon the recommendation of the city transportation engineer. Accordingly, A parking demand and management study shall be conducted that documents the projects expected parking demand according to ITE and/or local accepted data. The study shall also document how garage parking spaces will be managed including but not limited to: will spaces be specifically designated for the proposed tenants; will tenant parking spaces be bundled with each residential unit or an additional amenity; who currently uses the garage and are any users associated with an approved site plan. I would note that I do not expect any issues related to providing a sufficient off-street parking supply.

Status: The applicant shall provide the specific number of parking spaces being allocated to this project; specifically how many spaces are currently available for use in the garage; and if current parking leases are being terminated, documenting that none are associated with an approved site plan. As noted above, the applicant should provide details on how the parking garage will be managed at the point of project occupancy and in future time periods when parking demand may increase with tenant changes. The applicant has provided a TDM Plan and I generally find it to be acceptable. I would note that the annual monitoring shall also include information on parking demand for the project and where tenant parking occurs (in the garage or on-street). I'll provide additional direction on the monitoring program in advance of the public hearing.

Status:

- The applicant has noted that the proposed project will require a need for 54 parking spaces and I find this estimate to be reasonable. I have no further comment.

- The applicant has provided sufficient documentation that under current conditions the existing garage has excess capacity for the additional 54 parked vehicles. I have no further comment.
- The annual monitoring study shall include a survey of existing tenants on automobile ownership and where they park their vehicles. The methods of the survey shall be reviewed and approved by the City's Planning Department. Other information related to the TDM plan shall also be included in the survey. The intent of the survey is to inform the TDM Plan and adjust action items for implementation. The applicant shall identify a target trip reduction goal for use in assessing TDM strategies. A factor to be determined from the survey is whether tenants of the development are using the garage (the goal is not to use on-street parking spaces), and if so what strategies should be considered to direct tenants with vehicles to the garage.
- Sidewalks along the entire frontage of a project site shall meet City standards. The proposed project is currently proposing full sidewalk upgrades along Chestnut Street where the residential building is being constructed and disturbing the existing sidewalk. Existing sidewalks along the property frontage on Lancaster Street and Oxford Street do not meet the City sidewalk material policy. I would further note that during my field investigation the sidewalk on Lancaster Street is in poor condition with a uneven surface that creates ponding during rain events. DPW continues to review sidewalk conditions and requirements such that the project meets City standards.

Status: Refer to the above comments.

Final Status: Refer to previous comments for final status. I would also note that in conjunction with sidewalk ramp construction at the corner of Chestnut Street and Lancaster Street, the applicant shall incorporate grading adjustments to address the ponding of water that currently impacts the pedestrian walking route.

If you have any questions, please contact me.

Best regards,

Thomas A. Errico, PE

Senior Associate

Traffic Engineering Director

TYLININTERNATIONAL

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Fwd: URGENT 75 Chestnut Street trees

1 message

Jean Fraser <jf@portlandmaine.gov>
To: "Fraser, Jean" <jf@portlandmaine.gov>

Thu, Apr 12, 2018 at 6:52 PM

From: Jeff Tarling <jst@portlandmaine.gov>
Date: Thu, Apr 12, 2018 at 5:08 PM
Subject: Re: URGENT 75 Chestnut Street trees
To: Jean Fraser <jf@portlandmaine.gov>

Jean -

We would like to see city sidewalks where possible accommodate our standard sidewalk plow which is 51" wide and 150" long. Currently this section of sidewalk is not cleared by the city but we like to build all future sidewalks to the standard in case someday we need to.

The proposed building angle with columns appears that it could be challenging for snow clearing and pedestrian travel. We note in the downtown that while tree grates are accessible ped traffic seems to avoid walking on them. Truly - the columns appear to pose the biggest challenge to an open, navigable with the closeness of the street trees.

Options include:

a) Adjust the spacing of the trees on the uphill side of Chestnut. Shown as H 6, by moving the second tree down from Oxford Street slightly uphill away from the nearby column. The concrete scoring joint marks could be adjusted to fit the new alignment.

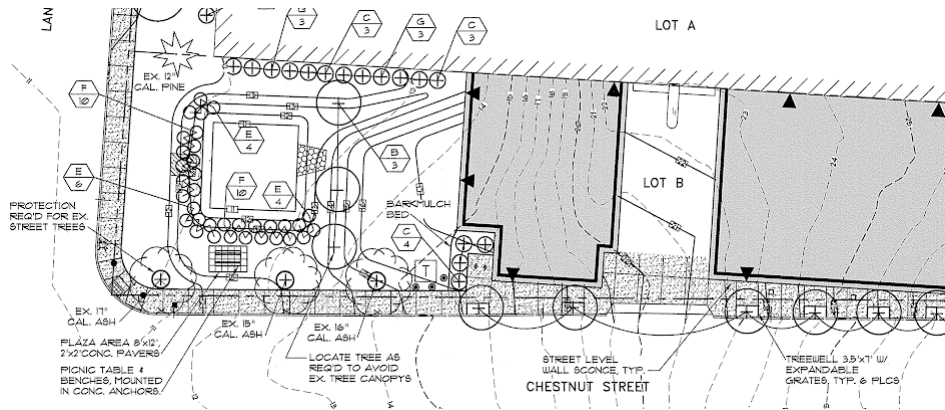
b) Remove (1) tree closest to the column and replant a new tree near the corner of Lancaster Street below the stormwater feature, on the lawn area. This would be between the F-10 & E-6 plant tags on the landscape plan, see below.

My preference would be the later as that space would provide a larger root zone to help the tree establish. From experience the street trees in the sidewalk cutouts have limitations due to lack for root space, (I am thinking the long term view from the tree perspective)

Thanks,

Jeff

See landscape plan:



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

MEMORANDUM

To: FILE
From: Jean Fraser
Subject: Application ID: 2016-184
Date: 12/9/2016

Comments Submitted by: Keith Gautreau/Fire on 9/7/2016

I would like to see a letter from the Portland Water District of their ability to serve domestic and fire protection demand for the proposed high rise building.

Comments Submitted by: Keith Gautreau/Fire on 9/7/2016

Emergency vehicle access is two sides only, Chestnut and Oxford. This is acceptable to the Fire Dept. although because of the arrangement and height of the building I would like to require the overhead power line on Chestnut Street going to the transformer to be underground. This will drastically restrict the Aerial Ladder trucks operation at this proposed site.

Comments Submitted by: Keith Gautreau/Fire on 9/7/2016

Fire Department Access shall have an unobstructed vertical clearance of not less than 13 ft 6 in. We will NOT be requiring this vertical clearance as emergency vehicles will not be entering the parking garage.

Comments Submitted by: Keith Gautreau/Fire on 9/7/2016

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 4 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.



PLANNING BOARD REPORT PORTLAND, MAINE

Westerlea View Lofts: Amendment to previous approval for 54 unit residential development
and commercial space

75 Chestnut Street

Amendment to Level III Subdivision and Site Plan

#2018-046 (Amendment to #2016-184)

CBL: 026 E010002

A&M Partners Inc, Applicant

Submitted to Portland Planning Board Public Hearing Date: April 17 th , 2018	Prepared by: Jean Fraser Date: April 13 th , 2018
--	---

I. INTRODUCTION

The applicant received approval for this project on December 13, 2016, subject to a condition of approval that the design be revised and reviewed by the Planning Board ([Attachment 1](#)). The Planning Board considered revised architectural plans on February 14, 2017 and approved the project based on the final designs ([Attachment 2](#)). The applicant submitted an amendment to the project that involves relatively substantial revisions to the design, along with some minor site plan amendments. The design amendments were considered by the Board on March 22, 2018 and were generally supported.

The previously approved project comprises a new 7 story building of 54 units at the corner of Oxford and Chestnut Streets, located over the Chestnut Street garage access and abutting the garage. The site will be divided into two condos, one for the parking garage and one for the proposed residential building. Parking for the new residential units is proposed to be located in the garage, and the approved proposals include a raingarden and amenity area to the north of the building. The site is located in the B7 zone which has extensive design standards both in the Zoning ordinance and in the Design Standards.

The site abuts the R6 zone along Chestnut and Oxford Streets and is currently an amenity area comprising 10 mature locust street trees and an access drive to the middle level of the parking garage.

In addition to the design amendments, the proposed amendments reduce the unit count by two 1-BR units and alter the footprint and the way the design relates to the ROW.

This Report includes a review of the elements that have changed, and where not specifically referenced the Report and associated Planning Board approval from December 2016 remains applicable.



Applicant: Lou Wood, A & M Partners, Inc

Agent and Engineer: Tom Greer, Walsh Engineering Associates, Inc

Architect: William Hopkins, Archetype

Required reviews for the Amendments:

Applicant's Proposal	Applicable Standards
New structure of 54 dwelling units	Subdivision Review
Multifamily building of 75,800 sq ft	Level III Site Plan Review and B-7 Design Review

II. PROJECT DATA (As amended)

<i>SUBJECT</i>	<i>DATA</i>
Existing Zoning	B-7
Existing Use	Parking garage and open, landscaped surrounds
Proposed Use	52 residential units & 1 commercial unit
Parcel Size	92,202 sq ft
Impervious Surface Area	
--Existing	53,832 sq ft
--Proposed	64,796 sq ft
--Net Change	10,964 sq ft
Total Disturbed Area	22,309 sq ft
Building Footprint	
--Existing	49,326 sq ft
--Proposed	59,089 sq ft
--Net Change	9,763 sq ft
Building Floor Area	
--Existing	147,978 sq ft (existing garage)
--Proposed	223,328 sq ft
-Net Change	75,350 sq ft
Residential	
- # of Existing Res. Units	0
- # of proposed Res. Units	52
- # of lots	2
- # of affordable housing units	6
Proposed Bedroom Mix	
-Efficiency Units	2
One-Bedroom Units	12
Two-Bedroom Units	38
Three-Bedroom Units	0
Parking Spaces	446 available in garage, of which 52 (1:1) committed to tenants
Handicapped Spaces	3
Bicycle parking Spaces	44 (36 inside; 8 outside) (none existing)
Estimated Cost of the project:	\$5,850,000

III. PLANNING BOARD AND WORKSHOP COMMENTS***Planning Board***

At the March Planning Board the applicant was requested to make one design revision: to move the screen at the garage entrance to be closer to the street. The Board also requested, in response to public comments, an additional rendering showing the Chestnut Street elevation in context (submitted as *Plan P25* and at right).



Public Comments

This Hearing was noticed to 154 neighbors and interested parties, and the public notice appeared in the *Portland Press-Herald* on April 9th and 10th, 2018. As of the completion of this PB Report the Planning Division has not received any written public comments. There were two public comments at the March PB workshop.

IV. BACKGROUND

The December 13, 2016 Planning Board Report includes a comprehensive description of the existing conditions, zoning and site plan and height/design analysis - it can be found at:

https://www.portlandmaine.gov/AgendaCenter/ViewFile/Agenda/_12132016-1879?html=true.

The February 14, 2017 Planning Board Report that reviewed the final design in the context of Condition 1 of the December 2016 approval can be found at:

https://www.portlandmaine.gov/AgendaCenter/ViewFile/Agenda/_02142017-1950?html=true

The site is located within the B7 zone and abuts the R6 zone along Chestnut and Oxford Streets. It is currently a grassed amenity area comprising 10 mature locust street trees and an access drive to the middle level of the parking garage. The proposed building would be constructed over the garage access.

The recent PB Workshop to consider the design amendments held on March 22, 2018 includes the design evolution of the building and can be found at:

https://www.portlandmaine.gov/AgendaCenter/ViewFile/Agenda/_03222018-2356?html=true



Looking north from corner Oxford and Chestnut Streets

V. PROPOSED AMENDMENTS

The amendment application includes the following revisions to the approved project; staff understand most of these are proposed at the request of a potential buyer:

- Reduction in the unit count to 52 dwellings, resulting from the omission of two one-BR units;
- Design changes as summarized in the cover letter from the architects (*Attachment B*), which include:
 - Smaller window openings
 - Modifications to the Oxford Street elevation (placement of balconies, massing)
 - Revisions to the garage opening
 - Revised entrance locations and design
- Revisions to the site plan, as partially identified in the cover letter from the civil engineers (*Attachment C*):
 - Revised footprint
 - Relocation of street trees (with one added) to take account of support columns in the sidewalk and the enlarged building along Chestnut Street
 - Revised patio, accesses and some utilities to accommodate revised architecture
 - Changes in the ROW, including some to address conditions of approval from the 2016 review.

VI. ZONING ASSESSMENT

The proposed amended building height is lower than that of the approved project and continues to meet the dimensional requirement of the B7 zone. The B7 ordinance includes extensive *Design Standards* which are discussed below.

VII. DESIGN AMENDMENTS

The Planning Board Memorandum considered on March 22, 2018 included a chronological analysis of the design review as a context for considering the amendments. The applicant has revised the screen at the garage opening as illustrated below:

Rendering of view from Lancaster Street looking south up Chestnut Street:

MARCH 2018 WORKSHOP:



APRIL 2018 HEARING:



The design review discussions in 2016/2017 centered on the integration of the building at street level, the roof line and compatibility with the surrounding residential area. Some neighbors considered the building too high. At the December 2016 Hearing the Board added the following condition to allow for further revision of the design:

That final proposals shall comply with the B7 Design Standards A-2, A-5, C-2, E-1, E-3 particularly:

- a. Articulated roofline;*
- b. Massing and scale to transition and integrate with the residential context on Chestnut Street;*
- c. Pedestrian experience on Chestnut Street; and*
- d. Materiality;*

To be reviewed and approved by the Planning Board.

The Workshop Memorandum reviewed the design amendments as included in *Plan Set B*; these can be compared to the approved design in *Plan Set A*. The City's Urban Designer, Caitlin Cameron, provided a detailed comment for the Workshop (*Attachment 4*) and has confirmed that staff finds the proposal submitted February 27, 2018 (as amended in

respect of the garage screen) meets the B-7 design standards as well as the Planning Board comments and areas of concern covered by the condition of approval.

VIII. SUBDIVISION AMENDMENTS

Further review of the amendments in respect of the Subdivision standards has been undertaken regarding the following where the amendments result in revisions:

Subdivision Plat

The applicant submitted a draft 2-sheet subdivision plat (*Plan P18*) and staff provided comments in March, 2018 (*Attachment 5*). A suggested condition of approval requires that the plat be finalized to address the staff comments and to reflect all of the easements, parking arrangements and other relevant conditions of any approval.

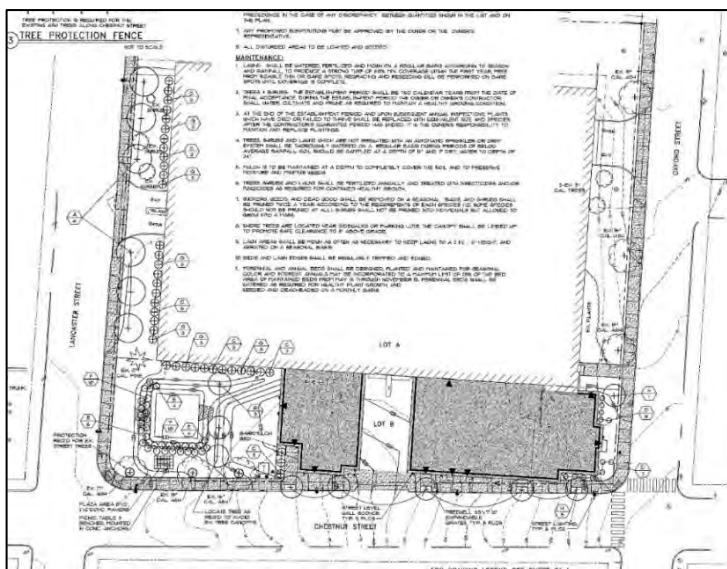
Scenic Beauty and Street Trees

The proposal results in the removal of 7 of the 10 mature trees at the back of the sidewalk on Chestnut Street (*Plan P10*). The approved Landscape Plan included 5 new maple street trees along Chestnut Street and 10 new trees elsewhere on the site, and at the time of the Landscape Plan approval the building columns were not part of the proposals. The amended Landscape Plan proposes 6 new trees along Chestnut Street but this number may not be possible due to conflicts with the building columns associated with the amended design and the need to provide a safe wide sidewalk. The options for meeting the site plan street tree requirement are discussed further under the Site Plan review below.

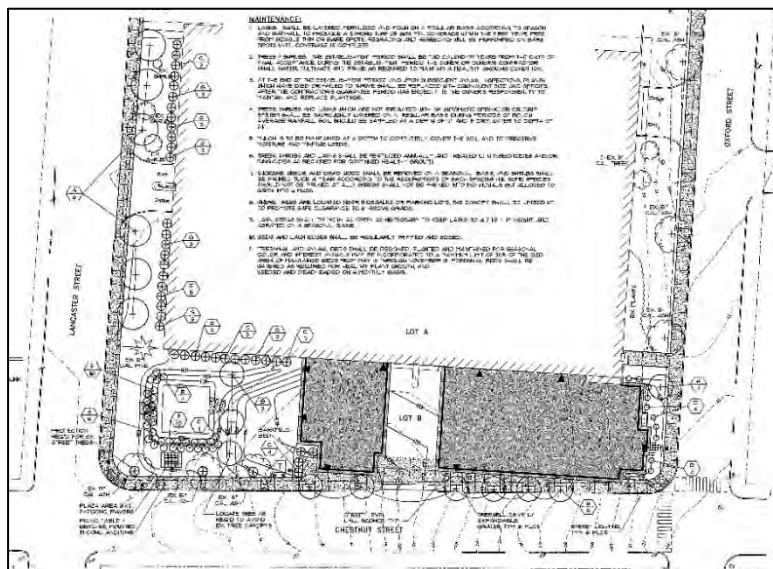
IX. SITE PLAN AMENDMENTS

Further review of the amendments in respect of the Site Plan standards has been undertaken regarding the following where the amendments result in revisions. It should be noted that the civil plans (see *Plans P9 and P10*) were originally approved in 2016 before the final design was approved which included columns on the Chestnut Street frontage. The amendments are generally minor, with the main impacts being on the ROW:

As Approved (2016):



As Amended (2018):



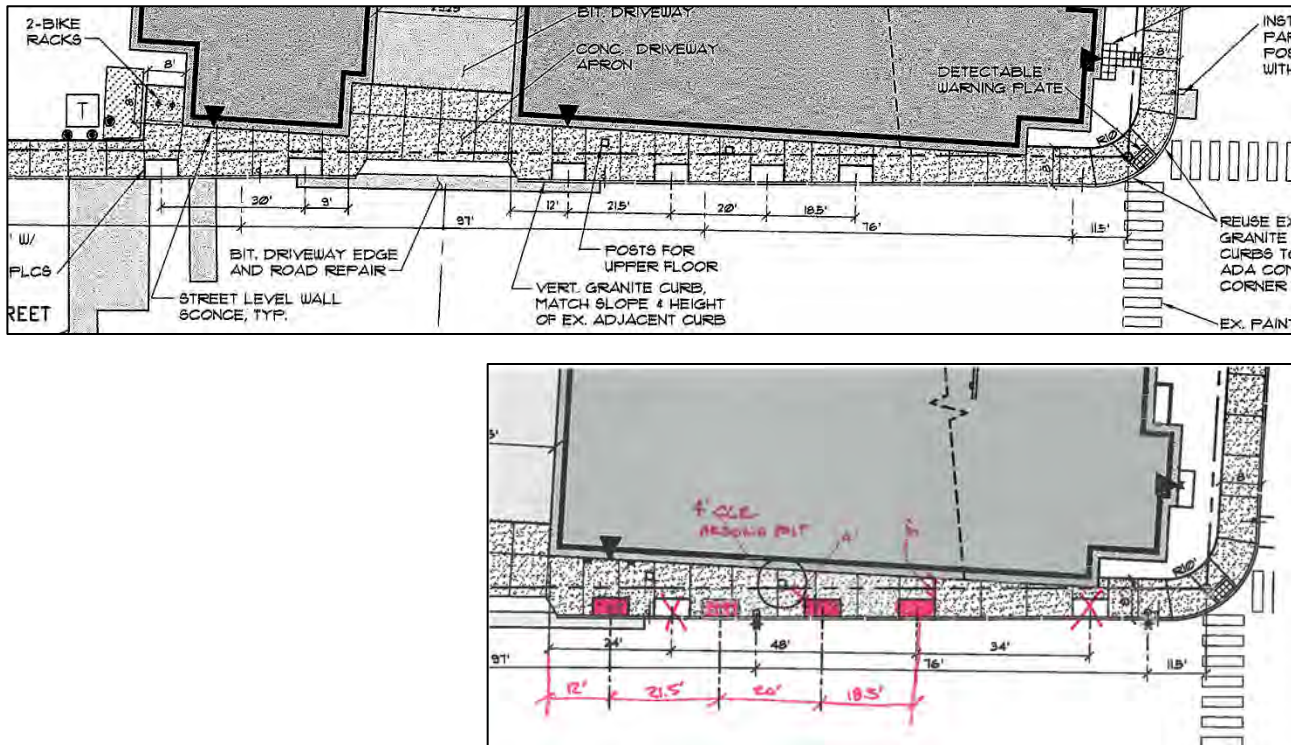
Right of Way – sidewalk, columns and street trees

The applicant is proposing to reconstruct the sidewalk and at the 2016 Hearing this was confirmed to be at least 8 feet in width and in concrete along the Chestnut, Oxford and Lancaster Streets in accordance with the Council's materials policy. At that time staff identified detailed revisions to meet Technical Standards and the amended site plans have addressed some of the conditions.

The 8 feet sidewalk incorporated in the original approved plans was a commitment from the applicant during the review and was welcomed as it is expected that this stretch of sidewalk will become a well-used pedestrian link between

Bayside and Congress Street as Bayside is further developed. The approved site plan did not include any columns to support the building within the 8 feet width, but the amended plan has two columns, the nearest being 5-6 feet from the curb.

The combination of the columns and the revised layout of the street trees creates a situation where the path of walking must keep changing direction to avoid the trees and the columns, as illustrated in these “amendment” plans submitted by the applicant (*Plan P19 & Attachment D*):



The City’s Transportation Program Manager has commented (*Attachment 7*):

“...Site Plan sheet C1.2 should be revised to show a direct, intuitive and non-meandering clear width of no less than 5 ‘ of width of sidewalk without having to avoid obstacles”

The City Arborist has noted that there are a number of options for adjusting the street trees and also notes that in the future snowclearing machinery would also require a relatively straight and wide “path” (*Attachment 8*). It should be noted that the previous 2016 approval required a contribution of \$6400 into the city’s Tree Fund.

The provision of an adequate sidewalk walking space, while also providing street trees, is a challenge and the suggested condition of approval anticipates further revisions that would include the requirement for the sidewalk area to include a 5 feet wide relatively straight walking path within the 8 foot wide sidewalk.

Right-of-Way - Details including street lighting

The staff comments (*Attachment 7*) also include comments regarding the sidewalk ramp details and street lighting specifications and these are referenced in a suggested condition of approval. Due to a technical error the plans reviewed by staff did not include the street light locations; the plans in the packet do show the locations but these need further review to ensure they are coordinated with the street tree locations.

Parking/TDM/ADA accessibility

The previous approval included conditions that relate to the parking provision being tied to the development, the TDM Plan and the location and accessibility of ADA parking—all as based on the 2016 recommendations of the City’s

consultant Traffic Engineering Reviewer Tom Errico. Mr Errico has confirmed that the amendments do not alter the need for these conditions and recommend that the conditions be reiterated as part of this review (*Attachment 6*).

The proposed amendments have altered the access points between the new building and the parking garage, with some of the exits appearing to open into a parking space and with the ADA parking provision unclear (see the First Floor Plan (*Plan P15*)). A suggested condition of approval includes the requirement for further details of these aspects and related parking layout.

The applicant has submitted the signed *Reciprocal Agreement* between the condo unit that includes the parking garage, and the unit that include the proposed new housing (*Attachment F*). The city's Legal Advisor has commented that there should be a condition of approval that ensures that the final version of the parking lease agreement confirms the parking layout and access as well as the legal responsibilities and management/allocation (*Att. 8*).

X. STAFF RECOMMENDATION

Subject to the proposed motions and conditions of approval listed below, Planning Division staff recommends that the Planning Board approve the proposed amendments to the Westerlea View Lofts development at 75 Chestnut Street. Where staff do not consider that the amended proposals provide enough detail to address the previous conditions of approval, those conditions have been re- included in the Subdivision and Site Plan parts of the proposed Motion. One of the previous 2016 conditions has been removed as it has been met.

XI. PROPOSED MOTIONS FOR THE BOARD TO CONSIDER

EDITORS NOTE: The approved Waivers and Inclusionary Zoning conditions approved by the Planning Board on December 13, 2016 (#2016-184) remain in force. The following motions are largely the same as the previous conditions of approval with respect to the Subdivision and Site Plan ordinances, with one condition removed (met in the revised plans) and the underlined wording added or revised.

A. SUBDIVISION

On the basis of the application, plans, reports and other information submitted by the applicant; findings and recommendations contained in the Planning Board report for the public hearing on April 17, 2018 for application 2018-046 (75 Chestnut Street) relevant to the subdivision regulations; and the testimony presented at the Planning Board hearing, the Planning Board finds that the amended plan [is/is not] in conformance with the subdivision standards of the land use code, subject to the following conditions of approval, which must be met prior to the signing of the plat unless otherwise noted:

- i. The applicant shall submit a final subdivision plat for review and approval by Corporation Counsel, the Department of Public Works, and the Planning Authority, addressing the staff comments and reflecting the subdivision and site plan conditions of approval;
- ii. That a lease agreement for the required parking, as contemplated by the submitted Reciprocal Agreement, be submitted for review and approval by the Corporation Counsel, the Department of Public Works, and the Planning Authority, and executed prior to the issuance of a building permit. Such lease to include the term, number, location and accessibility of handicapped spots and other details to meet the City's parking requirements. The rules and regulations governing the use of the parking spaces, as referenced in Article 6 of the Reciprocal Agreement, shall be submitted prior to the approval of the aforementioned lease; and
- iii. The applicant shall provide drafts of all necessary easements, including but not limited to:
 - a. Temporary construction easement from the City of Portland to Westerlea View Lofts;
 - b. License from the City of Portland to Westerlea View Lofts for building footings;
 - c. Easement(s) for the deck extensions above the existing parking garage structures (air rights); and
 - d. Access easement for sidewalks that are on the site property,

for review and approval by Corporation Counsel, the Department of Public Works, and the Planning Authority, with evidence of executed easements to be submitted prior to the issuance of a building permit.

B. SITE PLAN

On the basis of the application, plans, reports and other information submitted by the applicant, findings and recommendations contained in planning board report for the public hearing on April 17, 2018 for application 2018-046 (75 Chestnut Street) relevant to the Site Plan Ordinance and other regulations and the testimony presented at the Planning Board hearing, the Planning Board finds that the amended plan **is / is not** in conformance with the site plan standards of the land use code, subject to the following conditions:

- i. That the project is subject to the submitted Transportation Demand Management Plan dated October 2016, to include annual monitoring studies that comply with the requirements set out in the comments of the Traffic Engineering reviewer Tom Errico dated 12.9.2016;
- ii. That the ROW plans along the Chestnut Street frontage be revised, for review and approval prior to the issuance of a building permit, to:
 - a. Provide a relatively straight 5 foot wide ADA clear sidewalk with no impediments (excepting tree grates in limited locations) within an overall width of a minimum of 8 feet sidewalk;
 - b. Provide at least 4 street trees in front of the building on Chestnut Street and 1 additional street tree nearby, taking into account the options suggested by the City Arborist dated 4.12.18;
 - c. Show the locations and revised specifications for the four new street lamps to be installed by the applicant, to be coordinated with the street tree spacing;
- iii. That the applicant submit a revised and more detailed plan for the amenity area between the building and Lancaster Street that demonstrates that the safety and security of the area meets CPTED standards eg re lighting, visual surveillance and similar issues including landscape features;
- iv. That the applicant and all assigns shall comply with the conditions of Chapter 32 stormwater including Article III, post-construction storm water management, which specifies the annual inspections and reporting requirements. The developer/contractor/subcontractor must comply with conditions of the submitted construction stormwater management plan and sediment and erosion control plan dated 9.30.2016 based on City standards and State guidelines. A Maintenance Agreement for the stormwater drainage system shall be approved by Corporation Counsel and the Department of Public Works, and submitted, signed and recorded prior to the issuance of a Certificate of Occupancy with a copy to the Department of Public Works;
- v. That plans showing details for the areas listed below shall be submitted to the Planning Authority for review and approval prior to the issuance of a building permit:
 - a. Patio/entrances on Oxford Street
 - b. Doors for entrance to parking garage on Chestnut Street
 - c. Decks over parking lot
 - d. Live-work unit
 - e. Parking layout (dimensioned) for ADA spaces and demonstration that it meets applicable state and federal standards regarding ADA van parking;
- vi. That the applicant shall submit details of the location, design and screening of façade and rooftop external heating, ventilation and other mechanical equipment, and associated information to document the sound levels meet the City's Site Plan, Zoning and Technical Standards, for review and approval by the Planning Authority;
- vii. That the applicant address the Fire Department comments dated 9.7.2016; and

- viii. That the proposed building mounted wall sconces shall be installed so that the light is directed downward.

ATTACHMENTS

Attachments to the Report

1. Approval letter dated 12.16.2016 (except Design)
2. Approval letter 2.14.2017 (RE Cond 1 Design)
3. Design Review Workshop comments on Amendments
4. Final Design Review comments
5. Staff comments on draft Subdivision Plats
6. Final Traffic Engineering Review Comments
7. Final Transportation Program Manager comments
8. Legal comments regarding Reciprocal Agreement
9. Final City Arborist Comments

Public Comments (none received at the time report was prepared)

Applicants Amendment Submittal

- A. Amendment Applications
- B. Cover letter describing design amendments (Archetype)
- C. Cover letter describing Site Plan amendments (Walsh Engineering)
- D. Street Tree amendments
- E. Parking information (as for 2016)
- F. Signed Reciprocal Agreement

A. Plans/Renderings as approved 2016/2017

- P1. Approved 2017 Elevations
- P2. Approved 2017 Elevations Rendered
- P3. Approved 2017 Lancaster/Chestnut revised rendering
- P4. Approved 2017 Oxford /Chestnut revised rendering
- P5. Approved 2017 Upper Chestnut rendering
- P6. Approved 2017 Street View of Chestnut Street revised
- P7. Approved 2017 Massing
- P8. Approved subject to Conditions Draft Subdivision Plan
- P9. Approved subject to Conditions 2016 Site Plan
- P10. Approved subject to conditions 2016 Landscape Plan
- P11. Line Axon of approved - two views

B. Plans/Renderings as amended 2018

- P12. Amended Elevations
- P13. Amended Lancaster/Chestnut Rendering
- P14. Amended Upper Chestnut Rendering
- P15. Amended Floor Plans
- P16. Exterior Details
- P17. Existing Conds & Demolition
- P18. Amended Draft Subdivision Plan
- P19. Amended Site Plan
- P20. Amended Landscape Plan
- P21. Amended Grading and Utilities Plan
- P22. Amended Erosion Control Plan
- P23. Line Axon Upper Chestnut
- P24. Final Line Axon Lancaster
- P25. Rendering from Chestnut in context

CITY OF PORTLAND, MAINE

PLANNING BOARD

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

November 12, 2020

75 Chestnut Street Owner LLC Attention: Bryan Vitale 220 Broadway, Suite 302 Lynnfield, MA 01940	Archetype, PA Attention: Katherine Detmer 48 Union Wharf Portland, ME 04101	Walsh Engineering Associates, Inc. Attention: Bill Walsh 1 Karen Dr #2a Westbrook, ME 04092
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Project Name: Amendment to IZ Approval
Address: 75 Chestnut Street
Applicant: 75 Chestnut Street Owner LLC
Planner: James Dealaman

Project ID: PL-001343-2020
CBL: 026 E004001

Dear Mr. Vitale:

On October 27, 2020, the Planning Board considered a Level III Site Plan amendment to the application originally approved on December 13th, 2016 (#PEZ.2016.184) and subsequently amended on April 17, 2018 (#2018-046). The development program now includes the conversion of the 52 rental dwelling units into condominium units, and proposes amending the Inclusionary Zoning Conditional Use approval to allow for payment of an in-lieu fee to the City's Housing Trust Fund to meet the Ensuring Workforce Housing requirements (Section 14-487) rather than providing workforce units onsite. All waivers and conditions previously approved by the Planning Board on the aforementioned dates will remain in force.

On October 27, 2020, the Planning Board reviewed the amendment proposal for conformance with Inclusionary Zoning Conditional Use standards and voted 5-2 (Dunfey and Chann opposed) to approve the application with the following condition as presented below:

Inclusionary Zoning Conditional Use

The Planning Board finds that the plan is in conformance with the Inclusionary Zoning Conditional Use standards of the Land Use Code, subject to the following condition(s) of approval:

PRIOR TO ISSUANCE OF A CERTIFICATE OF OCCUPANCY

1. The applicant shall pay an agreed upon fee-in-lieu of \$565,687 into the City's Housing Trust Fund prior to issuance of the certificate of occupancy.

The approval is based on the submitted plans and findings, as contained in the attached Planning Report dated October 23, 2020 for application PL-001343-2020.

Standard Procedures

Note: The following standard procedures and requirements apply to all approved site plans:

1. Subdivision Recording Plat A final recording plat, listing all conditions of subdivision approval, must be submitted to the Planning and Urban Development Department for review. Once approved, the

plat shall be signed by the Planning Board. A performance guarantee must be issued prior to release of the recording plat for recording at the Cumberland County Registry of Deeds. One mylar copy of the recording plat with signatures and the recorded book and page must be returned to the Planning and Urban Development Department.

2. Subdivision Waivers Pursuant to 30-A M.R.S.A. section 4406(B)(1), any waiver must be specified on the subdivision plan or outlined in a notice. The plan or notice must be recorded in the Cumberland County Registry of Deeds within two (2) years of the final subdivision approval.
3. Site Plan Expiration The site plan approval will be deemed to have expired unless work has commenced within one (1) year of the approval or within a time period up to three (3) years from the approval date as agreed upon in writing by the City and the applicant. Requests to extend approvals must be received before the one (1) year expiration date.
4. Subdivision Expiration Subdivision approval is valid for up to three (3) years from the date of Planning Board approval.
5. Separate Building Permits Are Required This approval does not constitute approval of building plans, which must be reviewed and approved by the City of Portland's Permitting and Inspections Department.
6. Performance Guarantee and Inspection Fees A performance guarantee covering the site improvements and an inspection fee payment of 2.0% of the guarantee amount and three (3) final sets of plans must be submitted to and approved by the Planning and Urban Development Department and Public Works Department prior to the release of a building permit, street opening permit or certificate of occupancy for site plans.
7. Construction Management Plans The applicant, contractor and subcontractors are required to conform to the approved Construction Management Plan, and all conditions contained within the project's approval, for the entire duration of the project. Any amendments to the approved Construction Management Plan shall be reviewed and approved by the Department of Public Works prior to the execution. The Planning Authority and the Department of Public Works have the right to seek revisions to an approved Construction Management Plan. The applicant shall coordinate the project's construction schedule with the timing of nearby construction activities to avoid cumulative impacts on a neighborhood and prevent unsafe vehicle and pedestrian movements. Accordingly, nearby construction activities could involve a delay in the commencement of construction.
8. Preconstruction Meeting Prior to the release of a building permit and scheduling of a preconstruction meeting, a hard copy set of approved plans shall be submitted to the Development Review Coordinator. A pre-construction meeting shall be held at the project site with the contractor, Development Review Coordinator, Public Works representative, and owner to review the construction schedule and critical aspects of the site work. At that time, the Development Review Coordinator will confirm that the contractor is working from the approved site plan and the approved Construction Management Plan. The site/building contractor shall provide one (1) copy of a detailed construction schedule to the attending City representative. It shall be the contractor's responsibility to arrange a mutually agreeable time for the pre-construction meeting.
9. Department of Public Works Permits If work or obstructions will occur within the public right-of-way, such as utilities, curb, sidewalk, driveway construction, site deliveries and equipment siting, a Street Opening and/or Occupancy Permits are required for your site. Please contact the Department of Public Works Permit Clerk at (207) 874-8300, ext. 8828. (Only excavators licensed by the City of Portland are eligible.)

10. Develop Site According to Plan The site shall be developed and maintained as depicted on the site plan and in the written submission of the applicant. Any modifications of an approved site plan or alteration of a parcel, or of any approved exterior elevations, which were the subject of site plan approval after May 20, 1974, shall require the prior approval of an amended site plan by the Planning Board or Planning Authority pursuant to the terms of Chapter 14, Land Use, of the Portland City Code.
11. Stormwater Management The owner/operator of an approved stormwater management system, and all assigns shall comply with the conditions of Chapter 32, Stormwater including Article III, Post Construction Stormwater Management, which specifies the annual inspections and reporting requirements.

A maintenance agreement for the stormwater drainage system, as attached, or in substantially the same form, shall be submitted for review by Corporation Counsel. Once approved, the document shall be signed and recorded at the Cumberland County Registry of Deeds prior to the issuance of a building permit. Final copies shall be submitted to both the Department of Planning and Urban Development and the Department of Public Works.
12. Defect Guarantee A defect guarantee, consisting of 10% of the performance guarantee, must be posted before the performance guarantee will be released.
13. As-Built Final Plans Final sets of as-built plans shall be submitted digitally to the Planning and Urban Development Department, on a CD or DVD, in AutoCAD format (.dwg), release AutoCAD 2005 or greater.
14. Mylar Copies Mylar copies of the as-built drawings for the public streets and other public infrastructure in the subdivision must be submitted to Public Works prior to the issuance of a certificate of occupancy.

The Development Review Coordinator must be notified five (5) working days prior to the date required for final site inspection. The Development Review Coordinator can be reached at the Planning and Urban Development Department at (207) 874-8632. All site plan requirements must be completed and approved by the Development Review Coordinator prior to issuance of a Certificate of Occupancy. Please schedule any property closing with these requirements in mind.

If there are any questions, please contact James Dealaman at (207) 874-8718.

Sincerely,



Brandon Mazer
Planning Board Chair

Attachments:

1. Planning Board Report 10.27.20



PLANNING BOARD REPORT PORTLAND, MAINE

Amendment to Previous IZ Approval
75 Chestnut Street
Level III Site Plan & Subdivision Amendment; IZ Conditional Use
PL-001343-2020
75 Chestnut Street Owner, LLC, Applicant

Submitted to: Portland Planning Board
Public Hearing Date: October 27, 2020

Prepared by: James Dealaman, Planner
Date: October 23, 2020

I. INTRODUCTION

75 Chestnut Street Owner LLC seeks an amendment to the previously-approved Inclusionary Zoning conditional use approval for a mixed-use development at 75 Chestnut Street to facilitate the payment of an in-lieu fee to the Housing Trust Fund instead of providing six workforce housing units on the development site. The previous Inclusionary Zoning approval was a component of the project's Level III Site Plan Application, which also included site plan and subdivision review.



Fig. 1 - Development Site - Plan View

II. BACKGROUND

75 Chestnut Street was originally approved by the Planning Board at its December 13, 2016 meeting under application #PEZ.2016.184; at that time, the development program included a new 7 story mixed use building with 54 residential rental units and one commercial unit (described as a live-work space), as well as including a landscaped amenity area. 54 parking spaces were proposed to be leased from the abutting parking garage. The original proposal was required to provide a minimum of five (5) on-site workforce units. To meet this requirement, the applicant proposed to provide six (6) workforce units on-site in order to meet the Inclusionary Requirements set forth in Section 14-487.

Following the original approval, the project returned to the board on February 14, 2017 to address a design-related condition, and again on April 17, 2018 for an amendment (#2018-046) to their original site plan/subdivision approval to reduce the number of residential units to 52, eliminating two (2) one-bedroom units and altering how the design related to the right-of-way. The applicant now seeks to make the 52 previously approved residential units into condominium units, none of which would be workforce units. As per Section 14-487(e)(4) of the Land Use Code the applicant has the option to pay an in-lieu fee to meet City requirements rather than provide workforce units onsite.

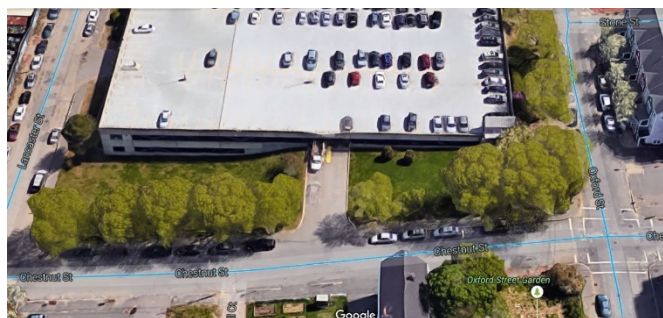


Fig. 2 - Proposed Development Site - Oblique View

Current Applicant: 75 Chestnut Street Owner LLC
Agent and Engineer: Walsh Engineering (Bill Walsh and Celina Daniell)
Architect: Archetype, PA (Katherine Detmer)

III. Required Reviews for the Amendment:

Review	Applicable Standards
Conditional Use – Inclusionary Zoning	<i>Section 14-487</i>

IV. PROJECT DATA

<i>SUBJECT</i>	<i>DATA</i>
Existing Zoning	B-7
Existing Use	Vacant Lot
Proposed Use	52 residential units & 1 commercial unit
Parcel Size	21,451 sq ft
Impervious Surface Area	
--Existing	2,518 sq ft
--Proposed	13,457 sq ft
--Net Change	+10,939 sq ft
Total Disturbed Area	21,451 sq ft
Building Footprint	
--Proposed	9,763 sq ft
Building Floor Area	
--Existing	0 sq ft
--Proposed	75,350 sq ft
Residential	
- # of Existing Res. Units	0
- # of proposed Res. Units	52
- # of lots	1
- # of affordable housing units	0
Proposed Bedroom Mix	
-Efficiency Units	2
One-Bedroom Units	12
Two-Bedroom Units	38
Three-Bedroom Units	0
Parking Spaces	54 via lease from adjacent garage
Handicapped Spaces	3
Bicycle parking Spaces	44 (36 inside; 8 outside) (none existing)

V. NOTICING/PUBLIC COMMENT

This public hearing item was noticed to 152 neighbors and interested parties and public notice appeared in the Portland Press-Herald on October 17th and October 18th 2020. The Planning Division received no public comment regarding the current amendment.

VI. CONDITIONAL USE – INCLUSIONARY ZONING

As required by the City's Inclusionary Zoning ordinance, residential developments with ten or more units are required to provide a minimum of ten percent of the dwelling units as Workforce Housing units, and the units themselves must contain in total, ten percent of the total bedroom count for the entire development. Alternatively, the applicant also has the option to pay a fee-in-lieu for those units.

The City's Housing Program Manager reviewed the application (Attachment 1). With the project proposing 52 residential units, the applicant must provide a minimum of 6 units of workforce housing on-site or pay a

proportional fee-in-lieu alternative. The applicant has elected to pay a fee-in-lieu of \$565,687 (5.2 x \$108,786) to meet the requirement. Housing staff have reviewed the proposal and recommend that the standards can be met in this way and offer the following condition of approval:

Prior to the Issuance of a Certificate of Occupancy

1. *The applicant shall pay an agreed upon fee-in-lieu of \$565,687 into the City's Housing Trust Fund prior to issuance of the certificate of occupancy.*

The following provisions within the previous conditions of approval will become null and void upon being updated by the aforementioned new condition:

- i. Provided the Applicant and the City enter into an Affordable Housing Agreement (AHA) before a Building Permit may be issued.*
- ii. The AHA will outline the details of the affordability restrictions placed on the workforce units and will be filed as a covenant to the 75 Chestnut Street property's deed with the Cumberland County Registry of Deeds before a Certificate of Occupancy may be issued.*

VII. STAFF RECOMMENDATION

Subject to the proposed motions and conditions of approval listed below, and pursuant to the waivers and conditions previously approved by the Planning Board on December 13, 2016 (#2016-184), February 14, 2017, and April 17, 2018 (#2018-046), all of which will remain in force, Planning Division staff recommend that the Planning Board approve the proposed site plan amendment.

VIII. PLANNING BOARD MOTIONS

A. CONDITIONAL USE – INCLUSIONARY ZONING

On the basis of the application, plans, reports, and other information submitted by the applicant, findings and recommendations contained in Planning Board Report for application PL-001343-2020 relevant to the Conditional Use as authorized by Division 30, Section 14-487 Ensuring Workforce Housing; and the testimony presented at the Planning Board hearing, the Planning Board finds the Conditional Use **[is /is not]** in conformance with all applicable provisions of the land use code, subject to the following conditions to be met as noted:

PRIOR TO ISSUANCE OF A CERTIFICATE OF OCCUPANCY

1. The applicant shall pay an agreed upon fee-in-lieu of \$565,687 into the City's Housing Trust Fund prior to issuance of the certificate of occupancy.

IX. ATTACHMENTS

PLANNING BOARD REPORT ATTACHMENTS

1. Inclusionary Zoning review (memo from Victoria Volent, 10.21.2020)
2. Planning Board Approval Letter, Report and Attachments (approved 12.13.2016)
3. Planning Board Approval Letter, Report and Attachments (approved 02.14.2017)
4. Planning Board Approval Letter, Report and Attachments (approved 04.17.2018)

APPLICANT'S SUBMITTALS

- A. Cover Letter, dated 10.09.2020

PLANS

- Plan 1. Existing Conditions and Removals
- Plan 2. Site Plan
- Plan 3. Site Grading & Utility Plan
- Plan 4. Draft Site Recording Plat



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

October 6, 2021

Re: Wastewater Capacity Authorization
 Address: **75 Chestnut Street (64 Chestnut Street)**
 Applicant: A & M Partners, Inc.
 Planner: Jimmy Dealaman

Anticipated Wastewater Flow:

Estimate of Anticipated Design Flows				
Development	Unit Size	Number of Units	Gallons per Day per Unit	Total Gallons per Day
Existing flow to be removed				
Vacant				0
Proposed flow				
Employees at place of employment with no showers	# Employees	10	12 GPD/Employee	120
Multiple Family Dwelling Units	1-Bedroom	13	120	1560
Multiple Family Dwelling Units	2-Bedroom	41	180	7380
Net Change				+ 9,060
*Values based on STATE OF MAINE: SUBSURFACE WASTEWATER DISPOSAL RULES, most recent edition				

Comments:

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

You are reminded that the sewers you are proposing to connect into convey both sanitary and stormwater (Combined Sewer) and therefore a backflow preventer is suggested.

If the City can be of further assistance, please contact me at all 874-8840 or brad@portlandmaine.gov
 Sincerely,

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



Jimmy Dealaman <jdealaman@portlandmaine.gov>

75 Chestnut Street Amendment - Traffic Review

Tom Errico <thomas.errico@tylin.com>

Mon, Oct 4, 2021 at 2:49 PM

To: Jimmy Dealaman <jdealaman@portlandmaine.gov>

Hi Jimmy – I have reviewed the application materials for the amendment and the increase in residential units from 52 to 54 is not expected to create traffic mobility or safety impacts. This increase does not require any changes to the prior conditions of approval. If you have any questions, please contact me.

Best regards,

Thomas A. Errico, PE

Senior Associate

Traffic Engineering Director

TYLIN INTERNATIONAL

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Visit us online at www.tylin.com

Twitter | Facebook | LinkedIn | Instagram

May 6, 2021

Ms. Christine Grimando
City of Portland, Planning
389 Congress Street
Portland, Maine 04101

**RE: Major Site plan and Subdivision Amendment Application
Daymark
75 Chestnut Street
Portland, Maine**

Dear Christine,

On behalf of the 75 Chestnut Street Owner, LLC and the Procopio Companies (Applicant), Walsh Engineering Associates, Inc. (WEA) is pleased to submit the attached plans and supporting information for an amendment to the Daymark project at 75 Chestnut Street (CBL 026 E010). The project was previously approved with 52 residential units. The proposed amendment includes the reconfiguration of the internal floor plans to provide two additional dwelling units in the building. No horizontal or vertical expansions to the building are proposed and no additional site work is proposed.

A parking agreement currently exists for providing a minimum of 54 parking spaces in the adjacent parking garage. One additional bicycle parking space will be provided inside the building for a total of 22 bicycle spaces. The previously approved TDM plan included 54 units, so no additional traffic impacts are anticipated. No changes to the previously approved utilities are proposed.

Thank you for considering this project and we look forward to discussing it with City staff and the Planning Board.

Respectfully,



Silas W. Canavan, PE
Walsh Engineering Associates, Inc.



Site Plan Zoning Analysis
Daymark
75 Chestnut Street, Portland, Maine
May 6, 2021

Site Plan Standards (14.6)

Major Site Plans are subject to the review criteria outlined in Section 14.6 of the City of Portland Land Use Ordinance. Each of these review standards is discussed below:

14.6.1 Transportation Standards

- A. *Impact on surrounding street systems*
The minimal traffic generated from the two additional dwelling units is not anticipated to have an adverse impact on surrounding street systems.
- B. *Access and circulation*
No changes to access and circulation are proposed.
- C. *Public transit access*
No changes to public transit access are proposed.
- D. *Parking*
The existing parking agreement provides 54 parking spaces in the adjacent parking garage.

One additional bicycle parking space will be provided in the garage.
- E. *Transportation Demand Management (TDM)*
The previously approved TDM Plan incorporated 54 units. Therefore, no changes to the TDM plan are required.

14.6.2 Environmental Quality Standards

- A. *Preservation of significant natural features*
No impacts to significant natural features are proposed.
- B. *Landscape preservation*
No additional vegetation will be removed.
- C. *Site landscaping and buffers*
No changes to the landscaping plan are proposed. The Applicant will pay into the city's tree fund for the additional required street trees.
- D. *Water quality, stormwater management, and erosion control*
No changes to the stormwater management plan are proposed.

14.6.3 Public Infrastructure and Community Safety Standards

A. Consistency with City master plans

The residential project meets the current zoning standards of the zone and is consistent with the City's goal of providing additional housing throughout the City.

No additional offsite easements are required other than what was previously approved.

B. Public safety and fire prevention

No changes to public safety or fire prevention are proposed.

C. Public utilities

No changes to public utilities are proposed.

14.6.4 Site design standards

A. Massing, ventilation, and wind impact

No exterior changes to the building are proposed.

B. Shadow

No exterior changes to the building are proposed so no changes to shadows are proposed.

C. Snow and ice loading

No exterior changes to snow and ice loading conditions are proposed.

D. View corridors

No view corridors will be impacted.

E. Historic resources

No historic resources will be impacted.

F. Exterior lighting

No changes to exterior lighting are proposed.

G. Noise and vibration

No changes to building mechanical equipment is proposed.

H. Signage and wayfinding

No changes to signage are proposed.

I. Design standards

No changes to the building are proposed.

Zoning Analysis - Subdivision
Daymark
75 Chestnut Street, Portland, Maine
May 6, 2021

Subdivision Review Standards (15.4)

Subdivisions are subject to the review criteria outlined in Section 15.4 of the City of Portland Land Use Ordinance. Each of these review standards is discussed below:

15.1.1

- A. *Will not result in undue water or air pollution.*
The project will not result in undo air or water pollution.
- B. *Has sufficient water.*
The project has an adequate water supply from the public water system.
- C. *Will not cause unreasonable burden on an existing water supply.*
The project will unreasonably burden the public water supply. The Portland Water District has confirmed that the project can be served.
- D. *Will not cause unreasonable soil erosion or reduction in the capacity of the land to hold water so that a dangerous or unhealthy condition may result.*
No additional exterior site work is proposed.
- E. *Will not cause unreasonable highway or public road congestion or unsafe conditions with respect to use of the highway or public roads existing or proposed.*
Traffic generated from the two additional units is not anticipated to have an adverse impact on surrounding street systems.
- F. *Will provide for adequate sanitary waste and storm water disposal and will not cause an unreasonable burden on municipal services if they are utilized.*
The project is connected to the public sewer and stormwater systems. The previously approved wastewater capacity application approved flow for 54 residential units. There are no proposed changes to the sewer or stormwater systems.
- G. *Will not cause an unreasonable burden on the ability of the City to dispose of solid waste and sewage if municipal services are to be utilized.*
The project is connected to the public sewer system. The previously approved wastewater capacity application approved flow for 54 residential units. The project will utilize a private solid waste removal company.
- H. *Will not have an undue adverse effect on the scenic or natural beauty of the area, aesthetics, historic sites, significant wildlife habitat.*
No significant exterior building or site changes are proposed.

- I. *Is in conformance with the Comprehensive Plan or its successor.*
The project is in conformance with the Comprehensive Plan by providing more housing units within the City.
- J. *The subdivider has adequate financial and technical capacity to meet the standards of this subsection.*
The Applicant has retained Archetype Architects to provide plans for the interior building changes. The previously approved project is already financed and under construction. The incremental cost of adding the two additional units is negligible considering the overall scope of the project.
- K. *Will not adversely affect the quality of such bodies of water or unreasonably affect the shoreline of such body of water.*
The project is not within the Shoreland Zone.
- L. *Will not, alone or in conjunction with existing activities, adversely affect the quality or quantity of groundwater.*
The project will not have an adverse impact on groundwater.
- M. *Is or is not in a flood prone area, based on the Federal Emergency Management Agency's flood boundary and floodway maps and flood insurance rate maps.*
The project is not in a flood zone.
- N. *Will provide for adequate stormwater management.*
No changes are proposed to the previously approved stormwater management system.
- O. *Will not have lots with a lot depth-to-shore frontage ratio greater than 5 to 1 if any lots in the proposed subdivision have shore frontage on a river, stream, brook, great pond, or coastal wetland as these features are defined in Title 38 § 480-B.*
The project does not involve the creation of lots and is not in the shoreland zone.
- P. *For any proposed subdivision that crosses municipal boundaries, will not cause unreasonable traffic congestion or unsafe conditions with respect to the use of existing public ways in an adjoining municipality in which part of the subdivision is located.*
The project does not cross municipal boundaries.



Summary of Easements or Covenants

Daymark

75 Chestnut Street, Portland, Maine

May 6, 2021

Multiple easements exist on the property and are shown on the previously approved Plat Plans.

No changes to the easements are proposed.

A copy of the current parking agreement is enclosed.

LICENSE AGREEMENT

This License Agreement (this “Agreement”), effective as of November ____, 2020 (the “Effective Date”), is made and entered into by and between **CHESTNUT STREET GARAGE, LLC**, a Maine limited liability company with an address of c/o Exchange Street Partners, 120 Exchange Street, Portland, Maine 04101, Attn: Kristen Robichaud (the “Licensor”) and **75 CHESTNUT STREET OWNER, LLC**, a Maine limited liability company with an address of c/o The Procopio Companies, 220 Broadway, Unit 302, Lynnfield, MA 01940 (the “Licensee”).

WHEREAS, Licensor is the owner of the three condominium units comprising the Chestnut Street Parking Condominium, established by the Declaration of Chestnut Street Parking Condominium dated June 29, 1988 and recorded in the Cumberland County Registry of Deeds in Book 8355, Page 105, as amended (the “Parking Facility”);

WHEREAS, Licensee is the owner of certain real property adjacent to the Parking Facility, which it intends to develop into a residential property (the “Development”);

WHEREAS, the parties’ predecessors-in-interest entered into that certain Reciprocal Agreement Regarding Covenants, Easements, Exterior Space Association, and Restrictions, attached as Exhibit B to that certain Warranty Deed from A&M Partners, Inc. and Chestnut Street Parking Condominium Association to J&B Partners, LLC, dated as of August 6, 2018 and recorded in the said Registry of Deeds in Book 35062, Page 155, as affected by a Corrective Warranty Deed recorded in the said Registry of Deeds in Book 35452, Page 148 (the “Reciprocal Agreement”);

WHEREAS, this Agreement supplements the Parking Space Agreement contained in Article 6 of the Reciprocal Agreement for the term hereof;

WHEREAS, the Parking Facility is managed by United Parking Partners (the “Management Company”); and

WHEREAS, Licensor is willing to grant to Licensee a license to use 60 parking spaces in the Parking Facility, on the terms set forth herein.

NOW THEREFORE, for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the parties hereby agree as follows:

1. Use of the Parking Facility. Licensor grants Licensee the limited license to the use of fifty-seven (57) parking spaces for the parking of motor vehicles in the Parking Facility (the “Licensed Parking Spaces”). Licensee acknowledges that the Licensed Parking Spaces are guaranteed but not reserved or designated and are to be used in common with other users of the Parking Facility. Notwithstanding the foregoing, Licensor shall be permitted to designate the specific location of all or a portion of the Licensed Parking Spaces by giving thirty (30) days prior written notice to Licensee. Additionally, Licensor grants Licensee the limited license to

use three (3) Americans With Disabilities Act (“ADA”) compliant spaces on the second floor of the Parking Facility, consisting of two (2) standard ADA spaces and one (1) van size space to be located on the third floor of the Parking Facility (the “Licensed ADA Spaces”). The Licensed ADA Spaces shall be designated spaces, which may include portions of other spaces that will need to be discontinued in order to create the ADA Spaces (the “Lost Spaces”), the location of which shall be designated by Licensor in a written notice to Licensee prior to the Commencement Date. The Licensed Parking Spaces and the Licensed ADA Spaces may not be re-licensed by Licensee to third-parties without Licensor’s prior written consent. Licensee’s interest in this Agreement may not be assigned or sublet without Licensor’s prior written consent, except in accordance with Section 17 below. The parties acknowledge and agree that the Licensee may utilize the Licensed Parking Spaces and the Licensed ADA Spaces for itself and its tenants, residents, employees, contractors, agents, guests, invitees and permitted assigns (collectively, the “Permittees”).

2. Construction of Licensed ADA Spaces. Prior to the Commencement Date, Licensor shall install the Licensed ADA Spaces on the second and third floors of the Parking Facility, including, but not limited to, re-striping an entire section of the Parking Facility, striping the Licensed ADA Spaces, and installing proper signage (collectively, the “ADA Installation Work”), all of such ADA Installation Work to be completed in accordance with the terms set forth below:

(a) Licensor shall deliver to Licensee for Licensee’s review and approval, such approval not to be unreasonably withheld, conditioned or delayed, a proposed scope of work and cost estimate (or proposed fixed price or guaranteed maximum price) to complete the ADA Installation Work by a licensed contractor as may reasonably be agreed to by Licensor and Licensee (the “Contractor”);

(b) Following Licensee’s approval of the scope of work and cost pursuant to paragraph 2(a) above, Licensor shall cause the Contractor to complete the ADA Installation Work prior to the Commencement Date; and

(c) The ADA Installation Work, including any and all design, permitting, and other modifications or work at the Parking Facility that are necessitated by the installation, use, and continued compliance with the ADA of the Licensed ADA Spaces and any other ADA-compliant spaces made necessary by the creation of the Licensed ADA Spaces, shall be made at Licensee’s sole cost and expense, which expenses shall be reimbursed to Licensor within thirty (30) days of Licensor’s submission of invoices and other reasonable evidence of such expense to Licensee.

3. Compliance with Law. Licensee shall at all times ensure that its use of the Licensed Parking Spaces and Licensed ADA Spaces is in compliance with all applicable federal, state and local laws and regulations.

4. Key Access Cards. Licensor shall provide not less than sixty (60) key access cards in total to Licensee which shall allow the Licensee and its Permittees around the clock access to the Parking Facility. Licensee shall be responsible for the issuance of the key access

cards to its Permittees. Licensor shall deliver to Licensee the Management Company's standard registration form for issuance of key access cards used throughout the Parking Facility (the "Parking Garage Registration Form"), and contemporaneously with commencing use of the Licensed Parking Spaces and the Licensed ADA Spaces, Licensee shall provide Licensor and the Management Company with a completed and executed Parking Garage Registration Form providing such information as Licensor shall reasonably request. Licensee shall thereafter notify Licensor of any changes in the identities of Permittees provided with access cards and of any changes to any vehicles provided access to the Parking Facility within one (1) business day of said changes. If Licensor or Management Company is requested to issue a replacement key access card for any reason, then Licensor shall promptly issue (or shall cause the Management Company to promptly issue) such a replacement key access card to Licensee upon Licensee's payment of the sum of fifteen dollars (\$15.00) for each replacement key access card issued; provided that Licensor reserves the right from time to time and without notice, to increase the cost of replacement key access cards not to exceed the greater of (i) \$150.00 per key access card or (ii) fifteen percent (15%) above the actual out-of-pocket cost to Licensor for such replacement.

5. Security for Key Access Cards. Prior to the Commencement Date, Licensee shall pay to Licensor the sum of Six Hundred Dollars (\$600.00) as a security deposit for the sixty (60) key access cards. The security deposit shall be refunded within fifteen (15) days from the date Licensee returns all sixty (60) key access cards to Licensor (less any access cards not returned and for which a sum may be withheld in accordance with the following grammatical sentence). Licensee agrees that Licensor may withhold from the refund the sum of fifteen dollars (\$15.00) for each key access card not returned within five (5) days after expiration or termination of this Agreement.

6. License Fee. Commencing on the Commencement Date and throughout the remainder of the term hereof, Licensee shall pay the Base License Fee on a monthly basis, in advance on or before the first day of each month. The "Base License Fee" shall be calculated as follows:

For the Licensed Parking Spaces: The Base License Fee for the Licensed Parking Spaces shall be a monthly fee per Licensed Parking Space, as follows:

Term Year	Monthly Base License Fee Per Space	Number of Licensed Parking Spaces	Total Monthly Base License Fee	Total Annual Base License Fee
Year 1	\$125.00	57	\$7,125.00	\$85,500.00
Year 2	\$135.00	57	\$7,695.00	\$92,340.00
Year 3	\$145.00	57	\$8,265.00	\$99,180.00
Year 4	\$155.00	57	\$8,835.00	\$106,020.00
Year 5	\$165.00	57	\$9,405.00	\$112,860.00
Year 6-10	The Base License Fee will reset at the beginning of the sixth year of the term (August 1, 2027) and be subject to increase at the then published rates for the Parking Facility, at Licensor's sole discretion, but in no event shall			

	the Base License Fee be less than \$200 or more than \$250 per month per parking space. In Term Years 7 through 10, the Base Licenses Fee shall increase each year by \$10 per space per month over the Base License Fee of the Prior Year.
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For the Licensed ADA Spaces: The Base License Fee for the Licensed ADA Spaces shall be a monthly fee per ADA Space and per Lost Space. The number of Lost Spaces will be the number of parking spaces (or any portion thereof) removed due to the construction of the Licensed ADA Spaces and any other ADA-compliant space which must be constructed due to the creation of the Licensed ADA Spaces, minus the number of ADA-compliance spaces created (which shall include the Licensed ADA Spaces) in the place of such removed spaces, provided that in no event shall the number of Lost Spaces be less than zero (0). Such determination shall be made upon completion of the construction of the Licensed ADA Spaces, and promptly following such determination, the parties agree to execute an amendment to this Agreement memorializing the number of Lost Spaces. The monthly Base License Fee per space shall be as follows:

Term Year	Monthly Base License Fee Per Space Licensed ADA Space and Lost Space
Year 1	\$200.00
Year 2	\$210.00
Year 3	\$230.00
Year 4	\$240.00
Year 5	\$250.00
Year 6-10	The Base License Fee for the ADA Spaces and Lost Spaces will reset at the beginning of the sixth year of the term (August 1, 2027) and be subject to increase at the then published rates for the Parking Facility, at Licensor's sole discretion but in no even shall the Base License Fee be less than \$250 or more than \$300 per month per parking space. In Term Years 7 through 10, the Base Licenses Fee shall increase each year by \$10 per space per month over the Base License Fee of the Prior Year.

Any monthly Base License Fee not received by Licensor by the fifth (5th) day of the month, shall be considered late and a late fee of \$250.00 shall be added to the monthly Base License Fee which sums shall be promptly payable by Licensee.

7. Term. The term of this Agreement shall be for ten (10) years, commencing October 1, 2021 (the "Commencement Date") and terminating on September 30, 2031. Except as expressly provided herein, this Agreement shall be non-terminable by Licensee or Licensor absent an uncured event of default hereunder by the other party hereto throughout the term of the Agreement.

8. No Bailment. No bailment is created by this Agreement. Licensor shall not be responsible for any damage to, or loss to any of vehicles parked using the Parking Facility under this Agreement, or any component parts thereof or personal property in such vehicles, other than damage or loss (i) directly caused by Licensor, (ii) resulting from Licensor's gross negligence or

intentional actions or (iii) resulting from Licensor's violation of this Agreement. LICENSOR SHALL NOT BE RESPONSIBLE FOR ANY THEFT OF THE VEHICLE OR ITS CONTENTS OR ANY LOSS OR DAMAGE RESULTING FROM LEAVING VEHICLES UNLOCKED OR LEAVING KEYS IN VEHICLES. This policy may not be rescinded or modified by any Licensor employee, and Licensee acknowledges that the Licensor's employees are not authorized to accept responsibility for storing or safeguarding any vehicles or personal property located therein. Licensee shall be responsible for any damage to the Parking Facility as a result of this Agreement. It is understood and agreed between the parties hereto that Licensor will not be responsible for any damage or loss to vehicles or personal property belonging to Licensee or its employees other than as a result of the gross negligence or intentional misconduct of Licensor or its agents or employees. Licensee hereby indemnifies and holds harmless Licensor from any and all liability claims by Licensee or its employees, agents and invitees that are not in compliance with this Paragraph. Licensee, for itself and its employees, agree that the use of the Parking Facility by Licensee, invitees, tenants, residents, employees and agents employees shall be at its and their own risk except as otherwise expressly set forth herein.

9. Renovations, Alterations, Improvements, Repairs and Demolition. Licensor shall keep and maintain the Parking Facility in good and clean order and repair, including but not limited to the interior, exterior, foundations, floors, walls, ceilings and lighting thereof. Licensor may make, from time to time, such renovations, alterations, improvements, or repairs to the Parking Facility as Licensor deems advisable. Licensor shall use its commercially reasonable efforts to minimize any disruption of access to the Licensed Parking Spaces and Licensed ADA Spaces during any such renovations, alterations, improvements, or repairs. Licensor reserves the right, and Licensee expressly acknowledges Licensor's right, to close all or a portion of the Parking Facility, from time to time, and for so long as, in Licensor's reasonable discretion, is necessary for the repair, maintenance, cleaning, renovation, alteration, improvement, construction, restoration or replacement of the Parking Facility. For closures of all or a portion of the Parking Facility that are reasonably expected to last greater than 48 hours and less than six (6) months, Licensor, at its option exercisable in its sole discretion, shall provide a credit against the Base License Fee on a per space basis for so many of the Licensed Parking Spaces and Licensed ADA Spaces as are unavailable or make arrangements for alternative parking spaces for so many of the Licensed Parking Spaces and Licensed ADA spaces as are unavailable. For closures of all or a portion of the Parking Facility that are reasonably expected to last greater than six (6) months, Licensor shall make arrangements for alternative parking spaces during such activities to the extent of the Licensed Parking Spaces and/or the Licensed ADA Spaces (or reasonable temporary replacements therefor within the Parking Facility) are not available within the Parking Facility.

10. Notices. Any notices which are required hereunder or which either Licensor or Licensee may desire to serve upon the other party (or upon the Management Company) shall be in writing and shall be deemed served when delivered personally, or when deposited in the United States Mail, postage prepaid, return receipt requested, addressed as follows:

If to Licensor:

Chestnut Street Garage, LLC

120 Exchange Street
Portland, Maine 04101
Attn: Kristen Robichaud

With a copy to:

Jensen Baird Gardner & Henry
Ten Free Street, 4th Floor
P.O. Box 4510
Portland, Maine 04112-4510
Attn: Nicholas J. Morrill, Esq.

If to Management Company:

Unified Parking Partners
496 Congress Street, Suite 4
Portland Maine 04101
ATTN_ Asher Chappell
asher@unifiedparkingpartners.com

If to Licensee:

75 Chestnut Street Owner, LLC
c/o The Procopio Companies
220 Broadway, Unit 302
Lynnfield, MA 01940
Attn: Michael D. Procopio

With a copy to:

Sullivan & Worcester LLP
One Post Office Square
Boston, MA 02109
Attn: Spencer A. Stone, Esq.

11. Default.

(a) Licensee Default. Licensee shall be in default hereunder if it shall fail to perform any of the obligations stated herein within fifteen (15) days after receipt of notice of such failure from, or on behalf of, Licensor. During the continuance of an uncured default by Licensee following the expiration of the applicable notice and cure period set forth above, in addition to all other rights and remedies available hereunder, at law and in equity, Licensor shall have the right to terminate this Agreement by giving Licensee written notice thereof, upon the giving of which, this Agreement and the term hereof at the option of Licensor shall cease. If this Agreement is terminated due to default of Licensee, Licensee shall remain liable to Licensor for all payments hereunder accrued and unpaid up to the date of such termination. In addition,

Licensee shall be responsible for the Base License Fee for the Licensed Parking Spaces and the Licensed ADA Spaces for the balance of the term of this Agreement.

(b) Licensor Default. Licensor shall be in default hereunder if it shall fail to provide the Licensed Parking Spaces and/or the Licensed ADA Spaces (or reasonable temporary replacements therefore in accordance with Section 9 above), or if Licensor shall fail to perform any of its other obligations stated herein, within fifteen (15) days after receipt of written notice of such failure from, or on behalf of, Licensee. During the continuance of an uncured default by Licensor following the expiration of the applicable notice and cure period set forth above, in addition to all other rights and remedies available hereunder, at law and in equity, Licensee shall have the right to terminate this Agreement by giving Licensor written notice thereof, upon the giving of which, this Agreement and the term hereof at the option of Licensee shall cease.

(c) Each party's rights and remedies under this Agreement are cumulative and in addition to, not exclusive of or in substitution for, any rights or remedies otherwise available to that party hereunder, at law or in equity.

12. Casualty/Eminent Domain.

(a) Casualty. If the Parking Facility or the real property of which it is a part is substantially damaged (the term "substantially damaged" meaning damage of such a character that the same cannot, in the ordinary course, reasonably be expected to be repaired within one hundred eighty (180) days from the time that repair work would commence and Landlord shall not intend to rebuild the Building) by fire or other casualty (each, a "Casualty") that results in Licensee's use of the Licensed Parking Spaces and the Licensed ADA Spaces being impracticable, then Licensor shall have the right to terminate this Agreement by giving notice of Licensor's election to do so within ninety (90) days after the occurrence of such Casualty, whereupon this Agreement shall terminate thirty (30) days after the date of such notice with the same force and effect as if such date were the date originally established as the expiration date hereof. In no event shall Licensor have any liability for damages to Tenant for inconvenience, annoyance or interruption of business arising from any Casualty, unless such Casualty arose as a result of the gross negligence or willful misconduct of the Landlord.

(b) Condemnation. If any part of the Parking Facility is taken by any exercise of the right of eminent domain making Licensee's use of the that results in Licensee's use of the Licensed Parking Spaces and the Licensed ADA Spaces being impracticable (each, a "Taking"), then Licensor shall have the right to terminate this Agreement by giving notice of Licensor's election to do so within ninety (90) days after the occurrence of the effective date of such Taking, whereupon this Agreement shall terminate thirty (30) days after the date of such notice with the same force and effect as if such date were the date originally established for the expiration of the term of this Agreement.

(c) Abatement. If the Parking Facility is damaged by a Casualty or taken by a Taking that results in Licensee's use of the Licensed Parking Spaces and the Licensed ADA Spaces being impracticable, the Base License Fee payable by Licensee shall abate proportionately for the period from the date of such Casualty until the date on which (i) this

Agreement is terminated in accordance with Section 12(a) or 12(b), as applicable, or (b) Licensors shall have completed restoration thereof in accordance with Section 12(d) below and delivered written notice thereof to Licensee.

(d) Restoration. If the Parking Facility or the premises of which it is a part shall be partially or totally damaged or destroyed by a Casualty or taken by a Taking and if this Agreement is not terminated as provided in Section 12(a) or 12(b), then Licensors shall promptly repair and restore the Parking Facility and such premises (as applicable). Licensors' obligation to promptly repair and restore the Parking Facility is subject to unavoidable delays.

"Unavoidable Delay" shall mean delays resulting from events of force majeure including, without limitation, delays due to strikes, lockouts, acts of God, inability to obtain labor or materials due to governmental restrictions or other shortages, enemy action, civil commotion, catastrophe, severe weather, governmental agencies in issuing permits or approvals necessary for such repair and/or restoration, or performing required inspections, pandemic, fire, unavoidable casualty, or other similar causes beyond the reasonable control of Licensors.

13. Subordination. This Agreement is and shall be subject and subordinate in all respects to all mortgages which may now and hereafter affect the property provided that the holder of such mortgage shall not disturb or terminate the license created hereby for so long as Licensee is not in material default of its obligations hereunder. [Please note that once we have a substantially final agreement, we will present the agreement to the current mortgage holder for consent and subordination.]

14. Estoppel. Licensee agrees, at any time, and from time to time, upon not less than ten (10) days prior written request by Licensors, to execute, acknowledge and deliver to Licensors a statement in writing certifying the following information with respect to this Agreement (a) the term of the respective Agreement; (b) the monthly Base License Fee then payable hereunder and thereunder and the date to which such amounts have been paid; (c) that this Agreement is unmodified and in full force and effect (or, if there have been modifications, stating the modifications, and that the respective agreement as modified is in full force and effect), (d) that this Agreement and the Reciprocal Agreement (as each may be modified or otherwise amended from time to time) represent the entire agreement between the parties as to parking in the Parking Facility; (e) there are no existing defenses or offsets which Licensee has against the enforcement of this Agreement by Licensors except as set out by Licensee; (f) that there is no default under this Agreement (or specifying what provision is in default); and (g) such other information as Licensors shall reasonably request. It is the intent of the parties that any such statement delivered pursuant to this Section may be relied upon by any prospective purchaser of, or any prospective holder of a mortgage upon, the Parking Facility.

15. Amendment. This Agreement may be modified or amended by the mutual consent of the parties hereto; provided, however, that no such modification or amendment to this Agreement shall be binding unless in writing and signed by both parties.

16. Rules and Regulations. Licensee agrees to abide by all posted or published rules and regulations now or hereinafter in effect pertaining to use of the Parking Facility (provided the same are of general applicability to, and are uniformly enforced against, all persons parking

in the Parking Facility) and agrees to save hold harmless and indemnify Licensor for any expense or damage as a result of any violation thereof, including towing expense of those vehicles not parked in designated spaces.

17. Assignment.

(a) Licensor may assign all of its interest, rights and obligations under this Agreement (either absolutely or as collateral security) at any time during the term of this Agreement to any person or entity acquiring ownership of the Parking Facility or to any person or entity holding a mortgage encumbering the Parking Facility, in each case upon written notice to Licensee.

(b) Licensee may not assign any of its interest, rights and obligations under this Agreement without the prior written consent of the Licensor, in its sole discretion, except as expressly permitted hereinbelow.

(c) Licensor acknowledges and agrees that following substantial completion of the Development, Licensee intends to submit the Development to the provisions of the Maine Condominium Act (33 M.R.S. §§ 1601-101 et seq.) to form a condominium (as defined in said Act) by the recording of a declaration (as defined in said Act) (the "Declaration") and, in connection therewith, will cause to be formed a unit owners' association (as defined in said Act) (the "Association"). The parties hereby agree, that upon or following the recording of the Declaration and the organization of the Association in accordance with the Maine Condominium Act, and provided that the Association is and continues to be professionally managed throughout the term of this Agreement, Licensee may assign its rights and obligations under this Agreement to the Association or its management company or other agent and provided further that there is no further assignment to the individual condominium unit owners. Licensee shall provide notice of any such assignment to Licensor upon making such assignment. Licensor and Licensee agree to execute, acknowledge and deliver such documents as may be reasonably requested by Licensee (including, without limitation, the Association or its agent as successor Licensee hereunder) in order to effectuate and/or evidence the above-described assignment.

(d) Notwithstanding any provision of paragraph (b) above to the contrary, Licensee may mortgage or otherwise assign its interest, rights and obligations under this Agreement as collateral security for one or more credit facilities to any institutional mortgage lender holding a mortgage on the Development (a "Mortgage") upon written notice to Licensor. In the event of a foreclosure of the Mortgage, or conveyance of the Development in lieu of foreclosure of the Mortgage, such mortgagee, or its affiliate or the person or entity acquiring the Development from such mortgagee shall accede to the rights of Licensee hereunder. In the event of an assignment or mortgage of Licensee's interests under this Agreement to the holder of a mortgage encumbering the Development, Licensor agrees to enter into a recognition and nondisturbance agreement upon such commercially reasonable terms as Licensee's mortgage lender may require, which are acceptable to Licensor in its reasonable discretion.

(e) This Agreement shall be binding upon, and inure to the benefit of, the parties hereto, and their respective successors and assigns.

18. Insurance; Waiver of Subrogation.

(a) Licensee Insurance. Commencing on the Commencement Date and continuing throughout the term of this Agreement, Licensee shall, at its own expense, take out and maintain, commercial general liability insurance, subject to such commercially reasonable and customary deductibles as Licensee may reasonably determine, under which the Licensor, Management Company, and Exchange Street Partners, LLC are named as additional insureds as their interests may appear, in an amount of at least \$1,000,000 per occurrence and \$2,000,000 in the aggregate. Should the Management Company be changed during the term hereof, Licensee shall provide a certificate of insurance confirming that any successor Management Company is named as an additional insured, within fifteen (15) days of receipt of written notice of such change and request for such revised certificate.

(c) Licensor Insurance. Commencing on the Effective Date and continuing throughout the term of this Agreement, Licensor shall, at its own expense, take out and maintain special form property insurance on the Parking Facility in such amounts and subject to such commercially reasonable and customary deductibles as Licensor may reasonably determine, but in an amount not less than the replacement cost of the Parking Facility.

(c) Evidence of Insurance; Termination of Coverage. A certificate of the insurer, certifying that such policy has been issued and paid in full, providing the coverage required by this Section 18 and containing provisions specified herein, shall be delivered by each party to the other prior to the date that the applicable policy is required to be in place under this Section 18 and thereafter upon renewals, not less than thirty (30) days prior to the expiration of such coverage. Each such policy shall be non-cancelable or terminable without at least thirty (30) days' prior written notice to the other party (except in the case of non-payment or non-renewal in which case ten (10) days shall be sufficient).

(d) Waiver of Subrogation. Notwithstanding anything herein to the contrary, Licensor and Licensee each hereby waives any and all rights of recovery, claim, action, or cause of action against the other, its agents, employees, licensees, or invitees for any loss or damage, including bodily injury, to or at the Parking Facility, the premises of which it is a part or any personal property of such party therein or thereon by reason of fire, the elements, or any other cause which is covered, or would have been covered, by the insurance coverages required to be maintained by Licensor and Licensee, respectively, under this Agreement, regardless of cause or origin, including omission of the other party hereto, its agents, employees, licensees, or invitees. Licensor and Licensee covenant that no insurer shall hold any right of subrogation against either of such parties with respect thereto.

19. Building Permit. Licensee agrees to use commercially reasonable efforts to obtain a building permit from the City of Portland for the construction of the Development in accordance with plans and specifications heretofore submitted to the City of Portland Planning Board (the "Building Permit"). Licensee agrees to give written notice to Licensor of the issuance of the Building Permit within five (5) business days after its issuance. No ADA Installation Work shall be commenced prior to the issuance the Building Permit, and

notwithstanding any provision hereof to the contrary, in the event that the Building Permit is not issued on or before February 1, 2021, this Agreement shall thereupon automatically terminate and be without further force or effect.

20. Attorney's Fees. In the event of any dispute arising out of or in connection with this Agreement, the non-prevailing party agrees to reimburse the prevailing party for its reasonable attorney's fees and costs.

21. Conflict. For so long as this Agreement is in full force and effect (but not thereafter), the terms hereof shall control over any contrary terms in the Reciprocal Agreement. To the extent that the terms of the Reciprocal Agreement are not in conflict with the Reciprocal Agreement, those terms shall continue in full force and effect and, in either event, the provisions of the Reciprocal Agreement shall survive the termination of this Agreement.

22. Governing Law. This Agreement shall be governed by and construed in accordance with the laws of the State of Maine.

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IN WITNESS WHEREOF, the parties have caused this License Agreement to be executed by their duly authorized officers or members as of the day and year first above written.

LICENSOR:

**CHESTNUT STREET GARAGE,
LLC**

**By: Exchange Street Partners, LLC,
its Manager**



By: Drew Sigfridson
Its: Manager

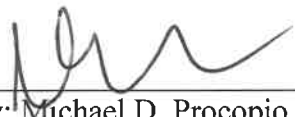
LICENSEE:

**75 CHESTNUT STREET OWNER, LLC,
a Maine limited liability company**

**By: 75 Chestnut Street Venture, LLC
Its: Sole Member**

**By: 75 Chestnut Street Manager, LLC
Its: Manager**

**By: TPC Portland Residential Partners,
LLC
Its: Manager**



By: Michael D. Procopio
Its: Manager

CITY OF PORTLAND
Planning & Urban Development Department

**PLAN AMENDMENT FOR MAJOR SITE PLAN
GENERAL DOCUMENT AND DRAWINGS CHECKLIST**

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

All drawings must be submitted in a 24 x 36 sheet size.

GENERAL APPLICATION DOCUMENTS

☒ Yes	NA	Written Statement of the Proposed Amendment(s) (Identify any conditions of approval being met and any changes to waivers)
☒ Yes	NA	Any supporting documents of the original application that are being revised. (Revisions should be clearly identified)
DRAWINGS		
☒ Yes	NA	All amended plans affected by the proposed revisions. The plans shall clearly depict proposed modifications.

LICENSE AGREEMENT

This License Agreement (this “Agreement”), effective as of November ____, 2020 (the “Effective Date”), is made and entered into by and between **CHESTNUT STREET GARAGE, LLC**, a Maine limited liability company with an address of c/o Exchange Street Partners, 120 Exchange Street, Portland, Maine 04101, Attn: Kristen Robichaud (the “Licensor”) and **75 CHESTNUT STREET OWNER, LLC**, a Maine limited liability company with an address of c/o The Procopio Companies, 220 Broadway, Unit 302, Lynnfield, MA 01940 (the “Licensee”).

WHEREAS, Licensor is the owner of the three condominium units comprising the Chestnut Street Parking Condominium, established by the Declaration of Chestnut Street Parking Condominium dated June 29, 1988 and recorded in the Cumberland County Registry of Deeds in Book 8355, Page 105, as amended (the “Parking Facility”);

WHEREAS, Licensee is the owner of certain real property adjacent to the Parking Facility, which it intends to develop into a residential property (the “Development”);

WHEREAS, the parties’ predecessors-in-interest entered into that certain Reciprocal Agreement Regarding Covenants, Easements, Exterior Space Association, and Restrictions, attached as Exhibit B to that certain Warranty Deed from A&M Partners, Inc. and Chestnut Street Parking Condominium Association to J&B Partners, LLC, dated as of August 6, 2018 and recorded in the said Registry of Deeds in Book 35062, Page 155, as affected by a Corrective Warranty Deed recorded in the said Registry of Deeds in Book 35452, Page 148 (the “Reciprocal Agreement”);

WHEREAS, this Agreement supplements the Parking Space Agreement contained in Article 6 of the Reciprocal Agreement for the term hereof;

WHEREAS, the Parking Facility is managed by United Parking Partners (the “Management Company”); and

WHEREAS, Licensor is willing to grant to Licensee a license to use 60 parking spaces in the Parking Facility, on the terms set forth herein.

NOW THEREFORE, for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the parties hereby agree as follows:

1. Use of the Parking Facility. Licensor grants Licensee the limited license to the use of fifty-seven (57) parking spaces for the parking of motor vehicles in the Parking Facility (the “Licensed Parking Spaces”). Licensee acknowledges that the Licensed Parking Spaces are guaranteed but not reserved or designated and are to be used in common with other users of the Parking Facility. Notwithstanding the foregoing, Licensor shall be permitted to designate the specific location of all or a portion of the Licensed Parking Spaces by giving thirty (30) days prior written notice to Licensee. Additionally, Licensor grants Licensee the limited license to

use three (3) Americans With Disabilities Act (“ADA”) compliant spaces on the second floor of the Parking Facility, consisting of two (2) standard ADA spaces and one (1) van size space to be located on the third floor of the Parking Facility (the “Licensed ADA Spaces”). The Licensed ADA Spaces shall be designated spaces, which may include portions of other spaces that will need to be discontinued in order to create the ADA Spaces (the “Lost Spaces”), the location of which shall be designated by Licensor in a written notice to Licensee prior to the Commencement Date. The Licensed Parking Spaces and the Licensed ADA Spaces may not be re-licensed by Licensee to third-parties without Licensor’s prior written consent. Licensee’s interest in this Agreement may not be assigned or sublet without Licensor’s prior written consent, except in accordance with Section 17 below. The parties acknowledge and agree that the Licensee may utilize the Licensed Parking Spaces and the Licensed ADA Spaces for itself and its tenants, residents, employees, contractors, agents, guests, invitees and permitted assigns (collectively, the “Permittees”).

2. Construction of Licensed ADA Spaces. Prior to the Commencement Date, Licensor shall install the Licensed ADA Spaces on the second and third floors of the Parking Facility, including, but not limited to, re-striping an entire section of the Parking Facility, striping the Licensed ADA Spaces, and installing proper signage (collectively, the “ADA Installation Work”), all of such ADA Installation Work to be completed in accordance with the terms set forth below:

(a) Licensor shall deliver to Licensee for Licensee’s review and approval, such approval not to be unreasonably withheld, conditioned or delayed, a proposed scope of work and cost estimate (or proposed fixed price or guaranteed maximum price) to complete the ADA Installation Work by a licensed contractor as may reasonably be agreed to by Licensor and Licensee (the “Contractor”);

(b) Following Licensee’s approval of the scope of work and cost pursuant to paragraph 2(a) above, Licensor shall cause the Contractor to complete the ADA Installation Work prior to the Commencement Date; and

(c) The ADA Installation Work, including any and all design, permitting, and other modifications or work at the Parking Facility that are necessitated by the installation, use, and continued compliance with the ADA of the Licensed ADA Spaces and any other ADA-compliant spaces made necessary by the creation of the Licensed ADA Spaces, shall be made at Licensee’s sole cost and expense, which expenses shall be reimbursed to Licensor within thirty (30) days of Licensor’s submission of invoices and other reasonable evidence of such expense to Licensee.

3. Compliance with Law. Licensee shall at all times ensure that its use of the Licensed Parking Spaces and Licensed ADA Spaces is in compliance with all applicable federal, state and local laws and regulations.

4. Key Access Cards. Licensor shall provide not less than sixty (60) key access cards in total to Licensee which shall allow the Licensee and its Permittees around the clock access to the Parking Facility. Licensee shall be responsible for the issuance of the key access

cards to its Permittees. Licensor shall deliver to Licensee the Management Company's standard registration form for issuance of key access cards used throughout the Parking Facility (the "Parking Garage Registration Form"), and contemporaneously with commencing use of the Licensed Parking Spaces and the Licensed ADA Spaces, Licensee shall provide Licensor and the Management Company with a completed and executed Parking Garage Registration Form providing such information as Licensor shall reasonably request. Licensee shall thereafter notify Licensor of any changes in the identities of Permittees provided with access cards and of any changes to any vehicles provided access to the Parking Facility within one (1) business day of said changes. If Licensor or Management Company is requested to issue a replacement key access card for any reason, then Licensor shall promptly issue (or shall cause the Management Company to promptly issue) such a replacement key access card to Licensee upon Licensee's payment of the sum of fifteen dollars (\$15.00) for each replacement key access card issued; provided that Licensor reserves the right from time to time and without notice, to increase the cost of replacement key access cards not to exceed the greater of (i) \$150.00 per key access card or (ii) fifteen percent (15%) above the actual out-of-pocket cost to Licensor for such replacement.

5. Security for Key Access Cards. Prior to the Commencement Date, Licensee shall pay to Licensor the sum of Six Hundred Dollars (\$600.00) as a security deposit for the sixty (60) key access cards. The security deposit shall be refunded within fifteen (15) days from the date Licensee returns all sixty (60) key access cards to Licensor (less any access cards not returned and for which a sum may be withheld in accordance with the following grammatical sentence). Licensee agrees that Licensor may withhold from the refund the sum of fifteen dollars (\$15.00) for each key access card not returned within five (5) days after expiration or termination of this Agreement.

6. License Fee. Commencing on the Commencement Date and throughout the remainder of the term hereof, Licensee shall pay the Base License Fee on a monthly basis, in advance on or before the first day of each month. The "Base License Fee" shall be calculated as follows:

For the Licensed Parking Spaces: The Base License Fee for the Licensed Parking Spaces shall be a monthly fee per Licensed Parking Space, as follows:

Term Year	Monthly Base License Fee Per Space	Number of Licensed Parking Spaces	Total Monthly Base License Fee	Total Annual Base License Fee
Year 1	\$125.00	57	\$7,125.00	\$85,500.00
Year 2	\$135.00	57	\$7,695.00	\$92,340.00
Year 3	\$145.00	57	\$8,265.00	\$99,180.00
Year 4	\$155.00	57	\$8,835.00	\$106,020.00
Year 5	\$165.00	57	\$9,405.00	\$112,860.00
Year 6-10	The Base License Fee will reset at the beginning of the sixth year of the term (August 1, 2027) and be subject to increase at the then published rates for the Parking Facility, at Licensor's sole discretion, but in no event shall			

	the Base License Fee be less than \$200 or more than \$250 per month per parking space. In Term Years 7 through 10, the Base Licenses Fee shall increase each year by \$10 per space per month over the Base License Fee of the Prior Year.
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For the Licensed ADA Spaces: The Base License Fee for the Licensed ADA Spaces shall be a monthly fee per ADA Space and per Lost Space. The number of Lost Spaces will be the number of parking spaces (or any portion thereof) removed due to the construction of the Licensed ADA Spaces and any other ADA-compliant space which must be constructed due to the creation of the Licensed ADA Spaces, minus the number of ADA-compliance spaces created (which shall include the Licensed ADA Spaces) in the place of such removed spaces, provided that in no event shall the number of Lost Spaces be less than zero (0). Such determination shall be made upon completion of the construction of the Licensed ADA Spaces, and promptly following such determination, the parties agree to execute an amendment to this Agreement memorializing the number of Lost Spaces. The monthly Base License Fee per space shall be as follows:

Term Year	Monthly Base License Fee Per Space Licensed ADA Space and Lost Space
Year 1	\$200.00
Year 2	\$210.00
Year 3	\$230.00
Year 4	\$240.00
Year 5	\$250.00
Year 6-10	The Base License Fee for the ADA Spaces and Lost Spaces will reset at the beginning of the sixth year of the term (August 1, 2027) and be subject to increase at the then published rates for the Parking Facility, at Licensor's sole discretion but in no even shall the Base License Fee be less than \$250 or more than \$300 per month per parking space. In Term Years 7 through 10, the Base Licenses Fee shall increase each year by \$10 per space per month over the Base License Fee of the Prior Year.

Any monthly Base License Fee not received by Licensor by the fifth (5th) day of the month, shall be considered late and a late fee of \$250.00 shall be added to the monthly Base License Fee which sums shall be promptly payable by Licensee.

7. Term. The term of this Agreement shall be for ten (10) years, commencing October 1, 2021 (the "Commencement Date") and terminating on September 30, 2031. Except as expressly provided herein, this Agreement shall be non-terminable by Licensee or Licensor absent an uncured event of default hereunder by the other party hereto throughout the term of the Agreement.

8. No Bailment. No bailment is created by this Agreement. Licensor shall not be responsible for any damage to, or loss to any of vehicles parked using the Parking Facility under this Agreement, or any component parts thereof or personal property in such vehicles, other than damage or loss (i) directly caused by Licensor, (ii) resulting from Licensor's gross negligence or

intentional actions or (iii) resulting from Licensor's violation of this Agreement. LICENSOR SHALL NOT BE RESPONSIBLE FOR ANY THEFT OF THE VEHICLE OR ITS CONTENTS OR ANY LOSS OR DAMAGE RESULTING FROM LEAVING VEHICLES UNLOCKED OR LEAVING KEYS IN VEHICLES. This policy may not be rescinded or modified by any Licensor employee, and Licensee acknowledges that the Licensor's employees are not authorized to accept responsibility for storing or safeguarding any vehicles or personal property located therein. Licensee shall be responsible for any damage to the Parking Facility as a result of this Agreement. It is understood and agreed between the parties hereto that Licensor will not be responsible for any damage or loss to vehicles or personal property belonging to Licensee or its employees other than as a result of the gross negligence or intentional misconduct of Licensor or its agents or employees. Licensee hereby indemnifies and holds harmless Licensor from any and all liability claims by Licensee or its employees, agents and invitees that are not in compliance with this Paragraph. Licensee, for itself and its employees, agree that the use of the Parking Facility by Licensee, invitees, tenants, residents, employees and agents employees shall be at its and their own risk except as otherwise expressly set forth herein.

9. Renovations, Alterations, Improvements, Repairs and Demolition. Licensor shall keep and maintain the Parking Facility in good and clean order and repair, including but not limited to the interior, exterior, foundations, floors, walls, ceilings and lighting thereof. Licensor may make, from time to time, such renovations, alterations, improvements, or repairs to the Parking Facility as Licensor deems advisable. Licensor shall use its commercially reasonable efforts to minimize any disruption of access to the Licensed Parking Spaces and Licensed ADA Spaces during any such renovations, alterations, improvements, or repairs. Licensor reserves the right, and Licensee expressly acknowledges Licensor's right, to close all or a portion of the Parking Facility, from time to time, and for so long as, in Licensor's reasonable discretion, is necessary for the repair, maintenance, cleaning, renovation, alteration, improvement, construction, restoration or replacement of the Parking Facility. For closures of all or a portion of the Parking Facility that are reasonably expected to last greater than 48 hours and less than six (6) months, Licensor, at its option exercisable in its sole discretion, shall provide a credit against the Base License Fee on a per space basis for so many of the Licensed Parking Spaces and Licensed ADA Spaces as are unavailable or make arrangements for alternative parking spaces for so many of the Licensed Parking Spaces and Licensed ADA spaces as are unavailable. For closures of all or a portion of the Parking Facility that are reasonably expected to last greater than six (6) months, Licensor shall make arrangements for alternative parking spaces during such activities to the extent of the Licensed Parking Spaces and/or the Licensed ADA Spaces (or reasonable temporary replacements therefor within the Parking Facility) are not available within the Parking Facility.

10. Notices. Any notices which are required hereunder or which either Licensor or Licensee may desire to serve upon the other party (or upon the Management Company) shall be in writing and shall be deemed served when delivered personally, or when deposited in the United States Mail, postage prepaid, return receipt requested, addressed as follows:

If to Licensor:

Chestnut Street Garage, LLC

120 Exchange Street
Portland, Maine 04101
Attn: Kristen Robichaud

With a copy to:

Jensen Baird Gardner & Henry
Ten Free Street, 4th Floor
P.O. Box 4510
Portland, Maine 04112-4510
Attn: Nicholas J. Morrill, Esq.

If to Management Company:

Unified Parking Partners
496 Congress Street, Suite 4
Portland Maine 04101
ATTN_ Asher Chappell
asher@unifiedparkingpartners.com

If to Licensee:

75 Chestnut Street Owner, LLC
c/o The Procopio Companies
220 Broadway, Unit 302
Lynnfield, MA 01940
Attn: Michael D. Procopio

With a copy to:

Sullivan & Worcester LLP
One Post Office Square
Boston, MA 02109
Attn: Spencer A. Stone, Esq.

11. Default.

(a) Licensee Default. Licensee shall be in default hereunder if it shall fail to perform any of the obligations stated herein within fifteen (15) days after receipt of notice of such failure from, or on behalf of, Licensor. During the continuance of an uncured default by Licensee following the expiration of the applicable notice and cure period set forth above, in addition to all other rights and remedies available hereunder, at law and in equity, Licensor shall have the right to terminate this Agreement by giving Licensee written notice thereof, upon the giving of which, this Agreement and the term hereof at the option of Licensor shall cease. If this Agreement is terminated due to default of Licensee, Licensee shall remain liable to Licensor for all payments hereunder accrued and unpaid up to the date of such termination. In addition,

Licensee shall be responsible for the Base License Fee for the Licensed Parking Spaces and the Licensed ADA Spaces for the balance of the term of this Agreement.

(b) Licensor Default. Licensor shall be in default hereunder if it shall fail to provide the Licensed Parking Spaces and/or the Licensed ADA Spaces (or reasonable temporary replacements therefore in accordance with Section 9 above), or if Licensor shall fail to perform any of its other obligations stated herein, within fifteen (15) days after receipt of written notice of such failure from, or on behalf of, Licensee. During the continuance of an uncured default by Licensor following the expiration of the applicable notice and cure period set forth above, in addition to all other rights and remedies available hereunder, at law and in equity, Licensee shall have the right to terminate this Agreement by giving Licensor written notice thereof, upon the giving of which, this Agreement and the term hereof at the option of Licensee shall cease.

(c) Each party's rights and remedies under this Agreement are cumulative and in addition to, not exclusive of or in substitution for, any rights or remedies otherwise available to that party hereunder, at law or in equity.

12. Casualty/Eminent Domain.

(a) Casualty. If the Parking Facility or the real property of which it is a part is substantially damaged (the term "substantially damaged" meaning damage of such a character that the same cannot, in the ordinary course, reasonably be expected to be repaired within one hundred eighty (180) days from the time that repair work would commence and Landlord shall not intend to rebuild the Building) by fire or other casualty (each, a "Casualty") that results in Licensee's use of the Licensed Parking Spaces and the Licensed ADA Spaces being impracticable, then Licensor shall have the right to terminate this Agreement by giving notice of Licensor's election to do so within ninety (90) days after the occurrence of such Casualty, whereupon this Agreement shall terminate thirty (30) days after the date of such notice with the same force and effect as if such date were the date originally established as the expiration date hereof. In no event shall Licensor have any liability for damages to Tenant for inconvenience, annoyance or interruption of business arising from any Casualty, unless such Casualty arose as a result of the gross negligence or willful misconduct of the Landlord.

(b) Condemnation. If any part of the Parking Facility is taken by any exercise of the right of eminent domain making Licensee's use of the that results in Licensee's use of the Licensed Parking Spaces and the Licensed ADA Spaces being impracticable (each, a "Taking"), then Licensor shall have the right to terminate this Agreement by giving notice of Licensor's election to do so within ninety (90) days after the occurrence of the effective date of such Taking, whereupon this Agreement shall terminate thirty (30) days after the date of such notice with the same force and effect as if such date were the date originally established for the expiration of the term of this Agreement.

(c) Abatement. If the Parking Facility is damaged by a Casualty or taken by a Taking that results in Licensee's use of the Licensed Parking Spaces and the Licensed ADA Spaces being impracticable, the Base License Fee payable by Licensee shall abate proportionately for the period from the date of such Casualty until the date on which (i) this

Agreement is terminated in accordance with Section 12(a) or 12(b), as applicable, or (b) Licensors shall have completed restoration thereof in accordance with Section 12(d) below and delivered written notice thereof to Licensee.

(d) Restoration. If the Parking Facility or the premises of which it is a part shall be partially or totally damaged or destroyed by a Casualty or taken by a Taking and if this Agreement is not terminated as provided in Section 12(a) or 12(b), then Licensors shall promptly repair and restore the Parking Facility and such premises (as applicable). Licensors' obligation to promptly repair and restore the Parking Facility is subject to unavoidable delays.

"Unavoidable Delay" shall mean delays resulting from events of force majeure including, without limitation, delays due to strikes, lockouts, acts of God, inability to obtain labor or materials due to governmental restrictions or other shortages, enemy action, civil commotion, catastrophe, severe weather, governmental agencies in issuing permits or approvals necessary for such repair and/or restoration, or performing required inspections, pandemic, fire, unavoidable casualty, or other similar causes beyond the reasonable control of Licensors.

13. Subordination. This Agreement is and shall be subject and subordinate in all respects to all mortgages which may now and hereafter affect the property provided that the holder of such mortgage shall not disturb or terminate the license created hereby for so long as Licensee is not in material default of its obligations hereunder. [Please note that once we have a substantially final agreement, we will present the agreement to the current mortgage holder for consent and subordination.]

14. Estoppel. Licensee agrees, at any time, and from time to time, upon not less than ten (10) days prior written request by Licensors, to execute, acknowledge and deliver to Licensors a statement in writing certifying the following information with respect to this Agreement (a) the term of the respective Agreement; (b) the monthly Base License Fee then payable hereunder and thereunder and the date to which such amounts have been paid; (c) that this Agreement is unmodified and in full force and effect (or, if there have been modifications, stating the modifications, and that the respective agreement as modified is in full force and effect), (d) that this Agreement and the Reciprocal Agreement (as each may be modified or otherwise amended from time to time) represent the entire agreement between the parties as to parking in the Parking Facility; (e) there are no existing defenses or offsets which Licensee has against the enforcement of this Agreement by Licensors except as set out by Licensee; (f) that there is no default under this Agreement (or specifying what provision is in default); and (g) such other information as Licensors shall reasonably request. It is the intent of the parties that any such statement delivered pursuant to this Section may be relied upon by any prospective purchaser of, or any prospective holder of a mortgage upon, the Parking Facility.

15. Amendment. This Agreement may be modified or amended by the mutual consent of the parties hereto; provided, however, that no such modification or amendment to this Agreement shall be binding unless in writing and signed by both parties.

16. Rules and Regulations. Licensee agrees to abide by all posted or published rules and regulations now or hereinafter in effect pertaining to use of the Parking Facility (provided the same are of general applicability to, and are uniformly enforced against, all persons parking

in the Parking Facility) and agrees to save hold harmless and indemnify Licensor for any expense or damage as a result of any violation thereof, including towing expense of those vehicles not parked in designated spaces.

17. Assignment.

(a) Licensor may assign all of its interest, rights and obligations under this Agreement (either absolutely or as collateral security) at any time during the term of this Agreement to any person or entity acquiring ownership of the Parking Facility or to any person or entity holding a mortgage encumbering the Parking Facility, in each case upon written notice to Licensee.

(b) Licensee may not assign any of its interest, rights and obligations under this Agreement without the prior written consent of the Licensor, in its sole discretion, except as expressly permitted hereinbelow.

(c) Licensor acknowledges and agrees that following substantial completion of the Development, Licensee intends to submit the Development to the provisions of the Maine Condominium Act (33 M.R.S. §§ 1601-101 et seq.) to form a condominium (as defined in said Act) by the recording of a declaration (as defined in said Act) (the "Declaration") and, in connection therewith, will cause to be formed a unit owners' association (as defined in said Act) (the "Association"). The parties hereby agree, that upon or following the recording of the Declaration and the organization of the Association in accordance with the Maine Condominium Act, and provided that the Association is and continues to be professionally managed throughout the term of this Agreement, Licensee may assign its rights and obligations under this Agreement to the Association or its management company or other agent and provided further that there is no further assignment to the individual condominium unit owners. Licensee shall provide notice of any such assignment to Licensor upon making such assignment. Licensor and Licensee agree to execute, acknowledge and deliver such documents as may be reasonably requested by Licensee (including, without limitation, the Association or its agent as successor Licensee hereunder) in order to effectuate and/or evidence the above-described assignment.

(d) Notwithstanding any provision of paragraph (b) above to the contrary, Licensee may mortgage or otherwise assign its interest, rights and obligations under this Agreement as collateral security for one or more credit facilities to any institutional mortgage lender holding a mortgage on the Development (a "Mortgage") upon written notice to Licensor. In the event of a foreclosure of the Mortgage, or conveyance of the Development in lieu of foreclosure of the Mortgage, such mortgagee, or its affiliate or the person or entity acquiring the Development from such mortgagee shall accede to the rights of Licensee hereunder. In the event of an assignment or mortgage of Licensee's interests under this Agreement to the holder of a mortgage encumbering the Development, Licensor agrees to enter into a recognition and nondisturbance agreement upon such commercially reasonable terms as Licensee's mortgage lender may require, which are acceptable to Licensor in its reasonable discretion.

(e) This Agreement shall be binding upon, and inure to the benefit of, the parties hereto, and their respective successors and assigns.

18. Insurance; Waiver of Subrogation.

(a) Licensee Insurance. Commencing on the Commencement Date and continuing throughout the term of this Agreement, Licensee shall, at its own expense, take out and maintain, commercial general liability insurance, subject to such commercially reasonable and customary deductibles as Licensee may reasonably determine, under which the Licensor, Management Company, and Exchange Street Partners, LLC are named as additional insureds as their interests may appear, in an amount of at least \$1,000,000 per occurrence and \$2,000,000 in the aggregate. Should the Management Company be changed during the term hereof, Licensee shall provide a certificate of insurance confirming that any successor Management Company is named as an additional insured, within fifteen (15) days of receipt of written notice of such change and request for such revised certificate.

(c) Licensor Insurance. Commencing on the Effective Date and continuing throughout the term of this Agreement, Licensor shall, at its own expense, take out and maintain special form property insurance on the Parking Facility in such amounts and subject to such commercially reasonable and customary deductibles as Licensor may reasonably determine, but in an amount not less than the replacement cost of the Parking Facility.

(c) Evidence of Insurance; Termination of Coverage. A certificate of the insurer, certifying that such policy has been issued and paid in full, providing the coverage required by this Section 18 and containing provisions specified herein, shall be delivered by each party to the other prior to the date that the applicable policy is required to be in place under this Section 18 and thereafter upon renewals, not less than thirty (30) days prior to the expiration of such coverage. Each such policy shall be non-cancelable or terminable without at least thirty (30) days' prior written notice to the other party (except in the case of non-payment or non-renewal in which case ten (10) days shall be sufficient).

(d) Waiver of Subrogation. Notwithstanding anything herein to the contrary, Licensor and Licensee each hereby waives any and all rights of recovery, claim, action, or cause of action against the other, its agents, employees, licensees, or invitees for any loss or damage, including bodily injury, to or at the Parking Facility, the premises of which it is a part or any personal property of such party therein or thereon by reason of fire, the elements, or any other cause which is covered, or would have been covered, by the insurance coverages required to be maintained by Licensor and Licensee, respectively, under this Agreement, regardless of cause or origin, including omission of the other party hereto, its agents, employees, licensees, or invitees. Licensor and Licensee covenant that no insurer shall hold any right of subrogation against either of such parties with respect thereto.

19. Building Permit. Licensee agrees to use commercially reasonable efforts to obtain a building permit from the City of Portland for the construction of the Development in accordance with plans and specifications heretofore submitted to the City of Portland Planning Board (the "Building Permit"). Licensee agrees to give written notice to Licensor of the issuance of the Building Permit within five (5) business days after its issuance. No ADA Installation Work shall be commenced prior to the issuance the Building Permit, and

notwithstanding any provision hereof to the contrary, in the event that the Building Permit is not issued on or before February 1, 2021, this Agreement shall thereupon automatically terminate and be without further force or effect.

20. Attorney's Fees. In the event of any dispute arising out of or in connection with this Agreement, the non-prevailing party agrees to reimburse the prevailing party for its reasonable attorney's fees and costs.

21. Conflict. For so long as this Agreement is in full force and effect (but not thereafter), the terms hereof shall control over any contrary terms in the Reciprocal Agreement. To the extent that the terms of the Reciprocal Agreement are not in conflict with the Reciprocal Agreement, those terms shall continue in full force and effect and, in either event, the provisions of the Reciprocal Agreement shall survive the termination of this Agreement.

22. Governing Law. This Agreement shall be governed by and construed in accordance with the laws of the State of Maine.

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IN WITNESS WHEREOF, the parties have caused this License Agreement to be executed by their duly authorized officers or members as of the day and year first above written.

LICENSOR:

**CHESTNUT STREET GARAGE,
LLC**

**By: Exchange Street Partners, LLC,
its Manager**



By: Drew Sigfridson
Its: Manager

LICENSEE:

**75 CHESTNUT STREET OWNER, LLC,
a Maine limited liability company**

**By: 75 Chestnut Street Venture, LLC
Its: Sole Member**

**By: 75 Chestnut Street Manager, LLC
Its: Manager**

**By: TPC Portland Residential Partners,
LLC
Its: Manager**



By: Michael D. Procopio
Its: Manager



ZONING ANALYSIS Relevant Zone(s) B-1, Mixed Development

All Projects:

	Required	Proposed
Lot Size	None	21,451 sf
Area Per Dwelling Unit	-	-
Minimum Street Frontage	None	443 ft
Front Yard Minimum	-	0.8 ft
Front Yard Maximum	10 ft	2.8 ft
Rear Yard	None	-
Yard Right	None	-
Yard Left	None	-
Side Street Setback	-	-
Step Back	None	-
Maximum Lot Coverage	-	-
Minimum Lot Coverage	-	-
Maximum Height	75 ft	74.2 ft
Open Space	-	-
Maximum Impervious Area	-	-
Pavement Setback	-	-
Floor Area Ratio	-	-
Off Street Parking Spaces	54	54
Loading Bays	-	-
Other 1		
Other 2		
Other 3		

Planned Residential Unit Developments (PRUD) Requirements

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

Affordable Housing Density Bonuses (if applicable)

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

ARCHETYPE ARCHITECTS

48 Union Wharf | Portland, ME. 04101 | tel. 207.772.6022

www.archetype-architects.com

Company Background and History

Archetype Architects has, since 1983, developed an extensive portfolio of building projects in Maine and New England. We are a commercial architectural firm specializing in business, retail and housing developments. Our areas of service include master- planning, architectural design, and interior design. Prior to 1983 David Lloyd and Bill Hopkins maintained separate practices after having begun their careers in Boston and New York, respectively.

Archetype regularly designs and completes commercial projects in a very diverse field of typologies. Everything from hospitality and multi-family residential to offices and light industrial projects is well within our purview.

Personnel:

Principals:	David Lloyd William Hopkins
Architects:	Binh Dang Barry Yudaken Virginie Stanley Katherine Detmer James Broadbent Binh Dang
Architectural Associates:	Michael Hutchins Mike Coyne Devin Cough Sam Berry Maryna Nelson
Architectural Interns:	Owen Bradley
Interior Designer:	Sally Anderson
Office Manager:	Susan Geffers

Registration Status:

Maine, New Hampshire, Massachusetts, Connecticut, New York, New Jersey, RI and US Virgin Islands

Professional Affiliations:

National Council of Architectural Registration Board
International Building Code/National Fire Protection Association

Firm Qualifications

Walsh Engineering Associates Inc. (WEA) is a professional consulting engineering firm based in Westbrook, Maine. WEA offers civil engineering, environmental permitting, site planning, project feasibility analysis, landscape design, project management, and construction administration services. The firm was founded in 2009 by William R. Walsh, PE, who has been practicing engineering in New England for over 30 years. Grounded in technical strength, WEA provides expertise in all facets of site work development and construction.

In January 2018, Pinkham and Greer Civil Engineers merged with WEA. Tom Greer, the principal of P&G has joined WEA continuing to manage his client base. Tom brings to Walsh a depth of knowledge and over 35 years' experience as the principal of his company to WEA. Tom's experience in permitting and design for school districts, architects, private developers and industrial clients broadens WEA's capacity and technical knowledge.

The principal and staff have extensive experience in design, permitting (local, state and federal) and construction administration of a wide variety of projects throughout New England. We are licensed professional engineers, LEED Accredited Professionals and accomplished designers committed to the design of sustainable projects.

Walsh Engineering Associates Inc. approaches each project with the utmost concern and attention to detail that each client deserves. WEA prides itself in providing complete consulting services that will be designed, permitted and, most importantly, constructed. By following projects through construction, WEA provides continuity to projects that will serve the clients' best interests. We pride ourselves in being timely and responsive as well as practical in our designs.

The firm's primary services relate to the following types of projects:

- Master Planning
- Institutional Planning and Design
- Commercial Development
- Shoreline Stabilization
- Local, State, and Federal Permitting
- Roadway Design
- Columbarium Planning and Design
- Feasibility Studies
- Construction Management
- Residential Development
- Stormwater Management
- Environmental Permitting
- Utility Planning and Design
- Cemetery Design

William R. Walsh III, PE, LEED AP

Professional Experience

Walsh Engineering Associates Inc., Westbrook, Maine: Bill founded Walsh Engineering Associates, Inc. in 2009 to provide civil engineering, site planning and project management services throughout New England. As a Professional Engineer and a LEED Accredited Professional, Bill brings a broad knowledge and perspective to each project. Recent projects include:

- Saco River Water Treatment Facility – Biddeford, Maine
- Gerald Senior Residence – Fairfield, Maine
- Sugarloaf Mountain Watershed Analysis – Carrabassett Valley, Maine
- River Walk Subdivision – Maine
- Affordable Housing, Peaks Island, Maine
- The Homes at Old Marsh – Wells, Maine
- O. M. Whipple Columbarium – Lowell, Massachusetts

Mohr & Seredin Landscape Architects, Inc., Portland, Maine: Bill joined Mohr & Seredin in 1998 as a Project Manager and became a Principal in 2003. Bill was responsible for the project management, site design and construction administration of projects. Bill was involved with the planning, permitting, construction document preparation, bidding and construction administration of several large-scale projects, including:

- Cotter Union Expansion, Colby College – Waterville, Maine
- Maine Veterans' Memorial Cemetery – Augusta, Maine
- Coastal School for Girls – Freeport, Maine
- Cocoons Day School – Kennebunk, Maine

Land Use Consultants, Portland, Maine: Bill was a Project Manager/Engineer for 11-years at LUC, a multi-disciplinary firm of engineers, surveyors and land planners.

Education

University of Connecticut – Storrs, Connecticut B.S. Engineering, 1986

Registration

Professional Engineer, Maine #8204, 1995
Professional Engineer, Massachusetts #50176, 2012
Professional Engineer, New Hampshire #14352, 2014
LEED Accredited Professional, 2004

Professional Associations and Board Affiliations

American Society of Civil Engineers	Friends of Cocoons, Board Member
USBGC – U.S. Green Building Council	Kennebunk Free Library, Former Trustee

Silas W. Canavan, PE, CFM

Professional Experience

Walsh Engineering Associates Inc. - Westbrook, Maine: Silas joined Walsh Engineering Associates, Inc. in 2012. As the current Director of Civil Engineering, Silas oversees the project teams and is intimately involved with all aspects of projects including project management, development of site plans, drainage studies, stormwater analysis, permitting, construction document preparation, and construction oversight. Representative projects include:

- Saco River Water Treatment Facility – Biddeford, Maine
- UNE Biddeford Campus Expansion – Biddeford, Maine
- U-Haul Facility Development – Bangor, Maine
- U-Haul Facility Expansion – Saco, Maine
- Salvation Army Adult Rehabilitation Center Expansion – Portland, Maine
- Zero-Sort Recycling Facility – Lewiston, Maine
- Hotel Redevelopment Project – Portland, Maine

Credere Associates, LLC - Westbrook, Maine: Silas joined Credere Associates in 2010 as a Civil/Environmental Engineer. Silas was responsible for the project management, site design and construction administration of projects as well as performing Phase I and Phase II environmental site assessments. Silas was involved with the site investigations, planning, permitting, construction document preparation, bidding and construction administration of several projects, including:

- Nashua Boiler House Demolition – Nashua, New Hampshire
- Aerofab Parking Lot – Sanford, Maine
- Thompson's Point Redevelopment – Portland, Maine
- Callahan Mine Superfund Site Remediation – Brooksville, Maine
- Bath Iron Works Demolition of Shipways – Bath, Maine

SYTDesign Consultants - Cumberland, Maine: Silas was a Design Engineer for 4-years with the multi-disciplinary firm of engineers, surveyors, and landscape architects. Silas was involved with the planning, permitting, construction document preparation, and construction inspection for several projects. Significant projects included:

- University of New England Campus Expansion – Biddeford, Maine
- University of New England Access Road – Portland, Maine
- Dionne Commons Senior Living Facility – Brunswick, Maine
- Multiple C.N. Brown Convenience Stores – Maine and New Hampshire

Education

University of Vermont - Burlington, Vermont B.S. Civil Engineering 2005

Registration

Professional Engineer, Maine #12639, 2011
40 Hour OSHA HAZWOPER Training, 2010

Professional Associations

American Society of Civil Engineers

Norman G. Chamberlain II, PE

Professional Experience

Walsh Engineering Associates Inc., Portland, Maine: Norm has over 30 years of experience in civil engineering design and construction working for firms in Maine, New Jersey and Michigan. He joined WEA in 2015 as a Project Manager on many types of civil engineering, subdivision and site development projects. His experience includes: site plan design; subdivision design; storm water quantity and quality control designs; sewer and other utilities; DEP and ACOE permit applications; phosphorous analysis; and construction management. Recent projects include:

- Saco River Water Treatment Facility – Biddeford, Maine
- Maine Coast Waldorf School – Freeport, Maine
- Oxford County Courthouse – South Paris, Maine
- Maine Coast Waldorf School – Freeport, Maine
- Friends School Addition – Cumberland, Maine
- Oxford Transfer Station – Oxford, Massachusetts
- Auburn Transfer Station – Auburn, Massachusetts
- Poland Spring Bottling Corp – Poland, Maine
- Southern Maine Veterans Cemetery Expansion – Springvale, Maine
- Northern Maine Veterans' Cemetery – Caribou, Maine

Taylor Engineering Associates, Auburn, Maine: Prior to joining Walsh Engineering Associates, Norm was with Taylor Engineering Associates for 23 years as a Project Manager and, later, as a principal. Norm was responsible for the project management of many site design, subdivision, road design and bridge projects. Norm was involved with the planning, permitting, construction document preparation, bidding and construction administration of several large-scale projects, including:

- Poland Spring Bottling Corp – Poland, Maine
- Kittyhawk Business Park – Auburn, Maine
- Brookdale Village Mobile Home Park – Poland, Maine
- Birch Drive – Poland, Maine
- Ricker Road – Poland, Maine
- Bridgton Hospital – Bridgton, Maine
- Rumford Hospital – Rumford, Maine
- Central Maine Heart and Vascular Institute – Lewiston, Maine

Prior to returning to Maine in 1991, Norm was a Project Manager/Engineer and Field Engineer for several engineering and construction firms in Michigan and New Jersey.

Education

University of Maine – Orono, Maine B.S. Engineering, 1980

Registration

Professional Engineer, Maine #7144, 1991

Financial Capacity
Daymark
75 Chestnut Street, Portland, Maine
May 6, 2021

The previously approved project is already financed and under construction. The incremental cost of adding the two additional units is negligible considering the overall scope of the project.

After Recording, Return To:
 Sullivan & Worcester LLP
 One Post Office Square
 Boston, MA 02109
 Attn: Spencer A. Stone, Esq.

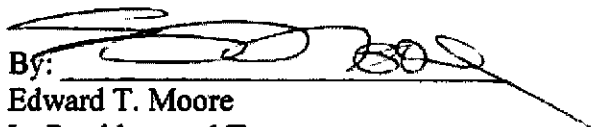
MAINE REAL ESTATE TAX-Paid

QUITCLAIM DEED WITHOUT COVENANT
 DLN: 1002040089878

SUMNER HEIGHTS REALTY CORP, a Massachusetts corporation with a mailing address c/o Glover Property Management, 8 Doaks Lane, Marblehead, Massachusetts 01945 for consideration paid, releases to **75 CHESTNUT STREET OWNER, LLC**, a Maine limited liability company with a mailing address of c/o The Procopio Companies, 220 Broadway, Unit 302, Lynnfield Massachusetts 01940, any and all right, title and interest in and to the real property, together with any improvements thereon, located at 75 Chestnut Street, Portland, Cumberland County, Maine, more particularly bounded and described on Exhibit A hereto.

IN WITNESS WHEREOF, Sumner Heights Realty Corp. has caused this instrument to be signed by its undersigned officer.

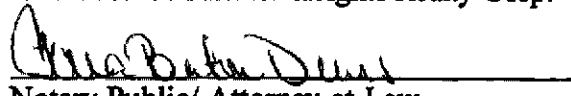
Sumner Heights Realty Corp.

By: 
 Edward T. Moore
 Its President and Treasurer
 hereunto duly authorized

STATE OF South Carolina
 COUNTY OF Beaufort, ss

March 11, 2020

Personally appeared the above-named Edward T. Moore, President and Treasurer of Sumner Heights Realty Corp. and acknowledged before me the foregoing instrument to be his free act and deed in his said capacity and the free act and deed of Sumner Heights Realty Corp.


 Notary Public/ Attorney-at-Law
 Printed Name: Tara Benton Dennis
 Commission Expires:

TARA BENTON DENNIS
 Notary Public, State of South Carolina
 My Commission Expires 11/3/2025

EXHIBIT A
TO QUITCLAIM DEED

(Lot B 0.49 ac)

A certain lot or parcel of land, situated on the northeasterly side of Chestnut Street between Lancaster Street and Oxford Street, in the City of Portland, Cumberland County, Maine. Said parcel is a portion of the premises as conveyed to A & M Partners, Inc. and Chestnut Street Parking Condominium Association as described in Cumberland County Registry of Deeds book 27183, page 53 and as described in Cumberland County Registry of Deeds book 22383, page 1 and is depicted as Lot B on a Plan of Westerlea View Lofts dated through March 14, 2017 prepared by Pinkham and Greer Civil Engineers. Said parcel is more particularly bounded and described as follows:

Beginning at a point a 5/8" diameter iron rod with cap #1177 set which marks the southerly corner of land now or formerly of Avesta Pearl Street One, LP as described in Cumberland County Registry of Deeds book 24108, page 99;

THENCE, South 48 degrees 26 minutes 32 seconds West, a distance of 229.09 feet as measured along the northwesterly sideline of Oxford Street to the True Point of Beginning;

THENCE, South 48 degrees 26 minutes 32 seconds West, a distance of 58.90 feet by the northwesterly sideline of Oxford Street to a point at its intersection with the northeasterly sideline of Chestnut Street, said point is more particularly located North 86 degrees 28 minutes 17 seconds East, a distance of 0.37 feet from a 5/8" diameter iron rod with cap #1314 found;

THENCE, North 44 degrees 42 minutes 28 seconds West, a distance of 307.49 feet by the northeasterly sideline of Chestnut Street to a 5/8" iron rod with cap #1177 set;

THENCE, continuing in the same direction, North 44 degrees 42 minutes 28 seconds West, a distance of 10.00 feet by the northeasterly sideline of Chestnut Street to its intersection with the southeasterly sideline of Lancaster Street;

THENCE, North 48 degrees 56 minutes 32 seconds East, a distance of 10.00 feet by the southeasterly sideline of Lancaster Street to a 5/8" iron rod with cap #1177 set;

THENCE, continuing in the same direction, North 48 degrees 56 minutes 32 seconds East, a distance of 66.73 feet by the southeasterly sideline of Lancaster Street to a point at said Lot A as depicted on said Plan of Westerlea View Lofts;

THENCE, South 41 degrees 29 minutes 16 seconds East, a distance of 316.34 feet by said Lot A to the Point of Beginning.

Said parcel contains 0.49 acres, more or less, and the bearings are referenced to Grid North Maine Coordinate System 1983 West Zone.

The courses and distances used are derived from a Plan of Westerlea View Lofts dated through March 14, 2017 prepared by Pinkham and Greer Civil Engineers. A second reference is made to an Existing Conditions Survey of 134 Chestnut Street dated August 2016 prepared by Maine Survey Consultants, Inc.

This conveyance is made together with and is subject to an Access Easement to the City of Portland for the purpose of a sidewalk abutting Chestnut Street and Lancaster Street. Said easement is more particularly bounded and described as follows:

Beginning at a point at the southerly corner of the above described parcel of land and the intersection of the northwesterly sideline of Oxford Street with the northeasterly sideline of Chestnut Street;

THENCE, North 44 degrees 42 minutes 28 seconds West, a distance of 307.49 feet by the northeasterly sideline of Chestnut Street to a 5/8" iron rod with cap #1177 set;

THENCE, continuing in the same direction, North 44 degrees 42 minutes 28 seconds West, a distance of 10.00 feet by the northeasterly sideline of Chestnut Street to its intersection with the southeasterly sideline of Lancaster Street;

THENCE, North 48 degrees 56 minutes 32 seconds East, a distance of 10.00 feet by the southeasterly sideline of Lancaster Street to a 5/8" iron rod with cap #1177 set;

THENCE, continuing in the same direction, North 48 degrees 56 minutes 32 seconds East, a distance of 66.73 feet by the southeasterly sideline of Lancaster Street to a point at Lot A on said Plan of Westerlea View Lofts;

THENCE, South 41 degrees 29 minutes 16 seconds East, a distance of 2.40 feet by said Lot A to a point;

THENCE, South 48 degrees 56 minutes 32 seconds West, a distance of 63.19 feet through the above described parcel of land to a point;

THENCE, South 02 degrees 07 minutes 02 seconds West, a distance of 15.05 feet through the above described parcel of land to a point;

THENCE, South 44 degrees 42 minutes 28 seconds East, a distance of 242.80 feet through the above described parcel of land to a point;

THENCE, South 41 degrees 31 minutes 25 seconds East, a distance of 28.53 feet through the above described parcel of land to a point;

THENCE, North 48 degrees 30 minutes 44 seconds East, a distance of 1.59 feet through the above described parcel of land to a point;

THENCE, South 44 degrees 42 minutes 28 seconds East, a distance of 27.30 feet through the above described parcel of land to a point;

THENCE, South 80 degrees 46 minutes 36 seconds East, a distance of 6.95 feet through the above described parcel of land to a point on the northwesterly sideline of Oxford Street;

THENCE, South 48 degrees 26 minutes 32 seconds West, a distance of 6.50 feet by the northwesterly sideline of Oxford Street to the Point of Beginning.

Said access easement is depicted as Access Easement I on the above referenced Westerlea View Lofts plan.

This conveyance includes a Footing License from the City of Portland for building footings. Said license is more particularly bounded and described as follows:

Beginning at a point on the northeasterly sideline of Chestnut Street, said point is more particularly located North 44 degrees 42 minutes 28 seconds West, a distance of 29.19 feet as measured along the northeasterly sideline of Chestnut Street from its intersection with the northwesterly sideline of Oxford Street:

THENCE, South 48 degrees 30 minutes 44 seconds West, a distance of 2.88 feet into Chestnut Street to a point;

THENCE, North 41 degrees 29 minutes 16 seconds West, a distance of 51.16 feet within the road limits of Chestnut Street to a point on the northeasterly sideline of Chestnut Street;

THENCE, South 48 degrees 30 minutes 44 seconds West, a distance of 3.50 feet within the road limits of said Chestnut Street to a point;

THENCE, North 41 degrees 29 minutes 16 seconds West, a distance of 49.19 feet within the road limits of Chestnut Street to a point;

THENCE, North 48 degrees 30 minutes 44 seconds East, a distance of 0.73 feet to a point on the northeasterly sideline of Chestnut Street;

THENCE, South 44 degrees 42 minutes 28 seconds East, a distance of 100.50 feet by said Chestnut Street to the Point of Beginning.

Said access easement is depicted as a Footing License on the above referenced Westerlea View Lofts plan.

This conveyance includes an Air Rights Use Easement for the purpose of deck extensions of buildings on the above described parcel of land over a strip of land on Lot A as depicted on said Plan of Westerlea View Lofts. Said easement is more particularly bounded and described as follows:

Beginning at a point on the northwesterly sideline of Oxford Street at the easterly corner of the above described parcel of land;

THENCE, North 41 degrees 29 minutes 16 seconds West, a distance of 316.34 feet by said Lot A to a point on the southeasterly sideline of Lancaster Street;

THENCE, North 48 degrees 56 minutes 32 seconds East, a distance of 12.00 feet along the northwesterly sideline of Lancaster Street to a point;

THENCE, South 41 degrees 29 minutes 16 seconds East, a distance of 316.24 feet through said Lot A to a point on the northwesterly sideline of Oxford Street;

THENCE, South 48 degrees 26 minutes 32 seconds West, a distance of 12.00 feet by the northwesterly sideline of Oxford Street to the Point of Beginning.

Said easement is depicted as an Air Rights Use Easement on the above referenced Westerlea View Lofts plan.

This conveyance is made subject to an Access Easement extending from Chestnut Street to Lot A on said Plan of Westerlea View Lofts. Said easement is more particularly bounded and described as follows;

Beginning at a point on the northeasterly sideline of Chestnut Street, said point is more particularly located North 44 degrees 42 minutes 28 seconds West, a distance of 128.99 feet as measured along the northeasterly sideline of Chestnut Street from its intersection with the northwesterly sideline of Oxford Street;

THENCE, North 44 degrees 42 minutes 28 seconds West, a distance of 29.86 feet along Chestnut Street to a point;

THENCE, North 48 degrees 29 minutes 08 seconds East, a distance of 67.81 feet through the above described parcel of land to a point at said Lot A;

THENCE, South 41 degrees 29 minutes 16 seconds East, a distance of 29.81 feet by said Lot A to a point;

THENCE, South 48 degrees 29 minutes 08 seconds West, a distance of 66.13 feet to the Point of Beginning.

Said easement is depicted as Access Easement 3 on the above referenced Westerlea View Lofts plan.

ALSO CONVEYING all parking rights set forth in the Reciprocal Agreement by and between A&M Partners, Inc., and J&B Partners, LLC dated August 6, 2018 and attached as Exhibit B to a warranty deed from A&M Partners, Inc. and Chestnut Street Parking Condominium to J&B Partners dated August 6, 2018 and recorded in Book 35062, Page 155 as re-recorded in Book

35452, Page 148 and as separately recoded in Book 35573, Page 116, subject to the terms and conditions set forth therein.

The parcel herein described is also conveyed with and is subject to any and all easements or appurtenances of record, insofar as the same are in force and applicable.

Being the same premises described in a Foreclosure Deed Under Power of Sale from Joan M. Kurker dated August 6, 2019 and recorded in the Cumberland County Registry of Deeds in Book 35924, Page 100.



Portland Water District

FROM SEBAGO LAKE TO CASCO BAY

April 29, 2020

Johanna D. Cady
One Karen Drive, Suite 2A
Westbrook, ME 04092

Re: 75 Chestnut Street, PO
Ability to Serve with PWD Water

Dear Ms. Cady:

The Portland Water District has received your request for an Ability to Serve Determination for the noted site submitted on April 8, 2020. Based on the information provided per plans dated April 29, 2020, we can confirm that the District will be able to serve the proposed project as further described in this letter. **Please note that this letter constitutes approval of the water system as currently designed and is valid for eighteen (18) months after the date of issue. Any changes affecting the approved water system will require further review and approval by PWD.**

Conditions of Service

The following conditions of service apply:

- A new 6-inch fire service and 4-inch domestic service, with a 3-inch meter, may be installed from the water main in Chestnut Street. The service should enter through the properties frontage on Chestnut Street at least 10-feet from any side property lines.
- A portion of the existing 6-inch cast iron water main will need to be renewed by the developer with 8-inch ductile iron water main. Limits of the work are depicted in the approved set of plans.
- The Portland Water District does not have record of any other existing infrastructure in public roads and recommends a survey and test pitting be performed by the development team prior to construction. Any conflicts that arise during construction are at the risk of the developer and may result in job shutdown until new plans are submitted by the developer and reviewed and approved by PWD.
- An approved backflow prevention device must be installed on the service line directly after the meter and before the fire sprinkler riser prior to service activation. Please refer to the PWD website for more information on cross-connection control policies.

Prior to construction, the owner or contractor will need to make an appointment to complete a service application form and pay all necessary fees. The appointment shall be requested through MEANS@pwd.org or by calling 207-774-5961 ext. 3199. Please allow (3) business days to process the service application paperwork. PWD will guide the applicant through the new development process during the appointment.



Existing Site Service

According to District records, the project site does not currently have existing water service.

Water System Characteristics

According to District records, there is an 6-inch diameter cast iron water main in Chestnut Street and a public fire hydrant located adjacent to the site. The most recent static pressure reading was 99 psi.

Public Fire Protection

The installation of new public hydrants to be accepted into the District water system will most likely not be required. It is your responsibility to contact the City of Portland Fire Department to ensure that this project is adequately served by existing and/or proposed hydrants.

Domestic Water Needs

The data noted above indicates there should be adequate pressure and volume of water to serve the domestic water needs of your proposed project. Based on the high water pressure in this area, we recommend that you consider the installation of pressure reducing devices that comply with state plumbing codes.

Private Fire Protection Water Needs

You have indicated that this project will require water service to provide private fire protection to the site. Please note that the District does not guarantee any quantity of water or pressure through a fire protection service. Please share these results with your sprinkler system designer so that they can design the fire protection system to best fit the noted conditions. If the data is out of date or insufficient for their needs, please contact MEANS to request a hydrant flow test and we will work with you to get more complete data.

Should you disagree with this determination, you may request a review by the District's Internal Review Team. Your request for review must be in writing and state the reason for your disagreement with the determination. The request must be sent to MEANS@PWD.org or mailed to 225 Douglass Street, Portland Maine, 04104 c/o MEANS. The Internal Review Team will undertake review as requested within 2 weeks of receipt of a request for review.

If the District can be of further assistance in this matter, please let us know.

Sincerely,
Portland Water District



Robert A. Bartels, P.E.
Senior Project Engineer

TRANSPORTATION DEMAND MANAGEMENT PLAN

FOR

PROPOSED

“Westerlea View Lofts” Apartments

Prepared For: A&M Partners, Inc.

Prepared By: William J. Bray, P.E.

October 2016

TRANSPORTATION DEMAND MANAGEMENT (TDM) PLAN

Project Description

A&M Partners, Inc. are proposing construction of a seven-story apartment building at 75 Chestnut Street on an undeveloped parcel of property bordering the Chestnut Street Parking Garage. The proposed project will provide a total of 54: (38) two-bedroom units; (14) one-bedroom units and (2) studio units. Additionally, the project anticipates inclusion of a 2,328 square foot commercial-retail space on the first floor and a 800 square foot residential living space on the second floor. Perspective tenants of the apartment units will be allocated a dedicated parking space in the adjoining Chestnut Street Parking Garage.

Transportation Narrative

The proposed project's location on Chestnut Street affords numerous multi-modal opportunities to tenants of the proposed residential project. The City's Preble Street Recreational Facility, Deering Oaks Park, Baxter Boulevard and the Bayside multi-use trails are all located a short walk from the proposed site. Portland's Downtown, Old Port and Commercial Street areas are also conveniently located within a reachable walking distance from the proposed 75 Chestnut Street site. METRO Bus provides their highest frequency of service to the Congress Street corridor, again a short walk of three blocks or less via: 1) Route 1 - Congress Street; 2) Route 8 - Peninsular Loop and; 3) Routes 9A/9B – Crosstown Loop. Chestnut Street, a minor collector street provides a low volume connection option to all major roadways serving the Portland Peninsular, including I-295, Franklin Arterial, Forest Avenue, State/High Streets.

Transportation Coordinator

A&M Partners, Inc. or a private company retained to manage the apartment project will serve as the TDM coordinator for the property. The management team will be fully versed in the transportation services available to perspective tenants of the building. Each new building tenant, in a pre-lease interview with the property management team, will receive a packet containing information on the availability of transportation (all modes) services. In addition, the Coordinator will monitor the car ownership of Tenants and the number of spaces rented to Tenants, so to gauge the impact on the street parking.

Parking Demand Calculation

The City's Zoning Ordinance notes the following: *Where construction is proposed of new structures having a total floor area in excess of fifty thousand (50,000) square feet, the planning board shall establish the parking requirement for such structures. The parking requirement shall be determined based upon a parking analysis submitted by the applicant and upon the recommendation of the city transportation engineer.*

Traffic Solutions' September 2015 Parking Assessment Report conducted for the 667 Congress Street Apartment project provides a summary of local parking trends on the Portland Peninsular and with that data recommends an average parking demand rate per apartment unit. An excerpt of that report is attached as an appendix to this report. The referenced parking study recommended an average parking demand of 0.58 spaces per unit. The Planning Board in their review and ultimate approval of the Congress Street project approved the established average per unit parking rate for the noted residential project. A&M Partners, Inc. recognizing the critical importance of providing sufficient secured parking will exceed this threshold value providing each apartment unit with one reserved parking space within the adjoining Chestnut Street garage.

Parking Description

A&M Partners Inc. are providing one dedicated parking space per apartment unit in the adjoining 450 space Chestnut Street parking garage. The Chestnut Garage presently operates at approximately 70% occupancy during a typical weekday and at very low occupancy levels during the evening hours, weekends and holidays.

Parking and Trip Reduction Strategies

Tenant Rental Incentives: Each perspective apartment tenant that doesn't require on-site parking will receive a pro-rata reduction in their monthly rental fee.

Bicycle Facilities: A&M Partners, Inc. will provide a total of 36 secured and covered bicycle spaces will be provided in the adjoining Chestnut Parking Garage reserved for tenant use. Local and regional bicycle route and facility information will be available to tenants at the proposed building transportation services "kiosk" located in the building entry area.

METRO Bus Service: Each building tenant will receive, in their tenant packet, a five-ride METRO bus pass and a copy of METRO's bus route schedule information. METRO bus service information will be strategically posted throughout the building and located on the transportation service "kiosk" in the building entry areas.

Pedestrian Facilities: The TDM Coordinator will work with building tenants in promoting walkability to "key" places of significance including: Casco Bay Transit, Cross Insurance Arena, Portland Public Library, Public Museum, Hadlock Field, Expo Recreational Facilities, Hospitals, local restaurants, and other cultural facilities etc. To aid in this endeavor, a detailed map of the Portland Peninsular will be strategically located in the building entry area that identifies "key" destination points and the approximate distances in reaching them on foot.

Recreational Trails: The destination map located on the transportation "kiosk" will identify the extensive network of public trails on the peninsular with the goal of encouraging greater use.

Tenant Information Packet (Transportation Related Services): Each building tenant will receive a welcoming package that includes the following transportation services information:

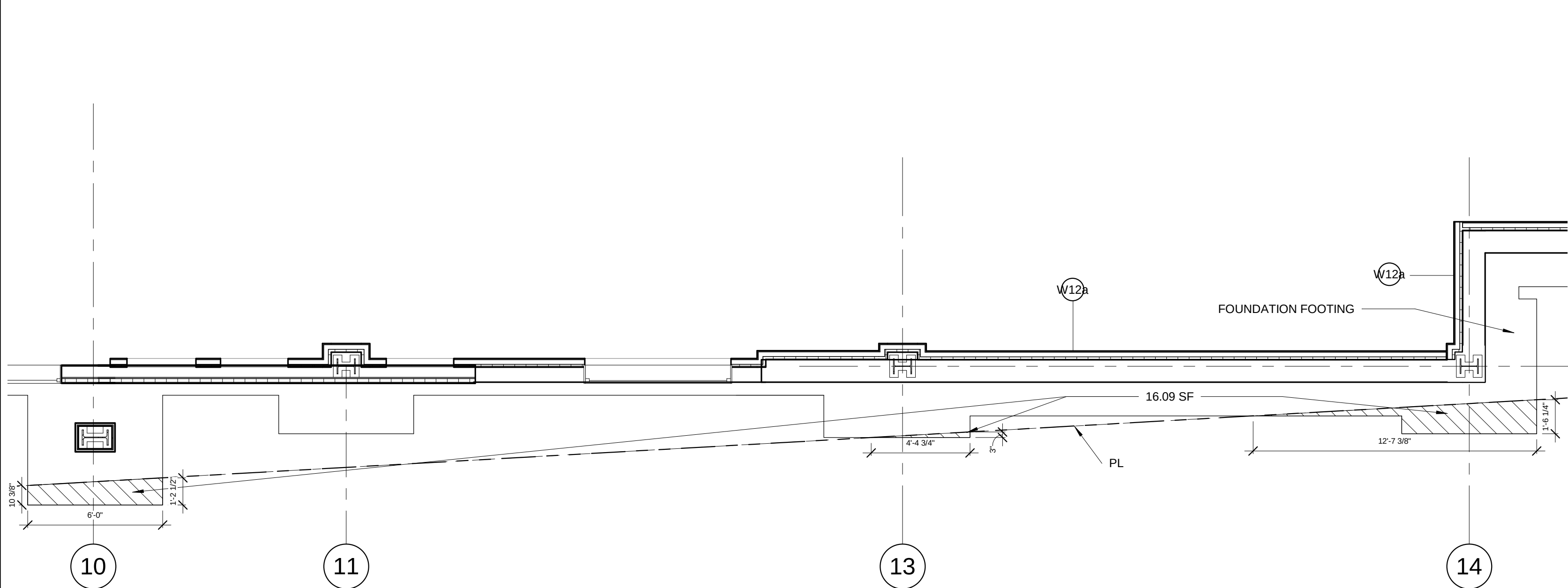
- METRO Bus - Routes and Schedules
- South Portland Bus – Routes and Schedules
- Casco Bay Transit – Boat Schedules
- RTP Service Availability with contact information
- Bicycle Short and Long Distance Routing Information
- Rideshare Information on existing programs including contact information
- Portland Trails System Map
- Private auto share service (program information)

The building transportation “kiosk”, located in the entry area of the proposed building, will have copies of all transportation services information including tri-fold brochures from all major transportation service providers.

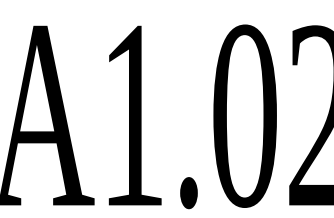
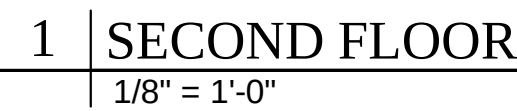
Tenant Survey/Monitoring

The TDM Coordinator for the property will conduct an annual survey with all building tenants that identifies and quantifies transportation practices of building tenants including the frequency and utilization rates of other modes of transportation; tenant concerns, issues, and transportation services needs. The survey and tenant questionnaire format and information search will be developed in concert with the City’s TDM Manager and modified as directed. The survey results will be summarized with the results shared with each building tenant. A copy of the survey results will be posted on the transportation “kiosk” located in the entry area of the proposed building.

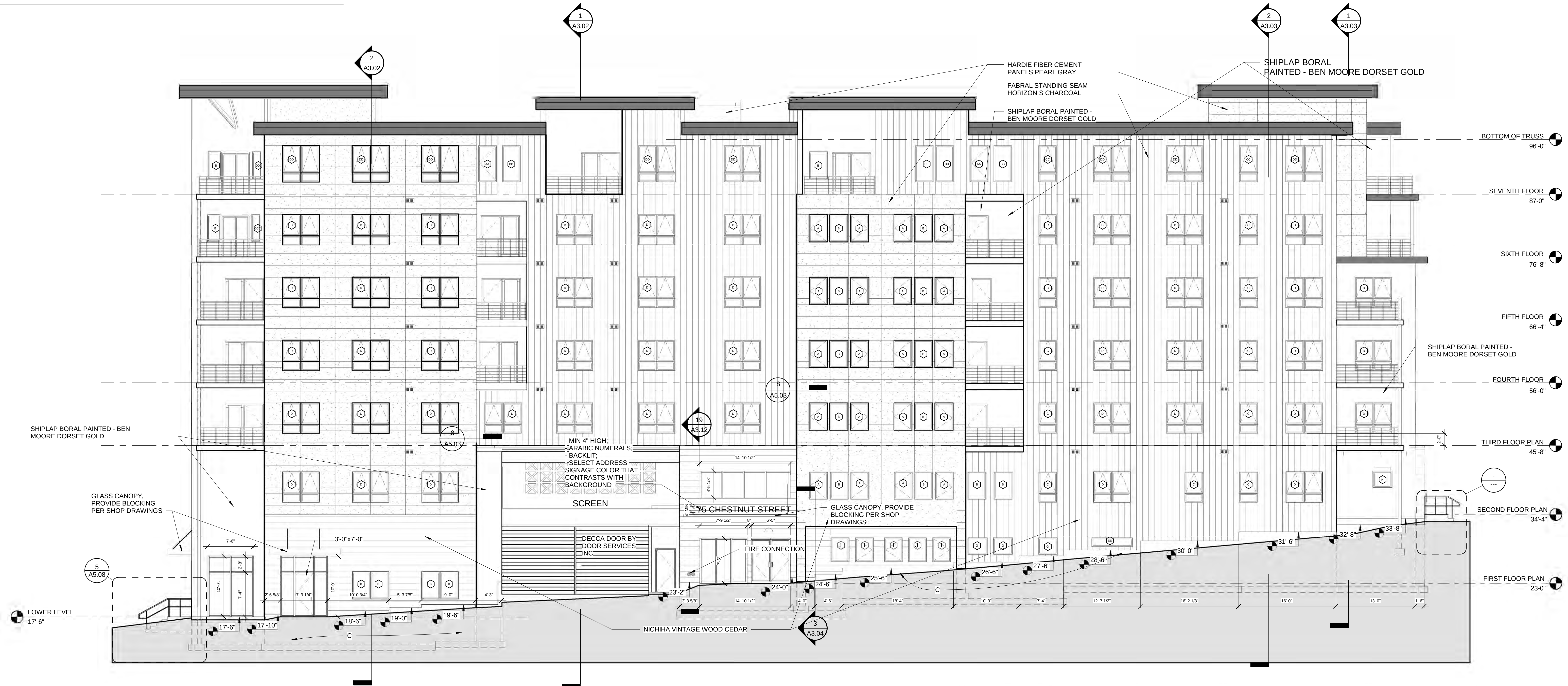
Further, the building management team will also conduct a detailed parking survey, with methods approved by the City, at full occupancy and annually thereafter, for a “typical” day of the year. A summary of the data will provide critical information in determining the adequacy of the property parking supply and whether the level of tenant parking is adequate to meet the needs of the tenants. The property management team will consider whether adjustments to the TDM plan are required; such as, providing additional or increased incentives to tenants to use other modes of transportation, conduct more frequent tenant meetings where special emphasis is placed on other modal travel opportunities, increasing the number bicycle parking opportunities, etc.



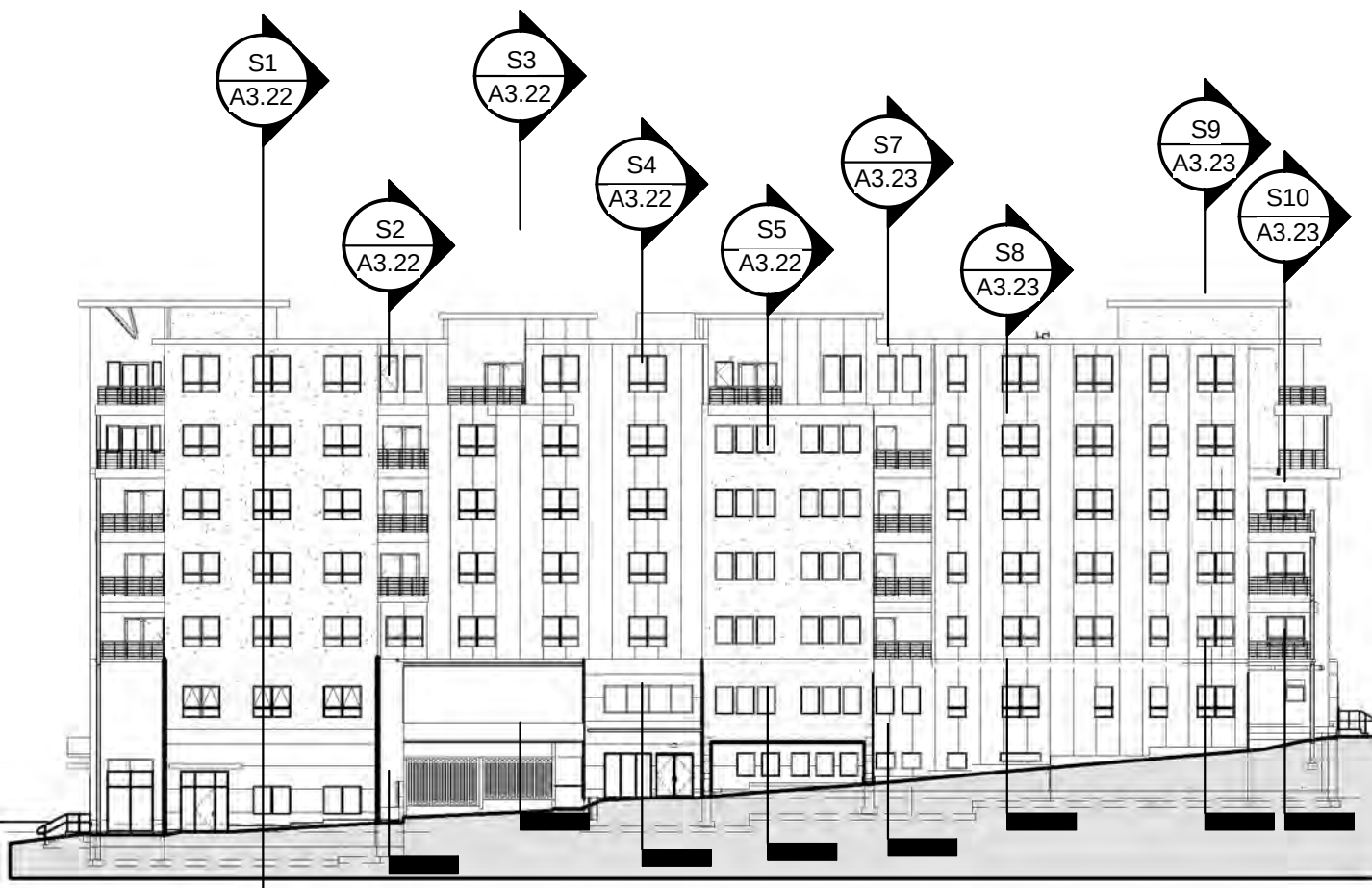
1. ALL UNITS NOT MARKED ANSI TYPE A TO BE ANSI TYPE B, SEE CS1.01 - ANSI TYPE A AND TYPE B UNIT REQUIREMENTS
2. REFER TO KITCHEN LAYOUTS BY METROPOLITAN FOR KITCHEN DIMENSIONS.



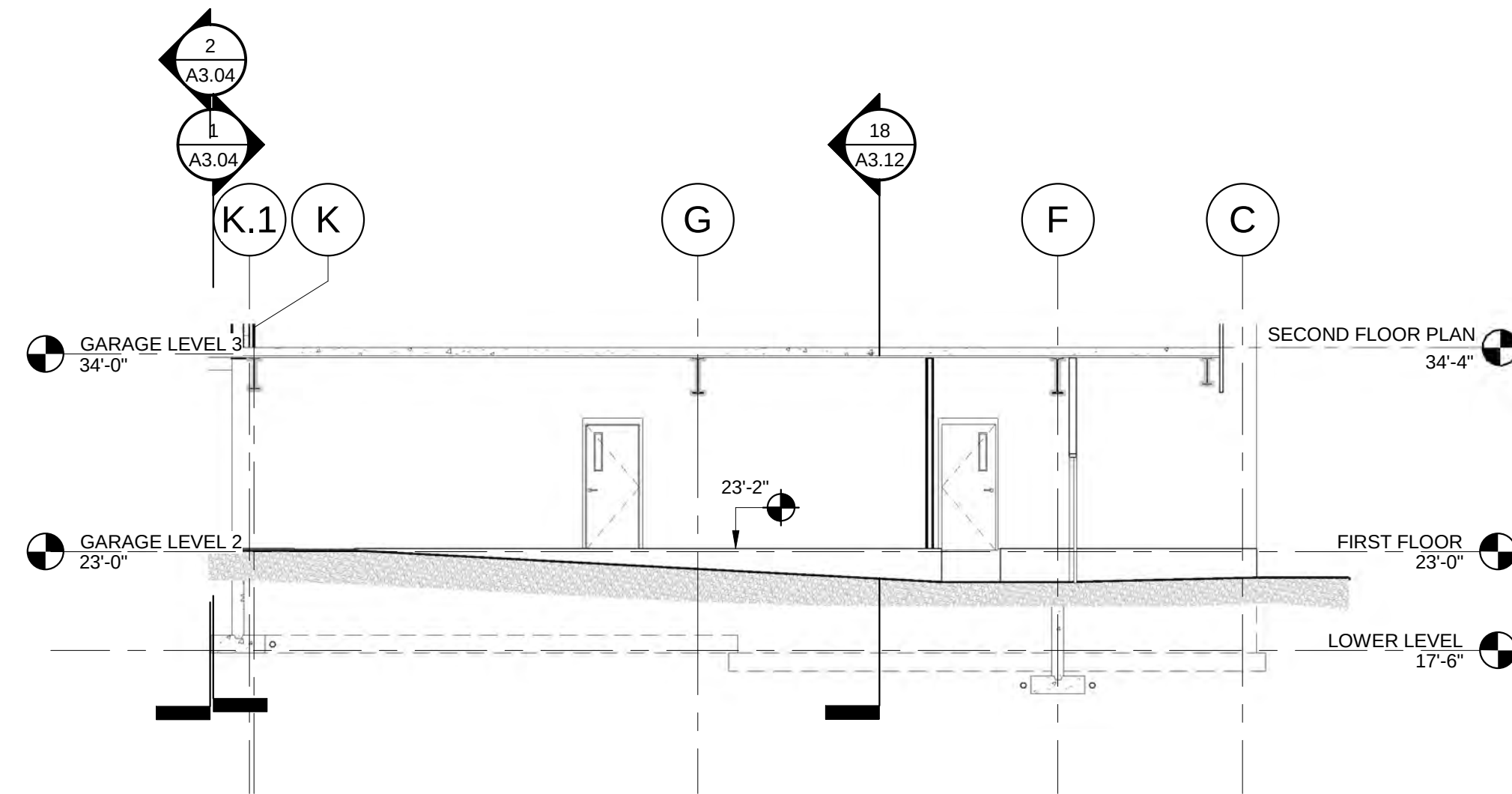
NOTES:
-EXTERIOR LIGHT FIXTURES ARE TO BE INSTALLED SO THAT LIGHT IS DIRECTED DOWNWARD
-CASEMENT WINDOWS WITH SILLS LOWER THAN 3'-0" TO HAVE LIMITORS SO OPENINGS ARE NOT GREATER THAN 4".



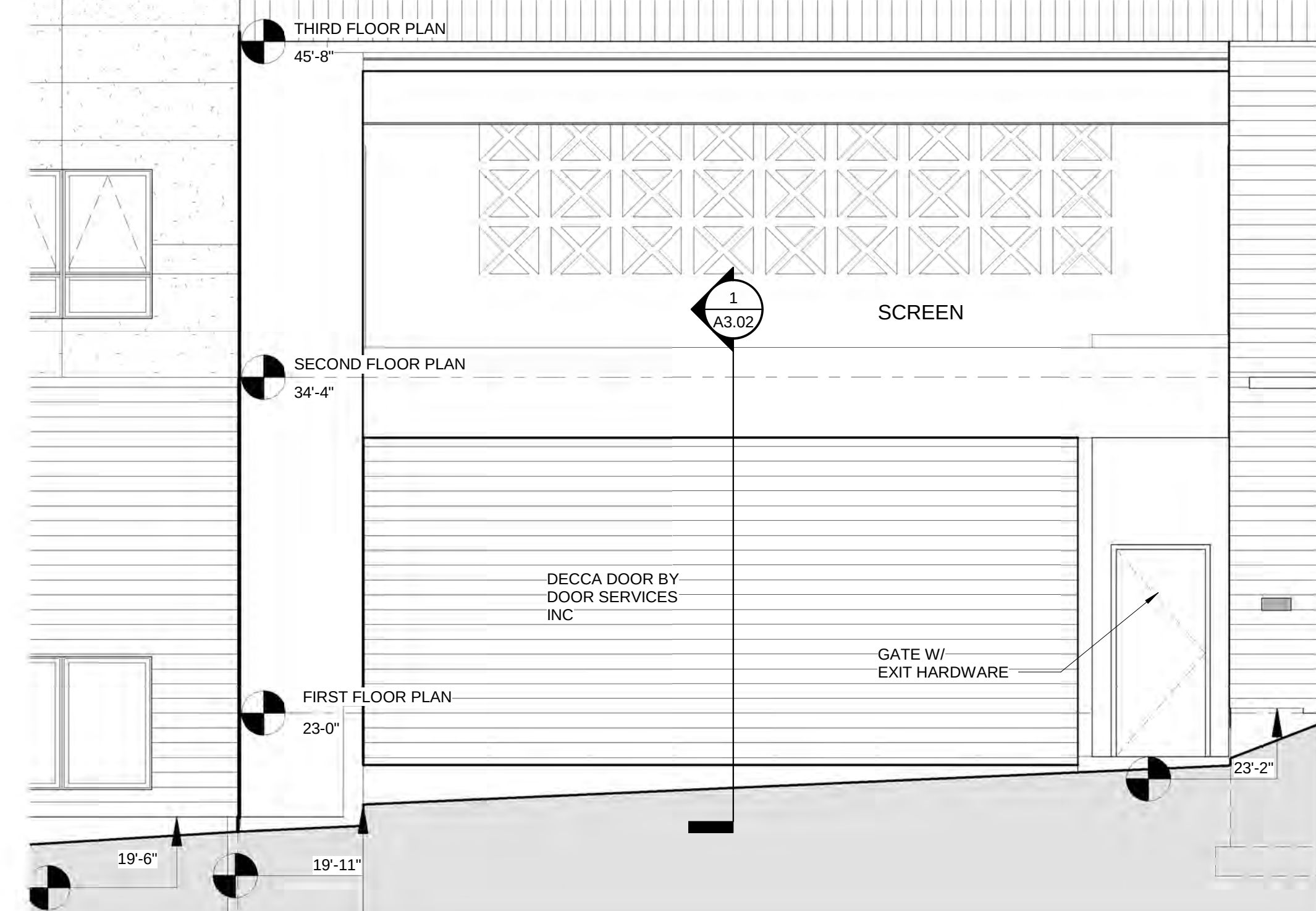
1 | SOUTH ELEVATION
1/8" = 1'-0"



2 | SOUTH ELEVATION KEY
1" = 30'-0"



4 | DRIVEWAY ELEVATION
1/8" = 1'-0"



3 | GATE ELEVATION
1/4" = 1'-0"



Prepared For:
75 Chestnut Owner LLC
220 Broadway, Suite 302,
Lynfield, MA 01940

Consultant:
ARCHETYPE architects
48 Union Wharf Portland, Maine 04101
(207) 772-6022 Fax (207) 772-4056

Architect:
Daymark
75 Chestnut Street
Portland, Maine

Project:

Revisions:
1 04-01-2020 Building Permit
2 5-22-2020 Response to SafeBuilt

Date: 3-19-2021
Scale: As indicated
BUILDING ELEVATION

A2.00

Conclusion

ARCHITECTURE
ARCHITECTS
48 Union Wharf Portland, Maine 04101
(207) 772-6022 Fax (207) 772-4056

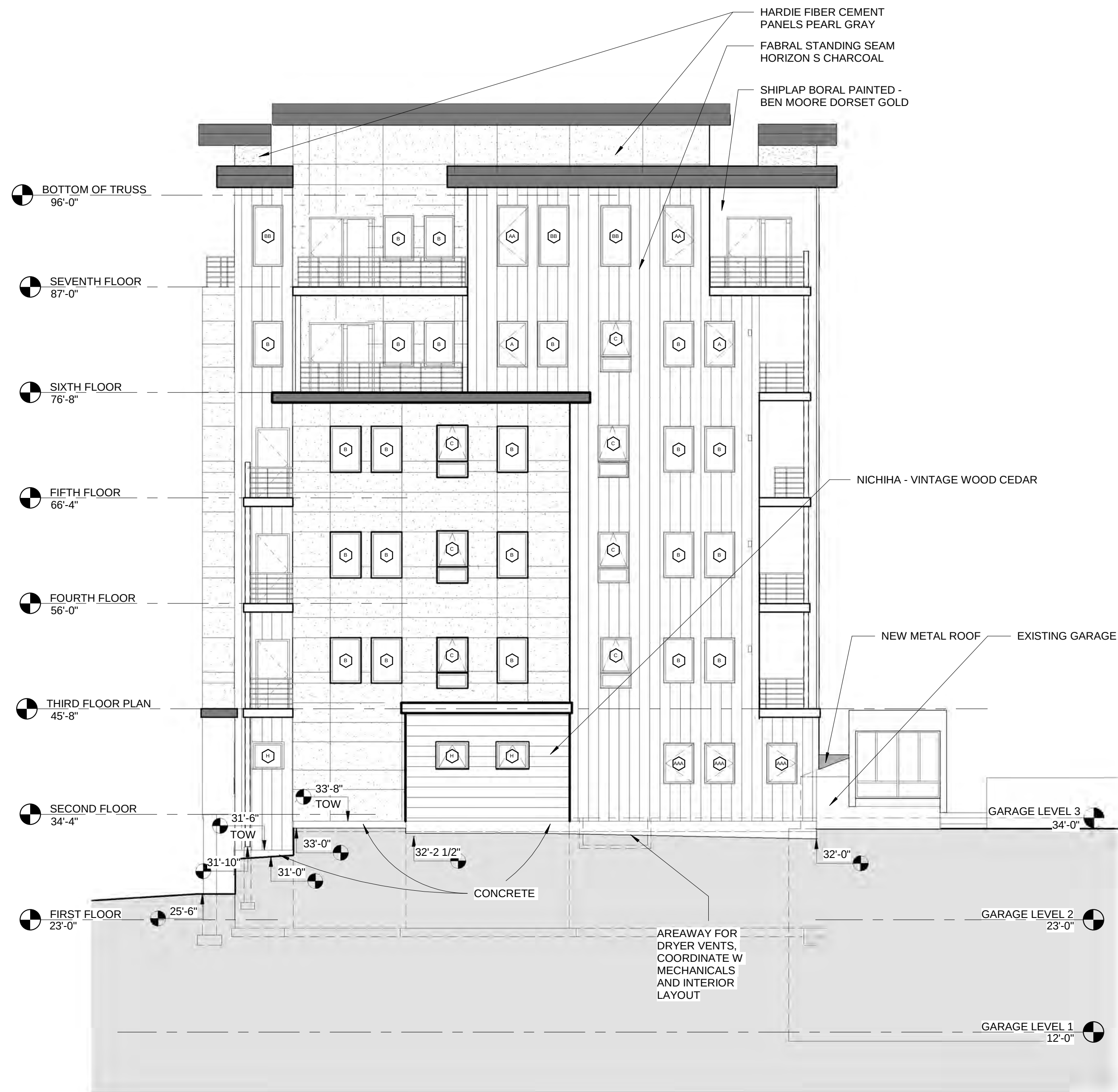
reject.

1	04-01-2020	Building Permit
2	5-22-2020	Response to SafeBuilt

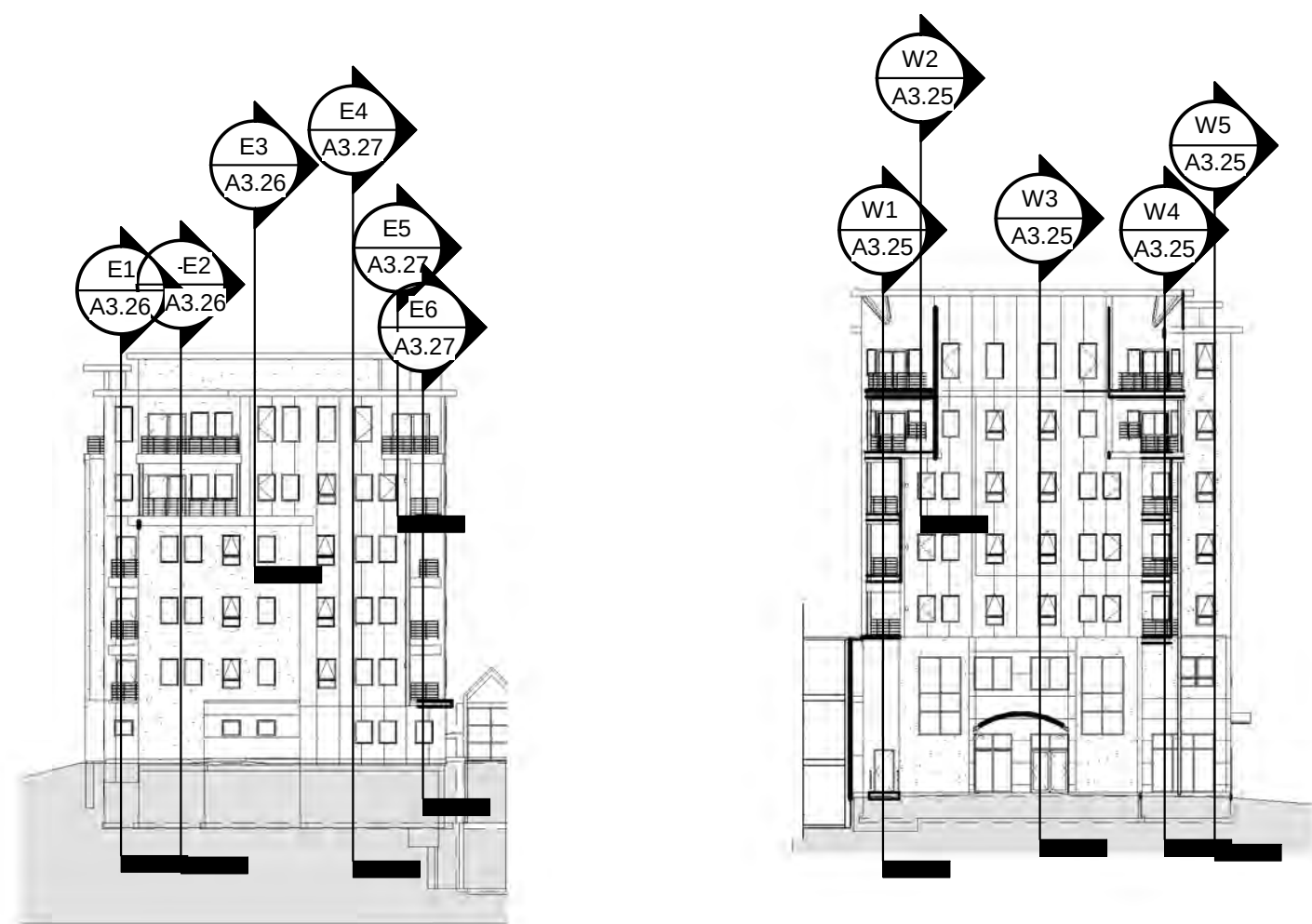
2021	As indicated
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BUILDING ELEVATIONS

A2.02

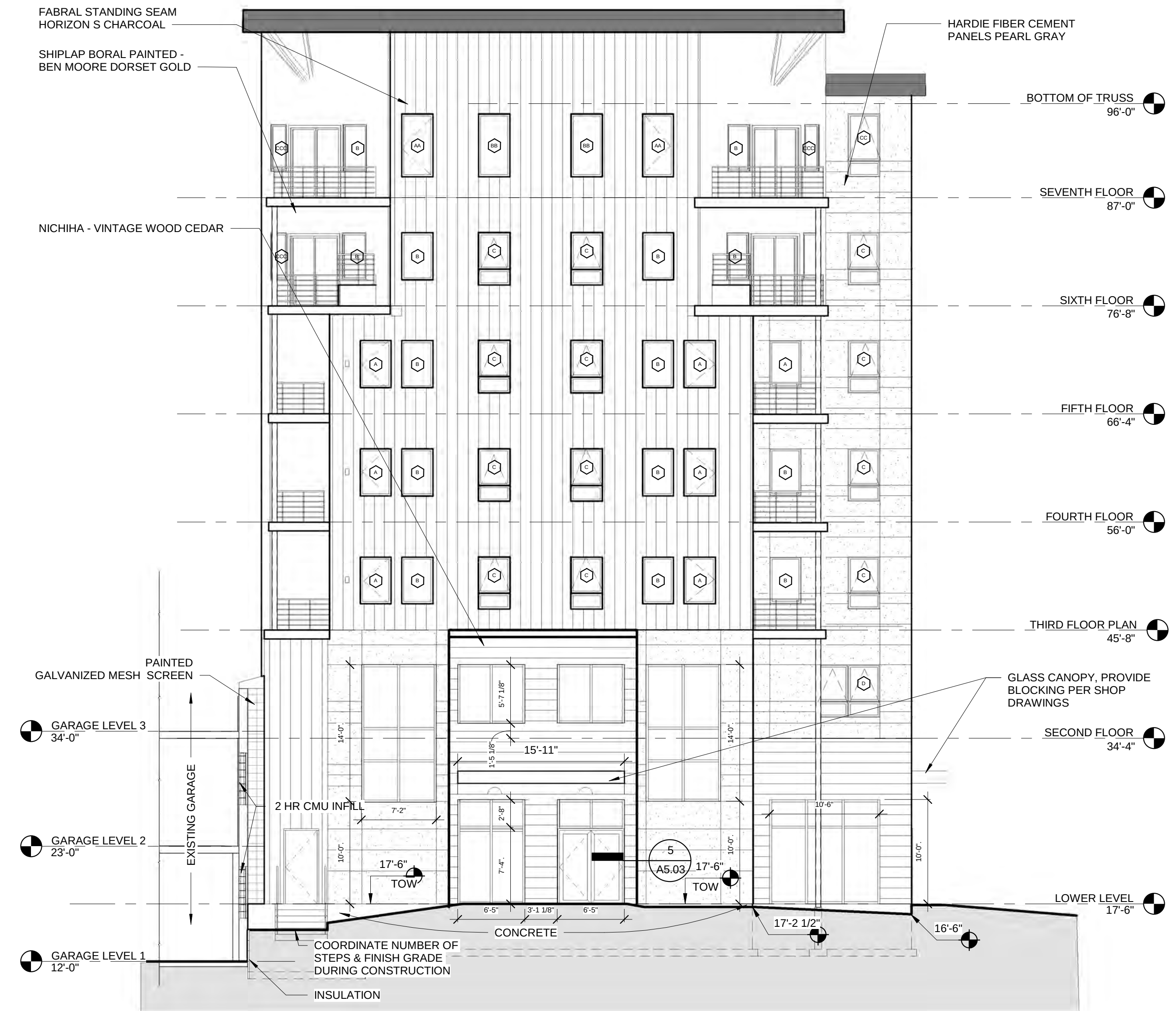


1	EAST ELEVATION
	1/8" = 1'-0"



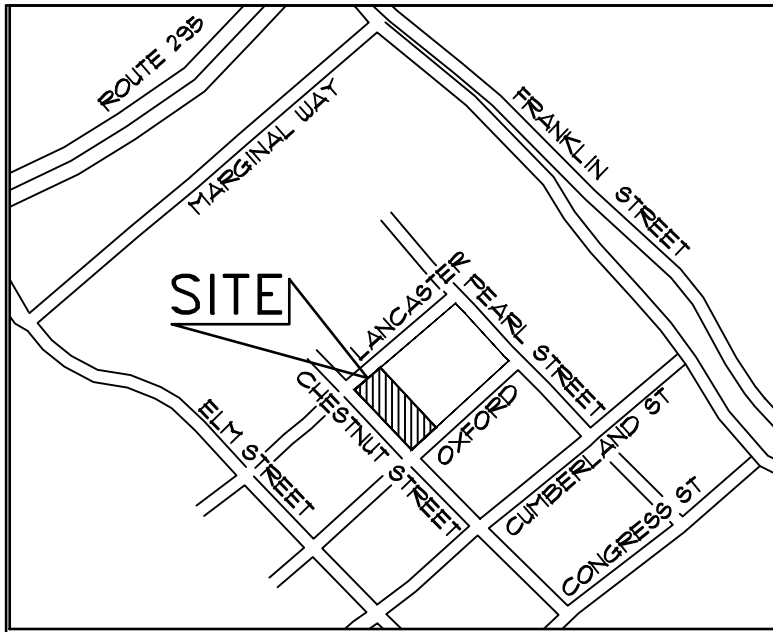
4	EAST ELEVATION KEY
	1" = 30'-0"

3 | WEST ELEVATION KEY



2	WEST ELEVATION
	1/8" = 1'-0"

NOTES:
-EXTERIOR LIGHT FIXTURES ARE TO BE INSTALLED SO THAT LIGHT IS DIRECTED DOWNWARD
-CASEMENT WINDOWS WITH SILLS LOWER THAN 3'-0" TO HAVE LIMITORS SO OPENINGS ARE NOT GREATER THAN 4".

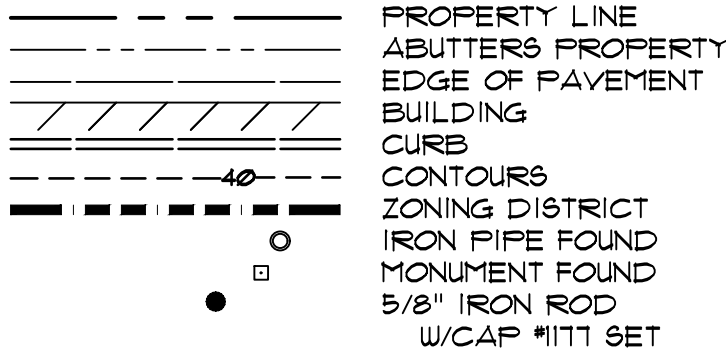


LOCATION PLAN

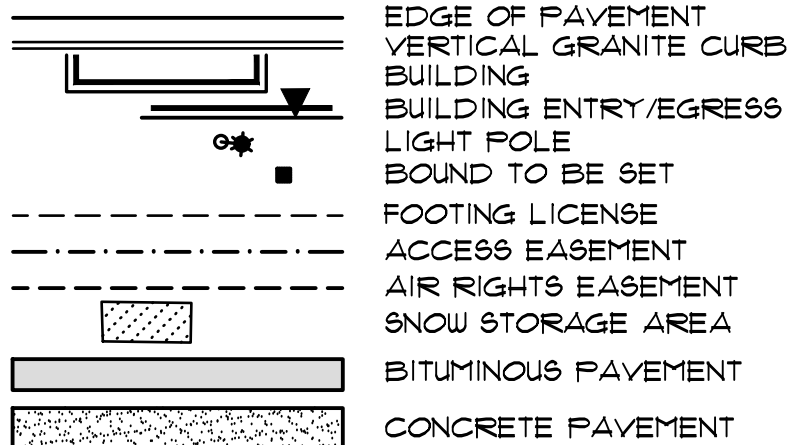
SCALE: 1"=150'

LEGEND

EXISTING



PROPOSED



State of Maine, Cumberland ss.

Registry of Deeds

Received _____, 20__

at ____h__m__M, and recorded in

Plan Book _____, Page _____

Attest: _____

Register

GENERAL NOTES

- OWNER: 75 CHESTNUT STREET OWNER, LLC c/o THE PROCOPIO COMPANIES, 220 BROADWAY, UNIT 032, LYNNFIELD, MASSACHUSETTS, 01940. DEEDS RECORDED IN CUMBERLAND COUNTY REGISTRY OF DEEDS BK. 36510, PG. 62, DATE 3/16/2020.
- ENGINEER: WALSH ENGINEERING ASSOCIATES, INC., ONE KAREN DRIVE, SUITE 2A, WESTBROOK, MAINE 04092.
- ARCHITECT: ARCHETYPE ARCHITECTS, 48 UNION WHARF, PORTLAND, MAINE 04101.
- TOPOGRAPHIC & BOUNDARY: MAINE SURVEY CONSULTANTS, INC., PO BOX 485, HARRISON, MAINE, 04040.
- UNDERLYING SOILS MAPPING TAKEN FROM SOIL CONSERVATION STUDY OF CUMBERLAND COUNTY. THE UPPER HALF OF THE SITE IS CLASSIFIED HINCKLEY (HIB), THE LOWER HALF IS CLASSIFIED AS AU GRES (Au). THE SURFACE OF THE SITE IS CURRENT URBAN LAND.
- TAX MAP REFERENCE: MAP 26 / BLOCK E / LOT 10.
- ZONE: B-7, MIXED DEVELOPMENT, PROPOSED USE: RESIDENTIAL
- EXISTING PARCEL = 2.12 acres
- UNITS TO BE SERVICED BY PUBLIC WATER, SEWER, AND GAS FROM CHESTNUT STREET. THESE SERVICES, INCLUDING HYDRANTS, ARE AS SHOWN ON SHEET C1.4, GRADING AND UTILITIES PLAN.
- POWER, TELEPHONE AND CABLE SERVICES ARE TO BE UNDERGROUND FROM AN EXISTING POLE. THESE SERVICES ARE SHOWN ON SHEET C1.4, GRADING AND UTILITIES PLAN.
- CALL DIG-SAFE PRIOR TO COMMENCING WORK, 1-800-DIG-SAFE.
- ALL WORK WITHIN THE PUBLIC RIGHT OF WAY SHALL MEET CITY OF PORTLAND TECHNICAL MANUAL STANDARD COORDINATE WITH PLANNING DEPARTMENT FOR MOST CURRENT VERSION OF ALL CITY DETAILS.
- PROPOSED PARKING SPACES AND ACCESS & STAIRWELL EASEMENT: EXISTING PARKING IS PER AN AGREEMENT WITH THE OWNERS OF LOT A. 1 PER UNIT PROVIDED IN THE EXISTING GARAGE. ACCESS EASEMENTS AND STAIRWELL EASEMENTS ARE ALSO PROVIDED. SEE THE RECIPROCAL AGREEMENT RECORDED IN THE CUMBERLAND COUNTY REGISTRY OF DEEDS BOOK 31611, PAGE 234, DATED 12/23/2020.
- THE SUBJECT PARCEL SHOWN AS DAYMARK IS SUBJECT TO A CITY OF PORTLAND LEVEL III SITE PLAN AND SUBDIVISION PERMIT.
- DETAILS OF STREET TREES ARE INCLUDED ON THE LANDSCAPE PLAN AS PART OF THE APPROVAL FOR DAYMARK SITE PLAN.
- FLOODPLAIN: THIS PROPERTY IS IN ZONE C OF THE FLOOD INSURANCE RATE MAP, COMMUNITY PANEL 230051 0013 B, EFFECTIVE DATE JULY 11, 1996. IT IS NOT IN A SPECIAL FLOOD HAZARD ZONE.
- PROPERTY PINS TO BE SET AT THE EXPENSE OF THE DEVELOPER AT THE END OF CONSTRUCTION ON CORNERS NOT CURRENTLY MARKED.
- ALL CONSTRUCTION AND SITE ALTERATIONS SHALL BE DONE IN ACCORDANCE WITH THE "MAINE EROSION AND SEDIMENT CONTROL BMPs" PUBLISHED BY THE BUREAU OF LAND AND WATER QUALITY, MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION, LATEST EDITION, MARCH 2003.
- THE OWNER IS RESPONSIBLE FOR MAINTENANCE OF THE STORMWATER TREATMENT SYSTEM, TRASH REMOVAL AND GROUNDSKEEPING. THE STORMWATER TREATMENT SYSTEM IS TO BE MAINTAINED IN ACCORDANCE WITH THE STORMWATER MANAGEMENT REPORT, INCLUDING MAINTENANCE, DATED 9/20/2016 AND SUBJECT TO A STORMWATER MAINTENANCE AGREEMENT WITH THE CITY OF PORTLAND RECORDED IN THE CUMBERLAND COUNTY REGISTRY OF DEEDS BOOK 31611, PAGE 238, DATED 12/23/2020.
- THE APPLICANT SHALL PAY AN AGREED UPON FEE-IN-LIEU OF \$ _____ INTO THE CITY'S HOUSING TRUST FUND PRIOR TO ISSUANCE OF THE CERTIFICATE OF OCCUPANCY.

GRAPHIC SCALE



SURVEYORS NOTES:

NOTES:

- THE PARCEL BOUNDARIES AS DEPICTED ON THIS MAP WERE DERIVED FROM A THOROUGH REVIEW OF RECOVERED EXISTING RECORD EVIDENCE AND ACTUAL FIELD SURVEY LOCATION OF FOUND PHYSICAL EVIDENCE AND REPRESENT IN MY PROFESSIONAL OPINION THE POSITION OF THE RECORD PARCEL BOUNDARIES.
- THIS SURVEY CONFORMS TO THE CURRENT STANDARDS ADOPTED BY THE MAINE BOARD OF LICENSES FOR PROFESSIONAL LAND SURVEYORS. EXCEPTIONS AS NOTED ABOVE.
- NOT VALID OR TRUE COPY OF ORIGINAL UNLESS SIGNED AND EMBOSSED BY SURVEYOR.
- NO DETAILED SURVEY REPORT.

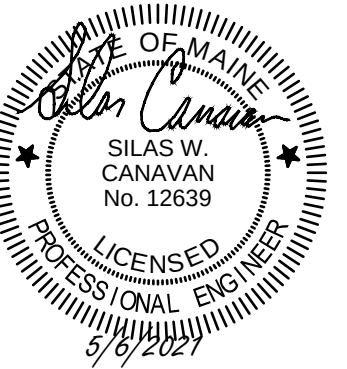
SUBDIVISION PLAN
APPROVED BY THE CITY OF PORTLAND PLANNING BOARD

AMENDMENT APPROVAL DATE
April 17, 2018
ORIGINAL APPROVAL DATE

WALSH
ENGINEERING ASSOCIATES, INC.

One Karen Dr., Suite 2A | Westbrook, Maine 04092
ph: 207.553.9898 | www.walsh-eng.com

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DAYMARK

75 CHESTNUT STREET
PORTLAND, MAINE

PREPARED FOR:
75 CHESTNUT STREET OWNER, LLC

c/o THE PROCOPIO COMPANIES
220 BROADWAY, UNIT 302
LYNNFIELD, MASSACHUSETTS 01940

THIS PLAN AMENDS THE
PREVIOUSLY APPROVED
SUBDIVISION PLAN RECORDED IN
CCRD PLAN BOOK 220, PAGE 471

Rev.	Date	Description	Drawn	Check
8	4/1/2020	For previous versions of the project see Westerlea View Lots by Pinkham & Greer Civil Engineers filed with the City of Portland		
10	4/29/2020	Rev'd Per Review Comments 4/11/18 & 4/26/18. Add COA	JDC	TSG
11	5/6/2020	Rev'd Per Review Comments 4/27/20 & Owner Review	JDC	TSG
12	5/16/2020	Rev'd Per Plan Review Comments, 5/6/2020	JDC	TSG
13	5/16/2020	Added Surveyor's Stamp	JDC	TSG
14	5/16/2020	Add Air Rights Easement 2, Rev. Notes 12.8 & 20.	JDC	TSG
15	5/16/2020	Add 2 Residential Units	JDC	SWC

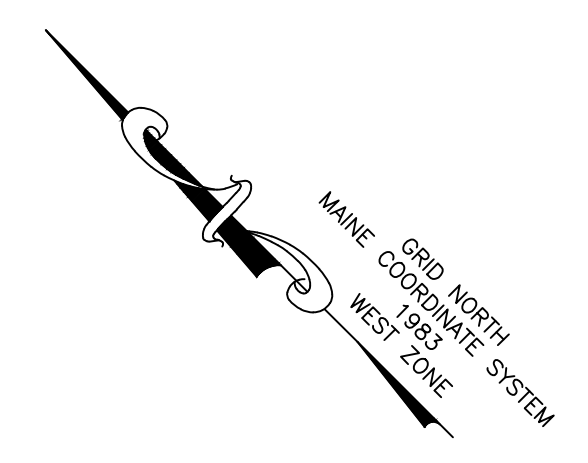
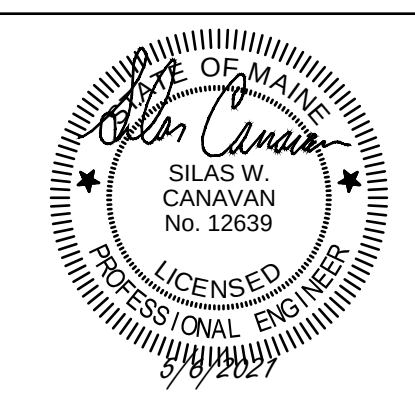
Sheet Title:
1st AMENDED
SUBDIVISION PLAN
SHEET 1 of 3

Job No.: 653 / 16142	Sheet No.:
Date: JULY 28, 2016	
Scale: AS SHOWN	
Drawn: JDC	
Checked: TSG	

C1.1

MAP / LOT: 26 / E / 10

NOTE: SEE SUBDIVISION PLAN SHEET 3 of 3,
C1.1b, FOR EASEMENTS & LICENSES LAYOUT.



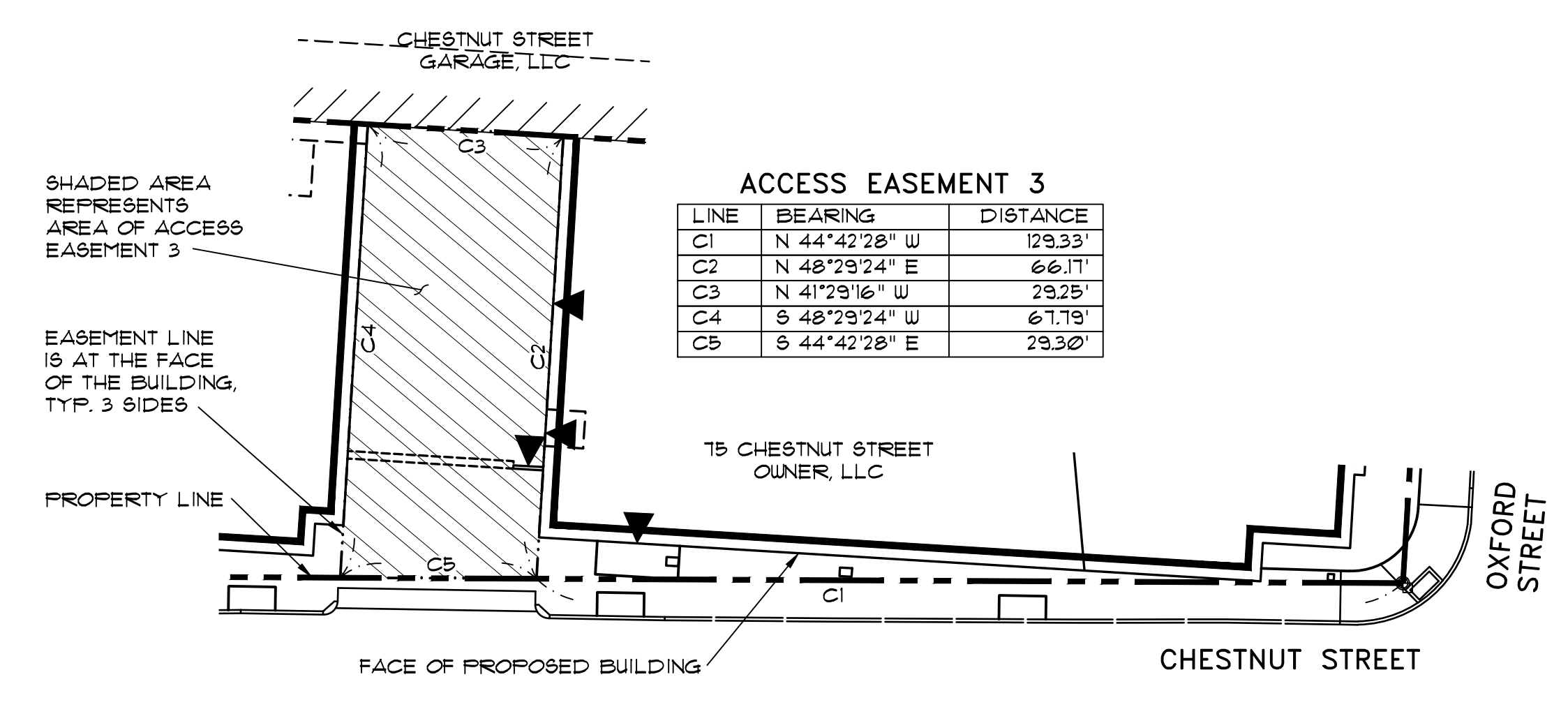
LINE	BEARING	DISTANCE
R1	N 48°26'32" E	58.90'
R2	N 48°26'32" E	12.00'
R3	N 41°29'16" W	316.24'
R4	S 48°56'32" W	12.00'
R5	S 41°29'16" E	316.34'

AIR RIGHTS USE EASEMENT 1 PLAN
SCALE: 1"=20'

LINE	BEARING	DISTANCE
S1	N 48°56'32" E	51.73'
S2	N 48°56'32" E	25.00'
S3	S 41°29'16" E	107.00'
S4	S 48°56'32" W	25.00'
S5	N 41°29'16" W	107.00'

AIR RIGHTS USE EASEMENT 2 PLAN
SCALE: 1"=20'

LINE	BEARING	DISTANCE
C1	N 44°42'28" W	129.33'
C2	N 48°29'24" E	66.17'
C3	N 41°29'16" W	29.25'
C4	S 48°29'24" W	67.79'
C5	S 44°42'28" E	29.30'

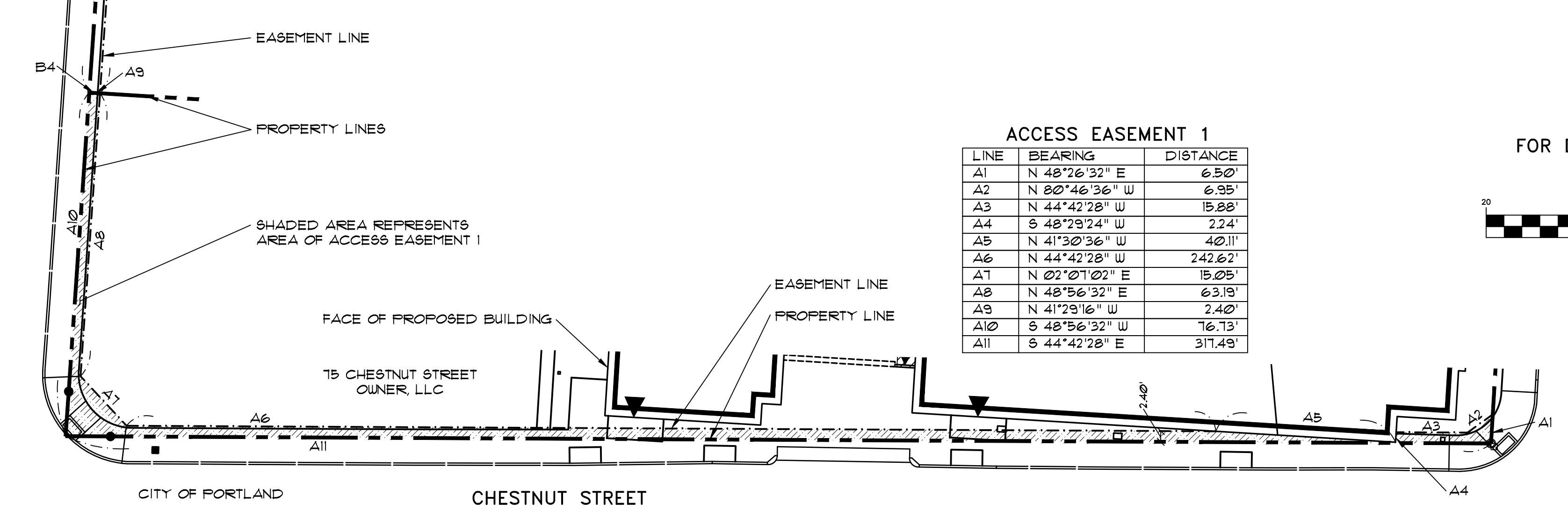


ACCESS EASEMENT 3 PLAN
SCALE: 1"=20'

LINE	BEARING	DISTANCE
B1	N 48°56'32" E	219.56'
B2	N 43°14'28" W	2.40'
B3	S 48°56'32" W	219.49'
B4	S 41°29'16" E	2.40'

ACCESS EASEMENT 2 PLAN
SCALE: 1"=20'

LINE	BEARING	DISTANCE
A1	N 48°26'32" E	6.50'
A2	N 80°46'36" W	6.35'
A3	N 44°42'28" W	15.88'
A4	S 48°29'24" W	2.24'
A5	N 41°30'36" W	40.11'
A6	N 44°42'28" W	242.62'
A7	N 02°07'02" E	15.05'
A8	N 48°56'32" E	63.19'
A9	N 41°29'16" W	2.40'
A10	S 48°56'32" W	76.73'
A11	S 44°42'28" E	317.49'



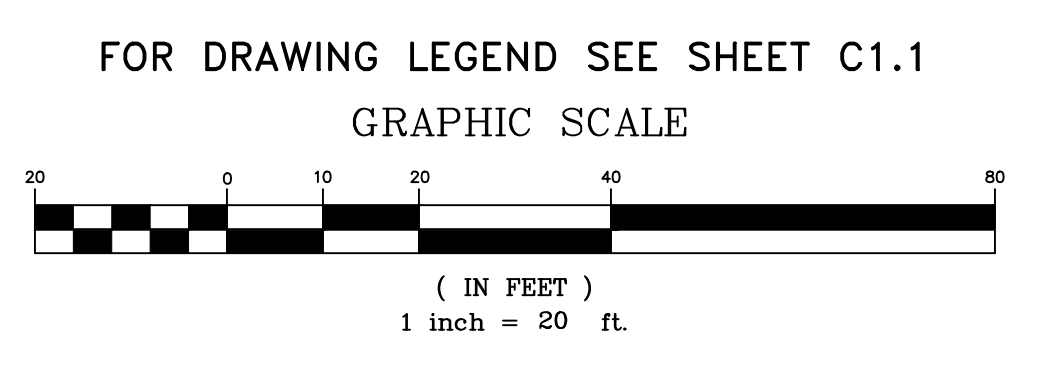
ACCESS EASEMENT 1 PLAN
SCALE: 1"=20'

LINE	BEARING	DISTANCE
F1	N 44°42'28" W	8.00'
F2	S 48°29'24" W	2.00'
F3	N 41°30'36" W	9.76'
F4	S 48°29'24" W	2.08'
F5	N 41°30'36" W	61.00'
F6	S 48°29'24" W	2.99'
F7	N 41°30'36" W	46.73'
F8	N 48°29'24" E	0.50'
F9	S 44°42'28" E	117.67'

FOOTING LICENSE PLAN
SCALE: 1"=20'

EASEMENTS & LICENSES

- PROPOSED TEMPORARY EASEMENT: CONSTRUCTION LICENSE FROM CITY OF PORTLAND TO 75 CHESTNUT STREET OWNER, LLC.
- PROPOSED LICENSE: FROM THE CITY OF PORTLAND TO 75 CHESTNUT STREET OWNER, LLC FOR BUILDING FOOTINGS. SEE FOOTING LICENSE PLAN, CCRD BOOK 37611, PAGE 252.
- PROPOSED EASEMENT: FROM CHESTNUT STREET GARAGE, LLC TO 75 CHESTNUT STREET OWNER, LLC FOR DECK EXTENSIONS ABOVE THE EXISTING STRUCTURE. SEE AIR RIGHTS EASEMENT 1, CCRD BOOK 37611, PAGE 234.
- PROPOSED EASEMENT: FROM 75 CHESTNUT STREET OWNER, LLC TO CHESTNUT STREET GARAGE, LLC FOR UNALTERED AREA ADJACENT TO THE EXISTING GARAGE WALL OPENINGS. SEE AIR RIGHTS EASEMENT 2, CCRD BOOK 37611, PAGE 234.
- PROPOSED EASEMENT: ACCESS AND MAINTENANCE EASEMENT FROM 75 CHESTNUT STREET OWNER, LLC TO THE CITY OF PORTLAND FOR SIDEWALKS ON OXFORD, CHESTNUT AND LANCASTER STREETS. SEE ACCESS EASEMENT 1, CCRD BOOK 37611, PAGE 260.
- PROPOSED EASEMENT: ACCESS AND MAINTENANCE EASEMENT FROM CHESTNUT STREET GARAGE, LLC TO THE CITY OF PORTLAND FOR SIDEWALKS ON LANCASTER STREET. SEE ACCESS EASEMENT 2, CCRD BOOK 37611, PAGE 260.
- PROPOSED EASEMENT: ACCESS EASEMENT FROM 75 CHESTNUT STREET OWNER, LLC (LOT B) TO CHESTNUT STREET GARAGE, LLC (LOT A). SEE ACCESS EASEMENT 3.
- EASEMENT DESCRIPTIONS ARE TO BE RECORDED IN THE CUMBERLAND COUNTY REGISTRY OF DEEDS. DEED BOOK AND PAGE REFERENCES ARE TO BE ADDED TO THE RECORD DRAWINGS.



State of Maine, Cumberland ss.
Registry of Deeds
Received _____, 20____
at ____h____m____M, and recorded in
Plan Book _____, Page _____
Attest: _____
Register

SUBDIVISION PLAN
APPROVED BY THE CITY OF PORTLAND PLANNING BOARD

AMENDMENT APPROVAL DATE
April 17, 2018
ORIGINAL APPROVAL DATE

Rev.	Date	Description	Drawn	Check
1	4/17/2018	For previous versions of the project see Westerlea View Lofts by Pinkham & Greer Civil Engineers filed with the City of Portland	JDC	TSG
2	4/17/2018	Rev'd Per Review Comments 4/17/18 & 4/20/18. Add COA	JDC	TSG
3	4/20/2018	Rev'd Per Review Comments 4/27/18 & Owner Review	JDC	TSG
4	5/8/2018	Rev'd Per Final Civil Plan Review Comments	JDC	TSG
5	5/16/2018	Added Surveyor's Stamp	JDC	TSG
6	11/14/2018	Add Air Rights Easement 2	JDC	TSG
7	5/8/2017	Add 2 Residential Units	JDC	SWC

Sheet Title:
**1st AMENDED
SUBDIVISION PLAN
SHEET 3 of 3**

Job No.: 653 / 16142	Sheet No.:
Date: JULY 28, 2016	
Scale: AS SHOWN	
Drawn: JDC	
Checked: TSG	

C1.1b
MAP / LOT: 26 / E / 10

DAYMARK
75 CHESTNUT STREET
PORTLAND, MAINE
PREPARED FOR:
75 CHESTNUT STREET OWNER, LLC
c/o THE PROCOPIO COMPANIES
220 BROADWAY, UNIT 302
LYNNFIELD, MASSACHUSETTS 01940

THIS PLAN AMENDS THE
PREVIOUSLY APPROVED
SUBDIVISION PLAN RECORDED IN
CCRD PLAN BOOK 220, PAGE 473



I. LANDSCAPING SHALL MEET THE "ARBORICULTURAL SPECIFICATIONS AND STANDARDS OF PRACTICE AND LANDSCAPE GUIDELINES" OF THE CITY OF PORTLAND TECHNICAL AND DESIGN STANDARDS AND GUIDELINES.

3. THE ENTIRE SITE SHALL BE DEVELOPED AND/OR MAINTAINED AS DESIGNATED ON THE SITE PLAN. APPROVAL OF THE PLANNING AUTHORITY OR PLANNING BOARD SHALL BE REQUIRED FOR ANY ALTERATION TO OR DEVIATION FROM THE APPROVED SITE PLAN, INCLUDING, WITHOUT LIMITATION: TOPOGRAPHY, DRAINAGE, LANDSCAPING, RETENTION OF WOODED OR LAWN AREAS, ACCESS, SIZE, LOCATION, AND SURFACING OF PARKING AREAS AND LOCATION AND SIZE OF BUILDINGS.
3. ALL POWERLINE UTILITIES SHALL BE UNDERGROUND.
4. SIDEWALKS AND CURBING SHALL BE DESIGNED AND BUILT WITH TYPEDOWN RAMPS AT ALL STREET CORNERS, CROSSWALKS AND DRIVEWAYS IN CONFORMANCE WITH THE CITY OF PORTLAND TECHNICAL AND DESIGN STANDARDS AND GUIDELINES.
5. ALL EROSION CONTROL MEASURES SHALL BE CONSTRUCTED AND MAINTAINED IN ACCORDANCE WITH THE MAINE EROSION AND SEDIMENT CONTROL BMPs PUBLISHED BY THE BUREAU OF LAND AND QUALITY, MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION, MARCH 2003.
6. ALL EROSION CONTROL MEASURES SHALL BE INSTALLED PRIOR TO ANY SITE EXCAVATION OR REGRADING.
7. ALL DISTURBED AREAS ON THE SITE NOT COVERED BY BUILDINGS OR PAVED AREAS SHALL BE STABILIZED WITH LOAM AND SEED OR OTHER METHODS AS REQUIRED BY BEST MANAGEMENT PRACTICES (SEE ABOVE).
8. PRIOR TO CONSTRUCTION, A PRECONSTRUCTION MEETING SHALL BE HELD AT THE PROJECT SITE WITH THE CONTRACTOR, DEVELOPMENT REVIEW COORDINATOR, PUBLIC WORKS REPRESENTATIVE AND OWNER TO REVIEW THE CONSTRUCTION SCHEDULE AND CRITICAL ASPECTS OF THE SITE WORK. AT THAT TIME, THE SITE/BUILDING CONTRACTOR SHALL PROVIDE THREE (3) COPIES OF A DETAILED CONSTRUCTION SCHEDULE TO THE ATTENDING CITY REPRESENTATIVE. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO ARRANGE A MUTUALLY AGREEABLE TIME FOR THE PRECONSTRUCTION MEETING.
9. EXISTING VEGETATION SHALL BE CONSERVED IN AREAS SHOWN ON THIS SITE. FENCING OR OTHER PROTECTIVE BARRIERS SHALL BE ERRECTED OUTSIDE THE DRIP-LINE OF INDIVIDUAL GROUPINGS OF TREES DESIGNATED FOR PRESERVATION PRIOR TO THE ONSET OF CONSTRUCTION. REGRADING SHALL NOT TAKE PLACE WITHIN THE DRIP-LINE OF TREES DESIGNATED FOR PRESERVATION. NO STORAGE OR CONSTRUCTION MATERIALS SHALL BE PERMITTED WITHIN THE DRIP-LINE OF TREES TO BE PRESERVED.

EXISTING

	PROPERTY LINE		EDGE OF PAVEMENT
	ABUTTERS PROPERTY		GRANITE CURB
	EDGE OF PAVEMENT		BUILDING
	BUILDING		BUILDING ENTRY/EGRESS
	CURB		CATCH BASIN
	POLE MOUNTED TRANSFORMER		LIGHT POLE
	UTILITY POLE W/ GUY WIRE		WALL MOUNTED LIGHT
	AREA LIGHT ON POLE		TRANSFORMER
	SIGN		BOLLARD
	CONCRETE PAD		BITUMINOUS PAVEMENT
			CONCRETE PAVEMENT
			CONCRETE PAVERS

C11	SUBDIVISION PLAN SHEET 1 of 3
C11a	SUBDIVISION PLAN SHEET 2 of 3
C11b	SUBDIVISION PLAN SHEET 3 of 3
C12	SITE PLAN
C13	EXISTING CONDITIONS AND DEMOLITION PLAN
C14	GRADING AND UTILITIES PLAN
C15	LANDSCAPE PLAN, NOTES AND DETAILS
C16	EROSION CONTROL PLAN

- | | |
|------|----------------------------|
| C2.1 | DETAILS |
| C2.2 | DETAILS |
| C2.3 | DETAILS |
| C2.4 | DETAILS |
| D1.1 | DRAINAGE ANALYSIS |
| | EXISTING CONDITIONS SURVEY |

OFF STREET PARKING 1 SPACE PER UNIT
SEE DEED ATTACHMENTS
FOR PARKING AGREEMENTS

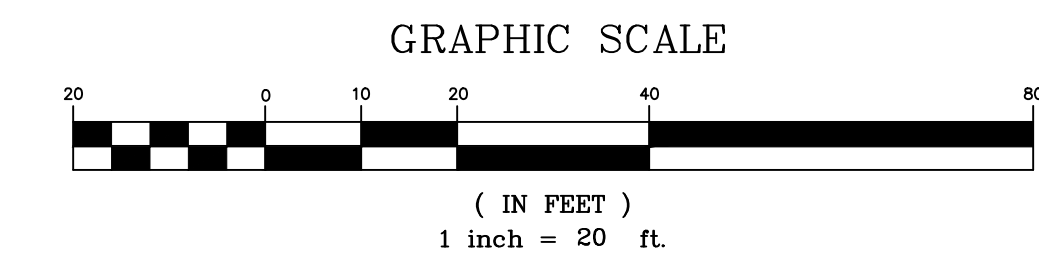
BIKE RACKS:
2 BICYCLE SPACES PER
EVERY 5 DWELLING UNITS: EXTERIOR: 8 BIKES
(52÷5) x 2 = 21 SPACES INTERIOR: 13 BIKES

EXISTING IMPERVIOUS	53,826 SQ. FT.
PROPOSED IMPERVIOUS	64,844 SQ. FT.
NET IMPERVIOUS	+11,018 SQ. FT.

1. OWNER: 15 CHESTNUT STREET QUINER, LLC
c/o THE PROCOPIO COMPANIES,
220 BROADWAY, UNIT 032, LYNNFIELD,
MASSACHUSETTS, 01840. DEEDS RECORDED
IN CUMBERLAND COUNTY REGISTRY OF
DEEDS BK. 36510, PG. 02, DATE 3/16/2020.
2. ENGINEER: WALSH ENGINEERING ASSOCIATES,
INC., ONE KAREN DRIVE, SUITE 2A,
WESTBROOK, MAINE 04092.
3. ARCHITECT: ARCHETYPE ARCHITECTS,
48 UNION WHARF, PORTLAND, MAINE 04101.
4. TOPOGRAPHIC & BOUNDARY: MAINE SURVEY
CONSULTANTS, INC., PO BOX 485, HARRISON, MAINE, 04040.
5. UNDERLYING SOILS MAPPING TAKEN FROM SOIL CONSERVATION
STUDY OF CUMBERLAND COUNTY. THE UPPER HALF OF THE SITE IS CLASSIFIED
HINKLEY (H1B). THE LOWER HALF IS CLASSIFIED AS AU GRES (Au). THE
SURFACE OF THE SITE IS CURRENT URBAN LAND.
6. TAX MAP REFERENCE: MAP 26 / BLOCK E / LOT 10.
7. ZONE: B-1, MIXED DEVELOPMENT, PROPOSED USE: RESIDENTIAL
8. EXISTING PARCEL = 2.12 acres
9. UNITS TO BE SERVICED BY PUBLIC WATER, SEWER, AND GAS FROM CHESTNUT
STREET. THESE SERVICES, INCLUDING HYDRANTS, ARE AS SHOWN ON SHEET C1.4,
GRADING AND UTILITIES PLAN.
10. POWER, TELEPHONE AND CABLE SERVICES ARE TO BE UNDERGROUND FROM
AN EXISTING POLE. THESE SERVICES ARE SHOWN ON SHEET C1.4, GRADING AND
UTILITIES PLAN.
11. CALL DIG-SAFE PRIOR TO COMMENCING WORK, 1-800-DIG-SAFE.
12. ALL WORK WITHIN THE PUBLIC RIGHT OF WAY SHALL MEET CITY OF PORTLAND
TECHNICAL MANUAL STANDARDS. COORDINATE WITH PLANNING DEPARTMENT
FOR MOST CURRENT VERSION OF ALL CITY DETAILS.
13. PROPOSED PARKING SPACES: NO NEW SPACES, EXISTING PARKING IS PER AN
AGREEMENT WITH THE OWNERS OF LOT A. 1 PER UNIT PROVIDED IN THE EXISTING
GARAGE. SEE THE RECIPROCAL AGREEMENT AND PARKING LEASE RECORDED
IN THE CUMBERLAND COUNTY REGISTRY OF DEEDS BOOK _____, PAGE _____,
DATED _____.
14. THE SUBJECT PARCEL SHOWN AS DAYMARK IS SUBJECT TO A CITY OF
PORTLAND LEVEL III SITE PLAN AND SUBDIVISION PERMIT.
15. DETAILS OF STREET TREES ARE INCLUDED ON THE LANDSCAPE
PLAN AS PART OF THE APPROVAL FOR DAYMARK SITE PLAN.
16. FLOODPLAIN: THIS PROPERTY IS IN ZONE C OF THE FLOOD
INSURANCE RATE MAP, COMMUNITY PANEL 230051 0013 B, EFFECTIVE
DATE JULY 11, 1986. IT IS NOT IN A SPECIAL FLOOD HAZARD ZONE.
17. PROPERTY PINS TO BE SET AT THE EXPENSE OF THE DEVELOPER AT
THE END OF CONSTRUCTION ON CORNERS NOT CURRENTLY MARKED.
18. ALL CONSTRUCTION AND SITE ALTERATIONS SHALL BE DONE IN
ACCORDANCE WITH THE "MAINE EROSION AND SEDIMENT CONTROL
BYLAWS" PUBLISHED BY THE BUREAU OF LAND AND WATER QUALITY,
MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION, LATEST
EDITION, MARCH 2003.
19. THE OWNER IS RESPONSIBLE FOR MAINTENANCE OF THE STORMWATER
TREATMENT SYSTEM, TRASH REMOVAL AND GROUNDSKEEPING. THE
STORMWATER TREATMENT SYSTEM IS TO BE MAINTAINED IN ACCORDANCE WITH
THE STORMWATER MANAGEMENT REPORT, INCLUDING MAINTENANCE, DATED
9/30/2016 AND SUBJECT TO A STORMWATER MAINTENANCE AGREEMENT WITH THE
CITY OF PORTLAND RECORDED IN THE CUMBERLAND COUNTY REGISTRY OF
DEEDS BOOK _____, PAGE _____, DATED _____.
20. THIS PROJECT WILL PAY A FEE IN LIEU OF WORKFORCE HOUSING, WHICH IS DUE
PRIOR TO AN ISSUANCE OF A CERTIFICATE OF OCCUPANCY, FOR INCLUSIONARY
ZONING IN COMPLIANCE WITH THE CITY'S ZONING ORDINANCE DIVISION 30,
SECTION 14-481.

ZONE: B-1, MIXED DEVELOPMENT DISTRICT		LOT B
PERMITTED USE: RESIDENTIAL		
SPACE STANDARDS	REQUIRED	PROVIDED
MINIMUM LOT SIZE	NONE	21,451 SF.
MINIMUM STREET FRONTAGE	NONE	443 FEET
MINIMUM FRONT YARD SETBACK	NONE	0.8 FEET
MINIMUM REAR YARD SETBACK	NONE	NA
MINIMUM SIDE YARD SETBACK	NONE	NA
MAXIMUM STREET SETBACK	10 FEET OR	-
75% OF BLDG WITHIN 10' OF IE - CHESTNUT		94%
75% OF BLDG WITHIN 10' OF IE - OXFORD		62%
MINIMUM LENGTH OF BUILDING WALL	25% OF PERIM.	48%
MAXIMUM BUILDING LOT COVERAGE	100%	45%
MAXIMUM RESIDENTIAL DENSITY	NONE	54 UNITS
MAXIMUM BUILDING HEIGHT	75 FEET	74.2 FEET **
OFF STREET PARKING	1 PER UNIT	1 PER UNIT
BIKE RACKS	21	21

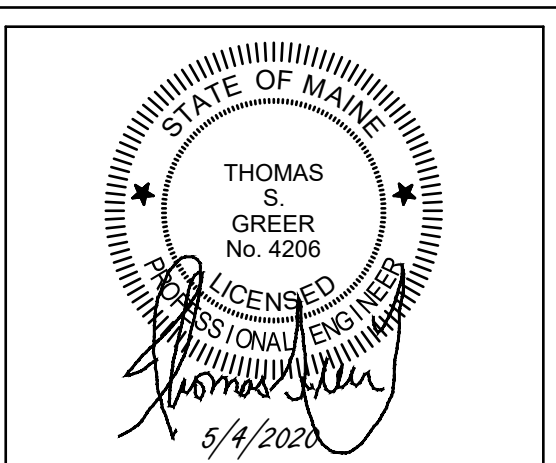
** SEE CODE SUMMARY SHEET AC0.01, TABLE 504.3 TABLE 504.4



WALSH
ENGINEERING ASSOCIATES, INC.

One Karen Dr., Suite 2A | Westbrook, Maine 04092
ph: 207.553.9898 | www.walsh-eng.com

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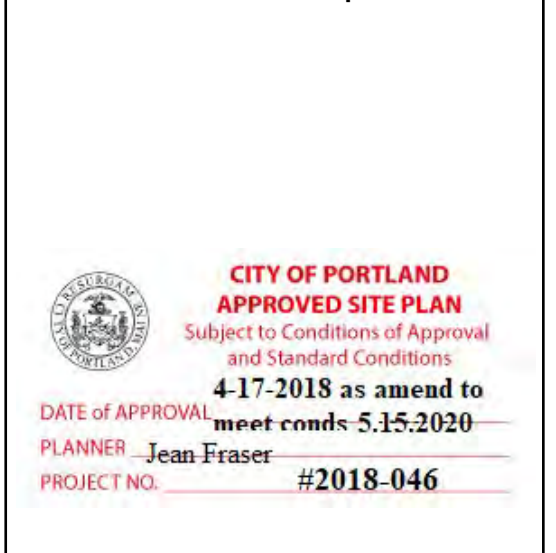
RK
FREET
LINE

OWNER, LLC

COMPANIES
NIT 302
SETTS 01940

DAYMA
75 CHESTNUT STREET
PORTLAND, MA

PREPARED FOR
75 CHESTNUT STREET
c/o THE PROCOPIO C
220 BROADWAY, U
LYNNFIELD, MASSACHU



Rev.	Date	Description	Drawn	Check
For previous versions of the project see Westlerie View Lots by Pinkham & Greer Civil Engineers filed with the City of Portland				
8	4/1/2020	Rev'd Per Review Comments 4/1/18 & 4/26/18, Add COA	JDC	TSG
9	4/22/2020	Rev'd Per Review Comments 4/17/20	JDC	TSG
10	4/26/2020	Rev'd Per Review Comments of Architecture	JDC	TSG
11	5/4/2020	Rev'd Per Final Civil Plan Set Review Comments	JDC	TSG

Sheet Title:		

SITE PLAN

Job No.: 653 / 16142	Sh
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Date: JULY 28, 2016

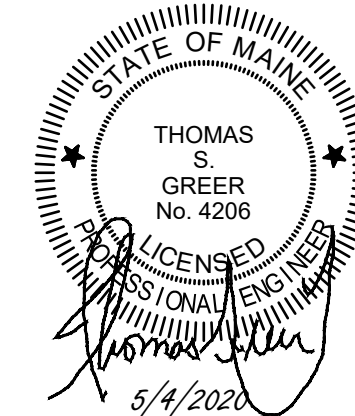
Scale: AS SHOWN

Drawn:	JDC
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Checked:	TSG
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Sheet No.:
C1.2

MAP / LOT: 26 / E / 10



LEGEND

EXISTING

---	PROPERTY LINE
---	ABUTTERS PROPERTY
---	EDGE OF PAVEMENT
---	CONTOURS
---	BUILDING
---	EDGE OF GRAVEL
---	CURB
---	GAS LINE
---	SANITARY SEWER
---	STORMDRAIN
---	OVERHEAD UTILITY
---	WATER LINE
---	CATCH BASIN
---	COMBINED SYSTEM MANHOLE
---	SEWER MANHOLE
---	ELECTRIC MANHOLE
---	GAS METER
---	HYDRANT
---	WATER VALVE
---	GAS VALVE
---	POLE MOUNTED TRANSFORMER
---	UTILITY POLE W/ GUY WIRE
---	SIGN
---	TREE
---	IMPERVIOUS TO BE REMOVED
---	BENCHMARK

DEMOLITION NOTES

- ANY UNUSED SERVICE LINES ARE TO BE PROPERLY REMOVED TO THE MAIN. CAP EACH IN ACCORDANCE WITH THE APPROPRIATE UTILITY REQUIREMENTS.

DAYMARK

75 CHESTNUT STREET
PORTLAND, MAINE

PREPARED FOR:
75 CHESTNUT STREET OWNER, LLC

c/o THE PROCOPIO COMPANIES
220 BROADWAY, UNIT 302
LYNNFIELD, MASSACHUSETTS 01940



Rev.	Date	Description	Drawn	Check
5	4/1/2020	Rev'd Per Review Comments 4/1/18 & 4/20/18, Add COA	JDC	TSG
6	4/14/2020	Rev'd Per Final Civil Plan Set Review Comments	JDC	TSG

Sheet Title:

EXISTING CONDITIONS AND DEMOLITION PLAN

Job No.: 653 / 16142

Date: JULY 28, 2016

Scale: AS SHOWN

Drawn: JDC

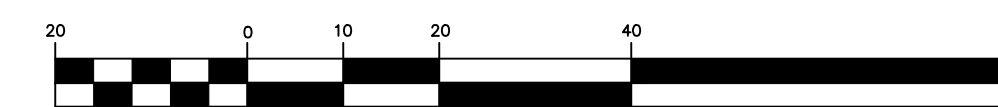
Checked: TSG

Sheet No.:

MAP / LOT: 26 / E / 10

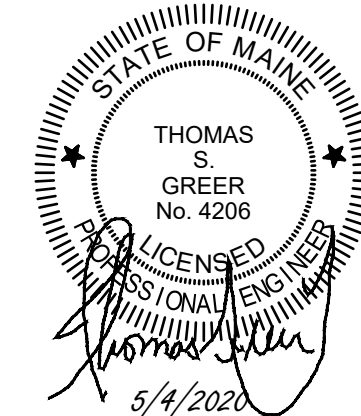
C1.3

GRAPHIC SCALE



(IN FEET)

1 inch = 20 ft.



DAYMARK

75 CHESTNUT STREET
PORTLAND, MAINE

75 CHESTNUT STREET OWNER, LLC

PREPARED FOR:

c/o THE PROCOPIO COMPANIES

220 BROADWAY, UNIT 302
LYNNFIELD, MASSACHUSETTS 01940

CITY OF PORTLAND
APPROVED SITE PLAN
Subject to Conditions of Approval
and Standard Conditions
DATE OF APPROVAL: 4-17-2018 as amended to
PLANNER: Jean Fraser meet code 5.15.2020
PROJECT NO.: #2018-046

Rev.	Date	Description	Drawn	Check
8	4/1/2020	Rev'd Per Review Comments 4/1/17/18 & 4/20/18, Add COA	JDC	TSG
9	4/22/2020	Rev'd Per Review Comments 4/17/20	JDC	TSG
10	4/28/2020	Rev'd Per PWD Requirements	JDC	TSG
11	5/4/2020	Rev'd Per Final Civil Plan Set Review Comments	JDC	TSG

Sheet Title:

GRADING AND
UTILITIES PLAN

Job No.: 653 / 16142

Date: JULY 28, 2016

Scale: AS SHOWN

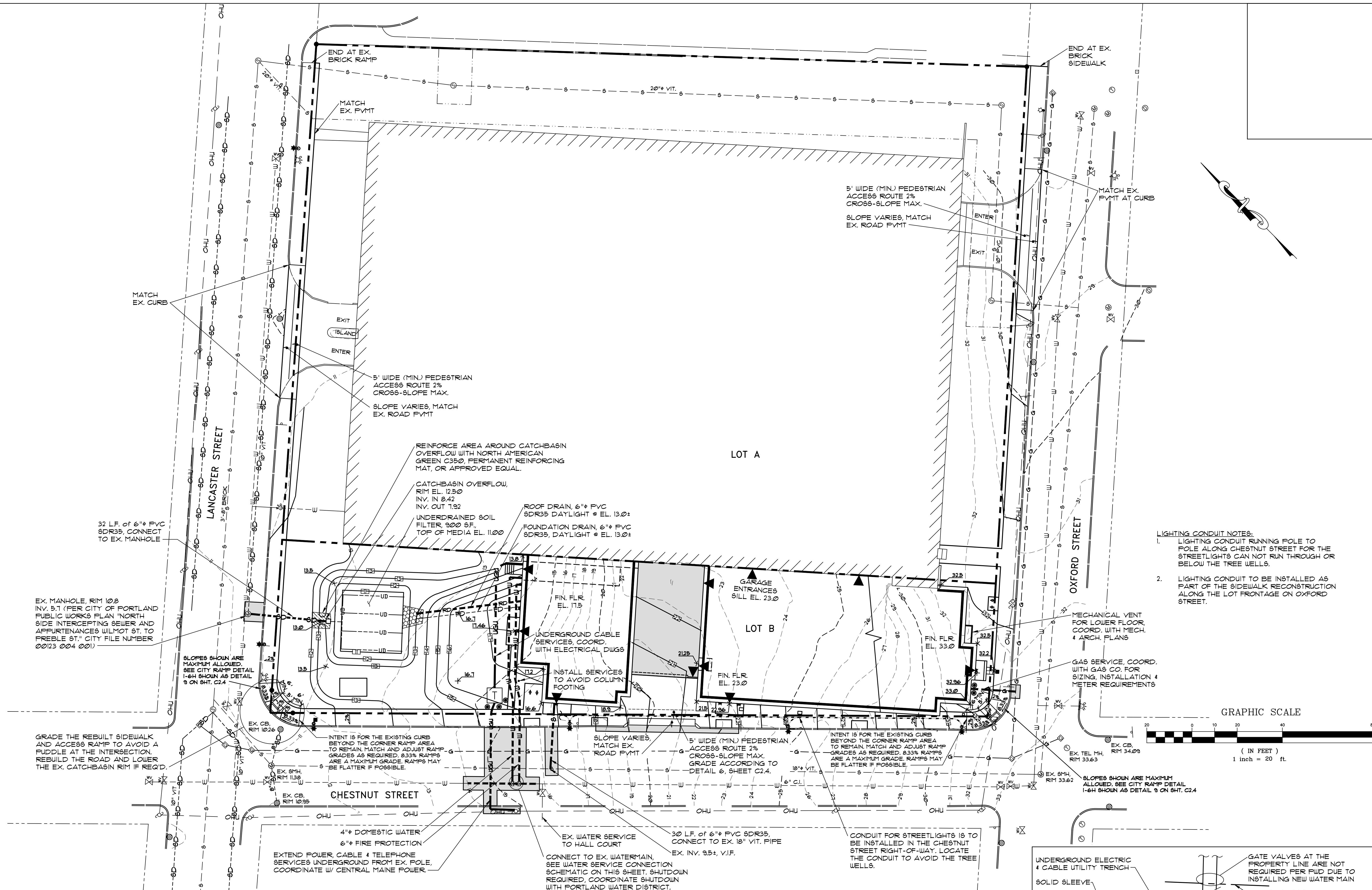
Drawn: JDC

Checked: TSG

Sheet No.:

C1.4

MAP / LOT: 26 / E / 10



LEGEND

EXISTING

PROPERTY LINE
ABUTTER'S PROPERTY
EDGE OF PAVEMENT
CONTOURS
BUILDING
EDGE OF GRAVEL
CURB
GAS LINE
SANITARY SEWER
STORMDRAIN
OVERHEAD UTILITY
WATER LINE

CATCH BASIN
COMBINED MANHOLE
SEWER MANHOLE
ELECTRIC MANHOLE
GAS METER
HYDRANT
WATER VALVE
GAS VALVE
POLE MOUNTED TRANSFORMER
UTILITY POLE W/ GUY WIRE
SIGN
LIGHT POLE

PROPOSED

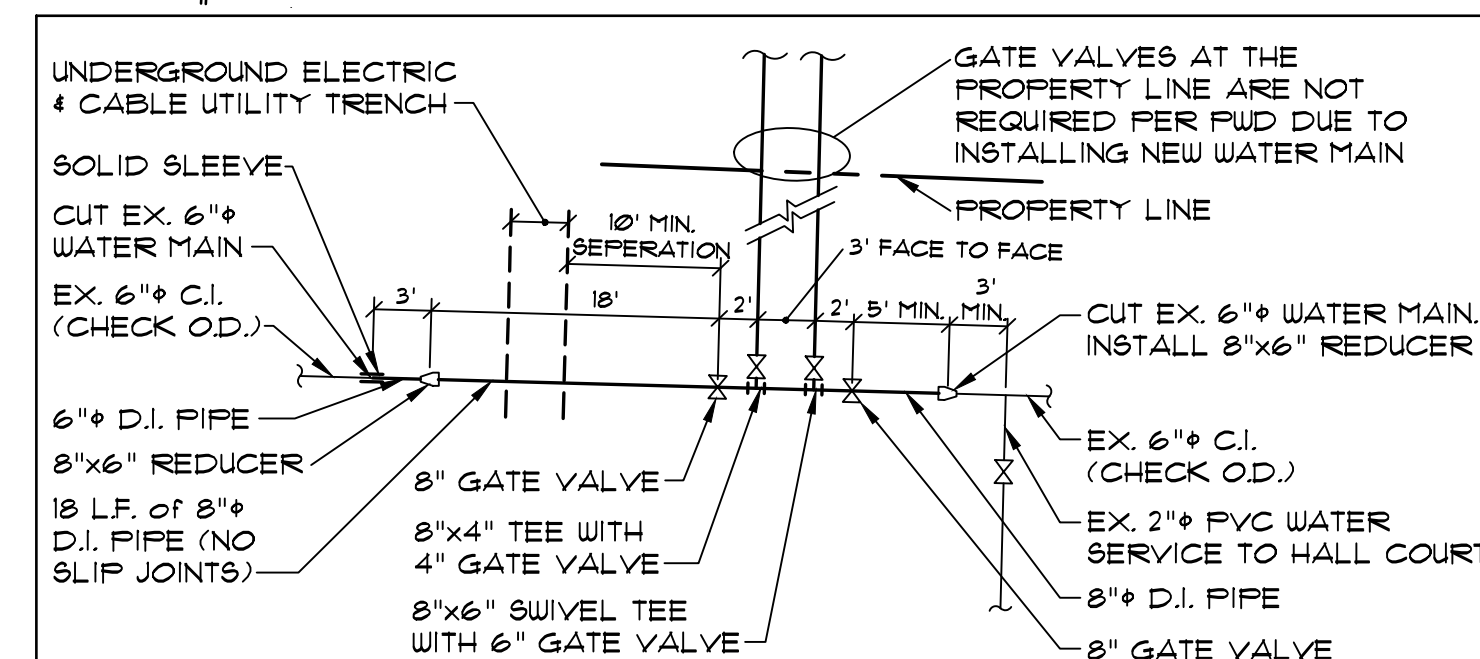
EDGE OF PAVEMENT
VERTICAL GRANITE CURB
BUILDING
BUILDING ENTRY/EGRESS
CONTOURS
GAS LINE
SANITARY SEWER
STORMDRAIN
ROOF DRAIN
FOUNDATION DRAIN
UNDERGROUND UTILITY
ELECTRICAL CONDUIT
WATER LINE

SPOT GRADE
CATCH BASIN
CONTROL STRUCTURE
LIGHT POLE
WALL MOUNTED LIGHT
WATER SHUT OFF
TRANSFORMER
BOLLARD
BITUMINOUS PAVEMENT
CONCRETE PAVEMENT

- LIGHTING CONDUIT NOTES:
- LIGHTING CONDUIT RUNNING POLE TO POLE ALONG CHESTNUT STREET FOR THE STREETLIGHTS CAN NOT RUN THROUGH OR BELOW THE TREE WELLS.
 - LIGHTING CONDUIT TO BE INSTALLED AS PART OF THE SIDEWALK RECONSTRUCTION ALONG THE LOT FRONTAGE ON OXFORD STREET.

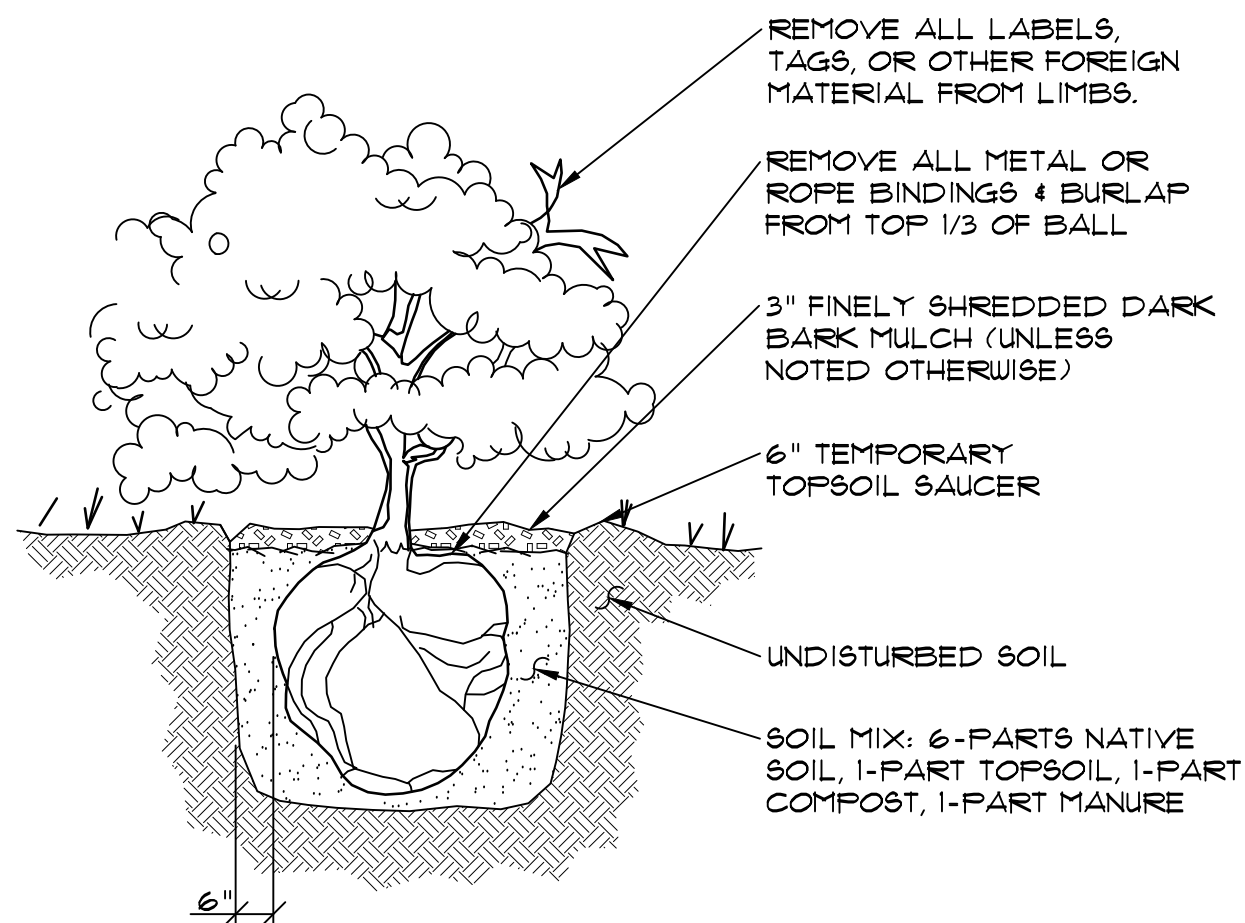
GRAPHIC SCALE

(IN FEET)
1 inch = 20 ft.

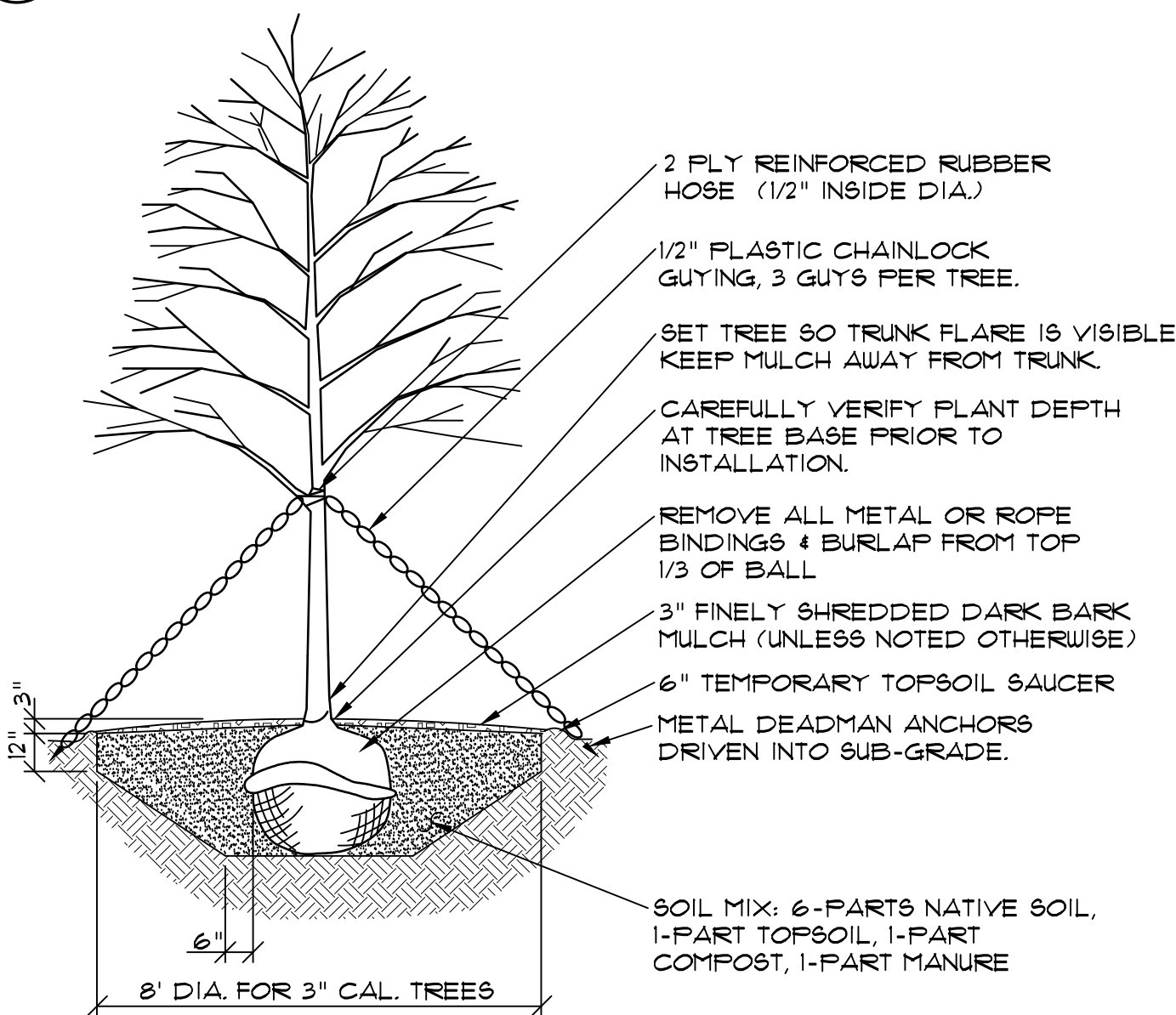


WATER SERVICE CONNECTION SCHEMATIC

NOT TO SCALE

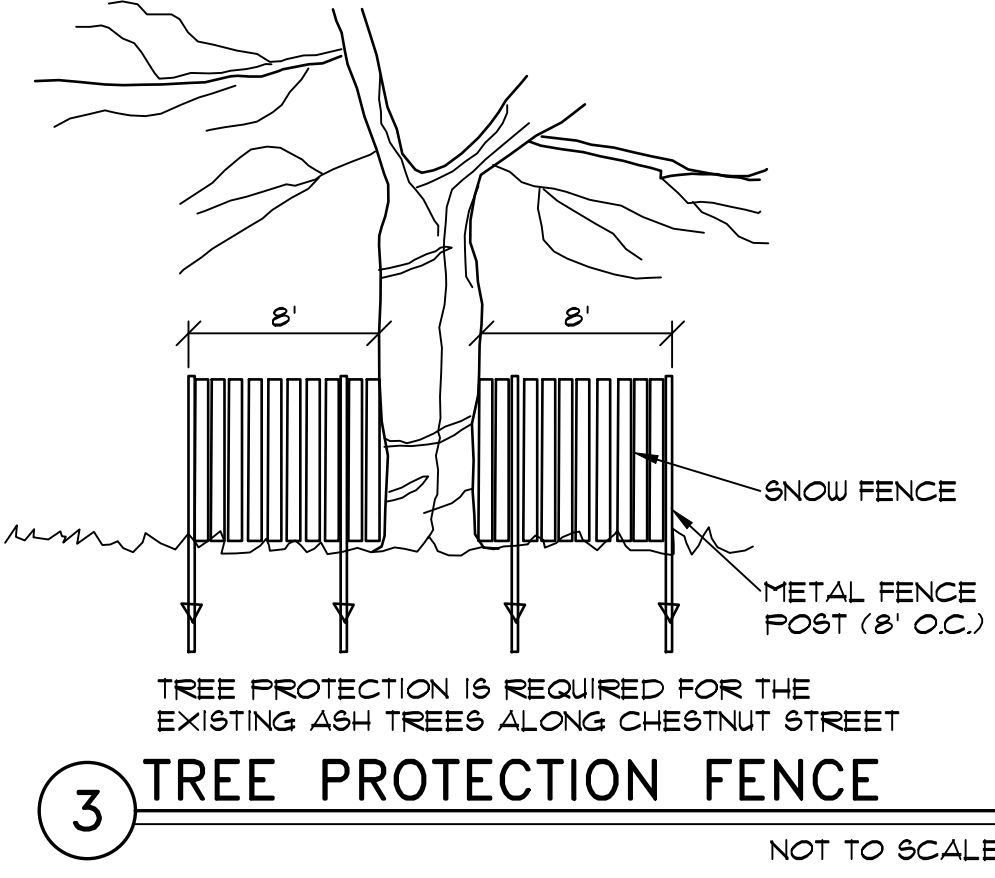


1 SHRUB PLANTING DETAIL
NOT TO SCALE



2 DECIDUOUS TREE PLANTING DETAIL
NOT TO SCALE

PLANT LIST						
		A 12	SYMBOL QUANTITY			
KEY	COMMON NAME/BOTANICAL NAME	SIZE	ROOT	QUAN.	NOTES	
A	HONEY LOCUST / <i>g. triacanthos</i> 'inermis' Streetkeeper	2" cal.	B4B	6	SINGLE TRUNK	
B	HORNBEAM / <i>carpinus caroliniana</i>	2" cal.	B4B	3		
C	SHASTA VIBURNUM / <i>v. plicatum tomentosum</i> 'shasta'	3-4' tall	B4B	21	3 CANES	
D	SHOSHONI VIBURNUM / <i>v. plicatum var. tomentosum</i> 'Summer Snowflakes'	18" tall	B4B	11	3 CANES	
E	SWITCH GRASS / <i>panicum virgatum</i> 'Northwind'	--	POTTED	14		
F	SWITCH GRASS / <i>panicum virgatum</i> 'Shenandoah'	--	POTTED	20		
G	MOHICAN VIBURNUM / <i>v. lantana</i> 'mohican'	3-4' tall	B4B	18	3 CANES	
H	ARMSTRONG MAPLE / <i>a. freemanii</i> 'Armstrong'	2 1/2" cal.	B4B	6		
J	THE APPROVAL REQUIRES A STREET TREE AT THIS LOCATION, LOCATED ON THE APPLICANT'S PROPERTY BUT CLOSE TO THE ROW. SPECIES, SIZE AND PRECISE LOCATION TO BE AGREED WITH THE CITY ARBORIST PRIOR TO ORDERING AND PLANTING THE TREE, TO TAKE ACCOUNT OF UTILITIES AND VISUAL IMPACT.					



3 TREE PROTECTION FENCE
NOT TO SCALE

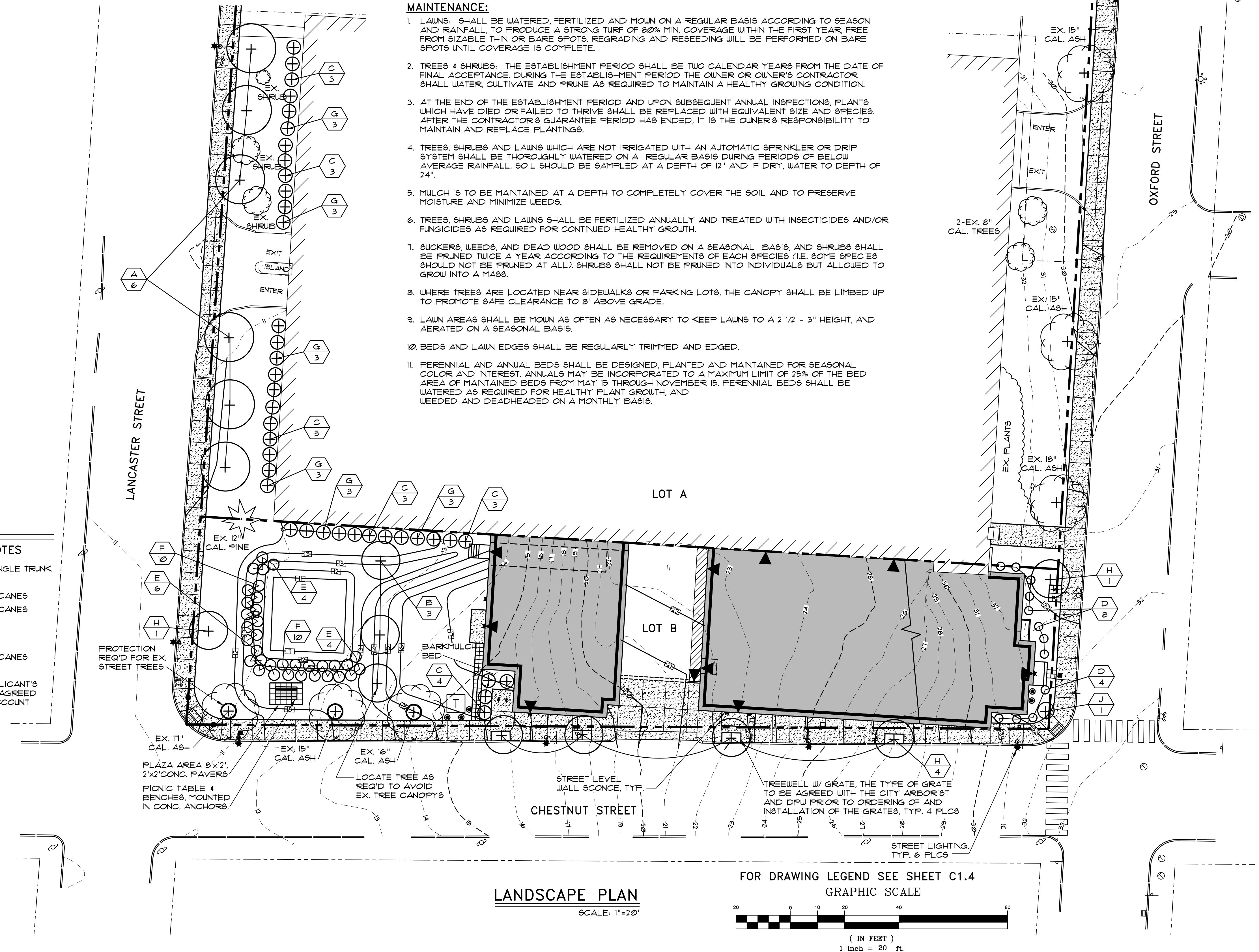
LANDSCAPE NOTES

GENERAL:

1. SAVE EXISTING TREES AS SHOWN. DO NOT CUT OR CLEAR ANY VEGETATION BEYOND THE IMPACT LIMIT LINE.
2. ALL PLANT MATERIALS INSTALLED ARE TO MEET THE SPECIFICATIONS OF THE "AMERICAN STANDARDS FOR NURSERY STOCK" BY THE AMERICAN ASSOCIATION OF NURSERYMEN.
3. ALL PROPOSED PLANT LOCATIONS SHALL BE AS SHOWN ON PLANS. CONTRACTOR SHALL VERIFY LOCATION OF ALL UTILITIES PRIOR TO PLANTING AND WILL NOTIFY OWNER'S REPRESENTATIVE IN THE EVENT OF CONFLICTS.
4. PLANT LOCATIONS ARE TO BE SCALED FROM THE LANDSCAPE PLAN UNLESS NOTED OTHERWISE.
5. NO PLANT MATERIAL SHALL BE INSTALLED UNTIL FINAL GRADING AND CONSTRUCTION HAS BEEN COMPLETED IN THE IMMEDIATE AREA.
6. FINAL QUANTITY FOR EACH PLANT TYPE IS NOTED IN THE PLANT LIST. THIS NUMBER SHALL TAKE PRECEDENCE IN THE CASE OF ANY DISCREPANCY BETWEEN QUANTITIES SHOWN IN THE LIST AND ON THE PLAN.
7. ANY PROPOSED SUBSTITUTIONS MUST BE APPROVED BY THE OWNER OR THE OWNER'S REPRESENTATIVE.
8. ALL DISTURBED AREAS TO BE LOAMED AND SEEDED.

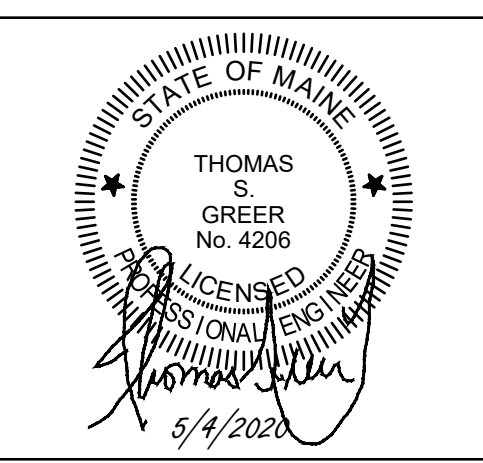
MAINTENANCE:

1. LAWN: SHALL BE WATERED, FERTILIZED AND MOWN ON A REGULAR BASIS ACCORDING TO SEASON AND RAINFALL TO PRODUCE A STRONG TURF OF 80% MIN. COVERAGE WITHIN THE FIRST YEAR, FREE FROM SIZABLE THIN OR BARE SPOTS. REGRADING AND RESEEDING WILL BE PERFORMED ON BARE SPOTS UNTIL COVERAGE IS COMPLETE.
2. TREES & SHRUBS: THE ESTABLISHMENT PERIOD SHALL BE TWO CALENDAR YEARS FROM THE DATE OF FINAL ACCEPTANCE. DURING THE ESTABLISHMENT PERIOD THE OWNER OR OWNER'S CONTRACTOR SHALL WATER, CULTIVATE AND PRUNE AS REQUIRED TO MAINTAIN A HEALTHY GROWING CONDITION.
3. AT THE END OF THE ESTABLISHMENT PERIOD AND UPON SUBSEQUENT ANNUAL INSPECTIONS, PLANTS WHICH HAVE DIED OR FAILED TO THRIVE SHALL BE REPLACED WITH EQUIVALENT SIZE AND SPECIES. AFTER THE CONTRACTOR'S GUARANTEE PERIOD HAS ENDED, IT IS THE OWNER'S RESPONSIBILITY TO MAINTAIN AND REPLACE PLANTINGS.
4. TREES, SHRUBS AND LAWN WHICH ARE NOT IRRIGATED WITH AN AUTOMATIC SPRINKLER OR DRIP SYSTEM SHALL BE THOROUGHLY WATERED ON A REGULAR BASIS DURING PERIODS OF BELOW AVERAGE RAINFALL. SOIL SHOULD BE SAMPLED AT A DEPTH OF 12" AND IF DRY, WATER TO DEPTH OF 24".
5. MULCH IS TO BE MAINTAINED AT A DEPTH TO COMPLETELY COVER THE SOIL AND TO PRESERVE MOISTURE AND MINIMIZE WEEDS.
6. TREES, SHRUBS AND LAWN SHALL BE FERTILIZED ANNUALLY AND TREATED WITH INSECTICIDES AND/OR FUNGICIDES AS REQUIRED FOR CONTINUED HEALTHY GROWTH.
7. SUCKERS, WEEDS, AND DEAD WOOD SHALL BE REMOVED ON A SEASONAL BASIS, AND SHRUBS SHALL BE PRUNED TWICE A YEAR ACCORDING TO THE REQUIREMENTS OF EACH SPECIES (I.E. SOME SPECIES SHOULD NOT BE PRUNED AT ALL). SHRUBS SHALL NOT BE PRUNED INTO INDIVIDUALS BUT ALLOWED TO GROW INTO A MASS.
8. WHERE TREES ARE LOCATED NEAR SIDEWALKS OR PARKING LOTS, THE CANOPY SHALL BE LIMBED UP TO PROMOTE SAFE CLEARANCE TO 8' ABOVE GRADE.
9. LAWN AREAS SHALL BE MOWN AS OFTEN AS NECESSARY TO KEEP LAWN TO A 2 1/2 - 3" HEIGHT, AND AERATED ON A SEASONAL BASIS.
10. BEDS AND LAWN EDGES SHALL BE REGULARLY TRIMMED AND EDGED.
11. PERENNIAL AND ANNUAL BEDS SHALL BE DESIGNED, PLANTED AND MAINTAINED FOR SEASONAL COLOR AND INTEREST. ANNUALS MAY BE INCORPORATED TO A MAXIMUM LIMIT OF 25% OF THE BED AREA OF MAINTAINED. BEDS FROM MAY 15 THROUGH NOVEMBER 15. PERENNIAL BEDS SHALL BE WATERED AS REQUIRED FOR HEALTHY PLANT GROWTH, AND WEEDED AND DEADHEADED ON A MONTHLY BASIS.



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DAYMARK
75 CHESTNUT STREET
PORTLAND, MAINE
PREPARED FOR:
75 CHESTNUT STREET OWNER, LLC
c/o THE PROCORPO COMPANIES
220 BROADWAY, UNIT 502
LYNNFIELD, MASSACHUSETTS 01940

CITY OF PORTLAND
APPROVED SITE PLAN
Subject to Conditions of Approval
and Standard Conditions
4-17-2018 as amend to
meet conds: 5.15.2020
DATE OF APPROVAL: 5/4/2020
PLANNER: Jean Fraser
PROJECT NO.: #2018-046

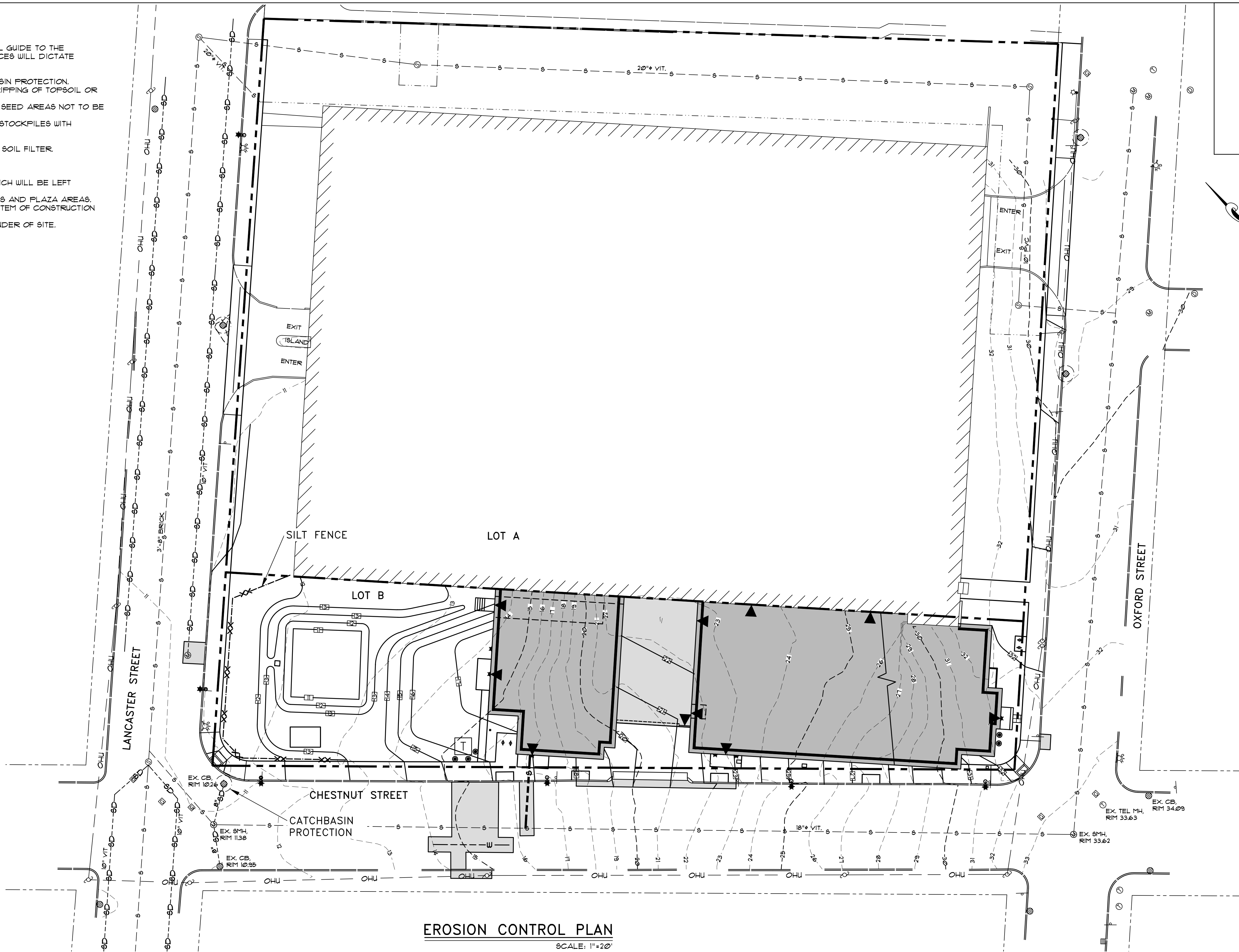
Rev.	Date	Description	Drawn	Check
8	4/1/2020	Rev'd Per Review Comments 4/11/18 & 4/20/18, Add COA	JDC	TSG
9	5/4/2020	Rev'd Per Final Civil Plan Set Review Comments	JDC	TSG

Sheet Title:
**LANDSCAPE PLAN,
NOTES
AND DETAILS**

Job No.: 653 / 16142
Date: JULY 28, 2016
Scale: AS SHOWN
Drawn: JDC
Checked: TSG
Sheet No.:
C1.5
MAP / LOT: 26 / E / 10

SUGGESTED SEQUENCE OF CONSTRUCTION TO CONTROL EROSION:

- THIS SEQUENCE OF CONSTRUCTION IS A GENERAL GUIDE TO THE CONTRACTOR. ACTUAL CONSTRUCTION PRACTICES WILL DICTATE VARIATIONS IN THE ORDER OF MAJOR EVENTS.
1. INSTALL PERIMETER SILT FENCE AND CATCH BASIN PROTECTION.
 2. INSTALL SILTATION BASINS. (PRIOR TO ANY STRIPPING OF TOPSOIL OR OTHER EARTHWORK)
 3. CLEAR AND GRUB WORK AREAS. TEMPORARILY SEED AREAS NOT TO BE WORKED ON WITHIN 14 DAYS.
 4. STRIP AND STOCKPILE ON-SITE TOPSOIL. SEED STOCKPILES WITH TEMPORARY SEED MIX.
 5. BEGIN EARTHWORK FOR BUILDING FOUNDATION.
 6. STABILIZE AREAS DRAINING TO UNDERDRAINED SOIL FILTER.
 7. CONSTRUCT UNDERDRAINED SOIL FILTER.
 8. BEGIN BUILDING CONSTRUCTION.
 9. ROUGH GRADE SITE.
 10. RESEED OR TEMPORARILY SEED ANY AREA WHICH WILL BE LEFT UNDISTURBED FOR MORE THAN 14 DAYS.
 11. COMPLETE FINE GRADING AND PAVING OF WALKS AND PLAZA AREAS.
 12. CLEAN SILTATION BASIN AND STORM DRAIN SYSTEM OF CONSTRUCTION SEDIMENTATION.
 13. FINE GRADE, LOAM SEED AND FERTILIZE REMAINDER OF SITE.
 13. REMOVE TEMPORARY SOIL EROSION MEASURES.



EROSION CONTROL PLAN
SCALE: 1"=20'

LEGEND

EXISTING

- PROPERTY LINE
- ABUTTERS PROPERTY
- EDGE OF PAVEMENT
- CONTOURS
- BUILDING
- EDGE OF GRAVEL CURB
- GAS LINE
- SANITARY SEWER
- STORM DRAIN
- OVERHEAD UTILITY
- WATER LINE

- CATCH BASIN
- COMBINED MANHOLE
- SEWER MANHOLE
- ELECTRIC MANHOLE
- GAS METER
- HYDRANT
- WATER VALVE
- GAS VALVE
- POLE MOUNTED TRANSFORMER
- UTILITY POLE W/ GUY WIRE
- SIGN
- LIGHT POLE

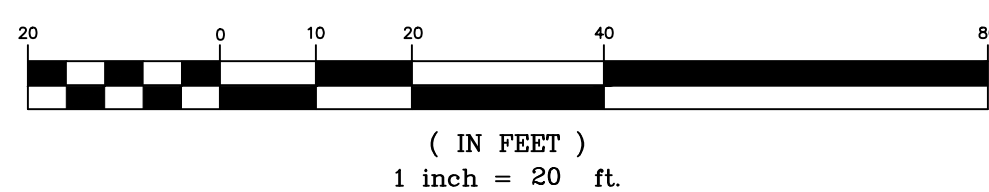
PROPOSED

- EDGE OF PAVEMENT
- VERTICAL GRANITE CURB
- BUILDING
- BUILDING ENTRY/EGRESS
- CONTOURS
- GAS LINE
- SANITARY SEWER
- STORM DRAIN
- ROOF DRAIN
- FOUNDATION DRAIN
- UNDERGROUND UTILITY
- ELECTRICAL CONDUIT
- WATER LINE

EROSION CONTROL

- CATCH BASIN PROTECTION WITH SILTSACK
- SILT FENCE

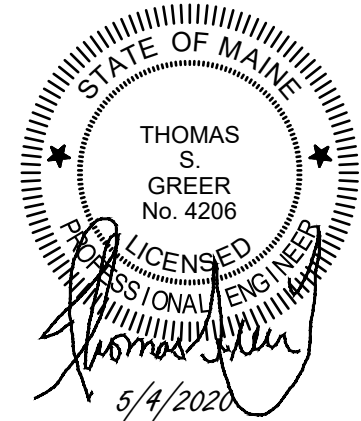
GRAPHIC SCALE



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DAYMARK

75 CHESTNUT STREET
PORTLAND, MAINE

75 CHESTNUT STREET OWNER, LLC

PREPARED FOR:

c/o THE PROCOPIO COMPANIES
220 BROADWAY, UNIT 302
LYNNFIELD, MASSACHUSETTS 01940

CITY OF PORTLAND
APPROVED SITE PLAN
Subject to Conditions of Approval
and Standard Conditions:
4-17-2018 as amended to
meet code 5.15.2020
PLANNER: Jean Fraser
PROJECT NO.: #2018-046

Rev.	Date	Description	Drawn	Check
For previous versions of the project see Westerlea View Lofts by Pinkham & Greer Civil Engineers filed with the City of Portland				
5	4/1/2020	Rev'd Per Review Comments 4/1/1/18 & 4/20/18, Add COA	JDC	TSG
6	5/4/2020	Rev'd Per Final Civil Plan Set Review Comments	JDC	TSG

Sheet Title:

EROSION
CONTROL PLAN

Job No.: 653 / 16142

Date: JULY 28, 2016

Scale: AS SHOWN

Drawn: JDC

Checked: TSG

Sheet No.:

C1.6

MAP / LOT: 26 / E / 10

EROSION CONTROL NOTES

GENERAL:

- THE DRAWINGS DEPICT THE REQUIRED SOIL EROSION CONTROL MEASURES. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING THE CONSTRUCTION SITE IN SUCH A MANNER THAT:
- SOIL EROSION IS KEPT TO A MINIMUM.
 - NO SEDIMENT LEAVES THE CONSTRUCTION SITE PROPER.
 - ALL POSSIBLE MEASURES ARE EMPLOYED TO PREVENT SEDIMENT FROM ENTERING DRAINAGE COURSES AND WETLANDS EVEN BEYOND THE DETAILS SHOWN ON THIS PLAN IF NECESSARY.
- ALL EROSION CONTROL MEASURES SHALL BE CONSTRUCTED AND MAINTAINED IN ACCORDANCE WITH THE MAINE EROSION AND SEDIMENT CONTROL BMPs PUBLISHED BY THE BUREAU OF LAND AND WATER QUALITY, MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION, MARCH 2003.
- THE CONTRACTOR IS RESPONSIBLE FOR ALL FINES RESULTING FROM EROSION OR SEDIMENTATION FROM THE SITE TO SURROUNDING PROPERTIES, WATERBODIES, OR WETLAND AS A RESULT OF THIS PROJECT.
- LOAM AND SEED ALL DISTURBED AREAS AS SOON AS POSSIBLE AFTER DISTURBANCE, BUT NO LONGER THAN 1 DAYS. LOAM AND SEED ANY DISTURBED AREA WITHIN 15' OF WETLANDS OR WATERBODIES WITHIN 48 HOURS OR PRIOR TO AND STORM EVENT. USE WINTER SEED RATES AND SPECIFICATIONS IF APPROPRIATE.
- INSPECT SOIL EROSION MEASURES WEEKLY AND AFTER SIGNIFICANT STORM EVENTS. MAKE ALL NECESSARY REPAIRS TO FACILITIES AS SOON AS POSSIBLE, BUT NO LONGER THAN 2 DAYS. CLEAN AND RESET SILT FENCES AND STONE CHECK DAMS WHICH ACCUMULATE SEDIMENT AND DEBRIS.
- PROTECT AND STABILIZE ALL AREAS NOT SCHEDULED FOR EROSION PREVENTION OR STABILIZATION BUT THAT SHOW SIGNS OF EROSION. NOTIFY OWNER OF ANY SIGNIFICANT EROSION PROBLEM.
- APPLY MULCH TO BARE SOILS WITHIN 1 DAYS OF INITIAL DISTURBANCE OF SOILS, WITHIN 48 HOURS IF WITHIN 15' OF WETLAND OR WATERBODY, PRIOR TO ANY RAIN EVENT, OR PRIOR TO ANY WORK SHUTDOWN LASTING MORE THAN ONE DAY.
- TEMPORARILY SEED WITHIN 1 DAYS ANY AREA WHICH WILL BE LEFT DISTURBED AND UNWORKED FOR MORE THAN 14 DAYS WITH THE TEMPORARY SEED MIX LISTED BELOW. IF AREA IS WITHIN 15' OF A WETLAND OR WATERBODY, SEED WITHIN 48 HOURS. PERMANENT SEED ANY AREA WHICH CAN BE LOAMED AS SOON AS POSSIBLE WITH THE PERMANENT SEED MIX LISTED BELOW. DO NOT USE PERMANENT SEED MIX AFTER SEPTEMBER 15.
- MULCH ALL AREAS SEEDED SO THAT SOIL IS NOT VISIBLE THROUGH THE MULCH REGARDLESS OF THE APPLICATION RATE. DURING THE GROWING SEASON (APRIL 15 - SEPT. 30) USE EROSION CONTROL MESH (OR MULCH AND NETTING) ON:
- THE BASE OF GRASSSED WATERWAYS
 - SLOPES STEEPER THAN 15%
 - WITHIN 100 FT. OF STREAMS AND WETLANDS
- BETWEEN OCT. 1 AND APRIL 14 USE EROSION CONTROL MESH (OR MULCH AND NETTING) ON:
- SIDE SLOPES OF GRASSSED WATERWAYS
 - SLOPES STEEPER THAN 8%
- INSTALL EROSION CONTROL MESH IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS. MESH TO BE EQUAL TO NORTH AMERICAN GREEN PRODUCT C125BN.
- FOLLOW SILT FENCE MANUFACTURERS SPECIFICATIONS AND RECOMMENDATIONS FOR INSTALLATION OF SILT FENCE. SECURE ENTIRE BOTTOM OF FENCE EITHER BY BURYING BOTTOM OF FENCE IN A TRENCH OR BERMING WITH SOIL OR CHIPPED GRUBBINGS. REFER TO SILT FENCE DETAILS.
- PLACE AND GRADE LOAM IN A REASONABLY UNIFORM MANNER. WORK LINE AND FERTILIZER INTO THE SOIL TO A DEPTH OF 4 INCHES WITH A DISC, SPRING TOOTH HARROW OR OTHER SUITABLE EQUIPMENT. CONTINUE TILLAGE UNTIL A REASONABLY UNIFORM SEED BED IS PREPARED. REMOVE FROM SURFACE ALL STONES LARGER THAN 2" AND ALL OTHER UNSUITABLE MATERIAL. LIME AND FERTILIZER SHOULD BE MIXED INTO SOIL PRIOR TO ROLLING EXCEPT IF INCLUDED IN HYDROSEED MIXTURE. PERMANENT STABILIZATION OF REVEGETATED AREAS IS CONSIDERED AS 50% CATCH.
- ALL CULVERT OR PIPE OUTFALL PROTECTION MUST BE INSTALLED WITHIN 48 HOURS OF INSTALLING NEW PIPE OR CULVERT.
- DITCHES AND CHANNELS DESIGNATED TO BE LINED WITH RIFRAP AND/OR EROSION CONTROL MESH MUST BE INSTALLED WITHIN 48 HOURS OF COMPLETING THE GRADING OF THAT SECTION OF DITCH OR CHANNEL.
- ALL CATCH BASINS, NEW OR EXISTING, THAT MAY RECEIVE RUNOFF FROM DISTURBED AREAS MUST BE PROTECTED BY INSTALLING AND MAINTAINING SILT SACKS DURING CONSTRUCTION.
- WATER FROM CONSTRUCTION TRENCH DEWATERING OR TEMPORARY STREAM DIVERSION WILL PASS FIRST THROUGH A FILTER BAG OR SECONDARY CONTAINMENT STRUCTURE (E.G. HAY BALE OR EROSION CONTROL MIX LINED POOL) PRIOR TO DISCHARGE. THE DISCHARGE SITE SHALL BE SELECTED TO AVOID FLOODING, ICING, 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.
- TOPSOIL:**
- SUITABLE TOPSOIL SALVAGED FROM SITE OR SCREENED, LOOSE AND FRIABLE SANDY LOAM OR LOAM AS DEFINED BY THE USDA SOIL CONSERVATION SERVICE CLASSIFICATION SYSTEM, FREE FROM ADMIXTURE OF SUBSOIL, REFUSE, LARGE STONES, CLODS, ROOTS, WEEDS, RHIZOMES OR OTHER UNDESIRABLE FOREIGN MATTER AS DETERMINED BY THE INSPECTING AUTHORITY. CONTRACTOR SHALL SUBMIT REPORTS OF LOAM TEST RESULTS PERFORMED BY AN INDEPENDENT TESTING LABORATORY FOR TOPSOIL FROM DIFFERENT SOURCES PRIOR TO PLACING. THE COST OF TESTING SHALL BE INCIDENTAL TO THE COST OF TOPSOIL. TOPSOIL SHALL MEET THE FOLLOWING SPECIFICATIONS:
 - MATERIAL
- SAND - 0.02 IN. TO 0.002 IN. DIAMETER (% BY VOLUME) 45 - 75
SILT - 0.002 IN. TO 0.00008 IN. DIAMETER (% BY VOLUME) 20 - 40
CLAY - LESS THAN 0.00008 IN. DIAMETER (% BY VOLUME) 5 - 15
- ORGANICS (SHALL MEET THE REQUIREMENTS OF MDOT STANDARD SPECIFICATION 111.03.02(a) (% BY VOLUME) 10 - 20
- NUTRIENTS:
CALCIUM (CA) (% SATURATION) 60 - 80
MAGNESIUM (MG) (% SATURATION) 10 - 25
POTASSIUM (K) (% SATURATION) 21 - 30
PHOSPHORUS (P) (POUNDS/ACRE) 10 - 40
PH 6.0 - 6.5
- PERMEABILITY (INCHES PER HOUR) 3 - 10
- MAXIMUM STONE SIZE (INCHES) 3/4
- SEEDING:**
- USE PERMANENT SEED MIXES AND RATES BETWEEN 5/15 AND 9/30.
USE TEMPORARY SEED MIXES FOR PERIODS LESS THAN 12 MONTHS. IF USING TEMPORARY SEED MIXES AND RATES BETWEEN 10/1 AND 5/14, RE-SEED WITH PERMANENT SEED MIX AFTER 5/15.
- PERMANENT SEED:**
MDOT 111.03(a) METHOD NUMBER 3

TEMPORARY SEED:

OATS	80.00 LBS/ACRE	4/01 - 5/14
ANNUAL RYEGRASS	40.00 LBS/ACRE	
SUBPER GRASS	40.00 LBS/ACRE	5/15 - 8/14
ANNUAL RYEGRASS	80.00 LBS/ACRE	5/15 - 9/14
WINTER RYE	112.00 LBS/ACRE	9/15 - 9/30
WINTER RYE (W/ MULCH COVER)	112.00 LBS/ACRE	10/01 - 3/31

LIME AND FERTILIZER:

APPLY GROUND LIMESTONE (EQUIVALENT TO 50% CALCIUM PLUS MAGNESIUM OXIDE) AT A RATE OF 3 TONS PER ACRE (138 POUNDS PER 1000 SQUARE FEET). APPLY FERTILIZER (10-20-20) AT A RATE OF 800 POUNDS PER ACRE (18.4 POUNDS PER 1000 SQUARE FEET).

MULCH:

STRAW OR HAY (ANCHORED)	10 - 30 LBS	PROTECTED AREAS
STRAW OR HAY (ANCHORED)	125 - 275 LBS	WINDY AREAS
SHREDDED OR CHOPPED	185 - 275 LBS	
JUTE MESH	AS REQUIRED	MODERATE TO HIGH VELOCITY AREAS & STEEP SLOPES

EXCELSDIOR MAT AS REQUIRED

MULCH ANCHORING

PEG AND TUINE	LIQUID ASPHALT
MULCH NETTING	WOOD CELLULOSE FIBER
ASPHALT EMULSION	CHEMICAL TACK

STABILIZING SITE FOR THE WINTER:

- STANDARD CONDITIONS REQUIRING THE TIMELY STABILIZATION OF DITCHES AND CHANNELS - THE CONTRACTOR WILL CONSTRUCT AND STABILIZE ALL STONE-LINED DITCHES AND CHANNELS ON THE SITE BY NOVEMBER 1. THE CONTRACTOR WILL CONSTRUCT AND STABILIZE ALL GRASS-LINED DITCHES AND CHANNELS ON THE SITE BY SEPTEMBER 15. IF THE CONTRACTOR FAILS TO STABILIZE A DITCH OR CHANNEL TO BE GRASS-LINED BY SEPTEMBER 15, THEN THE CONTRACTOR WILL TAKE ONE OF THE FOLLOWING ACTIONS TO STABILIZE THE DITCH FOR LATE FALL AND WINTER:

a. INSTALL A SOD LINING IN THE DITCH - THE CONTRACTOR WILL LINE THE DITCH WITH PROPERLY INSTALLED SOD BY OCTOBER 1. PROPER INSTALLATION INCLUDES THE CONTRACTOR PINNING THE SOD ONTO THE SOIL WITH WIRE PINS, ROLLING THE SOD TO GUARANTEE CONTACT BETWEEN THE SOD AND UNDERLYING SOIL, WATERING THE SOD TO PROMOTE ROOT GROWTH INTO THE DISTURBED SOIL, AND ANCHORING THE SOD WITH JUTE OR PLASTIC MESH TO PREVENT THE SOD STRIPS FROM SLOUGHING DURING FLOW CONDITIONS.

b. INSTALL A STONE LINING IN THE DITCH - THE CONTRACTOR WILL LINE THE DITCH WITH STONE RIFRAP BY NOVEMBER 1. THE CONTRACTOR WILL HIRE A REGISTERED PROFESSIONAL ENGINEER TO DETERMINE THE STONE SIZE AND LINING THICKNESS NEEDED TO WITHSTAND THE ANTICIPATED FLOW VELOCITIES AND FLOW DEPTHS WITHIN THE DITCH. IF NECESSARY, THE CONTRACTOR WILL REGRADE THE DITCH PRIOR TO PLACING THE STONE LINING SO TO PREVENT THE STONE LINING FROM REDUCING THE DITCH'S CROSS-SECTIONAL AREA.

- STANDARD CONDITIONS REQUIRING THE TIMELY STABILIZATION OF DISTURBED SLOPES - THE CONTRACTOR WILL CONSTRUCT AND STABILIZE STONE-COVERED SLOPES BY NOVEMBER 1. THE CONTRACTOR WILL SEED AND MULCH ALL SLOPES TO BE VEGETATED BY SEPTEMBER 15. ANY AREA HAVING A GRADE GREATER THAN 15% (10H:1V) IS 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:

a. STABILIZE THE SOIL WITH TEMPORARY VEGETATION AND EROSION CONTROL MATS - BY OCTOBER 1 THE CONTRACTOR WILL SEED THE DISTURBED SLOPE WITH WINTER RYE AT A SEEDING RATE OF 3 POUNDS PER 1000 SQUARE FEET AND APPLY EROSION CONTROL MATS OVER THE MULCHED SLOPE. THE CONTRACTOR WILL MONITOR GROWTH OF THE RYE OVER THE NEXT 30 DAYS. IF THE RYE FAILS TO GROW AT LEAST THREE INCHES OR COVER AT LEAST 75% OF THE DISTURBED SLOPE BEFORE NOVEMBER 1, THEN THE CONTRACTOR WILL COVER THE SLOPE WITH A LAYER OF WOODWASTE COMPOST AS DESCRIBED IN ITEM C OF THIS CONDITION OR WITH STONE RIFRAP AS DESCRIBED IN ITEM D OF THIS CONDITION.

b. STABILIZE THE SLOPE WITH SOD - THE CONTRACTOR WILL STABILIZE THE DISTURBED SLOPE WITH PROPERLY INSTALLED SOD BY OCTOBER 1. PROPER INSTALLATION INCLUDES THE CONTRACTOR PINNING THE SOD ONTO THE SLOPE WITH WIRE PINS, ROLLING THE SOD TO GUARANTEE CONTACT BETWEEN THE SOD AND UNDERLYING SOIL, AND WATERING TO PROMOTE ROOT GROWTH INTO THE DISTURBED SOIL. THE CONTRACTOR WILL NOT USE LATE-SEASON SOD INSTALLATION TO STABILIZE SLOPES HAVING A GRADE GREATER THAN 33% (3H:1V).

c. STABILIZE THE SLOPE WITH WOODWASTE COMPOST - THE CONTRACTOR WILL PLACE A SIX-INCH LAYER OF WOODWASTE COMPOST ON THE SLOPE BY NOVEMBER 1. PRIOR TO PLACING THE WOODWASTE COMPOST, THE CONTRACTOR WILL REMOVE ANY SNOW ACCUMULATION ON THE DISTURBED SLOPE. THE CONTRACTOR WILL NOT USE WOODWASTE COMPOST TO STABILIZE SLOPES HAVING GRADES GREATER THAN 50% (2H:1V) OR HAVING GROUNDWATER DEEPS ON THE SLOPE FACE.

d. STABILIZE THE SLOPE WITH STONE RIFRAP - THE CONTRACTOR WILL PLACE A LAYER OF STONE RIFRAP ON THE SLOPE BY NOVEMBER 1. THE CONTRACTOR WILL HIRE A REGISTERED PROFESSIONAL ENGINEER TO DETERMINE THE STONE SIZE NEEDED FOR DRAINAGE AND SOIL SEPARATION.

- STANDARD CONDITIONS REQUIRING 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. STABILIZING 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, AND ANCHOR THE MULCH WITH PLASTIC NETTING. 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 SOIL BEFORE NOVEMBER 1, THEN THE CONTRACTOR WILL MULCH THE AREA FOR OVER-WINTER PROTECTION AS DESCRIBED IN ITEM C OF THIS STANDARD CONDITION.

b. STABILIZE THE SOIL WITH SOD - THE CONTRACTOR WILL STABILIZE THE DISTURBED SOIL WITH PROPERLY INSTALLED SOD BY OCTOBER 1. PROPER INSTALLATION INCLUDES THE CONTRACTOR PINNING THE SOD ONTO THE SOIL WITH WIRE PINS, ROLLING THE SOD TO PROMOTE ROOT GROWTH INTO THE DISTURBED SOIL.

c. STABILIZE THE SOIL WITH MULCH - BY NOVEMBER 1 THE CONTRACTOR 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 CONTRACTOR WILL REMOVE ANY SNOW ACCUMULATION ON THE DISTURBED AREA. IMMEDIATELY AFTER APPLYING THE MULCH, THE CONTRACTOR WILL ANCHOR THE MULCH WITH PLASTIC NETTING TO PREVENT WIND FROM MOVING THE MULCH OFF THE DISTURBED SOIL.

WINTER CONSTRUCTION:

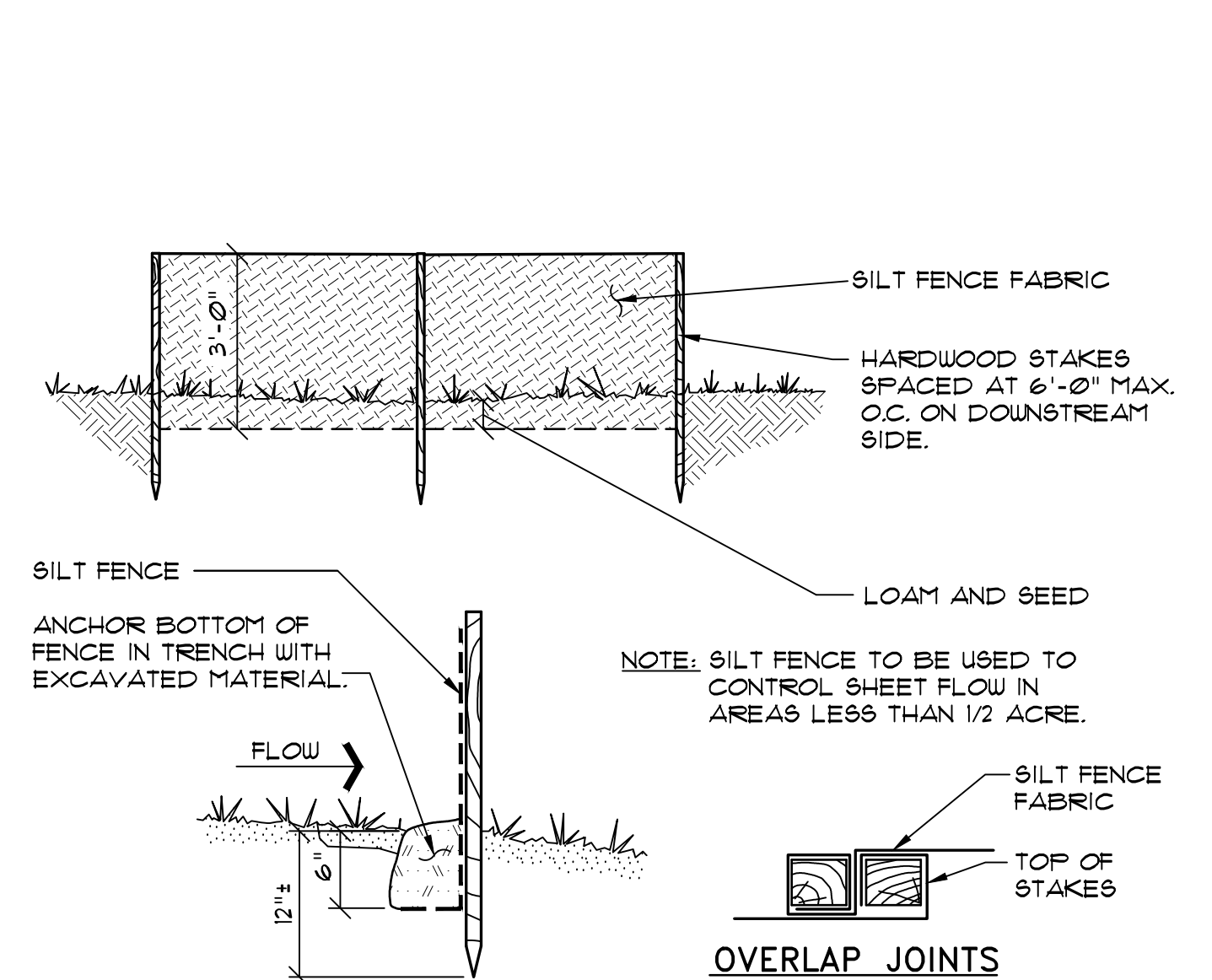
THE WINTER CONSTRUCTION PERIOD IS FROM NOVEMBER 1 THROUGH APRIL 15. IF THE CONSTRUCTION SITE IS NOT STABILIZED WITH PAVEMENT, A ROAD GRAVEL BASE, 75% MATURE VEGETATION COVER OR RIF RAP BY NOVEMBER 15, THEN THE SITE NEEDS TO BE PROTECTED WITH OVER-WINTER STABILIZATION. AN AREA CONSIDERED OPEN IS ANY AREA NOT STABILIZED WITH PAVEMENT; VEGETATION, MULCHING, EROSION CONTROL MATS, RIP RAP OR GRAVEL BASE ON A ROAD. WINTER EXCAVATION AND EARTHWORK SHALL BE COMPLETED SUCH THAT NO MORE THAN 1 ACRE OF THE SITE IS WITHOUT STABILIZATION AT ANY ONE TIME. LIMIT THE EXPOSED AREA TO THOSE AREAS IN WHICH WORK IS EXPECTED TO BE UNDER TAKEN DURING THE PROCEEDING 15 DAYS AND THAT CAN BE MULCHED IN ONE DAY PRIOR TO ANY SNOW EVENT. ALL AREA SHALL BE CONSIDERED TO BE DENUDED UNTIL THE SUBBASE GRAVEL IS INSTALLED IN ROADWAY AREAS OR THE AREAS OF FUTURE LOAM AND SEED HAVE BEEN LOAMED, SEEDED AND MULCHED. HAY AND STRAW MULCH RATE SHALL BE A MINIMUM OF 150 LBS/1000 SF. (3 TONS/ACRE) AND SHALL BE PROPERLY ANCHORED. 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 EXPOSED SOIL SURFACE ON THE AREA BEING WORKED HAS BEEN STABILIZED, IN ORDER TO MINIMIZE AREAS WITHOUT EROSION CONTROL PROTECTION.

- SOIL STOCKPILES
STOCKPILES OF SOIL OR SUBSOIL WILL BE MULCHED FOR OVER-WINTER PROTECTION WITH HAY OR STRAW AT TWICE THE NORMAL RATE OR AT 150 LBS/1000 SF. (3 TONS/ACRE) OR WITH A FOUR INCH LAYER OF EROSION CONTROL MIX. THIS WILL BE DONE WITHIN 24 HOURS OF STOCKING AND WILL BE REESTABLISHED PRIOR TO ANY RAINFALL OR SNOWFALL. ANY SOIL STOCKPILE WILL NOT BE PLACED (EVEN COVERED WITH HAY OR STRAW) WITHIN 100 FEET FROM ANY NATURAL RESOURCES.

- SEDIMENT BARRIERS
DURING FROZEN CONDITIONS, SEDIMENT BARRIERS SHALL CONSIST OF EROSION CONTROL MIX SEDIMENT BARRIERS AS FROZEN SOIL PREVENTS THE PROPER INSTALLATION OF HAY BALES AND SEDIMENT SILT FENCES.

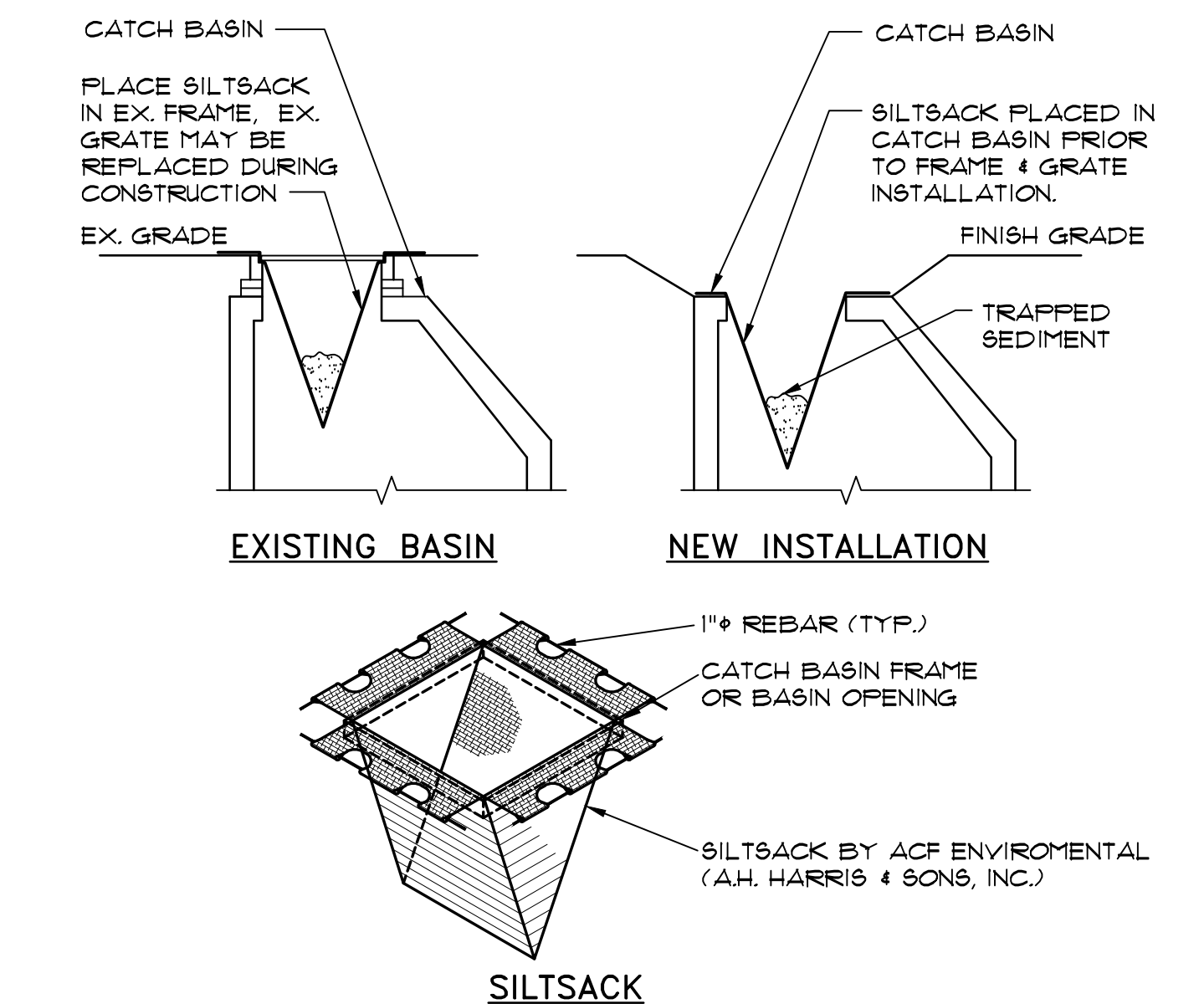
- MULCHING
ALL AREA SHALL BE CONSIDERED TO BE DENUDED UNTIL AREAS OF FUTURE LOAM AND SEED HAVE BEEN LOAMED, SEEDED AND MULCHED. HAY AND STRAW MULCH SHALL BE APPLIED AT A RATE OF 150 LBS/1000 SF. OR 3 TONS/ACRE (TWICE THE NORMAL ACCEPTED RATE OF 75 LBS/1000 SF. OR 1.5 TONS/ACRE) AND SHALL BE PROPERLY ANCHORED. MULCH SHALL NOT BE SPREAD ON TOP OF SNOW. THE SNOW WILL BE REMOVED DOWN TO A ONE INCH DEPTH OR LESS PRIOR TO APPLICATION. AFTER EACH DAY OF FINAL GRADING, THE AREA WILL BE PROPERLY STABILIZED WITH ANCHORED HAY OR STRAW OR EROSION CONTROL MATTING. AN AREA SHALL BE CONSIDERED TO HAVE BEEN STABILIZED WHEN EXPOSED SURFACES HAVE BEEN MULCHED WITH STRAW OR HAY AT A RATE OF 150 LBS/1000 SF. (3 TONS/ACRE) AND ADEQUATELY ANCHORED SO THAT GROUND SURFACE IS NOT VISIBLE THOUGH THE MULCH.

BETWEEN THE DATES OF NOVEMBER 1 AND APRIL 15, ALL MULCH SHALL BE ANCHORED BY EITHER PEG LINE, MULCH NETTING, ASPHALT EMULSION CHEMICAL TACK, OR WOOD CELLULOSE FIBER. WHEN GROUND SURFACE IS NOT VISIBLE THROUGH THE MULCH THEN COVER IS SUFFICIENT. AFTER NOVEMBER 1, MULCH AND ANCHORING OF ALL BARE SOIL SHALL OCCUR AT THE END OF EACH FINAL GRADING WORK DAY.



1 SILT FENCE DETAIL

NOT TO SCALE



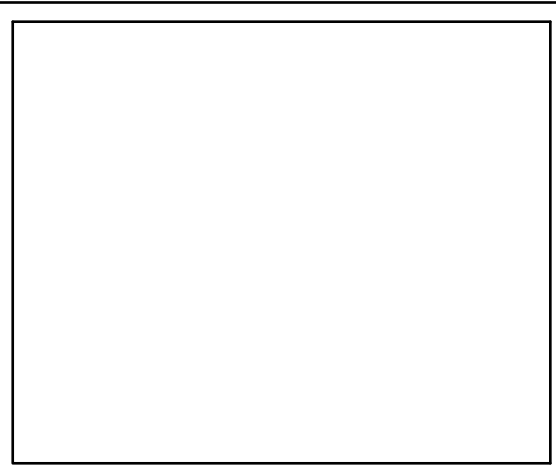
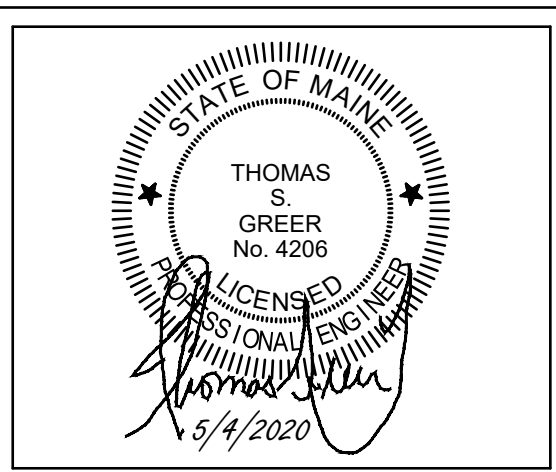
2 CATCH BASIN PROTECTION

NOT TO SCALE

WALSH
ENGINEERING ASSOCIATES, INC.

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ph: 207.553.9898 | www.walsh-eng.com

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75 CHESTNUT STREET
PORTLAND, MAINE

PREPARED FOR:
75 CHESTNUT STREET OWNER, LLC

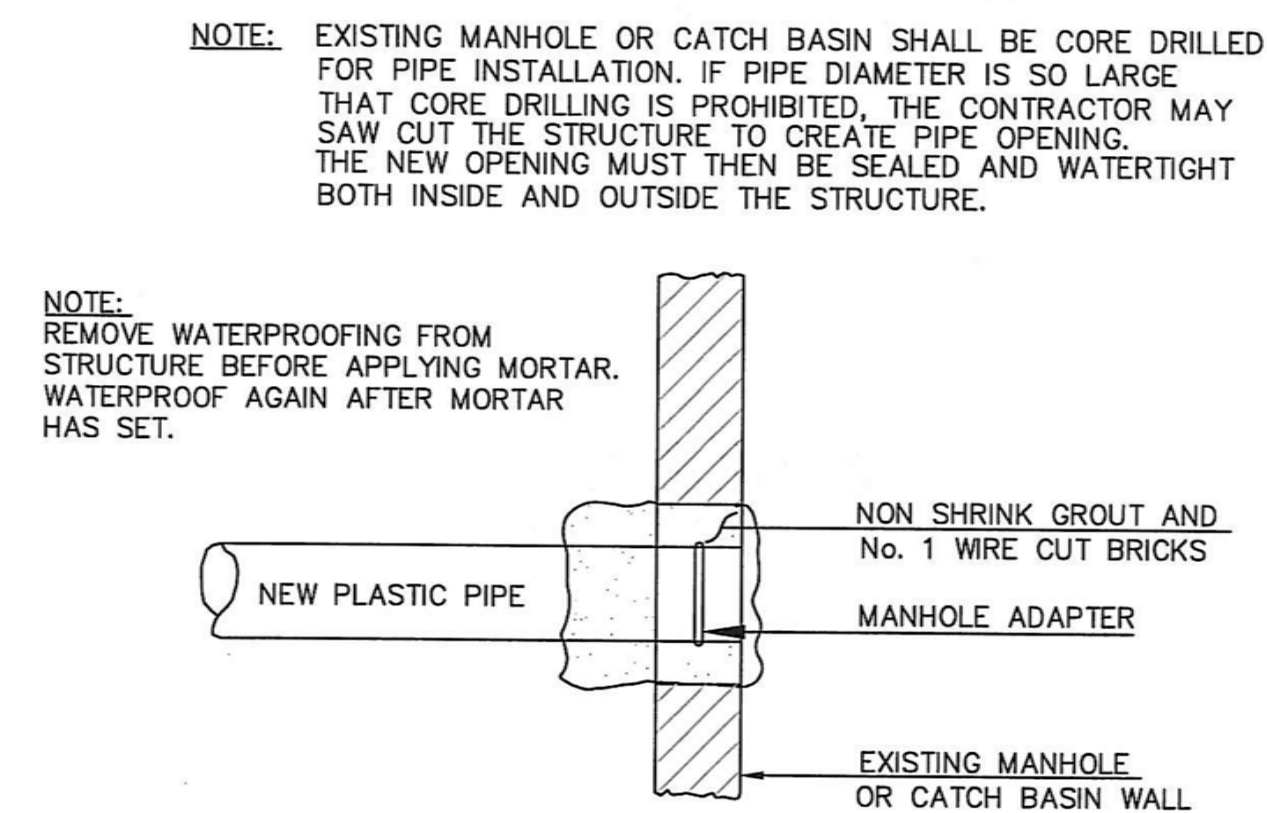
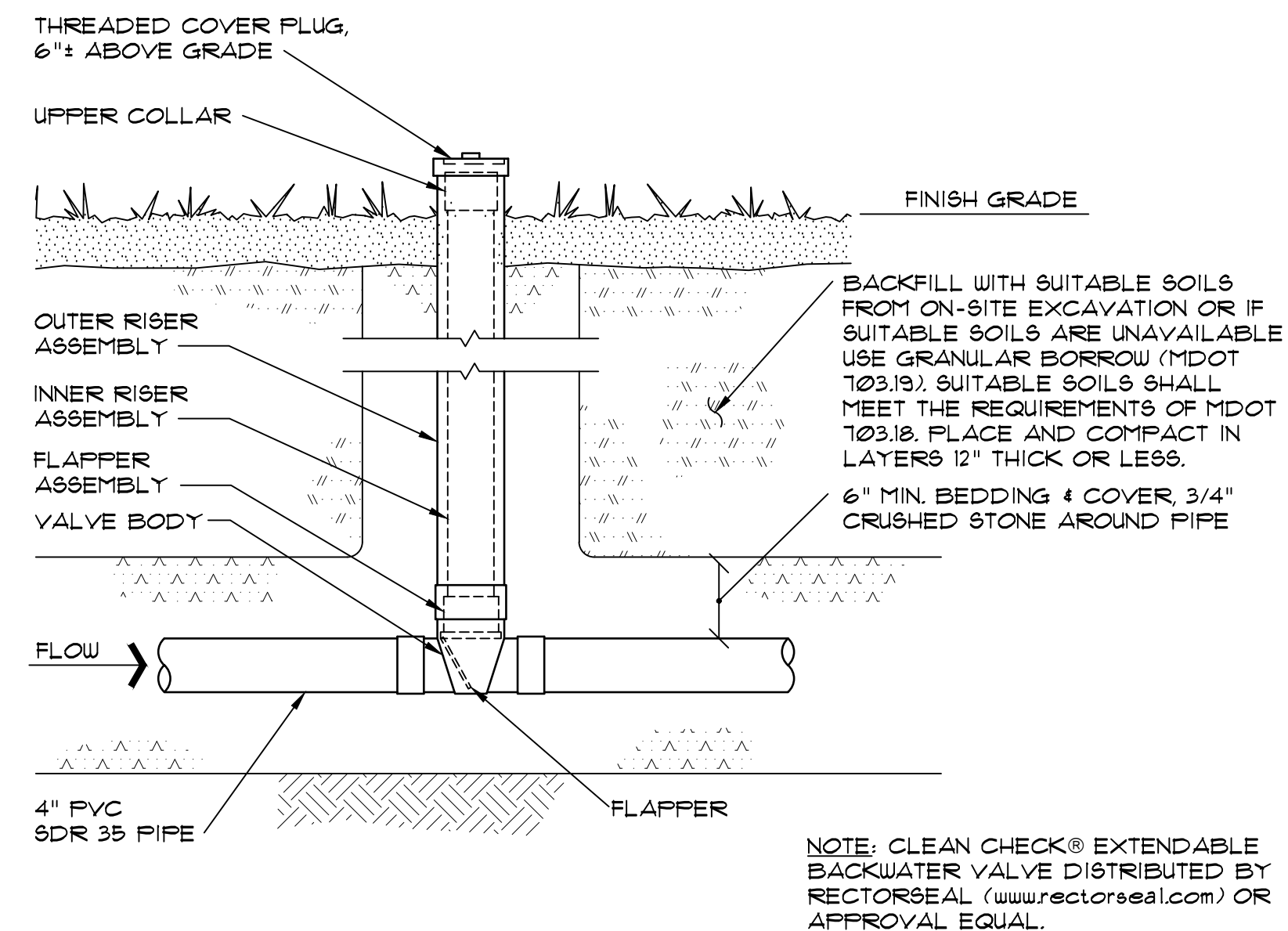
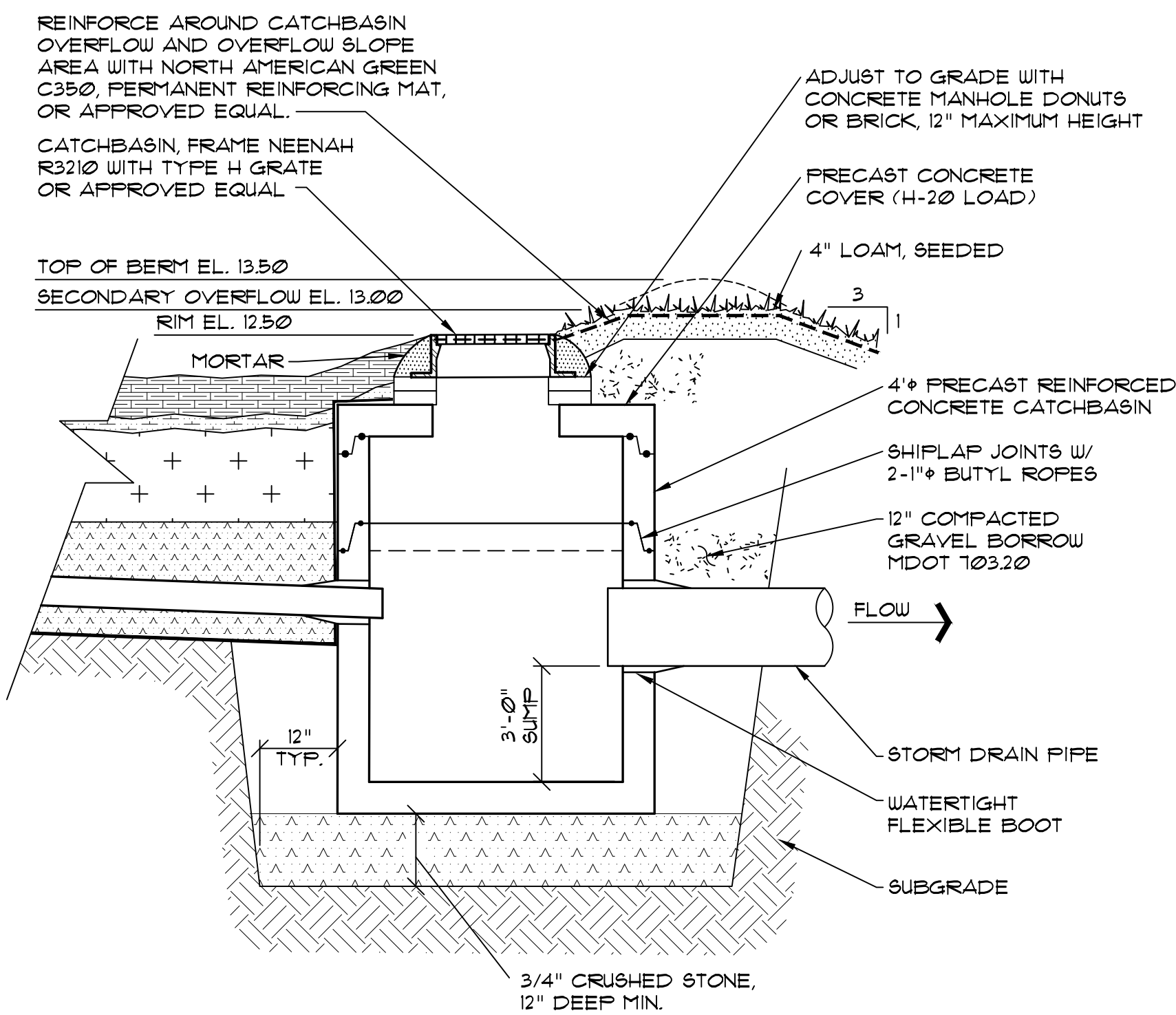
c/o THE PROCOPIO COMPANIES
220 BROADWAY, SUITE 510
LYNNFIELD, MASSACHUSETTS 01940

CITY OF PORTLAND
APPROVED SITE PLAN
Subject to Conditions of Approval
and Standard Conditions

4-17-2018 as amend to
meet conds 5.15-2020

PLANNER: Jean Fraser
PROJECT NO.: #2018-046

Rev.	Date	Description	Drawn	Check
For previous versions of the project see Westerlea View Lots by Pinkham & Greer Civil Engineers filed with the City of Portland				
2	4/1/2020	Rev'd Per Review Comments 4/1/18 & 4/20/18, Add COA	JDC	TSG
3	5/4/2020	Rev'd Per Final Civil Plan Set Review Comments	JDC	TSG
Sheet Title: DETAILS				
Job No.: 653 / 16142		Sheet No.:		
Date: JULY 28, 2016		C2.1		
Scale: AS SHOWN				
Drawn: JDC				
Checked: TSG		MAP / LOT: 26 / E / 10		



5 TYPICAL BACKFLOW PREVENTOR DETAIL

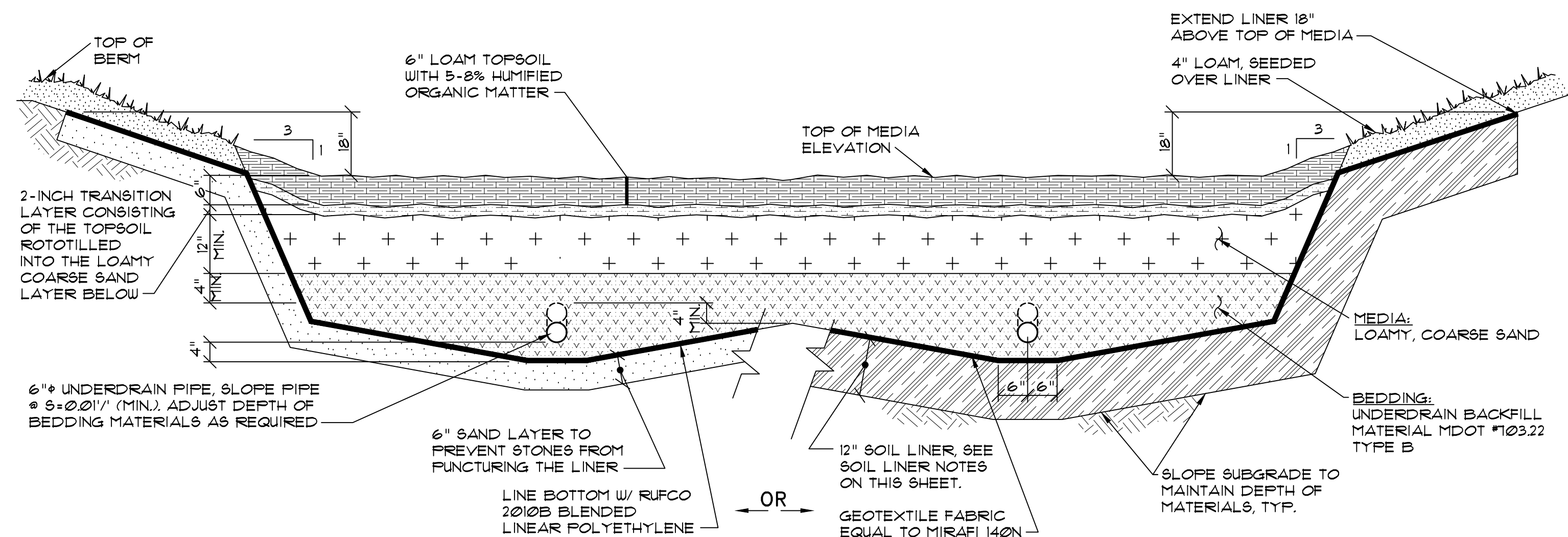
NOT TO SCALE

1 PLASTIC PIPE CONNECTION METHOD 3 (II-14)

NOT TO SCALE

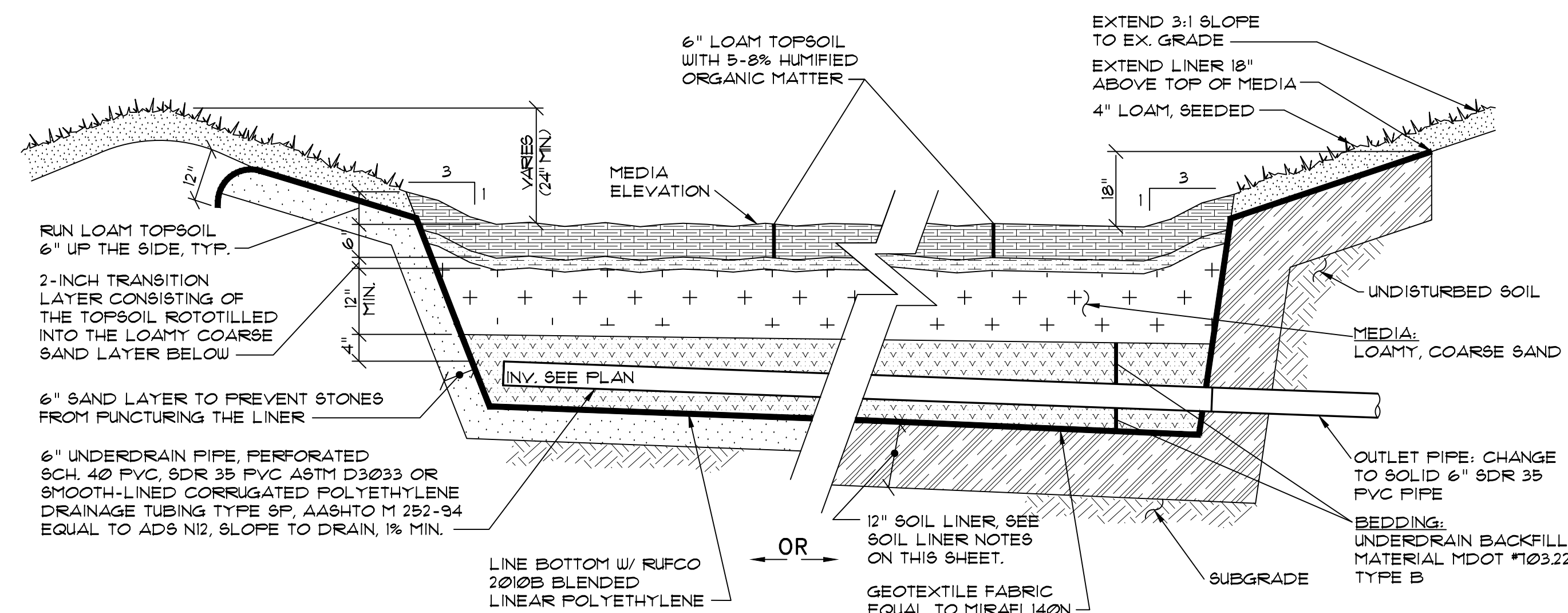
6 UDSF CATCHBASIN OVERFLOW

NOT TO SCALE



3 UNDERDRAINED SOIL FILTER CROSS-SECTION

NOT TO SCALE



② UNDERDRAINED SOIL FILTER LONGITUDINAL SECTION

NOT TO SCALE

SOIL FILTER MEDIA NOTES

1. THE SOIL FILTER MUST BE AT LEAST 12 INCHES DEEP AND MUST EXTEND ACROSS THE BOTTOM OF THE ENTIRE FILTER AREA AND UP THE SIDES TO THE DEPTH OR ELEVATION SPECIFIED. THIS SOIL MIXTURE SHALL BE A UNIFORM MIX, FREE OF STONES, STUMPS, ROOTS, OR OTHER SIMILAR OBJECTS LARGER THAN TWO INCHES. NO OTHER MATERIALS OR SUBSTANCES THAT MAY BE HARMFUL TO PLANT GROWTH, OR PROVE A HINDRANCE TO THE PLANTING OR MAINTENANCE OPERATIONS CAN BE USED WITHIN THE FILTER AREA. THE MIXTURE MUST HAVE A MINIMUM OF 8% CLAY CONTENT WITH NO LESS THAN 8% FINES PASSING THE #200 SIEVE. DURING CONSTRUCTION, CARE SHOULD BE TAKEN TO AVOID COMPACTION OF BOTH THE GRAVEL AND SOIL FILTER. COMPACTION SHOULD BE BY SATURATION ONLY, UNLESS SPECIAL LOW COMPACTION EQUIPMENT IS AVAILABLE.
2. CARE SHOULD BE TAKEN ESPECIALLY IN AREAS WHERE THE PREDOMINANT SOIL AND OVERBURDEN CONTAINS SANDY CLAY. BE SURE THAT THE SAND AND TOPSOIL USED IN THE MIXTURE HAVE VERY LITTLE OR NO CLAY CONTENT. USE OF SOILS WITH MORE THAN 2% CLAY CONTENT COULD CAUSE FAILURE OF THE SYSTEM.
3. THE SOIL FILTER MEDIA MUST BE COMPOSED OF A THOROUGHLY BLENDED MIXTURE OF MATERIALS MEETING THE SPECIFICATIONS IN TABLE B. ADJUST THE PROPORTIONS BASED ON THE ORGANIC CONTENT AND AMOUNT OF FINES OF EACH COMPONENT. IF THE SAND IS VERY CLEAN OR THE MULCH IS RELATIVELY COARSE, USE MORE MULCH AND LESS SAND WHILE STAYING WITHIN THE ESTABLISHED RANGES. IF THE SAND IS SILTY OR THE MULCH LOAMY, USE MORE SAND AND LESS MULCH.

TABLE A		TABLE B			TABLE C	
ME DOT SPECIFICATIONS FOR UNDERDRAINS (MDOT #10322)		SOIL FILTER MEDIA			ME DOT SPECIFICATIONS FOR UNDERDRAINS (MDOT #103.01)	
SIEVE SIZE	% BY WEIGHT	FILTER MEDIA	MIXTURE BY VOLUME	SPECIFICATION	SIEVE SIZE	% BY WEIGHT
UNDERDRAIN TYPE C		SAND	70%-80%	MEDOT SPECIFICATION #103.01 FINE AGGREGATE FOR CONCRETE (SEE TABLE C)	3/8"	100
1"	100				#4	95-100
3/4"	90-100				#8	80-100
3/8"	0-75	MULCH	20%-30%	MODERATELY FINE, SHREDDED BARK OR WOOD FIBER MULCH WITH LESS THAN 8%-10% PASSING THE 200 SIEVE	#16	50-85
#4	0-25				#30	25-60
#10	0-5				#60	10-30
					#100	2-10
					#200	0-5

SOIL LINER NOTES

THE COMPACT SOIL LINER SHALL HAVE THE FOLLOWING CHARACTERISTICS:

1. A LIQUID LIMIT GREATER THAN OR EQUAL TO 20, AND A PLASTICITY INDEX GREATER THAN OR EQUAL TO 8 BUT LESS THAN OR EQUAL TO 30, AS DETERMINED USING ASTM D-4318, STANDARD TEST METHODS FOR LIQUID LIMIT, PLASTIC LIMIT, AND PLASTICITY INDEX OF SOILS. GLACIAL TILL SOILS DO NOT NEED TO MEET LIQUID LIMIT AND PLASTICITY INDEX REQUIREMENTS.
2. A MINIMUM FINES CONTENT OF 35%.
3. A MAXIMUM PARTICLE SIZE OF LESS THAN OR EQUAL TO 3 INCHES.
4. HAVE A MINIMUM IN-PLACE DENSITY OF 92% OF THE MAXIMUM DRY DENSITY AS MEASURED BY ASTM D-698, STANDARD TEST METHOD FOR LABORATORY COMPACTION CHARACTERISTICS OF SOIL USING STANDARD EFFORT (12,400 FT-LBF/FT³ (600 KN-M/M³)).
5. BE COMPACTED USING A KNEADING ACTION TO REMOLD THE SOIL WITHIN 0-4% ABOVE OPTIMUM MOISTURE CONTENT AS DETERMINED USING ASTM D-698.
6. HAVE A MAXIMUM COMPACTED LIFT THICKNESS OF 3 INCHES AND PROVIDE A MEANS TO ENSURE LIFT INTERFACE BONDING.

1 UNDERDRAINED SOIL FILTER NOTES

NOT TO SCALE

UNDERDRAINED SOIL FILTER CONSTRUCTION NOTES

1. PRIOR TO CONSTRUCTION OF UNDERDRAINED SOIL FILTER STABILIZE AREAS THAT DRAIN TO THEM WITH EITHER TEMPORARY OR PERMANENT EROSION CONTROL MEASURES IN ACCORDANCE WITH THE EROSION & SEDIMENT CONTROL PLAN, NOTES & DETAILS.
2. DO NOT PLACE THE FILTER MEDIA UNTIL AFTER THE SOIL FILTER AREA IS USED FOR A SETTLING BASIN DURING CONSTRUCTION AND ALL AREAS THAT DRAIN TO THE BASIN HAVE BEEN STABILIZED. PRIOR TO PLACEMENT OF THE FILTER MEDIA ALL SEDIMENT RESULTING FROM CONSTRUCTION ACTIVITIES MUST BE REMOVED.
3. EXCAVATE UNDERDRAINED SOIL FILTER AND DITCH IN A MANNER THAT WILL NOT COMPACT THE SUBGRADE. DO NOT OPERATE HEAVY MACHINERY INSIDE THE UNDERDRAINED SOIL FILTER.
4. THE TOP 6" OF SOIL FILTER MEDIA SHALL CONSIST OF LOAM TOPSOIL WITH 5-8% HUMIFIED ORGANIC MATTER. SCREENED TOPSOIL FROM THE DEVELOPMENT MAY BE APPROPRIATE BUT SHOULD BE TESTED FOR ORGANIC CONTENT. THE MEDIA SHOULD HAVE SUFFICIENT NUTRIENT CONTENT TO SUPPORT A GOOD STAND OF GRASS TYPE VEGETATION, OR ORGANIC MATTER (SUCH AS SUPERHUMUS OR EQUIVALENT) CAN BE ADDED IF NECESSARY AND PROVIDED THAT THE TEXTURE IS SUITABLE.
5. IF 20 MIL GEOMEMBRANE IS USED:
 - a. THE CONTRACTOR SHALL PROVIDE DETAILS FOR THE PROPOSED RUPCO 2010B BLENDED LINEAR POLYETHYLENE LINER SYSTEM TO BE INSTALLED WITHIN THE SOIL FILTER BASIN. INFORMATION SHALL INCLUDE MANUFACTURER'S SPECIFICATIONS AND INSTALLATION PROCEDURES THAT ADDRESS:
 - SEAMING OF LINER PANELS
 - BOOT INSTALLATION FOR PIPE PENETRATIONS
 - SEAM TESTING PROCEDURES
 - METHOD OF SUBGRADE PREPARATION
 - PLACEMENT AND COMPACTION OF STONE (TO MINIMIZE RISK OF PUNCTURING OF INSTALLED LINER)
6. PLACE UNDERDRAIN BEDDING, UNDERDRAIN PIPE AND BACKFILL MATERIAL IN A MANNER THAT DOES NOT COMPACT THE SUBGRADE, BEDDING OR BACKFILL.
7. PLACE SOIL FILTER BED OVER THE PREPARED SURFACES WITH AN EXCAVATOR WORKING FROM OUTSIDE THE SWALE OR DITCH SO THAT WHEN SHAPED TO FINISH GRADE DEPTH IS AT LEAST 18 INCHES. DO NOT COMPACT.
8. SUBMIT SAMPLES OF THE SCREENED SOIL FILTER BED MATERIAL TO A SOIL TESTING LABORATORY FOR TESTING TO DETERMINE LIME AND FERTILIZER APPLICATION NECESSARY FOR THE TOPSOIL FILTER TO GROW GRASS.
9. APPLY LIMESTONE AND FERTILIZER OVER THE TOPSOIL FILTER ACCORDING TO THE SOIL TEST RECOMMENDATIONS USING LIGHT SPREADING EQUIPMENT. WORK LIME AND FERTILIZER INTO TOPSOIL FILTER TO A DEPTH OF 2 INCHES USING LIGHT EQUIPMENT.
10. APPLY SEED UNIFORMLY BY HAND, CYCLONE SEEDER, DRILL OR HYDROSEEDER (USING A SLURRY INCLUDING SEED AND FERTILIZER).

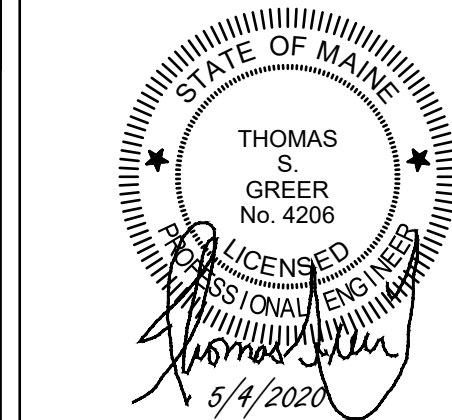
SEED MIXTURE	LBS./ACRE	LBS./1000 SF
CREEPING RED FESCUE (PENNLAWN, ENSYLVA OR WINTERGREEN)	20	0.46
RED TOP	2	0.05
TALL FESCUE (KENTUCKY 31)	20	0.46
TOTAL	42	0.97

11. MAINTENANCE: GRASS SHOULD BE MOWED NO MORE THAN 2 TIMES PER GROWING SEASON TO MAINTAIN GRASS HEIGHTS LESS THAN 12 INCHES. REMOVE CLIPPINGS. REMOVE SEDIMENT BUILD-UP WHEN IT HAS ACCUMULATED TO APPROXIMATELY 25% OF CHANNEL CAPACITY.
12. IF BEDROCK IS ENCOUNTERED IN THE UNDERDRAINED SOIL FILTER, OVER EXCAVATE AND REPLACE WITH ONE FOOT OF SOIL.

WALSH
ENGINEERING ASSOCIATES, INC.

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ph: 207.553.9898 | www.walsh-eng.com

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DAYMARK
75 CHESTNUT STREET
PORTLAND, MAINE

PREPARED FOR:
775 CHESTNUT STREET OWNER, LLC

c/o THE PROCOPIO COMPANIES
220 BROADWAY, UNIT 302
LYNNFIELD, MASSACHUSETTS 01940

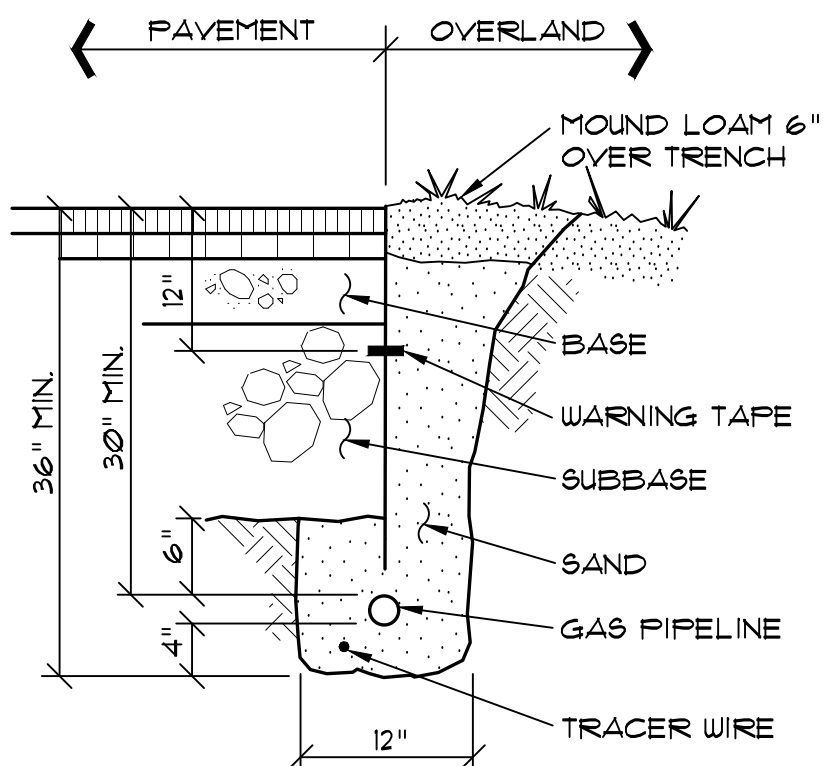


Rev.	Date	Description	Drawn	Check
For previous versions of the project see Westerlea View Lofts by Pinkham & Greer Civil Engineers filed with the City of Portland				
2	4/1/2020	Rev'd Per Review Comments 4/11/18 & 4/26/18, Add COA	JDC	TSG
3	5/4/2020	Rev'd Per Final Civil Plan Set Review Comments	JDC	TSG

	Sheet Title

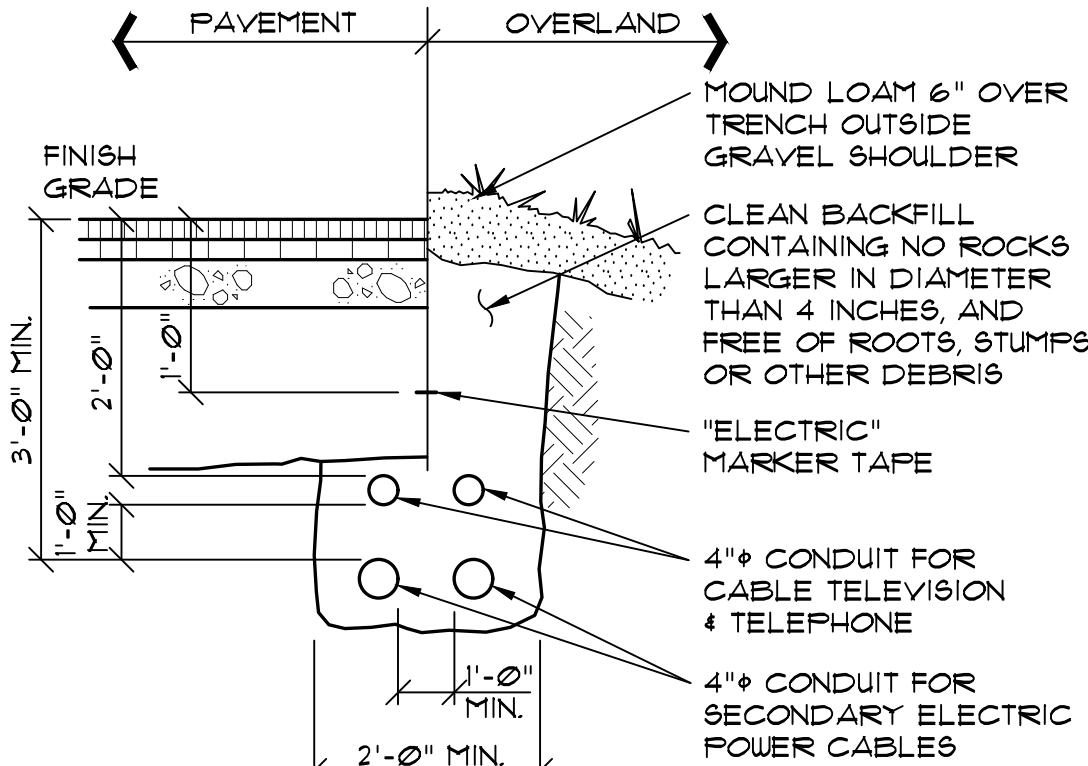
DETAILS

Job No.: 653 / 16142	Sheet No.:
Date: JULY 28, 2016	C2.2
Scale: AS SHOWN	
Drawn: JDC	
Checked: TSG	
MAP / LOT: 26 / E / 10	



4 GAS PIPING TRENCH SECTION

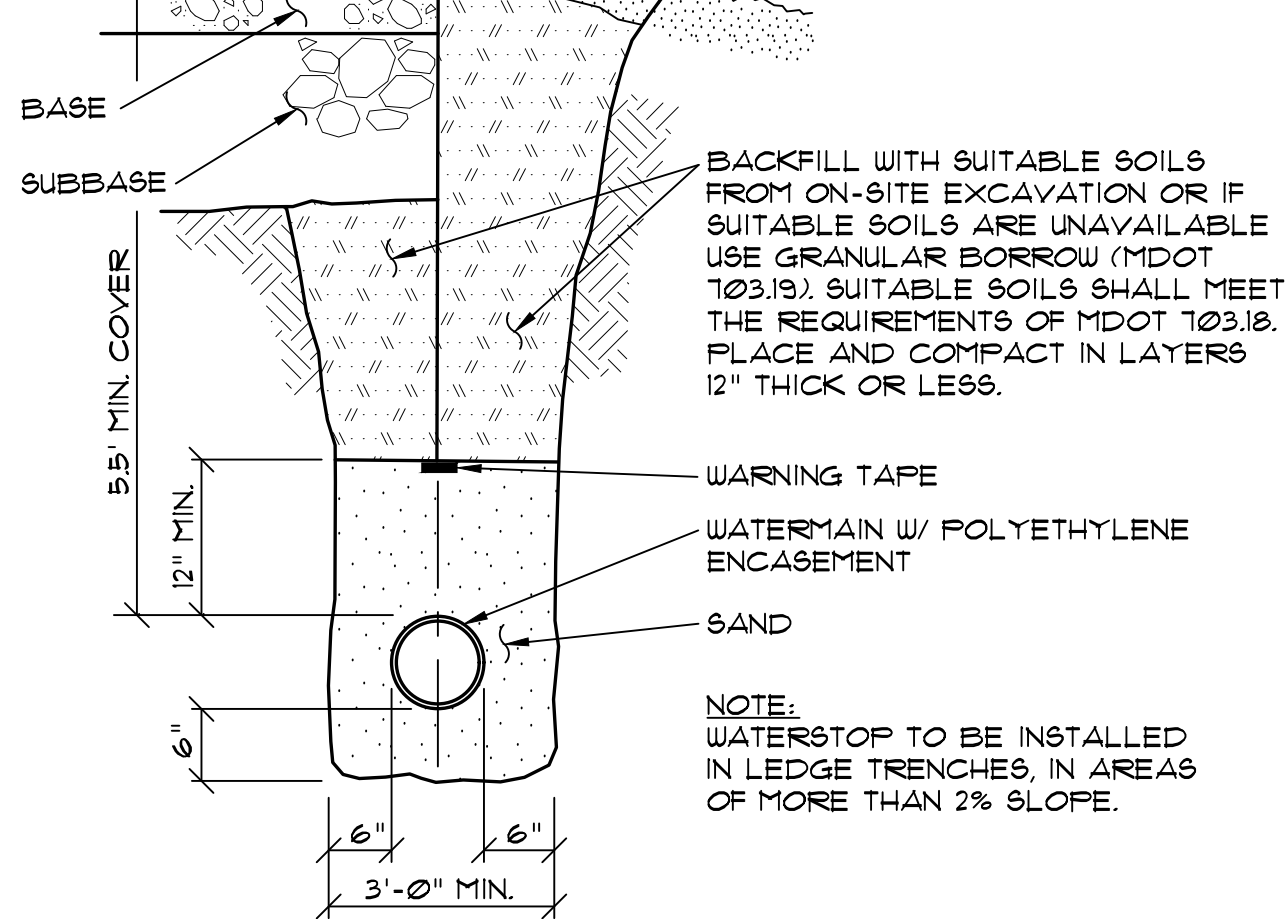
NOT TO SCALE



- NOTES:
1. INSTALLATION SHALL NOT ALLOW INTER-TWING OF CABLES.
 2. DIRECT BURY CABLES EXCEPT UNDER PAVED AREAS. PROVIDE SCH. 40 PVC CONDUIT UNDER PAVED AREAS, EXTEND CONDUIT 5'-0" BEYOND EDGE OF PAVEMENT.

3 CABLE TRENCH SECTION

NOT TO SCALE



2 TYPICAL WATER MAIN SECTION ON-SITE

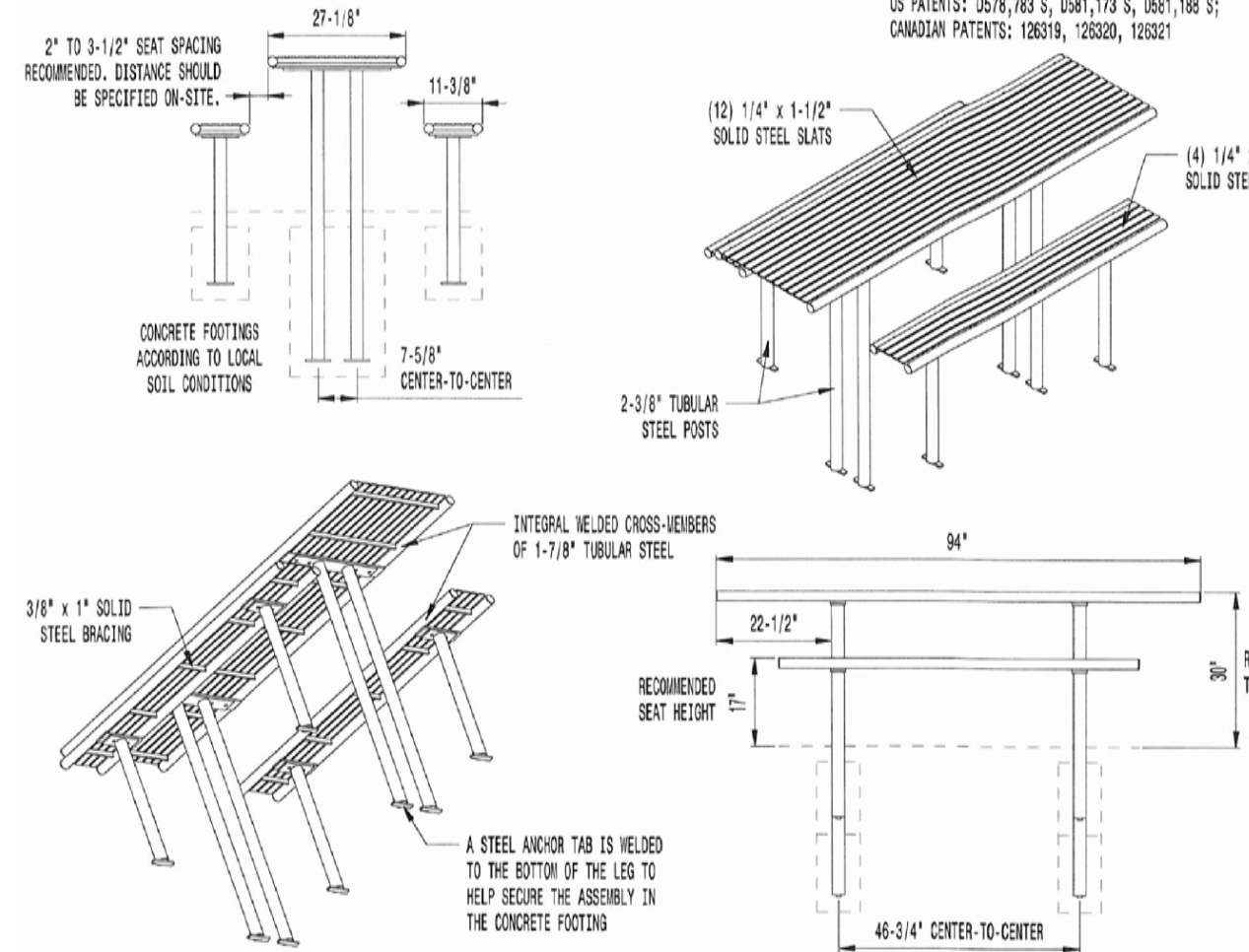
NOT TO SCALE

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WEB SITE: WWW.VICTORSTANLEY.COM

* ALL DIMENSIONS ARE IN INCHES *

THIS PRODUCT IS COVERED BY THE FOLLOWING
US PATENTS: 5,679,785 S, 5,681,170 S, 5,681,188 S;
CANADIAN PATENTS: 1,280,970, 1,280,971, 1,280,972



AVAILABLE OPTIONS:
POWDER COATING
12 STANDARD COLORS, CUSTOM COLORS (INCLUDING THE RAL RANGE)
MOUNTING
STANDARD SURFACE AND IN-GROUND
AVAILABLE WITH ADA COMPLIANT LEG POSITIONING
(ADA COMPLIANT TABLE/BENCH CONFIGURATION: 8" TABLE WITH 6" BENCHES)

LENGTHS
STANDARD 8'
STANDARD 8' LENGTH SHOWN

- NOTES:
1. DRAWINGS NOT TO SCALE. DO NOT SCALE DIMENSIONS.
 2. ALL FABRICATED METAL COMPONENTS ARE STEEL, GALVANIZED, ETCHED, PHOSPHATIZED, PRIMERED, AND ELECTROSTATICALLY POWDER-COATED WITH 10.5 D.P.C. POLYESTER POWDER COATING. PRODUCTS ARE FULLY CLEANED AND PREPARED. PRIMERED AND COATED WHILE HOT TO FULL COVERS AND BUILD COATING FILM. COATED PARTS ARE THEN FULLY CURED TO COATING MANUFACTURER'S SPECIFICATIONS. THE THICKNESS OF THE RESULTING FINISH MEASURES 8-10 MILS (200-250 MICRONS).
 3. THIS VICTOR STANLEY, INC. PRODUCT MUST BE PERMANENTLY AFFIXED TO THE GROUND. CONSULT YOUR LOCAL CODES FOR REGULATIONS.
 4. FOR HIGH WIND AREAS (CLIMATE: HOT TOP OR WINDING BEFORE POWER COATING) IS AVAILABLE. SEE WRITTEN SPECIFICATIONS FOR DETAILS.
 5. ALL SPECIFICATIONS ARE SUBJECT TO CHANGE. CONTACT MANUFACTURER FOR DETAILS.
 6. THIS PRODUCT IS SHIPPED PARTIALLY UNASSEMBLED.

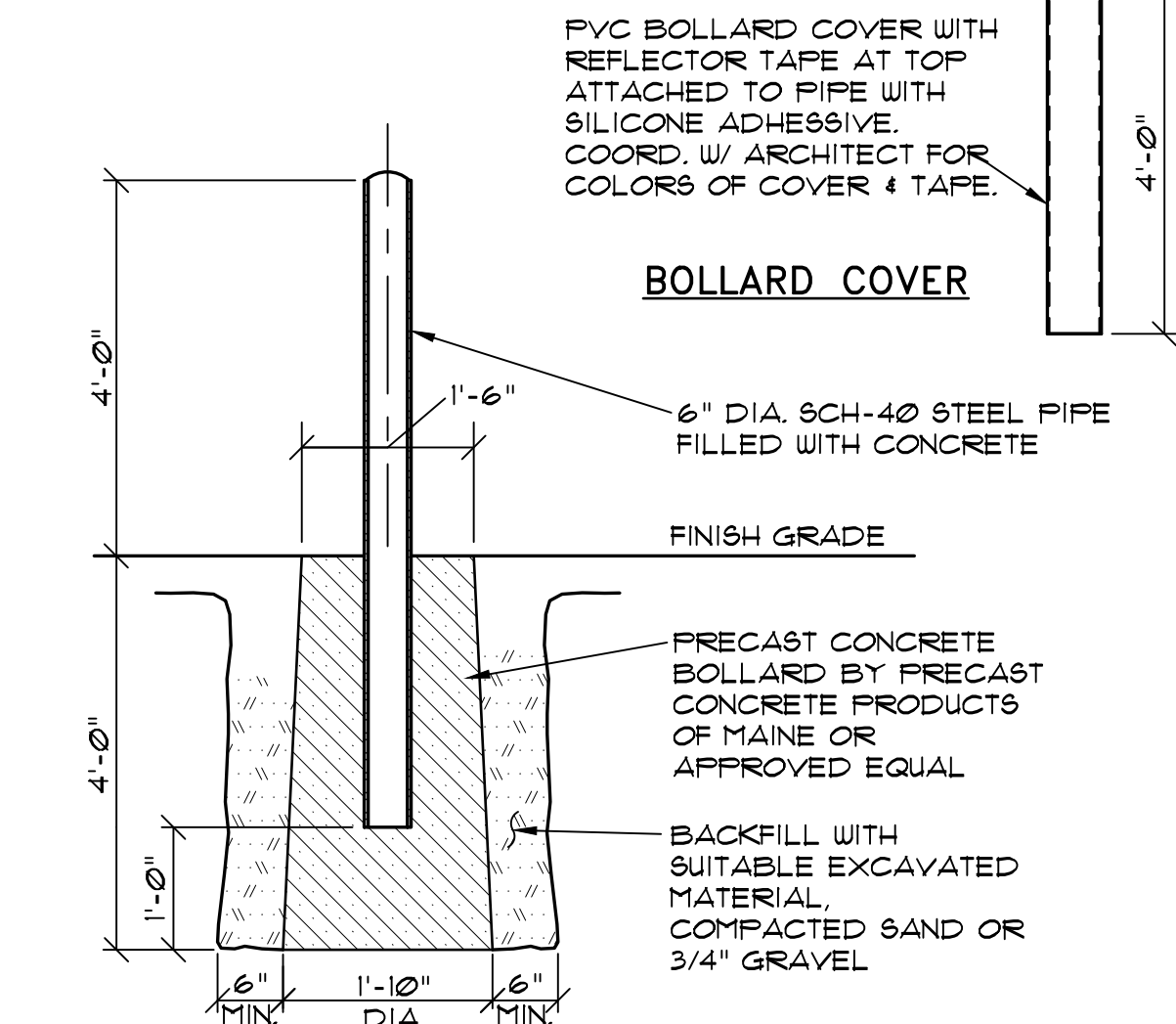
PBF-56
STREET/STREET SERIES™
STANDARD ALL STEEL TABLE
SHOWN: STANDARD 8'-0" LENGTH (ADA COMPLIANT)
STANDARD IN-GROUND MOUNT

Standard Color: BLACK
() Required

PICNIC TABLE & BENCHES TO BE INSTALLED IN THE PLAZA AREA. PLAZA AREA CONCRETE PAVERS: GRAY CONCRETE STEP STONE PAVESTONE MODEL #73700, 24"x24" OR APPROVED EQUAL

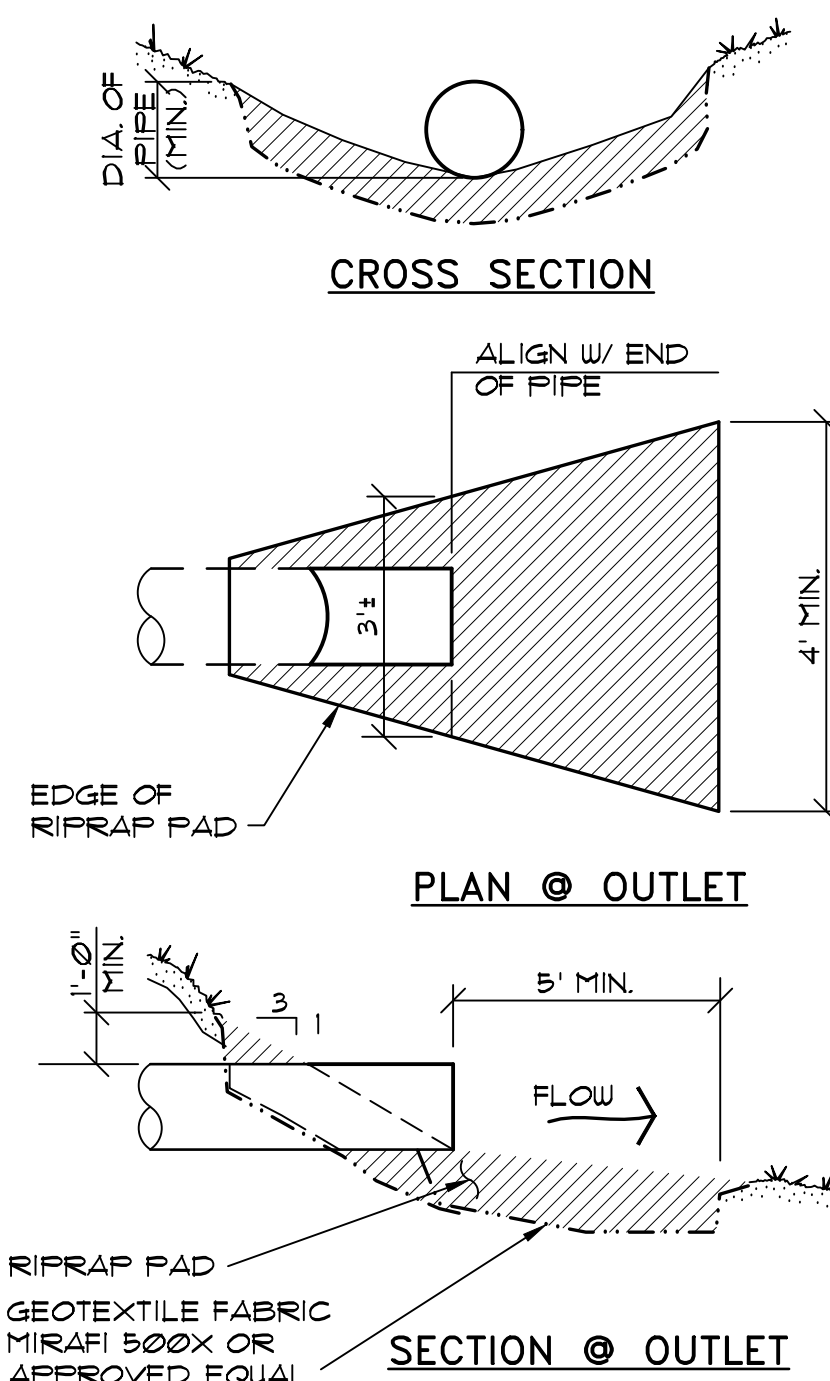
9 STEEL PICNIC TABLE

NOT TO SCALE



7 STEEL BOLLARD DETAIL

NOT TO SCALE



6 PIPE INLET/OUTLET DETAILS

NOT TO SCALE

UNDERGROUND UTILITIES WARNING TAPE

IDENTIFICATION TAPE TO BE INSTALLED ABOVE ALL NEW UNDERGROUND UTILITIES AND ABOVE ANY EXISTING UTILITIES THAT MAY BE EXPOSED BY THIS CONSTRUCTION.

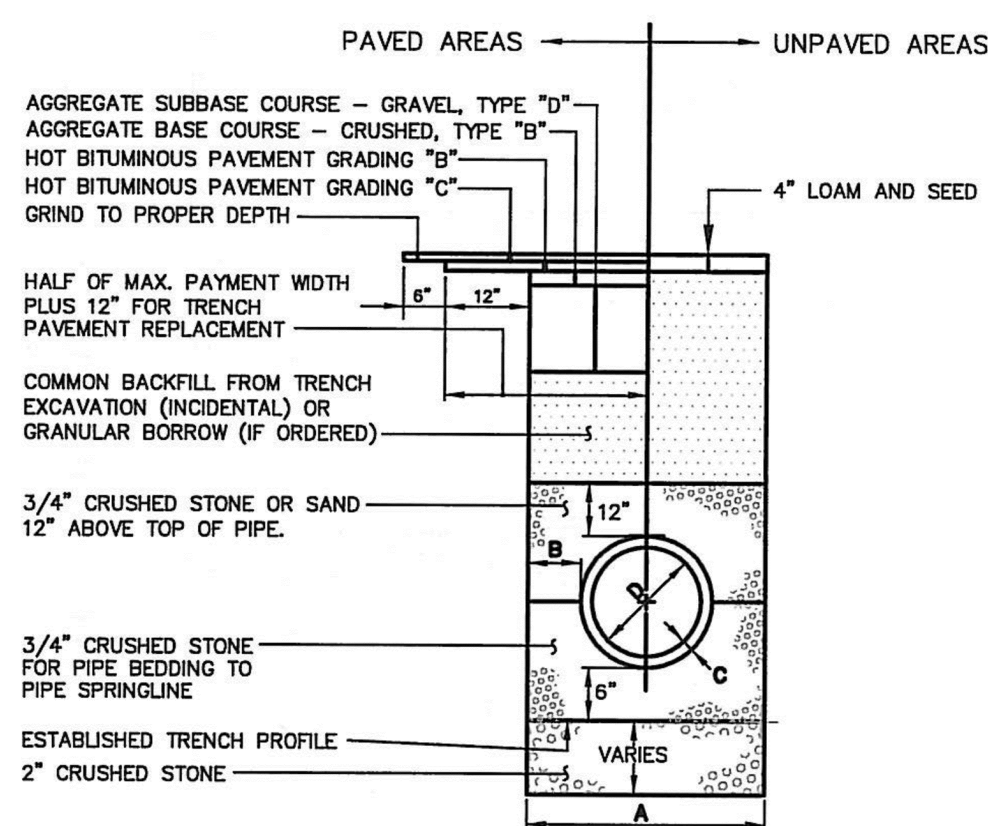
DETECTABLE UNDERGROUND MARKING TAPE TO BE PERMANENT, BRIGHT-COLORED, CONTINUOUS-PRINTED PLASTICIZED ALUMINUM TAPE, INTENDED FOR DIRECT-BURIAL SERVICE NOT LESS THAN 3" WIDE x 5 MILS THICK. PROVIDE TAPE WITH BLACK PRINTING IDENTIFYING THE UTILITY. DETECTABLE WARNING TAPE REQUIRED OVER ALL WATER, SEWER, DRAINAGE, OR GAS UTILITIES. TAPE TO BE TERRA TAPE BY REEF INDUSTRIES, INC., www.reefindustries.com, OR EQUAL.

APWA UNIFORM COLOR CODE:

WHITE	PROPOSED EXCAVATION
PINK	TEMPORARY SURVEY MARKINGS
RED	ELECTRIC POWER LINES, CABLES, CONDUIT AND LIGHTING CABLES
YELLOW	GAS, OIL, STEAM, PETROLEUM OR GASEOUS MATERIALS
ORANGE	COMMUNICATION, ALARM OR SIGNAL LINES, CABLES OR CONDUIT
BLUE	POTABLE WATER
PURPLE	RECLAIMED WATER, IRRIGATION AND SLURRY LINES
GREEN	SEWERS AND DRAIN LINES

1 UNDERGROUND UTILITIES WARNING TAPE

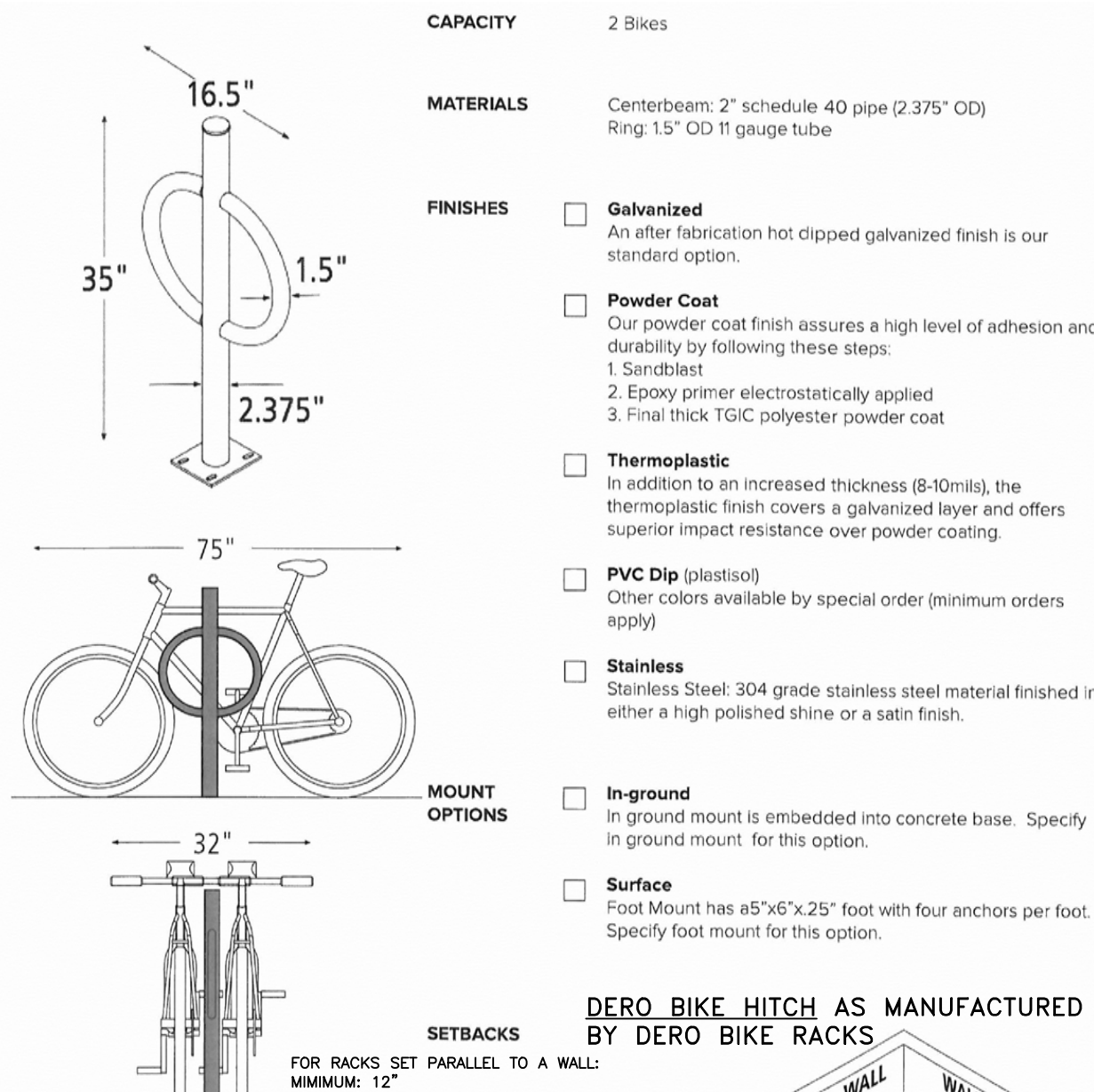
NOTES:
DEPTH OF BITUMINOUS PAVEMENT AND AGGREGATE COURSES SHALL BE DETERMINED BY STREET CLASSIFICATION.
ANY ALTERNATE TRENCHING OR PAYMENT METHODS SHALL BE APPROVED IN ADVANCE BY THE CITY OF PORTLAND, DEPARTMENT OF PUBLIC SERVICES.



- NOTES:
1. ALTERNATIVE CONSTRUCTION METHODS OR PAYMENT METHODS SHALL BE APPROVED IN ADVANCE BY THE CITY.
 2. IN PAVED AREAS, DEPTHS OF GRAVEL AND HOT MIX ASPHALT PAVEMENT SHALL MATCH THE GREATER OF EXISTING CONDITIONS OR THE REQUIREMENTS FOR THE CORRESPONDING STREET CLASSIFICATION.
 3. DIMENSION B SHALL BE SUFFICIENT TO ALLOW CRUSHED STONE BEDDING TO BE PLACED AND COMPACTED UNDER THE HAUNCHES OF THE PIPE, BUT IN ALL CASES DIMENSION B SHALL BE AT LEAST 9".
 4. DIMENSION A IS THE MAXIMUM WIDTH ALLOWED FOR CALCULATING PAY QUANTITIES UNDER GRANULAR BORROW, CRUSHED STONE, STRUCTURAL EARTH EXCAVATION, AND STRUCTURAL ROCK EXCAVATION. DIMENSION A SHALL BE BASED ON PIPE DIAMETER D, AS SET FORTH IN THE FOLLOWING TABLE.

PIPE DIAMETER, D (INCHES)	MAX. TRENCH WIDTH, A (FEET)
4	4.0
6	4.0
8	4.0
10	4.0
12	5.0
15	5.0
18	5.0
21	5.0
24	6.0
27	6.0
30	6.0
36	6.0
42	7.0
48	7.0

5 TYPICAL PIPE TRENCH INSTALLATION (11-12)



CAPACITY 2 Bikes

MATERIALS Centerbeam: 2" schedule 40 pipe (2.375" OD)
Ring: 1.5" OD 11 gauge tube

- FINISHES
- ☐ **Galvanized**
An after fabrication hot dipped galvanized finish is our standard option.
 - ☐ **Powder Coat**
Our powder coat finish assures a high level of adhesion and durability by following these steps:
1. Sandblast
2. Epoxy primer electrostatically applied
3. Final thick TGIC polyester powder coat
 - ☐ **Thermoplastic**
In addition to an increased thickness (8-10mils), the thermoplastic finish covers a galvanized layer and offers superior impact resistance over powder coating.
 - ☐ **PVC Dip (plastisol)**
Other colors available by special order (minimum orders apply)
 - ☐ **Stainless**
Stainless Steel: 304 grade stainless steel material finished in either a high polished shine or a satin finish.

- MOUNT OPTIONS
- ☐ **In-ground**
In ground mount is embedded into concrete base. Specify in ground mount for this option.
 - ☐ **Surface**
Foot Mount has 45"x6"x25" foot with four anchors per foot. Specify foot mount for this option.

DERO BIKE HITCH AS MANUFACTURED BY DERO BIKE RACKS

SETBACKS
FOR RACKS SET PARALLEL TO A WALL:
MINIMUM: 12"
RECOMMENDED: 24"

FOR RACKS SET PERPENDICULAR TO A WALL:
MINIMUM: 35" (CENTERLINE MEASUREMENT)
RECOMMENDED: 38" (54" IF AISLE IS NEEDED BETWEEN BIKE AND WALL)
DISTANCE BETWEEN RACKS:
MINIMUM: 24"
RECOMMENDED: 38"
STREET SETBACKS:
MINIMUM: 36"

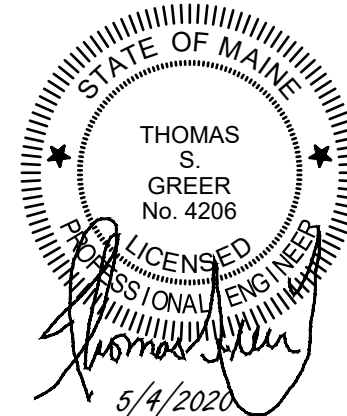
BICYCLE RACK SPECIFICATION - BIKE HITCH (1-33a)

NOT TO SCALE

WALSH
ENGINEERING ASSOCIATES, INC.

One Karen Dr., Suite 2A | Westbrook, Maine 04092
ph: 207.553.9898 | www.walsh-eng.com

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DAYMARK
75 CHESTNUT STREET
PORTLAND, MAINE

PREPARED FOR:
75 CHESTNUT STREET OWNER, LLC
c/o THE PROCCOPO COMPANIES
220 BROADWAY, UNIT 502
LYNNFIELD, MASSACHUSETTS 01940

CITY OF PORTLAND
APPROVED SITE PLAN
Subject to Conditions of Approval
and Standard Conditions
4-17-2018 as amended to
11-17-2018
DATE OF APPROVAL: **11-17-2018**
PLANNER: **Jean Fraser**
PROJECT NO.: **#2018-046**

Rev.	Date	Description	Drawn	Check
4	4/1/2020	Rev'd Per Review Comments 4/1/17/18 & 4/20/18, ASSE COA	JDC	TSG
5	4/22/2020	Rev'd Per Review Comments 4/17/20	JDC	TSG
6	5/4/2020	Rev'd Per Final Civil Plan Set Review Comments	JDC	TSG

Sheet Title:

DETAILS

Job No.: 653 / 16142

Sheet No.:

Date: JULY 28, 2016

Scale: AS SHOWN

Drawn: JDC

Checked: TSG

C2.3

MAP / LOT: 26 / E / 10

LUMINAIRE
Holophone Lighting model ESU175M1244-R
Luminaire shall be furnished and installed
by The Central Maine Power Company under
the municipal lease agreement for street
lighting.
Luminaire shall be custom color RAL-7016
(Dark Grey).

LAMP
Holophone Lighting model S-M175/U 64471
Vertical mounted, 175 watt mogul base
clear metal halide lamp.

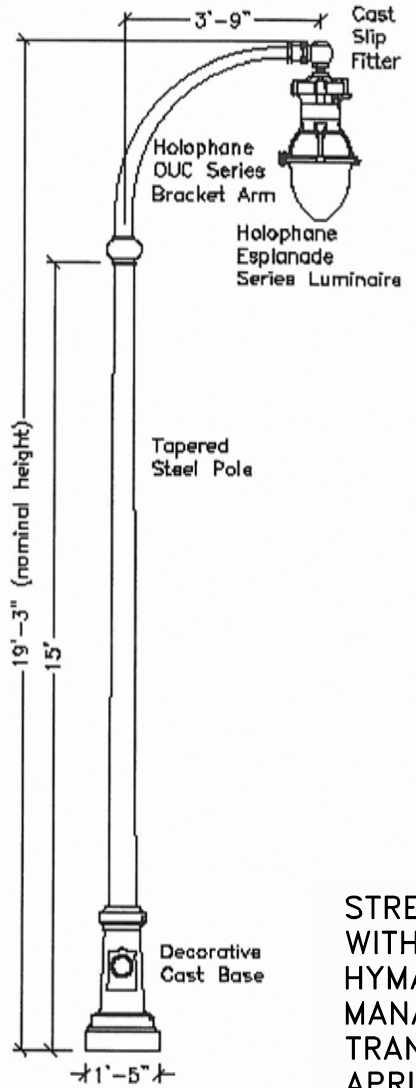
BRACKET ARM
Holophone Lighting model OUC 8063-T6
Aluminum crossarm with a post-top fitting
for a 3-1/2" by 8" tenon.
Bracket arm shall be custom color
RAL-7016 (Dark Grey).

SLIP FITTER
Holophone Lighting model BHUF200-SCA/AS
(Boston Harbor Series)
2-3/8" O.D. with twelve cast fitter.
Slip fitter shall be custom color RAL-7016
(Dark Grey).

LIGHTING POLE
Tapered steel pole shaft rated for a 90mph
wind load with a 1.3 gust factor. Provide
four half-dipped galvanized steel L-type
anchor bolts.
Lighting pole shall be custom color
RAL-7016 (Dark Grey).

DECORATIVE POLE BASE
Holophone Lighting model Cambridge Series
Decorative diamond cast aluminum base.
Hardware shall be stainless steel.
Decorative pole base shall be custom color
RAL-7016 (Dark Grey).

APPLICATION
Street/Sidewalk Lighting for two-way streets
with parking on one side, or one-way
streets.
Suggested layout:
80-100 ft on center (one side only)
150-200 ft on center (staggered
pattern both sides)



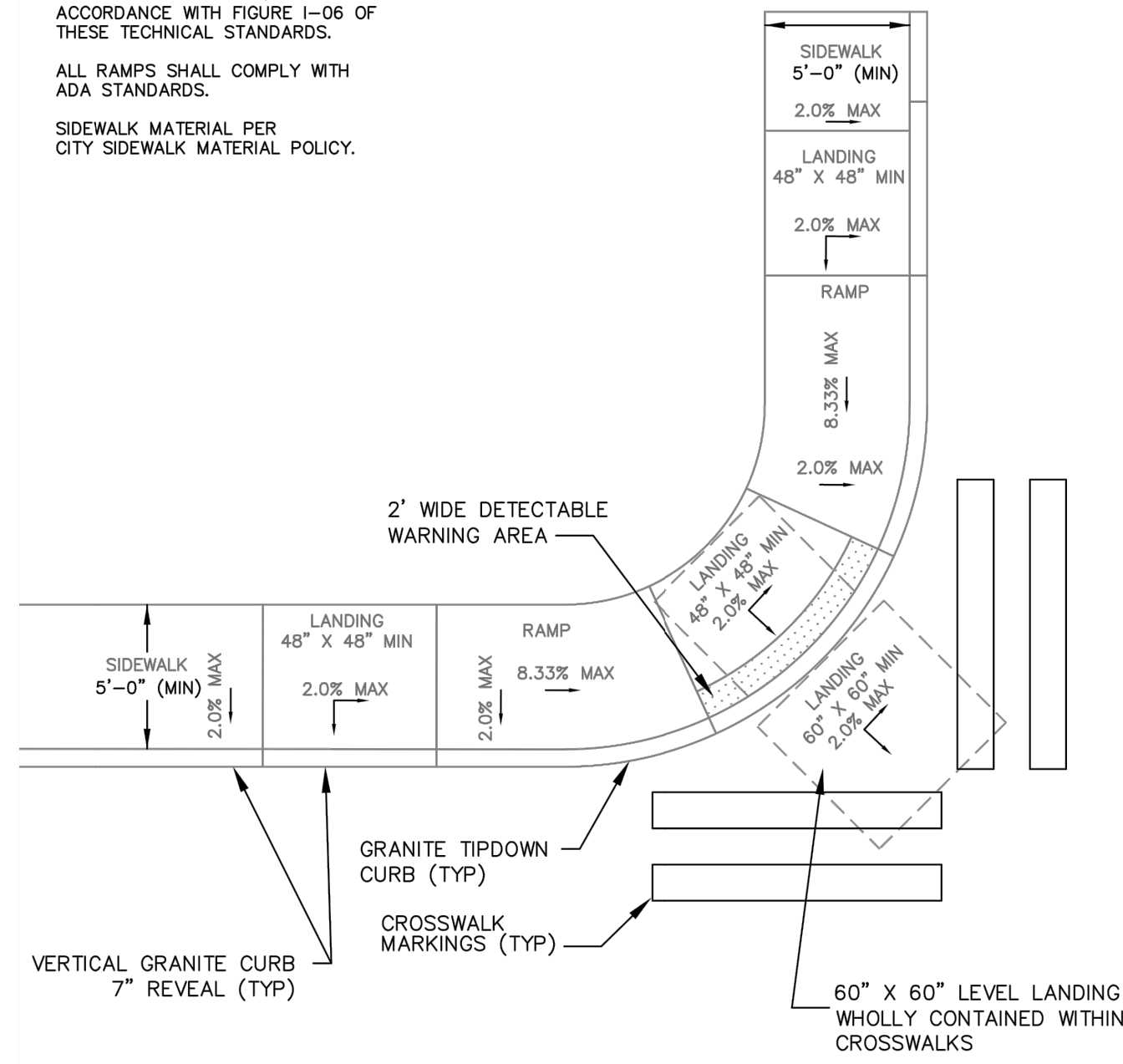
BAYSIDE MEDIUM RESIDENTIAL SCALE LIGHT (REV. DATED 11/21/16) HAS BEEN REVISED TO SHOW BLACK IN COLOR (NOT DARK GREY) AND 3000K LED FOR LIGHT FIXTURES. CONTRACTOR IS TO COORDINATE WITH PORTLAND PLANNING AND TRANSPORTATION DIVISION FOR THE MOST CURRENT REQUIREMENTS AND PRODUCT SELECTION.

INSTALLATION AND COMPLYING WITH CITY ELECTRICAL REQUIREMENTS ARE THE RESPONSIBILITY OF THE DEVELOPER AND WILL NOT BE PART OF THE MUNICIPAL LEASE AGREEMENT.

10 BAYSIDE DISTRICT MEDIUM SCALE RESIDENTIAL LIGHT (X-2D)

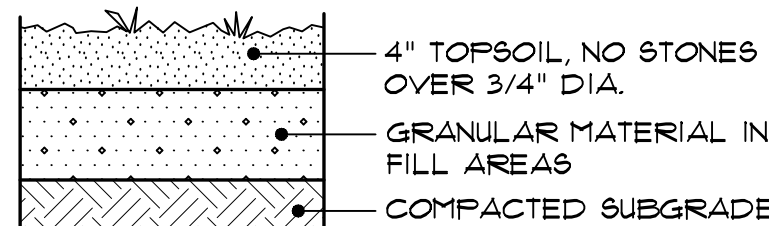
NOT TO SCALE

NOTES:
RAMP SHALL BE DESIGNED IN ACCORDANCE WITH FIGURE 1-06 OF THESE TECHNICAL STANDARDS.
ALL RAMP SHALL COMPLY WITH ADA STANDARDS.
SIDEWALK MATERIAL PER CITY SIDEWALK MATERIAL POLICY.

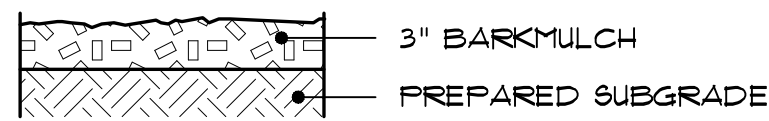


9 DIAGONAL SIDEWALK RAMP LAYOUT FOR SIDEWALK WITHOUT ESPLANADE (I-6H)

NOT TO SCALE



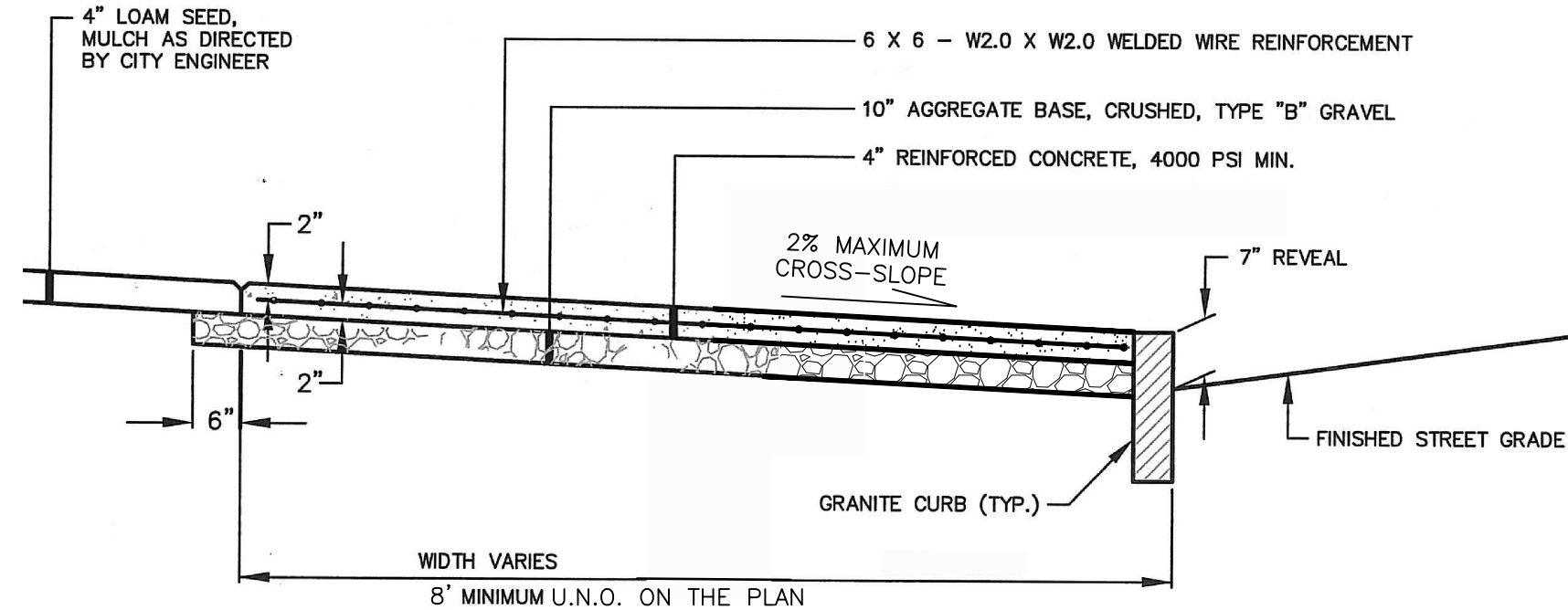
GRASS



PLANT BED BARKMULCH

4 LANDSCAPE SURFACE FINISHES

NOT TO SCALE

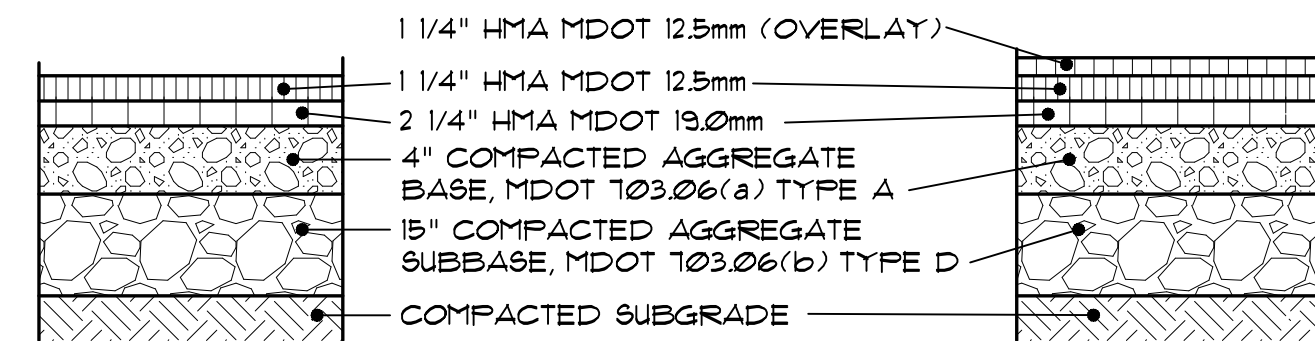
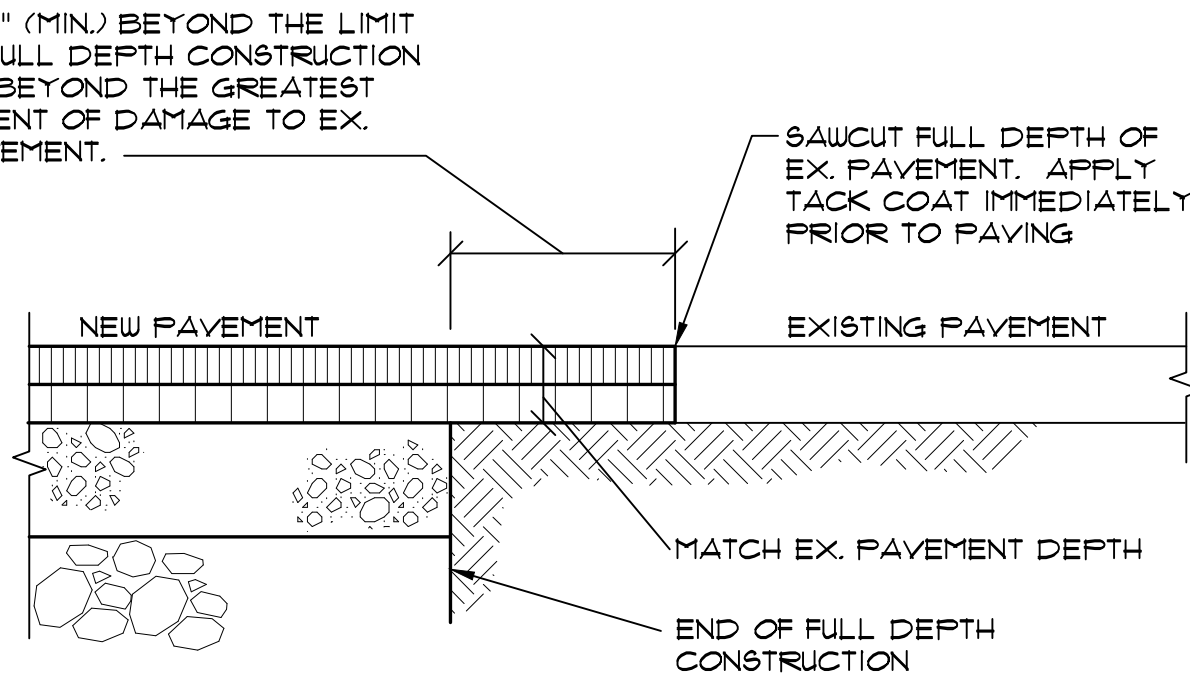


5 REINFORCED CONCRETE SIDEWALK (I-14)

NOT TO SCALE

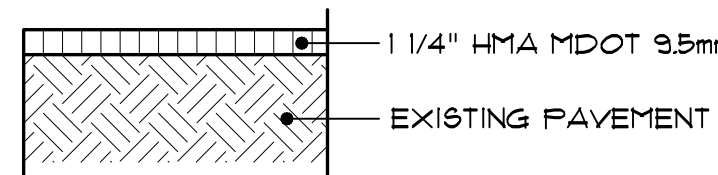
1 PAVEMENT CUTTING & MATCHING SECTION

NOT TO SCALE



NEW PAVEMENT

PAVEMENT REPAIR AT TRENCHES

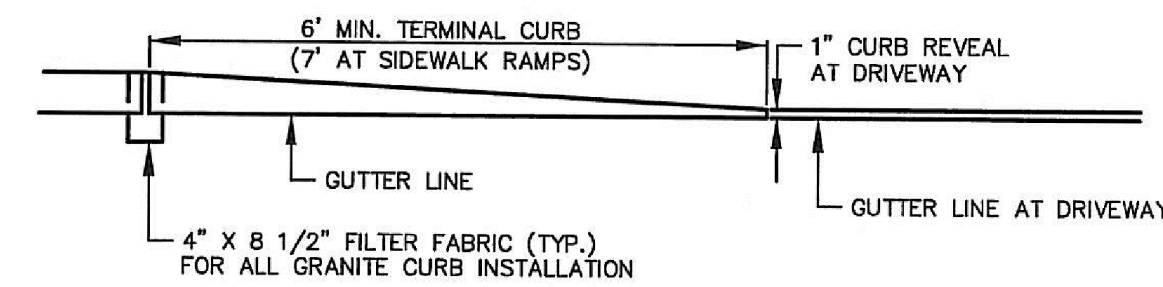


PAVEMENT OVERLAY

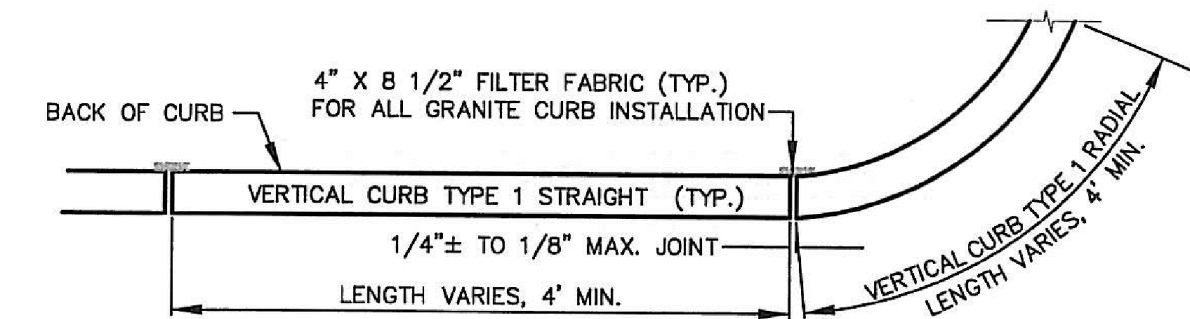
NOTES:
1. HMA = HOT MIX ASPHALT.
MDOT = MAINE DEPARTMENT OF TRANSPORTATION.
2. ALL COURSE THICKNESS AFTER FINAL COMPACTION.

2 BITUMINOUS PAVEMENT SECTIONS

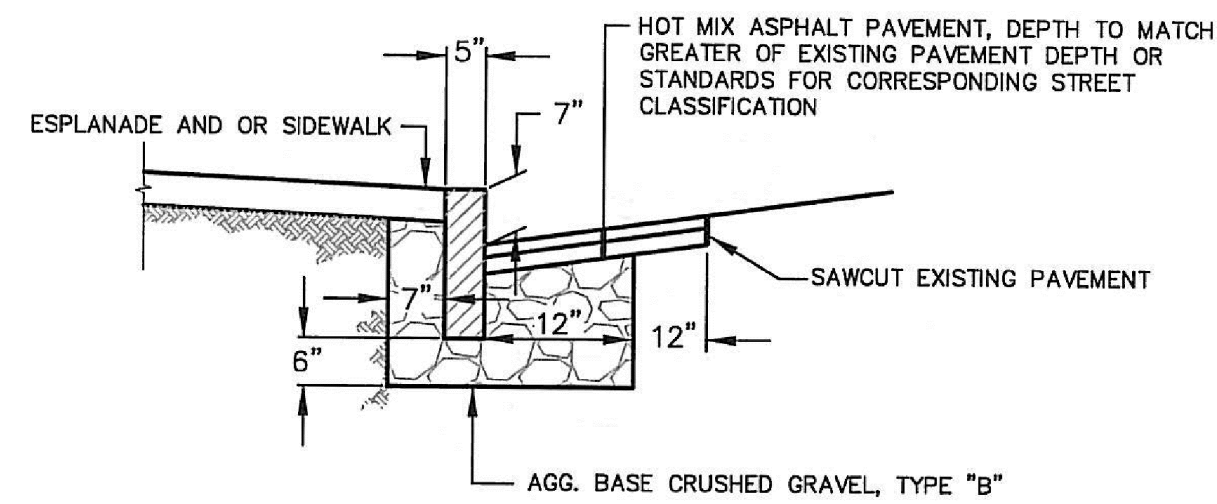
NOT TO SCALE



TERMINAL CURB PROFILE



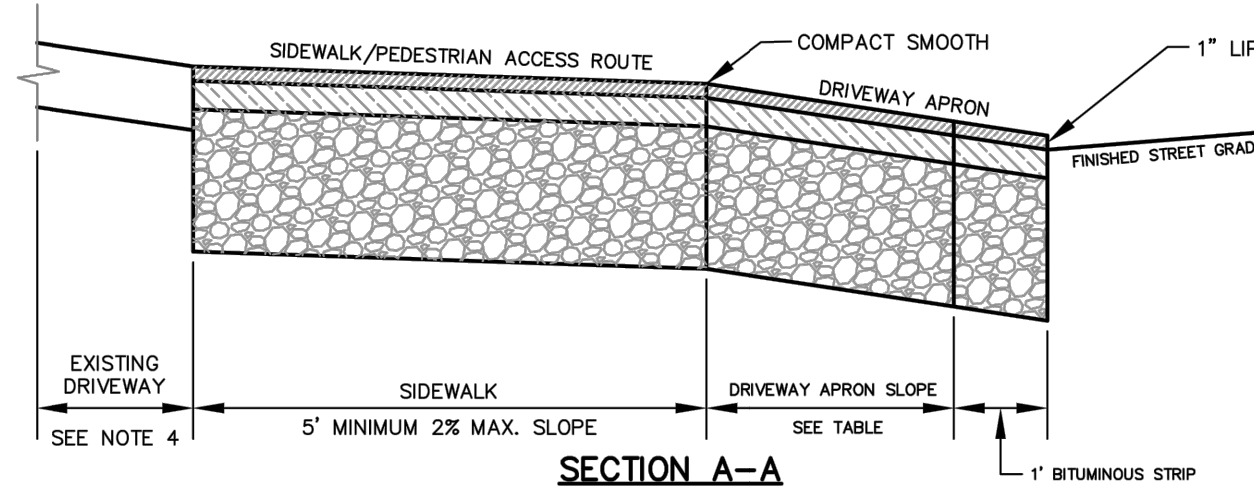
VERTICAL GRANITE CURB PLAN VIEW



VERTICAL GRANITE CURB CROSS SECTION

6 DRIVEWAY APRON WITH PEDESTRIAN ACCESS ROUTE (I-9A)

NOT TO SCALE

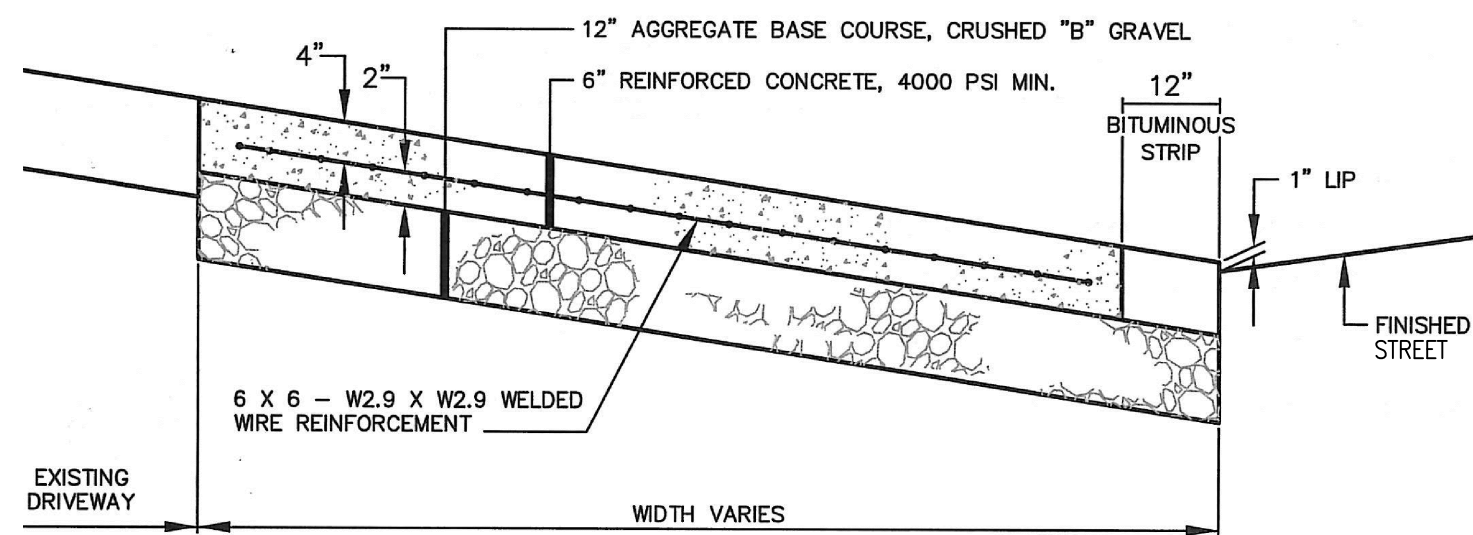


SECTION A-A

NOTES:
1. MATCH EXISTING GRADE AT R.O.W. LINE, WHERE REQUIRED TO MEET A.D.A. AND DRIVEWAY APRON SLOPE REQUIREMENTS, A CONSTRUCTION EASEMENT MAY BE REQUIRED.
2. IF MATCHING THE EXISTING GRADE AT ROW CAUSES APRON SLOPE TO EXCEED RECOMMENDED %, SIDEWALK TRANSITION AREAS MAY BE ADDED, BUT SHALL NOT EXCEED 8.33%.
3. TWO-FOOT RADIUS CORNER GRANITE PIECES ("BOUGS") ARE REQUIRED AT LOW-VOLUME DRIVEWAYS UNLESS OTHERWISE DIRECTED BY DPW. AT OTHER DRIVEWAYS, STANDARD FLARE/TIPDOWN TREATMENTS SHALL BE USED.
4. ALL MATERIALS TO COMPLY WITH CITY'S SIDEWALK & DRIVEWAY MATERIAL POLICY. BRICK IN DRIVEWAY APRONS, WHERE APPLICABLE, SHALL BE ORIENTED IN THE SAME WAY AS THE ADJACENT BRICK SIDEWALK.

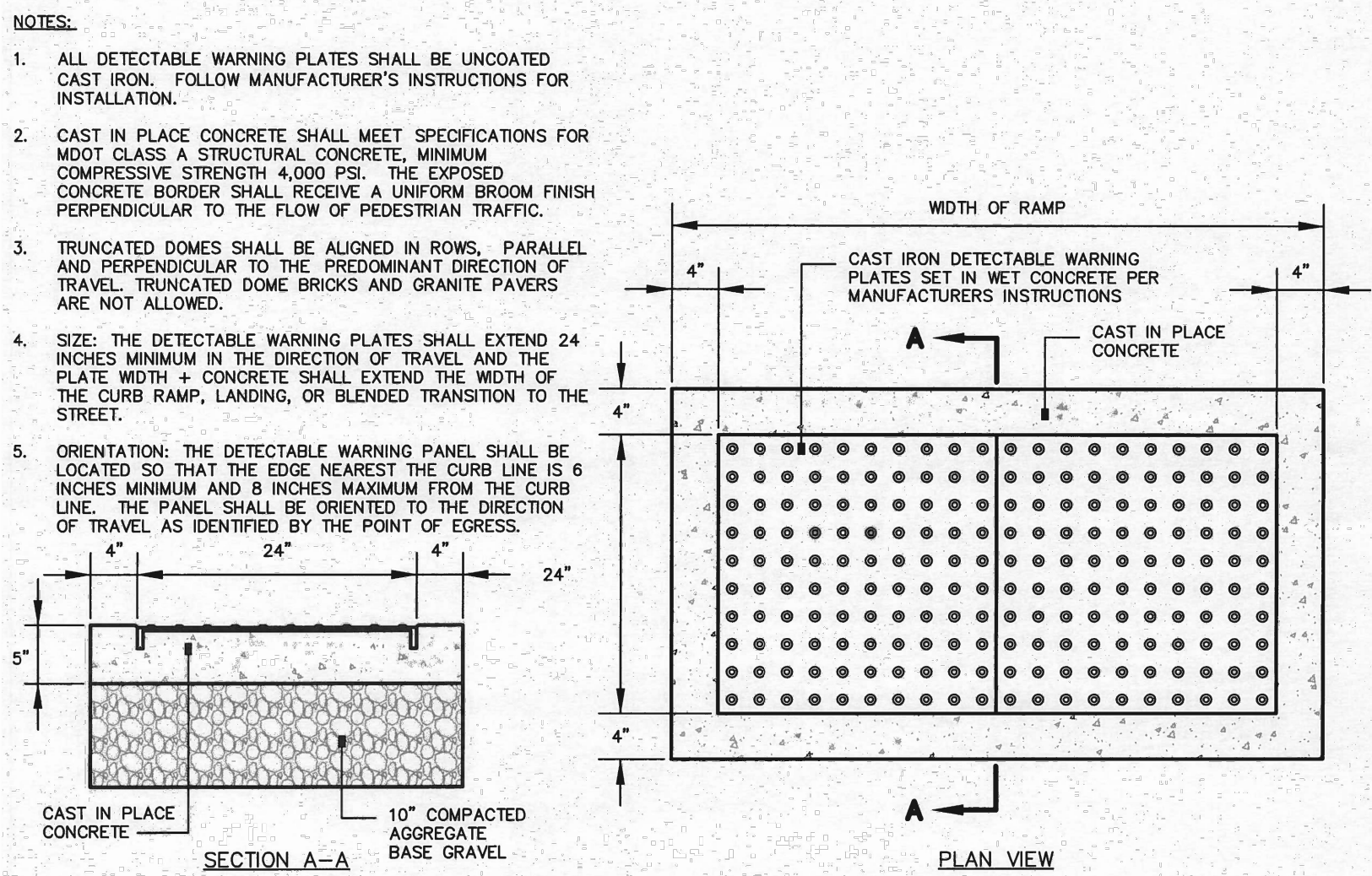
APRON SLOPE TABLE	
LAND USE	MAXIMUM RECOMMENDED GRADE CHANGE AT STREET(G)
RESIDENTIAL WITH <8 PARKING SPACES	14%
ALL OTHER DRIVEWAYS	10%

NOTE: THIS DETAIL IS FOR DRIVEWAY CONSTRUCTION ONLY. SEE DETAIL 6, DRIVEWAY APRON LAYOUT (I-9A), FOR SLOPE AND WIDTH REQUIREMENTS.



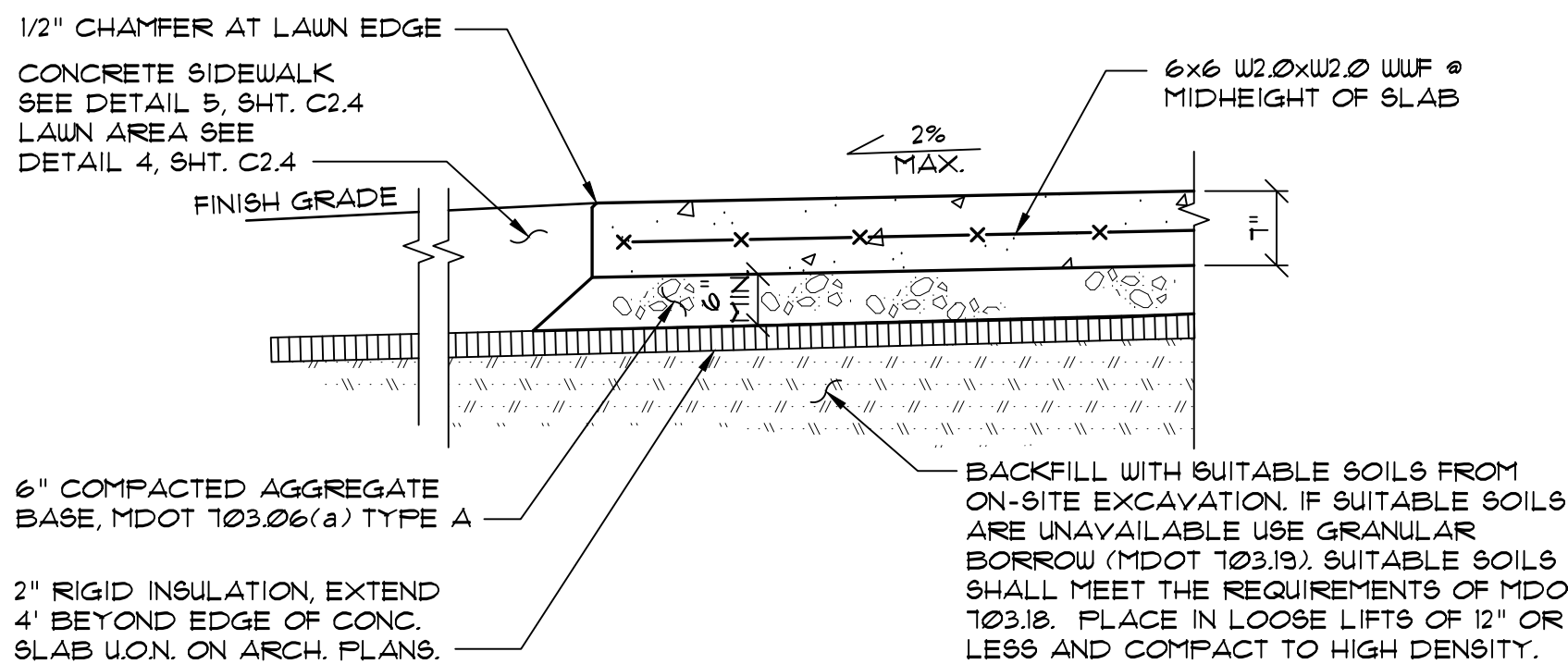
7 REINFORCED CONCRETE DRIVEWAY APRON (I-15)

NOT TO SCALE



11 SIDEWALK RAMP DETECTABLE WARNING TILE (I-7)

NOT TO SCALE



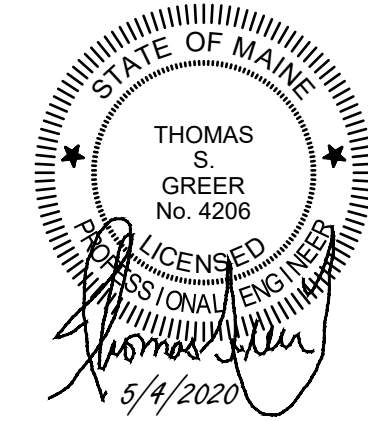
12 INSULATION AT CONCRETE ENTRY SLAB DETAIL

NOT TO SCALE

WALSH
ENGINEERING ASSOCIATES, INC.

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DAYMARK

75 CHESTNUT STREET
PORTLAND, MAINE

PREPARED FOR:
75 CHESTNUT STREET OWNER, LLC

c/o THE PROCOPIO COMPANIES
220 BROADWAY, UNIT 502
LYNNFIELD, MASSACHUSETTS 01940

CITY OF PORTLAND
APPROVED SITE PLAN
Subject to Conditions of Approval
and Standard Conditions
4-17-2018 as amended to
DATE OF APPROVAL: 5.15.2020
PLANNER: Jean Fraser
PROJECT NO.: #2018-046

Rev.	Date	Description	Drawn	Check
4	4/1/2020	Rev'd Per Review Comments 4/1/17/18 & 4/20/18, Add COA	JDC	TSG
5	4/22/2020	Rev'd Per Review Comments 4/17/20	JDC	TSG
6	5/4/2020	Rev'd Per Final Civil Plan Set Review Comments	JDC	TSG

Sheet Title:

DETAILS

Job No.: 653 / 16142

Date: JULY 28, 2016

Scale: AS SHOWN

Drawn: JDC

Checked: TSG

Sheet No.:

C2.4

MAP / LOT: 26 / E / 10