

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, June 9, 2020, 4:30 p.m. This meeting will take place using Zoom.

Virtual meetings are allowed using emergency legislation approved by LD 2167; 1 M.R.S. §403-A, that authorizes cities and towns to conduct meetings online.

Allow your computer to install the free Zoom app to get the best meeting experience.

ZOOM MEETING INSTRUCTIONS

When: Jun 9, 2020 04:30 PM Eastern Time (US and Canada)

Topic: Planning Board Workshop and Public Hearing 06/09/2020

Please click the link to join the webinar: <https://us02web.zoom.us/j/89512073234>

Or iPhone one-tap :

US: +13126266799,,89512073234# or +19292056099,,89512073234#

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: 895 1207 3234

International numbers available: <https://us02web.zoom.us/j/89512073234>

WORKSHOP - 4:30 PM

- i. Level III Site Plan; 60 Merrymeeting Drive; Fallbrook Properties, LLC., Applicant. (estimated time 4:30 – 6:00 pm) The Planning Board will hold a remote workshop on a proposal for a 90-bed, 58,197 square foot nursing care facility. The subject property is 12.78 acres in size and is zoned R-3.
- ii. Level III Site Plan and Subdivision; 844 Stevens Avenue; 844 Stevens Avenue, LLC., Applicant. (estimated time 6:00 – 7:00 pm) The Planning Board will hold a remote workshop on a proposal for a new 16-unit multi-family building and the renovation of an existing building to create office space and 5 dwelling units. The subject property is 21,989 square feet in size and is zoned B-2.

PUBLIC HEARING - 7:00 PM

1. ROLL CALL AND DECLARATION OF QUORUM

2. COMMUNICATION AND REPORTS

3. REPORT OF ATTENDANCE AT THE MEETING HELD ON MAY 26, 2020

Afternoon Workshop

128 North Street: Chann, Dundon, Dunfey, Mazer, Silk, Smith, and Stanley present.

Afternoon Hearing

44 Bedford Street: Chann, Dundon, Dunfey, Mazer, Silk, Smith, and Stanley present.

4. REPORTS OF DECISIONS AT THE MEETING HELD ON MAY 26, 2020

- i. Level III Site Plan; 44 Bedford Street; The University of Southern Maine, Applicant. Stanley moved and Dundon seconded a motion to approve the site plan. Vote 6-1, Silk opposed.

5. NEW BUSINESS

- i. B-7 Zoning Text Amendment; Earle W. Noyes & Sons, Inc., Applicant. (estimated time 7:00 p.m.) The Planning Board will hold a remote public hearing on a proposal for a zoning text amendment to the B-7 Mixed Development District Zone to add Veterinary Hospitals and Clinics as a permitted use within the zone.

Memorandum
Planning and Urban Development Department
Planning Division



To: Brandon Mazer, Chair and Members of the Portland Planning Board
From: Andrew Tufts, Planner
Date: June 9, 2020
Re: Fallbrook Commons, 60 Merrymeeting Drive, Fallbrook Commons Development LLC
Project #: PL-000925-2019 CBL: 400 Do23
Meeting: June 9, 2020



Figure 1: Parcel outline - Source: City of Portland Maine Parcel Viewer

I. INTRODUCTION

Fallbrook Commons Development LLC, has submitted a Level III Site Plan and Conditional Use application for the development of a two-story, 58,197 square-foot Skilled Nursing Facility. The subject property is a 8.28 acre parcel along with approximately 55 LF of street frontage on Ray Street. The site is zoned R-3, in which institutional developments are allowed as a conditional use.

The Planning & Urban Development Department sent 228 notices advertising this meeting to property owners within 500 feet of the site. A legal advertisement ran in the May 29th & May 30th editions of the Portland Press Herald.

Applicant: Fallbrook Commons Development LLC

Consultants: Dan Danvers, L.A. (Sebago Technics, (Landscape Architect)), Michael Pednault, AIA (Gawron Turgeon Architects) Charles Marchese (Sebago Technics (Surveying))

II. REQUIRED REVIEWS

<i>Review</i>	<i>Applicable Standards</i>
Site Plan	<i>Section 14-526</i>
Conditional Use in the R-3 zone	<i>Section 14-88</i>
General Conditional Uses	Section 14-474

III. PROJECT DATA

Existing Zoning	R-3 Residential
Existing Use	<i>Senior Care Facility- Wooded Lot</i>
Proposed Use	<i>Long Term Care Facility</i>
Parcel Size	8.28 Acres

	<i>Existing</i>	<i>Proposed</i>	<i>Net Change</i>
Building Footprint	0	37,455 SF	+ 37,455 SF
Building Floor Area	0	58,197 SF	+ 58,197 SF
Impervious Surface Area	0	118,068 SF	+ 118,068 SF
Parking Spaces	0	92	+ 92
Bicycle Parking Spaces	0	10	+ 10



Figure 2: Existing conditions - Source: Google Earth

IV. EXISTING CONDITIONS

The development site is located on Merrymeeting Drive which is accessed via Ray Street. The parcel, which is currently undeveloped, is approximately 8.28 acres in size and is one portion of the original 12.78 acre parcel of Fallbrook Woods. The site was originally permitted through the state; first as part of a phased subdivision plan and then as part of Fallbrook Woods senior center development. The site is located in the North Deering neighborhood, and is bordered by the Ray Street to the east, Florida Avenue to the south, Gertrude Avenue & a wooded area to the west, and the existing Fallbrook Woods facility to the north along with Merrymeeting Condominiums. The surrounding properties are all residential. No sidewalks currently exist on site.

The development site generally slopes downward from a high knob in the western-central portion of the parcel to the north, south and east, with about 24 feet of surface relief across the site. An existing gravel service road for the adjacent Fallbrook Woods facility is located on the north side of the site. The site is within the watershed of an unnamed stream that is a tributary of the Presumpscot River and wetlands are known to exist on the parcel. The wetlands on this site were delineated by Sebago Technics in September of 2018. The wetlands found here are classified as Palustrine Forested (PFO) wetlands. The vegetation in these PFO wetlands primarily consists of, maple, speckled alder, cinnamon fern, sensitive fern, and jewelweed. Upland vegetation primarily consists of white pine and red oak. A vernal pool survey was conducted on May 6th, 2019 and no vernal pools were identified on the property.

The Maine Department of Inland Fisheries and Wildlife (IF&W) reviewed the site and found there to be no essential habitats or fisheries habitats that have been mapped. IF&W noted that there was the possibility that the site falls within the migration path of several species of bat. A project review was completed by the Maine Natural Areas Program (MNAP) which found there to be no documented rare botanical features within the project area.

Sebago Technics, Inc. completed a boundary and topographic survey of the site in May & July of 2019, as well as February of 2020. An easement exists for Merrymeeting Drive.



Figure 3: Contextual Site Plan - Source: Sebago Technics

V. PROPOSED DEVELOPMENT

The proposed development includes a two-story, 58,197 square-foot Skilled Nursing Facility. The purpose of this project is to replace St. Joseph's Rehabilitation and Residence, a 121-bed licensed nursing care center built in 1974, that no longer meets current standards for nursing care centers. St. Joseph's is currently owned by Maine Medical Center. In collaboration with Maine Medical Center, Sandy River Company and North Country Associates would create a new licensed nursing care facility to replace St. Joseph Rehabilitation and Residence.

The project includes a new 90-bed licensed nursing care center located next to the Fallbrook Woods assisted living facility. The campus approach would allow visitors to access both facilities, provide a smooth transfer for assisted living residents that might need nursing care services, and allow an opportunity for shared support services and management. The development would include three separate "neighborhoods" within the building with a shared commercial kitchen, community areas, and two parking areas totaling 92 parking spaces. Fallbrook Commons proposes a main entrance off Ray Street, and an emergency connection to Merrymeeting Drive.

This project would happen as one phase, which would involve clearing the incidental vegetation, ledge removal, and site preparations for the building, and implementation of stormwater management measures. In addition to the Site Plan & Conditional Use Review, this application requires an amended Site Location of

Development (SLODA) and a Natural Resource Protection Act (NRPA) permit. The Stormwater from the site will be collected using three BMP's following Maine Department of Environmental Protection's (DEP) Chapter 500 standards.

The following easements are included with the proposed development:

A twenty-foot access easement has been proposed from Ray street to Merrymeeting drive, to benefit Fallbrook Woods. A fifteen-foot grading easement has been proposed along the proposed lot division line to benefit Fallbrook Commons. A proposed utility easement along the south east property line from the paper street Topsham Street to Merrymeeting drive, to benefit Fallbrook Woods. Discussions are on-going with Portland Trails to agree upon an access easement across the properties. The applicant is working with Portland Water District to provide an additional utility easement for an eight-inch main connecting Ray Street to Merrymeeting Drive. These easements will be included on drawings as they are completed.

VI. PUBLIC COMMENT AND NEIGHBORHOOD MEETING

Approximately 15 public comments have been submitted to date. The comments include but are not limited to the following concerns:

- Project scale/ density
- Light & noise pollution
- Environmental impact
- Wetland impacts
- Flooding
- Inappropriate use
- Increased traffic flow – safety
- Wildlife habitat
- Lower property value
- Privacy reduction
- Lack of public transportation
- Stress
- Construction management
- Impact to abutters

A neighborhood meeting was held on the evening of February 18, 2020 at the Fallbrook Woods lobby at 6:00 p.m. for the proposed project. Approximately 30 members of the public attended. Attending on behalf of the development team were Will Conway, Dan Danvers, and Aaron Hunter of Sebago Technics; Daniel Maguire & Doug Gardener as the applicants; and Michael Pednault representing Gawron Turgeon Architects. The applicant began the presentation by introducing the development team. They then provided some insight into the history of the project, and explained the intent for programming, and handed it off to Will Conway from Sebago Technics to explain the site plan, parking, landscaping, stormwater, and utility elements. Following Will's explanation, Michael Pednault from Gawron Turgeon Architects was introduced to explain the proposed building's exterior, interior, and programming. At the end of Michael's presentation, the applicant opened the meeting to the public for questions.

VII. RIGHT, TITLE, & INTEREST AND FINANCIAL & TECHNICAL CAPACITY

The owner of the property is Fallbrook Properties, LLC. The applicant provided a copy of the warranty deed, recorded at the Cumberland County Registry of Deeds in CCRD Book 31613 page 255, which demonstrates their right, title and interest in the property. The applicant team cited their experience and qualifications to demonstrate capacity to design and construct the project.

VIII. ZONING ANALYSIS

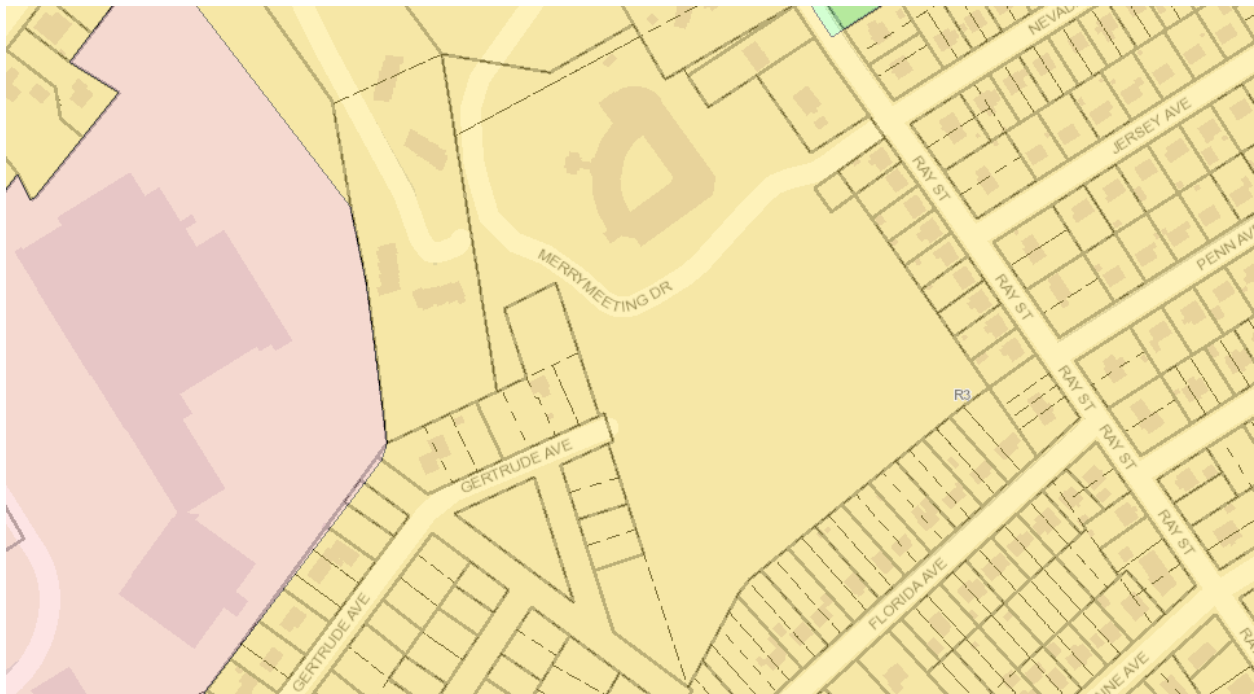


Figure 4: Zoning Map – Source: City of Portland GIS Maps

Dimensional requirements for this project are dictated by the R-3 residential zone. The purpose of the R-3 residential zone is to provide for medium-density residential development characterized by single-family homes on individual lots and also to provide for planned residential unit developments on substantially sized parcels. Such development shall respond to the physical qualities of a site and complement the scale, character and style of the surrounding neighborhood. Though primarily a residential zone, like other R-zones, it also allows for limited institutional and other non-residential uses, most of which are reviewed as conditional uses.

The proposed project has been assessed by City Staff and was determined to meet dimensional requirements for the R-3. These requirements are included as a table on the following page.

Zoning Requirements	R-3	Provided	+/-
Minimum Lot Size	2 AC	8.28 AC	+ 6.28 AC
Minimum Street Frontage	50 ft.	55 ft	+ 5 ft.
Front Yard Minimum	25 ft.	248 ft. scaled	+ 223 ft.
Rear Yard	25 ft.	83 ft. scaled	+ 58 ft.
Yard Right	14 ft. (2 stories)	88 ft. scaled	+ 74 ft.
Yard Left	14 ft. (2 stories)	87 ft. scaled	+ 73 ft.
Maximum Lot Coverage	35%	34%	- 1%
Minimum Lot Width	65 ft.	523 ft.	+ 458 ft.
Maximum Structure Height	35 ft.	34 ft. - 4 in.	- 8 in.
Parking	73	93	+ 19
Bicycle Parking	10	10	--

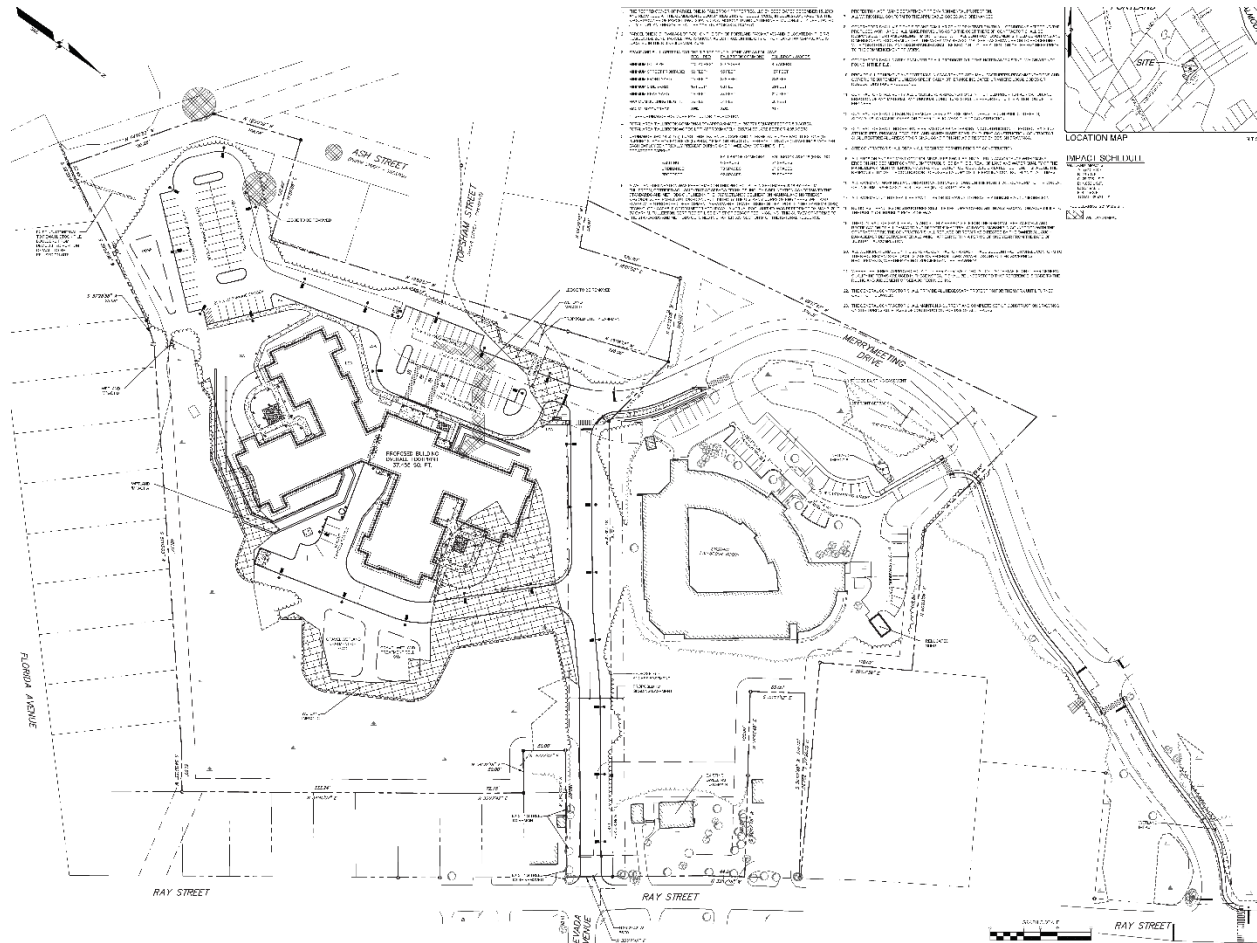


Figure 5: Site Plan - Source: Sebago Technics

IX. DEVELOPMENT REVIEW

A. ZONE-SPECIFIC CONDITIONAL USE STANDARDS – SEC. 14-88

- a. *In the case of expansion of existing such uses onto land other than the lot on which the principal use is located, it shall be demonstrated that the proposed use cannot reasonably be accommodated on the existing site through more efficient utilization of land or buildings, and will not cause significant physical encroachment into established residential areas.*

Applicant Response: The project incorporates a land division. The lot being created is currently undeveloped, and its proposed principle use will be a Long-Term Care Facility. All improvements affiliated with the proposed development are contained within the site and do not encroach on surrounding neighborhoods.

- b. *In the case of a use or use expansion which constitutes a combination of the above-listed uses with capacity for concurrent operations, the applicable minimum lot sizes shall be cumulative.*

Applicant Response: The proposed development satisfies this requirement.

B. GENERAL CONDITIONAL USE STANDARDS – SEC. 14-474

The conditional use standards overlap with many individual site plan standards, and staff will determine overall consistency with conditional use standards through the applicant responding to full staff and Board comments, and before the Public Hearing.

- a. *The volume and type of vehicle traffic to be generated, hours of operation, expanse of pavement, and the number of parking spaces required are not substantially greater than would normally occur at surrounding uses or other allowable uses in the same zone.*

Applicant Response: This project will not generate a substantial increase in vehicle traffic to surrounding roadways. The number of parking spaces proposed is right-sized for the operations affiliated with the facility, and are proportionate for the level of care provided.

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

Applicant Response: The project will perform in accordance with the performance standards of the ordinance.

- c. *The design and operation of the proposed use, including but not limited to landscaping, screening, signs, loading, deliveries, trash or waste generation, arrangement of structures, and materials storage will not have a substantially greater effect/impact on surrounding properties than those associated with surrounding uses or other allowable uses in the zone.*

Applicant Response: The project will not have a substantial negative impact on surrounding properties, is designed in accordance with Portland's technical manual, and will adhere to the performance standards outlined in the ordinance.

C. SITE PLAN STANDARDS (Section 14-526)

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

1. Transportation Standards**a. Impact on Surrounding Street Systems and Access and Circulation**

Access to the site is proposed by way of Merrymeeting Drive, an existing private roadway serving the Merrymeeting Condominiums and the existing Fallbrook Woods Assisted Living Facility. Merrymeeting Drive intersects Ray Street at an existing all-way stop controlled intersection. At this intersection location, Ray Street is classified as an urban local roadway with a posted speed limit of 25 miles per hour. The project proposes to provide improvements to this intersection including new stop signs, stop bars, and a new marked pedestrian crossing across Ray Street. This crossing would connect a proposed sidewalk on Merrymeeting Drive with the existing sidewalk on the eastern side of Ray Street.

It is also proposed to construct an emergency-only access drive connecting the proposed facility directly with Ray Street. This restricted access drive would intersect Ray Street opposite Nevada Avenue. A locked gate, equipped with a Knox Box, would be installed to prevent unauthorized use.

The proposed development has provided traffic analysis that has been reviewed by City Staff and Consultants. Thomas Errico, PE, Consulting Traffic Engineer has provided the following comments in regard to traffic impacts:

- The applicant's traffic engineer conducted a trip generation estimate for the project according to accepted traffic engineering methods. According to guidance in the Trip Generation Manual, Institute of Transportation Engineers, 10th Edition, the proposed project would be expected to generate 23 vehicles during the weekday AM peak hour (18 entering and 5 exiting) and 27 vehicles during the weekday PM peak hour (11 entering and 16 exiting). During the worst-case peak hour, the project will generate 41 vehicles (18 entering and 23 exiting). As noted by the applicant, this level of trip generation does not warrant a traffic study per the City Technical Manual (there is a High Crash Location on Allen Avenue near Allen's Corner that is close to ½ mile from the project site). I concur that a traffic study is not required. I would further note that that this level of traffic would not be expected to create safety or mobility issues. During the morning and evening commute peak hours (typically 7:30 to 8:30AM and 4:30 to 5:30PM), the project would add one vehicle to Ray Street about every 2 to 3 minutes.
- Based on the trip generation estimate provided by the applicant the proposed project does not require a MaineDOT Traffic Movement Permit.
- The applicant is required to submit a Construction Management Plan and as such a plan has been provided. A specific construction vehicle routing plan has not been noted and I would suggest that the applicant provide a suggested routing to minimize impact to the neighborhood.

b. Sidewalks

There are no existing sidewalks on site. The proposed internal sidewalk would lead from the proposed facility (Fallbrook Commons) to the existing facility (Fallbrook Woods). From there, the applicant is proposing a sidewalk along Merrymeeting Drive, that would connect to Ray Street's sidewalk.

c. Public Transit Access

Bus service is available on Ray Street only on days that schools are open. The closest daily, year-round bus service is on Washington Avenue. The facility would have a private shuttle service for residents.

d. Parking

The proposed project is required to provide 73 parking spaces and is proposing to provide 92 parking spaces on site, resulting in 19 additional spaces beyond the requirement. The facility is expected to employ up to 113 full time equivalent (FTE) employees as submitted in projections with the Maine Department of Health and Human Services. The staffing occurs in shifts, with 55 employees during the day shift, 25 during the evening shift and 10 employees during the night shift. The applicant's experience has been that providing parking for day shift employees with an allowance of approximately one visitor space per 2.5 beds meets the requirements for a typical day use for family visitors, and specialty service vehicle needs at their other facilities.

Of the 92 proposed parking spaces, 4 are universally accessible. All ADA spaces have been located nearest the primary entrance to the building for employees, guests, and visitors. Six spaces are proposed in the service area at the back of the facility, and are for contractors and facilities maintenance vehicles.

Mike Tremblay P.E., Senior Engineer, has provided a number of comments that are found in the response to comments. **(SEE ATTACHMENT G)**

e. Bicycle Parking

The applicant is proposing up to 10 bicycle spaces. The bike rack is proposed to be located at the buildings entrance.

2. Environmental Quality Standards

a. Preservation of Significant Natural Features

The development has been designed to preserve and protect significant natural features. A Tier 2 Natural Resource Protection Act (NRPA) application has been filed with the Maine Department of Environmental Protection for any proposed wetland impacts. The NRPA Permit was submitted to City Staff on June 5th. Maine Inland Fisheries and Wildlife reviewed the site and found there to be no essential habitats or fisheries habitats that have been mapped. IF&W noted that there was the possibility that the site falls within the migration path of several species of bat. All site clearing should be done outside of the protected bats roosting season. A project review was completed by the Maine Natural Areas Program (MNAP) which found there to be no documented rare botanical features within the project area.

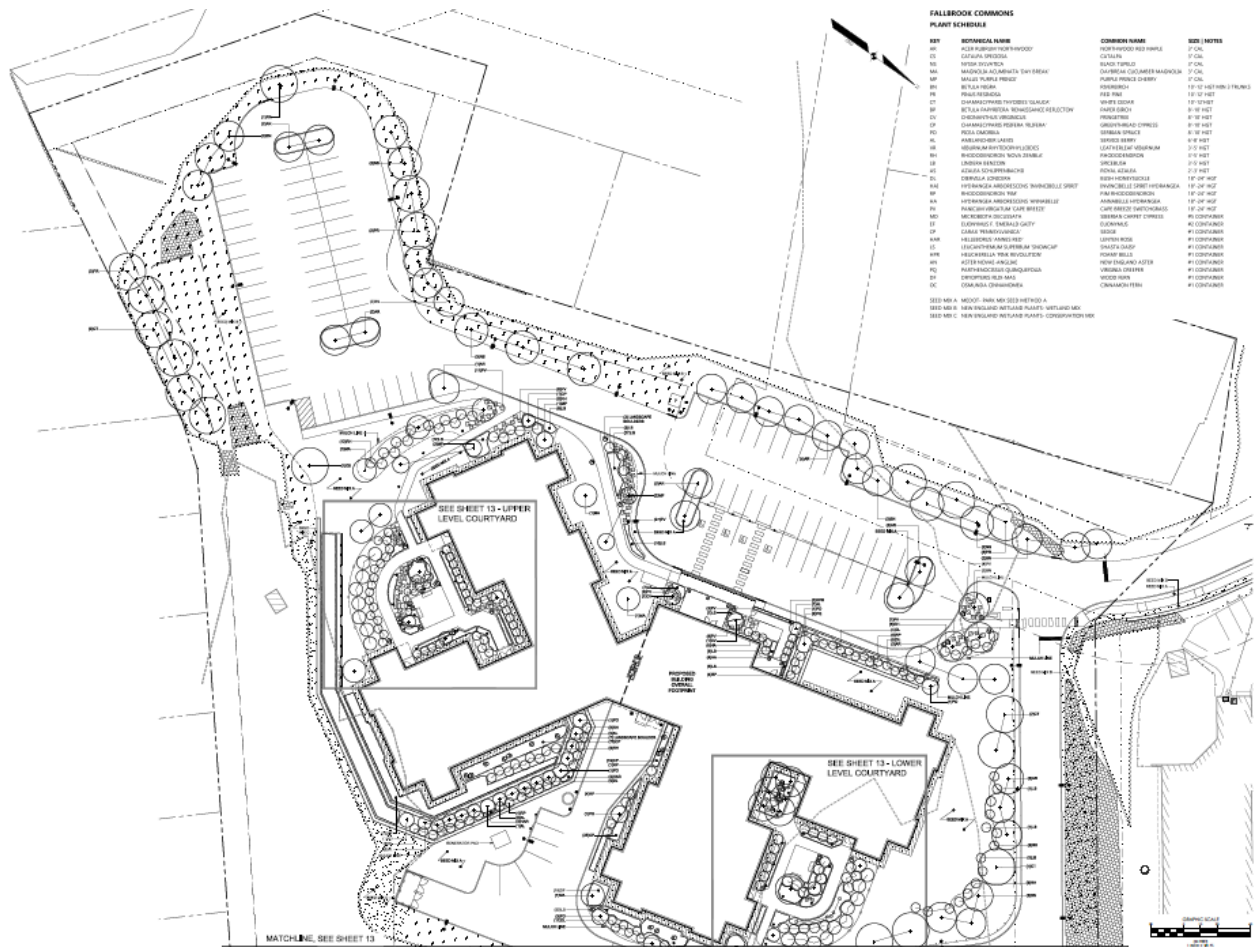


Figure 6: Landscape Plan - Source: Sebago Technics

b. Landscaping and Landscape Preservation

The proposed development involves the partial clearing of site vegetation to allow for site development. Existing tree cover was incorporated into the landscaping plan providing a wooded buffer between the proposed development and existing abutters. No trees with a 10-inch DBH or greater within the setback are to be impacted, as shown on the site plan. Vegetation will be protected during construction in accordance with tree preservation standards listed in Section 4 of the Technical Manual.

A planting schedule is included on the landscape plan that features native trees & shrubs such as Red Maple, Black Tulepo, White Cedar, Service Berry, Viburnum, and Spicebush. Much of the understory groundcover is designed to be seeded using three New England seed mixes, two for wetland areas, and one for parks.

The landscape plan is currently under review by the City Arborist.



Figure 7: Post-Development SW - Source: Sebago Technics

c. Water Quality, Storm Water Management and Erosion Control

Development of the project site would result in an increase of approximately 118,068 square feet of impervious area. Since the project will disturb more than one (1) acre of land area, Maine DEP Basic Standards apply, requiring that grading or other construction activities on the site do not impede or otherwise alter drainage ways to have an unreasonable adverse impact. The project avoids adverse impacts by implementing an Erosion & Sedimentation Control Plan, and an Inspection, Maintenance and Housekeeping Plan (Appendix 4) during construction and postconstruction stabilization of the site. These construction requirements have been developed following Best Management Practice guidelines.

To mitigate the changes in hydrologic patterns due to the development of this project, an under drained soil filter, a gravel wetland, and a roof drip edge filters have been included in the proposed stormwater management infrastructure. Through the use of the proposed BMP's, 100% of new impervious area and 91.8% of new developed area will be receiving treatment. This exceeds the requirements for the Maine DEP General Standards. The

project exceeds 100% of the new impervious area treated by directing untreated offsite impervious area to the proposed gravel wetland.

Since the planned project will create less than three (3) acres of impervious surface, Maine DEP Chapter 500 Flooding Standards are not required to be met. However, the Flooding Standard has been met as a local requirement. The Flooding Standard requires a project's stormwater management system detain, retain, or result in the infiltration of stormwater from 24-hour storms of the 2, 10, and 25-year frequencies such that the peak flows of stormwater from the project site does not exceed the peak flows of stormwater prior to undertaking the project. The project will also be required to meet the standards required for a Site Location of Development permit.

Lauren Swett, P.E., Consulting Civil Engineer, has provided the following comments in regard to stormwater and erosion control:

Comment: *The Applicant should evaluate the steepness of some of their pipes. In particular pipes SD-21 and RD-4 are steep, due to the proposed change in grade. RD-1 is also relatively steep. Please consider potential velocity issues at the ends of these pipes. “*

Response: *Given the relatively small tributary areas and corresponding flow rates we do not have a concern regarding the slopes at these locations. To address the concern, we have adjusted the grades of SD-12 at the upstream and downstream structures. We have revised the alignment of the roof drains and added connection/drop structures at the top of the slope to flatten the grade.*

Comment *“Pipe SD-18 is missing from the Stormdrain Pipe Data tables. “*

Response: *Pipe SD-18 has been added to the tables.*

Comment: *“Wall drains are noted to be connected to CB-8. Please clarify the depth of these connections to verify that the pipe can connect to the structure with all of the other proposed stormdrain connections.”*

Response: *Inverts for the wall drain inverts have been added to the labels. The wall drains enter above the site drainage pipes to accommodate the connection.*

Comment: *“Ability to serve confirmation will be required from utilities, including the Portland Water District for domestic and fire water services and the Department of Public Works for sewer. “*

Response: *We have reached out to Portland Water District and are working with them on the sizing of the domestic, Fire, and Sewer services.*

4. Site Design Standards

a. Snow and Ice Loading

The buildings have been designed and located such that accumulated snow and ice will not fall onto adjacent properties or public ways. Snow will be removed from the parking lots and stockpiled within the site perimeter or if necessary, removed from the site.

b. View Corridors

The site is not located within any corridors identified in the Downtown Vision View Corridor Protection Plan.

c. Historic Resources

The development is not located within a designated historic district.

d. Exterior Lighting

All new exterior lighting at the site will be full cutoff with no light emitted above the horizontal plane, and in accordance with Section 12 of the Technical Manual. A photometric lighting plan has been prepared by Hubbel Lighting Consultants to demonstrate illumination levels throughout the site will be consistent with City standards.

e. Noise and Vibration

All heating, ventilation, air conditioning equipment including air handlers and generators are designed to meet local, state, and federal emissions and noise requirements. All construction will take place between 7 a.m. and 7 p.m.

f. Signage and Wayfinding

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

g. Zoning Related Design Standards

The R-3 does not have any zone-specific design standards and the Site Plan Ordinance does not include design review for this use.

h. Construction Management Plan

The construction management plan and narrative were submitted and reviewed by city staff. A site analysis conducted by S.W. Cole provided the following guidance for the proposed construction:

- *Some areas of shallow bedrock were encountered at the explorations; thus blasting for bedrock removal should be anticipated. The depth of blasting should be controlled to less than 1 foot below footing subgrades and 2 feet below floor slab, pavement and utility subgrades.*
- *Subgrades across the site will consist of sensitive silts and clays. Earthwork and grading activities should occur during drier, non-freezing weather of Spring, Summer and Fall. Rubber tired construction equipment should not operate directly on the native silt and clays when wet. Excavation of soil bearing surfaces should be completed with a smooth-edged bucket to lessen subgrade disturbance.*
- *Construction activity should be limited during wet and freezing weather and the site soils may require drying or thawing before construction activities may*

continue. The contractor should anticipate the need for water to temper fills in order to facilitate compaction during dry weather. If construction takes place during cold weather, subgrades, foundations and floor slabs must be protected during freezing conditions. Concrete and fill must not be placed on frozen soil; and once placed, the concrete and soil beneath the structure must be protected from freezing.

X. NEXT STEPS

1. Address staff comments
2. Address additional comments of the Planning Board
3. Prepare final plan submission, including site plan submittal requirements as included in 14-527(e) and (f) for review by the Planning Board
4. Hold Planning Board Hearing

XI. ATTACHMENTS PLANNING BOARD REPORT ATTACHMENTS

1. Public Comments
2. Comment Response Letters
3. Traffic Comments

APPLICANT'S SUBMITTALS

- A - COVER LETTER
- B - CHECKLIST
- C - RIGHT, TITLE & INTEREST
- D - FINANCIAL CAPACITY
- E - TECHNICAL CAPACITY
- F - ZONING ANALYSIS TABLE - EXISTING LOT
- G - ZONING ANALYSIS TABLE - PROPOSED LOT
- H - NEIGHBORHOOD MEETING
- I - LETTER ON PROJECT NEED
- J - JEFF SANDERS_LETTER OF SUPPORT
- K - MHPC RESPONSE LETTER
- L - SLODA 2020-03-02
- M - STORMWATER REPORT
- N - TRAFFIC MEMO
- O - TRANSPORTATION ANALYSIS
- P - SITE PLAN STANDARDS
- Q - CONSTRUCTION MANAGEMENT NARRATIVE
- R - RESPONSE TO COMMENTS
- S - EVIDENCE OF APPROVALS
- T - EXTERIOR LIGHTING

PLANS

- P1. COVER
- P2. SITE PLAN
- P3. SITE PLAN RENDERING
- P4. PROPOSED LOT DIVISION PLAN
- P5. NOTES-LEGEND
- P6. GRADING PLANS
- P7. UTILITY PLANS
- P8. LANDSCAPE PLANS
- P9. EXISTING CONDITIONS
- P10. EROSION CONTROL
- P11. CONSTRUCTION MANAGEMENT PLAN
- P12. LOCATION MAP
- P13. PHOTOMETRIC PLAN
- P14. PRE-DEVELOPMENT STORMWATER
- P15. POST-DEVELOPMENT STORMWATER
- P16. GRAVEL WETLANDLAND DETAIL
- P17. UNDERDRAIN FILTER DETAIL
- P18. ARCHITECTURAL RENDERING
- P19. ELEVATIONS
- P20. FLOOR PLANS
- P21. DETAILS

Fallbrook woods expansion

Alison Mason <lilady371@yahoo.com>
3, 2020 4:04 PM
Posted in group: Planning Board

Jun





To whom it concerns, I am a neighbor to Fallbrook woods living on Ray Street across from the proposed new entrance. I would like to say that for a facility that prides themselves and at one time promoted themselves as an animal sanctuary, the expansion would not be a good idea. Here in North Deering we enjoy living side by side our animal neighbors the deer, racoon, skunk, porcupine, hawks, and occasional coyote. The deer herd here is a good sized group who live side by side with us mostly unnoticeable. Fallbrook woods on the other hand is very noticeable with their large engine going off a few times a day disturbing our peace and tranquility. I am thinking with this expansion the around the clock intermittent banging would only be amplified. (I am thinking this is a generator of some type that I mention here and it goes off a few times a day. It is located at the far right front of the building, close to where the proposed building is to go) The trail along side the facility has been used by many as a walking or biking path but lately as a dumping site for garbage by people walking through and left there to rot. They claim the water area at their entrance is theirs, you can clearly see how well they have managed that. Polluted and again not cared for.

I don't feel the need to say anything more as to having a business "nestled in the woods" of our household neighborhood. Perhaps a relocation for them all together would answer their need to expand. I hope they are not permitted to expand their business at the expense of the rest of the people who live here 24 hours a day 7 days a week and call this home. Our animal neighbors will be grateful as well. I am attaching a picture of the HUGE buck we have living here. He was located in the woods on Ray Street heading "home" for the night, his home is in the location of this new facility.

Thank you so very much for taking the time to read this and even more for considering the impact this expansion has on everyone around it.

Sincerely,
Alison Mason

Fwd: comments project - 60 Merrymeeting Dr

1 message

Andrew Tufts <atufts@portlandmaine.gov>
To: Jennifer Munson <jmy@portlandmaine.gov>

Tue, Jun 2, 2020 at 8:51 AM

----- Forwarded message -----

From: **Ian Pollis Houseal** <ihouseal@yahoo.com>
Date: Fri, Feb 7, 2020 at 2:40 PM
Subject: comments project - 60 Merrymeeting Dr
To: Andrews Tufts <atufts@portlandmaine.gov>

Mr. Tufts,

As an abutter to the proposed project at [60 Merrymeeting Dr](#). Plan Number PL-000925-2019, I would like to make the following comments on the project at this time:

1. The project is entirely too large for the neighborhood.
2. The project well exceeds the intended density of the zone. The existing nursing home facility has already clustered development to that portion of the site and this project will more than double the density.
3. The WETLAND impact is extensive and will be severely damaging on both the Florida Avenue side of the project and the fire road side of the project.
4. The project will disturb and eliminate natural spring streams
5. The project makes no consideration to the natural topography of the site. The project proposes rip-rap and erosion control blankets around the perimeter of the site which is unnecessary.
6. The project will flood basements on houses along Florida Ave because of its runoff.
7. It looks like the project will blast or have to pound the ridge outcrop at the center of the site.
8. Stormwater impacts will be excessive, flooding abutting properties and overwhelming the stormwater system to the south of Ray St. The proposed plan gives not consideration of the existing stormwater system which runs along the back of the properties along Florida Ave and the fire road.
9. There are important species in this forest including foxes, hawks, kestrels, owl, and a white deer in this forest.
10. A gravel wetland? Why not something more considerate of the site.
11. Should this project proceed, the project should obligated to connect to Gertrude Avenue and improve Gertrude Avenue, not make no reference or consideration of connecting to this street out of convenience. Gertrude Avenue connects to Washington Avenue.

Thank you,

Ian Houseal
86 Florida Avenue

—
Andrew Tufts
Planner
Planning and Urban Development Department

389 Congress Street 4th Floor
Portland, ME 04101
atufts@portlandmaine.gov

Fallbrook property development at Merrymeeting Dr.

LK Weiss <lk@portlanddesignco.com>

Apr 8, 2020 9:14 AM

Posted in group: **Planning Board**

To whom it may concern,

Seven months ago, my wife and I purchased our first home together here on Ray St in Portland. Despite the prices being 1/3 higher than surrounding towns, we dug deep and chose this neighborhood because it's a quiet suburb with little traffic, lots of kids, wildlife, wooded trails, friendly neighbors with dogs, and a really sweet neighborhood feel. Within our first month of living here, we saw a doe, a pack of coyotes, and several fox. Just 10 minutes from downtown! It's the "last frontier" of Portland.

And we're passionate about keeping it that way.

We recently received a notice informing us of the proposed Fallbrook Development. A 90-bed nursing care facility on 13 acres of land which is currently home to multiple species of wildlife. In addition to what's listed above, turkeys, owls, hawks and eagles, woodpeckers, tree frogs and more call this area home.

Not only will it interfere with wildlife, it will have a major impact on traffic, the safety of children and pets in our neighborhood, and it could drastically impact the value of our homes and properties. The runoff from the proposed large parking area would have ramifications on area streams and ponds with winter salts and chemicals.

This isn't the right neighborhood for this kind of development, and would only benefit the developers—not the constituents who are investing in this neighborhood and city. It's not about keeping things the way they are forever. We know this city is growing and changing (I was born and raised here, and have seen it change so much in 40 years). While the downtown/peninsula areas continue to develop and expand with drab brick box hotels and corporate offices, the suburbs are the last bit of what drew people here in the first place. There are enough cities overtaken by stripmalls and retirement condos. Keep our neighborhoods in tact, and the wildlife in our city.

We are very much against this development moving forward.

Thank you for considering,

LK and Laura Weiss

305 Ray St. Portland

**PORT
LAND**

D E S I G N C O

LK Weiss

Founder & Creative Director

142 High St. Suite 415, Portland, Maine 04101

PortlandDesignCo.com

Fwd: Opposition to the construction planned by fallbrook properties

Andrew Tufts <atufts@portlandmaine.gov>
To: Jennifer Munson <jmy@portlandmaine.gov>

Wed, Feb 26, 2020 at 3:00 PM

----- Forwarded message -----

From: **Luis Garcia MD** <luis.garciamd2@gmail.com>
Date: Mon, Feb 24, 2020 at 5:20 PM
Subject: Opposition to the construction planned by fallbrook properties
To: <atufts@portlandmaine.gov>
Cc: MONY WIFE <monygarcia2@yahoo.com>

Hello Mr. Tufts, my wife and I want to reach out to express our complete opposition to the construction fallbrook properties is planning (plan number PL-000925-2019). The deleterious effect on flora, fauna, our environment and possibly on all our property values are simply unacceptable. The great majority of our neighbors hold the same sentiment and will oppose this project by any legal means available to us.

My wife and I would like to know where the city stands on this issue, we would also like to be informed of any meeting and/or hearing which is planned or already scheduled on this matter. I thank you for any assistance you can provide to my wife and I, as well as to our neighbors.

LUIS GARCIA, M.D.
MONICA GARCIA
80 FLORIDA AVE, PORTLAND

--

Andrew Tufts
Planner
Planning and Urban Development Department

389 Congress Street 4th Floor
Portland, ME 04101
atufts@portlandmaine.gov
(207) 874-8724

Fallbrook project in North Deering

Lynn Lagerstrom <stonesfan26@gmail.com>

Mar 11, 2020 9:53 AM

Posted in group: **Planning Board**

March 9, 2020

Dear Sir/Madam:

I would like to add my voice to the concern regarding the Fall Brook Nursing Home. While I understand the need for such a facility I don't believe this is the best location for it.

Portland has grown by leaps and bounds and in the process so many woodlands and waterways have been taken over and eliminated. This neighborhood is so fortunate in having rare wetlands and deep woods for all sorts of wild animals not to mention all the many variations of wild birds. There are turtles and frogs in these woods and wetlands that are fast becoming dangerously close to endangered in Maine. There are also many walking trails that connect throughout Portland and Falmouth.

Also, as many of us who live here are aware, there is an underground stream right through the whole area and there is a lot of flooding because of it. My own cellar once had over two feet of water during a rain storm some years ago and that is when I first heard of the stream. Some people, in the houses on the end of Florida Avenue, can even hear the stream running when the water is high. Some areas of the street have even sunk in a little here and there which shows that the ground may not be quite secure for heavy building and construction to say nothing of the blasting. It is one thing to build a small family home in this area but a huge multi-level building will be quite another matter altogether.

I ask you all to please reconsider destroying all this wild beauty for a plan that might not even work out in the long run. These woods and wetlands are important to the ecology and I don't believe it is the proper place for a nursing home and huge extended parking lots. It will also increase the traffic and that will further devastate the whole area.

Thank you very much for your consideration of this matter.

Sincerely,

Lynn Lagerstrom

57 Florida Avenue

Portland, ME 04103

Mike and Deb Denbow
69 Florida Ave, Portland, Maine
207-899-0053 (mdenbow@maine.rr.com)
Portland, Maine 04103
03/15/2020

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

Dear Portland Maine Planning Board:

My wife and I own property at 69 Florida Ave in Portland. We purchased our home over 20 years ago for the location and neighborhood quality the location brings to this portion of Portland. The wooded land, lack of traffic noise buffered by the trees, wildlife that have been evident throughout our years here, give this area a country atmosphere. This neighborhood is a vast mix of young and older adults, young families with small children, single adults, and retirees. The sense of community has always been in place and most have felt it to be a great place to live, until lately.

The recent notification and meeting with the proposed builders of Fallbrook LLC about a large-scale skilled nursing facility that will be built in a wooded section abutting our neighborhood has changed the dynamics of the once calm neighborhood. At a meeting with Fallbrook LLS., it was stated by the designers and owners the project will be built with the cooperation from Maine Medical Center. The reasoning for this is Maine Medical Center does not wish to be in the nursing home business any longer and is looking for placement of the people who currently reside at St Joseph's Manor. Fallbrook LLC with the cooperation of Maine Medical Center has decided to build a facility to accommodate this by building a facility that will completely remove the wooded section in the neighborhood, covering wet lands, and placing parking lots up to the allowed distances from property lines. It was indicated in this meeting there would be no compromise. Representatives stated building would start as early as June of this year, they changed this quickly to October of this year when questioned further at the meeting.

Unfortunately, families in the neighborhood are quickly selling their homes to avoid the anticipated approval by city planning board for this immense construction project. They along with the rest of us here feel this will not only change the neighborhood, but will have significant impact on land, housing values, drainage, wildlife, wetlands, noise, traffic, safety, and loss of community. Because Maine Medical Center, who owns St Joseph's Manor, does not wish to be in the nursing home business and wishes to convert their existing nursing home into something else, our neighborhood may have to pay the price.

Throughout this letter I would like to address several, but not all issues that will follow this project.

Stress-

Several families have considered and two families have already moved from our street due to the location and magnitude of this project. Their homes would have directly abutted the parking lot of the new Fallbrook project. One of the families was at the meeting at Fallbrook where the design members and Fallbrook members had no problems or issues stating the project will not change, all the trees will be cut down on the land, the parking lot and building area will be brought to within 25 feet of property lines. Blasting will occur for several months during excavation, construction noise, traffic will increase causing more stress and agitation. It was clearly stated by the representatives of Fallbrook LLC. our neighborhood will have no problems with this in 2-3 years and would accept it. This has been causing significant stress in the area.

Safety

Several areas of concern will be noted here, but the list is substantially larger. General Construction, traffic both immediate and future, fire and rescue, will be addressed. Topics such as hazardous materials, hazardous waste, sewage will be discussed at a later times.

General construction combined with added traffic will increase potential for accidents. Some adults walk the paths out back with their dogs and children. There are children who now play in the wooded area behind the homes. Flammables, construction equipment, explosives, are just a few concerns.

Construction traffic will increase on Ray St with the entry to the Fallbrook LLC designers and staff state will be off of that street below a blind hill. Traffic coming in from Allen Ave will have a very high potential for accidents to occur at the entrance to the facility due to that very blind hill. Traffic on Maine Ave and side streets will increase due to traffic flow traveling northbound on Washington Ave, they will do what most travelers do, cut through to avoid Allen Ave. Unless the city of Portland authorizes the reduction of the hill prior to the new Fallbrook entry I feel there will be significant liability if the city approves this entry. I know I will be the first to testify that the city has been warned about this. Fallbrook Condominiums has already stated they do not want any of the construction or future employees or visitor traffic to travel on Merrymeeting Drive.

After the construction is completed work day traffic in and out of the facility using the proposed roadway will cause the same safety issue as construction equipment. This was brought to the engineers and staff at the Fallbrook meeting in February. Their reply was there was not going to be that much employee or visitor traffic in or out. After prompting for estimates for employees daily it was between 50-70 during the day, this does not

count the night and middle shift staff, or visitors to the facility. When this was broached the only response given was “They can take public transportation”. I would like to point

out the increased traffic concern is not only by employees and guests, but also by delivery trucks and such that deliver at different times of day and night.

Fire and Rescue will have a traffic flow and safety concern. In the event of a large-scale fire or alarm numerous pieces of fire apparatus will be called to the facility to handle an emergency. The only entrance being that off of Ray St and below a blind hill. The road leading to the facility will not be adequate to handle these apparatuses. It would be prudent to have the facility look at a different entry off of Washington Ave where entrance and egress is easier and safer for everyone involved.

Increase in drainage issues and Mosquito's

Currently the undeveloped land absorbs most of the water. Houses along the border of the proposed building area do have some flooding but is fairly well controlled by the make up the property. The proposed building site will remove most of the trees and land mass and replace it with a building or tarred section of driveway that will hold at least 90 or more vehicles. This will increase the potential for large amounts of run off that would normally be absorbed by the forested area. Engineers and staff from the Fallbrook LLC project stated that run off ponds would be used to control this. They could not effectively answer where that water would be directed afterward. They were also asked how the potential of increased mosquito habitat would be handled. The answer was that was not their concern.

Wildlife and Wetlands

This area has a population of deer and fawns, fox, coyotes, racoons and their kits, hawks, owls, turkeys, ducks and ducklings, bats (that eat the mosquitos), tree frogs, migratory birds, and the list goes on. Removing this environment will significantly impact the ecological balance of the wildlife that calls this home. There is nearly 1 acre of wetlands on the property that the designers have stated they will build over, there are vernal pools, along with streams both above and below ground. Removal of this land will not only impact the environmental balance but will also cause more noise pollution currently abated by the trees and current land configuration

Housing Values

Speaking to real estate agents, building this facility in the manner that is proposed will affect house and property resale later with a 5-10 percent reduction in value.

There are significant more issues that can be addressed by this letter, ie zoning and such but I will stop at this time. I will ask the planning board to review this letter along with

letters and emails from the rest of the neighborhood and ask yourselves, would you want this in your back yard? Most of us do not.

My wife and I hope the Portland Planning Board will closely review the project and make a wise and prudent decision on its outcome. Review of the plans for the project and also looking at the existing St Josephs Manor as an alternative building site would make more financial, ecological,

and safety sense. The land there is cleared, there is a safe access to Washington Ave, and a building exists at that location already.

Thank you for your attention in this matter. We request that this e-mail be placed into the public record for the review for this site.

Mike and Deb Denbow
69 Florida Ave, Portland, Maine
207-899-0053 (mdenbow@maine.rr.com)

Merrymeeting Drive - 60 (Fallbrook Commons)

Michaela Veillette <michveillette@gmail.com>

Feb 25, 2020 2:09 PM

Posted in group: **Planning Board**

To Whom It May Concern,

I am writing against the proposed Site Plan PL-000925-2019 - Main Parcel 400 D023001 - 60 Merrymeeting Drive.

This proposed facility would have direct **negative** impacts on our neighborhood:

- Increasing traffic flow
- Impact the surrounding wildlife and ecological value of the land
- Lower the value of our homes
- Reduce residential privacy
- Increased light pollution

As part of the North Deering community, I ask that you remain mindful of our neighborhood's best interests by voting against this request.

Sincerely,

Michaela Veillette
72 Florida Ave, Portland, ME 04103

Merrymeeting Drive - 60 (Fallbrook Commons)

Michaela Veillette <michveillette@gmail.com>

Mar 12, 2020 9:46 AM

Posted in group: **Planning Board**

To Whom it May Concern,

I am writing against the proposed Site Plan PL-000925-2019 - Main Parcel 400 D023001 - 60 Merrymeeting Drive.

This proposed facility would have direct negative impacts on our neighborhood:

- Increasing traffic flow
- Impact the surrounding wildlife and ecological value of the land
- Lower the value of our homes
- Reduce residential privacy

As part of the North Deering community, I ask that you remain mindful of our neighborhood's best interests.

Sincerely,

Michaela Veillette
72 Florida Ave, Portland, ME 04103

Fwd: Fallbrook Project North Deering

Andrew Tufts <atufts@portlandmaine.gov>
To: Jennifer Munson <jmy@portlandmaine.gov>

Wed, Feb 26, 2020 at 3:00 PM

----- Forwarded message -----
From: <MDENBOW@maine.rr.com>
Date: Mon, Feb 24, 2020 at 12:12 PM
Subject: Fallbrook Project North Deering
To: atufts@Portlandmaine.gov <atufts@portlandmaine.gov>

Thank you Mr. Tufts for speaking with me today- you were very informative and helpful.

As you may remember our conversation today surrounded the proposed project off of Ray Street by Fallbrook Properties, LLC and their 90 Bed Skilled Nursing Facility that is proposed to be built. Some of us in the neighborhood received notice of a meeting with the engineers and facility on week prior to the meeting date, some did not receive any notice. At this meeting the engineers explained their plan of building, starting in June, the intent to cut all of the tress located on the property down, their intent to build and place parking lots and building up to the 25 foot set back, entrance to the facility to be placed on a very hazardous location at the base of a hill on Ray Street, and their lack of concern for the integrity of the neighborhood. As you may suspect the neighbors and people at the meeting were not pleased with the proposal.

Due to the environmental impact of the project, concern for loss of property values due to the type and size of the project (Minimal of 5-10 percent loss), traffic safety, and overall apparent disregard for the abutting neighbors may of us are extremely upset with this proposal. If possible I would like to be advised of any upcoming meetings with the city planning committee well in advance so the neighborhood may participate and view their concerns and opinions. I would also like to have the contact person that I may sent a FOIA (Freedom of Information Act) request to if needed.

I really do appreciate you help in this.

Thank you again.

Mike Denbow

69 Florida Ave, Portland, Maine 04103

mdenbow@maine.rr.com

207-899-0053

--
Andrew Tufts
Planner
Planning and Urban Development Department

389 Congress Street 4th Floor
Portland, ME 04101
atufts@portlandmaine.gov
(207) 874-8724

Fallbrook Project North Deering

MDENBOW@maine.rr.com <MDENBOW@maine.rr.com>

Apr 26, 2020 10:14 AM

Posted in group: **Planning Board**

Hello Andrew,

I hope you have been well, safe, and not out and about in public. I have been watching the Planning board agenda for the Fallbrook Project to be announced. There have been no notifications at all about the date and time of the meeting. I have been noticing orange tape on some of the trees bordering the properties that will be directly effected by this project, the ones with parking lots going right up to their property lines. MANY in our neighborhood WANT to make sure that our voices and concerns are not only listened to but acted upon. We do not want to miss a meeting at all, we do not want the meeting to suddenly appear on the agenda the day before it happens, and we want to be prepared for it.

I have several questions in regard to this-

- 1) How much notice will be given for the meetings for Falbrook planning board/public involvement and monitoring
- 2) How will the public be notified of these meetings and insure that we as a neighborhood have plenty of notice to prepare for them
- 3) Can Fallbrook or its designers or contractors begin to build or prepare for the project before any approval is given by the planning board and if so, how much can they do.
- 4) Neighborhood recourse if the Fallbrook project starts w/o consent of the planning board
- 5) Zoning questions- who do we speak to to insure the project falls under the proper zoning- looking at the zoning area, I do not believe it does.
- 6) Where the meetings may occur on Zoom, what is the max participants the meetings may have. I want to make sure that all who have a say in the matter, who want to speak or attend, may do so.
- 7) Where can I find information on who actually is currently sitting on the planning board and who will be making decisions about this project.

I appreciate the assistance you gave to me when this first started. I know you are probably buried in upcoming events. Stay safe, stay well.

Mike Denbow
69 Florida Ave, Portland Maine
mdenbow@maine.rr.com
207-899-0053

Fallbrook Properties, LLC Plan Number PL-000925-2019

Paul Cournoyer <setsail34@gmail.com>

Mar 6, 2020 3:14 PM

Posted in group: **Planning Board**

Hi Andrew,

RE: Fallbrook Properties, LLC Plan Number PL-000925-2019

We are residents of Fallbrook Condominiums located on Merrymeeting Drive, which is the location of the proposed 90 bed facility at 60 Merrymeeting Drive. We attended the February 18th informational meeting hosted by Fallbrook Properties and Sebago Technics. Here are our comments relative to the proposed project, which we ask are taken into consideration during the City's review of the proposal. We understand that a public hearing will be scheduled in the near future but we will be on travel for awhile and may not be able to attend:

- Our understanding is that Fallbrook Properties intends to continue to utilize Merrymeeting Drive as the main entrance for Fallbrook Woods and the new entrance across from Nevada Avenue as the main entrance to Fallbrook Commons. If so, we disagree with this approach - the sole primary entrance for both facilities should be across from Nevada Avenue and Merrymeeting Drive should be the service/emergency vehicle ingress access.
 - This is a concern based on the estimate of ~100 employees who will be employed at the facility and using an already heavily utilized private road for vendor vehicles, emergency vehicles and increased visitor vehicles
 - While the intent is for people going to Fallbrook Commons to use the new entrance, those coming down Ray Street from Allen Ave Ext will use the first entrance road they see, which will be Merrymeeting Drive. This alone will increase the traffic volume on Merrymeeting Drive.
 - A traffic mitigation plan for Merrymeeting Drive needs to be developed to ensure the safety of the residents of Fallbrook Condominiums who use this road as the sole entrance to our homes as well as for recreational walking, bike riding and dog walking.
 - As noted above, Merrymeeting Drive is a private road and is not maintained by the city of Portland. The increased usage of the road, with the development of Fallbrook Commons, is beyond the original intent and among other things will lead to increased road degradation. Additionally, there is an increased risk of liability if a property or personal injury were to occur on our private road

Additional traffic concerns:

- Years ago the city posted a sign stating 'No Trucks' at the beginning of Ray Street on the Allen Ave Ext end. We assume this is an attempt to reduce the amount of commercial cut through traffic that vehicles use as an alternative to get from Washington Avenue to Allen Ave Ext. Ray Street, and all of the side streets off of it, are residential and minimizing excessive traffic is paramount. With the proposed Fallbrook Commons project, is it the city's intent to re-classify Ray Street as non-residential and remove that signage and thereby allowing heavy truck usage? If that is not the intention, what is the enforcement plan to ensure commercial traffic doesn't use Ray Street to the excess?
- Several years ago the city installed Stop signs at the intersection of Merrymeeting Drive and Ray Street as a 'traffic calming' effort. As residents who are in clear view of this intersection it is apparent that a majority of drivers ignore the stop signs and speed right through the intersection. This includes commercial vehicles, city trash trucks and city school buses. This creates more of a hazard than not having the signage there.
 - As a result of drivers ignoring the Stop signs, vehicle speed on Ray Street often exceeds the posted 25MPH limit. Vehicles ignoring the signs and traveling southeast on Ray Street approach the hill at an increased speed, crest the hill and continue down it past the intersection of Nevada Avenue and the proposed main entrance to Fallbrook Commons. As the new main entrance to the facility will be located at the base of this hill, it will create an unsafe condition for vehicles exiting the entrance as well as for the school children who are dropped off by the city buses at Merrymeeting Drive and have to walk on Ray Street. As there are no sidewalks in this area, the safety aspect is compounded. The location of the new main entrance creates a 'blind entrance' hazard.
 - Fallbrook Properties and Sebago Technics stated they have assessed the traffic impact at the new proposed entrance and found it acceptable. However, no study has been demonstrated for the overall neighborhood traffic and safety impact. The City of Portland should assess the overall traffic situation and work with Sebago to improve an already unsafe traffic condition.
- Public transportation:
 - There is currently no year round public bus transportation on Ray Street. During the school year the city buses stop along Ray Street (and in front of Merrymeeting Drive) in the morning and in the afternoon primarily to pickup/drop off students. This service is open to residents only during those scheduled times.
 - The current location of the St. Joseph's facility is ideal for workers and visitors to utilize the city of Portland bus system as there is currently a bus stop on Washington Avenue at the entrance to St Joseph's

- The new location of Fallbrook Commons does not afford this option for employees and visitors as there is no access point off of Washington Avenue and no year round public transportation on Ray Street, as mentioned above.
 - This is a disservice to those employees of Fallbrook Commons who for financial reasons rely on public transportation
- Alternative location:
 - Has Fallbrook Properties/Sebago Technics considered expanding/renovating the current St. Joseph's Manor site, which already has the infrastructure, vehicle entrance off of Washington Ave and public transportation availability in place?
- Environmental impact:
 - Has an impact assessment been conducted to determine if there'll be any detrimental impact of water runoff to the Fallbrook watershed impacting wildlife, flora and eventually the Back Bay watershed?

Thank you for your consideration of these points during the Planning Board's review of the proposed project.

v/r,
Paul & Kym Cournoyer
Fallbrook Condominiums
Portland, Maine

Re: PL-000925-2019

Paula Urbach <nurseurbach@gmail.com>

Feb 21, 2020 12:10 PM

Posted in group: **Planning Board**

Hi Jennifer,

I would like to add that after seeing the plan for this business project, my concerns are amplified. This building is massive and totally inappropriate for an area designated for single family residences. They are requesting to build on a hill, which would mean that the structure would dominate the landscape. Light pollution and noise pollution would be a problem. Additionally the construction would take 2 yrs, clear-cutting and demolishing the natural area, which would be a major aggravation to anyone living in the area.

Thank you, Paula Urbach

On Wed, Feb 19, 2020 at 11:58 AM jmy <jmy@portlandmaine.gov> wrote:

Hello,

Thanks for your email. We appreciate the time you have taken to offer your thoughts, and will include your comments in the materials and as part of the public record.

If you have any questions, please contact our office.

Jennifer Munson, Office Manager

jmy@portlandmaine.gov | (207) 874-8719 | Fax (207) 756-8258

City of Portland, Department of Planning and Urban Development

[389 Congress St., 4th Floor, Portland, ME 04101](#)

On Tuesday, February 18, 2020 at 2:52:24 PM UTC-5, Paula Urbach wrote:

Dear Planning Board Members,

I am writing with concern regarding an application of construction proposed by Fallbrook Senior Care Development, LLC. I received notice that this company is applying for a permit to amend the Site Location of Development Act and intending to file a Natural Resource Protection Act.

As a resident of Portland, North Deering neighborhood, I have serious concerns about these proposed changes. Any construction in the area would severely affect my health and my wellbeing. The woods provide valuable fresh air, oxygen, and windbreak, as well as invaluable peace and quiet. The woods are home to many flocks of migratory songbirds and beneficial insects, woodpeckers, hawk, deer, fox, reptiles, and amphibians. I believe the area in discussion serves as a greenway for the wildlife and allows the wildlife to function normally and maintain their health. Many people enjoy walking through the woods, which connects to Portland Trails areas such as Pine Grove. Destruction of these woods would encroach on wildlife habitat, with the result that the displaced fauna would likely become a nuisance in the residential neighborhood.

This application should be rejected on the grounds that the owner has already built to capacity his property with a concentrated living facility and condominiums. Overdeveloping this area would lead to more crowding, noise, burden on tax-maintained infrastructure, and could negatively affect the health, quality of life, and property values of the community. This is a residential area of single-family homes. The proposed business is not appropriate for this area and construction of this scale would profoundly change the landscape. I have serious concerns about this proposal and feel that more information on all outcomes is needed.

-- Thank you,
Paula Urbach, PMH-NP

781-304-8656

Notice: Under Maine law, documents - including e-mails - in the possession of public officials or city employees about government business may be classified as public records. There are very few exceptions. As a result, please be advised that what is written in an e-mail could be released to the public and/or the media if requested.

--

Paula Urbach, PMH-NP

To: City of Portland, Planning and Development Office

From: Peter Minvielle
25 Merrymaking Drive

Re: Site Location for Fallbrook Commons

Parcel: 400D 023001

Attached please find my more significant conclusions as to the proposed "campus" location for Fallbrook Commons, the successor nursing care facility to St Joseph's Manor.

I have reduced my comments / concerns to a minimum.
(I was heading to a submittal of over 2500 words but curtailed my writing in order to meet time constraints).

I also wish to acknowledge and thank staff at Portland's Planning Department and Maine's Department of Environmental Protection as to the source(s) for public information and as to the review process itself.

Re: Site Location for Fallbrook Commons

Parcel: 400D 023001

Major Credits

The site, grading, landscape, erosion and remediation plans, etc. are amazing in scope and detail. (Would that the residents of Florida Avenue have drier backyards!)

A Concern

The internal vehicle flow anticipated at the two sites will depend almost entirely as to how well such traffic separation is enforced. Otherwise drivers (employees, visitors, and suppliers, etc.) will choose exits/entrances at their convenience and there will not be the orderly and controlled flow and parking suggested in the proposal. Are there enforcement plans?

Major Concerns

The submittal seems to assume there will be no or very little impact/interaction between the proposed Fallbrook Commons and its neighbors, with the exception of Fallbrook Woods. In the latter case both Fallbrook institutions see a synergistic effect. Indeed one might ultimately see/describe the setting as a nursing care "campus."

Was the public informed that this "campus" would be de facto the second or third largest nursing care facility (by combined bedcount/occupancy) in Cumberland County?

Given such large, prominent, regional and at least somewhat "public" institutes (St Joseph's Manor, Fallbrook Woods, and now also the proposed Fallbrook Commons), one would think that there would have been some sort of "open public" presentation/discussion. After all the project is already planned out even to the flower color of certain plantings... Certainly not in the spirit of the healthcare.

RE: Site Location for Fallbrook Commons

Parcel: 400D 023001

planning and development legislation.

Further, to the best of this writer's knowledge, none of the local Portland area daily or weekly publications (or radio and TV media) have been notified of such major changes or have, for some unknown reason, chosen to remain silent. Yet the project is proposed to be completed by the end of 2021...

An Overriding Concern

While I have many concerns at various levels as to the proposed location of Fallbrook Commons, my biggest concern is safety. According to 2 November 12, 2019 report from the landscape architect, there are "no threats" to public safety.

It appears that these words might apply only to the infrastructure within the boundaries of the proposed facility and do not account for any impact of any increased vehicular traffic on City streets, in this case the intersection with and the traffic on Ray St. I conservatively estimate there would be 44,000 to 66,000 entrances/exits each year (all new to the Ray St traffic count). And here comes the scary part... Due to the side-saddle shape of Ray Street's hill, every car that leaves/enters on the new road would be potentially within or activating a blind spot for another driver(s), with the exception of the driver heading up Ray St. towards Allen Ave from the Maine Ave plain.

Ray St above Florida Avenue is already a dangerous street (likewise from Allen Ave): a poorly designed, well-outdated, low visibility, pre-Eisenhower macadam with water flow/drainage frequently crossing the street from one side to the other, no shoulders, little sidewalk coverage, and still used by school kids, bicyclists, dogwalkers, and too many drivers who have no regard for stop signs, speed limits, etc.

As indicated above, safety is my first concern. If nothing else comes from my readings/writings, the situation begs for an unbiased traffic engineering study. The neighborhood and city deserve such a study.

Thank you for the opportunity to express my concerns.

Donna

A Letter Regarding the Fallbrook Nursing Home Project

Sabrina Christian <schristian026@gmail.com>

May 26, 2020 5:21 PM

Posted in group: **Planning Board**

Dear Portland Maine Planning Board,

I own a home at 110 Florida Ave in Portland. I purchased my house 4 years ago and appreciate it so much for its location and neighborhood quality in this portion of Portland. The wooded land and wildlife that have been evident throughout my years here give this area a lovely, country atmosphere where you wouldn't know you were still in a city. This neighborhood is a mix of young and older adults, young families with small children, single adults, and retirees. I have highly enjoyed the sense of community which has been present, and have felt it to be a great place to live.

However, the recent notification and meeting with the proposed builders of Fallbrook LLC about a large-scale skilled nursing facility that will be built in the wooded section abutting our neighborhood has been quite a shock to all of us. We have of course been notified that Fallbrook LLC (with the cooperation of Maine Medical Center) has decided to build a facility and in doing so will completely remove the entire wooded section in the neighborhood, covering wet lands and placing parking lots up to the allowed distances from property lines.

Now families in the neighborhood have been quickly selling their homes to avoid the anticipated approval by city planning board for this immense construction project. They along with the rest of us feel this will not only change the neighborhood, but will have significant impact on land, housing values, drainage, wildlife, wetlands, noise, traffic, safety, and loss of community.

I am sure you have been receiving several versions of this letter from others, but I would like to state a few of the reasons why I personally highly oppose this project, as a member of this city and neighborhood, and as an environmentally-conscious citizen.

My first concern is fairly obvious, I'm sure. People's homes on Florida Ave would be directly abutted against the parking lot of this new project. In order to achieve this, first there will be continued construction and blasting for months during excavation of cutting down all of the trees. Construction noise and traffic will take over our once-quiet and calm neighborhood, one of the things I love most about it. This will cause stress for all of us who will be forced to directly watch our once-wooded backyards be completely decimated and replaced with concrete and bricks. If this project goes through, I will undoubtedly begin considering also selling my home to move to a new quiet, peaceful neighborhood without a parking lot in my backyard - something I never would have considered before learning of this project. The impending decisions on this project have undoubtedly brought significant stress to myself and my neighbors, even before any construction has begun.

There are a multitude of environmental issues that I would also like to note. The undeveloped land in question is complete wetlands and absorbs most of the water. Currently many of our houses along the border of the proposed building area do have some flooding, but this is mostly mitigated by the property makeups. However the proposed building plan will remove all of the trees and land mass and replace it with a building and large tarred section of driveway - this will significantly increase the potential for large amounts of runoff that would normally be absorbed by the forested area. Furthermore, removing all of the trees which currently absorb wind and severe weather could also cause potential further problems for the structures/trees once they are no longer there to absorb these impacts. Will any of us with our remaining properties have any recourse should this negatively impact our homes in such a way? Overall it does not seem that this area of wetlands would be the most prudent, efficient place to build.

Just as importantly, this area has a vast variety of wildlife who live in and among this land. There are deer and fawns, foxes, coyotes, raccoons and their kits, hawks, owls, turkeys, ducks and ducklings, bats, tree frogs, migratory birds, and the list goes on. Simply in my own backyard, just recently I witnessed a family of turkeys roaming around. I have also personally seen a groundhog, raccoons, deer, squirrels of course, not to mention the variety of lovely birds, including hummingbirds! Living in the city, this is invaluable for me. Removing this environment will significantly impact the ecological balance of the wildlife that lives in this area. I will be heartbroken for all of the lost wildlife and still-wild area that still exists even within our relatively well-populated neighborhood.

Finally, this project will cause reduction in value for those of us still living here. Per neighbors who have spoken to real estate agents, building this facility in the proposed manner is also going to negatively affect property values, causing a 5-10% reduction in value. Again, if this project is approved I will seriously have to consider whether I want to remain in this location - a true tragedy for me as I had hoped to own this home for years to come.

Of course I am not an expert, but to me it seems that there might be another space of land better suited to this project, which won't need to be squeezed into the midst of a previously peaceful neighborhood. The area is complete wetlands; surely it would be more cost effective and efficient to build at a better-suited location (which wouldn't also negatively impact a significant number of people and the quality of their homes)?

Please consider, if this were your backyard, would you want the beautiful, wild woods and all of the wildlife that comes with it to be replaced by the removal of trees, and cold, hard concrete and buildings? This project will tear apart our wooded backyards, which in my case was one of the primary reasons for purchasing a home in this location to begin with.

I sincerely hope the Portland Planning Board is closely reviewing this project and will make a wise, prudent, and honestly - compassionate - decision on its outcome. Perhaps there is an alternative building site which makes more financial and ecological sense, with not as many significant negative ramifications. Or perhaps, if we cannot save our neighborhood from this decision, some compromises can be made which would allow us at least retain a portion of this important wooded area.

If you read this to the end, thank you so much. I believe you can see many valid reasons (and even many others which I have saved for the sake of length) to reconsider this devastating project in this location. I appreciate your attention to this matter and I request that this e-mail be placed into the public record for the review for this site. Please do not hesitate to reach out if needed.

Best regards,

Sabrina Christian
110 Florida Ave, Portland ME
schristian026@gmail.com



June 4, 2020
18347

Andrew Tufts
Department of Planning and Urban Development City of Portland
4th Floor, City Hall
389 Congress Street
Portland, ME 04101

**RE: Response to Comments for Fallbrook Commons
Parcel ID: 400 D 023001**

Dear Andrew:

A neighborhood meeting for the Fallbrook Commons project was held on February 18th at Fallbrook Woods, approximately 30 of neighbors attended the meeting. We have made a number of revisions to the plans based on comments and concerns raised at the meeting. These concerns were primarily related to the proposed entrance off of Ray Street, the parking areas at the existing facility (Fallbrook Woods), and pedestrian access along Merrymeeting Drive.

The applicant proposes the following changes to the project:

- The proposed access from Ray Street opposite Nevada Avenue has been revised to be an Emergency Only Entrance. This emergency access driveway will be gated with a Knox box for emergency access only to both the proposed and existing facilities.
- The primary entrance to the proposed facility will be from the Merrymeeting Drive, through the existing facility.
- Sidewalks have been added along Merrymeeting Drive for pedestrians and the existing roadway will be repaved to improve its condition
- The parking area at the existing facility (Fallbrook Woods) will be modified and expanded to relocate existing on street parking from Merrymeeting Drive to the facility's parking lot.

We have included revised sections of the original application to reflect the project design, revised plans, and offer the following response to staff comments received in February 2020.

Response to Comments- Planning and Urban Development

Comments from- Mike Tremblay: *"There is a crest vertical curve on Ray Street approximately 200 feet northwest of the site driveway. Vehicles traveling along Ray Street may not be able to see a vehicle entering or exiting the site driveway, depending on the speed of the approaching vehicle and weather conditions. The stopping sight distance for a vehicle traveling 30mph is 200 feet, assuming a flat roadway surface. The marked speed limit on Ray Street is 25mph, but prevailing speeds may be higher. The Applicant should provide sight distance analysis at the site driveway. If sight distance is found to be insufficient, the applicant should provide solutions."*

Response: Sebago Technics traffic engineer has measured sight distance to be 270' from the Ray Street entrance exceeding the requirements for the posted 25 mph speed limit and a 30MPH assumed speed. The applicant has revised the plans to make the entrance off Ray Street opposite Nevada Avenue a gated

emergency fire entrance only. The applicant proposes to use Merrymeeting Drive as the primary entrance to the proposed facility. Additionally, the applicant proposes to improve the pedestrian and vehicular access along Merrymeeting Drive by repaving the road and adding a sidewalk from Ray Street to the new facility as shown on the plans attached to this submission.

Comment from- Mike Tremblay: *"In the bay of parking immediately outside the main entrance to the site, there are accessible parking signs that appear to be installed directly into the ground between parking spaces. This would appear to be challenging to plow/maintain and may result in damage/removal of the signs. A raised area where these signs could be mounted is suggested."*

Response: The applicant is proposing signs on bollards within the parking area to protect them from plowing / mechanical damage. A detail further of the sign on bollard is provided on sheet 16.

Comment from- Mike Tremblay: *"There are 92 parking spaces proposed on-site. There is little information provided about the anticipated parking demand. Given that the site has significant wetlands impacts, right-sizing the parking lots is of paramount importance. The applicant should provide justification for the parking supplied on-site."*

Response: Parking for 92 vehicles is proposed to accommodate the anticipated staffing and visitor requirements of the facility and is based on the applicants experience at similar facilities of this size and use. The facility is expected to employ up to 113 Full time equivalent (FTE) employees as submitted in projections with the Maine Department of Health and Human Services. The staff occurs in shifts. with 55 employees during the day shift, 25 during the evening shift and 10 employees during the night shift. The applicant's experience has been that providing parking for day shift employees with an allowance of approximately one visitor space per 2.5 beds meets the requirements for a typical day use for family visitors, and specialty service vehicle needs at their other facilities.

Comment from- Mike Tremblay: *"Of the 92 proposed parking spaces, 4 are universally accessible. ADA guidelines require 10% of spaces to be accessible for outpatient medical facilities, and 20% of spaces to be accessible for mobility rehabilitation facilities. Understanding that the proposal is for an assisted living/nursing care facility, and thus does not fall under one of the above categories, the number of accessible spaces provided on-site should be considered carefully, as the minimum amount required may not be appropriate."*

Response: This facility is not an outpatient medical facility or a rehabilitation facility, the parking count meets the ADA 208.2.3 Residential Facilities Standards. Residents of this facility will not have cars, leaving all parking spaces to be for guests, employees, and other Non-residents (208.2.3.3). This section refers the requirements back to the standard ADA parking table (Table 208.2) requiring 4 spaces. All ADA spaces at Fallbrook Commons will be Van Accessible.

Comment from- Mike Tremblay: *"None of the accessible spaces are provided in the lower satellite parking area containing the majority of parking spaces. It appears these spaces serve a different level of the building than the main entrance. The applicant should consider the appropriateness of providing a portion of, or additional, accessible spaces in the lower lot. Note that this lot appears to be closest to the courtyard area, which could be the best area for a resident to wait for a relative to pick them up, etc. in this case, the parking area closest to the courtyard would be the lower parking lot."*

Response: All ADA spaces have been located nearest the primary entrance to the building for employees, guests, and visitors. All public access to the building is controlled through the main entrance. The courtyard entrances are for egress and maintenance/staff access only and are not open to visitors or residents from the outside the front door is the primary entrance for staff and is the only entrance for visitors.

Comment from- Mike Tremblay: *"None of the six parking spaces serving the service entrance, presumably provided for employees, is accessible. "*

Response: The service area is for contractors and facilities maintenance vehicles. Employees and other visitors will use the upper lots.

Comment from- Mike Tremblay: *"Understanding that there is a significant grade challenge, and that this area is currently proposed to be landscaped, the apparent desire line between the courtyard and the lower parking area is a direct line between the courtyard and lower parking area. The Applicant should consider providing a staircase serving this desire line, in addition to the accessible route already proposed. "*

Response: The courtyards are not accessible to the public from the outside. The gates are for egress and maintenance access only. The desire line from the parking areas will be to the front door of the facility.

Comment from- Mike Tremblay: *"The intersection of the site driveway with the internal driveway between sites appears to have two of the three legs under stop control. This is irregular and not recommended. An all-way stop, or partial stop control where only the site driveway has a stop sign, is recommended. "*

Response: The intersection has been revised to an all-way stop.

Comment from- Benjamin Pearson: *"2000-gallon external grease interceptor proposed. A junction manhole is required with channel where grease interceptor outlet connects to sanitary sewer. (See sheet 10 of 19) / Utility Plan 1. Circled in red below. "*

Response: Sewer Man Hole (SMH) 1 has been added to Utility drawing 2.

Comment from- Benjamin Pearson: *"No construction management plan narrative - map provided. A CMP using newest template will be required with building permit submittal. "*

Response: A construction management plan, and map have been provided as section 37 in our application documents. Uploaded 01.08.2020. We have also uploaded this plan to the Construction Management Plan section of E-plan for clarity.

Response to Comments- Lauren Swett from Woodard and Curran

Comment from- Lauren Swett: *"The project is required to conform with Maine DEP Chapter 500 Stormwater Regulations as well as with the City of Portland Section 5 of the Technical Manual. Conformance with the Basic, General and Flooding Standards is required. "*

Response:

- Basic Standards – The Applicant has proposed erosion and sedimentation control measures in conformance with the Basic Standards.
- General Standards – The Applicant has proposed an under drained soil filter, gravel wetland, and roof drip edge filters to treat the proposed project area.
- Flooding Standards – The proposed project will not increase flows in the post-development condition, in conformance with the Flooding Standards.

Comment from- Lauren Swett: *"The Applicant should evaluate the steepness of some of their pipes. In particular pipes SD-21 and RD-4 are steep, due to the proposed change in grade. RD-1 is also relatively steep. Please consider potential velocity issues at the ends of these pipes. "*

Response: Given the relatively small tributary areas and corresponding flow rates we do not have a concern regarding the slopes at these locations. To address the concern, we have adjusted the grades of SD-12 at the upstream and downstream structures. We have revised the alignment of the roof drains and added connection/drop structures at the top of the slope to flatten the grade.

Comment from- Lauren Swett: *"Pipe SD-18 is missing from the Stormdrain Pipe Data tables. "*

Response: Pipe SD-18 has been added to the tables

Comment from- Lauren Swett: *"Wall drains are noted to be connected to CB-8. Please clarify the depth of these connections to verify that the pipe can connect to the structure with all of the other proposed stormdrain connections. "*

Response: Inverts for the wall drain inverts have been added to the labels. The wall drains enter above the site drainage pipes to accommodate the connection.

Comment from- Lauren Swett: *"Ability to serve confirmation will be required from utilities, including the Portland Water District for domestic and fire water services and the Department of Public Works for sewer. "*

Response: We have reached out to Portland Water District and are working with them on the sizing of the domestic, Fire, and Sewer services.

Response to Comments- Robert Bartels- PWD

Comment from- Robert Bartels: *"We are going to want to see the public water main extended through the site from Merrymeeting Drive to the entrance at Ray Street. The hydrant can then be public and the domestic service will not need a meter pit. Please update your design to show a public water main in an easement through the access drive. Please use the attached as reference. Connect the two 8" mains."*

Response: We have complied with this request. Changes will be shown on the next round of drawings.

Response to Comments- Jason Grant- Life Safety CEO

Comment from- Robert Bartels: *"The hydrant should be moved to somewhere in the vicinity of the arrow marked on the attached plan."*

Response: We have relocated the hydrant to the desired location. This change will be reflected on the next round of drawings.

Thank you for your time and consideration during your review. We look forward to the planning board workshop and continued feedback from staff.

Sincerely,

SEBAGO TECHNICS, INC.

A handwritten signature in black ink, appearing to read "Daniel M. Danvers". The signature is fluid and cursive, with a long horizontal stroke at the end.

Daniel M Danvers, RLA
Maine Licensed Landscape Architect

Cc: Daniel Maguire / John Orestis / Doug Gardner



STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION
17 STATE HOUSE STATION AUGUSTA, MAINE 04333-0017

DEPARTMENT ORDER

IN THE MATTER OF

FALLBROOK COMMONS	) NATURAL RESOURCES PROTECTION ACT
DEVELOPMENT, LLC	) FRESHWATER WETLANDS ALTERATIONS
Portland, Cumberland County	)
FALLBROOK COMMONS	) WATER QUALITY CERTIFICATION
L-11219-TE-H-N (approval)	) FINDINGS OF FACT AND ORDER

Pursuant to the provisions of 38 M.R.S. §§ 480-A–480-JJ, Section 401 of the Federal Water Pollution Control Act (33 U.S.C. § 1341), and Chapters 310, 315, and 335 of Department rules, the Department of Environmental Protection has considered the application of FALLBROOK COMMONS DEVELOPMENT, LLC with the supportive data, agency review comments, public comments, and other related materials on file and FINDS THE FOLLOWING FACTS:

1. PROJECT DESCRIPTION:

A. History of Project: In Department Order #L-11219-87-A-N, dated October 10, 1985, the Department approved the construction of 98 townhomes on an approximately 20-acre parcel of land off Ray Street in the City of Portland. Department Orders #L-11219-87-C-T and #L-11219-87-D-T, dated January 22, 1988 and April 3, 1989, respectively, transferred the original Order to new applicants. In 1989, only 25 of 32 townhomes proposed in phase I of the development had been constructed.

In Department Order #L-11219-87-E-A, dated December 28, 1992, the Department approved the conveyance of approximately 12.64 acres of the original parcel for the construction of a 27,600-square foot single-story assisted-care facility, known as Fall Brook Woods. Subsequent Department Orders include a transfer application that was filed and withdrawn in October 1992 and a condition compliance Order (#L-11219-87-G-C, dated April 7, 1992).

B. Summary: The applicant proposes to purchase approximately 8.24 of undeveloped land from the 12.64 acres authorized for development in Department Order #L-11219-87-E-A to construct a 90-bed nursing care center adjacent to Fall Brook Woods. The project site is located at the end of Merrymeeting Drive in the City of Portland. The proposed development includes a two-story, 58,197-square foot building, two courtyards, and two parking areas. A Site Location of Development Act (Site Law) major amendment permit is required for the proposed project. A Site Law permit application is being reviewed by the City of Portland under its delegated review authority, which was obtained subsequent to the Department's original Site Law approval in 1985.

The applicant is seeking Department approval under the Natural Resources Protection Act (NRPA) for the alteration of 38,461 square feet of freshwater wetlands to construct the proposed project. The proposed project is shown on a set of plans, the first of which is titled "Overall Wetland Impacts of Fallbrook Commons," prepared by Sebago Technics, Inc., and dated November 12, 2019, with a last revision date of May 15, 2020.

The applicant submitted a Notice of Intent (NOI #69983) to comply with the standards and requirements of the Maine Construction General Permit which was accepted by the Department on June 1, 2020.

C. Current Use of the Site: The project site is located on the undeveloped 8.24 acres of the original 20-acre parcel.

D. Public Comment: The Department received comments regarding the proposed project from several interested persons who live in the neighborhood where the project is proposed to be built. Concerns that were raised included several issues related to Site Law review, which were directed to the City of Portland. Several persons expressed general concerns with the project and its potential impacts to natural resources. No draft requests of the Department's decision were requested.

2. EXISTING SCENIC, AESTHETIC, RECREATIONAL OR NAVIGATIONAL USES:

The NRPA, in 38 M.R.S. § 480-D(1), requires the applicant to demonstrate that the proposed project will not unreasonably interfere with existing scenic, aesthetic, recreational and navigational uses.

In accordance with Chapter 315, *Assessing and Mitigating Impacts to Scenic and Aesthetic Uses* (06-096 C.M.R. ch. 315, effective June 29, 2003), the applicant submitted a copy of the Department's Visual Evaluation Field Survey Checklist as Appendix A to the application along with a description of the property and the proposed project. The applicant also submitted several photographs of the proposed project site and surroundings. Department staff visited the project site on March 12, 2020.

The proposed project is located in forested, freshwater wetland, which is not a scenic resource visited by the general public, in part, for the use, observation, enjoyment and appreciation of its natural and cultural visual qualities.

The Department determined that based on the nature of the proposed project and its location, there are no existing recreational or navigational uses of the resource that would be unreasonably impacted.

The Department finds that the proposed activity will not unreasonably interfere with existing scenic, aesthetic, recreational or navigational uses of the protected natural resource.

3. SOIL EROSION:

The NRPA, in 38 M.R.S. § 480-D(2), requires the applicant to demonstrate that the proposed project will not cause unreasonable erosion of soil or sediment nor unreasonably inhibit the natural transfer of soil from the terrestrial to the marine or freshwater environment.

The applicant submitted an acceptable erosion control plan, notes, and details for the project with NOI #69983 referenced in Finding 1. Given that the applicant intends to construct the project according to the plans, the project is not expected to be a significant source of sediment into the adjacent wetlands.

The Department finds that the activity will not cause unreasonable erosion of soil or sediment nor unreasonably inhibit the natural transfer of soil from the terrestrial to the marine or freshwater environment.

4. HABITAT CONSIDERATIONS:

The NRPA, in 38 M.R.S. § 480-D(3), requires the applicant to demonstrate that the proposed project will not unreasonably harm significant wildlife habitat, freshwater wetland plant habitat, threatened or endangered plant habitat, aquatic or adjacent upland habitat, travel corridor, freshwater, estuarine or marine fisheries or other aquatic life.

According to the Department's Geographic Information System database there are no mapped Essential or Significant Wildlife Habitats located at the site. The Maine Department of Inland Fisheries and Wildlife (MDIFW) reviewed the proposed project and confirmed that there are no Essential or Significant Wildlife Habitats at the project site.

In its comments, dated November 20, 2019, MDIFW noted that the Maine Endangered Species Act lists several species of bats as endangered or threatened. Because bats are likely to be found on the project site during the breeding season, MDIFW recommended that tree clearing be limited to the period when bats are not present. The applicant agreed to limit tree clearing outside of the months of June and July, the recognized pupping season for tree-roosting bats.

The Department finds that the activity will not unreasonably harm any significant wildlife habitat, freshwater wetland plant habitat, threatened or endangered plant habitat, aquatic or adjacent upland habitat, travel corridor, freshwater, estuarine or marine fisheries or other aquatic life provided that no tree cutting is conducted during the period of June 1 and July 31.

5. WATER QUALITY CONSIDERATIONS:

As discussed in Finding 3, the applicant proposes to use erosion and sediment control during construction to minimize impacts to water quality from siltation.

The Department does not anticipate that the proposed project will violate any state water quality law, including those governing the classification of the State's waters.

6. WETLANDS AND WATERBODIES PROTECTION RULES:

The applicant proposes to directly alter 38,461 square feet of forested, freshwater wetlands to construct the proposed project.

The *Wetlands and Waterbodies Protection Rules*, 06-096 C.M.R. ch. 310 (last amended November 11, 2018), interpret and elaborate on the NRPA criteria for obtaining a permit. The rules guide the Department in its determination of whether a project's impacts would be unreasonable. A proposed project would generally be found to be unreasonable if it would cause a loss in wetland area, functions and values and there is a practicable alternative to the project that would be less damaging to the environment. Each application for a NRPA permit that involves a freshwater wetland alteration must provide an analysis of alternatives in order to demonstrate that a practicable alternative does not exist.

A. Avoidance. An applicant must submit an analysis of whether there is a practicable alternative to the project that would be less damaging to the environment and this analysis is considered by the Department in its assessment of the reasonableness of any impacts. The applicant submitted an alternatives analysis for the proposed project completed by Sebago Technics and dated November 2019. The purpose of the project is to replace the nearby St. Joseph's Manor elderly care facility.

The no-action alternative was determined to be impracticable because it would not meet the project purpose.

The applicant conducted a survey of available properties that are large enough to accommodate the size of development necessary to make the project viable and in proximity to the existing Fall Brook Woods facility. Redevelopment of the existing St. Joseph's Manor property was dismissed because the current owner does not wish to have a replacement building constructed on that property. The selected parcel was the only property that met the applicant's development criteria.

The project site includes a wetland network that crosses the property. The applicant considered several design layouts. One alternative for development on this parcel included a larger single-story building, but this alternative was determined to be impracticable because the footprint of a larger building would result in greater wetland impact. The selected alternative, a two-story building, will result in the least amount of wetland alteration, while meeting the project purpose. Given the location of the protected natural resources on the site, some impact to the freshwater wetlands cannot be avoided.

B. Minimal Alteration. In support of an application and to address the analysis of the reasonableness of any impacts of a proposed project, an applicant must demonstrate that the amount of freshwater wetland to be altered will be kept to the minimum amount

necessary for meeting the overall purpose of the project. As noted above, wetland impacts were reduced by selecting a two-story building with a smaller building footprint. To further reduce wetland impacts, the applicant proposes to use roof drip edge filters and retaining walls, and side slopes in wetlands will be maintained at 2H:1V. Parking areas and service driveways are also located as close to the building as possible.

C. Compensation. In accordance with Chapter 310, § 5(C)(6)(b), compensation may be required to achieve the goal of no net loss of coastal wetland functions and values. The applicant submitted a functional assessment, dated December 17, 2019, that described the wetlands to be altered by the proposed project. The functional assessment documented that the primary functions and values of these wetlands would include floodflow alteration and sediment/toxicant retention.

The applicant proposes to make a contribution into the In-Lieu Fee program of the Maine Natural Resource Conservation Program in the amount of \$165,382.30. Prior to the start of construction, the applicant must submit a payment in the amount of \$165,382.30, payable to “Treasurer, State of Maine”, and directed to the attention of the In-Lieu Fee Program Administrator at 17 State House Station, Augusta, Maine 04333.

The Department finds that the applicant has avoided and minimized wetland impacts to the greatest extent practicable, and that the proposed project represents the least environmentally damaging alternative that meets the overall purpose of the project provided that prior to project construction, the applicant submits the In-Lieu Fee payment as described above.

7. OTHER CONSIDERATIONS:

The Department finds, based on the design, proposed construction methods, and location, the proposed project will not inhibit the natural transfer of soil from the terrestrial to the marine environment, will not interfere with the natural flow of any surface or subsurface waters, and will not cause or increase flooding. The proposed project is not located in a coastal sand dune system, is not a crossing of an outstanding river segment, and does not involve dredge spoils disposal or the transport of dredge spoils by water.

BASED on the above findings of fact, and subject to the conditions listed below, the Department makes the following conclusions pursuant to 38 M.R.S. §§ 480-A–480-JJ and Section 401 of the Federal Water Pollution Control Act (33 U.S.C. § 1341):

- A. The proposed activity will not unreasonably interfere with existing scenic, aesthetic, recreational, or navigational uses.
- B. The proposed activity will not cause unreasonable erosion of soil or sediment.
- C. The proposed activity will not unreasonably inhibit the natural transfer of soil from the terrestrial to the marine or freshwater environment.

- D. The proposed activity will not unreasonably harm any significant wildlife habitat, freshwater wetland plant habitat, threatened or endangered plant habitat, aquatic or adjacent upland habitat, travel corridor, freshwater, estuarine, or marine fisheries or other aquatic life provided that no tree cutting is conducted during the period of June 1 and July 31 and prior to the start of construction, the applicant makes a contribution to the In-Lieu Fee program as described in Finding 6.
- E. The proposed activity will not unreasonably interfere with the natural flow of any surface or subsurface waters.
- F. The proposed activity will not violate any state water quality law including those governing the classifications of the State's waters.
- G. The proposed activity will not unreasonably cause or increase the flooding of the alteration area or adjacent properties.
- H. The proposed activity is not on or adjacent to a sand dune.
- I. The proposed activity is not on an outstanding river segment as noted in 38 M.R.S. § 480-P.

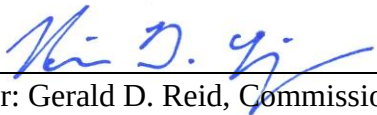
THEREFORE, the Department APPROVES the above noted application of FALLBROOK COMMONS DEVELOPMENT, LLC to construct a 90-bed nursing care center that includes a two-story, 58,197-square foot building with two courtyards and two parking areas as described in Finding 1, SUBJECT TO THE ATTACHED CONDITIONS, and all applicable standards and regulations:

1. Standard Conditions of Approval, a copy attached.
2. The applicant shall take all necessary measures to ensure that its activities or those of its agents do not result in measurable erosion of soil on the site during the construction of the project covered by this approval.
3. Severability. The invalidity or unenforceability of any provision, or part thereof, of this License shall not affect the remainder of the provision or any other provisions. This License shall be construed and enforced in all respects as if such invalid or unenforceable provision or part thereof had been omitted.
4. No tree cutting shall be conducted during the period of June 1 and July 31.
5. Prior to the start of construction, the applicant shall submit a payment in the amount of \$165,382.30, payable to "Treasurer, State of Maine", to the attention of the In-Lieu Fee Program Administrator at 17 State House Station, Augusta, Maine 04333.

THIS APPROVAL DOES NOT CONSTITUTE OR SUBSTITUTE FOR ANY OTHER REQUIRED STATE, FEDERAL OR LOCAL APPROVALS NOR DOES IT VERIFY COMPLIANCE WITH ANY APPLICABLE SHORELAND ZONING ORDINANCES.

DONE AND DATED IN AUGUSTA, MAINE, THIS 4TH DAY OF JUNE, 2020.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: 
For: Gerald D. Reid, Commissioner

PLEASE NOTE THE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES.

RLG/L11219HN/ATS#85782

FILED
June 5, 2020
State of Maine
Board of Environmental Protection



Natural Resources Protection Act (NRPA) Standard Conditions

THE FOLLOWING STANDARD CONDITIONS SHALL APPLY TO ALL PERMITS GRANTED UNDER THE NATURAL RESOURCES PROTECTION ACT, 38 M.R.S. §§ 480-A ET SEQ., UNLESS OTHERWISE SPECIFICALLY STATED IN THE PERMIT.

- A. Approval of Variations From Plans. The granting of this permit is dependent upon and limited to the proposals and plans contained in the application and supporting documents submitted and affirmed to by the applicant. Any variation from these plans, proposals, and supporting documents is subject to review and approval prior to implementation.
- B. Compliance With All Applicable Laws. The applicant shall secure and comply with all applicable federal, state, and local licenses, permits, authorizations, conditions, agreements, and orders prior to or during construction and operation, as appropriate.
- C. Erosion Control. The applicant shall take all necessary measures to ensure that his activities or those of his agents do not result in measurable erosion of soils on the site during the construction and operation of the project covered by this Approval.
- D. Compliance With Conditions. Should the project be found, at any time, not to be in compliance with any of the Conditions of this Approval, or should the applicant construct or operate this development in any way other the specified in the Application or Supporting Documents, as modified by the Conditions of this Approval, then the terms of this Approval shall be considered to have been violated.
- E. Time frame for approvals. If construction or operation of the activity is not begun within four years, this permit shall lapse and the applicant shall reapply to the Board for a new permit. The applicant may not begin construction or operation of the activity until a new permit is granted. Reapplications for permits may include information submitted in the initial application by reference. This approval, if construction is begun within the four-year time frame, is valid for seven years. If construction is not completed within the seven-year time frame, the applicant must reapply for, and receive, approval prior to continuing construction.
- F. No Construction Equipment Below High Water. No construction equipment used in the undertaking of an approved activity is allowed below the mean high water line unless otherwise specified by this permit.
- G. Permit Included In Contract Bids. A copy of this permit must be included in or attached to all contract bid specifications for the approved activity.
- H. Permit Shown To Contractor. Work done by a contractor pursuant to this permit shall not begin before the contractor has been shown by the applicant a copy of this permit.



DEP INFORMATION SHEET

Appealing a Department Licensing Decision

Dated: November 2018

Contact: (207) 287-2452

SUMMARY

There are two methods available to an aggrieved person seeking to appeal a licensing decision made by the Department of Environmental Protection's (DEP) Commissioner: (1) an administrative process before the Board of Environmental Protection (Board); or (2) a judicial process before Maine's Superior Court. An aggrieved person seeking review of a licensing decision over which the Board had original jurisdiction may seek judicial review in Maine's Superior Court.

A judicial appeal of final action by the Commissioner or the Board regarding an application for an expedited wind energy development (35-A M.R.S. § 3451(4)) or a general permit for an offshore wind energy demonstration project (38 M.R.S. § 480-HH(1)) or a general permit for a tidal energy demonstration project (38 M.R.S. § 636-A) must be taken to the Supreme Judicial Court sitting as the Law Court.

This information sheet, in conjunction with a review of the statutory and regulatory provisions referred to herein, can help a person to understand his or her rights and obligations in filing an administrative or judicial appeal.

I. ADMINISTRATIVE APPEALS TO THE BOARD

LEGAL REFERENCES

The laws concerning the DEP's *Organization and Powers*, 38 M.R.S. §§ 341-D(4) & 346; the *Maine Administrative Procedure Act*, 5 M.R.S. § 11001; and the DEP's *Rules Concerning the Processing of Applications and Other Administrative Matters* ("Chapter 2"), 06-096 C.M.R. ch. 2.

DEADLINE TO SUBMIT AN APPEAL TO THE BOARD

The Board must receive a written appeal within 30 days of the date on which the Commissioner's decision was filed with the Board. Appeals filed more than 30 calendar days after the date on which the Commissioner's decision was filed with the Board will be dismissed unless notice of the Commissioner's license decision was required to be given to the person filing an appeal (appellant) and the notice was not given as required.

HOW TO SUBMIT AN APPEAL TO THE BOARD

Signed original appeal documents must be sent to: Chair, Board of Environmental Protection, 17 State House Station, Augusta, ME 04333-0017. An appeal may be submitted by fax or e-mail if it contains a scanned original signature. It is recommended that a faxed or e-mailed appeal be followed by the submittal of mailed original paper documents. The complete appeal, including any attachments, must be received at DEP's offices in Augusta on or before 5:00 PM on the due date; materials received after 5:00 pm are not considered received until the following day. The risk of material not being received in a timely manner is on the sender, regardless of the method used. The appellant must also send a copy of the appeal documents to the Commissioner of the DEP; the applicant (if the appellant is not the applicant in the license proceeding at issue); and if a hearing was held on the application, any intervenor in that hearing process. All of the information listed in the next section of this information sheet must be submitted at the time the appeal is filed.

INFORMATION APPEAL PAPERWORK MUST CONTAIN

Appeal materials must contain the following information at the time the appeal is submitted:

1. *Aggrieved Status.* The appeal must explain how the appellant has standing to maintain an appeal. This requires an explanation of how the appellant may suffer a particularized injury as a result of the Commissioner's decision.
2. *The findings, conclusions, or conditions objected to or believed to be in error.* The appeal must identify the specific findings of fact, conclusions regarding compliance with the law, license conditions, or other aspects of the written license decision or of the license review process that the appellant objects to or believes to be in error.
3. *The basis of the objections or challenge.* For the objections identified in Item #2, the appeal must state why the appellant believes that the license decision is incorrect and should be modified or reversed. If possible, the appeal should cite specific evidence in the record or specific licensing requirements that the appellant believes were not properly considered or fully addressed.
4. *The remedy sought.* This can range from reversal of the Commissioner's decision on the license or permit to changes in specific permit conditions.
5. *All the matters to be contested.* The Board will limit its consideration to those matters specifically raised in the written notice of appeal.
6. *Request for hearing.* If the appellant wishes the Board to hold a public hearing on the appeal, a request for public hearing must be filed as part of the notice of appeal, and must include an offer of proof in accordance with Chapter 2. The Board will hear the arguments in favor of and in opposition to a hearing on the appeal and the presentations on the merits of an appeal at a regularly scheduled meeting. If the Board decides to hold a public hearing on an appeal, that hearing will then be scheduled for a later date.
7. *New or additional evidence to be offered.* If an appellant wants to provide evidence not previously provided to DEP staff during the DEP's review of the application, the request and the proposed evidence must be submitted with the appeal. The Board may allow new or additional evidence, referred to as supplemental evidence, to be considered in an appeal only under very limited circumstances. The proposed evidence must be relevant and material, and (a) the person seeking to add information to the record must show due diligence in bringing the evidence to the DEP's attention at the earliest possible time in the licensing process; or (b) the evidence itself must be newly discovered and therefore unable to have been presented earlier in the process. Specific requirements for supplemental evidence are found in Chapter 2 § 24.

OTHER CONSIDERATIONS IN APPEALING A DECISION TO THE BOARD

1. *Be familiar with all relevant material in the DEP record.* A license application file is public information, subject to any applicable statutory exceptions, and is made easily accessible by the DEP. Upon request, the DEP will make application materials available during normal working hours, provide space to review the file, and provide an opportunity for photocopying materials. There is a charge for copies or copying services.
2. *Be familiar with the regulations and laws under which the application was processed, and the procedural rules governing your appeal.* DEP staff will provide this information on request and answer general questions regarding the appeal process.
3. *The filing of an appeal does not operate as a stay to any decision.* If a license has been granted and it has been appealed, the license normally remains in effect pending the processing of the appeal. Unless a stay of the decision is requested and granted, a license holder may proceed with a project pending the outcome of an appeal, but the license holder runs the risk of the decision being reversed or modified as a result of the appeal.

WHAT TO EXPECT ONCE YOU FILE A TIMELY APPEAL WITH THE BOARD

The Board will formally acknowledge receipt of an appeal, and will provide the name of the DEP project manager assigned to the specific appeal. The notice of appeal, any materials accepted by the Board Chair as supplementary evidence, any materials submitted in response to the appeal, and relevant excerpts from the DEP's application review file will be sent to Board members with a recommended decision from DEP staff. The appellant, the license holder if different from the appellant, and any interested persons are notified in advance of the date set for Board consideration of an appeal or request for public hearing. The appellant and the license holder will have an opportunity to address the Board at the Board meeting. With or without holding a public hearing, the Board may affirm, amend, or reverse a Commissioner decision or remand the matter to the Commissioner for further proceedings. The Board will notify the appellant, the license holder, and interested persons of its decision.

II. JUDICIAL APPEALS

Maine law generally allows aggrieved persons to appeal final Commissioner or Board licensing decisions to Maine's Superior Court (see 38 M.R.S. § 346(1); 06-096 C.M.R. ch. 2; 5 M.R.S. § 11001; and M.R. Civ. P. 80C). A party's appeal must be filed with the Superior Court within 30 days of receipt of notice of the Board's or the Commissioner's decision. For any other person, an appeal must be filed within 40 days of the date the decision was rendered. An appeal to court of a license decision regarding an expedited wind energy development, a general permit for an offshore wind energy demonstration project, or a general permit for a tidal energy demonstration project may only be taken directly to the Maine Supreme Judicial Court. See 38 M.R.S. § 346(4).

Maine's Administrative Procedure Act, DEP statutes governing a particular matter, and the Maine Rules of Civil Procedure must be consulted for the substantive and procedural details applicable to judicial appeals.

ADDITIONAL INFORMATION

If you have questions or need additional information on the appeal process, for administrative appeals contact the Board's Executive Analyst at (207) 287-2452, or for judicial appeals contact the court clerk's office in which your appeal will be filed.

Note: The DEP provides this INFORMATION SHEET for general guidance only; it is not intended for use as a legal reference. Maine law governs an appellant's rights.



Andrew Tufts <atufts@portlandmaine.gov>

60 Merrymeeting Drive - Traffic Review Comments

2 messages

Tom Errico <thomas.errico@tylin.com>

Mon, Jun 1, 2020 at 6:10 PM

To: "atufts@portlandmaine.gov" <atufts@portlandmaine.gov>

How is This?

Hi Andrew – I have conducted a review of the site plan application materials as it relates to traffic impacts and offer the following comments.

- The applicant's traffic engineer conducted a trip generation estimate for the project according to accepted traffic engineering methods. According to guidance in the Trip Generation Manual, Institute of Transportation Engineers, 10th Edition, the proposed project would be expected to generate 23 vehicles during the weekday AM peak hour (18 entering and 5 exiting) and 27 vehicles during the weekday PM peak hour (11 entering and 16 exiting). During the worst-case peak hour, the project will generate 41 vehicles (18 entering and 23 exiting). As noted by the applicant, this level of trip generation does not warrant a traffic study per the City Technical Manual (there is a High Crash Location on Allen Avenue near Allen's Corner that is close to ½ mile from the project site). I concur that a traffic study is not required. I would further note that that this level of traffic would not be expected to create safety or mobility issues. During the morning and evening commute peak hours (typically 7:30 to 8:30AM and 4:30 to 5:30PM), the project would add one vehicle to Ray Street about every 2 to 3 minutes.
- Based on the trip generation estimate provided by the applicant the proposed project does not require a MaineDOT Traffic Movement Permit.
- The applicant is required to submit a Construction Management Plan and as such a plan has been provided. A specific construction vehicle routing plan has not been noted and I would suggest that the applicant provide a suggested routing to minimize impact to the neighborhood.

If you have any questions, please contact me.

Best regards,

Thomas A. Errico, PE
Senior Associate
Traffic Engineering Director

TYLIN INTERNATIONAL

12 Northbrook Drive

Falmouth, ME 04105

+1.207.781.4721 main

+1.207.347.4354 direct

+1.207.400.0719 mobile

thomas.errico@tylin.com

Visit us online at www.tylin.com

Twitter | Facebook | LinkedIn | Instagram



November 12, 2019
18347

Christine Grimando
Department of Planning and Urban Development City of Portland
4th Floor, City Hall
389 Congress Street
Portland, ME 04101

RE: Fallbrook Commons
Parcel ID: 400 D 023001

Dear Christine:

On behalf of Fallbrook Commons, we are pleased to submit the attached plans and supporting documents for Site Plan and Municipal Delegated review for the proposed improvements to Lot F001 Map 403. Fallbrook Commons has retained Sebago Technics, and Gawron Turgeon Architects to provide planning, design, permitting and construction services for the project.

The sole purpose of this project is to replace St. Joseph's Rehabilitation and Residence, a 121-bed licensed nursing care center built in 1974, that no longer meets current standards for nursing care centers. St. Joseph is currently owned by Maine Medical Center. In collaboration with Maine Medical Center, Sandy River Company and North Country Associates will create a new licensed nursing care facility to replace St. Joseph Rehabilitation and Residence. Sandy River and North Country have extensive experience developing, owning and operating senior care facilities throughout Maine.

The project includes a new 90-bed licensed nursing care center located next to Fallbrook Woods assisted living facility. The campus approach will allow visitors to access both facilities, provide a seamless transfer for assisted living residents that might need nursing care services, and allow an opportunity for shared support services and management. The development includes the construction of a two story, 58,197 sf building that will include three separate "neighborhoods" within the building with a shared commercial kitchen, community areas, and two parking areas totaling 92 parking spaces. Fallbrook Commons proposes a main entrance off Ray Street, and an emergency connection to Merrymeeting Drive.

This project will happen as one phase, which will involve clearing the incidental vegetation, ledge removal, and site preparations for the building, and stormwater BMP's. Construction is expected to commence Summer 2020 and be completed by late 2021.

In addition to the Site Plan Review, this application will require an amended Site Location of Development (SLODA) and a Natural Resource Protection Act (NRPA) permit. The Stormwater from the site will be collected using three BMP's following Maine Department of Environmental Protection's (DEP) chapter 500 standards.

The property is 12.78 acres, exists within the Residential-3 zone, and has frontage along Ray Street. The property will be divided into two lots with the addition of Lot F005 Map 403 to show two lots with frontage on Ray street. Fallbrook Commons will be 8.28 acres. Fallbrook Woods lot will be a conforming

lot with 4.95 acres and frontage on Ray Street. The following is a summary of how the project meets the Site Plan Review Standards:

TRANSPORTATION STANDARDS

- This type of facility generates moderate traffic trips. Residents do not drive; therefore, trips are limited to employees and family visitors.
- The primary entrance is proposed at Ray Street, with emergency access from Merrymeeting Drive. Adequate sight distance at Ray Street will be met with the removal of existing trees.
- The project includes a dedicated loading and service area at the lower level of the building.
- Sidewalks are provided from the proposed parking areas to the main entrance to the building.
- Adequate parking is provided for vehicles and bicycles.

ENVIRONMENTAL QUALITY STANDARDS

- To the extent possible, existing vegetation on the site will be maintained, Wetland impacts are proposed, however, are minimized by the proposed steep slopes and retaining walls.
- The project includes a robust landscaping program.
- Water quality is maintained, as the project meets the standards for stormwater management and erosion controls.

PUBLIC INFRASTRUCTURE AND PUBLIC SAFETY STANDARDS

- There are no City Master Plans governing the development of this site.
- There are no threats to public safety. Fire prevention is provided by a sprinkler system within the proposed building, a fire hydrant and adequate fire vehicle circulation is provided for.
- We understand that adequate public utility capacity is available to serve the project.

SITE DESIGN STANDARDS

- There are no issues relative to impacts from massing, ventilation, wind, shadows, snow/ ice loading nor view corridors.
- Proposed site lighting includes full cutoff fixtures and no light trespass onto adjacent properties.
- Noise and vibration from construction activities will be controlled within City standards.
- Adequate signage and wayfinding is provided for.
- All zoning related design standards are met.

Sincerely,

SEBAGO TECHNICS, INC.



Daniel M Danvers, RLA
Maine Licensed Landscape Architect

Cc: Daniel Maguire / John Orestis / Doug Gardner



LEVEL II and LEVEL III APPLICATION SUBMISSION CHECKLIST

Please submit each document as a separate PDF file.

Please confirm by electronically checking the boxes to the left

General Application Documents

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

LEVEL II AND LEVEL III SITE PLAN STANDARDS AND SUBMISSION CHECKLIST

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

Please submit each document as a separate PDF file.

TRANSPORTATION

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

ENVIRONMENTAL AND LANDSCAPE FEATURES			
Check list			Assess/Provide/Document:
Yes	NA	Plan	Preservation of Significant Natural Features (14-526 (b) 1), if applicable - Trees, plants, habitats listed on State or Federal list of endangered or threatened - High and moderate value waterfowl and wading habitat - Aquifers on Casco Bay Islands - Waterbodies (including wetlands, watercourses, significant vernal pools and floodplains) - Proposed preservation areas and protection measures - Documentation from environmental consultants, determinations from applicable state agencies
Yes	NA	Plan	Landscaping and Landscape Preservation (14-526 (b) 2 a) - Preservation of trees and preservation within required zoning setbacks (Technical Manual, Section 4) - Protection measures of existing vegetation during construction - Protection measures within Shoreland Zone, if applicable
Yes	NA	Plan	Site Landscaping (14-526 (b) 2 b) - Screening and buffering of service areas and between non-residential and residential uses - Planting plans with plant schedule and sizes (Technical Manual, Section 4)
Yes	NA	Plan	Parking Lot Landscaping (14-526 (b) 2 b ii), if applicable Landscaped islands within parking areas (Technical Manual, Section 4)
Yes	NA	Plan	Street Trees (14-526 (b) 2 b iii) - Existing Heritage or Feature Trees on site and measures to preserve - Identify street trees on the plan meeting the site plan and Technical Manual standards (Section 4) or identify alternative measures, if applicable
ENVIRONMENTAL AND STORMWATER			
Check list			Assess/Provide/Document:
Yes	NA	Plan	Water Quality, Stormwater Management and Erosion Control (14-526 (b) 3 a) - Stormwater report in compliance with Section 5 of Technical Manual and DEP Chapter 500 stormwater for basic, general and flooding standards, as applicable - Erosion control plan and measures - Evidence of compliance with Urban Impaired Stream Standards pursuant to DEP Chapter 500 stormwater, as applicable - Subsurface sanitary sewage disposal and groundwater protection

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

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

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

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

**AGREEMENT FOR PURCHASE AND SALE
OF
REAL ESTATE**

AGREEMENT ("Agreement") made and entered into this 28th day of August, 2019, by and between Fallbrook Properties, LLC, a Maine corporation ("Seller"), having a mailing address of 60 Merrymeeting Drive, Portland, Maine 04013 and Fallbrook Care Development LLC, a Maine corporation with an address of PO Box 110, Portland, Maine 04112 or its assigns ("Buyer").

RECITALS

Seller is party to a Memorandum of Agreement relating to a project that entails the conveyances by Seller to a Joint Venture of real property (two land parcels) located adjacent to Fallbrook Woods in Portland, Maine, and the use of such assets by Buyer to develop, build and operate a new assisted living facility. This Agreement for the Purchase and Sale of Real Estate is contemplated by the Memorandum of Agreement, Joint Venture, dated August 28, 2019.

In consideration of the mutual covenants and agreements herein contained herein, the receipt and sufficiency of which are hereby acknowledged, Seller and Buyer hereby agree as follows:

1. PURCHASE AND SALE. Seller agrees to sell, and Buyer agrees to buy, on the terms and conditions hereinafter set forth certain real estate, and all appurtenances thereof, consisting of two parcels of real estate shown for illustration purposes in the diagram attached as Exhibit A. Copies of the legal descriptions to be used in conveying the Property are annexed hereto and incorporated herein by reference as Exhibit A (collectively to be referred to as the "Property").
2. PURCHASE PRICE AND DEPOSIT: As consideration for the conveyance of the Property, Buyer shall pay to Seller at Closing the sum of \$800,000.
3. PERFORMANCE AT CLOSING: At Closing, Seller shall deliver to Buyer a deed, conveying the Property in fee simple with good and marketable title in accordance with standards of title adopted by the Maine Bar Association, and subject to the Permitted Encumbrances, and Buyer shall pay the Purchase Price as provided herein and execute all necessary papers for the completion of the purchase on or before August 30, 2020, unless extended by mutual agreement of the parties.

period, not to exceed 30 days from the time Seller receives written notice of the defect, unless otherwise agreed to by both parties, to remedy the title, after which time, if such defect is not corrected so that there is marketable title, Buyer may within forty-five (45) days thereafter, at Buyer's option, withdraw said earnest money and neither party shall have any further obligation hereunder. Seller hereby agrees to make a good-faith effort to cure any title defect during such period, but shall not be obligated to expend more than \$5,000 to cure. If Closing of the real estate transaction is delayed on account of such defects, the parties shall bargain regarding whether and the terms under which the remainder of the closing contemplated under the Memorandum of Agreement may be consummated and this real estate transaction completed thereafter.

- b. Seller further agrees to execute and deliver to Buyer at Closing the following documents: (i) a Certificate of Non-Foreign Status (as required by Internal Revenue Service regulations); (ii) a title insurance "Seller's Affidavit" regarding mechanics liens and persons in possession; (iii) an affidavit regarding underground storage tanks (as required by Maine Law), and (iv) documents demonstrating Seller's authority to convey and good standing as evidenced by a copy of Seller's resolution authorizing the transaction contemplated herein and all other documents regarding authority or any other matter reasonably required from the Closing.
- c. To the extent that the conveyance of title to the Property to Buyer requires the subdivision of lots, Buyer shall bear the cost, or shall reimburse Seller, for the cost of any outside legal and surveyor expense reasonably necessary to secure such subdivision, including any necessary municipal or other approvals.

4. DEED: The Property shall be conveyed by a quitclaim with covenant deed and shall be free and clear of all encumbrances except for Permitted Encumbrances, and except for covenants, conditions, easements and restrictions of record and usual public utilities servicing the Property and shall be subject to applicable land use and building laws and regulations.

5. POSSESSION/OCCUPANCY: Possession/occupancy of Property shall be given to Buyer immediately at Closing unless otherwise agreed by both parties in writing.

6. RISK OF LOSS: Until transfer of title, the risk of loss or damage to said Property by fire or otherwise is assumed by Seller unless otherwise agreed in writing. Said Property shall at closing be in substantially the same condition as at present, excepting reasonable use and wear.

7. PRORATIONS: The following items shall be prorated as of the date of closing:

- a. Buyer and Seller shall each pay one-half of the transfer tax as required by the laws of the State of Maine.

- b. Buyer and Seller shall reasonably cooperate on the proration of any other needed item at Closing. The property is vacant land, and so no heating oil or water and sewer charges are expected.
 - c. Real Estate Taxes for any portions of the Property subject to such taxes, based on the municipality's current tax year.
- 8. INSPECTION. Buyer may enter into any part of the Property at all reasonable times in order to inspect the Property, conduct surveys, soil tests and engineering studies and to do such things as are reasonably necessary with respect to its acquisition and intended development of the Property. In the event that the Buyer does not terminate this Agreement, this inspection contingency to its obligation to close shall be conclusively deemed waived.
- 9. AGENCY DISCLOSURE: Buyer and Seller acknowledge that they have not engaged a real estate broker in their transaction.
- 10. PRIOR STATEMENTS: This Agreement and the referenced Memorandum of Agreement set forth the entire agreement between the parties relating to the conveyance of the property described in Exhibit A, and there are no other representations, agreements or understandings with respect to the subject matter of this Agreement.
- 11. ASSIGNS: This Agreement shall extend to and be obligatory upon successors, and assigns of the respective parties. This Agreement may be assigned only to persons or entities controlling, controlled by, or under common control of a party.
- 12. COUNTERPARTS: This Agreement may be signed on any number of identical counterparts, including telefax copies, with the same binding effect as if all of the signatures were on one instrument.
- 13. BUYER'S NOMINEE: Buyer may transfer its rights under this Agreement to an entity or the nominee which it controls. Buyer shall, however, remain jointly and severally liable with such transferee for all of Buyer's obligations under this Agreement and under the Memorandum of Agreement, and such transferee shall be required to assume joint and several liability for all such obligations. Buyer shall give Seller prompt written notice of any such transfer at least seven (7) days before the scheduled Closing, which notice shall include sufficient information to identify the transferee entity or nominee and certified copies of its organizational documents. No assignment shall be valid unless Seller has approved the agreement pursuant to which the assignment is consummated. No other assignment of this Agreement by Buyer is permitted.
- 14. EFFECTIVE DATE: This Agreement is a binding contract when signed by both Seller and Buyer and when that fact has been communicated to all parties or to their agents. Time is of the essence of this Agreement to the extent set forth in the Master Agreement.

15. BEST EFFORTS: Each of the parties shall undertake to take all reasonable steps necessary to achieve the satisfaction of conditions leading to a Closing under this Agreement.

16. FACSIMILE COPIES: All parties to this Agreement agree to accept facsimile or photocopies of this document and any signatures thereto as originals.

17. REPRESENTATIONS OF SELLER: Seller represents to Buyer that the following are true as of the date of this Agreement and will be true as of the Closing:

- a. To the best of Seller's knowledge, there are no violations of any applicable law, ordinance or regulation at the Property.
- b. To the best of Seller's knowledge, there are no special wastes, underground storage tanks, asbestos containing materials, waste oil, petroleum and any other hazardous substances, materials or wastes contaminating the Property. The terms used in the foregoing sentence shall include, without limitation, all substances, materials, etc., designated by such terms under any laws, ordinances, or regulations, whether federal, state, or local. This presentation shall except such materials used in the regular course of business and disposed of in compliance with all applicable laws.
- c. Other than matters of record that constitute Permitted Encumbrances, there are no outstanding pending or threatened liens, claims, rights of first refusal, or encumbrances against the Property.

18. NOTICES. Any notice or communication given pursuant to this Agreement by either of the parties to the other shall be in writing and delivered as provided in the Master Agreement for notices.

19. GOVERNING LAW. This Agreement shall be construed according to the laws of the State of Maine.

20. TERMINATION OF AGREEMENT. This Agreement shall terminate if:

- a. The Memorandum of Agreement is terminated.
- b. Any other condition precedent set forth in the Memorandum of Agreement required to be fulfilled is not fulfilled (or waived by the party having the waive such condition) by August 30, 2020.

a. The Memorandum of Agreement is terminated.

b. Any other condition precedent set forth in the Memorandum of Agreement required to be fulfilled is not fulfilled (or waived by the party having the waive such condition) by August 30, 2020.

Seller acknowledges that the laws of the State of Maine provide that every buyer of real property located in Maine must withhold a withholding tax equal to 2-1/2% of the consideration unless Seller furnishes to Buyer a certificate by the Seller stating, under penalty of perjury, that Seller is a resident of Maine or the transfer is otherwise exempt from withholding.

Buyer Fallbrook Core Development LLC

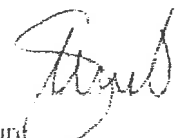

Signature

Daniel J. Maguire
Name/Title, there unto duly authorized
Member

Seller accepts Buyer's offer and agrees to deliver the Property at the price and upon the terms and conditions set forth above.

Signed this 20th day of August, 2019.

Seller FALLBROOK PROPERTIES, LLC Tax I.D. # 270433266

By: 
Signature

JOHN C. ORESTIS, PRINCIPAL & MANAGING MEMBER
Name/Title, there unto duly authorized

EXHIBIT A

(legal descriptions begin on next page)

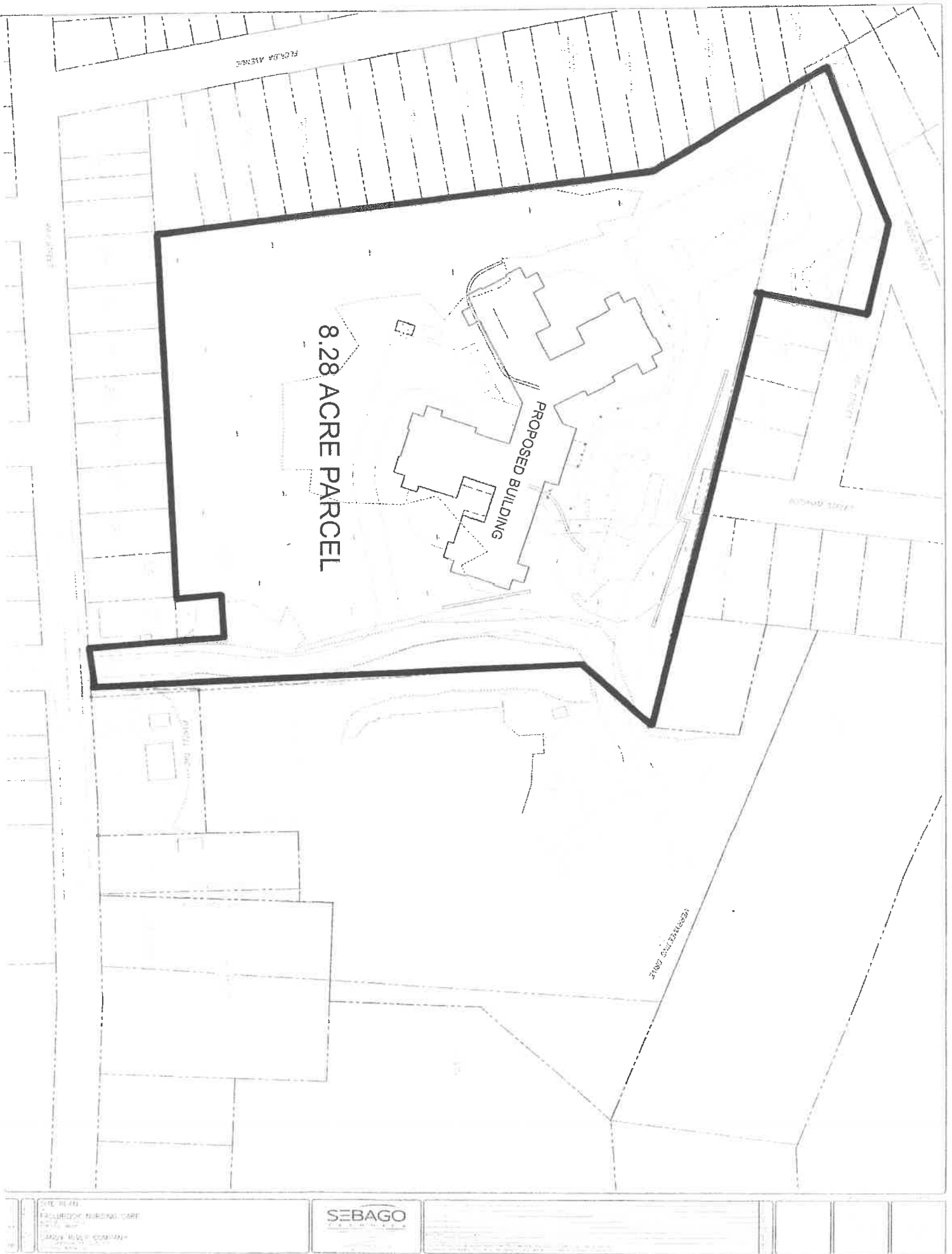


Exhibit A

**AGREEMENT FOR PURCHASE AND SALE
OF
REAL ESTATE**

AGREEMENT ("Agreement") made and entered into this 28th day of August, 2019, by and between Fallbrook Properties, LLC , a Maine corporation ("Seller"), having a mailing address of 60 Merrymeeting Drive, Portland, Maine 04013 and Fallbrook Care Development LLC, a Maine corporation with an address of PO Box 110, Portland, Maine 04112 or its assigns ("Buyer").

RECITALS

Seller is party to a Memorandum of Agreement relating to a project that entails the conveyances by Seller to a Joint Venture of real property (two land parcels) located adjacent to Fallbrook Woods in Portland, Maine, and the use of such assets by Buyer to develop, build and operate a new assisted living facility. This Agreement for the Purchase and Sale of Real Estate is contemplated by the Memorandum of Agreement., Joint Venture, dates August 28, 2019.

In consideration of the mutual covenants and agreements herein contained herein, the receipt and sufficiency of which are hereby acknowledged, Seller and Buyer hereby agree as follows:

1. **PURCHASE AND SALE.** Seller agrees to sell, and Buyer agrees to buy, on the terms and conditions hereinafter set forth certain real estate, and all appurtenances thereof, consisting of a parcel of real estate shown for illustration purposes in the diagram attached as Exhibit A. Copies of the legal description to be used in conveying the Property are annexed hereto and also incorporated herein by reference as Exhibit A (collectively to be referred to as the "Property").
2. **PURCHASE PRICE AND DEPOSIT:** As consideration for the conveyance of the Property, Buyer shall pay to Seller at Closing the sum of \$800,000.
3. **PERFORMANCE AT CLOSING:** At Closing, Seller shall deliver to Buyer a deed, conveying the Property in fee simple with good and marketable title in accordance with standards of title adopted by the Maine Bar Association, and subject to the Permitted Encumbrances, and Buyer shall pay the Purchase Price as provided herein and execute all necessary papers for the completion of the purchase on or before August 30, 2020, unless extended by mutual agreement of the parties.

EXHIBIT A
Proposed Description Parcel One

A certain lot or parcel of land situated on the westerly sideline of Ray Street in the City of Portland, County of Cumberland, State of Maine as depicted on a plan titled "Existing Conditions of Fallbrook Nursing Care, Merrymeeting Drive, Portland, Maine for Sandy River Company, 217 Commercial Street, Suite 201, Portland, Maine 04112, Record Owner Fallbrook Properties, LLC, 418 Ray Street, Portland Maine 04103" by Sebago Technics, Inc., dated May 30, 2019 and revised through July 10, 2019 to be recorded in the Cumberland County Registry of Deeds (CCRD) and being more particularly bounded and described as follows:

Beginning at a 5/8-inch rebar, 6-inches above grade on the westerly sideline of Ray Street and the northerly corner of land now or formerly of Amanda J. Connelly as described in a deed recorded in the CCRD in Book 34668, Page 155;

Thence S 54°32'18" W, along land now or formerly of Amanda J. Connelly and land now or formerly of Donald A. Thompson, Jr. and Evelyn L. Thompson JTS as described in a deed recorded in the CCRD in Book 6632, Page 99, a distance of 150.00 feet to a 5/8-inch iron rod, 8-inches above grade;

Thence S 35°27'42" E, along land now or formerly of Donald A. Thompson, Jr. and Evelyn L. Thompson JTS, a distance of 50.00 feet to a 5/8-inch rebar with plastic cap inscribed "STI PLS 2534" to be set;

Thence N 54°32'18" E, along land now or formerly of Donald A. Thompson, Jr. and Evelyn L. Thompson JTS, a distance of 50.00 feet to a 5/8-inch rebar with plastic cap inscribed "STI PLS 2534" to be set at land now or formerly of Jason D. Smith and Laurie R. Smith JTS as described in a deed recorded in the CCRD in Book 32730, Page 23;

Thence S 35°27'42" E, along land now or formerly of Jason D. Smith and Laurie R. Smith JTS and land now or formerly of Debora D. Morgan as described in a deed recorded in the CCRD in Book 13636, Page 105, a distance of 72.78 feet to a point;

Thence S 34°40'07" E, along land now or formerly of Debora D. Morgan, Gladys A. Moody as described in a deed recorded in the CCRD in Book 32780, Page 65, Marilyn D. Webb as described in a deed recorded in the CCRD in Book 29023, Page 310, Anna J. Aiken and James W. Aiken JTS as described in a deed recorded in the CCRD in Book 25390, Page 8, John M. Scholz as described in a deed recorded in the CCRD in Book 10841, Page 202, Jaime L. Hiltz as described in a deed recorded in the CCRD in Book 23255, Page 247 and David DiPietro as described in a deed recorded in the CCRD in Book 32054, Page 195, a distance of 333.24 feet to a 5/8-inch iron rod, 15-inches above grade at land now or formerly of Hon Khuu as described in a deed recorded in the CCRD in Book 32424, Page 248 and land now or formerly of Regan S. Brendan as described in a deed recorded in the CCRD in Book 32806, Page 341;

Thence S 54°36'33" W, along land now or formerly of Regan S. Brendan, a distance of 51.09 feet to a point;

Thence S 51°05'03" W, along land now or formerly of Regan S. Brendan, land now or formerly of Christian Sabrina Katheryn as described in a deed recorded in the CCRD in Book 32949, Page 39, land now or formerly of Mary A. Packard and Amanda M. Packard as described in a deed recorded in the CCRD in Book 10936, Page 100, land now or formerly of Haylee E. Hasson as described in a deed recorded in the CCRD in Book 33706, Page 89, land now or formerly of Hilary Carr as described in a deed recorded in the CCRD in Book 29976, Page 255, land now or formerly of Paula M. Urbach as described in a deed recorded in the CCRD in Book 31613, Page 621, land now or formerly of Ian P. Houseal as described in a deed recorded in the CCRD in Book 30070, Page 164, land now or formerly of Luis O. Garcia and Monica M. Garcia JTS as described in a deed recorded in the CCRD in Book 30353, Page 291 and land now or formerly of Matthew A. Anderson as described in a deed recorded in the CCRD in Book 32380, Page 112, a distance of 481.12 feet to a 5/8-inch iron rod, 12-inches above grade;

Thence S 37°28'58" W, along land now or formerly of Matthew A. Anderson, a distance of 29.58 feet to a 5/8-inch rebar with plastic cap inscribed "STI PLS 2534" to be set;

Thence S 28°22'08" W, along land now or formerly of Matthew A. Anderson, land now or formerly of Megan T. and Jonathan A. York JTS as described in a deed recorded in the CCRD in Book 25317, Page 156 and land now or formerly of Joy M. and Michael J. Borlowsky as described in a deed recorded in the CCRD in Book 9606, Page 268, a distance of 186.45 feet;

Thence S 29°23'41" W, along land now or formerly of Joy M. and Michael J. Borlowsky, a distance of 20.45 feet to a 5/8-inch rebar with plastic cap inscribed "STI PLS 2534" to be set at the centerline of the vacated Wadco Street as depicted on a Plan recorded at the CCRD in Plan Book 16, Page 29;

Thence N 54°10'52" W, through the vacated Wadco Street, a distance of 182.25 feet to a 5/8-inch rebar with plastic cap inscribed "STI PLS 2534" to be set;

Thence N 18°20'52" W, through the vacated Wadco Street and the vacated Ash Street as depicted on a Plan recorded at the CCRD in Plan Book 16, Page 29, a distance of 108.08 feet to a 5/8-inch rebar with plastic cap inscribed "STI PLS 2534" to be set;

Thence N 71°39'08" E, through the vacated Ash Street and along land now or formerly of Jeffrey A. Hayes Trustee as described in a deed recorded in the CCRD in Book 30716, Page 21, a distance of 123.80 feet to a point;

Thence N 17°52'57" W, along land now or formerly of Jeffrey A. Hayes Trustee, land now or formerly of Bertha L. Judkins as described in a deed recorded in the CCRD in Book 7750, Page 196, Topsham Street as depicted on a Plan recorded at the CCRD in Plan Book 16, Page 29, land now or formerly of House of Hogwarts, LLC as described in a deed recorded in the CCRD in Book 34616, Page 309, a distance of 369.17 feet to a 1-inch iron pipe, 2-inches above grade;

Thence N 18°18'12" W, along land now or formerly of House of Hogwarts, LLC, a distance of 125.00 feet to a 5/8-inch rebar with plastic cap inscribed "STI PLS 2534" to be set;

Thence S 79°57'00" E, through land of Fallbrook Properties, LLC, a distance of 99.99 feet to a 5/8-inch rebar with plastic cap inscribed "STI PLS 2534" to be set;

Thence N 54°32'18" E, through land to be retained by Fallbrook Properties, LLC, a distance of 420.18 feet to a 5/8-inch rebar with plastic cap inscribed "STI PLS 2534" to be set at other land of Fallbrook Properties, LLC;

Thence continuing N 54°32'18" E, through other land of Fallbrook Properties, LLC, a distance of 119.82 feet to a 5/8-inch rebar with plastic cap inscribed "STI PLS 2534" to be set on the westerly sideline of Ray Street;

Thence S 35°27'42" E, along Ray Street, a distance of 55.00 feet to the Point of Beginning;

Containing approximately 8.28 Acres.

The bearings herein are Grid North, Maine State Plane Coordinate System, West Zone 1802, NAD83.

August 28, 2019

AJS/jg

Current Owner Information:

CBL	400 D023001
Land Use Type	RETAIL & PERSONAL SERVICE
Verify legal use with Inspections Division	
Property Location	60 MERRYMEETING DR
Owner Information	FALLBROOK PROPERTIES LLC 418 RAY ST PORTLAND ME 04103
Book and Page	27501/183
Legal Description	400-D-23 402-I-1 403-F-1 RAY ST 362-362 MERRYMEETING DR 60 549978 SF
Rental Registration	No
Acres	12.6258

Current Assessed Valuation:

TAX ACCT NO.	25421	OWNER OF RECORD AS OF APRIL 2019
LAND VALUE	\$305,600.00	FALLBROOK PROPERTIES LLC
BUILDING VALUE	\$3,086,400.00	418 RAY ST
NET TAXABLE - REAL ESTATE	\$3,392,000.00	PORTLAND ME 04103
TAX AMOUNT	\$79,067.52	

Any information concerning tax payments should be directed to the Treasury office at 874-8490 or [e-mailed](#).

Building Information:

	Building 1
Year Built	1993
Style/Structure Type	
# Units	1
Square Feet	27600

[View Sketch](#)

[View Map](#)



Exterior/Interior Information:

	Building 1
Levels	01/01
Size	27600
Use	NURSING HOME
Height	9
Walls	FRAME
Heating	HEAT PUMP
A/C	CENTRAL

Other Features:

	Building 1
Structure	SPRINKLER - WET
Size	27600X1

	Building 1
Structure	CANOPY - ONLY
Size	708X1

Outbuildings/Yard Improvements:

Building 1	
Year Built	1993
Structure	ASPHALT PARKING
Size	20000
Units	1
Grade	C
Condition	3

Building 1	
Year Built	1993
Structure	LIGHT - MERCURY VAPOR, POLE
Size	1X1
Units	6
Grade	C
Condition	3

Building 1	
Year Built	1993
Structure	SHED-FRAME
Size	10X14
Units	1
Grade	C
Condition	3

Sales Information:

Sale Date	Type	Price	Book/Page
12/30/2009	LAND + BUILDING	\$0.00	27501/183

SHORT FORM QUITCLAIM DEED WITH COVENANT

FALLBROOK, INC., a Maine corporation with a principal place of business in Portland, Maine, FOR CONSIDERATION PAID, grants to **FALLBROOK PROPERTIES, LLC**, a Maine limited liability company whose mailing address is 418 Ray Street, Portland, Maine 04103, with QUITCLAIM COVENANT certain real property, together with any improvements thereon, located at 418 Ray Street, Portland, Cumberland County, Maine, and more particularly described on Exhibit A attached hereto and made a part hereof (the "Premises").

IN WITNESS WHEREOF, Fallbrook, Inc. has caused this instrument to be executed by Robert J. Feeney, its President thereunto duly authorized, this 15th day of December, 2009.

WITNESSETH:

FALLBROOK, INC.


Name:

By: 
Name: Robert J. Feeney
Title: President

State of Maine
County of Cumberland, ss.

December 15, 2009

PERSONALLY APPEARED the above-named Robert J. Feeney, President of Fallbrook, Inc., as aforesaid, and acknowledged the foregoing instrument to be his free act and deed in his said capacity and the free act and deed of said corporation.

Before me,


Name: Kevan Lee Rinehart
Title: Attorney ME 9303

EXHIBIT A

A certain parcel of land situated Westerly of Ray Street in the City of Portland, County of Cumberland and State of Maine bounded and described as follows:

Beginning at the southeasterly corner of Fallbrook, a Condominium, at a point on the Westerly sideline of land now or formerly of John N. Jr. and Glennis E. Fitzpatrick (Book 2773, Page 224);

Thence, S 13°-05'-20" E by the land of Fitzpatrick 110.00 feet to a point marked by a 5/8" iron rod set;

Thence, N 76°-54'-40" E by the land of Fitzpatrick 256.90 feet to a point on the Westerly sideline of Ray Street marked by 5/8" iron rod set;

Thence, S 16°-25'-15" E by the sideline of Ray Street 1.42 feet to a point marked by a 5/8" iron rod set at the land now or formerly of Ivan G. and Edwina F. Callahan (Book 2997, Page 486);

Thence, S 73°-34'-45" W by the land of Callahan 220.00 feet to a point marked by a 5/8" iron rod set;

Thence, S 16°-25'-15" E by the land of Callahan 65.00 feet to a point marked by a 5/8" iron rod set;

Thence, N 73°-34'-45" E by the land of Callahan 100.00 feet to a point marked by a 5/8" iron rod set at the land now or formerly of Malcolm A. and Gail E. McDonald (Book 3614, Page 219);

Thence, S 18°-02'-05" E by the land of McDonald 163.18 feet to a point marked by a 5/8" iron rod set;

Thence, N 74°-25'-15" E by the land of McDonald 120.00 feet to a point on the Westerly sideline of Ray Street marked by a 5/8" iron rod set;

Thence, S 18°-35'-45" E by the sideline of Ray Street 47.17 feet to a point marked by a 5/8" iron rod set at the land now or formerly of Donald A. and Evelyn Thompson (Book 2892, Page 451);

Thence, S 71°-24'-15" W by the land of Thompson 150.00 feet to a point marked by a 5/8" iron rod set;

Thence, S 18°-35'-45" E by the land of Thompson 50.00 feet to a point marked by a 5/8" iron rod set;

Thence, N 71°-24'-15" E by the land of Thompson 50.00 feet to a point marked by a 5/8" iron rod set at the land now or formerly of Richard E. and Carolyn Grover (Book 2895, Page 492);

Thence, S 18°-35'-45" E by the land of Grover and by the land now or formerly of Raymond A. and Florence M. Sevigny (Book 2490, Page 327) 72.78 feet to a point marked by a 5/8" iron rod set;

Thence, S 17°-48'-10" E by the land of Sevigny and by the lands now or formerly of Gladys A. and Kenneth V. Moody (Book 3471, Page 62), Betty L. Denbow (Book 2682; Page 313), Anna J. Aiken (Book 3570, Page 212), David A. and Carolyn J. Matthews (Book 4483, Page 163), Laura H. Clark (Book 3708, Page 194), and George and Doris Castonia (Book 4960, Page 286) 333.24 feet to a point marked by a 5/8" iron rod set at the land now or formerly of Frances F. Gatchell (Book 6257, Page 342);

Thence, S 71°-28'-30" W by the land of Gatchell 51.09 feet to a point marked by a 5/8" iron rod set;

Thence, S 67°-57'-00" W by the land of Gatchell and lands now or formerly of Eleanor L. and Sherry Sapko, Charles E. and Linda J. Foshay (Book 3920, Page 212), Linwood J. and Ruth L. Thaxter, Charles L. Arey (Book 2320, Page 55), Dorothy M. and Richard M. Butler (Book 3765, Page 177), Norman C. and Caroline M. Walton (Book 2014, Page 140), James P. and Lula S. Cullen (Book 2044, Page 474), and Glenda R. and Roger R. Pushor (Book 4755, Page 44) 481.12 feet to a point marked by a 5/8" iron rod set;

Thence, S 54°-20'-55" W by the land of Pushor 29.58 feet to a point marked by a 5/8" iron rod set;

Thence, S 45°-14'-05" W by the land now or formerly of Claire D. and Edward L. Gulick (Book 3782, Page 285) and by the land now or formerly of John H. and Jeannette B. Greer (Book 2824, Page 131) 186.45 feet to a stone wall intersection and the end of Wadco Street;

Thence, N 01°-01'-00" W by a stone wall 7.90 feet to the Northeasterly sideline of Wadco Street;

Thence, N 37°-18'-55" W by the sideline of Wadco Street 165.51 feet to a point marked by a 5/8" iron rod set at the Easterly sideline of Ash Street;

Thence, N 01°-28'-55" W by the sideline of Ash Street 100.00 feet to a point marked by a 5/8" iron rod set at the land now or formerly of Diane M. and Richard C. Hayes (Book 3615, Page 161);

Thence, N 88°-31'-05" E by the land of Hayes 98.80 feet to a stonewall;

Thence, N 01°-01'-00" W by the land of Hayes, the land now or formerly of Bertha C. Judkins, by the end of Topsham Street, and by the land now or formerly of David F. Marshall (Book 4804, Page 317) 369.17 feet to a 1" iron pipe found;

Thence, N 01°-26'-15" W by the land of Marshall 125.00 feet;

Thence, S 80°-04'-05" W by the land of Marshall 100.00 feet to a point marked by a 5/8" iron rod set;

Thence, S 1°-09'-05" E by the land of Marshall 125.00 feet to a 1" iron pipe found at the Northeast corner of the land now or formerly of Bertha C. Judkins;

Thence, S 81°-21'-30" W by the land of Judkins 56.91 feet to a 1/4" iron rod found at the Southeast corner of the land now or formerly of F. S. Plummer Co. (Book 6869, Page 110);

Thence, N 07°-34'-10" E by land of F. S. Plummer Co. 592.31 feet;

Thence, S 63°-29'-00" E by Fallbrook, a Condominium, 190.24 feet to a point;

Thence, N 76°-59'-40" E by Fallbrook, a Condominium, 166.98 feet to the point of beginning.

Also including and subject to those easements and rights, in common with others, which are described in the below referenced documents:

(1) Easements from George and Doris Castonia dated December 20, 1985, recorded in Book 7036, Page 92;

(2) Easements from Calvin L. and Myrtle W. Gailey, dated December 20, 1985, and recorded in Book 7036, Page 96;

(3) Easement from Frances F. Gatchell dated December 20, 1985, and recorded in Book 7036, Page 100; and

(4) Easement to the City of Portland for a turn-around at the terminus of Topsham Street and other matters shown on the Plat of Fallbrook, a Condominium, recorded in Plan Book 178, Page 66.

Also, an easement for all purposes in common with others over, under and along the 50 foot wide right of way shown on the said Plat of Fallbrook, a Condominium, recorded in Plan Book 178, Page 66 and reserved in the Declaration of Fallbrook Condominium dated April 20, 1989 and recorded in Book 8730, Page 206.

Also subject to the following exceptions and matters:

1. Title to and rights of the public and others entitled thereto in and to any portion of the Premises located within the bounds of adjacent streets, roads and ways.
2. Setback and minimum building value restrictions set forth in Indenture by and between Reginald and Isabelle H. Carles and Gretta and Edith Henderson, dated January 24, 1949 and recorded in the Cumberland County Registry of Deeds in Book 1951, Page 85 (further references herein to recorded documents are

references to documents recorded in said Registry).

3. Terms and provisions of a State of Maine Department of Environmental Protection Site Location Order #L-011219-87-A-N issued to Liberty Group, Inc., dated October 10, 1985 and recorded in Book 6958, Page 88, as transferred by unrecorded Order dated January 22, 1988; as further transferred to MM II Real Estate Corporation by Order dated February 24, 1989 and recorded in Book 8681, Page 310; as further transferred to Merreal Corp. by Order dated April 3 1989 and recorded in Book 8733, Page 187; and as affected by Order dated December 28, 1992 and recorded in Book 10500, Page 287.
4. Easement from the Merrymeeting Developers to Central Maine Power Company and New England Telephone and Telegraph Company, dated May 25, 1988 and recorded in Book 8444, Page 191.
5. Easement granted to Portland Water District by instrument dated September 21, 1988 and recorded in Book 8490, Page 164.
6. Matters affecting the Premises shown on plan entitled "Condominium Plat III, Fallbrook, A Condominium on Ray Street, Portland, Maine, for Merreal Corp., by Owen Haskell, Inc., dated May 10, 1990 and recorded in Plan Book 185, Page 15.
7. Terms and conditions of a Maintenance Agreement by and between Fallbrook, Inc. and Fallbrook, A Condominium, dated February 4, 1993 and recorded in Book 10546, Page 73.
8. Utility easement from Fallbrook, Inc. to Central Maine Power Company and New England Telephone and Telegraph Company, dated May 26, 1993 and recorded in Book 10771, Page 14.
9. Utility easement granted to Northern Utilities, Inc. by instrument dated October 7, 1993 and recorded in Book 11022, Page 51.
10. Agreement for Transfer and Assumption of Special Declarant Rights by and between Fallbrook, Inc. and Fallbrook Condominium Association, dated June 28, 1993 and recorded in Book 10804, Page 329.
11. Contract for Electric Service by and between Fall Brook Woods and Central Maine Power Company, dated June 18, 1993 and recorded in Book 11243, Page 201.
12. All encumbrances, restrictions and other matters of record affecting the Premises as of the date hereof.

Meaning and intending to convey the premises conveyed to Grantor herein by Deed from Merreal Corp., formerly named MM II Real Estate Corporation, to Fallbrook, Inc., dated December 20, 1991 and recorded in Book 9831, Page 59.

Received
Recorded Register of Deeds
Dec 30, 2009 02:11:13P
Cumberland County
Pamela E. Lovley



November 1, 2019

City of Portland
Planning Board
389 Congress Street
Portland, Maine 04101

Re: Funding the Development of Fallbrook Commons

Dear Planning Board:

On behalf of Fallbrook Commons, we are submitting this letter to assure you we can fund the proposed new 90-bed nursing care facility on the campus of Fallbrook Woods on Ray Street.

Sandy River Company is developing this project in partnership with the owner of Fallbrook Woods. This development team has a long history of successfully developing and securing debt and equity financing for senior care facilities throughout Maine. In the past 5 years alone, Sandy River has developed facilities in Maine with over \$100M in total project costs. These projects are funded with a combination of bank loans and equity raised from our pool of private investors.

We are continuously in discussions with Maine banks who are eager to participate in the financing of our projects. Currently, Androscoggin Savings Bank is financing a 66-unit new assisted living center under construction in Auburn with \$13M in bank financing. NBT Bank is financing a 90-bed facility in Sanford with \$17M in bank financing. Please note that we have not selected a bank for the Fallbrook Commons project and generally won't select a bank while we are still going through the approval process to include a Certificate of Need approval from the Maine Department of Health and Human Services. We don't expect to break ground until early summer, 2020 and will negotiate with several banks and make a final bank selection near that time. Thus, we prefer to not include a letter on financing from any particular bank. Please note that we have obtained financing on our projects from five different Maine banks over the past five years.

On equity, we have investors eager to invest in these kinds of projects based on our decades of experience creating successful senior care facilities throughout Maine.

We assure the Planning Board we can finance this proposed project.

Sincerely,

Daniel J Maguire
Managing Partner

Real Estate Services for the Healthcare Industry

217 Commercial St., Suite 201 PO Box 110 • Portland, Maine 04112 • TEL: 207.558.6060

www.SandyRiverCompany.com

Technical Capability

Fallbrook Commons Development LLC has compiled a team of highly qualified contractors, consultants, and engineers for this proposed project.

The project team includes:

Sebago Technics, Inc. (STI) is a multi-disciplined engineering firm with over 35 years of experience, that offers a wide range of services specializing in land development, planning, permitting and engineering design services. We maintain a staff of multi-disciplinary professionals to provide services in the areas of general civil engineering, road and utility infrastructure design, construction management, permitting, landscape architecture, soil science, wetlands science, land surveying, and environmental engineering.

Gawron Turgeon Architects (GTA) is a multi-disciplined design firm with over 35 years of experience. They offer multi-disciplined planning and design services with a team that is comprised of architects, architectural designers, interior designers, landscape architects, and project managers.

Please see the cover letter for additional information.



Existing Lot Remaining: Fallbrook Woods

ZONING ANALYSIS Relevant Zone(s) Residential 3 (R-3)

All Projects:

	Required	Proposed
Lot Size	2 ac	4.5 ac
Area Per Dwelling Unit	6,500 sf	n/a
Minimum Street Frontage	50 ft	157 ft
Front Yard Minimum	n/a	n/a
Front Yard Maximum	25 ft	25 ft
Rear Yard	25 ft	25 ft
Yard Right	16 ft	16 ft
Yard Left	16 ft	16 ft
Side Street Setback	20 ft	20 ft
Step Back	n/a	n/a
Maximum Lot Coverage	35%	31%
Minimum Lot Coverage	n/a	n/a
Maximum Height	35 ft	No Change
Open Space	n/a	n/a
Maximum Impervious Area	n/a	n/a
Pavement Setback	n/a	n/a
Floor Area Ratio	n/a	n/a
Off Street Parking Spaces	---	93
Loading Bays	2	No Change
Other 1	n/a	n/a
Other 2	n/a	n/a
Other 3	n/a	n/a

Planned Residential Unit Developments (PRUD) Requirements

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

Affordable Housing Density Bonuses (if applicable)

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



Proposed Lot- Fallbrook Commons

ZONING ANALYSIS Relevant Zone(s) Residential 3 (R-3)

All Projects:

	Required	Proposed
Lot Size	2 ac	4.5 ac
Area Per Dwelling Unit	6,500 sf	n/a
Minimum Street Frontage	50 ft	157 ft
Front Yard Minimum	n/a	n/a
Front Yard Maximum	25 ft	25 ft
Rear Yard	25 ft	25 ft
Yard Right	16 ft	16 ft
Yard Left	16 ft	16 ft
Side Street Setback	20 ft	20 ft
Step Back	n/a	n/a
Maximum Lot Coverage	35%	31%
Minimum Lot Coverage	n/a	n/a
Maximum Height	35 ft	No Change
Open Space	n/a	n/a
Maximum Impervious Area	n/a	n/a
Pavement Setback	n/a	n/a
Floor Area Ratio	n/a	n/a
Off Street Parking Spaces	---	93
Loading Bays	2	No Change
Other 1	n/a	n/a
Other 2	n/a	n/a
Other 3	n/a	n/a

Planned Residential Unit Developments (PRUD) Requirements

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

Affordable Housing Density Bonuses (if applicable)

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



Meeting Minutes

A neighborhood meeting was held on February 18, 2020 at the Fallbrook Woods lobby at 60 Merrymeeting Drive in Portland at 6:00pm for the proposed licensed nursing care facility Fallbrook Commons.

Minutes:

The meeting was attended by 30 members of the public. The Applicant began the presentation by introducing the development team. Offered some insight into the history of the project, explained the intent for programming, and handed off to Will Conway from Sebago Technics to explain the site plan, parking, landscaping, stormwater, and utility elements. Following Will's explanation, Michael Pednault from Gawron Turgeon Architects was introduced to explain the proposed building's exterior, interior, and programming. At the end of Michael's presentation, The Applicant opened the meeting to the public for Questions.

A member of the public sought insight into the name of Nevada Avenue, concerned the name would change as a result of the project.

A neighbor explained that they felt the entrance on Ray Street was dangerous and asked the team to consider signage, location, and entrance allocation carefully.

The design team explained that Sebago Technics' traffic engineers have assessed the sight distance and speed limit on Ray Street and found that we meet city standards.

Many neighbors from Fallbrook Condos expressed opinions regarding traffic on Merrymeeting Drive. They expressed concerns that people speed down the road and present a hazard to pedestrians using the road. There is a general concern that patrons of the proposed facility will favor the entrance on Merrymeeting Drive, over the entrance on Ray Street.

The design team explained that they are currently working with the Road Committee from Fallbrook Condominiums.

A neighbor from Florida Ave inquired about drainage from the site, showing a concern that water from the project will affect their property.

The design team explained that the proposed Stormwater management plan results in no increased flows of water from the site.

An abutter inquired about the wetland impacts, and limits of clearing affiliated with the project.

The design team explained the NRPA application process with DEP and showed the wetland fill areas on the plan, which are highlighted by a hatch pattern.

A neighbor inquired about the potential for a collaboration with Portland Trails.

The Design team has been in contact with Portland Trails but no decisions have been made at this time.

An abutter from Florida Ave inquired about buffering between the project and the properties along Florida Ave.

The design team highlighted the limits of clearing, and explained the area along Florida Avenue that is to be planted with evergreens to screen between the properties.

A neighbor asked if the design team had considered a 3-story design.

The design team explained that they had considered a 3-story design, and that a 3-story layout was infeasible to accommodate residents having access to nature, and that the height of the building would breach the tree canopy which would present a visual impact on the neighbors.

A neighbor asked about the construction schedule and further inquired about the duration.

The design team explained that construction could take 16 months, and they hope to start Summer – Fall of 2020.

A neighbor asked about the construction vehicle access to the project.

The design team explained that construction vehicles would enter the project site through the new driveway and not along Merrymeeting Drive.

At the end of the question and answer period a neighbor did offer that their mother is a resident of another project completed by the team. She mentioned that the facility is fabulous and her mother and their family are very happy with the facility.

The meeting adjourned at 7:17pm the design team remained available for few additional questions. The meeting closed at 7:30 pm

Sincerely,



Daniel M. Danvers, RLA
Sebago Technics, Inc.

NEIGHBORHOOD MEETING SIGN-IN

18347

Proposed FALLBROOK COMMONS LICENSED NURSING CARE FACILITY
Ray Street, Portland

Date/Time of Meeting: February 18, 2020 at 6 P.M.

Location: Fallbrook Woods, 60 Merrymeeting Drive
Portland Maine 04103

Members of the Public in Attendance		
Printed Name	E-mail	Address
1. Mike & Deb Denbow	mdenbow@maine.rr.com	69 Florida Ave, Portland Maine
2. Gene & Ellen Rowe	None Provided	295 Ray Street, Portland
3. Elizabeth Huntley	ehuntley@maine.rr.com	1 Nevada Ave
4. George St.Clair	George36@gmail.com	36 Nevada Ave
5. Lee Whitney	leeanninmaine@gmail.com	1 Merrymeeting Drive
6. George Barber	gabarber@yahoo.com	19 Merrymeeting Drive
7. Carol Doughty	cndoughty@yahoo.com	54 Florida Ave
8. Ben Doughty	bdoughty@cozyharbor.com	54 Florida Ave
9. Donna Towle	None Provided	8 Merrymeeting Drive
10. Monica Garcia	Monygarcia2@yahoo.com	80 Florida Ave
11. Ann Acheson	tinkeya@yahoo.com	28 Merrymeeting Dr
12. Paul & Kym Cournoyer	Setsail34@gmail.com	24 Merrymeeting Dr
13. Darrin Ramsdell	dramsdell@gmail.com	12 Penn Ave Portland
14. David Dumont	Ddumont11@hotmail.com	2 Merrymeeting Drive
15. Karen Woodberry	Kwood07@hotmail.com	459 Allen Ave #26
16. Ellen Anastos	Ellen.Anastos@ncmoves.com	459 Allen Ave #25
17. Elizabeth Stanton	foodloverrd@gmail.com	16 Merrymeeting Drive
18. Joy Gallant	Gallant-joy@yahoo.com	62 Florida Ave

Printed Name	E-Mail	Address
19. James Sullivan	None Provided	83 Florida Ave
20. John Scholz	johnms@gwi.net	334 Ray Street
21. Beth Webster	Mom21kid@aol.com	47 Florida Ave
22. Susan Harkins	None Provided	50 Florida Ave
23. Hilary Shorey	Hilary.carr09@gmail.com	96 Florida Ave
24. Kimerly Sinclair	Ksinc@maine.edu	333 Ray Street
25.		
26.		
27.		
28.		
29.		
30.		
31.		
32.		
33.		
34.		
35.		
36.		
37.		
38.		
39.		
40.		
41.		

Applicant and Consultant Team in Attendance:	
1. William Conway (Sebago Technics)	wconway@sebagotechnics.com
2. Dan Danvers (Sebago Technics)	ddanvers@sebagotechnics.com
3. Aaron Hunter (Sebago Technics)	ahunter@sebagotechnics.com
4. Daniel Maguire (Sandy River Company)	dmaguire@sandyriver2.com
5. Doug Gardner (North Country	DGardner@ncaltc.com
6. Michael Pednault	mpednault@gawronturgeon.com
7.	
8.	
9.	
10.	
11.	
12.	
13.	
14.	
15.	

NEIGHBORHOOD MEETING SIGN-IN

18347

Proposed FALLBROOK COMMONS LICENSED NURSING CARE FACILITY Ray Street, Portland

Date/Time of Meeting: February 18, 2020 at 6 P.M.

Location: Fallbrook Woods, 60 Merrymeeting Drive
Portland Maine 04103

Members of the Public in Attendance		
Printed Name	E-mail	Address
1. Mike DeBorja	mdeborja@Maine.rr.com	69 Florida Ave Portland ME
2. Gene Ellen Rowe		295 Ray St. Portland, ME
3. Elizabeth Huntley	ehuntley@Maine.rr.com	31 Nevada Ave.
4. George St. Clair	georges36@myfairprint.net	36 Nevada Ave. Portland
5. Lee Whitney	lecanninmaine@gmail.com	1 Merrymeeting Dr. Portland
6. George Barber	gabarker@yahoo	19 11 11 11
7. Carol Doughty	Cndoughty@yahoo.com	54 Florida Ave
8. Ben Doughty	bcdoughty@cozyharbor.com	54 Florida Ave
9. Donna Towle		8 Merrymeeting Drive - Portland, ME
10. Monica Garcia	Monygarcia2@yahoo.com	80 Florida Drive
11. Ann Ackson	finkoya@yahoo.com	28 Merrymeeting Dr. Portland
12. ALI KIM COURNOYER	SEISAIL34@GMAIL.COM	24 MERRYMEETING DR PORTLAND
13. Darrin Ramsdell	dramsdel@gmail.com	12 Penn Ave Portland
14. David Dumont	ddumont11@hotmail.com	2 Merrymeeting DR. Portland
15. Karen Woodberry	kwood07@hotmail.com	459 Allen Ave #26
16. Ellen Anastos	ELLEN.ANASTOS@NEMOVES.COM	" " " #25 Portland 04103
17. Elizabeth Stanton	foodloverrd@gmail.com	16 Merrymeeting Dr Portland 04103
18. Joy Gallant	gallant-joy@yahoo.com	62 Florida Ave Portland ME 04103

Printed Name	E-Mail	Address
19. JAMES SULLIVAN	.	83 Florida Ave Port
20. John Scholz	Johnms@gwi.net	334 Ray St Port
21. Beth Webster	Mom21kid@aol.com	47 Florida Ave Portland
22. Susan Hawkins		50 Florida Ave Portland
23. Hilary Shorey	hilary.carr09@gmail.com	96 Florida Ave Portland
24. Kimberly Sinclair	KSINCL@MAINE.EDU	333 Ray Street Portland
25.		
26.		
27.		
28.		
29.		
30.		
31.		
32.		
33.		
34.		
35.		
36.		
37.		
38.		
39.		
40.		
41.		

Applicant and Consultant Team in Attendance:	
1. William Conway	wconway@sebagotechnics.com
2. Dan Danvers	ddanvers@sebagotechnics.com
3. Aaron Hunter	ahunter@sebagotechnics.com
4. Mike Pedhault	mpedhault@gawron-turgeon.com - Architect
5. George Berbe	gaberber@yahoo.com
6. Lee Ann Whitney	
7.	
8.	
9.	
10.	
11.	
12.	
13.	
14.	
15.	



May 15, 2020

Andrew Tufts
City of Portland Planning Board

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

Re: Fallbrook Commons replacement project for St Joseph Manor

We are providing this letter to share the need to replace St. Joseph Manor and to do so just as soon as we can.

This project is a collaboration between Maine Medical/Maine Health, Sandy River Company, and North Country Associates. Maine Medical Center currently owns St. Joseph Manor, a 121-bed licensed nursing home. Maine Medical will sell the bed rights of St Joseph Manor to Sandy River and North Country, who will jointly develop and operate a new 90-bed state-of-the art licensed nursing care center to replace St Joseph and to be located on land abutting Fallbrook Woods, a 66-bed assisted living facility on Ray Street.

The existing 45-year old nursing care facility does not meet today's skilled nursing facility standards and has outlived its useful life as a nursing home. Additionally, as we have all learned from COVID-19, existing older nursing homes are extremely vulnerable places in managing such outbreaks. We need to replace St Joseph Manor for the following reasons:

- The resident rooms are small, shared rooms, and four persons to a bathroom that do not meet ADA standards, nor appropriately allow for managing any possible virus outbreaks. The new building will be largely private rooms with private baths and offer a much safer environment to manage infectious disease control.
- Built in 1974, the facility is an old-style long double loaded corridor facility with dead end corridors. The layout of the building does not allow for efficient programming and caregiving. The proposed new facility will consist of three "neighborhoods" offering the opportunity to create both a traditional long-term care neighborhood and short stay rehabilitation neighborhoods, as well as decentralize dining and living areas. This layout also offers the opportunity to significantly improve the management of any outbreaks of infectious disease.
- The physical plant is in poor condition with failing or outdated mechanical systems, heating inefficiencies and a roof that needs replacing; there is an entire wing that is not operational.

Real Estate Services for the Healthcare Industry

217 Commercial St., Suite 201 PO Box 110 • Portland, Maine 04112 • TEL: 207.558.6060

www.SandyRiverCompany.com

Clearly, replacing St Joseph Manor with a new state-of-the-art nursing center will have a dramatic positive impact on the quality of life of residents and improve the emotional health of residents and their families. As part of the collaboration for this project, it became important that the replacement facility and services continue to be offered within the City of Portland. Please note that the proposed new replacement facility is within a mile of St Joseph, allowing for a nearby transition for residents and family and staff. The development of a new 90-bed nursing home requires at least 5-7 acres of land which is almost impossible to find with the City. The available land at Fallbrook Woods offered the opportunity to create a campus whereby staff and resources can be shared as well as families could easily visit family members that might be in both facilities.

The project received approval from Maine Department of Health and Human Services on January 13, 2020. Since then, there has been several delays. First, we learned that the City of Portland's Planning Board was backed up with several other projects ahead of this project. And then COVID-19 entered all our lives and further delayed any opportunity to bring this project to an agenda with the Planning Board. We also held a "neighborhood" meeting and listened to concerns about our initial proposed entrance from Ray Street to the proposed new nursing center. Based on feedback from neighbors about traffic safety at that entrance point, we decided to change that entrance to a gated fire safety access only and utilize the existing private road, Merrymeeting Drive, that comes into the existing assisted living facility and create a more defined senior care campus. We have amended our plans accordingly with upgrades to Merrymeeting Drive that also address concerns from Fallbrook Condos neighbors which also share Merrymeeting Drive.

We would like to begin construction this year. The new facility will take approximately 16 months to build and not open until 2022. Building and opening the replacement facility for St Joseph Manor just as soon as possible is critical to the health and safety of residents and staff.

We really appreciate the City of Portland's support for this important project.

Sincerely,



Daniel J Maguire
Managing Partner
Sandy River Company



November 12, 2019

Ms. Christine Grimando
Department of Planning and Urban Development of Portland
389 Congress Street
4th Floor
Portland, Maine 04101

Dear Ms. Grimando,

I am writing on behalf of Maine Medical Center to express our support for the proposed Fallbrook Care Center and the partnership between Sandy River Co. and North Country Associates that will bring this critically needed center for senior care services to Portland.

As the president of Maine Medical Center, I advocate daily for our vision of “Working together to ensure our communities are the healthiest in America,” and that is exactly what this project is creating. As you already know, Maine is the oldest state in the nation and the need to serve the demand for senior care in new, innovative and resident-centered ways is growing.

Fallbrook Care Center will provide more than just a home to residents who require short and long-term living arrangements, it will also play an important role in the continuum of medical care in our local community. Patients recovering from complex medical conditions will have a supportive environment aligned with best practices for senior care.

Maine Medical Center strongly endorses the proposed project.

Please do not hesitate to reach out to me if we can be of further assistance as you evaluate this project.

Respectfully,

Jeffrey D. Sanders
President



MAINE HISTORIC PRESERVATION COMMISSION
55 CAPITOL STREET
65 STATE HOUSE STATION
AUGUSTA, MAINE
04333

JANET T. MILLS
GOVERNOR

KIRK F. MOHNEY
DIRECTOR

November 21, 2019

Ms. Stefanie Nichols
Sebago Technics
75 John Roberts Road, Suite 4A
South Portland, ME 04106

Project: MHPC #1678-19 Fallbrook Commons; Ray Street/ Merrymeeting Drive
Senior Living Facility
Town: Portland, ME

Dear Ms. Nichols:

In response to your recent request, I have reviewed the information received November 14, 2019 to initiate consultation on the above referenced project in accordance with the requirements of Maine Department of Environmental Protection.

Based on the information provided, I have concluded that there are no National Register listed or known eligible properties on or adjacent to the proposed project site. In addition, the parcel is not considered sensitive for archaeological resources.

Please contact Megan M. Rideout of our staff, at megan.m.rideout@maine.gov or 207-287-2992, if we can be of further assistance in this matter.

Sincerely,

Kirk F. Mohney
State Historic Preservation Officer



November 7, 2019
18347

Mr. Kirk Mohny
Maine Historic Preservation Commission
65 State House Station
Augusta, Maine 04333

Re: Fallbrook Commons - Senior Living Facility
Ray Street / Merrymeeting Drive, Portland
Parcel ID: 403 F001, 403-F005

Dear Mr. Mohny:

On behalf of the project applicant, Sebago Technics respectfully requests site review for a proposed new senior living facility adjacent to an existing senior facility in the North Deering section of Portland on Ray Street. The property is 12.78± acres and is located in the City Residential-3 zone. Per available resources we have determined that the site is not located in a local Historic District.

The project includes a new senior living facility that will be located next to the existing Fallbrook Woods assisted living community. The development includes the construction of a two-story, 37,450± sf building with 90 bedrooms and two adjacent parking areas. The new senior facility will be accessed by a new driveway from Ray Street with secondary access for emergency use over Merrymeeting Drive.

The project area is mostly wooded and will be cleared for the proposed site improvements. The applicant intends to leave the majority of the municipal building setbacks vegetated. Post-construction views to and from the new facility will be filtered through a combination of the existing mature vegetation and new landscaping.

We respectfully request review of the Maine Historic Preservation Commission database for any properties or structures of historic significance in the vicinity of the project site. For your reference, I have enclosed a site location map, the site property cards and Google Earth street view images of the surrounding residential areas. At your earliest convenience, please review and forward your findings. If you have any questions on this project, please do not hesitate to contact me at snichols@sebagotechnics.com or on my direct line at (207) 200-2120. I look forward to hearing from you.

Sincerely, 18347

SEBAGO TECHNICS, INC.

A handwritten signature in black ink that reads "Stefanie Nichols".

Stefanie Nichols
Permitting Specialist / Project Coordinator

enc.

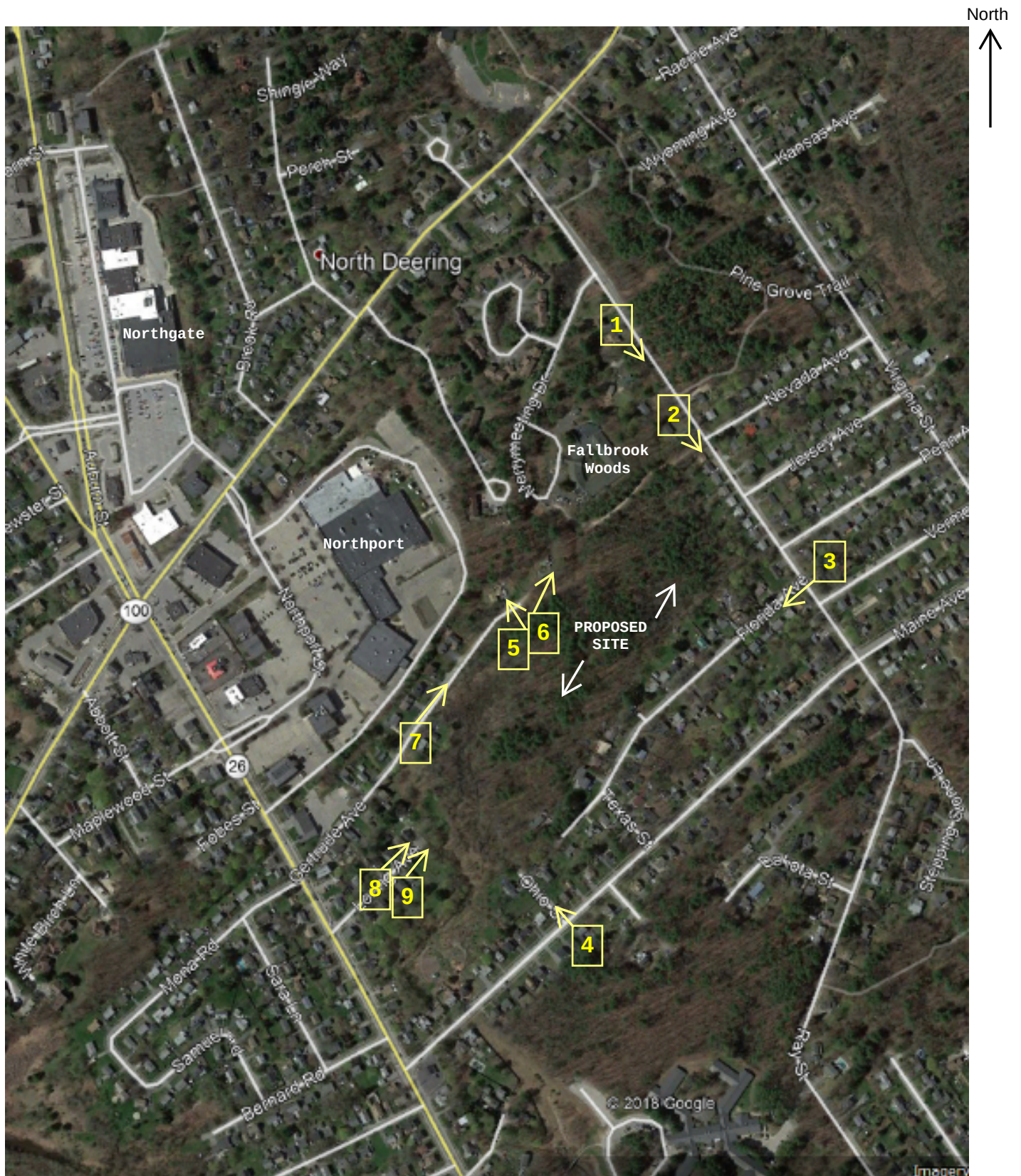


PHOTO KEY – Fallbrook Commons, Portland



Street view looking southeast along Ray Street toward the project entrance location



Street view looking southeast from the proposed Ray Street project entrance location



View along Florida Avenue from Ray Street



View along Ohio Street from Maine Avenue



Gertrude Avenue terminus -1



Gertrude Avenue terminus -2



Mid Gertrude Avenue Existing Conditions – residences and wooded area



View along Loring Avenue to end



View 2 - Loring Avenue to end



Services

Applications

Doing Business

Maps

Tax Relief

Tax Roll

Q & A

browse city services a-z

browse facts and links a-z



Best viewed at 800x600, with Internet Explorer

PORTLANDMAINE

Assessor's Office

Assessor's Office | 389 Congress Street | Portland, Maine 04101 | Room 115 | (207) 874-8486

CityHomeDepartmentsCity CouncilE-ServicesCalendarJobs

This page contains a detailed description of the Parcel ID you selected.

New Search!

Current Owner Information:

CBL

403 F005001

Land Use Type

SINGLE FAMILY

Verify legal use with Inspections Division

Property Location

368 RAY ST

Owner Information

MCDONALD PATRICIA A & CATHERINE E MCDONALD
368 RAY ST
PORTLAND ME 04103

Book and Page

8818/50

Legal Description

403-F-5
RAY ST 368

Rental Registration

No

Acres

0.4522

Current Assessed Valuation:

TAX ACCT NO.

25541

OWNER OF RECORD AS OF APRIL 2019

LAND VALUE

\$79,700.00

MCDONALD PATRICIA A & CATHERINE E MCDONALD

BUILDING VALUE

\$105,800.00

368 RAY ST

HOMESTEAD

(\$16,800.00)

PORTLAND ME 04103

NET TAXABLE - REAL ESTATE

\$168,700.00

TAX AMOUNT

\$3,932.40

Any information concerning tax payments should be directed to the Treasury office at 874-8490 or [e-mailed](#).

Building Information:

Building 1	
Year Built	1955
Style/Structure Type	3
# Units	1
Bedrooms	2
Full Baths	1
Total Rooms	5
Attic	NONE
Basement	FULL
Square Feet	1200

[View Sketch](#) [View Map](#) [View Picture](#)

Outbuildings/Yard Improvements:

Building 1	
Year Built	1980
Structure	GARAGE-WD/CB
Size	14X22
Units	1

Grade C
Condition A

Sales Information:

Sale Date	Type	Price	Book/Page
7/7/1989	LAND + BUILDING	\$0.00	8818/50

New Search!



Services

Applications

Doing Business

Maps

Tax Relief

Tax Roll

Q & A

browse city services a-z

browse facts and links a-z



Best viewed at 800x600, with Internet Explorer

PORTLANDMAINE

Assessor's Office

Assessor's Office | 389 Congress Street | Portland, Maine 04101 | Room 115 | (207) 874-8486

CityHomeDepartmentsCity CouncilE-ServicesCalendarJobs

This page contains a detailed description of the Parcel ID you selected.

New Search!

Current Owner Information:

CBL

Land Use Type

Verify legal use with Inspections Division

Property Location

Owner Information

Book and Page

Legal Description

Rental Registration

Acres

400 D023001

RETAIL & PERSONAL SERVICE

60 MERRYMEETING DR

FALLBROOK PROPERTIES LLC

418 RAY ST

PORTLAND ME 04103

27501/183

400-D-23 402-I-1 403-F-1

RAY ST 362-362

MERRYMEETING DR 60

549978 SF

No

12.6258

Current Assessed Valuation:

TAX ACCT NO.

LAND VALUE

BUILDING VALUE

NET TAXABLE - REAL ESTATE

TAX AMOUNT

25421

\$305,600.00

\$3,086,400.00

\$3,392,000.00

\$79,067.52

OWNER OF RECORD AS OF APRIL 2019

FALLBROOK PROPERTIES LLC

418 RAY ST

PORTLAND ME 04103

Any information concerning tax payments should be directed to the Treasury office at 874-8490 or [e-mailed](#).

Building Information:

Building 1

Year Built

Style/Structure Type

Units

Square Feet

1993

1

27600

[View Sketch](#)

[View Map](#)

[View Picture](#)

Exterior/Interior Information:

Building 1

Levels

Size

Use

Height

Walls

Heating

A/C

01/01

27600

NURSING HOME

9

FRAME

HEAT PUMP

CENTRAL

Other Features:

11/10/2019

Portland Maine Assessor's Online Database

	Building 1
Structure	SPRINKLER - WET
Size	27600X1
	Building 1
Structure	CANOPY - ONLY
Size	708X1

Outbuildings/Yard Improvements:

	Building 1
Year Built	1993
Structure	ASPHALT PARKING
Size	20000
Units	1
Grade	C
Condition	3
	Building 1
Year Built	1993
Structure	LIGHT - MERCURY VAPOR, POLE
Size	1X1
Units	6
Grade	C
Condition	3
	Building 1
Year Built	1993
Structure	SHED-FRAME
Size	10X14
Units	1
Grade	C
Condition	3

Sales Information:

Sale Date	Type	Price	Book/Page
12/30/2009	LAND + BUILDING	\$0.00	27501/183
New Search!			

portlandassessor.com/searchdetail.asp?Acct=400 D023001

1/2

portlandassessor.com/searchdetail.asp?Acct=400 D023001

2/2



Site Location of Development Permit Application Fallbrook Commons

Prepared for
Fallbrook Care Development, LLC
P.O. Box 110
Portland, ME 04112

Prepared by
Sebago Technics
75 John Roberts Rd.
South Portland, ME 04106

February 2020
18347

Table of Contents

Application

Section Title

Section 1	Development Description
Section 2	Title, Right or Interest
Section 3	Financial Capacity
Section 4	Technical Ability
Section 5	Noise
Section 6	Visual Quality and Scenic Character
Section 7	Wildlife and Fisheries
Section 8	Historic Site
Section 9	Unusual Natural Areas
Section 10	Buffers
Section 11	Soils
Section 12	Stormwater Management
Section 13	Urban Impaired Stream Submissions
Section 14	Basic Standards
Section 15	Groundwater
Section 16	Water Supply
Section 17	Wastewater Disposal
Section 18	Solid Waste
Section 19	Flooding
Section 20	Blasting
Section 21	Air Emissions
Section 22	Odors
Section 23	Water Vapor
Section 24	Sunlight
Section 25	Notices

Department of Environmental Protection
Bureau of Land & Water Quality
17 State House Station
Augusta, Maine 04333
Telephone: 207-287-3901

FOR DEP USE
ATS # _____
L- _____
Total Fees: _____
Date: Received _____

FORM A PAGE 1

SITE LOCATION OF DEVELOPMENT PERMIT APPLICATION 38 M.R.S.A. §§481-490

PLEASE TYPE OR PRINT IN *INK ONLY*

This application is for: (CHECK THE ONE THAT APPLIES)		☐ 20 acre development ☐ Planning Permit ☐ Metallic Mining	☐ Marine Oil Terminal ☐ Structure ☐ Subdivision	☒ Major Amendment ☐ Minor Amendment
1. Name of Applicant:	Fallbrook Care Development LLC	6. Name of Agent (if applicable):	Sebago Technics Inc/Dan Danvers	
2. Applicant's Mailing Address:	P.O. Box 110, Portland, ME 04112	7. Agent's Mailing Address:	75 John Roberts Rd S. Portland	
3. Applicant's Daytime Phone #:	207-233-8665	8. Agent's Daytime Phone #:	207-200-2125	
4. Applicant's Fax # (if available):		9. Agent's Fax # (if available):		
5. Applicant's e-mail address (REQUIRED -license will be sent via: e-mail):	dmaguire@sandyriver2.com	10. Agent's e-mail address (REQUIRED - license will be sent via e-mail):	ddanvers@sebagotechnics.com	

PROJECT INFORMATION

11. Name of Development:	Fallbrook Commons				
12. Map and Lot #'s:	Map #: 400	Lot #: D23-01	13. Deed Reference #'s:	Book #: 27501	Page #: 183
14. Location of Project City/Town:	Portland	15. County:	Cumberland	16. UTM Northing	17. UTM Easting
18. Brief Description of Project including total parcel size:	Construction of a two-story, 58,197 sf senior care facility on a 12.78 acre parcel				
19. 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 or public water				
20. Name of Waterbody Project Site drains to:	unnamed stream that discharges to the Presumpscot River				
21. Amount of Developed Area:	Total 5.6 acres:	Existing Developed area:	0 acres	New Developed area:	5.6 acres
22. Amount of Impervious Area:	Total 2.7 acres:	Existing Impervious areas:	0 acres	New Impervious area:	2.7 acres
23. Development started prior to obtaining a license?:	☐ Yes ☒ No				
24. Development or any portion of the site subject to enforcement action?	☐ Yes ☒ No		If yes, name of enforcement staff involved?		
25. Common scheme of development?:	☒ Yes ☐ No	26. Title, Right or Interest:	☐ own ☐ lease	☒ purchase option ☐ written agreement	
27. Natural Resources Protection Act permit required?:	☒ Yes ☐ No	If yes:	☐ PBR	☐ Tier 1 ☒ Tier 2	☐ Full Permit
28. Existing DEP Permit number (if applicable):	L-011219-87-A-N				
29. Names of DEP staff person(s) present at the pre-application meeting:	City of Portland delegated review				
30. Does agent have an interest in project? If yes, what is the interest?	☐ Yes ☒ No				

CERTIFICATIONS AND SIGNATURES LOCATED ON PAGE 2

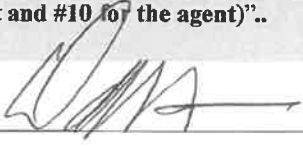
IMPORTANT: IF THE SIGNATURE BELOW IS NOT THE APPLICANT'S SIGNATURE, ATTACH LETTER OF AGENT AUTHORIZATION SIGNED BY THE APPLICANT.

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 emailing the decision to the electronic address located on the front page of this application (see #5 for the applicant and #10 for the agent)".

Signed:  Title Member Date: 2/20/20

Notice of Intent to Comply
with Maine Construction
General Permit

With this Site Law application form and my signature, 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.

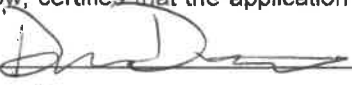
If this form is not being signed by the landowner or lessee of the property, attach documentation showing authorization to sign.

Signed:  Date: 2/20/20

NOTE: You must file a MCGP Notice of Termination (Form K) within 20 days of completing permanent stabilization of the project site.

CERTIFICATION

The person responsible for preparing this application and/or attaching pertinent site and design information hereto, by signing below, certifies that the application for development approval is complete and accurate to the best of his/her knowledge.

Signature: 

Name (print): DANIEL DANVERS

Date: 03/02/2020

Re/Cert/Lic No.: _____
 Engineer _____
 Geologist _____
 Soil Scientist _____
 Land Surveyor _____
 Site Evaluator _____
 Active Member of the Maine Bar _____
 Professional Landscape Architect 4815
 Other _____

Section 1

Development Description

Development Description

A. Narrative

The project includes a new senior living facility located next to Fallbrook Woods assisted living. The development includes the construction of a two story, 58,197 sf building that will house 90 beds, a commercial kitchen, community areas, and two parking areas with a total of 92 parking spaces. Fallbrook Health Center proposes a main entrance off of Ray Street, and an emergency connection to Merrymeeting Drive.

This project is proposed to be complete as one phase, which will involve clearing the incidental vegetation, ledge removal, and site preparations for the building, and stormwater BMP's. Construction is expected to commence Summer 2020 and be completed by 2021.

The project site is comprised of undeveloped, mostly wooded land with frontage on Ray Street. The site was originally permitted through the State; first as part of a phased subdivision plan and then as part of Fallbrook Woods senior center development (L-11219-87-G-C). The subject parcel is approximately 8.28 acres and is a portion of the Fallbrook Woods original 12.78-acre parcel. The Fallbrook Commons project is not directly affiliated with Fallbrook Woods, however given the nature of these two facilities there will be a connecting drive to the existing Fallbrook Woods.

The proposed project is within the watershed of an unnamed stream that is a tributary of the Presumpscot River, which is not classified as most-at-risk in the Chapter 502: Direct Watersheds of Lakes Most at Risk from New Development, And Urban Impaired Streams. Chapter 500 Stormwater Phosphorus Standards do not apply.

B. Topographic Map

Attached as Figure 1.

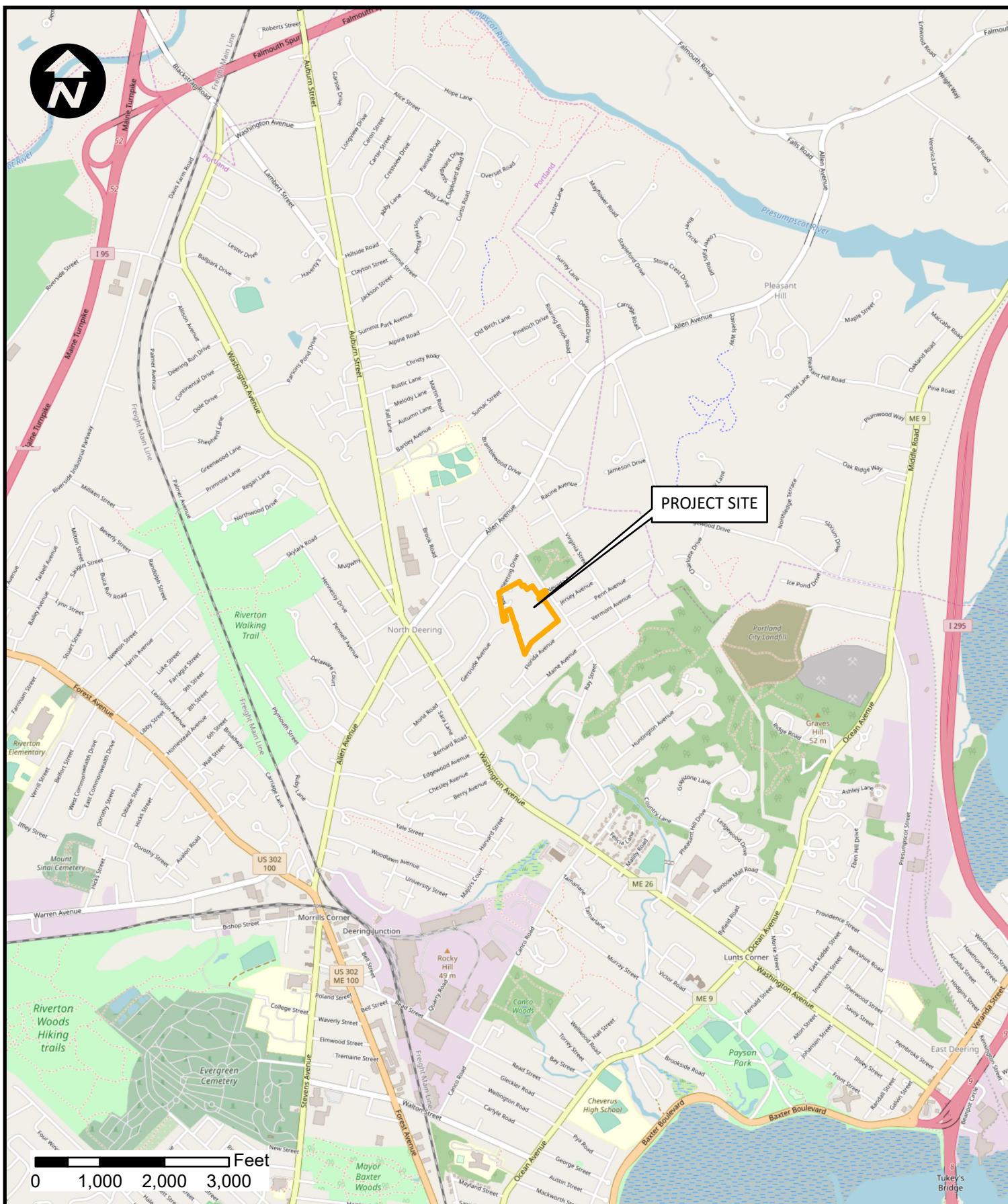
C. Construction Plan

Site improvements are scheduled to begin in summer 2020 with completion by late 2021. The proposed project will begin upon receipt of all appropriate permits.

D. Drawings

All appropriate site drawings are attached. Individual plans are listed below.

<u>Sheet Number</u>	<u>Sheet Title</u>
1	Cover Sheet
1 of 1	Existing Conditions Plan
2	Notes and Legend
3	Overall Site Plan
4	Site Plan 1
5	Site Plan 2
6	Grading Plan 1
7	Grading Plan 2
8	Gravel Wetland Detail
9	Underdrained Soil Filter Detail
10	Utility Plan 1
11	Utility Plan 2
12	Landscape Plan 1
13	Landscape Plan 2
14	erosion Control Notes and Details
15	Details 1
16	Details 2
17	Details 3
18	Pre-Development Stormwater Plan
19	Post-Development Stormwater Plan



PROJECT SITE



WWW.SEBAGOTECHNICS.COM
75 John Roberts Rd. - Suite 4A
South Portland, ME 04106
Tel. 207-200-2100

SITE LOCATION MAP FALLBROOK COMMONS

LOCATION: 60 MERRYMEETING DRIVE
PORTLAND, ME

INFORMATION: USGS Quadrangle: Portland West

SCALE: 1:24,000
DATE: 10/22/2019

Section 2

Title, Right or Interest

Section 2**Title, Right or Interest**

The record owner of the parcels is Fallbrook Properties, LLC by a deed and recorded at the Cumberland County Registry of Deeds in Book 27501 Page 183. A purchase and sales agreement is in place between Fallbrook Properties, LLC and the applicant, Fallbrook Care Development, LLC.

Please see this Section for a copy of the deed and purchase and sales agreement.

**AGREEMENT FOR PURCHASE AND SALE
OF
REAL ESTATE**

AGREEMENT ("Agreement") made and entered into this 28th day of August, 2019, by and between Fallbrook Properties, LLC, a Maine corporation ("Seller"), having a mailing address of 60 Merrymeeting Drive, Portland, Maine 04013 and Fallbrook Care Development LLC, a Maine corporation with an address of PO Box 110, Portland, Maine 04112 or its assigns ("Buyer").

RECITALS

Seller is party to a Memorandum of Agreement relating to a project that entails the conveyances by Seller to a Joint Venture of real property (two land parcels) located adjacent to Fallbrook Woods in Portland, Maine, and the use of such assets by Buyer to develop, build and operate a new assisted living facility. This Agreement for the Purchase and Sale of Real Estate is contemplated by the Memorandum of Agreement, Joint Venture, dated August 28, 2019.

In consideration of the mutual covenants and agreements herein contained herein, the receipt and sufficiency of which are hereby acknowledged, Seller and Buyer hereby agree as follows:

1. PURCHASE AND SALE. Seller agrees to sell, and Buyer agrees to buy, on the terms and conditions hereinafter set forth certain real estate, and all appurtenances thereof, consisting of two parcels of real estate shown for illustration purposes in the diagram attached as Exhibit A. Copies of the legal descriptions to be used in conveying the Property are annexed hereto and incorporated herein by reference as Exhibit A (collectively to be referred to as the "Property").
2. PURCHASE PRICE AND DEPOSIT: As consideration for the conveyance of the Property, Buyer shall pay to Seller at Closing the sum of \$800,000.
3. PERFORMANCE AT CLOSING: At Closing, Seller shall deliver to Buyer a deed, conveying the Property in fee simple with good and marketable title in accordance with standards of title adopted by the Maine Bar Association, and subject to the Permitted Encumbrances, and Buyer shall pay the Purchase Price as provided herein and execute all necessary papers for the completion of the purchase on or before August 30, 2020, unless extended by mutual agreement of the parties.

period, not to exceed 30 days from the time Seller receives written notice of the defect, unless otherwise agreed to by both parties, to remedy the title, after which time, if such defect is not corrected so that there is marketable title, Buyer may within forty-five (45) days thereafter, at Buyer's option, withdraw said earnest money and neither party shall have any further obligation hereunder. Seller hereby agrees to make a good-faith effort to cure any title defect during such period, but shall not be obligated to expend more than \$5,000 to cure. If Closing of the real estate transaction is delayed on account of such defects, the parties shall bargain regarding whether and the terms under which the remainder of the closing contemplated under the Memorandum of Agreement may be consummated and this real estate transaction completed thereafter.

- b. Seller further agrees to execute and deliver to Buyer at Closing the following documents: (i) a Certificate of Non-Foreign Status (as required by Internal Revenue Service regulations); (ii) a title insurance "Seller's Affidavit" regarding mechanics liens and persons in possession; (iii) an affidavit regarding underground storage tanks (as required by Maine Law), and (iv) documents demonstrating Seller's authority to convey and good standing as evidenced by a copy of Seller's resolution authorizing the transaction contemplated herein and all other documents regarding authority or any other matter reasonably required from the Closing.
- c. To the extent that the conveyance of title to the Property to Buyer requires the subdivision of lots, Buyer shall bear the cost, or shall reimburse Seller, for the cost of any outside legal and surveyor expense reasonably necessary to secure such subdivision, including any necessary municipal or other approvals.

4. DEED: The Property shall be conveyed by a quitclaim with covenant deed and shall be free and clear of all encumbrances except for Permitted Encumbrances, and except for covenants, conditions, easements and restrictions of record and usual public utilities servicing the Property and shall be subject to applicable land use and building laws and regulations.

5. POSSESSION/OCCUPANCY: Possession/occupancy of Property shall be given to Buyer immediately at Closing unless otherwise agreed by both parties in writing.

6. RISK OF LOSS: Until transfer of title, the risk of loss or damage to said Property by fire or otherwise is assumed by Seller unless otherwise agreed in writing. Said Property shall at closing be in substantially the same condition as at present, excepting reasonable use and wear.

7. PRORATIONS: The following items shall be prorated as of the date of closing:

- a. Buyer and Seller shall each pay one-half of the transfer tax as required by the laws of the State of Maine.

- b. Buyer and Seller shall reasonably cooperate on the proration of any other needed item at Closing. The property is vacant land, and so no heating oil or water and sewer charges are expected.
 - c. Real Estate Taxes for any portions of the Property subject to such taxes, based on the municipality's current tax year.
- 8. INSPECTION. Buyer may enter into any part of the Property at all reasonable times in order to inspect the Property, conduct surveys, soil tests and engineering studies and to do such things as are reasonably necessary with respect to its acquisition and intended development of the Property. In the event that the Buyer does not terminate this Agreement, this inspection contingency to its obligation to close shall be conclusively deemed waived.
- 9. AGENCY DISCLOSURE: Buyer and Seller acknowledge that they have not engaged a real estate broker in their transaction.
- 10. PRIOR STATEMENTS: This Agreement and the referenced Memorandum of Agreement set forth the entire agreement between the parties relating to the conveyance of the property described in Exhibit A, and there are no other representations, agreements or understandings with respect to the subject matter of this Agreement.
- 11. ASSIGNS: This Agreement shall extend to and be obligatory upon successors, and assigns of the respective parties. This Agreement may be assigned only to persons or entities controlling, controlled by, or under common control of a party.
- 12. COUNTERPARTS: This Agreement may be signed on any number of identical counterparts, including telefax copies, with the same binding effect as if all of the signatures were on one instrument.
- 13. BUYER'S NOMINEE: Buyer may transfer its rights under this Agreement to an entity or the nominee which it controls. Buyer shall, however, remain jointly and severally liable with such transferee for all of Buyer's obligations under this Agreement and under the Memorandum of Agreement, and such transferee shall be required to assume joint and several liability for all such obligations. Buyer shall give Seller prompt written notice of any such transfer at least seven (7) days before the scheduled Closing, which notice shall include sufficient information to identify the transferee entity or nominee and certified copies of its organizational documents. No assignment shall be valid unless Seller has approved the agreement pursuant to which the assignment is consummated. No other assignment of this Agreement by Buyer is permitted.
- 14. EFFECTIVE DATE: This Agreement is a binding contract when signed by both Seller and Buyer and when that fact has been communicated to all parties or to their agents. Time is of the essence of this Agreement to the extent set forth in the Master Agreement.

15. BEST EFFORTS: Each of the parties shall undertake to take all reasonable steps necessary to achieve the satisfaction of conditions leading to a Closing under this Agreement.

16. FACSIMILE COPIES: All parties to this Agreement agree to accept facsimile or photocopies of this document and any signatures thereto as originals.

17. REPRESENTATIONS OF SELLER: Seller represents to Buyer that the following are true as of the date of this Agreement and will be true as of the Closing:

- a. To the best of Seller's knowledge, there are no violations of any applicable law, ordinance or regulation at the Property.
- b. To the best of Seller's knowledge, there are no special wastes, underground storage tanks, asbestos containing materials, waste oil, petroleum and any other hazardous substances, materials or wastes contaminating the Property. The terms used in the foregoing sentence shall include, without limitation, all substances, materials, etc., designated by such terms under any laws, ordinances, or regulations, whether federal, state, or local. This presentation shall except such materials used in the regular course of business and disposed of in compliance with all applicable laws.
- c. Other than matters of record that constitute Permitted Encumbrances, there are no outstanding pending or threatened liens, claims, rights of first refusal, or encumbrances against the Property.

18. NOTICES. Any notice or communication given pursuant to this Agreement by either of the parties to the other shall be in writing and delivered as provided in the Master Agreement for notices.

19. GOVERNING LAW. This Agreement shall be construed according to the laws of the State of Maine.

20. TERMINATION OF AGREEMENT. This Agreement shall terminate if:

- a. The Memorandum of Agreement is terminated.
- b. Any other condition precedent set forth in the Memorandum of Agreement required to be fulfilled is not fulfilled (or waived by the party having the waive such condition) by August 30, 2020.

a. The Memorandum of Agreement is terminated.

b. Any other condition precedent set forth in the Memorandum of Agreement required to be fulfilled is not fulfilled (or waived by the party having the waive such condition) by August 30, 2020.

Seller acknowledges that the laws of the State of Maine provide that every buyer of real property located in Maine must withhold a withholding tax equal to 2-1/2% of the consideration unless Seller furnishes to Buyer a certificate by the Seller stating, under penalty of perjury, that Seller is a resident of Maine or the transfer is otherwise exempt from withholding.

Buyer Fallbrook Core Development LLC

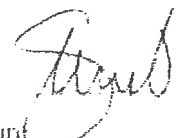

Signature

Daniel J. Maguire
Name/Title, there unto duly authorized
Member

Seller accepts Buyer's offer and agrees to deliver the Property at the price and upon the terms and conditions set forth above.

Signed this 20th day of August, 2019.

Seller FALLBROOK PROPERTIES, LLC Tax I.D. # 270433266

By: 
Signature

JOHN C. ORESTIS, PRINCIPAL & MANAGING MEMBER
Name/Title, there unto duly authorized

EXHIBIT A

(legal descriptions begin on next page)

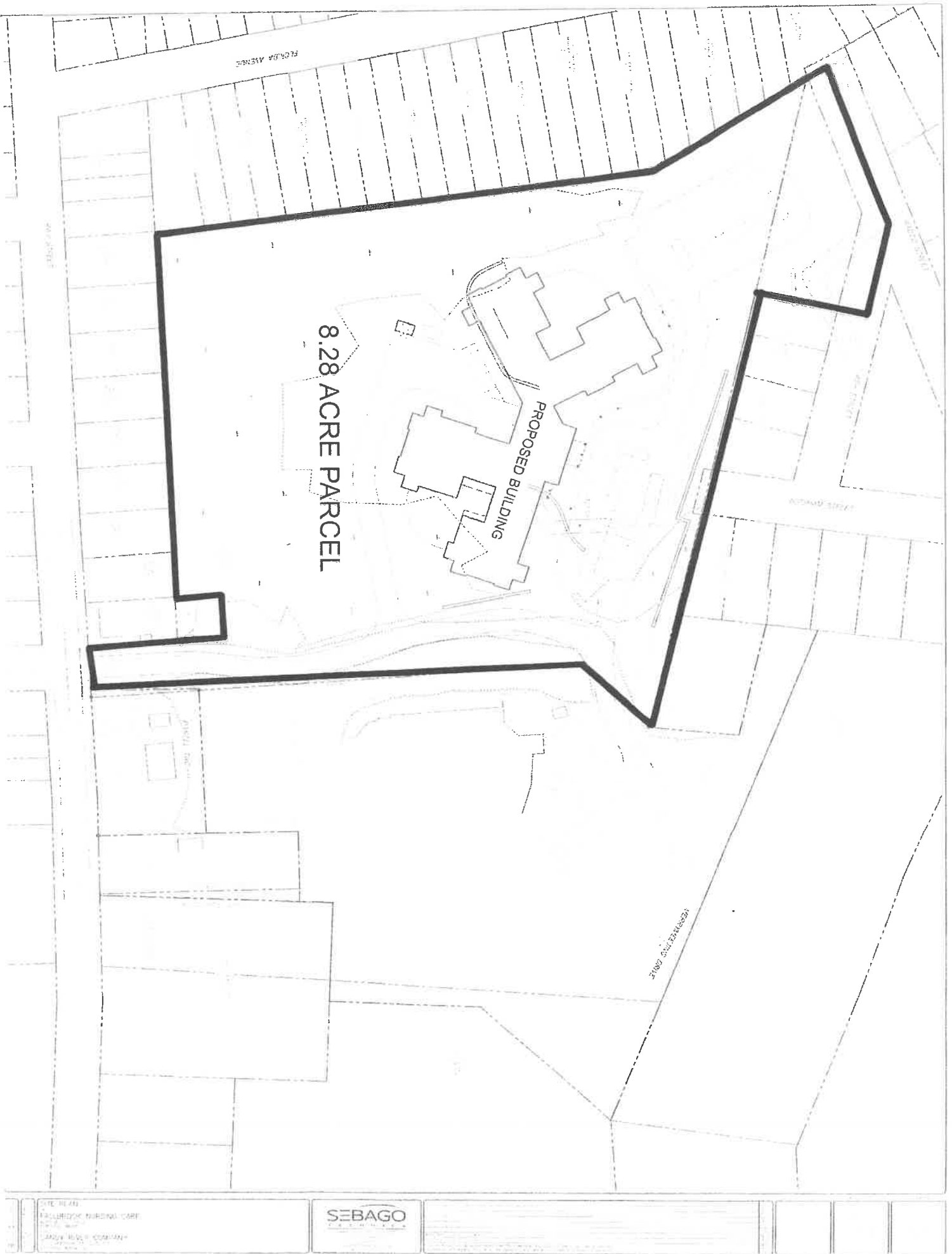


Exhibit A

**AGREEMENT FOR PURCHASE AND SALE
OF
REAL ESTATE**

AGREEMENT ("Agreement") made and entered into this 28th day of August, 2019, by and between Fallbrook Properties, LLC , a Maine corporation ("Seller"), having a mailing address of 60 Merrymeeting Drive, Portland, Maine 04013 and Fallbrook Care Development LLC, a Maine corporation with an address of PO Box 110, Portland, Maine 04112 or its assigns ("Buyer").

RECITALS

Seller is party to a Memorandum of Agreement relating to a project that entails the conveyances by Seller to a Joint Venture of real property (two land parcels) located adjacent to Fallbrook Woods in Portland, Maine, and the use of such assets by Buyer to develop, build and operate a new assisted living facility. This Agreement for the Purchase and Sale of Real Estate is contemplated by the Memorandum of Agreement., Joint Venture, dates August 28, 2019.

In consideration of the mutual covenants and agreements herein contained herein, the receipt and sufficiency of which are hereby acknowledged, Seller and Buyer hereby agree as follows:

1. **PURCHASE AND SALE.** Seller agrees to sell, and Buyer agrees to buy, on the terms and conditions hereinafter set forth certain real estate, and all appurtenances thereof, consisting of a parcel of real estate shown for illustration purposes in the diagram attached as Exhibit A. Copies of the legal description to be used in conveying the Property are annexed hereto and also incorporated herein by reference as Exhibit A (collectively to be referred to as the "Property").
2. **PURCHASE PRICE AND DEPOSIT:** As consideration for the conveyance of the Property, Buyer shall pay to Seller at Closing the sum of \$800,000.
3. **PERFORMANCE AT CLOSING:** At Closing, Seller shall deliver to Buyer a deed, conveying the Property in fee simple with good and marketable title in accordance with standards of title adopted by the Maine Bar Association, and subject to the Permitted Encumbrances, and Buyer shall pay the Purchase Price as provided herein and execute all necessary papers for the completion of the purchase on or before August 30, 2020, unless extended by mutual agreement of the parties.

EXHIBIT A
Proposed Description Parcel One

A certain lot or parcel of land situated on the westerly sideline of Ray Street in the City of Portland, County of Cumberland, State of Maine as depicted on a plan titled "Existing Conditions of Fallbrook Nursing Care, Merrymeeting Drive, Portland, Maine for Sandy River Company, 217 Commercial Street, Suite 201, Portland, Maine 04112, Record Owner Fallbrook Properties, LLC, 418 Ray Street, Portland Maine 04103" by Sebago Technics, Inc., dated May 30, 2019 and revised through July 10, 2019 to be recorded in the Cumberland County Registry of Deeds (CCRD) and being more particularly bounded and described as follows:

Beginning at a 5/8-inch rebar, 6-inches above grade on the westerly sideline of Ray Street and the northerly corner of land now or formerly of Amanda J. Connelly as described in a deed recorded in the CCRD in Book 34668, Page 155;

Thence S 54°32'18" W, along land now or formerly of Amanda J. Connelly and land now or formerly of Donald A. Thompson, Jr. and Evelyn L. Thompson JTS as described in a deed recorded in the CCRD in Book 6632, Page 99, a distance of 150.00 feet to a 5/8-inch iron rod, 8-inches above grade;

Thence S 35°27'42" E, along land now or formerly of Donald A. Thompson, Jr. and Evelyn L. Thompson JTS, a distance of 50.00 feet to a 5/8-inch rebar with plastic cap inscribed "STI PLS 2534" to be set;

Thence N 54°32'18" E, along land now or formerly of Donald A. Thompson, Jr. and Evelyn L. Thompson JTS, a distance of 50.00 feet to a 5/8-inch rebar with plastic cap inscribed "STI PLS 2534" to be set at land now or formerly of Jason D. Smith and Laurie R. Smith JTS as described in a deed recorded in the CCRD in Book 32730, Page 23;

Thence S 35°27'42" E, along land now or formerly of Jason D. Smith and Laurie R. Smith JTS and land now or formerly of Debora D. Morgan as described in a deed recorded in the CCRD in Book 13636, Page 105, a distance of 72.78 feet to a point;

Thence S 34°40'07" E, along land now or formerly of Debora D. Morgan, Gladys A. Moody as described in a deed recorded in the CCRD in Book 32780, Page 65, Marilyn D. Webb as described in a deed recorded in the CCRD in Book 29023, Page 310, Anna J. Aiken and James W. Aiken JTS as described in a deed recorded in the CCRD in Book 25390, Page 8, John M. Scholz as described in a deed recorded in the CCRD in Book 10841, Page 202, Jaime L. Hiltz as described in a deed recorded in the CCRD in Book 23255, Page 247 and David DiPietro as described in a deed recorded in the CCRD in Book 32054, Page 195, a distance of 333.24 feet to a 5/8-inch iron rod, 15-inches above grade at land now or formerly of Hon Khuu as described in a deed recorded in the CCRD in Book 32424, Page 248 and land now or formerly of Regan S. Brendan as described in a deed recorded in the CCRD in Book 32806, Page 341;

Thence S 54°36'33" W, along land now or formerly of Regan S. Brendan, a distance of 51.09 feet to a point;

Thence S 51°05'03" W, along land now or formerly of Regan S. Brendan, land now or formerly of Christian Sabrina Katheryn as described in a deed recorded in the CCRD in Book 32949, Page 39, land now or formerly of Mary A. Packard and Amanda M. Packard as described in a deed recorded in the CCRD in Book 10936, Page 100, land now or formerly of Haylee E. Hasson as described in a deed recorded in the CCRD in Book 33706, Page 89, land now or formerly of Hilary Carr as described in a deed recorded in the CCRD in Book 29976, Page 255, land now or formerly of Paula M. Urbach as described in a deed recorded in the CCRD in Book 31613, Page 621, land now or formerly of Ian P. Houseal as described in a deed recorded in the CCRD in Book 30070, Page 164, land now or formerly of Luis O. Garcia and Monica M. Garcia JTS as described in a deed recorded in the CCRD in Book 30353, Page 291 and land now or formerly of Matthew A. Anderson as described in a deed recorded in the CCRD in Book 32380, Page 112, a distance of 481.12 feet to a 5/8-inch iron rod, 12-inches above grade;

Thence S 37°28'58" W, along land now or formerly of Matthew A. Anderson, a distance of 29.58 feet to a 5/8-inch rebar with plastic cap inscribed "STI PLS 2534" to be set;

Thence S 28°22'08" W, along land now or formerly of Matthew A. Anderson, land now or formerly of Megan T. and Jonathan A. York JTS as described in a deed recorded in the CCRD in Book 25317, Page 156 and land now or formerly of Joy M. and Michael J. Borlowsky as described in a deed recorded in the CCRD in Book 9606, Page 268, a distance of 186.45 feet;

Thence S 29°23'41" W, along land now or formerly of Joy M. and Michael J. Borlowsky, a distance of 20.45 feet to a 5/8-inch rebar with plastic cap inscribed "STI PLS 2534" to be set at the centerline of the vacated Wadco Street as depicted on a Plan recorded at the CCRD in Plan Book 16, Page 29;

Thence N 54°10'52" W, through the vacated Wadco Street, a distance of 182.25 feet to a 5/8-inch rebar with plastic cap inscribed "STI PLS 2534" to be set;

Thence N 18°20'52" W, through the vacated Wadco Street and the vacated Ash Street as depicted on a Plan recorded at the CCRD in Plan Book 16, Page 29, a distance of 108.08 feet to a 5/8-inch rebar with plastic cap inscribed "STI PLS 2534" to be set;

Thence N 71°39'08" E, through the vacated Ash Street and along land now or formerly of Jeffrey A. Hayes Trustee as described in a deed recorded in the CCRD in Book 30716, Page 21, a distance of 123.80 feet to a point;

Thence N 17°52'57" W, along land now or formerly of Jeffrey A. Hayes Trustee, land now or formerly of Bertha L. Judkins as described in a deed recorded in the CCRD in Book 7750, Page 196, Topsham Street as depicted on a Plan recorded at the CCRD in Plan Book 16, Page 29, land now or formerly of House of Hogwarts, LLC as described in a deed recorded in the CCRD in Book 34616, Page 309, a distance of 369.17 feet to a 1-inch iron pipe, 2-inches above grade;

Thence N 18°18'12" W, along land now or formerly of House of Hogwarts, LLC, a distance of 125.00 feet to a 5/8-inch rebar with plastic cap inscribed "STI PLS 2534" to be set;

Thence S 79°57'00" E, through land of Fallbrook Properties, LLC, a distance of 99.99 feet to a 5/8-inch rebar with plastic cap inscribed "STI PLS 2534" to be set;

Thence N 54°32'18" E, through land to be retained by Fallbrook Properties, LLC, a distance of 420.18 feet to a 5/8-inch rebar with plastic cap inscribed "STI PLS 2534" to be set at other land of Fallbrook Properties, LLC;

Thence continuing N 54°32'18" E, through other land of Fallbrook Properties, LLC, a distance of 119.82 feet to a 5/8-inch rebar with plastic cap inscribed "STI PLS 2534" to be set on the westerly sideline of Ray Street;

Thence S 35°27'42" E, along Ray Street, a distance of 55.00 feet to the Point of Beginning;

Containing approximately 8.28 Acres.

The bearings herein are Grid North, Maine State Plane Coordinate System, West Zone 1802, NAD83.

August 28, 2019

AJS/jg

Current Owner Information:

CBL	400 D023001
Land Use Type	RETAIL & PERSONAL SERVICE
Verify legal use with Inspections Division	
Property Location	60 MERRYMEETING DR
Owner Information	FALLBROOK PROPERTIES LLC 418 RAY ST PORTLAND ME 04103
Book and Page	27501/183
Legal Description	400-D-23 402-I-1 403-F-1 RAY ST 362-362 MERRYMEETING DR 60 549978 SF
Rental Registration	No
Acres	12.6258

Current Assessed Valuation:

TAX ACCT NO.	25421	OWNER OF RECORD AS OF APRIL 2019
LAND VALUE	\$305,600.00	FALLBROOK PROPERTIES LLC
BUILDING VALUE	\$3,086,400.00	418 RAY ST
NET TAXABLE - REAL ESTATE	\$3,392,000.00	PORTLAND ME 04103
TAX AMOUNT	\$79,067.52	

Any information concerning tax payments should be directed to the Treasury office at 874-8490 or [e-mailed](#).

Building Information:

Building 1	
Year Built	1993
Style/Structure Type	
# Units	1
Square Feet	27600

[View Sketch](#)

[View Map](#)



Exterior/Interior Information:

Building 1	
Levels	01/01
Size	27600
Use	NURSING HOME
Height	9
Walls	FRAME
Heating	HEAT PUMP
A/C	CENTRAL

Other Features:

Building 1	
Structure	SPRINKLER - WET
Size	27600X1

Building 1	
Structure	CANOPY - ONLY
Size	708X1

Outbuildings/Yard Improvements:

Building 1	
Year Built	1993
Structure	ASPHALT PARKING
Size	20000
Units	1
Grade	C
Condition	3

Building 1	
Year Built	1993
Structure	LIGHT - MERCURY VAPOR, POLE
Size	1X1
Units	6
Grade	C
Condition	3

Building 1	
Year Built	1993
Structure	SHED-FRAME
Size	10X14
Units	1
Grade	C
Condition	3

Sales Information:

Sale Date	Type	Price	Book/Page
12/30/2009	LAND + BUILDING	\$0.00	27501/183

SHORT FORM QUITCLAIM DEED WITH COVENANT

FALLBROOK, INC., a Maine corporation with a principal place of business in Portland, Maine, FOR CONSIDERATION PAID, grants to **FALLBROOK PROPERTIES, LLC**, a Maine limited liability company whose mailing address is 418 Ray Street, Portland, Maine 04103, with QUITCLAIM COVENANT certain real property, together with any improvements thereon, located at 418 Ray Street, Portland, Cumberland County, Maine, and more particularly described on Exhibit A attached hereto and made a part hereof (the "Premises").

IN WITNESS WHEREOF, Fallbrook, Inc. has caused this instrument to be executed by Robert J. Feeney, its President thereunto duly authorized, this 15th day of December, 2009.

WITNESSETH:

FALLBROOK, INC.


Name: _____

By: 
Name: Robert J. Feeney
Title: President

State of Maine
County of Cumberland, ss.

December 15, 2009

PERSONALLY APPEARED the above-named Robert J. Feeney, President of Fallbrook, Inc., as aforesaid, and acknowledged the foregoing instrument to be his free act and deed in his said capacity and the free act and deed of said corporation.

Before me,


Name: Kevan Lee Rinehart
Title: Attorney ME 9303

EXHIBIT A

A certain parcel of land situated Westerly of Ray Street in the City of Portland, County of Cumberland and State of Maine bounded and described as follows:

Beginning at the southeasterly corner of Fallbrook, a Condominium, at a point on the Westerly sideline of land now or formerly of John N. Jr. and Glennis E. Fitzpatrick (Book 2773, Page 224);

Thence, S 13°-05'-20" E by the land of Fitzpatrick 110.00 feet to a point marked by a 5/8" iron rod set;

Thence, N 76°-54'-40" E by the land of Fitzpatrick 256.90 feet to a point on the Westerly sideline of Ray Street marked by 5/8" iron rod set;

Thence, S 16°-25'-15" E by the sideline of Ray Street 1.42 feet to a point marked by a 5/8" iron rod set at the land now or formerly of Ivan G. and Edwina F. Callahan (Book 2997, Page 486);

Thence, S 73°-34'-45" W by the land of Callahan 220.00 feet to a point marked by a 5/8" iron rod set;

Thence, S 16°-25'-15" E by the land of Callahan 65.00 feet to a point marked by a 5/8" iron rod set;

Thence, N 73°-34'-45" E by the land of Callahan 100.00 feet to a point marked by a 5/8" iron rod set at the land now or formerly of Malcolm A. and Gail E. McDonald (Book 3614, Page 219);

Thence, S 18°-02'-05" E by the land of McDonald 163.18 feet to a point marked by a 5/8" iron rod set;

Thence, N 74°-25'-15" E by the land of McDonald 120.00 feet to a point on the Westerly sideline of Ray Street marked by a 5/8" iron rod set;

Thence, S 18°-35'-45" E by the sideline of Ray Street 47.17 feet to a point marked by a 5/8" iron rod set at the land now or formerly of Donald A. and Evelyn Thompson (Book 2892, Page 451);

Thence, S 71°-24'-15" W by the land of Thompson 150.00 feet to a point marked by a 5/8" iron rod set;

Thence, S 18°-35'-45" E by the land of Thompson 50.00 feet to a point marked by a 5/8" iron rod set;

Thence, N 71°-24'-15" E by the land of Thompson 50.00 feet to a point marked by a 5/8" iron rod set at the land now or formerly of Richard E. and Carolyn Grover (Book 2895, Page 492);

Thence, S 18°-35'-45" E by the land of Grover and by the land now or formerly of Raymond A. and Florence M. Sevigny (Book 2490, Page 327) 72.78 feet to a point marked by a 5/8" iron rod set;

Thence, S 17°-48'-10" E by the land of Sevigny and by the lands now or formerly of Gladys A. and Kenneth V. Moody (Book 3471, Page 62), Betty L. Denbow (Book 2682; Page 313), Anna J. Aiken (Book 3570, Page 212), David A. and Carolyn J. Matthews (Book 4483, Page 163), Laura H. Clark (Book 3708, Page 194), and George and Doris Castonia (Book 4960, Page 286) 333.24 feet to a point marked by a 5/8" iron rod set at the land now or formerly of Frances F. Gatchell (Book 6257, Page 342);

Thence, S 71°-28'-30" W by the land of Gatchell 51.09 feet to a point marked by a 5/8" iron rod set;

Thence, S 67°-57'-00" W by the land of Gatchell and lands now or formerly of Eleanor L. and Sherry Sapko, Charles E. and Linda J. Foshay (Book 3920, Page 212), Linwood J. and Ruth L. Thaxter, Charles L. Arey (Book 2320, Page 55), Dorothy M. and Richard M. Butler (Book 3765, Page 177), Norman C. and Caroline M. Walton (Book 2014, Page 140), James P. and Lula S. Cullen (Book 2044, Page 474), and Glenda R. and Roger R. Pushor (Book 4755, Page 44) 481.12 feet to a point marked by a 5/8" iron rod set;

Thence, S 54°-20'-55" W by the land of Pushor 29.58 feet to a point marked by a 5/8" iron rod set;

Thence, S 45°-14'-05" W by the land now or formerly of Claire D. and Edward L. Gulick (Book 3782, Page 285) and by the land now or formerly of John H. and Jeannette B. Greer (Book 2824, Page 131) 186.45 feet to a stone wall intersection and the end of Wadco Street;

Thence, N 01°-01'-00" W by a stone wall 7.90 feet to the Northeasterly sideline of Wadco Street;

Thence, N 37°-18'-55" W by the sideline of Wadco Street 165.51 feet to a point marked by a 5/8" iron rod set at the Easterly sideline of Ash Street;

Thence, N 01°-28'-55" W by the sideline of Ash Street 100.00 feet to a point marked by a 5/8" iron rod set at the land now or formerly of Diane M. and Richard C. Hayes (Book 3615, Page 161);

Thence, N 88°-31'-05" E by the land of Hayes 98.80 feet to a stonewall;

Thence, N 01°-01'-00" W by the land of Hayes, the land now or formerly of Bertha C. Judkins, by the end of Topsham Street, and by the land now or formerly of David F. Marshall (Book 4804, Page 317) 369.17 feet to a 1" iron pipe found;

Thence, N 01°-26'-15" W by the land of Marshall 125.00 feet;

Thence, S 80°-04'-05" W by the land of Marshall 100.00 feet to a point marked by a 5/8" iron rod set;

Thence, S 1°-09'-05" E by the land of Marshall 125.00 feet to a 1" iron pipe found at the Northeast corner of the land now or formerly of Bertha C. Judkins;

Thence, S 81°-21'-30" W by the land of Judkins 56.91 feet to a 1/4" iron rod found at the Southeast corner of the land now or formerly of F. S. Plummer Co. (Book 6869, Page 110);

Thence, N 07°-34'-10" E by land of F. S. Plummer Co. 592.31 feet;

Thence, S 63°-29'-00" E by Fallbrook, a Condominium, 190.24 feet to a point;

Thence, N 76°-59'-40" E by Fallbrook, a Condominium, 166.98 feet to the point of beginning.

Also including and subject to those easements and rights, in common with others, which are described in the below referenced documents:

(1) Easements from George and Doris Castonia dated December 20, 1985, recorded in Book 7036, Page 92;

(2) Easements from Calvin L. and Myrtle W. Gailey, dated December 20, 1985, and recorded in Book 7036, Page 96;

(3) Easement from Frances F. Gatchell dated December 20, 1985, and recorded in Book 7036, Page 100; and

(4) Easement to the City of Portland for a turn-around at the terminus of Topsham Street and other matters shown on the Plat of Fallbrook, a Condominium, recorded in Plan Book 178, Page 66.

Also, an easement for all purposes in common with others over, under and along the 50 foot wide right of way shown on the said Plat of Fallbrook, a Condominium, recorded in Plan Book 178, Page 66 and reserved in the Declaration of Fallbrook Condominium dated April 20, 1989 and recorded in Book 8730, Page 206.

Also subject to the following exceptions and matters:

1. Title to and rights of the public and others entitled thereto in and to any portion of the Premises located within the bounds of adjacent streets, roads and ways.
2. Setback and minimum building value restrictions set forth in Indenture by and between Reginald and Isabelle H. Carles and Gretta and Edith Henderson, dated January 24, 1949 and recorded in the Cumberland County Registry of Deeds in Book 1951, Page 85 (further references herein to recorded documents are

references to documents recorded in said Registry).

3. Terms and provisions of a State of Maine Department of Environmental Protection Site Location Order #L-011219-87-A-N issued to Liberty Group, Inc., dated October 10, 1985 and recorded in Book 6958, Page 88, as transferred by unrecorded Order dated January 22, 1988; as further transferred to MM II Real Estate Corporation by Order dated February 24, 1989 and recorded in Book 8681, Page 310; as further transferred to Merreal Corp. by Order dated April 3 1989 and recorded in Book 8733, Page 187; and as affected by Order dated December 28, 1992 and recorded in Book 10500, Page 287.
4. Easement from the Merrymeeting Developers to Central Maine Power Company and New England Telephone and Telegraph Company, dated May 25, 1988 and recorded in Book 8444, Page 191.
5. Easement granted to Portland Water District by instrument dated September 21, 1988 and recorded in Book 8490, Page 164.
6. Matters affecting the Premises shown on plan entitled "Condominium Plat III, Fallbrook, A Condominium on Ray Street, Portland, Maine, for Merreal Corp., by Owen Haskell, Inc., dated May 10, 1990 and recorded in Plan Book 185, Page 15.
7. Terms and conditions of a Maintenance Agreement by and between Fallbrook, Inc. and Fallbrook, A Condominium, dated February 4, 1993 and recorded in Book 10546, Page 73.
8. Utility easement from Fallbrook, Inc. to Central Maine Power Company and New England Telephone and Telegraph Company, dated May 26, 1993 and recorded in Book 10771, Page 14.
9. Utility easement granted to Northern Utilities, Inc. by instrument dated October 7, 1993 and recorded in Book 11022, Page 51.
10. Agreement for Transfer and Assumption of Special Declarant Rights by and between Fallbrook, Inc. and Fallbrook Condominium Association, dated June 28, 1993 and recorded in Book 10804, Page 329.
11. Contract for Electric Service by and between Fall Brook Woods and Central Maine Power Company, dated June 18, 1993 and recorded in Book 11243, Page 201.
12. All encumbrances, restrictions and other matters of record affecting the Premises as of the date hereof.

Meaning and intending to convey the premises conveyed to Grantor herein by Deed from Merreal Corp., formerly named MM II Real Estate Corporation, to Fallbrook, Inc., dated December 20, 1991 and recorded in Book 9831, Page 59.

Received
Recorded Register of Deeds
Dec 30, 2009 02:11:13P
Cumberland County
Pamela E. Lovley

**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: Tue Nov 12 2019 13:38:02. Please print or save for your records.

Legal Name	Charter Number	Filing Type	Status
FALLBROOK COMMONS DEVELOPMENT LLC	20200861DC	LIMITED LIABILITY COMPANY (DOMESTIC)	GOOD STANDING

Filing Date	Expiration Date	Jurisdiction
08/12/2019	N/A	MAINE

Other Names (A=Assumed ; F=Former)

NONE

Clerk/Registered Agent

JAMES N. BRODER, ESQ.
C/O BERNSTEIN SHUR
P.O. BOX 9729
PORTLAND, ME 04104 5029

[Back to previous screen](#)[New Search](#)

Click on a link to obtain additional information.

List of Filings

[View list of filings](#)**Obtain additional information:**

Additional Addresses

[Plain Copy](#)[Certified copy](#)Certificate of Existence ([more info](#))[Short Form without
amendments
\(\\$30.00\)](#)[Long Form with
amendments
\(\\$30.00\)](#)

You will need Adobe Acrobat version 3.0 or higher in order to view PDF files.
If you encounter problems, visit the [troubleshooting page](#).



If you encounter technical difficulties while using these services, please contact the [Webmaster](#). If you are unable to find the information you need through the resources provided on this web site, please contact the Bureau's Reporting and Information Section at 207-624-7752 or [e-mail](#) or visit our [Feedback](#) page.

© Department of the Secretary of State

Section 3

Financial Capacity

Section 3**Financial Capacity****A. Estimated Costs**

The anticipated construction cost of the proposed site improvements is approximately \$17,840,821.

B. Financing

Please see this Section for a letter of financial capacity.



November 1, 2019

City of Portland
Planning Board
389 Congress Street
Portland, Maine 04101

Re: Funding the Development of Fallbrook Commons

Dear Planning Board:

On behalf of Fallbrook Commons, we are submitting this letter to assure you we can fund the proposed new 90-bed nursing care facility on the campus of Fallbrook Woods on Ray Street.

Sandy River Company is developing this project in partnership with the owner of Fallbrook Woods. This development team has a long history of successfully developing and securing debt and equity financing for senior care facilities throughout Maine. In the past 5 years alone, Sandy River has developed facilities in Maine with over \$100M in total project costs. These projects are funded with a combination of bank loans and equity raised from our pool of private investors.

We are continuously in discussions with Maine banks who are eager to participate in the financing of our projects. Currently, Androscoggin Savings Bank is financing a 66-unit new assisted living center under construction in Auburn with \$13M in bank financing. NBT Bank is financing a 90-bed facility in Sanford with \$17M in bank financing. Please note that we have not selected a bank for the Fallbrook Commons project and generally won't select a bank while we are still going through the approval process to include a Certificate of Need approval from the Maine Department of Health and Human Services. We don't expect to break ground until early summer, 2020 and will negotiate with several banks and make a final bank selection near that time. Thus, we prefer to not include a letter on financing from any particular bank. Please note that we have obtained financing on our projects from five different Maine banks over the past five years.

On equity, we have investors eager to invest in these kinds of projects based on our decades of experience creating successful senior care facilities throughout Maine.

We assure the Planning Board we can finance this proposed project.

Sincerely,

Daniel J Maguire
Managing Partner

Real Estate Services for the Healthcare Industry

217 Commercial St., Suite 201 PO Box 110 • Portland, Maine 04112 • TEL: 207.558.6060

www.SandyRiverCompany.com

Section 4

Technical Ability

Technical Ability

Fallbrook Care Development LLC has compiled a team of highly qualified contractors, consultants, and engineers for this proposed project.

The project team includes:

Sebago Technics, Inc. (STI) is a multi-disciplined engineering firm with over 35 years of experience, that offers a wide range of services specializing in land development, planning, permitting and engineering design services. We maintain a staff of multi-disciplinary professionals to provide services in the areas of general civil engineering, road and utility infrastructure design, construction management, permitting, landscape architecture, soil science, wetlands science, land surveying, and environmental engineering.

Gawron Turgeon Architects (GTA) is a multi-disciplined design firm with over 35 years of experience. They offer multi-disciplined planning and design services with a team that is comprised of architects, architectural designers, interior designers, landscape architects, and project managers.

Resumes of key personnel will be provided upon request.

Section 5

Noise

Noise**A. Developments Producing a Minor Noise Impact**

The proposed project involves the construction of a senior living facility on an undeveloped parcel abutting an assisted living facility. Given the nature of the proposed development and the surrounding complementary services, it is not anticipated that the project will result in an increase of noise generated at this site. As a result, a full noise study is not warranted. Temporary noise may arise during construction as a result of construction equipment working on the site. This noise potential is short-term and also not expected to be significant.

Construction will occur from 7 a.m. to 7 p.m. or during daylight hours and will be in compliance with the City of Portland ordinance.

Section 6

Visual Quality & Scenic Character

Visual Quality

The proposed project involves the construction of a new senior living facility near an existing assisted living facility. All proposed improvements have been designed with the visual quality of the site in mind. The proposed trees and shrubs have been selected and sited to provide a privacy buffer, as well as to be visual appealing and easily maintained. A wooded buffer is to remain between the development and the abutting properties along Ray Street and Florida Avenue,

New lighting proposed for the project will have full cut-off's and has been modeled to demonstrate the anticipated lighting levels at the property line.

See this section for the product information sheets for items related to project improvements. See the plan set for more detailed information on the project design.

CIMARRON LED

Cat.#

Job

Type



HUBBELL
Outdoor Lighting

Approvals

SPECIFICATIONS

Construction:

- Stylish vertically finned die-cast solid top housing for maximum heat dissipation; Stops collection of unsightly debris from gathering on top of the housing
- Rugged lower die-cast aluminum heat sink accelerates thermal management and optimizes PCB and optical performance
- Separate optical and electrical compartment for optimum component operation
- One piece die cut silicone gasket ensures weather proof seal around each individual LED for IP65 rating
- Backlight Control (BC) option available for 85% spill light reduction, doesn't change fixture appearance or EPA, recommended for Type III and Type IV distributions
- Stamped bezel provides mechanical compression to seal the optical assembly
- Complements the Hubbell Southwest series of outdoor fixtures
- Weight - 45.0 pounds, EPA - 1.3 ft²
- Suitable for applications requiring 3G testing prescribed by ANSI C136.31

Optics:

- Choice of 72 high brightness LED configurations with individual acrylic lenses specially designed for IES Type II, III, IV and V distributions
- Auto optics designed for front row 1A and interior rows 2A (see distribution under ordering and page 2)
- CCT: 3000K (80 CRI), 4000K (70 CRI), 5000K (70 CRI), and turtle friendly Amber LED options

Electrical:

- Universal input voltage 120-277 VAC, 50/60 Hz
- Integral step-down transformer for 347V & 480V
- Ambient operating temperature -40° C to 40° C
- Automatic thermal self-protection
- Drivers have greater than 90% power factor and less than 10% THD
- Optional continuous dimming to 10% or dual circuitry available

- LED drivers have output power over-voltage, over-current protection and short circuit protection with auto recovery
- 1050 mA driver available with 90L configuration for increased lumen output
- LED electrical assembly, including PR devices, consumes no power in the 'off' state
- Surge protection - 20KA; Turns fixture off at end of life; Includes LED for end of life indication (see surge suppressor page 4)

Controls:

- Drivers are 0-10V dimming standard. Photocell, occupancy sensor and wireless controls available for complete on/off and dimming control

Lumen maintenance:

- L90 at 60,000 hours (Projected per IESNA TM-21-11)

Installation:

- Two die-cast aluminum arm designs: The decorative arm offers a sleek upswept look while the straight arm follows the housing's contoured lines for continuity of style
- Fixture ships with arm installed for ease of installation and mounts to #2 drill pattern
- Wall bracket, mast arm fitter and pole accessories are also available allowing easy mounting for virtually any application

Finish:

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

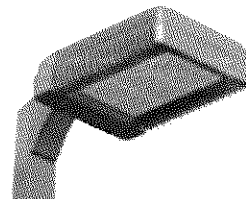
Warranty:

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

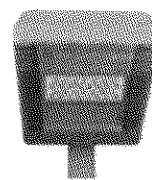
Listings:

- Listed to UL1598 and CSA C22.2#250.0-24 for wet locations
- Models meet DesignLights Consortium (DLC) qualifications, consult DLC website for more details: <http://www.designlights.org/QPL>
- IDA approved • IP65

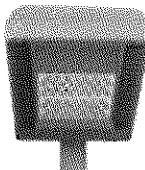
PRODUCT IMAGE(S)



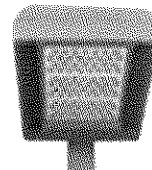
90 LED 3/4 VIEW



30 LED

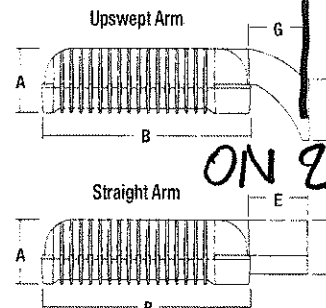


60 LED

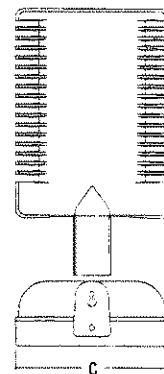


90 LED

DIMENSIONS



ON 20' poles



A	B	C	D	E	F	G
6 3/4" 171mm	21 3/4" 552mm	18" 406mm	6 5/8" 168mm	8 5/16" 160mm	5 5/8" 143mm	6 1/8" 159mm

CERTIFICATIONS/LISTINGS



*3000K and warmer CCTs only

ORDERING INFORMATION SEE NEXT PAGE



HUBBELL
Outdoor Lighting

Hubbell Outdoor Lighting • 701 Millennium Boulevard • Greenville, SC 29607 • Phone: 864-678-1000
Due to our continued efforts to improve our products, product specifications are subject to change without notice.



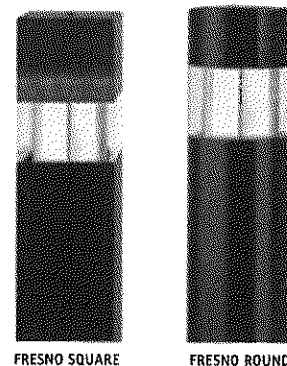
HUBBELL
Lighting

© 2018 HUBBELL OUTDOOR LIGHTING. All Rights Reserved • For more information visit our website: www.hubbelloutdoor.com • Printed in USA DL1LED-SPEC January 23, 2018 11:44 AM

Fresno FN

Bollards

- Rotatable LED assembly adjustment for ideal placement and aiming of asymmetric light pattern
- 24 high brightness LEDs at 500mA deliver symmetric distribution at 46w
- 12 high brightness LEDs at 700mA deliver asymmetric distribution at 30w
- Available in three different color correlated temperatures
- >60,000 HOUR L90
- Extruded aluminum housing with single screw access for top relamping; Decorative cast top with tamper resistant hardware
- Sealed one-piece, clear acrylic lens
- Durable Lektrocote™ TGIC thermoset polyester powder coat paint finish assures long life and maintenance-free service
- Concealed, cast aluminum anchor base; Four 1/2" x 10" anchor bolts on 4" diameter bolt circle
- Listed to UL1598 for use in wet locations
- 5 year limited system warranty



BOLLARDS

MADE-TO-ORDER ORDERING INFORMATION

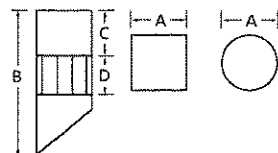
SERIES	SOURCE/WATTAGE/LED	VOLTAGE	COLOR	OPTIONS ¹
FN1 Fresno Square	12LU-3K asymmetric, 27W, 3000K CCT	U 120V-277V	DB Dark Bronze	CD 0-10V dimmable
FN2 Fresno Round	12LU-4K asymmetric, 27W, 4000K CCT	1 120	BL Black	24 24" OAH ²
	12LU-5K asymmetric, 27W, 5000K CCT	2 277	WH White	30 30" OAH ²
	24LU-3K symmetric, 41W, 3000K CCT	3 240	GR Gray	36 36" OAH ²
	24LU-4K symmetric, 41W, 4000K CCT	4 277	PS Platinum Silver	F(X) Fusing ³
	24LU-5K symmetric, 41W, 5000K CCT	5 480	RD Red (premium color)	P(X) Button Photocell ³
	24LU-AM symmetric, 20W, Amber 590nm	F 347	FG Forest Green (premium color)	ABS Bolts shipped ahead
			CC Custom Color (consult factory)	

¹ Any or all options may be used together

² Standard fixture height is 42", only one overall height (OAH) may be selected

³ Replace 'X' with corresponding voltage (1=120, 2=208, 3=240, 4=277, 5=480, 6=347), Button Photocell not available in 480V

DIMENSIONS



	A	B	C	D	Weight
FN1	6 3/4" sq. 171 mm	42" 1067 mm	6" 152 mm	4" 102 mm	41 lbs. 18.6 kg
	7" dia.	42"	6"	4"	41 lbs.
FN2	178 mm	1067 mm	152 mm	102 mm	18.6 kg

Section 7

Wildlife and Fisheries

Section 7**Wildlife and Fisheries**

Maine Inland Fisheries and Wildlife (IF&W) was contacted to review the project site and a response letter was received on November 20, 2019. There are no essential habitats or fisheries habitats that have been mapped that will be impacted by this project. IF&W did note that given the nature of Maine that there was a possibility that the project area falls within the migration path of several species of bats. They also recommended that the site be reviewed for the presence of vernal pools.

All proposed tree clearing is planned for the fall which is outside the bat migration and breeding season. There are no known sizable outcrops on site that could be utilized as habitat for bats.

The project site has been reviewed for vernal pools. Please see Section 11 for the wetland memo dated May 14, 2019 by Sebago Technics.

Please see this Section for all Maine Inland Fisheries and Wildlife correspondence.



STATE OF MAINE
DEPARTMENT OF
INLAND FISHERIES & WILDLIFE
284 STATE STREET
41 STATE HOUSE STATION
AUGUSTA ME 04333-0041



November 20, 2019

Stefanie Nichols
Sebago Technics
75 John Roberts Road, Suite 1A
Portland, ME 04101

RE: Information Request - Fallbrook Commons Senior Living Facility, Portland

Dear Stefanie:

Per your request received November 12, 2019, we have reviewed current Maine Department of Inland Fisheries and Wildlife (MDIFW) information for known locations of Endangered, Threatened, and Special Concern species; designated Essential and Significant Wildlife Habitats; and fisheries habitat concerns within the vicinity of the *Fallbrook Commons Senior Living Facility Project* in Portland.

Our Department has not mapped any Essential Habitats that would be directly affected by your project.

Endangered, Threatened, and Special Concern Species

Bats

Of the eight species of bats that occur in Maine, the three *Myotis* species are protected under Maine's Endangered Species Act (MESA) and are afforded special protection under 12 M.R.S §12801 - §12810. The three *Myotis* species include little brown bat (State Endangered), northern long-eared bat (State Endangered), and eastern small-footed bat (State Threatened). The five remaining bat species are listed as Special Concern: big brown bat, red bat, hoary bat, silver-haired bat, and tri-colored bat.

While a comprehensive statewide inventory for bats has not been completed, based on historical evidence it is likely that several of these species occur within the project area during migration and/or the breeding season. However, our Agency does not anticipate significant impacts to any of the bat species as a result of this project.

Significant Wildlife Habitat

Significant Vernal Pools

At this time MDIFW Significant Wildlife Habitat (SWH) maps indicate no known presence of SWHs subject to protection under the Natural Resources Protection Act (NRPA) within the project area, which include Waterfowl and Wading Bird Habitats, Seabird Nesting Islands, Shorebird Areas, and Significant Vernal Pools. However, a comprehensive statewide inventory for Significant Vernal Pools has not been completed. Therefore, we recommend that surveys for vernal pools be conducted within the project boundary by qualified wetland scientists prior to final project design to determine whether there are

Significant Vernal Pools present in the area. These surveys should extend up to 250 feet beyond the anticipated project footprint because of potential performance standard requirements for off-site Significant Vernal Pools, assuming such pools are located on land owned or controlled by the applicant. Once surveys are completed, survey forms should be submitted to our Agency for review well before the submission of any necessary permits. Our Department will need to review and verify any vernal pool data prior to final determination of significance.

Fisheries Habitat

We recommend that 100-foot undisturbed vegetated buffers be maintained along streams. Buffers should be measured from the edge of stream or associated fringe and floodplain wetlands. Maintaining and enhancing buffers along streams that support coldwater fisheries is critical to the protection of water temperatures, water quality, natural inputs of coarse woody debris, and various forms of aquatic life necessary to support conditions required by many fish species. Stream crossings should be avoided, but if a stream crossing is necessary, or an existing crossing needs to be modified, it should be designed to provide full fish passage. Small streams, including intermittent streams, can provide crucial rearing habitat, cold water for thermal refugia, and abundant food for juvenile salmonids on a seasonal basis and undersized crossings may inhibit these functions. Generally, MDIFW recommends that all new, modified, and replacement stream crossings be sized to span at least 1.2 times the bankfull width of the stream. In addition, we generally recommend that stream crossings be open bottomed (i.e. natural bottom), although embedded structures which are backfilled with representative streambed material have been shown to be effective in not only providing habitat connectivity for fish but also for other aquatic organisms. Construction Best Management Practices should be closely followed to avoid erosion, sedimentation, alteration of stream flow, and other impacts as eroding soils from construction activities can travel significant distances as well as transport other pollutants resulting in direct impacts to fish and fisheries habitat. In addition, we recommend that any necessary instream work occur between July 15 and October 1.

This consultation review has been conducted specifically for known MDIFW jurisdictional features and should not be interpreted as a comprehensive review for the presence of other regulated features that may occur in this area. Prior to the start of any future site disturbance we recommend additional consultation with the municipality, and other state resource agencies including the Maine Natural Areas Program and Maine Department of Environmental Protection in order to avoid unintended protected resource disturbance.

Please feel free to contact my office if you have any questions regarding this information, or if I can be of any further assistance.

Best regards,



Becca Settele
Wildlife Biologist

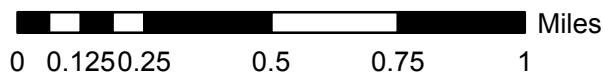


Environmental Review of Fish and Wildlife Observations and Priority Habitats

Project Name: Portland, Fallbrook Commons Senior Living Facility (Version 1)



Maine Department of
Inland Fisheries and Wildlife



Projection: UTM, NAD83, Zone 19N

Date: 11/14/2019

- | | | |
|--------------------|----------------------------------|---|
| ProjectPoints | Deer Winter Area | Roseate Tern |
| ProjectLines | LUPC p-fw | Piping Plover and Least Tern |
| ProjectPolys | Cooperative DWAs | Aquatic ETSc - 2.5 mi review |
| ProjectSearchAreas | Seabird Nesting Islands | Rare Mussels - 5 mi review |
| | Shorebird Areas | Maine Heritage Fish Waters |
| | Inland Waterfowl and Wading Bird | Arctic Charr Habitat |
| | 2008 lwwh - Shoreland Zoning | Redfin Pickerel and Swamp Darter Habitats - buffer100ft |
| | Tidal Waterfowl and Wading Bird | Special Concern occupied habitats - 100ft buffer |
| | Significant Vernal Pools | Wild Lake Trout Habitats |
| | Environmental Review Polygons | |





November 7, 2019
18347

Mr. John Perry, Environmental Coordinator
Maine Department of Inland Fisheries & Wildlife
41 State House Station
Augusta, Maine 04333
ifw@environmentalreview@maine.gov

Re: Fallbrook Commons - Senior Living Facility
Merrymeeting Drive, Portland
Parcel ID: 400 D 023001

Dear John:

On behalf of the project applicant, Sebago Technics, Inc. respectfully requests a site review for the proposed new senior living facility and associated site improvements on Merrymeeting Drive in the North Deering section of Portland. In order to move forward with regulatory permitting we ask that you review your available data for any lands that support rare, threatened and endangered species, designated essential and significant wildlife habitats, and fisheries habitat.

For your reference, I have enclosed a site location map. At your earliest convenience, please review and forward your findings. If you have any questions on this project, please do not hesitate to contact me at snichols@sebagotechnics.com or on my direct line at (207) 200-2120. I look forward to hearing from you.

Sincerely,

SEBAGO TECHNICS, INC.

A handwritten signature in black ink that reads "Stefanie Nichols".

Stefanie Nichols
Permitting Specialist/ Project Coordinator

enc.

Section 8

Historic Sites

Section 8**Historic Sites**

Maine Historic Preservation Commission (MHPC) was contacted on November 7, 2019 to review the project site for possible impacts to historic resources. As per the MHPC response letter dated November 21, 2019, the proposed project will not result in an impact to any historic resources.

Please see this Section for a copy of the request letter and the MHPC response



MAINE HISTORIC PRESERVATION COMMISSION
55 CAPITOL STREET
65 STATE HOUSE STATION
AUGUSTA, MAINE
04333

JANET T. MILLS
GOVERNOR

KIRK F. MOHNEY
DIRECTOR

November 21, 2019

Ms. Stefanie Nichols
Sebago Technics
75 John Roberts Road, Suite 4A
South Portland, ME 04106

Project: MHPC #1678-19 Fallbrook Commons; Ray Street/ Merrymeeting Drive
Senior Living Facility
Town: Portland, ME

Dear Ms. Nichols:

In response to your recent request, I have reviewed the information received November 14, 2019 to initiate consultation on the above referenced project in accordance with the requirements of Maine Department of Environmental Protection.

Based on the information provided, I have concluded that there are no National Register listed or known eligible properties on or adjacent to the proposed project site. In addition, the parcel is not considered sensitive for archaeological resources.

Please contact Megan M. Rideout of our staff, at megan.m.rideout@maine.gov or 207-287-2992, if we can be of further assistance in this matter.

Sincerely,

Kirk F. Mohney
State Historic Preservation Officer



November 7, 2019
18347

Mr. Kirk Mohny
Maine Historic Preservation Commission
65 State House Station
Augusta, Maine 04333

Re: Fallbrook Commons - Senior Living Facility
Ray Street / Merrymeeting Drive, Portland
Parcel ID: 403 F001, 403-F005

Dear Mr. Mohny:

On behalf of the project applicant, Sebago Technics respectfully requests site review for a proposed new senior living facility adjacent to an existing senior facility in the North Deering section of Portland on Ray Street. The property is 12.78± acres and is located in the City Residential-3 zone. Per available resources we have determined that the site is not located in a local Historic District.

The project includes a new senior living facility that will be located next to the existing Fallbrook Woods assisted living community. The development includes the construction of a two-story, 37,450± sf building with 90 bedrooms and two adjacent parking areas. The new senior facility will be accessed by a new driveway from Ray Street with secondary access for emergency use over Merrymeeting Drive.

The project area is mostly wooded and will be cleared for the proposed site improvements. The applicant intends to leave the majority of the municipal building setbacks vegetated. Post-construction views to and from the new facility will be filtered through a combination of the existing mature vegetation and new landscaping.

We respectfully request review of the Maine Historic Preservation Commission database for any properties or structures of historic significance in the vicinity of the project site. For your reference, I have enclosed a site location map, the site property cards and Google Earth street view images of the surrounding residential areas. At your earliest convenience, please review and forward your findings. If you have any questions on this project, please do not hesitate to contact me at snichols@sebagotechnics.com or on my direct line at (207) 200-2120. I look forward to hearing from you.

Sincerely, 18347

SEBAGO TECHNICS, INC.

A handwritten signature in black ink that reads "Stefanie Nichols".

Stefanie Nichols
Permitting Specialist / Project Coordinator

enc.

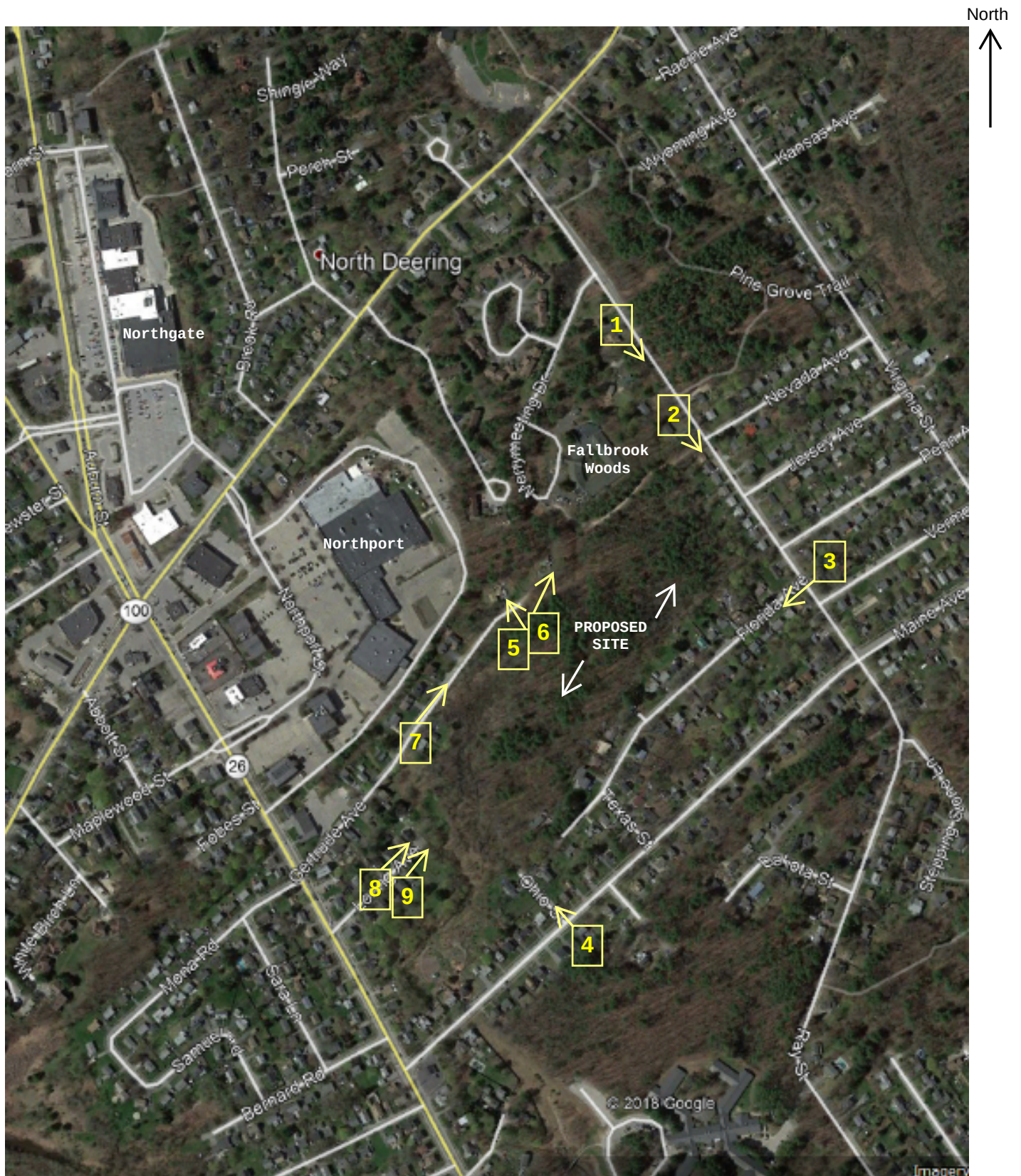


PHOTO KEY – Fallbrook Commons, Portland



Street view looking southeast along Ray Street toward the project entrance location



Street view looking southeast from the proposed Ray Street project entrance location



View along Florida Avenue from Ray Street



View along Ohio Street from Maine Avenue



Gertrude Avenue terminus -1



Gertrude Avenue terminus -2



Mid Gertrude Avenue Existing Conditions – residences and wooded area



View along Loring Avenue to end



View 2 - Loring Avenue to end



Services

Applications

Doing Business

Maps

Tax Relief

Tax Roll

Q & A

browse city services a-z

browse facts and links a-z



Best viewed at 800x600, with Internet Explorer

PORTLANDMAINE

Assessor's Office

Assessor's Office | 389 Congress Street | Portland, Maine 04101 | Room 115 | (207) 874-8486

CityHomeDepartmentsCity CouncilE-ServicesCalendarJobs

This page contains a detailed description of the Parcel ID you selected.

New Search!

Current Owner Information:

CBL

403 F005001

Land Use Type

SINGLE FAMILY

Verify legal use with Inspections Division

Property Location

368 RAY ST

Owner Information

MCDONALD PATRICIA A & CATHERINE E MCDONALD
368 RAY ST
PORTLAND ME 04103

Book and Page

8818/50

Legal Description

403-F-5
RAY ST 368

Rental Registration

No

Acres

0.4522

Current Assessed Valuation:

TAX ACCT NO.

25541

OWNER OF RECORD AS OF APRIL 2019

LAND VALUE

\$79,700.00

MCDONALD PATRICIA A & CATHERINE E MCDONALD

BUILDING VALUE

\$105,800.00

368 RAY ST

HOMESTEAD

(\$16,800.00)

PORTLAND ME 04103

NET TAXABLE - REAL ESTATE

\$168,700.00

TAX AMOUNT

\$3,932.40

Any information concerning tax payments should be directed to the Treasury office at 874-8490 or [e-mailed](#).

Building Information:

Building 1	
Year Built	1955
Style/Structure Type	3
# Units	1
Bedrooms	2
Full Baths	1
Total Rooms	5
Attic	NONE
Basement	FULL
Square Feet	1200

[View Sketch](#) [View Map](#) [View Picture](#)

Outbuildings/Yard Improvements:

Building 1	
Year Built	1980
Structure	GARAGE-WD/CB
Size	14X22
Units	1

Grade C
Condition A

Sales Information:

Sale Date	Type	Price	Book/Page
7/7/1989	LAND + BUILDING	\$0.00	8818/50

New Search!



Services

Applications

Doing Business

Maps

Tax Relief

Tax Roll

Q & A

browse city services a-z

browse facts and links a-z



Best viewed at 800x600, with Internet Explorer

PORTLANDMAINE

Assessor's Office

Assessor's Office | 389 Congress Street | Portland, Maine 04101 | Room 115 | (207) 874-8486

City

Home

Departments

City Council

E-Services

Calendar

Jobs

This page contains a detailed description of the Parcel ID you selected.

New Search!

Current Owner Information:

CBL

Land Use Type

Verify legal use with Inspections Division

Property Location

Owner Information

Book and Page

Legal Description

Rental Registration

Acres

400 D023001

RETAIL & PERSONAL SERVICE

60 MERRYMEETING DR

FALLBROOK PROPERTIES LLC

418 RAY ST

PORTLAND ME 04103

27501/183

400-D-23 402-I-1 403-F-1

RAY ST 362-362

MERRYMEETING DR 60

549978 SF

No

12.6258

Current Assessed Valuation:

TAX ACCT NO.

LAND VALUE

BUILDING VALUE

NET TAXABLE - REAL ESTATE

TAX AMOUNT

25421

\$305,600.00

\$3,086,400.00

\$3,392,000.00

\$79,067.52

OWNER OF RECORD AS OF APRIL 2019

FALLBROOK PROPERTIES LLC

418 RAY ST

PORTLAND ME 04103

Any information concerning tax payments should be directed to the Treasury office at 874-8490 or [e-mailed](#).

Building Information:

Building 1	
Year Built	1993
Style/Structure Type	
# Units	1
Square Feet	27600
View Sketch View Map View Picture	

Exterior/Interior Information:

Building 1	
Levels	01/01
Size	27600
Use	NURSING HOME
Height	9
Walls	FRAME
Heating	HEAT PUMP
A/C	CENTRAL

Other Features:

portlandassessor.com/searchdetail.asp?Acct=400 D023001

1/2

11/10/2019

Portland Maine Assessor's Online Database

Building 1	
Structure	SPRINKLER - WET
Size	27600X1
Building 1	
Structure	CANOPY - ONLY
Size	708X1

Outbuildings/Yard Improvements:

Building 1	
Year Built	1993
Structure	ASPHALT PARKING
Size	20000
Units	1
Grade	C
Condition	3

Building 1	
Year Built	1993
Structure	LIGHT - MERCURY VAPOR, POLE
Size	1X1
Units	6
Grade	C
Condition	3

Building 1	
Year Built	1993
Structure	SHED-FRAME
Size	10X14
Units	1
Grade	C
Condition	3

Sales Information:

Sale Date	Type	Price	Book/Page
12/30/2009	LAND + BUILDING	\$0.00	27501/183
New Search!			

portlandassessor.com/searchdetail.asp?Acct=400 D023001

2/2

Section 9

Unusual Natural Areas

Section 9**Unusual Natural Areas**

A project review request was forwarded to Maine Natural Areas Program (MNAP) and a response was received on November 7, 2019. Their review of the site found no documented rare botanical features within the project area.

Please see this Section for a copy of the request letter and the MNAP response.



November 7, 2019
18347

Ms. Lisa St. Hilaire
Maine Natural Areas Program
93 State House Station
Augusta, ME 04333-0093
lisa.st.hilaire@maine.gov

Re: Fallbrook Commons - Senior Living Facility
Merrymeeting Drive, Portland
Parcel ID: 400 D 023001

Dear Lisa:

On behalf of the project applicant, Sebago Technics, Inc. respectfully requests a site review for a proposed new senior living facility and associated site improvements on Merrymeeting Drive in the North Deering section of Portland. In order to move forward with regulatory permitting we ask that you review your available data for any lands that support rare and endangered plants, rare natural communities and ecosystems, and other natural communities and ecosystems in the vicinity of the proposed project area.

For your reference, I have enclosed a Site Location Map with the proposed project location identified. If you have any questions on this project, please do not hesitate to contact me at snichols@sebagotechnics.com or on my direct line at (207) 200-2120. I look forward to hearing from you.

Sincerely,

SEBAGO TECHNICS, INC.

A handwritten signature in black ink that reads "Stefanie Nichols".

Stefanie Nichols
Permitting Specialist/Project Coordinator

enc.



STATE OF MAINE
DEPARTMENT OF AGRICULTURE, CONSERVATION & FORESTRY
177 STATE HOUSE STATION
AUGUSTA, MAINE 04333

JANET T. MILLS
GOVERNOR

AMANDA E. BEAL
COMMISSIONER

November 7, 2019

Stefanie Nichols
Sebago Technics
75 John Roberts Road, Suite 4A
South Portland, ME 04106

Via email: snichols@sebagotechnics.com

Re: Rare and exemplary botanical features in proximity to: #18347, Fallbrook Commons Senior Living Facility, Portland, Maine

Dear Ms. Nichols:

I have searched the Maine Natural Areas Program's Biological and Conservation Data System files in response to your request received November 7, 2019 for information on the presence of rare or unique botanical features documented from the vicinity of the project in Portland, Maine. Rare and unique botanical features include the habitat of rare, threatened, or endangered plant species and unique or exemplary natural communities. Our review involves examining maps, manual and computerized records, other sources of information such as scientific articles or published references, and the personal knowledge of staff or cooperating experts.

Our official response covers only botanical features. For authoritative information and official response for zoological features you must make a similar request to the Maine Department of Inland Fisheries and Wildlife, 284 State Street, Augusta, Maine 04333.

According to the information currently in our Biological and Conservation Data System files, there are no rare botanical features documented specifically within the project area. This lack of data may indicate minimal survey efforts rather than confirm the absence of rare botanical features. You may want to have the site inventoried by a qualified field biologist to ensure that no undocumented rare features are inadvertently harmed.

If a field survey of the project area is conducted, please refer to the enclosed supplemental information regarding rare and exemplary botanical features documented to occur in the vicinity of the project site. The list may include information on features that have been known to occur historically in the area as well as recently field-verified information. While historic records have not been documented in several years, they may persist in the area if suitable habitat exists. The enclosed list identifies features with potential to occur in the area, and it should be considered if you choose to conduct field surveys.

This finding is available and appropriate for preparation and review of environmental assessments, but it is not a substitute for on-site surveys. Comprehensive field surveys do not exist for all natural areas in Maine, and in the absence of a specific field investigation, the Maine Natural Areas Program cannot provide a definitive statement on the presence or absence of unusual natural features at this site.

MOLLY DOCHERTY, DIRECTOR
MAINE NATURAL AREAS PROGRAM
BLOSSOM LANE, DEERING BUILDING



PHONE: (207) 287-804490
WWW.MAINE.GOV/DACF/MNAP

The Maine Natural Areas Program (MNAP) is continuously working to achieve a more comprehensive database of exemplary natural features in Maine. We would appreciate the contribution of any information obtained should you decide to do field work. MNAP welcomes coordination with individuals or organizations proposing environmental alteration, or conducting environmental assessments. If, however, data provided by MNAP are to be published in any form, the Program should be informed at the outset and credited as the source.

The Maine Natural Areas Program has instituted a fee structure of \$75.00 an hour to recover the actual cost of processing your request for information. You will receive an invoice for \$150.00 for two hours of our services.

Thank you for using MNAP in the environmental review process. Please do not hesitate to contact me if you have further questions about the Natural Areas Program or about rare or unique botanical features on this site.

Sincerely,

A handwritten signature in cursive script, appearing to read "Krist Puryear".

Kristen Puryear | Ecologist | Maine Natural Areas Program
207-287-8043 | kristen.puryear@maine.gov

Rare and Exemplary Botanical Features within 4 miles of Project: #18347, Fallbrook Commons Senior Living Facility, Portland, Maine

Common Name	State Status	State Rank	Global Rank	Date Last Observed	Occurrence Number	Habitat
Allegheny Vine						
	E	S1	G4	1860-10	9	Rocky summits and outcrops (non-forested, upland),Dry barrens (partly forested, upland)
American Sea-blite						
	T	S2	G5	1932-09-12	5	Tidal wetland (non-forested, wetland)
	T	S2	G5	2011-08-15	17	Tidal wetland (non-forested, wetland)
Bottlebrush Grass						
	SC	S3	G5	1905-09-13	10	Hardwood to mixed forest (forest, upland)
Broad Beech Fern						
	SC	S2	G5	1872-08	15	Hardwood to mixed forest (forest, upland)
Columbia Water-meal						
	SC	S2	G5	2002-08-04	2	Open water (non-forested, wetland)
Ebony Spleenwort						
	SC	S2	G5	1910-06-06	10	Rocky summits and outcrops (non-forested, upland),Hardwood to mixed forest (forest, upland)
Engelmann's Spikerush						
	PE	SH	G4G5	1916-08-31	2	Open wetland, not coastal nor rivershore (non-forested, wetland)
Fern-leaved False Foxglove						
	SC	S3	G5	1902-09-02	13	Dry barrens (partly forested, upland),Hardwood to mixed forest (forest, upland)
Great Blue Lobelia						
	PE	SX	G5	1905-09	3	Forested wetland,Non-tidal rivershore (non-forested, seasonally wet)
Hollow Joe-pye Weed						
	SC	S2	G5?	2014-06-18	24	Open wetland, not coastal nor rivershore (non-forested, wetland),Old field/roadside (non-forested, wetland or upland)
	SC	S2	G5?	2011-08-04	19	Open wetland, not coastal nor rivershore (non-forested, wetland),Old

Rare and Exemplary Botanical Features within 4 miles of Project: #18347, Fallbrook Commons Senior Living Facility, Portland, Maine

Common Name	State Status	State Rank	Global Rank	Date Last Observed	Occurrence Number	Habitat
						field/roadside (non-forested, wetland or upland)
Horned Pondweed						
	SC	S2	G5	1913-09-13	9	Tidal wetland (non-forested, wetland)
MacGregor's Rye						
	SC	S2	G5	2016-09-11	13	<null>
Marsh Milkwort						
	PE	SH	G5T4	1903-08-18	1	Dry barrens (partly forested, upland),Open wetland, not coastal nor rivershore (non-forested, wetland)
Missouri Rockcress						
	T	S1	G5	1905-06-11	5	Rocky summits and outcrops (non-forested, upland),Hardwood to mixed forest (forest, upland)
Mountain-laurel						
	SC	S2	G5	1985-08-01	13	Conifer forest (forest, upland),Hardwood to mixed forest (forest, upland)
Mountain Honeysuckle						
	E	S2	G5	2018-06-02	14	Dry barrens (partly forested, upland),Hardwood to mixed forest (forest, upland)
	E	S2	G5	2007-07-30	10	Dry barrens (partly forested, upland),Hardwood to mixed forest (forest, upland)
	E	S2	G5	2015-07-07	17	Dry barrens (partly forested, upland),Hardwood to mixed forest (forest, upland)
Pale Green Orchis						
	SC	S2	G4?T4Q	1907-07-05	27	Non-tidal rivershore (non-forested, seasonally wet),Open wetland, not coastal nor rivershore (non-forested, wetland)
Palmate-leaved Violet						
	PE	SH	G5	1908	1	Hardwood to mixed forest (forest, upland)
Slender Knotweed						
	PE	SH	G5	1902-09-07	1	Dry barrens (partly forested, upland)

Rare and Exemplary Botanical Features within 4 miles of Project: #18347, Fallbrook Commons Senior Living Facility, Portland, Maine

Common Name	State Status	State Rank	Global Rank	Date Last Observed	Occurrence Number	Habitat
Small Reed Grass						
	SC	S3	G5	2011-08-28	18	Old field/roadside (non-forested, wetland or upland)
Spotted Wintergreen						
	T	S2	G5	1991-09	11	Conifer forest (forest, upland),Hardwood to mixed forest (forest, upland)
Tidal Marsh Estuary Ecosystem						
	<null>	S3	GNR	2011-08-25	8	Tidal wetland (non-forested, wetland)
Upper Floodplain Hardwood Forest						
	<null>	S3	GNR	2012	20	Forested wetland
Upright Bindweed						
	T	S2	G4G5	2007-06-28	5	Dry barrens (partly forested, upland),Old field/roadside (non-forested, wetland or upland)
Variable Sedge						
	E	S1	G3	1911	8	Dry barrens (partly forested, upland),Hardwood to mixed forest (forest, upland)
	E	S1	G3	1911-06-29	9	Dry barrens (partly forested, upland),Hardwood to mixed forest (forest, upland)
	E	S1	G3	2018-08-29	6	Dry barrens (partly forested, upland),Hardwood to mixed forest (forest, upland)
	E	S1	G3	2017-08-22	4	Dry barrens (partly forested, upland),Hardwood to mixed forest (forest, upland)
Vasey's Pondweed						
	SC	S2	G4	1901-08-04	7	Open water (non-forested, wetland)
Wild Garlic						
	SC	S2	G5	1918-07-16	6	Forested wetland,Hardwood to mixed forest (forest, upland)
Wild Leek						
	SC	S3	G5	2018-05-02	55	Hardwood to mixed forest (forest, upland),Forested wetland

STATE RARITY RANKS

- S1** Critically imperiled in Maine because of extreme rarity (five or fewer occurrences or very few remaining individuals or acres) or because some aspect of its biology makes it especially vulnerable to extirpation from the State of Maine.
- S2** Imperiled in Maine because of rarity (6-20 occurrences or few remaining individuals or acres) or because of other factors making it vulnerable to further decline.
- S3** Rare in Maine (20-100 occurrences).
- S4** Apparently secure in Maine.
- S5** Demonstrably secure in Maine.
- SU** Under consideration for assigning rarity status; more information needed on threats or distribution.
- SNR** Not yet ranked.
- SNA** Rank not applicable.
- S#?** Current occurrence data suggests assigned rank, but lack of survey effort along with amount of potential habitat create uncertainty (e.g. S3?).

Note: **State Rarity Ranks** are determined by the Maine Natural Areas Program for rare plants and rare and exemplary natural communities and ecosystems. The Maine Department of Inland Fisheries and Wildlife determines State Rarity Ranks for animals.

GLOBAL RARITY RANKS

- G1** Critically imperiled globally because of extreme rarity (five or fewer occurrences or very few remaining individuals or acres) or because some aspect of its biology makes it especially vulnerable to extinction.
- G2** Globally imperiled because of rarity (6-20 occurrences or few remaining individuals or acres) or because of other factors making it vulnerable to further decline.
- G3** Globally rare (20-100 occurrences).
- G4** Apparently secure globally.
- G5** Demonstrably secure globally.
- GNR** Not yet ranked.

Note: **Global Ranks** are determined by NatureServe.

STATE LEGAL STATUS

Note: State legal status is according to 5 M.R.S.A. § 13076-13079, which mandates the Department of Conservation to produce and biennially update the official list of Maine's **Endangered** and **Threatened** plants. The list is derived by a technical advisory committee of botanists who use data in the Natural Areas Program's database to recommend status changes to the Department of Conservation.

- E** ENDANGERED; Rare and in danger of being lost from the state in the foreseeable future; or federally listed as Endangered.
- T** THREATENED; Rare and, with further decline, could become endangered; or federally listed as Threatened.

NON-LEGAL STATUS

- SC** SPECIAL CONCERN; Rare in Maine, based on available information, but not sufficiently rare to be considered Threatened or Endangered.
- PE** Potentially Extirpated; Species has not been documented in Maine in past 20 years or loss of last known occurrence has been documented.

ELEMENT OCCURRENCE RANKS - EO RANKS

Element Occurrence ranks are used to describe the quality of a rare plant population or natural community based on three factors:

- **Size**: Size of community or population relative to other known examples in Maine. Community or population's viability, capability to maintain itself.
- **Condition**: For communities, condition includes presence of representative species, maturity of species, and evidence of human-caused disturbance. For plants, factors include species vigor and evidence of human-caused disturbance.
- **Landscape context**: Land uses and/or condition of natural communities surrounding the observed area. Ability of the observed community or population to be protected from effects of adjacent land uses.

These three factors are combined into an overall ranking of the feature of **A**, **B**, **C**, or **D**, where **A** indicates an **excellent** example of the community or population and **D** indicates a **poor** example of the community or population. A rank of **E** indicates that the community or population is **extant** but there is not enough data to assign a quality rank. The Maine Natural Areas Program tracks all occurrences of rare (S1-S3) plants and natural communities as well as A and B ranked common (S4-S5) natural communities.

Note: **Element Occurrence Ranks** are determined by the Maine Natural Areas Program for rare plants and rare and exemplary natural communities and ecosystems. The Maine Department of Inland Fisheries and Wildlife determines Element Occurrence ranks for animals.

Visit our website for more information on rare, threatened, and endangered species!
<http://www.maine.gov/dacf/mnap>

Section 10

Buffers

BuffersVisual Buffers

Please see the plan set for the Landscaping plans for detailed information on the proposed visual buffers.

Stormwater Buffers

There are no stormwater buffers proposed for this project.

Section 11

Soils

Soils**A. Soil Survey Map and Report**

Please see the pre- and post-development drainage plans for the Class 'D' soil delineation.

B. Soil Survey Intensity Level by Development Type

A class 'D' medium intensity soil survey was utilized on the drainage plans and a site-specific geotechnical investigation was conducted for infrastructure improvements.

C. Geotechnical Investigation

See this Section for a copy of the geotechnical report completed by S.W. Cole.

D. Hydric Soils Mapping

Sebago Technics, Inc. reviewed the site for wetlands and vernal pools within the project area. See this section for a copy of a wetlands memo from Sebago Technics dated May14, 2019.



Memorandum

18347To: Kylie Mason

From: Mike Jakubowski

Date: May 14, 2019

Subject: #18347 – Fallbrook

The wetlands on this site were delineated by Gary Fullerton and Mike Jakubowski of Sebago Technics, Inc. in September of 2018. This delineation conforms to the standards and methods outlined in the 1987 Wetlands Delineation Manual and Regional Supplement authored and published by the U.S. Army Corps of Engineers. The wetlands were marked in the field with alpha numeric pink “wetland delineation” flagging. The flags were then located using a Trimble gps backpack unit capable of decimeter accuracy.

Wetlands found are classified as forested wetlands (PFO). The vegetation in these PFO wetlands primarily consists of, maple (*Acer spp.*), speckled alder (*Alnus incana*), cinnamon fern (*Osmundastrum cinnamomeum*), sensitive fern (*Onoclea sensibilis*), and jewelweed (*Impatiens capensis*). Upland vegetation primarily consists of white pine (*Pinus strobus*) and red oak (*Quercus rubra*).

A vernal pool survey was conducted on May 6th, 2019. No vernal pools were identified on the property. There has been no field determination for streams and it is not suspected that there are streams present on this property.



Photograph 1. PFO wetland at western extent of project boundary.



Photograph 2. PFO wetland at eastern extent of project boundary.



Photograph 3. PFO wetland at eastern extent of project boundary.



Photograph 4. PFO wetland at eastern extent of project boundary, near access road.

REPORT

18-1201.1 S

October 24, 2019

Explorations and Geotechnical Engineering Services

Proposed Assisted Living Facility
418 Ray Street
Portland, Maine

Prepared For:

Sandy River Company
Attention: Daniel Maguire
P.O. Box 110
Portland, Maine 04112

Prepared By:

S. W. Cole Engineering, Inc.
286 Portland Road
Gray, Maine 04039
T: 207-615-2766



- *Geotechnical Engineering*
- *Construction Materials Testing and Special Inspections*
- *GeoEnvironmental Services*
- *Test Boring Explorations*

www.swcole.com

TABLE OF CONTENTS

1.0 INTRODUCTION	1
1.1 Scope and Purpose	1
1.2 Site and Proposed Construction	1
2.0 EXPLORATION AND TESTING	2
2.1 Explorations	2
2.1.1 Current Explorations	2
2.1.2 Prior Explorations	2
2.2 Testing	3
3.0 SUBSURFACE CONDITIONS	3
3.1 Soil and Bedrock	3
3.2 Groundwater	4
4.0 EVALUATION AND RECOMMENDATIONS	4
4.1 General Findings	4
4.2 Site and Subgrade Preparation	5
4.3 Excavation and Dewatering	6
4.4 Foundations	7
4.5 Foundation Drainage	7
4.6 Slab-On-Grade	8
4.7 Entrance Slabs and Sidewalks	8
4.8 Segmental Retaining Wall	9
4.9 Fill, Backfill and Compaction	9
4.10 Weather Considerations	11
4.11 Paved Areas	11
4.12 Design Review and Construction Testing	12
5.0 CLOSURE	12
Appendix A	Limitations
Appendix B	Figures
Appendix C	Exploration Logs & Key
Appendix D	Laboratory Test Results

18-1201.1 S

October 24, 2019

Sandy River Company
Attention: Daniel Maguire
P.O. Box 110
Portland, Maine 04112

Subject: Explorations and Geotechnical Engineering Services
Proposed Assisted Living Facility
418 Ray Street
Portland, Maine

Dear Daniel:

In accordance with our Proposal, dated June 21, 2019, we have performed subsurface explorations for the subject project. This report summarizes our findings and geotechnical recommendations and its contents are subject to the limitations set forth in Appendix A.

1.0 INTRODUCTION

1.1 Scope and Purpose

The purpose of our services was to obtain subsurface information at the site in order to develop geotechnical recommendations relative to foundations, earthwork and pavement associated with the proposed construction. Our scope of services included a review of prior test pit explorations, coordinating supplemental test boring and auger probe explorations, soils laboratory testing, a geotechnical analysis of the subsurface findings and preparation of this report.

1.2 Site and Proposed Construction

The site is located at 418 Ray Street in Portland, Maine and consists of an undeveloped, wooded parcel. The site generally slopes downward from a high knob in the western-central portion of the site to the north, south and east, with about 24 feet of

surface relief across the site. An existing gravel service road for the adjacent Fallbrook Woods facility is located on the north side of the site.

Based on the information provided, we understand development plans call for construction of a new single-story with partial basement, multi-wing, assisted living building with associated paved parking and access road areas. We understand the building will have a finish floor elevation of 102 feet (project datum) and a finish basement elevation of 90 feet, requiring tapered fills approaching 19 feet and tapered cuts approaching 12 feet. Site access is proposed off of Ray Street, along the existing service road, and connecting to Merrymeeting Drive.

Proposed and existing site features are shown on the "Exploration Location Plan" attached in Appendix B.

2.0 EXPLORATION AND TESTING

2.1 Explorations

S. W. Cole Engineering, Inc. (S.W.COLE) reviewed prior test pit explorations and coordinated and logged supplemental test boring and auger probe explorations as detailed below.

2.1.1 Current Explorations

Eight test borings (B-1 through B-8) and six auger probes (P-1 through P-6) were made July 25 and August 6, 2019 by S. W. Cole Explorations, LLC. The exploration locations were selected and established in the field by S. W. Cole Engineering, Inc. (S.W.COLE) using GPS methods. The approximate locations of these explorations are shown on the "Exploration Location Plan" attached in Appendix B. Logs of the test borings and a key to the notes and symbols used on the logs are attached in Appendix C. The elevations shown on the logs were estimated based on topographic information shown on the "Exploration Location Plan".

2.1.2 Prior Explorations

Fifteen test pits (TP-1 through TP-15) were made at the site on September 13, 2018 by Shaw Brothers Construction, Inc. working under subcontract to S.W.COLE. These exploration locations were selected and established in the field by S.W.COLE using GPS methods. The approximate exploration locations are shown on the "Exploration

Location Plan” attached in Appendix B. Logs of these explorations are attached in Appendix C. The elevations shown on the logs were estimated based on topographic information provided by Sebago Technics.

2.2 Testing

The test borings and auger probes were drilled using a combination of solid-stem auger, hollow-stem auger and cased wash-boring techniques. The soils were sampled at 2 to 5 foot intervals using a split spoon sampler and Standard Penetration Testing (SPT) methods. Pocket Penetrometer Tests (PPT) were performed where stiffer cohesive soils were encountered. Shelby tube sampling and Vane Shear Testing (VST) were performed where softer cohesive soils were encountered. SPT blow counts, PPT and VST results are shown on the logs.

Soil samples obtained from the explorations were returned to our laboratory for further classification and testing. Atterberg Limits and moisture content test results are noted on the logs. The results of a one-dimensional laboratory consolidation test are attached in Appendix D.

3.0 SUBSURFACE CONDITIONS

3.1 Soil and Bedrock

The explorations generally encountered a soil profile consisting of glaciomarine sands, silts, and clays, overlying relatively shallow refusal surfaces (bedrock). The principle soils encountered are described below. Not all the strata were encountered at each exploration; refer to the attached logs for more detailed subsurface information.

Fill: Test pits TP-12 and TP-13 encountered existing access road embankment fill, consisting of dark brown and brown sand with varying portions of silt, gravel, cobbles, brick, and organics. Test pit TP-12 penetrated the fill at a depth of 1.3 feet; a layer of geotextile was present at the bottom of the fill.

Glaciomarine Soils: Underlying surficial organics and the fill, the explorations generally encountered glaciomarine soils consisting of loose to medium dense, brown and light brown sand with varying portions of silt and gravel, sandy silt, and silty clay. The silty clay was predominantly stiff and brown, interbedded in the silts and sands, but transitioned to a

layer of softer gray silty clay at test pit TP-7 and borings B-4 and B-5. The softer gray clay extended to depths varying from 14 to 15 feet, where penetrated. One dimensional consolidation testing performed on a sample of the gray clay indicates it is overconsolidated by approximate 2,700 psf at a depth of about 11 feet. VST performed in the gray clay indicates undrained shear strength of approximately 600 psf.

Refusal Surfaces: Where encountered, depth to refusal surface (probable bedrock) varied from about 2 feet to 20 feet. Up to approximately 2 feet of weathered bedrock was penetrated by the drilling equipment before encountering refusal at the test boring and auger probe explorations. The depths to refusal (probable bedrock) at the exploration locations are summarized on the "Exploration Location Plan".

3.2 Groundwater

The soils encountered at the test borings were moist to wet from the ground surface. Saturated soils were encountered at depths varying from 2 to 13 feet. Groundwater likely becomes perched on the relatively impervious silts, clays, and bedrock encountered at the explorations. Long term groundwater information is not available. It should be anticipated that groundwater levels will fluctuate, particularly in response to periods of snowmelt and precipitation, as well as changes in site use.

4.0 EVALUATION AND RECOMMENDATIONS

4.1 General Findings

Based on the subsurface findings, the proposed construction appears feasible from a geotechnical standpoint. The principle geotechnical considerations include:

- Spread footing foundations and a slab-on-grade floors bearing on properly prepared subgrades appear suitable for the proposed building. Footings should bear on at least 3-inches of compacted Crushed Stone overlying properly prepared subgrades. On-grade floor slabs should bear on at least 12-inches of properly compacted Structural Fill overlying properly prepared subgrades. On-grade lower level floor slabs should bear on 6 inches of compacted Crushed Stone overlying properly prepared subgrades.

- Some areas of shallow bedrock were encountered at the explorations; thus blasting for bedrock removal should be anticipated. The depth of blasting should be controlled to less than 1 foot below footing subgrades and 2 feet below floor slab, pavement and utility subgrades.
- All topsoil, existing fills and debris must be completely removed from beneath the proposed building and backfilled with compacted Granular Borrow.
- Existing fills in paved areas should be proof-rolled and soft areas repaired prior to filling or placing pavement subbase gravels.
- Subgrades across the site will consist of sensitive silts and clays. Earthwork and grading activities should occur during drier, non-freezing weather of Spring, Summer and Fall. Rubber tired construction equipment should not operate directly on the native silt and clays when wet. Excavation of soil bearing surfaces should be completed with a smooth-edged bucket to lessen subgrade disturbance.

4.2 Site and Subgrade Preparation

We recommend that site preparation begin with the construction of an erosion control system to protect adjacent drainage ways and areas outside the construction limits. Surficial organics, roots and topsoil should be completely removed from areas of proposed fill and construction. As much vegetation as possible should remain outside the construction areas to lessen the potential for erosion and site disturbance.

Building Pad and Footings: As discussed, bedrock removal is anticipated in the building pad. The contractor should be prepared to remove fractured and overblasted bedrock beneath the building until sound, intact bedrock is encountered. Voids and fractures in the bedrock surface should be thoroughly choked by working and compacting blasting fines or Crushed Stone into the surface.

We recommend that fills needed to raise the building pad in the on-grade portion of the building, as well as adjacent retaining walls and surrounding site areas, be completed up to within 2 feet of finished grade at least 30 days prior to excavating for foundations in this portion of the building.

We recommend that footings be excavated using a smooth-edged bucket and that footings be underlain by at least 3 inches of compacted Crushed Stone overlying native non-organic soils, compacted Granular Borrow or sound intact bedrock.

Paved and Utilities: Uncontrolled fills and blasted bedrock subgrades encountered beneath proposed paved areas should be proof-rolled and densified with at least 3 passes of a 10 ton vibratory roller compactor. Areas that become soft or continue to yield after densification should be removed and replaced with compacted Granular Borrow.

Beneath pipes and utility structures with soft trench bottoms, we recommend overexcavating with a smooth edged bucket and installing at least 1 foot of Underdrain Sand below fabric wrapped bedding materials. The depth of bedding materials for soft trench bottoms should be at least 12 inches of pipes and 24 inches of structures.

4.3 Excavation and Dewatering

Excavation work will generally encounter uncontrolled fills, silty sand, silt, clay and bedrock. Care must be exercised during construction to limit disturbance of the bearing soils. Earthwork and grading activities should occur during drier, non-freezing weather of Spring, Summer and Fall. Rubber tired construction equipment should not operate directly on the native silt and clays, when wet. Final cuts to subgrade in soil should be performed with a smooth-edged bucket to help reduce strength loss from soil disturbance.

Based on the subsurface findings, we anticipate blasting will be required for bedrock removal. We recommend a licensed blasting contractor be engaged to provide bedrock removal. Pre-blast surveys should be completed on surrounding structures, water supply wells and infrastructure prior to commencing blasting activities. The depth of blasting should be controlled to less than 1 foot below footing subgrades and 2 feet below floor slab, pavement and utility subgrades.

Vibrations from construction should be controlled below threshold limits of 0.5 in/sec for structures, water supply wells and infrastructure within 500 feet of the project site. More restrictive vibration limits may be warranted in specific cases with sensitive equipment, historic structures or artifacts on-site or within close proximity.

Sumping and pumping dewatering techniques should be adequate to control groundwater in excavations. Controlling the water levels to at least one foot below planned excavation depths will help stabilize subgrades during construction. Excavations must be properly shored or sloped in accordance with OSHA Regulations to prevent sloughing and caving of the sidewalls during construction. Care must be taken to preclude undermining adjacent structures, utilities and roadways. The design and planning of excavations, excavation support systems, and dewatering is the responsibility of the contractor.

4.4 Foundations

We recommend the proposed buildings be supported on spread footings founded on at least 3-inches of compacted Crushed Stone overlying properly prepared subgrades. For foundations bearing on properly prepared subgrades, we recommend the following geotechnical parameters for design consideration:

Geotechnical Parameters for Spread Footings and Foundation Walls	
Design Frost Depth (100 year AFI)	4.5 feet
Net Allowable Soil Bearing Pressure	2.0 ksf
Base Friction Factor	0.35
Total Unit Weight of Backfill	125 pcf
At-Rest Lateral Earth Pressure Coefficient	0.5
Internal Friction Angle of Backfill	30°
Seismic Soil Site Class	D (IBC 2015)
Estimated Total Settlement	1-inch
Differential Settlement	½-inch

Foundations adjacent to site retaining walls must be founded below a 1H:1V plane extending up and back from the bottom of the reinforced soil zone or back of wall, whichever is closer to the building.

4.5 Foundation Drainage

We recommend an underdrain system be installed on the outside edge of perimeter footings. The underdrain pipe should consist of 4-inch diameter, perforated SDR-35 foundation drain pipe bedded in Crushed Stone and wrapped in non-woven geotextile fabric. The underdrain pipe must have a positive gravity outlet protected from freezing, clogging and backflow. Surface grades should be sloped away from the building for positive surface water drainage. General underdrain details are illustrated on the "Foundation Detail Sketch" attached in Appendix B.

4.6 Slab-On-Grade

On-grade floor slabs in heated areas may be designed using a subgrade reaction modulus of 100 pci (pounds per cubic inch) provided the slab is underlain by at least 12-inches of compacted Structural Fill placed over properly prepared subgrades. Similarly, basement floor slabs in heated areas may be designed using a subgrade reaction modulus of 100 pci provided the slab is underlain by at least 6-inches of compacted Crushed Stone over properly prepared subgrades. The structural engineer or concrete consultant must design steel reinforcing and joint spacing appropriate to slab thickness and function.

We recommend a radon venting system and sub-slab vapor retarder be installed beneath the building floor slabs. The vapor retarder must have a permeance that is less than the floor cover or surface treatment that is applied to the slab. The vapor retarder must have sufficient durability to withstand direct contact with the sub-slab base material and construction activity. The vapor retarder material should be placed according to the manufacturer's recommended method, including the taping and lapping of all joints and wall connections. The architect and/or flooring consultant should select the vapor retarder products compatible with flooring and adhesive materials.

The floor slab should be appropriately cured using moisture retention methods after casting. Typical floor slab curing methods should be used for at least 7 days. The architect or flooring consultant should assign curing methods consistent with current applicable American Concrete Institute (ACI) procedures with consideration of curing method compatibility to proposed surface treatments, flooring and adhesive materials.

4.7 Entrance Slabs and Sidewalks

Entrance slabs and sidewalks adjacent to the building must be designed to reduce the effects of differential frost action between adjacent pavement, doorways, and entrances. We recommend that non-frost susceptible Structural Fill be provided to a depth of at least 4.5 feet below the top of entrance slabs. This thickness of Structural Fill should extend the full width of the entrance slab and outward at least 4.5 feet, thereafter transitioning up to the bottom of the adjacent sidewalk or pavement gravels at a 3H:1V or flatter slope. General details of this frost transition zone are shown on the "Foundation Detail Sketch" attached in Appendix B.

For plaza slabs extending beyond immediate building entrances, we recommend extending the thickness of Structural Fill beneath the entire plaza slab thereafter transitioning up to the bottom of the adjacent sidewalk or pavement gravels at a 3H:1V or flatter slope. Alternatively, the entrance slab and plaza slab may be insulated for frost protection. General details of this frost transition zone are shown on the “Foundation Detail Sketch” attached in Appendix B.

4.8 Segmental Retaining Wall

For the proposed site retaining walls, we recommend wet-cast segmental retaining walls. We recommend the facing blocks be founded on a minimum 6-inch thick leveling course of compacted Crushed Stone overlying properly prepared subgrades. For design of Segmental Retaining Walls (SRW), such as Redi-Scape, we recommend the following geotechnical parameters for design:

Geotechnical Parameters for Segmental Retaining Wall		
Wall Zone	Unit Weight (pcf)	Friction Angle
Reinforced Soil	130	34
Retained Soil	125	30
Foundation Soil	125	30

Design of the retaining wall and evaluation of base sliding, overturning and internal stability of the wall are the responsibility of the wall design engineer. The wall designer must account for construction surcharge loads and future live load conditions. S.W.COLE should be retained to perform a global stability analysis of the SRW and to review the SRW submittal.

4.9 Fill, Backfill and Compaction

We recommend the following fill and backfill materials: recycled products must also be tested in accordance with applicable environmental regulations and approved by a qualified environmental consultant.

Common Borrow: Fill to raise grades in paved and landscape areas should be non-organic compactable earth meeting the requirements of 2014 MaineDOT Standard Specification 703.18 Common Borrow. Where used beneath paved areas, Common Borrow fills shall be capped with a 12 inch layer of Granular Borrow prior to installing Pavement Subbase materials.

Granular Borrow: Fill to raise grades in building and paved areas, as well as to repair soft areas, should be sand or silty sand meeting the requirements of 2014 MaineDOT Standard Specification 703.19 Granular Borrow.

Structural Fill: Backfill for foundations, on-grade slab base material and material below exterior entrance slabs should be clean, non-frost susceptible sand and gravel meeting the gradation requirements for Structural Fill as given below:

Structural Fill	
Sieve Size	Percent Finer by Weight
4 inch	100
3 inch	90 to 100
¾ inch	25 to 90
No. 40	0 to 30
No. 200	0 to 6

Underdrain Sand: Sand used beneath bedding materials in soft trench bottoms should be clean, free-draining sand meeting the requirements of 2014 MaineDOT Standard Specification 703.22 Underdrain Backfill Material Type B.

Crushed Stone: Crushed Stone, used beneath foundations, basement floor slabs and for underdrain aggregate should be washed ¾-inch crushed stone meeting the requirements of 2014 MaineDOT Standard Specification 703.22 Underdrain Backfill Material Type C.

Reuse of Site Soils: The non-organic on-site soils are unsuitable for reuse in building areas, but may be suitable for reuse as Common Borrow in paved and landscape areas, provided they are at a compactable moisture content at the time of reuse.

Placement and Compaction: Fill should be placed in horizontal lifts and compacted such that the desired density is achieved throughout the lift thickness with 3 to 5 passes of the compaction equipment. Loose lift thicknesses for grading, fill and backfill activities should not exceed 12 inches. We recommend that fill and backfill in building and paved areas be compacted to at least 95 percent of its maximum dry density as determined by ASTM D-1557. Crushed Stone should be compacted with 3 to 5 passes of a vibratory plate compactor having a static weight of at least 500 pounds.

4.10 Weather Considerations

Construction activity should be limited during wet and freezing weather and the site soils may require drying or thawing before construction activities may continue. The contractor should anticipate the need for water to temper fills in order to facilitate compaction during dry weather. If construction takes place during cold weather, subgrades, foundations and floor slabs must be protected during freezing conditions. Concrete and fill must not be placed on frozen soil; and once placed, the concrete and soil beneath the structure must be protected from freezing.

4.11 Paved Areas

We anticipate paved areas will be subjected primarily to passenger vehicle and light delivery truck traffic with occasional heavy delivery truck traffic. Considering the site soils, and proposed usage, we offer the following pavement section for consideration.

FLEXIBLE (HMA) PAVEMENT SECTION – 2014 MaineDOT Standard Specs	
Pavement Layer	Material Thickness
MaineDOT 9.5 mm Hot Mix Asphalt	1 ½ inches
MaineDOT 19.0 mm Hot Mix Asphalt	2 ½ inches
MaineDOT 703.06 Aggregate Base Type A	6 inches
MaineDOT 703.06 Aggregate Subbase Type D	12 inches

The base and subbase materials should be compacted to at least 95 percent of their maximum dry density as determined by ASTM D-1557. Hot mix asphalt pavement should be compacted to 92 to 97 percent of its theoretical maximum density as determined by ASTM D-2041. A tack coat should be used between successive lifts of bituminous pavement.

It should be understood that frost penetration can be on the order of 4.5 feet in this area. In the absence of full depth excavation of frost susceptible soils below paved areas and subsequent replacement with non-frost susceptible compacted fill, frost penetration into the subgrade will occur and some heaving and distress of pavement must be anticipated.

4.12 Design Review and Construction Testing

S.W.COLE should be retained to review the construction documents prior to bidding to determine that our earthwork, foundation and pavement recommendations have been properly interpreted and implemented.

A soils and concrete testing program should be implemented during construction to observe compliance with the design concepts, plans, and specifications. S.W.COLE is available to observe earthwork activities, the preparation of foundation bearing surfaces and pavement subgrades, as well as to provide testing and IBC Special Inspection services for soils, concrete, steel, spray-applied fireproofing, structural masonry and asphalt construction materials.

5.0 CLOSURE

It has been a pleasure to be of assistance to you with this phase of your project. We look forward to working with you during the construction phase of the project.

Sincerely,

S. W. Cole Engineering, Inc.

Timothy J. Boyce, P.E.
Senior Geotechnical Engineer

TJB:emw

APPENDIX A

Limitations

This report has been prepared for the exclusive use of Sandy River Company for specific application to the proposed Assisted Living Facility at 418 Ray Street in Portland, Maine. S. W. Cole Engineering, Inc. (S.W.COLE) has endeavored to conduct our services in accordance with generally accepted soil and foundation engineering practices. No warranty, expressed or implied, is made.

The soil profiles described in the report are intended to convey general trends in subsurface conditions. The boundaries between strata are approximate and are based upon interpretation of exploration data and samples.

The analyses performed during this investigation and recommendations presented in this report are based in part upon the data obtained from subsurface explorations made at the site. Variations in subsurface conditions may occur between explorations and may not become evident until construction. If variations in subsurface conditions become evident after submission of this report, it will be necessary to evaluate their nature and to review the recommendations of this report.

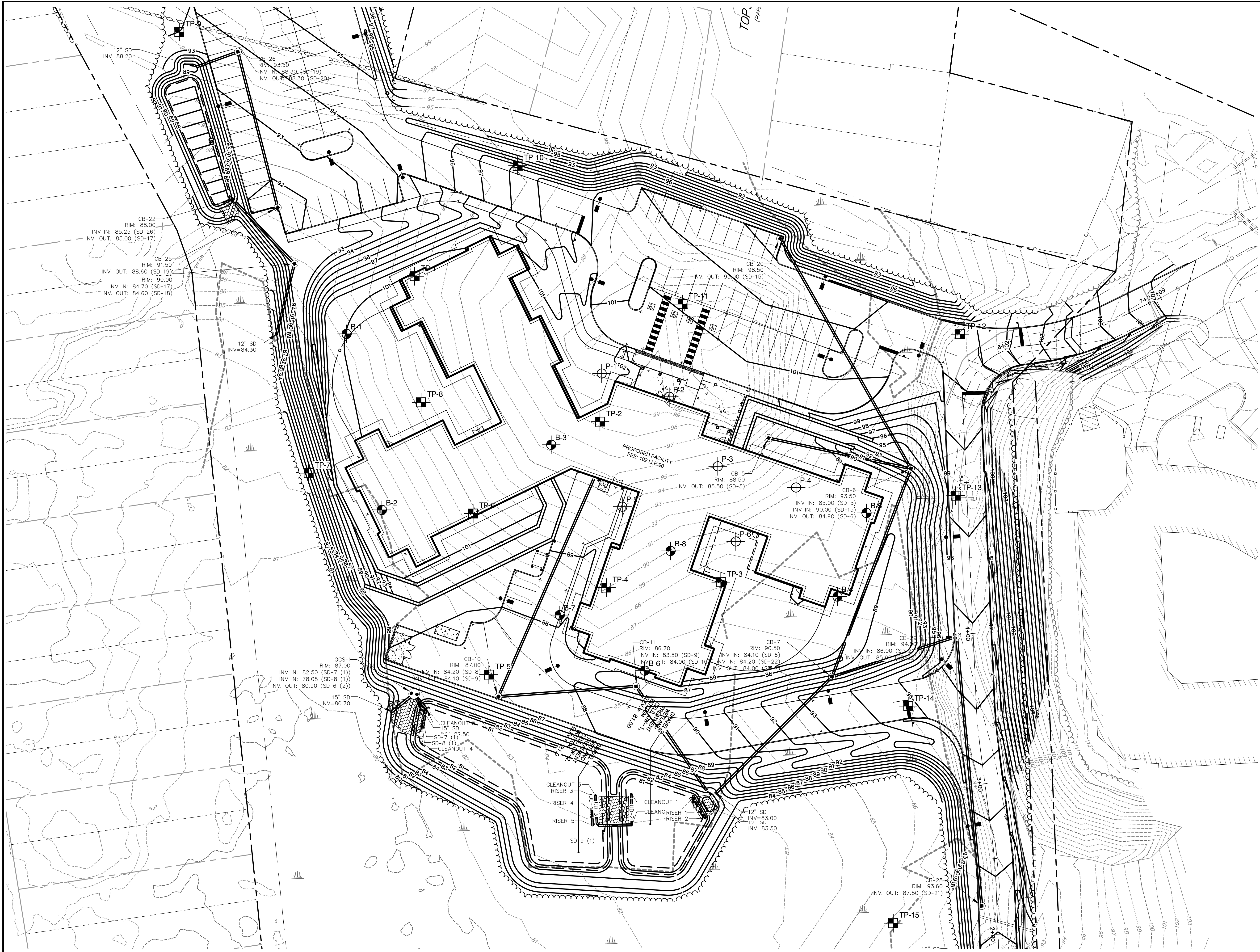
Observations have been made during exploration work to assess site groundwater levels. Fluctuations in water levels will occur due to variations in rainfall, temperature, and other factors.

S.W.COLE's scope of services has not included the investigation, detection, or prevention of any Biological Pollutants at the project site or in any existing or proposed structure at the site. The term "Biological Pollutants" includes, but is not limited to, molds, fungi, spores, bacteria, and viruses, and the byproducts of any such biological organisms.

Recommendations contained in this report are based substantially upon information provided by others regarding the proposed project. In the event that any changes are made in the design, nature, or location of the proposed project, S.W.COLE should review such changes as they relate to analyses associated with this report. Recommendations contained in this report shall not be considered valid unless the changes are reviewed by S.W.COLE.

APPENDIX B

Figures



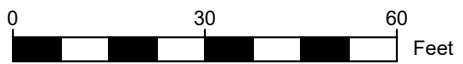
EXPLORATION ID	DEPTH TO TOP OF ROCK, FT.	DEPTH TO REFUSAL, FT.
P-1	1.8	3.1
P-2	6.8	7.5
P-3	9.0	9.6
P-4	5.5	6.3
P-5	5.5	6.2
P-6	6.5	7.3
B-1	7.3	7.5
B-2	18.2	19.9
B-3	1.5	3.3
B-4	16.5	17.8
B-5	18.1	18.1
B-6	12.5	12.5
B-7	14.0	14
B-8	10.0	10
TP-1	2.4	2.4
TP-2	4.3	4.3
TP-3	7.5	7.5
TP-4	6.7	6.7
TP-5	8.5	8.5
TP-6	9.0	9
TP-7	10.5 NR	NO REFUSAL
TP-8	4.0	4
TP-9	1.8	1.8
TP-10	5.0 NR	NO REFUSAL
TP-11	4.4 NR	NO REFUSAL
TP-12	6.0 NR	NO REFUSAL
TP-13	3.2 NR	NO REFUSAL
TP-14	5.0 NR	NO REFUSAL
TP-15	5.0 NR	NO REFUSAL

LEGEND:

- APPROXIMATE BORING LOCATION
- APPROXIMATE PROBE LOCATION
- APPROXIMATE TEST PIT LOCATION

NOTES:

- EXPLORATION LOCATION PLAN WAS PREPARED FROM A 1" = 40' SCALE PLAN OF THE SITE ENTITLED "GRADING PLAN," PREPARED BY SEBAGO TECHNIQS, INC., DATED 11/1/2019.
- THE EXPLORATIONS WERE LOCATED IN THE FIELD BY GPS SURVEY BY S. W. COLE ENGINEERING, INC., USING A MAPPING GRADE TRIMBLE GPS RECEIVER.
- TEST PITS TP-1 THROUGH TP-13 WERE PERFORMED UNDER THE DIRECTION OF S.W.COLE IN SEPTEMBER 2018.
- THIS PLAN SHOULD BE USED IN CONJUNCTION WITH THE ASSOCIATED S. W. COLE ENGINEERING, INC. GEOTECHNICAL REPORT.
- THE PURPOSE OF THIS PLAN IS ONLY TO DEPICT THE LOCATION OF THE EXPLORATIONS IN RELATION TO THE EXISTING CONDITIONS AND PROPOSED CONSTRUCTION AND IS NOT TO BE USED FOR CONSTRUCTION.



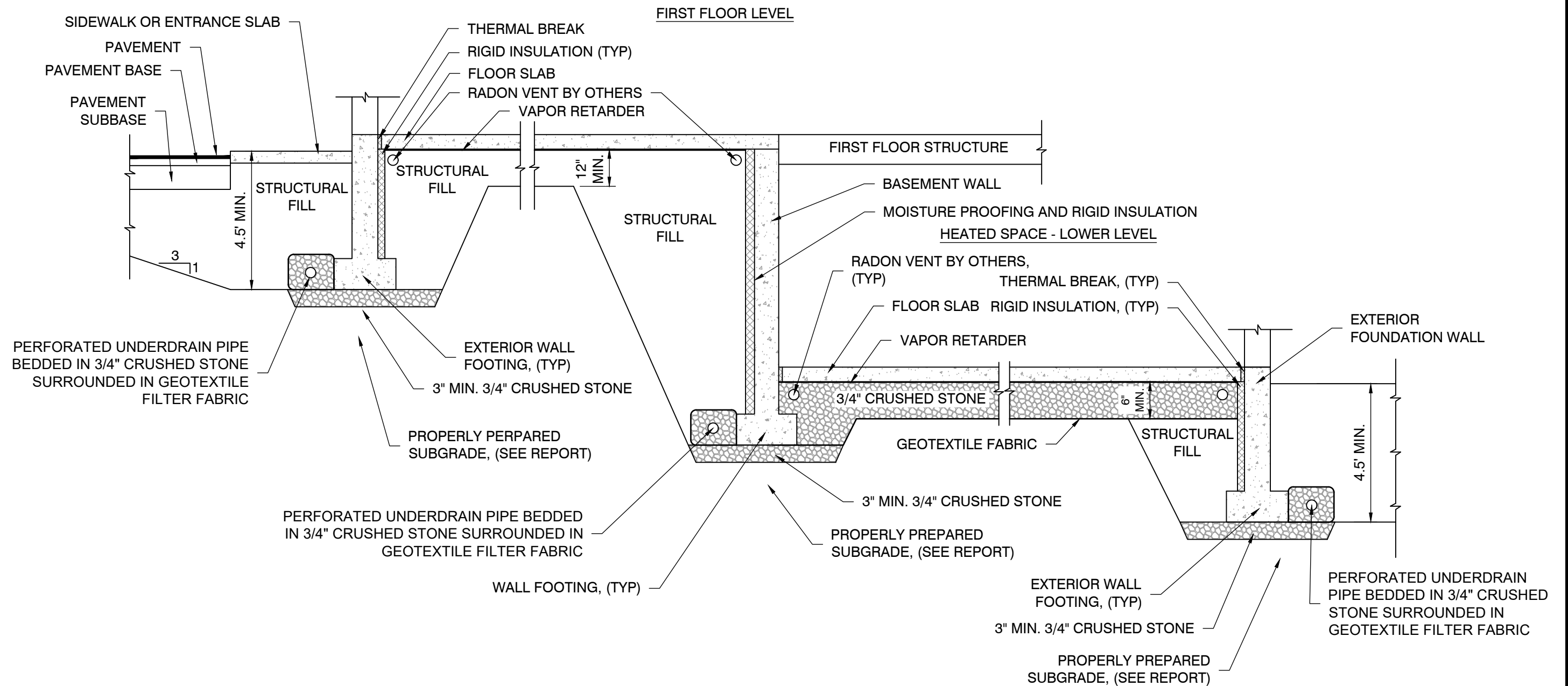
NO.	DATE	DESCRIPTION	BY
1	10/24/2019	REPORT SUBMITTAL	CEM
0	08/07/2019	DRAFT SUBMITTAL	CEM



SANDY RIVER COMPANY
EXPLORATION LOCATION PLAN
PROPOSED ASSISTED LIVING FACILITY
418 RAY STREET
PORTLAND, MAINE

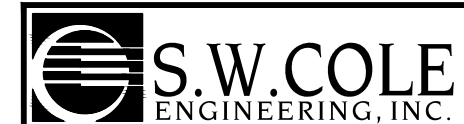
Job No.: 18-1201.1
Date: 08/07/2019
Scale: 1" = 30'
Sheet: 1

R:\2018\18-1201.1\CAD\Drawings\18-1201.1 FDS.dwg, 10/24/2019 1:29:51 PM, 1:1, CEM, S. W. Cole Engineering, Inc.



NOTE:

1. UNDERDRAIN INSTALLATION AND MATERIAL GRADATION RECOMMENDATIONS ARE CONTAINED WITHIN THIS REPORT.
2. DETAIL IS PROVIDED FOR ILLUSTRATIVE PURPOSES ONLY, NOT FOR CONSTRUCTION.



SANDY RIVER COMPANY
FOUNDATION DETAIL SKETCH
PROPOSED ASSISTED LIVING FACILITY
418 RAY STREET
PORTLAND, MAINE

Job No.:	18-1201.1	Scale:	Not to Scale
Date :	10/24/2019	Sheet:	2

APPENDIX C

Exploration Logs and Key



BORING LOG

CLIENT: Sandy River Company
PROJECT: Proposed Assisted Living Facility
LOCATION: 418 Ray Street, Portland, Maine

BORING NO.: B-1
SHEET: 1 of 1
PROJECT NO. 18-1201.1
DATE START: 7/25/2019
DATE FINISH: 7/25/2019

Drilling Information

LOCATION: See Exploration Location Plan ELEVATION (FT): 87' +/- TOTAL DEPTH (FT): 7.5 LOGGED BY: Paul Kohler
DRILLING CO.: S. W. Cole Explorations, LLC DRILLER: Kevin Hanscom DRILLING METHOD: Hollow Stem Auger
RIG TYPE: Track Mounted Diedrich D-50 AUGER ID/OD: 2 1/4 in / 5 5/8 in SAMPLER: Standard Split-Spoon
HAMMER TYPE: Automatic / Automatic HAMMER WEIGHT (lbs): 140 / 300 CASING ID/OD: N/A / N/A CORE BARREL:
HAMMER EFFICIENCY FACTOR: 0.91 HAMMER DROP (inch): 30 / 16
WATER LEVEL DEPTHS (ft): 7/25/2019 Soils wet to saturated below 6.5 ft

GENERAL NOTES:

KEY TO NOTES AND SYMBOLS: Water Level
▽ At time of Drilling D = Split Spoon Sample Pen. = Penetration Length WOR = Weight of Rods S_v = Field Vane Shear Strength, kips/sq.ft.
▽ At Completion of Drilling U = Thin Walled Tube Sample Rec. = Recovery Length WOH = Weight of Hammer q_u = Unconfined Compressive Strength, kips/sq.ft.
▽ After Drilling R = Rock Core Sample bpf = Blows per Foot RQD = Rock Quality Designation Ø = Friction Angle (Estimated)
V = Field Vane Shear mpf = Minute per Foot PID = Photoionization Detector N/A = Not Applicable

Elev. (ft)	Depth (ft)	Casing Pen. (bpf)	SAMPLE INFORMATION					Graphic Log	Sample Description & Classification	H ₂ O Depth	Remarks		
			Sample No.	Type	Depth (ft)	Pen./ Rec. (in)	Blow Count or RQD					Field / Lab Test Data	
85 80	5		1D	⊗	0-2	24/10	1-1-3-4	w =13.1 %	0.8	Dark brown, sandy silt with roots and organics (Topsoil)			
			2D	⊗	2-4	24/15	3-3-7-10		1.5	Loose, rust-brown silty SAND with gravel Medium dense light brown silty SAND, trace gravel			
			3D	⊗	5-7	24/21	12-10-9-8		5.0	Medium dense, light brown and gray SAND and SILT, trace gravel			
										7.3			Probable weathered BEDROCK
			Refusal at 7.5 feet Probable Bedrock										

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

BORING NO.: B-1



BORING LOG

BORING NO.: **B-3**
SHEET: 1 of 1
PROJECT NO. 18-1201.1
DATE START: 7/25/2019
DATE FINISH: 7/25/2019

CLIENT: Sandy River Company
PROJECT: Proposed Assisted Living Facility
LOCATION: 418 Ray Street, Portland, Maine

Drilling Information

LOCATION: See Exploration Location Plan ELEVATION (FT): 96' +/- TOTAL DEPTH (FT): 3.3 LOGGED BY: Paul Kohler
DRILLING CO.: S. W. Cole Explorations, LLC DRILLER: Kevin Hanscom DRILLING METHOD: Hollow Stem Auger
RIG TYPE: Track Mounted Diedrich D-50 AUGER ID/OD: 2 1/4 in / 5 5/8 in SAMPLER: Standard Split-Spoon
HAMMER TYPE: Automatic / Automatic HAMMER WEIGHT (lbs): 140 / 300 CASING ID/OD: N/A / N/A CORE BARREL:
HAMMER EFFICIENCY FACTOR: 0.91 HAMMER DROP (inch): 30 / 16
WATER LEVEL DEPTHS (ft): 7/25/2019 No free water observed. Soils moist.

GENERAL NOTES:

KEY TO NOTES AND SYMBOLS: Water Level
▽ At time of Drilling D = Split Spoon Sample Pen. = Penetration Length WOR = Weight of Rods S_v = Field Vane Shear Strength, kips/sq.ft.
▽ At Completion of Drilling U = Thin Walled Tube Sample Rec. = Recovery Length WOH = Weight of Hammer q_u = Unconfined Compressive Strength, kips/sq.ft.
▽ After Drilling R = Rock Core Sample bpf = Blows per Foot RQD = Rock Quality Designation Ø = Friction Angle (Estimated)
V = Field Vane Shear mpf = Minute per Foot PID = Photoionization Detector N/A = Not Applicable

Elev. (ft)	Depth (ft)	Casing Pen. (bpf)	SAMPLE INFORMATION					Graphic Log	Sample Description & Classification	H ₂ O Depth	Remarks
			Sample No.	Type	Depth (ft)	Pen./ Rec. (in)	Blow Count or RQD				
95			1D	X	0-1.4	17/12	1-2- 50/5"		Dark brown, sandy silt with roots and organics (Topsoil)		
									Medium dense, gray-brown silty SAND with bedrock fragements		
									Probable weathered BEDROCK		
									Refusal at 3.3 feet		
									Probable Bedrock		

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

BORING NO.: **B-3**



BORING LOG

BORING NO.: **B-5**
SHEET: 1 of 1
PROJECT NO. 18-1201.1
DATE START: 7/25/2019
DATE FINISH: 7/25/2019

CLIENT: Sandy River Company
PROJECT: Proposed Assisted Living Facility
LOCATION: 418 Ray Street, Portland, Maine

Drilling Information

LOCATION: See Exploration Location Plan ELEVATION (FT): 89' +/- TOTAL DEPTH (FT): 18.1 LOGGED BY: Patrick Otto
DRILLING CO.: S. W. Cole Explorations, LLC DRILLER: Kevin Hanscom DRILLING METHOD: Hollow Stem Auger
RIG TYPE: Track Mounted Diedrich D-50 AUGER ID/OD: 2 1/4 in / 5 5/8 in SAMPLER: Standard Split-Spoon
HAMMER TYPE: Automatic / Automatic HAMMER WEIGHT (lbs): 140 / 140 CASING ID/OD: N/A / N/A CORE BARREL:
HAMMER EFFICIENCY FACTOR: 0.91 HAMMER DROP (inch): 30 / 16
WATER LEVEL DEPTHS (ft): 7/25/2019 Soils saturated below 9'

GENERAL NOTES:

KEY TO NOTES AND SYMBOLS: Water Level
▽ At time of Drilling D = Split Spoon Sample Pen. = Penetration Length WOR = Weight of Rods S_v = Field Vane Shear Strength, kips/sq.ft.
▽ At Completion of Drilling U = Thin Walled Tube Sample Rec. = Recovery Length WOH = Weight of Hammer q_u = Unconfined Compressive Strength, kips/sq.ft.
▽ After Drilling R = Rock Core Sample bpf = Blows per Foot RQD = Rock Quality Designation Ø = Friction Angle (Estimated)
V = Field Vane Shear mpf = Minute per Foot PID = Photoionization Detector N/A = Not Applicable

Elev. (ft)	Depth (ft)	Casing Pen. (bpf)	SAMPLE INFORMATION					Graphic Log	Sample Description & Classification	H ₂ O Depth	Remarks
			Sample No.	Type	Depth (ft)	Pen./ Rec. (in)	Blow Count or RQD				
85 											

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

BORING NO.: **B-5**



BORING LOG

BORING NO.: **B-6**
SHEET: 1 of 1
PROJECT NO. 18-1201.1
DATE START: 8/6/2019
DATE FINISH: 8/6/2019

CLIENT: Sandy River Company
PROJECT: Proposed Assisted Living Facility
LOCATION: 418 Ray Street, Portland, Maine

Drilling Information

LOCATION: See Exploration Location Plan ELEVATION (FT): 85' +/- TOTAL DEPTH (FT): 12.5 LOGGED BY: Patrick Otto
DRILLING CO.: S. W. Cole Explorations, LLC DRILLER: Jeff Lee DRILLING METHOD: Hollow Stem Auger
RIG TYPE: Track Mounted CME 850 AUGER ID/OD: 2 1/4 in / 5 5/8 in SAMPLER: Standard Split-Spoon
HAMMER TYPE: Automatic / Automatic HAMMER WEIGHT (lbs): 140 / 140 CASING ID/OD: N/A / N/A CORE BARREL:
HAMMER EFFICIENCY FACTOR: 0.75 HAMMER DROP (inch): 30 / 16
WATER LEVEL DEPTHS (ft): 8 ft 8/6/2019 Soils saturated below 8'

GENERAL NOTES:

KEY TO NOTES: Water Level
AND SYMBOLS: ∇ At time of Drilling D = Split Spoon Sample Pen. = Penetration Length WOR = Weight of Rods S_v = Field Vane Shear Strength, kips/sq.ft.
 ∇ At Completion of Drilling U = Thin Walled Tube Sample Rec. = Recovery Length WOH = Weight of Hammer q_u = Unconfined Compressive Strength, kips/sq.ft.
 ∇ After Drilling R = Rock Core Sample bpf = Blows per Foot RQD = Rock Quality Designation Ø = Friction Angle (Estimated)
V = Field Vane Shear mpf = Minute per Foot PID = Photoionization Detector N/A = Not Applicable

Elev. (ft)	Depth (ft)	Casing Pen. (bpf)	SAMPLE INFORMATION					Graphic Log	Sample Description & Classification	H ₂ O Depth	Remarks
			Sample No.	Type	Depth (ft)	Pen./ Rec. (in)	Blow Count or RQD				
80	5		1D	X	0-2	24/24	1-5-7-7		0.5 Very loose, dark brown sandy silt with organics (Topsoil)		
			2D	X	2-4	24/18	7-9-9-12		2.0 Medium dense, gray-brown sandy SILT with rootlets		
			3D	X	5-7	24/24	5-8-12-15		4.5 Medium dense, gray SAND and SILT with clay seams		
			4D	X	8-10	24/20	6-9-14-10		8.0 Very stiff, brown silty CLAY with frequent sand seams		
75	10								Medium dense, tan silty SAND, some gravel	∇	

Refusal at 12.5 feet
Probable Bedrock

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

BORING NO.: **B-6**



BORING LOG

CLIENT: Sandy River Company
PROJECT: Proposed Assisted Living Facility
LOCATION: 418 Ray Street, Portland, Maine

BORING NO.: B-7
SHEET: 1 of 1
PROJECT NO. 18-1201.1
DATE START: 8/6/2019
DATE FINISH: 8/6/2019

Drilling Information

LOCATION: See Exploration Location Plan ELEVATION (FT): 87' +/- TOTAL DEPTH (FT): 14.0 LOGGED BY: Patrick Otto
DRILLING CO.: S. W. Cole Explorations, LLC DRILLER: Jeff Lee DRILLING METHOD: Hollow Stem Auger
RIG TYPE: Track Mounted CME 850 AUGER ID/OD: 2 1/4 in / 5 5/8 in SAMPLER: Standard Split-Spoon
HAMMER TYPE: Automatic HAMMER WEIGHT (lbs): 140 / 140 CASING ID/OD: N/A / N/A CORE BARREL:
HAMMER EFFICIENCY FACTOR: 0.75 HAMMER DROP (inch): 30 / 16
WATER LEVEL DEPTHS (ft): 8 ft 8/6/2019 Soils wet at 5', saturated at 10'

GENERAL NOTES:

KEY TO NOTES AND SYMBOLS: Water Level
▽ At time of Drilling
▽ At Completion of Drilling
▽ After Drilling
D = Split Spoon Sample
U = Thin Walled Tube Sample
R = Rock Core Sample
V = Field Vane Shear
Pen. = Penetration Length
Rec. = Recovery Length
bpf = Blows per Foot
mpf = Minute per Foot
WOR = Weight of Rods
WOH = Weight of Hammer
RQD = Rock Quality Designation
PID = Photoionization Detector
S_v = Field Vane Shear Strength, kips/sq.ft.
q_u = Unconfined Compressive Strength, kips/sq.ft.
Ø = Friction Angle (Estimated)
N/A = Not Applicable

Elev. (ft)	Depth (ft)	Casing Pen. (bpf)	SAMPLE INFORMATION					Graphic Log	Sample Description & Classification	H ₂ O Depth	Remarks
			Sample No.	Type	Depth (ft)	Pen./ Rec. (in)	Blow Count or RQD				
85	5		1D	×	0-2	24/24	1-3-5-7	0.5	Very loose, dark brown sandy SILT with organics		
								1.0	Loose, tan SAND and SILT with rootlets		
								3.0	Medium dense, gray SAND and SILT with rootlets		
80	10		2D	×	5-7	24/24	4-7-6-8		Medium dense, brown silty SAND with olive-brown silty clay seams	▽	
75			3D	×	10-12	24/20	5-6-8-9	9.0	Medium dense, tan silty SAND, some gravel		

Refusal at 14.0 feet
Probable Bedrock

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

BORING NO.: B-7



BORING LOG

BORING NO.: **B-8**
SHEET: 1 of 1
PROJECT NO. 18-1201.1
DATE START: 8/6/2019
DATE FINISH: 8/6/2019

CLIENT: Sandy River Company
PROJECT: Proposed Assisted Living Facility
LOCATION: 418 Ray Street, Portland, Maine

Drilling Information

LOCATION: See Exploration Location Plan ELEVATION (FT): 89' +/- TOTAL DEPTH (FT): 10.1 LOGGED BY: Patrick Otto
DRILLING CO.: S. W. Cole Explorations, LLC DRILLER: Jeff Lee DRILLING METHOD: Solid Stem Auger
RIG TYPE: Track Mounted CME 850 AUGER ID/OD: N/A / 4 1/2 in SAMPLER: Standard Split-Spoon
HAMMER TYPE: Automatic / Automatic HAMMER WEIGHT (lbs): 140 / 140 CASING ID/OD: N/A / N/A CORE BARREL:
HAMMER EFFICIENCY FACTOR: 0.75 HAMMER DROP (inch): 30 / 16
WATER LEVEL DEPTHS (ft): 8/6/2019 No free water observed

GENERAL NOTES:

KEY TO NOTES AND SYMBOLS: Water Level
▽ At time of Drilling D = Split Spoon Sample Pen. = Penetration Length WOR = Weight of Rods S_v = Field Vane Shear Strength, kips/sq.ft.
▽ At Completion of Drilling U = Thin Walled Tube Sample Rec. = Recovery Length WOH = Weight of Hammer q_u = Unconfined Compressive Strength, kips/sq.ft.
▽ After Drilling R = Rock Core Sample bpf = Blows per Foot RQD = Rock Quality Designation Ø = Friction Angle (Estimated)
V = Field Vane Shear mpf = Minute per Foot PID = Photoionization Detector N/A = Not Applicable

Elev. (ft)	Depth (ft)	Casing Pen. (bpf)	SAMPLE INFORMATION					Graphic Log	Sample Description & Classification	H ₂ O Depth	Remarks
			Sample No.	Type	Depth (ft)	Pen./ Rec. (in)	Blow Count or RQD				
85 5 80 10			1D	×	0-2	24/14	1-1-1-2		1.0 Very loose, dark brown sandy silt with organics (Topsoil)		
			2D	×	2-4	24/15	2-6-7-14		2.0 Very loose, tan silty SAND		
			3D	×	5-7	24/22	5-5-10-11		Medium dense, tan silty SAND, some gravel		
			4D	—	10-10.1	1/1	25/1"		Refusal at 10.1 feet Probable Bedrock		

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

BORING NO.: **B-8**



TEST PIT LOGS

PROJECT NO.: 18-1201

LOGGED BY: Patrick Otto

CLIENT: Sandy River Company

PROJECT: Proposed Assisted Living Facility

LOCATION: 418 Ray Street, Portland, Maine

CONTRACTOR:
Shaw Brothers Construction, Inc.

EQUIPMENT:
Takeuchi TB-290

TEST PIT TP- 1

DATE: 9/13/2018 LOCATION: See Exploration Location Plan SURFACE ELEVATION (FT): 92' +/- COMPLETION DEPTH (FT): 2.4

WATER LEVEL DEPTHS (FT): 9/13/2018 No free water observed REMARKS:

Depth (feet)	Graphic Log	Stratum Description	H ₂ O Depth	Sample No.	Type	Sample Depth (ft)	Field / Lab Test Data
		Forest duff / dark brown sandy SILT with organics and roots					
		0.8 Brown silty SAND with roots					
		2.0 Brown gravelly SAND, some silt, with bedrock fragments					
Refusal at 2.4 feet Probable bedrock							

TEST PIT TP- 2

DATE: 9/13/2018 LOCATION: See Exploration Location Plan SURFACE ELEVATION (FT): 98' +/- COMPLETION DEPTH (FT): 4.3

WATER LEVEL DEPTHS (FT): 9/13/2018 No free water observed REMARKS:

Depth (feet)	Graphic Log	Stratum Description	H ₂ O Depth	Sample No.	Type	Sample Depth (ft)	Field / Lab Test Data
		Forest duff / dark brown sandy SILT with organics and roots					
		0.8 Brown sandy SILT with roots					
		2.0 Light brown gravelly SAND, some silt					
Refusal at 4.3 feet Probable bedrock							

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

KEY TO NOTES AND SYMBOLS:

Water Level
▽ At time of Digging
▼ At Completion of Digging
▽ After Digging

q_p = Pocket Penetrometer Strength, kips/sq.ft.



TEST PIT LOGS

PROJECT NO.: 18-1201
 LOGGED BY: Patrick Otto
 CONTRACTOR: Shaw Brothers Construction, Inc.
 EQUIPMENT: Takeuchi TB-290

CLIENT: Sandy River Company
 PROJECT: Proposed Assisted Living Facility
 LOCATION: 418 Ray Street, Portland, Maine

TEST PIT TP- 3

DATE: 9/13/2018 LOCATION: See Exploration Location Plan SURFACE ELEVATION (FT): 86.5' +/- COMPLETION DEPTH (FT): 7.5
 WATER LEVEL DEPTHS (FT): 9/13/2018 No free water observed REMARKS:

Depth (feet)	Graphic Log	Stratum Description	H ₂ O Depth	Sample No.	Type	Sample Depth (ft)	Field / Lab Test Data
		Forest duff / dark brown sandy SILT with organics					
		1.0 Gray-brown sandy SILT with rootlets to 2'					
		2.6 Brown sandy SILT, some clay					
5		6.0 Layered brown silty SAND and sandy SILT					

Refusal at 7.5 feet
 Probable bedrock

TEST PIT TP- 4

DATE: 9/13/2018 LOCATION: See Exploration Location Plan SURFACE ELEVATION (FT): 88' +/- COMPLETION DEPTH (FT): 6.7
 WATER LEVEL DEPTHS (FT): 9/13/2018 No free water observed REMARKS:

Depth (feet)	Graphic Log	Stratum Description	H ₂ O Depth	Sample No.	Type	Sample Depth (ft)	Field / Lab Test Data
		Forest duff / dark brown sandy SILT with organics					
		1.3 Brown silty SAND with rootlets to 2.3'					
		3.4 Brown sandy silty CLAY				4-	q _p =8 ksf
5		6.0 Brown silty SAND, some gravel, with bedrock fragments				6-	q _p =8 ksf

Refusal at 6.7 feet
 Probable bedrock

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

KEY TO NOTES AND SYMBOLS:

Water Level
 ▽ At time of Digging
 ▼ At Completion of Digging
 ▽ After Digging

q_p = Pocket Penetrometer Strength, kips/sq.ft.



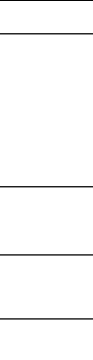
TEST PIT LOGS

PROJECT NO.: 18-1201
 LOGGED BY: Patrick Otto
 CONTRACTOR: Shaw Brothers Construction, Inc.
 EQUIPMENT: Takeuchi TB-290

CLIENT: Sandy River Company
 PROJECT: Proposed Assisted Living Facility
 LOCATION: 418 Ray Street, Portland, Maine

TEST PIT TP- 5

DATE: 9/13/2018 LOCATION: See Exploration Location Plan SURFACE ELEVATION (FT): 84' +/- COMPLETION DEPTH (FT): 8.5
 WATER LEVEL DEPTHS (FT): 9/13/2018 Soils wet below 6' REMARKS:

Depth (feet)	Graphic Log	Stratum Description	H ₂ O Depth	Sample No.	Type	Sample Depth (ft)	Field / Lab Test Data
5		Forest duff / Dark brown sandy SILT with rootlets				3-	q _p =6 ksf
		0.8 Brown sandy clayey SILT, with rootlets to 2'					
		4.4 Layered brown SAND and SILT					
		6.0 Gray-brown silty CLAY					
		7.5 Brown silty gravelly SAND, with cobbles					
Refusal at 8.5 feet Probable bedrock							

TEST PIT TP- 6

DATE: 9/13/2018 LOCATION: See Exploration Location Plan SURFACE ELEVATION (FT): 88' +/- COMPLETION DEPTH (FT): 8.5
 WATER LEVEL DEPTHS (FT): 9/13/2018 No free water observed REMARKS:

Depth (feet)	Graphic Log	Stratum Description	H ₂ O Depth	Sample No.	Type	Sample Depth (ft)	Field / Lab Test Data
5		Brown sandy SILT with organics and roots					
		1.3 Rust brown silty SAND, with rootlets					
		2.4 Light brown SAND, some gravel, some silt, with cobbles and boulders					
Refusal at 9.0 feet Probable bedrock							

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

KEY TO NOTES AND SYMBOLS:

Water Level
 ▽ At time of Digging
 ▼ At Completion of Digging
 ▽ After Digging

q_p = Pocket Penetrometer Strength, kips/sq.ft.



TEST PIT LOGS

PROJECT NO.: 18-1201
 LOGGED BY: Patrick Otto
 CONTRACTOR: Shaw Brothers Construction, Inc.
 EQUIPMENT: Takeuchi TB-290

CLIENT: Sandy River Company
 PROJECT: Proposed Assisted Living Facility
 LOCATION: 418 Ray Street, Portland, Maine

TEST PIT TP- 7

DATE: 9/13/2018 LOCATION: See Exploration Location Plan SURFACE ELEVATION (FT): 82' +/- COMPLETION DEPTH (FT): 10.5
 WATER LEVEL DEPTHS (FT): 9/13/2018 Light seepage at 7', soils saturated at 8.5' REMARKS:

Depth (feet)	Graphic Log	Stratum Description	H ₂ O Depth	Sample No.	Type	Sample Depth (ft)	Field / Lab Test Data
		Forest duff / dark brown silty SAND with organics and roots					
		0.8 Gray-brown SAND and SILT, with clay seams					
		3.0 Gray-brown sandy silty CLAY				3-	q _p =5 ksf
		4.0 Very stiff to medium, gray-brown sandy silty CLAY				4-	q _p =3 to 4 ksf
5						5-	q _p =2 to 3 ksf
						6-	q _p =1.5 ksf
						8-	q _p =1 ksf
10		8.5 Gray silty CLAY					

Bottom of Exploration at 10.5 feet
 Limit of excavator

TEST PIT TP- 8

DATE: 9/13/2018 LOCATION: See Exploration Location Plan SURFACE ELEVATION (FT): 88' +/- COMPLETION DEPTH (FT): 4.0
 WATER LEVEL DEPTHS (FT): 9/13/2018 No free water observed REMARKS:

Depth (feet)	Graphic Log	Stratum Description	H ₂ O Depth	Sample No.	Type	Sample Depth (ft)	Field / Lab Test Data
		Forest duff / dark brown sandy SILT with organics					
		1.3 Brown silty SAND, with roots					
		2.0 Brown gravelly SAND, some silt, with cobbles					

Refusal at 4.0 feet
 Probable bedrock

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

KEY TO NOTES AND SYMBOLS:

Water Level
 ▽ At time of Digging
 ▼ At Completion of Digging
 ▽ After Digging

q_p = Pocket Penetrometer Strength, kips/sq.ft.



TEST PIT LOGS

PROJECT NO.: 18-1201
LOGGED BY: Patrick Otto
CONTRACTOR: Shaw Brothers Construction, Inc.
EQUIPMENT: Takeuchi TB-290

CLIENT: Sandy River Company
PROJECT: Proposed Assisted Living Facility
LOCATION: 418 Ray Street, Portland, Maine

TEST PIT TP- 9

DATE: 9/13/2018 LOCATION: See Exploration Location Plan SURFACE ELEVATION (FT): 94' +/- COMPLETION DEPTH (FT): 1.8
WATER LEVEL DEPTHS (FT): 9/13/2018 No free water observed REMARKS:

Depth (feet)	Graphic Log	Stratum Description	H ₂ O Depth	Sample No.	Type	Sample Depth (ft)	Field / Lab Test Data
		Forest duff / dark brown sandy SILT with organics					
		1.0 Brown sandy SILT, with roots and cobbles/bedrock fragments					
Refusal at 1.8 feet Probable bedrock							

TEST PIT TP-10

DATE: 9/13/2018 LOCATION: See Exploration Location Plan SURFACE ELEVATION (FT): 94' +/- COMPLETION DEPTH (FT): 5.0
WATER LEVEL DEPTHS (FT): No free water observed REMARKS:

Depth (feet)	Graphic Log	Stratum Description	H ₂ O Depth	Sample No.	Type	Sample Depth (ft)	Field / Lab Test Data
		Forest duff / dark brown sandy SILT with organics					
		1.0 Brown silty SAND with roots					
		2.0 Gray-light brown SAND and SILT					
		4.0 Layered brown SAND and SILT					
5		4.9 Brown gravelly SAND, some silt					
Bottom of Exploration at 5.0 feet							

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

KEY TO NOTES AND SYMBOLS:

Water Level
▽ At time of Digging
▼ At Completion of Digging
▽ After Digging

q_p = Pocket Penetrometer Strength, kips/sq.ft.



TEST PIT LOGS

PROJECT NO.: 18-1201

LOGGED BY: Patrick Otto

CLIENT: Sandy River Company

PROJECT: Proposed Assisted Living Facility

LOCATION: 418 Ray Street, Portland, Maine

CONTRACTOR:
Shaw Brothers Construction, Inc.

EQUIPMENT:
Takeuchi TB-290

TEST PIT TP-11

DATE: 9/13/2018 LOCATION: See Exploration Location Plan SURFACE ELEVATION (FT): 100' +/- COMPLETION DEPTH (FT): 4.4

WATER LEVEL DEPTHS (FT): 9/13/2018 No free water observed REMARKS:

Depth (feet)	Graphic Log	Stratum Description	H ₂ O Depth	Sample No.	Type	Sample Depth (ft)	Field / Lab Test Data
		0.5 Forest duff / dark brown sandy SILT with organics Brown silty SAND with roots					
		2.3 Brown gravelly SAND and SILT with cobbles					

Bottom of Exploration at 4.4 feet

TEST PIT TP-12

DATE: 9/13/2018 LOCATION: See Exploration Location Plan SURFACE ELEVATION (FT): 98' +/- COMPLETION DEPTH (FT): 6.0

WATER LEVEL DEPTHS (FT): 9/13/2018 Light seepage in test pit sidewall at 4' and 5.5' REMARKS:

Depth (feet)	Graphic Log	Stratum Description	H ₂ O Depth	Sample No.	Type	Sample Depth (ft)	Field / Lab Test Data
		Dark brown sandy SILT with organics, roots and fabric (FILL)					
		1.3 Brown silty SAND					
		3.0 Brown SAND and silt, some clay					
5		4.2 Brown sandy silty CLAY				5-	q _p =4 to 5 ksf

Bottom of Exploration at 6.0 feet

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

KEY TO NOTES AND SYMBOLS:

Water Level
▽ At time of Digging
▼ At Completion of Digging
▽ After Digging

q_p = Pocket Penetrometer Strength, kips/sq.ft.



TEST PIT LOGS

PROJECT NO.: 18-1201
LOGGED BY: Patrick Otto
CONTRACTOR: Shaw Brothers Construction, Inc.
EQUIPMENT: Takeuchi TB-290

CLIENT: Sandy River Company
PROJECT: Proposed Assisted Living Facility
LOCATION: 418 Ray Street, Portland, Maine

TEST PIT TP-13

DATE: 9/13/2018 LOCATION: See Exploration Location Plan SURFACE ELEVATION (FT): 96' +/- COMPLETION DEPTH (FT): 3.2
WATER LEVEL DEPTHS (FT): 9/13/2018 No free water observed REMARKS:

Depth (feet)	Graphic Log	Stratum Description	H ₂ O Depth	Sample No.	Type	Sample Depth (ft)	Field / Lab Test Data
		Brown silty gravelly SAND with cobbles and brick (FILL)					
		2.0 Brown silty gravelly SAND with cobbles and boulders (FILL) -geotextile fabric at 3'-					

Bottom of Exploration at 3.2 feet

TEST PIT TP-14

DATE: 9/13/2018 LOCATION: See Exploration Location Plan SURFACE ELEVATION (FT): 86' +/- COMPLETION DEPTH (FT): 5.0
WATER LEVEL DEPTHS (FT): 9/13/2018 Light seepage at ground surface and 4' REMARKS:

Depth (feet)	Graphic Log	Stratum Description	H ₂ O Depth	Sample No.	Type	Sample Depth (ft)	Field / Lab Test Data
		Dark brown sandy SILT with organics and roots					
		0.6 Gray-brown SAND and silt with roots					
		1.5 Gray-brown SAND and silt, trace gravel, with clayey seams and layers					

5

Bottom of Exploration at 5.0 feet

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

KEY TO NOTES AND SYMBOLS:

Water Level
▽ At time of Digging
▼ At Completion of Digging
▽ After Digging

q_p = Pocket Penetrometer Strength, kips/sq.ft.



TEST PIT LOGS

PROJECT NO.: 18-1201

LOGGED BY: Patrick Otto

CLIENT: Sandy River Company

PROJECT: Proposed Assisted Living Facility

LOCATION: 418 Ray Street, Portland, Maine

CONTRACTOR:
Shaw Brothers Construction, Inc.

EQUIPMENT:
Takeuchi TB-290

TEST PIT TP-15

DATE: 9/13/2018 LOCATION: See Exploration Location Plan SURFACE ELEVATION (FT): 85' +/- COMPLETION DEPTH (FT): 5.0

WATER LEVEL DEPTHS (FT): 9/13/2018 Soils wet at 4.5' REMARKS:

Depth (feet)	Graphic Log	Stratum Description	H ₂ O Depth	Sample No.	Type	Sample Depth (ft)	Field / Lab Test Data
		Forest duff / dark brown sandy SILT with roots					
		1.0 Brown sandy SILT					
		2.7 Very stiff, gray sandy clayey SILT				3-	q _p =6 to 8 ksf

5

Bottom of Exploration at 5.0 feet

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

KEY TO NOTES AND SYMBOLS:

Water Level
▽ At time of Digging
▼ At Completion of Digging
▽ After Digging

q_p = Pocket Penetrometer Strength, kips/sq.ft.

KEY TO NOTES & SYMBOLS

Test Boring and Test Pit Explorations

Stratification lines represent the approximate boundary between soil types and the transition may be gradual.

Key to Symbols Used:

w	-	water content, percent (dry weight basis)
q _u	-	unconfined compressive strength, kips/sq. ft. - laboratory test
S _v	-	field vane shear strength, kips/sq. ft.
L _v	-	lab vane shear strength, kips/sq. ft.
q _p	-	unconfined compressive strength, kips/sq. ft. – pocket penetrometer test
O	-	organic content, percent (dry weight basis)
W _L	-	liquid limit - Atterberg test
W _P	-	plastic limit - Atterberg test
WOH	-	advance by weight of hammer
WOM	-	advance by weight of man
WOR	-	advance by weight of rods
HYD	-	advance by force of hydraulic piston on drill
RQD	-	Rock Quality Designator - an index of the quality of a rock mass.
γ _T	-	total soil weight
γ _B	-	buoyant soil weight

Description of Proportions:

Trace:	0 to 5%
Some:	5 to 12%
"Y"	12 to 35%
And	35+%
With	Undifferentiated

Description of Stratified Soils

Parting:	0 to 1/16" thickness
Seam:	1/16" to 1/2" thickness
Layer:	1/2" to 12" thickness
Varved:	Alternating seams or layers
Occasional:	one or less per foot of thickness
Frequent:	more than one per foot of thickness

REFUSAL: Test Boring Explorations - Refusal depth indicates that depth at which, in the drill foreman's opinion, sufficient resistance to the advance of the casing, auger, probe rod or sampler was encountered to render further advance impossible or impracticable by the procedures and equipment being used.

REFUSAL: Test Pit Explorations - Refusal depth indicates that depth at which sufficient resistance to the advance of the backhoe bucket was encountered to render further advance impossible or impracticable by the procedures and equipment being used.

Although refusal may indicate the encountering of the bedrock surface, it may indicate the striking of large cobbles, boulders, very dense or cemented soil, or other buried natural or man-made objects or it may indicate the encountering of a harder zone after penetrating a considerable depth through a weathered or disintegrated zone of the bedrock.

APPENDIX D

Laboratory Test Results

Consolidation Test

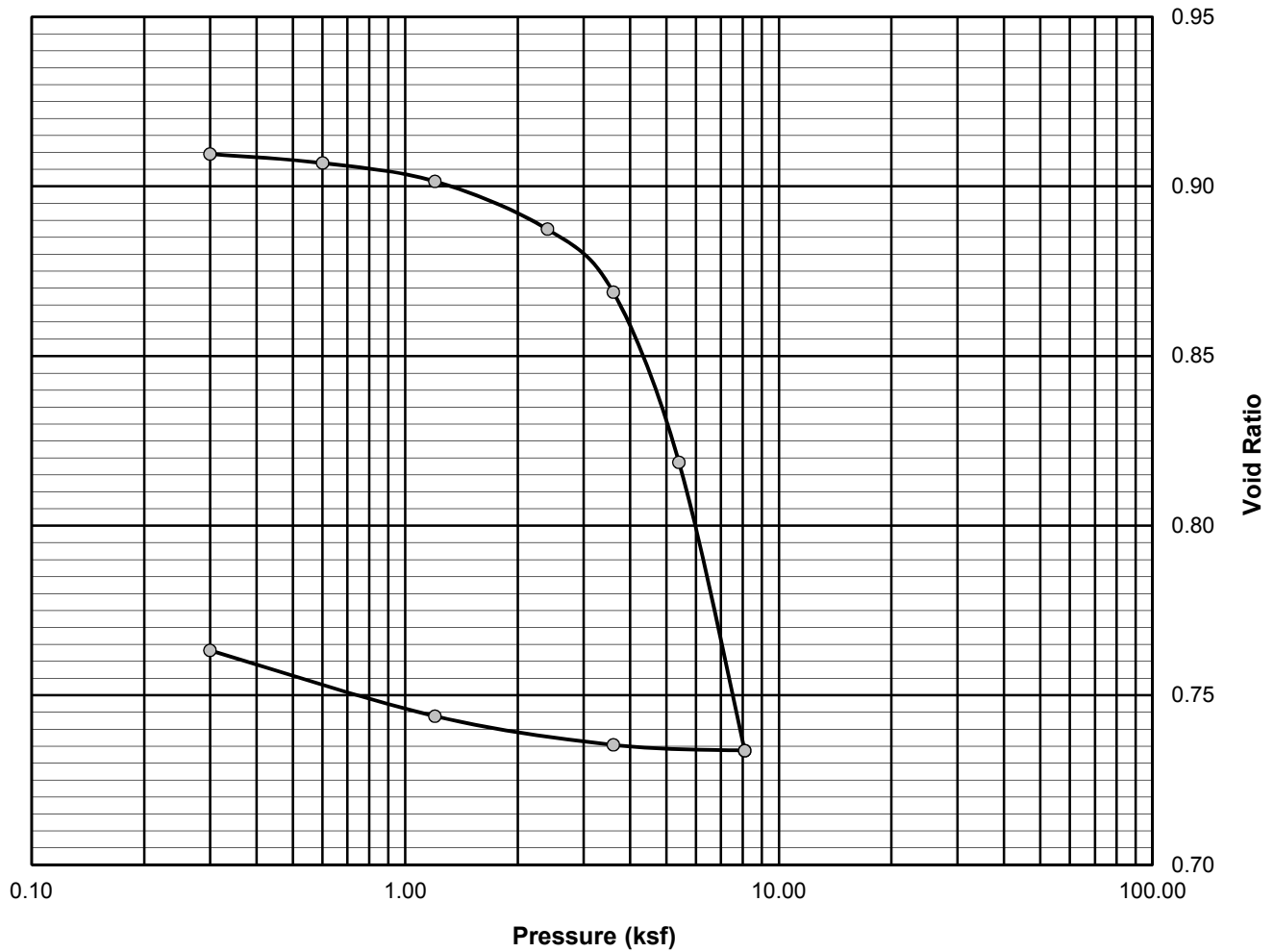
ASTM D-4767

Project Name: Portland - Assisted Living Facility
Client: Sandy River Company

Project Number: 18-1201.1
Lab ID: 22903B
Date: 8/26/2019

Boring: B-4
Sample: 1U
Depth: 10-12'

P_C	=	4.1 KSF +/-
C_C	=	0.02
C_R	=	0.48
w	=	34.1%
W_L	=	29
W_P	=	16



Comments:

EMW

Reviewed By

Report of Gradation

ASTM C-117 & C-136

Project Name PORTLAND ME - PROPOSED ASSISTED LIVING FACILITY - DESIGN
 PHASE GEOTECHNICAL
 Client SANDY RIVER COMPANY

Project Number 18-1201.1

Lab ID 25367G

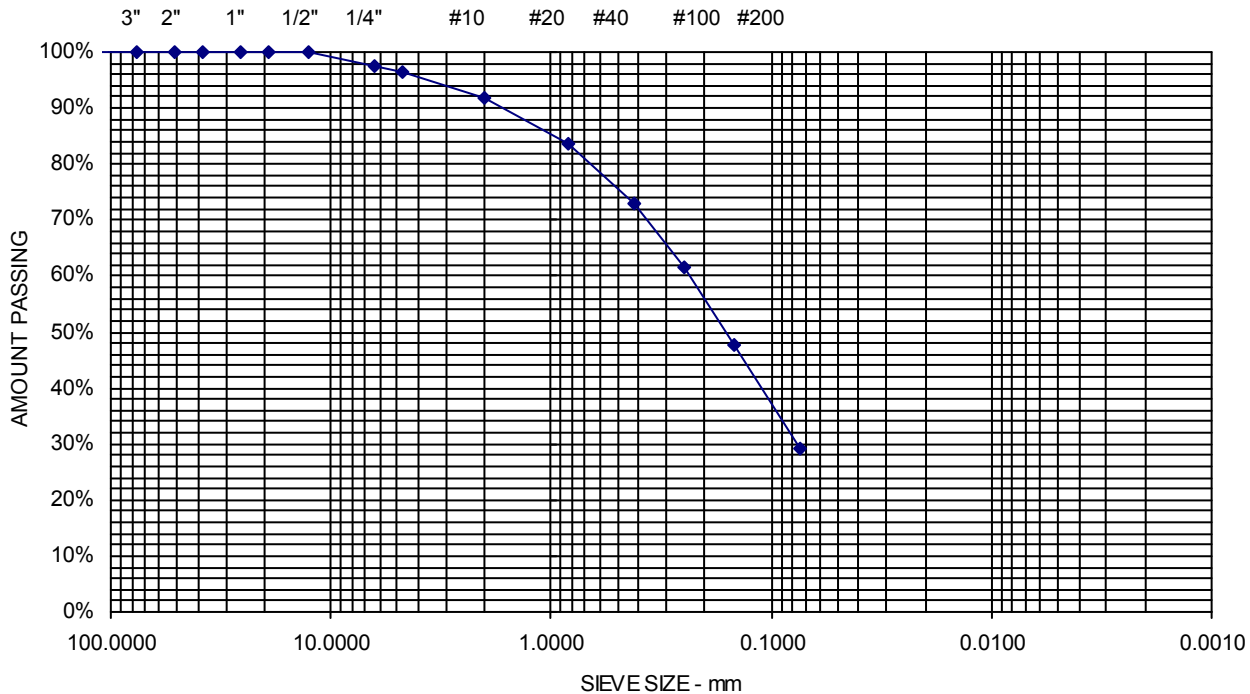
Date Received 7/29/2019

Date Completed 7/31/2019

Tested By JACK LABBE

Material Source **B-1 2D 2-4**

<u>STANDARD DESIGNATION (mm/μm)</u>	<u>SIEVE SIZE</u>	<u>AMOUNT PASSING (%)</u>	
150 mm	6"	100	
125 mm	5"	100	
100 mm	4"	100	
75 mm	3"	100	
50 mm	2"	100	
38.1 mm	1-1/2"	100	
25.0 mm	1"	100	
19.0 mm	3/4"	100	
12.5 mm	1/2"	100	
6.3 mm	1/4"	98	
4.75 mm	No. 4	97	3.5% Gravel
2.00 mm	No. 10	92	
850 μm	No. 20	84	
425 μm	No. 40	73	67.5% Sand
250 μm	No. 60	61	
150 μm	No. 100	48	
75 μm	No. 200	29.0	29% Fines



Comments:

Sheet

Section 12

Stormwater Management

Stormwater Management

See this Section for a copy of the stormwater management plan.



CIVIL ENGINEERING • SURVEYING • LANDSCAPE ARCHITECTURE

STORMWATER MANAGEMENT PLAN

For

FALLBROOK COMMONS PORTLAND, MAINE

Prepared for

Sandy River Company
217 Commercial Street
Portland, Maine 04112

November 12, 2019

Table of Contents

Contents

I. Introduction.....	1
II. Existing Conditions	1
III. Soils.....	1
IV. Proposed Site Improvements.....	2
V. Pre-Development Conditions Model.....	2
VI. Post-Development Conditions Model	3
VII. Stormwater Management.....	4
Basic Standard - Chapter 500, Section 4(B)	4
General Standard - Chapter 500, Section 4(C).....	4
Flooding Standard - Chapter 500, Section 4(F).....	5
VIII. Summary.....	7

Appendices

Appendix 1:	Watershed Plans and Stormwater Treatment Plans
Appendix 2:	Stormwater Quality Calculations
Appendix 3A:	Hydrologic Modeling – Pre-Development Model (HydroCAD) Summary
Appendix 3B:	Hydrologic Modeling – Post-Development Model (HydroCAD) Summary
Appendix 4:	Inspection, Maintenance and Housekeeping Plan
Appendix 5:	Web Soil Survey
Appendix 6:	FEMA Map
Appendix 7:	Form F: Soil Profile/Classification Information

STORMWATER MANAGEMENT PLAN REPORT
Fallbrook Commons
Portland, Maine

I. Introduction

This Stormwater Management Plan Report has been prepared to present analyses performed to address the potential impacts associated with the project due to proposed modification to stormwater runoff characteristics and land cover changes. The stormwater management controls outlined in this report have been designed to suit the proposed development and to comply with applicable regulatory requirements.

II. Existing Conditions

The project site is comprised of undeveloped land consisting of mostly wooded land coverage with access from Ray Street and Merrymeeting Drive. The site is approximately 12.78 acres and is bounded by Florida Avenue and Ray Street residences to the south and east, Fallbrook Woods senior center to the north, and Topsham Street and undeveloped residential parcels to the west. Paper streets Wadco Street and Ash Street are located to the south and southeast of the site and are currently undeveloped.

Slopes on the site range from flat low-lying easterly wetland areas to undeveloped slopes ranging from 5-40% with exposed ledge areas located in the western portion of the parcel. Site drainage generally travels easterly toward the wetland area nearest the intersection and residences of Ray Street and Florida Avenue and enters a closed drainage system in the Ray Street right of way. Small portions of the site drain west to a wetland in the Topsham Street right of way.

The site is tributary to an unnamed stream draining northeasterly from the site and discharging at the mouth of the Presumpscot River, which is not classified as most-at-risk or urban impaired according to Chapter 502, Direct Watersheds of Lakes Most At-Risk From New Development, and Urban Impaired Stream Standards.

The proposed development area of the site is not located in an identified flood zone per the FEMA Flood Insurance Rate Map for the City of Portland, community-panel number 230051 002 C. Please find a copy of the FEMA map attached as Appendix 6.

III. Soils

Soil information for the site was obtained via the USDA United States Department of Agriculture and Natural Resources Conservation Service's Web Soil Survey. The Hydrologic Soil Group (HSG) of the site soils are classified by Technical Release TR-55 of the Soil Conservation Service as follows:

Soil Name	Soil Symbol	HSG	Slope (%)
BELGRADE	BgB	C	0-8
BUXTON	BuB	D	3-8
HOLLIS	HrB	C	0-8
HOLLIS	HrC	C	8-15
HOLLIS	HsB	C	0-8
SCANTIC	Sn	D	0-3

Hydrologic Soil Group boundaries are delineated on the Watershed Map. A copy of the Web Soil Survey is included as Appendix 5.

IV. Proposed Site Improvements

The project includes a new senior living facility located next to the existing Fallbrook Woods Assisted Living facility. The development includes the construction of a two story, 37,455 sf building that will house 90 bedrooms, a commercial kitchen, community areas, and two parking areas totaling 93 parking spaces. Fallbrook Health Center proposes an entrance off of Ray Street, and an emergency connection to Merrymeeting Drive.

This project will happen as one phase, which will involve clearing the vegetation as required, ledge removal, and site preparations for the building, and stormwater BMP's. Construction is expected to commence Summer 2020 and be completed by 2021.

The property is 12.78 acres, exists within the Residential-3 zone, and has frontage along Ray Street. The proposed development will improve approximately 5.6 acres of undeveloped land, as shown on the General Standards worksheet attached as Appendix 2. This includes approximately 2.7 acres of new impervious area.

V. Pre-Development Conditions Model

The pre-development watershed plan consists of four subcatchments labeled 1.0S, 1.1S, 2.0S, and 3.0S in the HydroCAD model. Three locations were identified as Study Points (SP) for comparing peak runoff rates.

SP-1 is located in the easterly corner of the lot where runoff leaves the site via a wetland. Watershed 1.0S directly contributes runoff to this study point with a tributary area of approximately 9.4 acres. Subcatchment 1.1S flows into to 1.0S through an existing 15" culvert with an inlet control structure identified as node 1.1P. The culvert crosses under an existing gravel access road draining an area of approximately 2.7 acres. SP-1 and the associated drainage area are tributary to an offsite unnamed stream traveling northeasterly from the site and discharging to the Presumpscot River.

SP-2 is located in the undeveloped southerly corner of the lot where runoff leaves the site via overland flow into the paper street right of way of Wadco Street. Subcatchment 2.0S contributes runoff to this study point with a tributary area of approximately 0.4 acres. SP-2 and its associated drainage area drain to an offsite unnamed stream discharging to the Presumpscot River.

SP-3 is located in the westerly corner of the lot that is a majority undeveloped where runoff leaves the site into the undeveloped Topsham Street right of way. A small portion of this area includes previously developed grass and pavement area from the neighboring Fallbrook Woods facility. Watershed 3.0S contributes runoff to this study point with a tributary area of approximately 0.9 acres. SP-3 and the associated drainage area are also tributary to an offsite unnamed stream discharging to the Presumpscot River.

VI. Post-Development Conditions Model

The post-development watershed area consists of the same overall area as the pre-development plan, however, the subcatchments have been broken into smaller areas as a result of the proposed development.

SP-1: Post-development subcatchments 10.0S and 10.1S represent the existing undeveloped and developed land within pre-development subcatchments 1.0S and 1.1S respectively. Subcatchments 11.0S, 11.1S, 11.2S, 12.0S, 13.0S, and 13.1S represent the majority of the proposed developed area including the building, parking areas, and landscaped islands.

Subcatchments 11.0S, 11.1S, and 11.2S represent approximately 3.1 acres of the developed site tributary to a proposed Gravel Wetland (GW-1) modeled as node 11.0P which provides both quantity and quality treatment of the stormwater runoff. Portions of subcatchment 11.1S include developed areas from the neighboring Fallbrook Woods facility and are directed to a proposed replacement culvert modeled as node 11.1P.

Subcatchment 12.0S represents approximately 1.3 acres of the developed area and is tributary to the proposed Underdrained Soil Filter (UDSF-1) modeled as node 12.0P which provides both quantity and quality treatment of the stormwater runoff.

Subcatchments 13.0S and 13.1S are approximately 0.8 acres of the proposed building roofline area and is tributary to the proposed Roof Drip Edge BMPs modeled as nodes 13.0P and 13.1P which provide quality treatment of the stormwater runoff.

SP-2: Post-development subcatchment 20.0S represents the remaining undeveloped land from pre-development subcatchment 2.0S.

SP-3: Post-development subcatchment 30.0S represents the remaining undeveloped land from pre-development subcatchment 3.0S and a small portion of developed landscape and pavement directed via constructed grassed swale and sheet flow to an existing wetland area.

The three Best Management Practices (gravel wetland, underdrained soil filter, and roof drip edge) have been designed and sized in accordance with MDEP BMP standards contained within Chapter 500 and the BMP Manual. The proposed BMPs treat runoff tributary to SP-1. The areas tributary to SP-2 and SP-3 are reduced in the post-development conditions due to site development. Sizing calculations can be found in Appendix 2.

VII. Stormwater Management

Basic Standard - Chapter 500, Section 4(B)

Since the project will disturb more than one (1) acre of land area, MDEP Basic Standards apply, requiring that grading or other construction activities on the site do not impede or otherwise alter drainage ways to have an unreasonable adverse impact. The project avoids adverse impacts by implementing an Erosion & Sedimentation Control Plan, and an Inspection, Maintenance and Housekeeping Plan (Appendix 4) during construction and post-construction stabilization of the site. These construction requirements have been developed following Best Management Practice guidelines.

General Standard - Chapter 500, Section 4(C)

Since the project will create more than one (1) acre of impervious surface, MDEP General Standards apply, which require a project's stormwater management system to include treatment measures that will mitigate for the increased frequency and duration of channel erosive flows due to runoff from smaller storms, provide for effective treatment of pollutants in stormwater, and mitigate potential temperature impacts. The General Standards require treatment of no less than 95% of the site's created impervious area and no less than 80% of the site's created developed area (landscaped area and impervious area combined).

To mitigate the changes in hydrologic patterns due to the development of this project, an underdrained soil filter, a gravel wetland, and a roof drip edge filters have been included in the stormwater management infrastructure. Filtration BMPs are effective at removing a wide range of pollutants through the use of soil filter media.

BMP sizing and treatment calculations are provided as Appendix 2.

Through the use of the proposed BMP's, 106.5% of new impervious area and 91.8% of new developed area will be receiving treatment. This exceeds the requirements for the Maine DEP General Standards. The project exceeds 100% of the new impervious area treated by directing untreated offsite impervious area to the proposed gravel wetland.

Flooding Standard - Chapter 500, Section 4(F)

Since the planned project will create less than three (3) acres of impervious surface, MDEP Flooding Standards are not required to be met. However, the Flooding Standard has been met as a local requirement. The Flooding Standard requires a project's stormwater management system detain, retain, or result in the infiltration of stormwater from 24-hour storms of the 2, 10, and 25-year frequencies such that the peak flows of stormwater from the project site do not exceed the peak flows of stormwater prior to undertaking the project.

A runoff evaluation was performed using the methodology outlined in the USDA Soil Conservation Service's "Urban Hydrology for Small Watersheds - Technical Release #55 (TR-55)". HydroCAD computer software was utilized to perform the calculations.

Runoff curve numbers were determined for each of the watersheds by measuring the area of each hydrologic soil group within each type of land cover. The type of land cover was determined based on survey data, field reconnaissance and aerial photography. Times of concentration were determined from site topographic maps in accordance with SCS procedures.

The 24-hour rainfall values utilized in the hydrologic model were obtained from Appendix H of MDEP's Chapter 500: Stormwater Management (effective date August 2015). Rainfall values for York County are listed in the table below.

Storm Frequency Precipitation (in./24 hr) Cumberland County	
2-year	3.1
10-year	4.6
25-year	5.8

The following table presents the watershed data for pre- and post-development conditions, as delineated for the analysis.

Subcatchment (Watershed)	Pre-Development			Post-Development		
	Area (ac)	Cn	Tc (Min.)	Area (ac)	Cn	Tc (Min.)
1.0S	9.42	77	29.3			
1.1S	2.68	80	23.9			
2.0S	0.44	70	18.7			
3.0S	0.92	72	16.1			
10.0S				4.54	79	28.5
10.1S				2.63	80	23.9
11.0S				1.93	92	11.7
11.1S				0.54	76	18.0
11.2S				0.62	81	15.0
12.0S				1.29	87	17.3
13.0S				0.40	98	6.0
13.1S				0.39	98	6.0
20.0S				0.28	70	18.0
30.0S				0.85	73	16.1
Total	13.46			13.46		

The following table presents the results of the stormwater runoff calculations at the analysis points for the pre-development and post-developed conditions.

Stormwater Runoff Summary Table			
Study Point	Storm Event	Pre-Development (cfs)	Post-Development (cfs)
SP-1	2-year	8.4	6.3
	10-year	19.4	17.2
	25-year	25.9	24.7
SP-2	2-year	0.2	0.2
	10-year	0.7	0.4
	25-year	0.9	0.6
SP-3	2-year	0.6	0.6
	10-year	1.6	1.5
	25-year	2.2	2.1

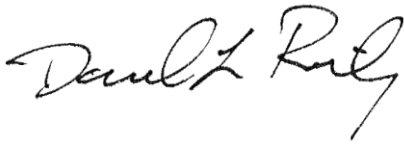
The HydroCAD Data output sheets from this analysis are appended to this report (Appendix 3) along with pre-development and post-development watershed maps (Appendix 1). The model predicts that the peak runoff rates in the post-development condition at Study Points 1, 2, and 3 are at or below pre-development runoff rates for the 2, 10, and 25-year storm events with implementation of the proposed stormwater management practices.

VIII. Summary

The proposed development has been designed to manage stormwater runoff through Best Management Practices approved by MDEP. Stormwater BMP's provide treatment to 106.5% (95% required) of impervious areas, and 91.8% (80% required) of the total developed area. Runoff discharging from the site will be at or below pre-development conditions for the 2, 10 and 25-year storm events at all three study points. Additionally, erosion and sedimentation controls along with associated maintenance and housekeeping procedures have been outlined to prevent unreasonable impacts on the site and to the surrounding environment.

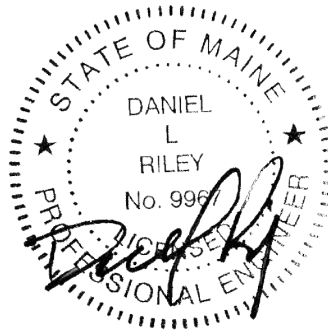
Prepared by:

SEBAGO TECHNICS, INC.



Daniel L. Riley, P.E.
Vice President, Engineering

DLR/BAW



11/12/2019

Appendix 1

Watershed Plans

(see plan set)

Appendix 2

Stormwater Quality Calculations

Table 1: MDEP GENERAL STANDARD CALCULATIONS

Job # 18347 Fallbrook Commons Date: 11/11/2019

AREA ID	WATERSHED SIZE (S.F.)	EXISTING ONSITE IMPERVIOUS AREA TO REMAIN (S.F.)	NEW ONSITE IMPERVIOUS AREA (S.F.)	EXISTING ONSITE LANDSCAPED AREA TO REMAIN (S.F.)	NEW ONSITE LANDSCAPED AREA (S.F.)	NET NEW DEVELOPED AREA (S.F.)	NET EXISTING DEVELOPED AREAS (S.F.)	TREATMENT PROVIDED?	IMPERVIOUS AREA TREATED (S.F.)	LANDSCAPED AREA TREATED (S.F.)	DEVELOPED AREA TREATED (S.F.)	TREATMENT BMP
10.0S	197,762	8,676	226	167,582	21,278	21,504	176,258	NO	0	0	0	
10.1S	114,524	24,914	0	85,730	3,880	3,880	110,644	NO	0	0	0	
11.0S	83,879	0	55,667	0	28,212	83,879	0	YES	55,667	28,212	83,879	GW-1
11.1S	23,407	0	0	0	23,407	23,407	0	YES	0	23,407	23,407	GW-1
11.2S	27,173	7,890	700	9,821	8,762	9,462	17,711	YES	8,590	18,583	27,173	GW-1
12.0S	56,194	0	27,298	0	28,896	56,194	0	YES	27,298	28,896	56,194	UDSF-1
13.0S	17,204	0	17,204	0	0	17,204	0	YES	17,204	0	17,204	DL
13.1S	16,974	0	16,974	0	0	16,974	0	YES	16,974	0	16,974	DL
20.0S	12,129	0	0	12,129	0	0	12,129	NO	0	0	0	
30.0S	37,005	0	0	24,501	12,504	12,504	24,501	NO	0	0	0	
TOTAL (S.F.)	586,251	41,480	118,069	299,763	126,939	245,008	341,243		125,733	99,098	224,831	

TOTAL NEW IMPERVIOUS AREA (S.F.)	118,069	TOTAL DEVELOPED AREA (S.F.)	245,008
TOTAL IMPERVIOUS AREA RECEIVING TREATMENT (S.F.)	125,733	TOTAL AREA RECEIVING TREATMENT (S.F.)	224,831
% OF IMPERVIOUS AREA RECEIVING TREATMENT	106.49%	% OF AREA RECEIVING TREATMENT	91.76%

SEBAGO TECHNICS, INC.

75 John Roberts Road Suite 4A

South Portland, Maine 04106

Tel. (207) 200-2100

JOB

18347 Fallbrook Commons

SHEET NO.

1

OF

1

CALCULATED BY

BAW

DATE

11/11/2019

FILE NAME

18347 WQC.xlsx

PRINT DATE

11/11/2019

GRAVEL WETLAND

Task: Calculate water quality volume per MDEP chapter 500 regulations

References 1. Maine DEP Chapter 500, Section 4.C.(3)(b)

"must detain a runoff volume equal to 1.0 inch times

the subcatchment's impervious area plus 0.4 inch times the subcatchment's landscaped area"

2. Maine DEP Best Management Practices Stormwater Manual, Section 7.4

a. "two wetland cells must be capable of holding 45% of the water quality volume each."

b. "forebay and any swale or discharge pipe to the system....holding 10% of the water quality volume"

c. "surface should represent 5% of impervious area and 2% of landscaped area"

Tributary to**GRAVEL WETLAND**

Landscaped Area

70,202.0

SF

Impervious Area

64,257.0

SF

Minimum Surface Area

Required

(2% X Landscaped + 5% X Impervious)

Total Landscaped Area

70,202.00

SF

Area

1,404.0

SF

Total Impervious Area

64,257.00

SF

Area

3,212.9

SF

Required Minimum Surface Area

4,616.9

SF

Provided Surface Area

6,175.0

SF

Treatment Volume

Required

(0.4" X Landscaped + 1.0" X Impervious)

Landscaped Area

70,202.00

SF

Volume

2,340.1

Impervious Area

64,257.00

SF

Volume

5,354.8

Treatment Volume Required

7,694.8

CF

0.177

AF

Minimum Treatment Cell Volume (45%)

3,462.7

CF

0.079

AF

Provided Treatment Volume (Bay 1)

4,790.0

CF

Provided Treatment Volume (Bay 2)

5,860.0

CF

Total Provided Treatment Volume

10,650.0

CF

Minimum "Forebay" Cell Volume (10%)

769.5

CF

Provided Treatment Volume (Forebay)

800.0

CF

SEBAGO TECHNICS, INC.

75 John Roberts Road Suite 4A

South Portland, Maine 04106

Tel. (207) 200-2100

JOB

18347 Fallbrook Commons

SHEET NO.

1

OF

1

CALCULATED BY

BAW

DATE

11/11/2019

FILE NAME

18347 WQC.xlsx

PRINT DATE

11/11/2019

UNDERDRAINED SOIL FILTER									
Task:	Calculate water quality volume per MDEP chapter 500 regulations								
1. Maine DEP Chapter 500, Section 4.C.(3)(b)									
References									
a.	"must detain a runoff volume equal to 1.0 inch times the subcatchment's impervious area plus 0.4 inch times the subcatchment's landscaped area"								
2. Maine DEP Best Management Practices Stormwater Manual, Section 7.1									
a.	"surface should represent 5% of impervious area and 2% of landscaped area"								
Tributary to Underdrained Filter									
	UDSF-1								
Landscaped Area	28,896.00	SF							
Impervious Area	27,298.00	SF							
Minimum Surface Area									
Required	(2% X Landscaped + 5% X Impervious)								
Total Landscaped Area	28,896.00	SF	Area	577.9	SF				
Total Impervious Area	27,298.00	SF	Area	1,364.9	SF				
Required Minimum Surface Area				1,942.8	SF				
Provided Surface Area				1,955.0	SF				
Treatment Volume									
Required	(0.4" X Landscaped + 1.0" X Impervious)								
Landscaped Area	28,896.00	SF	Volume	963.2					
Impervious Area	27,298.00	SF	Volume	2,274.8					
Treatment Volume Required				3,238.0	CF	0.074	AF		
Provided Treatment Volume				3,730.0	CF	0.086	AF		
Sediment Pre-Treatment									
Per Reference 2, Chapter 7.1		"Pretreatment devices shall be provided to minimize discharge of sediment to the soil filter"							
Annual Sediment Load:		55 cubic feet per acre per year of sanded area							
Area to be sanded:		27,298.00	SF						
Sediment Volume		34	CF						
Provided		160	CF	16	Inch Deep Forebay	with area of	120	sf	

SEBAGO TECHNICS, INC.

75 John Roberts Road Suite 4A

South Portland, Maine 04106

Tel. (207) 200-2100

JOB	18347 Fallbrook Commons		
SHEET NO.	1	OF	2
CALCULATED BY	BAW	DATE	11/11/2019
FILE NAME	18347 WQC.xlsx	PRNT DATE	11/11/2019

Gravel Wetland - Orifice Sizing CalculationOrifice Equation $Q = CA \sqrt{2gh}$

Q = Rate of Discharge (cfs)

A = Orifice Area (sf)

G = Gravitational Constant (32.2 ft/s²)

h = Depth of water above the flow line (center) of the orifice (ft)

C = Orifice coefficient (usually assumed = 0.6)

Average discharge rate required to drawdown the treatment volume in a desired amount of time is:

$$Q = \frac{TV}{tCF}$$

T = Treatment Volume (cf)

t = Recovery Time (hrs)

CF = Conversion Factor = 3600 sec/hr

TV = 10,650 cf

t = 24 hr

$$Q = \frac{TV}{tCF} = 0.12 \text{ cfs}$$

surface area of filter = 6,175 SF

h = 1.72 ft

$$A = \frac{Q}{C \sqrt{2gh}} = 0.019 \text{ sf} = 2.81 \text{ sq. in.}$$

Max. Diam = 1.89 in

SEBAGO TECHNICS, INC.

75 John Roberts Road Suite 4A

South Portland, Maine 04106

Tel. (207) 200-2100

JOB	18347 Fallbrook Commons		
SHEET NO.	2	OF	2
CALCULATED BY	BAW	DATE	11/11/2019
FILE NAME	18347 WQC.xlsx	PRNT DATE	11/11/2019

Underdrained Soil Filter 1 - Orifice Sizing CalculationOrifice Equation $Q = CA \sqrt{2gh}$

Q = Rate of Discharge (cfs)

A = Orifice Area (sf)

G = Gravitational Constant (32.2 ft/s²)

h = Depth of water above the flow line (center) of the orifice (ft)

C = Orifice coefficient (usually assumed = 0.6)

Average discharge rate required to drawdown the treatment volume in a desired amount of time is:

$$Q = \frac{TV}{tCF}$$

T = Treatment Volume (cf)

t = Recovery Time (hrs)

CF = Conversion Factor = 3600 sec/hr

TV = 3,730 cf

t = 24 hr

$$Q = \frac{TV}{tCF} = 0.04 \text{ cfs}$$

surface area of filter = 1,955 SF

h = 1.91 ft

$$A = \frac{Q}{C \sqrt{2gh}} = 0.006 \text{ sf} = 0.93 \text{ sq. in.}$$

Max. Diam = 1.09 in

SEBAGO TECHNICS, INC.
 75 John Roberts Road, Suite 4A
 South Portland, ME 04106
(207) 200-2100 FAX (207) 856-2206

JOB	18347 Fallbrook Commons		
SHEET NO.	1	OF	1
CALCULATED BY	BAW	DATE	11/11/2019
CHECKED BY	BJB		
FILE NAME	18347 WQC.xlsx	PRINT DATE	11/11/2019

Treatment Calculations for Proposed Roof Drip Edge						
WQV Calculation						
(WQV = Water Quality Volume)						
Total Impervious Area =	34,180	sf				
WQV (MDEP)= 1" x Impervious Area =	2,848.3	cf	0.065	acre-ft		
Length of Trench=	1510.0	ft.				
Width of Trench=	3.5	ft.				
Depth of Stone	12.0	in.	40% porosity			
Depth of Sand Media=	12.0	in.	20% porosity			
WQV Provided = Area of Trench * (Depth of stone*stone porosity + Depth of sand*sand porosity)						
WQV for first 1" =	2,114.0	cf				
Additional WQV Provided =	1,057.0	cf				
Total WQV Provided =	3,171.0	cf				

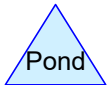
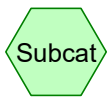
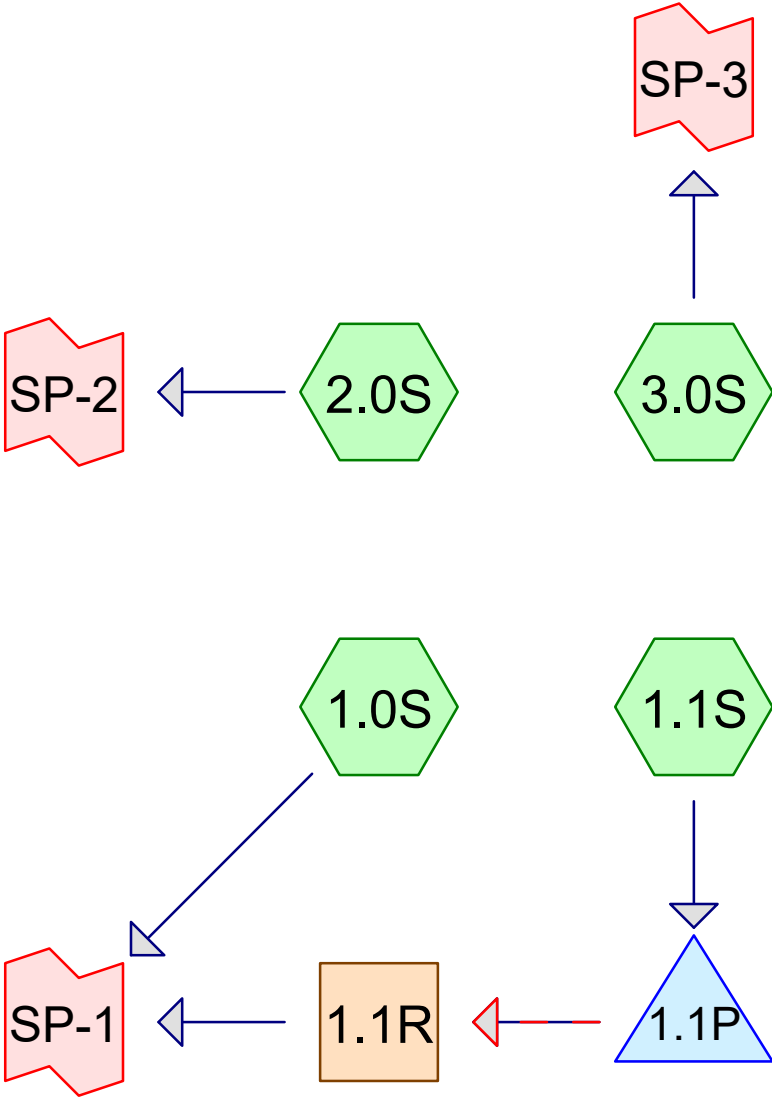
The stone reservoir volume for the drip edge filter was designed to provide the storage required to convey the water quality storm (storm that generates 1" of runoff over the roof) through the filter media under the stone. Additional water quality is provided in the porosity of the underdrain sand.

Appendix 3

HydroCAD Output Pre-Development and Post-Development Models

Appendix 3A
PREDEVELOPMENT

PRE-DEVELOPMENT



18347 PRE-DEVELOPMENT 2019-11-07

Prepared by Sebago Technics

HydroCAD® 10.00-24 s/n 01856 © 2018 HydroCAD Software Solutions LLC

Printed 11/7/2019

Page 2

Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.917	74	>75% Grass cover, Good, HSG C (1.0S, 1.1S, 3.0S)
1.899	80	>75% Grass cover, Good, HSG D (1.0S, 1.1S)
0.139	96	Gravel surface, HSG C (1.0S, 3.0S)
0.063	96	Gravel surface, HSG D (1.0S)
0.124	98	Paved parking, HSG C (1.0S, 1.1S, 3.0S)
0.046	98	Paved parking, HSG D (1.0S, 1.1S)
0.400	98	Roofs, HSG C (1.0S, 1.1S)
0.394	98	Roofs, HSG D (1.0S, 1.1S)
3.529	70	Woods, Good, HSG C (1.0S, 1.1S, 2.0S, 3.0S)
5.947	77	Woods, Good, HSG D (1.0S, 1.1S, 3.0S)
13.458	77	TOTAL AREA

18347 PRE-DEVELOPMENT 2019-11-07

Prepared by Sebago Technics

Printed 11/7/2019

HydroCAD® 10.00-24 s/n 01856 © 2018 HydroCAD Software Solutions LLC

Page 3

Soil Listing (all nodes)

Area (acres)	Soil Group	Subcatchment Numbers
0.000	HSG A	
0.000	HSG B	
5.108	HSG C	1.0S, 1.1S, 2.0S, 3.0S
8.350	HSG D	1.0S, 1.1S, 3.0S
0.000	Other	
13.458		TOTAL AREA

Time span=0.00-36.00 hrs, dt=0.01 hrs, 3601 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

Subcatchment1.0S: Runoff Area=410,291 sf 3.80% Impervious Runoff Depth=1.14"
Flow Length=740' Tc=29.3 min CN=77 Runoff=6.95 cfs 0.895 af

Subcatchment1.1S: Runoff Area=116,561 sf 21.37% Impervious Runoff Depth=1.33"
Flow Length=324' Tc=23.9 min CN=80 Runoff=2.56 cfs 0.296 af

Subcatchment2.0S: Runoff Area=19,260 sf 0.00% Impervious Runoff Depth=0.77"
Flow Length=210' Tc=18.7 min CN=70 Runoff=0.24 cfs 0.028 af

Subcatchment3.0S: Runoff Area=40,113 sf 3.67% Impervious Runoff Depth=0.87"
Flow Length=292' Tc=16.1 min CN=72 Runoff=0.63 cfs 0.067 af

Reach 1.1R: Avg. Flow Depth=0.11' Max Vel=0.44 fps Inflow=2.43 cfs 0.294 af
n=0.100 L=485.0' S=0.0216 '/' Capacity=153.49 cfs Outflow=1.82 cfs 0.294 af

Pond 1.1P: Peak Elev=93.92' Storage=1,040 cf Inflow=2.56 cfs 0.296 af
Primary=2.43 cfs 0.294 af Secondary=0.00 cfs 0.000 af Outflow=2.43 cfs 0.294 af

Link SP-1: Inflow=8.42 cfs 1.190 af
Primary=8.42 cfs 1.190 af

Link SP-2: Inflow=0.24 cfs 0.028 af
Primary=0.24 cfs 0.028 af

Link SP-3: Inflow=0.63 cfs 0.067 af
Primary=0.63 cfs 0.067 af

Total Runoff Area = 13.458 ac Runoff Volume = 1.286 af Average Runoff Depth = 1.15"
92.84% Pervious = 12.494 ac 7.16% Impervious = 0.964 ac

Time span=0.00-36.00 hrs, dt=0.01 hrs, 3601 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

Subcatchment1.0S: Runoff Area=410,291 sf 3.80% Impervious Runoff Depth=2.46"
Flow Length=740' Tc=29.3 min CN=77 Runoff=15.49 cfs 1.928 af

Subcatchment1.1S: Runoff Area=116,561 sf 21.37% Impervious Runoff Depth=2.72"
Flow Length=324' Tc=23.9 min CN=80 Runoff=5.33 cfs 0.606 af

Subcatchment2.0S: Runoff Area=19,260 sf 0.00% Impervious Runoff Depth=1.89"
Flow Length=210' Tc=18.7 min CN=70 Runoff=0.66 cfs 0.070 af

Subcatchment3.0S: Runoff Area=40,113 sf 3.67% Impervious Runoff Depth=2.05"
Flow Length=292' Tc=16.1 min CN=72 Runoff=1.60 cfs 0.157 af

Reach 1.1R: Avg. Flow Depth=0.18' Max Vel=0.58 fps Inflow=5.22 cfs 0.605 af
n=0.100 L=485.0' S=0.0216 '/' Capacity=153.49 cfs Outflow=4.32 cfs 0.605 af

Pond 1.1P: Peak Elev=94.16' Storage=1,502 cf Inflow=5.33 cfs 0.606 af
Primary=5.22 cfs 0.605 af Secondary=0.00 cfs 0.000 af Outflow=5.22 cfs 0.605 af

Link SP-1: Inflow=19.39 cfs 2.533 af
Primary=19.39 cfs 2.533 af

Link SP-2: Inflow=0.66 cfs 0.070 af
Primary=0.66 cfs 0.070 af

Link SP-3: Inflow=1.60 cfs 0.157 af
Primary=1.60 cfs 0.157 af

Total Runoff Area = 13.458 ac Runoff Volume = 2.761 af Average Runoff Depth = 2.46"
92.84% Pervious = 12.494 ac 7.16% Impervious = 0.964 ac

Time span=0.00-36.00 hrs, dt=0.01 hrs, 3601 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

Subcatchment1.0S: Runoff Area=410,291 sf 3.80% Impervious Runoff Depth=3.31"
Flow Length=740' Tc=29.3 min CN=77 Runoff=20.90 cfs 2.594 af

Subcatchment1.1S: Runoff Area=116,561 sf 21.37% Impervious Runoff Depth=3.60"
Flow Length=324' Tc=23.9 min CN=80 Runoff=7.05 cfs 0.803 af

Subcatchment2.0S: Runoff Area=19,260 sf 0.00% Impervious Runoff Depth=2.65"
Flow Length=210' Tc=18.7 min CN=70 Runoff=0.94 cfs 0.098 af

Subcatchment3.0S: Runoff Area=40,113 sf 3.67% Impervious Runoff Depth=2.83"
Flow Length=292' Tc=16.1 min CN=72 Runoff=2.24 cfs 0.217 af

Reach 1.1R: Avg. Flow Depth=0.21' Max Vel=0.63 fps Inflow=6.32 cfs 0.802 af
n=0.100 L=485.0' S=0.0216 '/' Capacity=153.49 cfs Outflow=5.75 cfs 0.802 af

Pond 1.1P: Peak Elev=94.42' Storage=2,183 cf Inflow=7.05 cfs 0.803 af
Primary=6.32 cfs 0.802 af Secondary=0.00 cfs 0.000 af Outflow=6.32 cfs 0.802 af

Link SP-1: Inflow=25.86 cfs 3.396 af
Primary=25.86 cfs 3.396 af

Link SP-2: Inflow=0.94 cfs 0.098 af
Primary=0.94 cfs 0.098 af

Link SP-3: Inflow=2.24 cfs 0.217 af
Primary=2.24 cfs 0.217 af

Total Runoff Area = 13.458 ac Runoff Volume = 3.712 af Average Runoff Depth = 3.31"
92.84% Pervious = 12.494 ac 7.16% Impervious = 0.964 ac

Summary for Subcatchment 1.0S:

Runoff = 20.90 cfs @ 12.40 hrs, Volume= 2.594 af, Depth= 3.31"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-YR Rainfall=5.80"

Area (sf)	CN	Description
1,649	98	Paved parking, HSG C
1,243	98	Paved parking, HSG D
12,810	74	>75% Grass cover, Good, HSG C
65,319	80	>75% Grass cover, Good, HSG D
5,779	98	Roofs, HSG C
6,933	98	Roofs, HSG D
85,234	70	Woods, Good, HSG C
223,398	77	Woods, Good, HSG D
5,175	96	Gravel surface, HSG C
2,751	96	Gravel surface, HSG D
410,291	77	Weighted Average
394,687		96.20% Pervious Area
15,604		3.80% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.4	100	0.0930	0.15		Sheet Flow, A
					Woods: Light underbrush n= 0.400 P2= 3.30"
2.6	180	0.0550	1.17		Shallow Concentrated Flow, B
					Woodland Kv= 5.0 fps
15.3	460	0.0100	0.50		Shallow Concentrated Flow, C
					Woodland Kv= 5.0 fps
29.3	740	Total			

Summary for Subcatchment 1.1S:

Runoff = 7.05 cfs @ 12.33 hrs, Volume= 0.803 af, Depth= 3.60"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-YR Rainfall=5.80"

Area (sf)	CN	Description
2,275	98	Paved parking, HSG C
741	98	Paved parking, HSG D
22,695	74	>75% Grass cover, Good, HSG C
17,419	80	>75% Grass cover, Good, HSG D
11,644	98	Roofs, HSG C
10,246	98	Roofs, HSG D
18,088	70	Woods, Good, HSG C
33,453	77	Woods, Good, HSG D
0	96	Gravel surface, HSG C
0	96	Gravel surface, HSG D
116,561	80	Weighted Average
91,655		78.63% Pervious Area
24,906		21.37% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
21.1	100	0.0200	0.08		Sheet Flow, A
					Woods: Light underbrush n= 0.400 P2= 3.30"
2.8	224	0.0700	1.32		Shallow Concentrated Flow, B
					Woodland Kv= 5.0 fps
23.9	324	Total			

Summary for Subcatchment 2.0S:

Runoff = 0.94 cfs @ 12.26 hrs, Volume= 0.098 af, Depth= 2.65"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-YR Rainfall=5.80"

Area (sf)	CN	Description
0	98	Paved parking, HSG C
0	98	Paved parking, HSG D
0	74	>75% Grass cover, Good, HSG C
0	80	>75% Grass cover, Good, HSG D
0	98	Roofs, HSG C
0	98	Roofs, HSG D
19,260	70	Woods, Good, HSG C
0	77	Woods, Good, HSG D
0	96	Gravel surface, HSG C
0	96	Gravel surface, HSG D
19,260	70	Weighted Average
19,260		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
16.9	100	0.0350	0.10		Sheet Flow, A
					Woods: Light underbrush n= 0.400 P2= 3.30"
1.8	110	0.0400	1.00		Shallow Concentrated Flow, B
					Woodland Kv= 5.0 fps
18.7	210	Total			

Summary for Subcatchment 3.0S:

Runoff = 2.24 cfs @ 12.22 hrs, Volume= 0.217 af, Depth= 2.83"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-YR Rainfall=5.80"

Area (sf)	CN	Description
1,473	98	Paved parking, HSG C
0	98	Paved parking, HSG D
4,421	74	>75% Grass cover, Good, HSG C
0	80	>75% Grass cover, Good, HSG D
0	98	Roofs, HSG C
0	98	Roofs, HSG D
31,125	70	Woods, Good, HSG C
2,219	77	Woods, Good, HSG D
875	96	Gravel surface, HSG C
0	96	Gravel surface, HSG D
40,113	72	Weighted Average
38,640		96.33% Pervious Area
1,473		3.67% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.2	27	0.0600	0.14		Sheet Flow, A Grass: Dense n= 0.240 P2= 3.30"
10.0	73	0.0700	0.12		Sheet Flow, B Woods: Light underbrush n= 0.400 P2= 3.30"
2.9	192	0.0500	1.12		Shallow Concentrated Flow, C Woodland Kv= 5.0 fps
16.1	292	Total			

Summary for Reach 1.1R:

Inflow Area = 2.676 ac, 21.37% Impervious, Inflow Depth = 3.60" for 25-YR event
Inflow = 6.32 cfs @ 12.44 hrs, Volume= 0.802 af
Outflow = 5.75 cfs @ 12.60 hrs, Volume= 0.802 af, Atten= 9%, Lag= 9.4 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2

Max. Velocity= 0.63 fps, Min. Travel Time= 12.8 min

Avg. Velocity = 0.19 fps, Avg. Travel Time= 42.6 min

Peak Storage= 4,419 cf @ 12.60 hrs

Average Depth at Peak Storage= 0.21'

Bank-Full Depth= 1.00' Flow Area= 100.0 sf, Capacity= 153.49 cfs

30.00' x 1.00' deep channel, n= 0.100 Very weedy reaches w/pools

Side Slope Z-value= 70.0 '/' Top Width= 170.00'

Length= 485.0' Slope= 0.0216 '/'

Inlet Invert= 89.00', Outlet Invert= 78.50'



Stage-Area-Storage for Reach 1.1R:

Elevation (feet)	End-Area (sq-ft)	Storage (cubic-feet)	Elevation (feet)	End-Area (sq-ft)	Storage (cubic-feet)
89.00	0.0	0	89.52	34.5	16,746
89.01	0.3	149	89.53	35.6	17,248
89.02	0.6	305	89.54	36.6	17,757
89.03	1.0	467	89.55	37.7	18,272
89.04	1.3	636	89.56	38.8	18,795
89.05	1.7	812	89.57	39.8	19,324
89.06	2.1	995	89.58	40.9	19,860
89.07	2.4	1,185	89.59	42.1	20,402
89.08	2.8	1,381	89.60	43.2	20,952
89.09	3.3	1,584	89.61	44.3	21,508
89.10	3.7	1,795	89.62	45.5	22,071
89.11	4.1	2,011	89.63	46.7	22,641
89.12	4.6	2,235	89.64	47.9	23,218
89.13	5.1	2,465	89.65	49.1	23,801
89.14	5.6	2,702	89.66	50.3	24,392
89.15	6.1	2,946	89.67	51.5	24,989
89.16	6.6	3,197	89.68	52.8	25,592
89.17	7.1	3,455	89.69	54.0	26,203
89.18	7.7	3,719	89.70	55.3	26,821
89.19	8.2	3,990	89.71	56.6	27,445
89.20	8.8	4,268	89.72	57.9	28,076
89.21	9.4	4,553	89.73	59.2	28,713
89.22	10.0	4,844	89.74	60.5	29,358
89.23	10.6	5,142	89.75	61.9	30,009
89.24	11.2	5,448	89.76	63.2	30,668
89.25	11.9	5,759	89.77	64.6	31,332
89.26	12.5	6,078	89.78	66.0	32,004
89.27	13.2	6,403	89.79	67.4	32,683
89.28	13.9	6,736	89.80	68.8	33,368
89.29	14.6	7,075	89.81	70.2	34,060
89.30	15.3	7,420	89.82	71.7	34,759
89.31	16.0	7,773	89.83	73.1	35,465
89.32	16.8	8,132	89.84	74.6	36,177
89.33	17.5	8,499	89.85	76.1	36,896
89.34	18.3	8,872	89.86	77.6	37,622
89.35	19.1	9,251	89.87	79.1	38,355
89.36	19.9	9,638	89.88	80.6	39,095
89.37	20.7	10,031	89.89	82.1	39,841
89.38	21.5	10,431	89.90	83.7	40,595
89.39	22.3	10,838	89.91	85.3	41,354
89.40	23.2	11,252	89.92	86.8	42,121
89.41	24.1	11,672	89.93	88.4	42,895
89.42	24.9	12,100	89.94	90.1	43,675
89.43	25.8	12,534	89.95	91.7	44,462
89.44	26.8	12,975	89.96	93.3	45,256
89.45	27.7	13,422	89.97	95.0	46,057
89.46	28.6	13,877	89.98	96.6	46,865
89.47	29.6	14,338	89.99	98.3	47,679
89.48	30.5	14,806	90.00	100.0	48,500
89.49	31.5	15,281			
89.50	32.5	15,763			
89.51	33.5	16,251			

Summary for Pond 1.1P:

Inflow Area = 2.676 ac, 21.37% Impervious, Inflow Depth = 3.60" for 25-YR event
 Inflow = 7.05 cfs @ 12.33 hrs, Volume= 0.803 af
 Outflow = 6.32 cfs @ 12.44 hrs, Volume= 0.802 af, Atten= 10%, Lag= 6.9 min
 Primary = 6.32 cfs @ 12.44 hrs, Volume= 0.802 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2

Peak Elev= 94.42' @ 12.44 hrs Surf.Area= 3,015 sf Storage= 2,183 cf

Flood Elev= 95.01' Surf.Area= 4,798 sf Storage= 4,485 cf

Plug-Flow detention time= 6.8 min calculated for 0.802 af (100% of inflow)

Center-of-Mass det. time= 5.8 min (837.9 - 832.1)

Volume	Invert	Avail.Storage	Storage Description	
#1	91.70'	12,343 cf	Custom Stage Data (Prismatic) Listed below (Recalc)	
Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
91.70	80	0.0	0	0
92.00	100	100.0	27	27
93.00	214	100.0	157	184
94.00	1,779	100.0	997	1,180
95.00	4,735	100.0	3,257	4,438
96.00	11,075	100.0	7,905	12,343

Device	Routing	Invert	Outlet Devices
#1	Primary	91.72'	15.0" Round Culvert L= 40.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 91.72' / 89.67' S= 0.0512 ' / Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf
#2	Device 1	92.25'	6.0" Vert. Controlling Orifice C= 0.600
#3	Device 1	93.70'	15.0" Horiz. Grate C= 0.600 Limited to weir flow at low heads
#4	Secondary	95.05'	30.0' long x 10.0' breadth Roadway Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64

Primary OutFlow Max=6.32 cfs @ 12.44 hrs HW=94.42' TW=89.19' (Dynamic Tailwater)

↑ **1=Culvert** (Passes 6.32 cfs of 6.72 cfs potential flow)

↑ **2=Controlling Orifice** (Orifice Controls 1.31 cfs @ 6.67 fps)

↑ **3=Grate** (Orifice Controls 5.01 cfs @ 4.08 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=91.70' TW=89.00' (Dynamic Tailwater)

↑ **4=Roadway** (Controls 0.00 cfs)

Stage-Area-Storage for Pond 1.1P:

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
91.70	80	0	94.30	2,666	1,847
91.75	83	4	94.35	2,814	1,984
91.80	87	8	94.40	2,961	2,129
91.85	90	13	94.45	3,109	2,280
91.90	93	17	94.50	3,257	2,440
91.95	97	22	94.55	3,405	2,606
92.00	100	27	94.60	3,553	2,780
92.05	106	32	94.65	3,700	2,961
92.10	111	38	94.70	3,848	3,150
92.15	117	43	94.75	3,996	3,346
92.20	123	49	94.80	4,144	3,550
92.25	129	56	94.85	4,292	3,761
92.30	134	62	94.90	4,439	3,979
92.35	140	69	94.95	4,587	4,204
92.40	146	76	95.00	4,735	4,438
92.45	151	84	95.05	5,052	4,682
92.50	157	91	95.10	5,369	4,943
92.55	163	99	95.15	5,686	5,219
92.60	168	108	95.20	6,003	5,511
92.65	174	116	95.25	6,320	5,819
92.70	180	125	95.30	6,637	6,143
92.75	186	134	95.35	6,954	6,483
92.80	191	143	95.40	7,271	6,839
92.85	197	153	95.45	7,588	7,210
92.90	203	163	95.50	7,905	7,598
92.95	208	173	95.55	8,222	8,001
93.00	214	184	95.60	8,539	8,420
93.05	292	197	95.65	8,856	8,855
93.10	371	213	95.70	9,173	9,305
93.15	449	234	95.75	9,490	9,772
93.20	527	258	95.80	9,807	10,254
93.25	605	286	95.85	10,124	10,753
93.30	683	319	95.90	10,441	11,267
93.35	762	355	95.95	10,758	11,797
93.40	840	395	96.00	11,075	12,343
93.45	918	439			
93.50	997	487			
93.55	1,075	538			
93.60	1,153	594			
93.65	1,231	654			
93.70	1,310	717			
93.75	1,388	785			
93.80	1,466	856			
93.85	1,544	931			
93.90	1,623	1,010			
93.95	1,701	1,094			
94.00	1,779	1,180			
94.05	1,927	1,273			
94.10	2,075	1,373			
94.15	2,222	1,481			
94.20	2,370	1,595			
94.25	2,518	1,718			

Summary for Link SP-1:

Inflow Area = 12.095 ac, 7.69% Impervious, Inflow Depth = 3.37" for 25-YR event
Inflow = 25.86 cfs @ 12.44 hrs, Volume= 3.396 af
Primary = 25.86 cfs @ 12.44 hrs, Volume= 3.396 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs

Summary for Link SP-2:

Inflow Area = 0.442 ac, 0.00% Impervious, Inflow Depth = 2.65" for 25-YR event
Inflow = 0.94 cfs @ 12.26 hrs, Volume= 0.098 af
Primary = 0.94 cfs @ 12.26 hrs, Volume= 0.098 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs

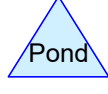
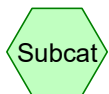
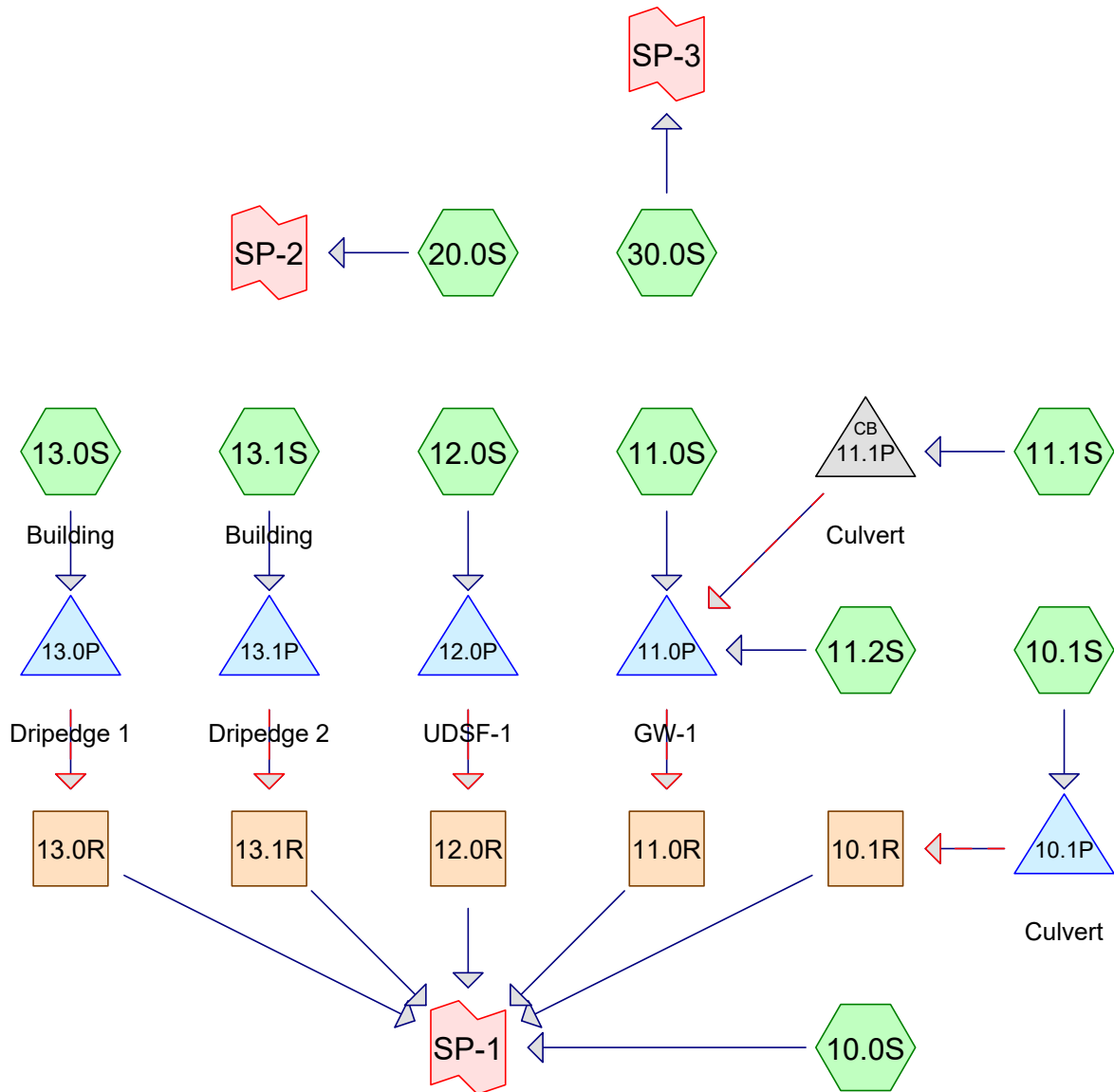
Summary for Link SP-3:

Inflow Area = 0.921 ac, 3.67% Impervious, Inflow Depth = 2.83" for 25-YR event
Inflow = 2.24 cfs @ 12.22 hrs, Volume= 0.217 af
Primary = 2.24 cfs @ 12.22 hrs, Volume= 0.217 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs

Appendix 3B
POSTDEVELOPMENT

POST-DEVELOPMENT



Routing Diagram for 18347 POST-DEVELOPMENT 2019-11-07
 Prepared by Sebago Technics, Printed 11/11/2019
 HydroCAD® 10.00-24 s/n 01856 © 2018 HydroCAD Software Solutions LLC

18347 POST-DEVELOPMENT 2019-11-07

Prepared by Sebago Technics

Printed 11/11/2019

HydroCAD® 10.00-24 s/n 01856 © 2018 HydroCAD Software Solutions LLC

Page 2

Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
1.801	74	>75% Grass cover, Good, HSG C (10.0S, 10.1S, 11.0S, 11.1S, 11.2S, 12.0S, 30.0S)
3.495	80	>75% Grass cover, Good, HSG D (10.0S, 10.1S, 11.0S, 11.1S, 12.0S, 30.0S)
1.136	98	Paved parking, HSG C (10.1S, 11.0S, 11.2S, 12.0S)
0.810	98	Paved parking, HSG D (10.0S, 10.1S, 11.0S, 12.0S)
0.903	98	Roofs, HSG C (10.0S, 10.1S, 11.0S, 11.2S, 13.0S, 13.1S)
0.809	98	Roofs, HSG D (10.0S, 10.1S, 11.0S, 13.0S, 13.1S)
1.269	70	Woods, Good, HSG C (10.0S, 10.1S, 11.2S, 12.0S, 20.0S, 30.0S)
3.236	77	Woods, Good, HSG D (10.0S, 10.1S, 30.0S)
13.458	82	TOTAL AREA

18347 POST-DEVELOPMENT 2019-11-07

Prepared by Sebago Technics

Printed 11/11/2019

HydroCAD® 10.00-24 s/n 01856 © 2018 HydroCAD Software Solutions LLC

Page 3

Soil Listing (all nodes)

Area (acres)	Soil Group	Subcatchment Numbers
0.000	HSG A	
0.000	HSG B	
5.108	HSG C	10.0S, 10.1S, 11.0S, 11.1S, 11.2S, 12.0S, 13.0S, 13.1S, 20.0S, 30.0S
8.350	HSG D	10.0S, 10.1S, 11.0S, 11.1S, 12.0S, 13.0S, 13.1S, 30.0S
0.000	Other	
13.458		TOTAL AREA

Time span=0.00-36.00 hrs, dt=0.01 hrs, 3601 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

Subcatchment10.0S:	Runoff Area=197,762 sf 4.39% Impervious Runoff Depth=1.26" Flow Length=626' Tc=28.5 min CN=79 Runoff=3.80 cfs 0.477 af
Subcatchment10.1S:	Runoff Area=114,524 sf 21.75% Impervious Runoff Depth=1.33" Flow Length=324' Tc=23.9 min CN=80 Runoff=2.52 cfs 0.290 af
Subcatchment11.0S:	Runoff Area=83,879 sf 66.37% Impervious Runoff Depth=2.26" Flow Length=254' Tc=11.7 min CN=92 Runoff=4.15 cfs 0.362 af
Subcatchment11.1S:	Runoff Area=23,407 sf 0.00% Impervious Runoff Depth=1.08" Flow Length=266' Tc=18.0 min CN=76 Runoff=0.46 cfs 0.048 af
Subcatchment11.2S:	Runoff Area=27,164 sf 31.62% Impervious Runoff Depth=1.39" Flow Length=100' Tc=15.0 min CN=81 Runoff=0.76 cfs 0.072 af
Subcatchment12.0S:	Runoff Area=56,194 sf 48.58% Impervious Runoff Depth=1.83" Flow Length=436' Tc=17.3 min CN=87 Runoff=1.98 cfs 0.196 af
Subcatchment13.0S: Building	Runoff Area=17,204 sf 100.00% Impervious Runoff Depth=2.87" Tc=6.0 min CN=98 Runoff=1.19 cfs 0.094 af
Subcatchment13.1S: Building	Runoff Area=16,974 sf 100.00% Impervious Runoff Depth=2.87" Tc=6.0 min CN=98 Runoff=1.17 cfs 0.093 af
Subcatchment20.0S:	Runoff Area=12,129 sf 0.00% Impervious Runoff Depth=0.77" Flow Length=100' Slope=0.0300 '/' Tc=18.0 min CN=70 Runoff=0.15 cfs 0.018 af
Subcatchment30.0S:	Runoff Area=37,005 sf 0.00% Impervious Runoff Depth=0.92" Flow Length=292' Tc=16.1 min CN=73 Runoff=0.62 cfs 0.065 af
Reach 10.1R:	Avg. Flow Depth=0.11' Max Vel=0.45 fps Inflow=2.52 cfs 0.290 af n=0.100 L=485.0' S=0.0216 '/' Capacity=153.49 cfs Outflow=1.95 cfs 0.290 af
Reach 11.0R:	Avg. Flow Depth=0.06' Max Vel=0.19 fps Inflow=0.64 cfs 0.310 af n=0.100 L=290.0' S=0.0086 '/' Capacity=121.87 cfs Outflow=0.58 cfs 0.305 af
Reach 12.0R:	Avg. Flow Depth=0.03' Max Vel=0.15 fps Inflow=0.48 cfs 0.160 af n=0.100 L=547.0' S=0.0119 '/' Capacity=143.08 cfs Outflow=0.25 cfs 0.153 af
Reach 13.0R:	Avg. Flow Depth=0.03' Max Vel=0.17 fps Inflow=0.40 cfs 0.094 af n=0.100 L=525.0' S=0.0124 '/' Capacity=146.05 cfs Outflow=0.31 cfs 0.094 af
Reach 13.1R:	Avg. Flow Depth=0.03' Max Vel=0.18 fps Inflow=0.33 cfs 0.093 af n=0.100 L=315.0' S=0.0143 '/' Capacity=156.88 cfs Outflow=0.32 cfs 0.093 af
Pond 10.1P: Culvert	Peak Elev=91.00' Storage=0 cf Inflow=2.52 cfs 0.290 af Primary=2.52 cfs 0.290 af Secondary=0.00 cfs 0.000 af Outflow=2.52 cfs 0.290 af

Pond 11.0P: GW-1

Peak Elev=82.65' Storage=11,986 cf Inflow=5.23 cfs 0.483 af
Primary=0.64 cfs 0.310 af Secondary=0.00 cfs 0.000 af Outflow=0.64 cfs 0.310 af

Pond 11.1P: Culvert

Peak Elev=84.04' Inflow=0.46 cfs 0.048 af
12.0" Round Culvert n=0.012 L=146.0' S=0.0082 ' /' Outflow=0.46 cfs 0.048 af

Pond 12.0P: UDSF-1

Peak Elev=89.10' Storage=4,061 cf Inflow=1.98 cfs 0.196 af
Primary=0.48 cfs 0.160 af Secondary=0.00 cfs 0.000 af Outflow=0.48 cfs 0.160 af

Pond 13.0P: Dripedge 1

Peak Elev=100.10' Storage=969 cf Inflow=1.19 cfs 0.094 af
Primary=0.40 cfs 0.094 af Secondary=0.00 cfs 0.000 af Outflow=0.40 cfs 0.094 af

Pond 13.1P: Dripedge 2

Peak Elev=87.00' Storage=742 cf Inflow=1.17 cfs 0.093 af
Primary=0.33 cfs 0.093 af Secondary=0.00 cfs 0.000 af Outflow=0.33 cfs 0.093 af

Link SP-1:

Inflow=6.26 cfs 1.413 af
Primary=6.26 cfs 1.413 af

Link SP-2:

Inflow=0.15 cfs 0.018 af
Primary=0.15 cfs 0.018 af

Link SP-3:

Inflow=0.62 cfs 0.065 af
Primary=0.62 cfs 0.065 af

Total Runoff Area = 13.458 ac Runoff Volume = 1.717 af Average Runoff Depth = 1.53"
72.82% Pervious = 9.801 ac 27.18% Impervious = 3.658 ac

Time span=0.00-36.00 hrs, dt=0.01 hrs, 3601 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

Subcatchment10.0S:	Runoff Area=197,762 sf 4.39% Impervious Runoff Depth=2.63" Flow Length=626' Tc=28.5 min CN=79 Runoff=8.10 cfs 0.995 af
Subcatchment10.1S:	Runoff Area=114,524 sf 21.75% Impervious Runoff Depth=2.72" Flow Length=324' Tc=23.9 min CN=80 Runoff=5.24 cfs 0.596 af
Subcatchment11.0S:	Runoff Area=83,879 sf 66.37% Impervious Runoff Depth=3.89" Flow Length=254' Tc=11.7 min CN=92 Runoff=6.97 cfs 0.625 af
Subcatchment11.1S:	Runoff Area=23,407 sf 0.00% Impervious Runoff Depth=2.37" Flow Length=266' Tc=18.0 min CN=76 Runoff=1.05 cfs 0.106 af
Subcatchment11.2S:	Runoff Area=27,164 sf 31.62% Impervious Runoff Depth=2.81" Flow Length=100' Tc=15.0 min CN=81 Runoff=1.55 cfs 0.146 af
Subcatchment12.0S:	Runoff Area=56,194 sf 48.58% Impervious Runoff Depth=3.38" Flow Length=436' Tc=17.3 min CN=87 Runoff=3.61 cfs 0.363 af
Subcatchment13.0S: Building	Runoff Area=17,204 sf 100.00% Impervious Runoff Depth=4.56" Tc=6.0 min CN=98 Runoff=1.85 cfs 0.150 af
Subcatchment13.1S: Building	Runoff Area=16,974 sf 100.00% Impervious Runoff Depth=4.56" Tc=6.0 min CN=98 Runoff=1.83 cfs 0.148 af
Subcatchment20.0S:	Runoff Area=12,129 sf 0.00% Impervious Runoff Depth=1.89" Flow Length=100' Slope=0.0300 '/' Tc=18.0 min CN=70 Runoff=0.42 cfs 0.044 af
Subcatchment30.0S:	Runoff Area=37,005 sf 0.00% Impervious Runoff Depth=2.12" Flow Length=292' Tc=16.1 min CN=73 Runoff=1.54 cfs 0.150 af
Reach 10.1R:	Avg. Flow Depth=0.18' Max Vel=0.58 fps Inflow=5.23 cfs 0.596 af n=0.100 L=485.0' S=0.0216 '/' Capacity=153.49 cfs Outflow=4.38 cfs 0.596 af
Reach 11.0R:	Avg. Flow Depth=0.17' Max Vel=0.37 fps Inflow=4.39 cfs 0.701 af n=0.100 L=290.0' S=0.0086 '/' Capacity=121.87 cfs Outflow=3.87 cfs 0.696 af
Reach 12.0R:	Avg. Flow Depth=0.09' Max Vel=0.30 fps Inflow=2.89 cfs 0.323 af n=0.100 L=547.0' S=0.0119 '/' Capacity=143.08 cfs Outflow=1.53 cfs 0.316 af
Reach 13.0R:	Avg. Flow Depth=0.04' Max Vel=0.19 fps Inflow=0.48 cfs 0.150 af n=0.100 L=525.0' S=0.0124 '/' Capacity=146.05 cfs Outflow=0.42 cfs 0.150 af
Reach 13.1R:	Avg. Flow Depth=0.04' Max Vel=0.19 fps Inflow=0.37 cfs 0.148 af n=0.100 L=315.0' S=0.0143 '/' Capacity=156.88 cfs Outflow=0.36 cfs 0.148 af
Pond 10.1P: Culvert	Peak Elev=91.35' Storage=49 cf Inflow=5.24 cfs 0.596 af Primary=5.23 cfs 0.596 af Secondary=0.00 cfs 0.000 af Outflow=5.23 cfs 0.596 af

18347 POST-DEVELOPMENT 2019-11-07*Type III 24-hr 10-YR Rainfall=4.80"*

Prepared by Sebago Technics

Printed 11/11/2019

HydroCAD® 10.00-24 s/n 01856 © 2018 HydroCAD Software Solutions LLC

Page 7

Pond 11.0P: GW-1

Peak Elev=83.12' Storage=16,258 cf Inflow=9.34 cfs 0.877 af
Primary=4.39 cfs 0.701 af Secondary=0.00 cfs 0.000 af Outflow=4.39 cfs 0.701 af

Pond 11.1P: Culvert

Peak Elev=84.23' Inflow=1.05 cfs 0.106 af
12.0" Round Culvert n=0.012 L=146.0' S=0.0082 ' /' Outflow=1.05 cfs 0.106 af

Pond 12.0P: UDSF-1

Peak Elev=89.37' Storage=4,904 cf Inflow=3.61 cfs 0.363 af
Primary=2.89 cfs 0.323 af Secondary=0.00 cfs 0.000 af Outflow=2.89 cfs 0.323 af

Pond 13.0P: Dripedge 1

Peak Elev=100.76' Storage=1,731 cf Inflow=1.85 cfs 0.150 af
Primary=0.48 cfs 0.150 af Secondary=0.00 cfs 0.000 af Outflow=0.48 cfs 0.150 af

Pond 13.1P: Dripedge 2

Peak Elev=87.85' Storage=1,574 cf Inflow=1.83 cfs 0.148 af
Primary=0.37 cfs 0.148 af Secondary=0.00 cfs 0.000 af Outflow=0.37 cfs 0.148 af

Link SP-1:

Inflow=17.18 cfs 2.901 af
Primary=17.18 cfs 2.901 af

Link SP-2:

Inflow=0.42 cfs 0.044 af
Primary=0.42 cfs 0.044 af

Link SP-3:

Inflow=1.54 cfs 0.150 af
Primary=1.54 cfs 0.150 af

Total Runoff Area = 13.458 ac Runoff Volume = 3.324 af Average Runoff Depth = 2.96"
72.82% Pervious = 9.801 ac 27.18% Impervious = 3.658 ac

Time span=0.00-36.00 hrs, dt=0.01 hrs, 3601 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

Subcatchment10.0S:	Runoff Area=197,762 sf 4.39% Impervious Runoff Depth=3.50" Flow Length=626' Tc=28.5 min CN=79 Runoff=10.80 cfs 1.325 af
Subcatchment10.1S:	Runoff Area=114,524 sf 21.75% Impervious Runoff Depth=3.60" Flow Length=324' Tc=23.9 min CN=80 Runoff=6.92 cfs 0.789 af
Subcatchment11.0S:	Runoff Area=83,879 sf 66.37% Impervious Runoff Depth=4.87" Flow Length=254' Tc=11.7 min CN=92 Runoff=8.62 cfs 0.782 af
Subcatchment11.1S:	Runoff Area=23,407 sf 0.00% Impervious Runoff Depth=3.21" Flow Length=266' Tc=18.0 min CN=76 Runoff=1.42 cfs 0.144 af
Subcatchment11.2S:	Runoff Area=27,164 sf 31.62% Impervious Runoff Depth=3.70" Flow Length=100' Tc=15.0 min CN=81 Runoff=2.04 cfs 0.192 af
Subcatchment12.0S:	Runoff Area=56,194 sf 48.58% Impervious Runoff Depth=4.33" Flow Length=436' Tc=17.3 min CN=87 Runoff=4.58 cfs 0.465 af
Subcatchment13.0S: Building	Runoff Area=17,204 sf 100.00% Impervious Runoff Depth=5.56" Tc=6.0 min CN=98 Runoff=2.24 cfs 0.183 af
Subcatchment13.1S: Building	Runoff Area=16,974 sf 100.00% Impervious Runoff Depth=5.56" Tc=6.0 min CN=98 Runoff=2.21 cfs 0.181 af
Subcatchment20.0S:	Runoff Area=12,129 sf 0.00% Impervious Runoff Depth=2.65" Flow Length=100' Slope=0.0300 '/' Tc=18.0 min CN=70 Runoff=0.60 cfs 0.061 af
Subcatchment30.0S:	Runoff Area=37,005 sf 0.00% Impervious Runoff Depth=2.92" Flow Length=292' Tc=16.1 min CN=73 Runoff=2.14 cfs 0.207 af
Reach 10.1R:	Avg. Flow Depth=0.21' Max Vel=0.64 fps Inflow=6.90 cfs 0.789 af n=0.100 L=485.0' S=0.0216 '/' Capacity=153.49 cfs Outflow=5.92 cfs 0.789 af
Reach 11.0R:	Avg. Flow Depth=0.21' Max Vel=0.42 fps Inflow=5.98 cfs 0.941 af n=0.100 L=290.0' S=0.0086 '/' Capacity=121.87 cfs Outflow=5.57 cfs 0.936 af
Reach 12.0R:	Avg. Flow Depth=0.12' Max Vel=0.36 fps Inflow=4.14 cfs 0.425 af n=0.100 L=547.0' S=0.0119 '/' Capacity=143.08 cfs Outflow=2.46 cfs 0.418 af
Reach 13.0R:	Avg. Flow Depth=0.04' Max Vel=0.20 fps Inflow=0.86 cfs 0.183 af n=0.100 L=525.0' S=0.0124 '/' Capacity=146.05 cfs Outflow=0.48 cfs 0.183 af
Reach 13.1R:	Avg. Flow Depth=0.05' Max Vel=0.22 fps Inflow=0.89 cfs 0.181 af n=0.100 L=315.0' S=0.0143 '/' Capacity=156.88 cfs Outflow=0.56 cfs 0.181 af
Pond 10.1P: Culvert	Peak Elev=91.81' Storage=137 cf Inflow=6.92 cfs 0.789 af Primary=6.90 cfs 0.789 af Secondary=0.00 cfs 0.000 af Outflow=6.90 cfs 0.789 af

18347 POST-DEVELOPMENT 2019-11-07*Type III 24-hr 25-YR Rainfall=5.80"*

Prepared by Sebago Technics

Printed 11/11/2019

HydroCAD® 10.00-24 s/n 01856 © 2018 HydroCAD Software Solutions LLC

Page 2

Pond 11.0P: GW-1

Peak Elev=83.42' Storage=19,185 cf Inflow=11.79 cfs 1.118 af
Primary=5.98 cfs 0.941 af Secondary=0.00 cfs 0.000 af Outflow=5.98 cfs 0.941 af

Pond 11.1P: Culvert

Peak Elev=84.37' Inflow=1.42 cfs 0.144 af
12.0" Round Culvert n=0.012 L=146.0' S=0.0082 ' /' Outflow=1.42 cfs 0.144 af

Pond 12.0P: UDSF-1

Peak Elev=89.47' Storage=5,242 cf Inflow=4.58 cfs 0.465 af
Primary=4.14 cfs 0.425 af Secondary=0.00 cfs 0.000 af Outflow=4.14 cfs 0.425 af

Pond 13.0P: Dripedge 1

Peak Elev=101.01' Storage=2,064 cf Inflow=2.24 cfs 0.183 af
Primary=0.51 cfs 0.178 af Secondary=0.35 cfs 0.005 af Outflow=0.86 cfs 0.183 af

Pond 13.1P: Dripedge 2

Peak Elev=88.02' Storage=1,791 cf Inflow=2.21 cfs 0.181 af
Primary=0.37 cfs 0.172 af Secondary=0.52 cfs 0.008 af Outflow=0.89 cfs 0.181 af

Link SP-1:

Inflow=24.66 cfs 3.831 af
Primary=24.66 cfs 3.831 af

Link SP-2:

Inflow=0.60 cfs 0.061 af
Primary=0.60 cfs 0.061 af

Link SP-3:

Inflow=2.14 cfs 0.207 af
Primary=2.14 cfs 0.207 af

Total Runoff Area = 13.458 ac Runoff Volume = 4.329 af Average Runoff Depth = 3.86"
72.82% Pervious = 9.801 ac 27.18% Impervious = 3.658 ac

Summary for Subcatchment 10.0S:

Runoff = 10.80 cfs @ 12.38 hrs, Volume= 1.325 af, Depth= 3.50"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-YR Rainfall=5.80"

Area (sf)	CN	Description
0	98	Paved parking, HSG C
1,470	98	Paved parking, HSG D
1,693	74	>75% Grass cover, Good, HSG C
83,115	80	>75% Grass cover, Good, HSG D
273	98	Roofs, HSG C
6,933	98	Roofs, HSG D
411	70	Woods, Good, HSG C
103,867	77	Woods, Good, HSG D
197,762	79	Weighted Average
189,086		95.61% Pervious Area
8,676		4.39% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.9	100	0.0850	0.14		Sheet Flow, A Woods: Light underbrush n= 0.400 P2= 3.30"
1.3	66	0.0300	0.87		Shallow Concentrated Flow, B Woodland Kv= 5.0 fps
15.3	460	0.0100	0.50		Shallow Concentrated Flow, C Woodland Kv= 5.0 fps
28.5	626	Total			

Summary for Subcatchment 10.1S:

Runoff = 6.92 cfs @ 12.33 hrs, Volume= 0.789 af, Depth= 3.60"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-YR Rainfall=5.80"

Area (sf)	CN	Description
2,274	98	Paved parking, HSG C
741	98	Paved parking, HSG D
22,713	74	>75% Grass cover, Good, HSG C
17,290	80	>75% Grass cover, Good, HSG D
11,653	98	Roofs, HSG C
10,246	98	Roofs, HSG D
18,039	70	Woods, Good, HSG C
31,568	77	Woods, Good, HSG D
114,524	80	Weighted Average
89,610		78.25% Pervious Area
24,914		21.75% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
21.1	100	0.0200	0.08		Sheet Flow, A
					Woods: Light underbrush n= 0.400 P2= 3.30"
2.8	224	0.0700	1.32		Shallow Concentrated Flow, B
					Woodland Kv= 5.0 fps
23.9	324	Total			

Summary for Subcatchment 11.0S:

Runoff = 8.62 cfs @ 12.16 hrs, Volume= 0.782 af, Depth= 4.87"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-YR Rainfall=5.80"

Area (sf)	CN	Description
30,453	98	Paved parking, HSG C
19,414	98	Paved parking, HSG D
913	74	>75% Grass cover, Good, HSG C
27,299	80	>75% Grass cover, Good, HSG D
4,300	98	Roofs, HSG C
1,500	98	Roofs, HSG D
0	70	Woods, Good, HSG C
0	77	Woods, Good, HSG D
83,879	92	Weighted Average
28,212		33.63% Pervious Area
55,667		66.37% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.8	62	0.0150	0.10		Sheet Flow, A Grass: Dense n= 0.240 P2= 3.30"
0.4	67	0.0200	2.87		Shallow Concentrated Flow, B Paved Kv= 20.3 fps
0.5	125	0.0080	4.40	3.45	Pipe Channel, C 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.012
11.7	254	Total			

Summary for Subcatchment 11.1S:

Runoff = 1.42 cfs @ 12.25 hrs, Volume= 0.144 af, Depth= 3.21"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-YR Rainfall=5.80"

Area (sf)	CN	Description
0	98	Paved parking, HSG C
0	98	Paved parking, HSG D
15,653	74	>75% Grass cover, Good, HSG C
7,754	80	>75% Grass cover, Good, HSG D
0	98	Roofs, HSG C
0	98	Roofs, HSG D
0	70	Woods, Good, HSG C
0	77	Woods, Good, HSG D
23,407	76	Weighted Average
23,407		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
17.2	100	0.0120	0.10		Sheet Flow, A Grass: Dense n= 0.240 P2= 3.30"
0.2	20	0.0120	1.64		Shallow Concentrated Flow, B Grassed Waterway Kv= 15.0 fps
0.6	146	0.0080	4.40	3.45	Pipe Channel, C 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.012
18.0	266	Total			

Summary for Subcatchment 11.2S:

Runoff = 2.04 cfs @ 12.20 hrs, Volume= 0.192 af, Depth= 3.70"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-YR Rainfall=5.80"

Area (sf)	CN	Description
3,092	98	Paved parking, HSG C
0	98	Paved parking, HSG D
15,185	74	>75% Grass cover, Good, HSG C
0	80	>75% Grass cover, Good, HSG D
5,497	98	Roofs, HSG C
0	98	Roofs, HSG D
3,390	70	Woods, Good, HSG C
0	77	Woods, Good, HSG D
27,164	81	Weighted Average
18,575		68.38% Pervious Area
8,589		31.62% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.6	50	0.0100	0.08		Sheet Flow, A
					Grass: Dense n= 0.240 P2= 3.30"
4.4	50	0.2600	0.19		Sheet Flow, B
					Woods: Light underbrush n= 0.400 P2= 3.30"
15.0	100	Total			

Summary for Subcatchment 12.0S:

Runoff = 4.58 cfs @ 12.23 hrs, Volume= 0.465 af, Depth= 4.33"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-YR Rainfall=5.80"

Area (sf)	CN	Description
13,655	98	Paved parking, HSG C
13,643	98	Paved parking, HSG D
14,137	74	>75% Grass cover, Good, HSG C
12,539	80	>75% Grass cover, Good, HSG D
0	98	Roofs, HSG C
0	98	Roofs, HSG D
2,220	70	Woods, Good, HSG C
0	77	Woods, Good, HSG D
56,194	87	Weighted Average
28,896		51.42% Pervious Area
27,298		48.58% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
15.8	100	0.0150	0.11		Sheet Flow, A Grass: Dense n= 0.240 P2= 3.30"
0.4	114	0.0500	4.54		Shallow Concentrated Flow, B Paved Kv= 20.3 fps
1.1	222	0.0050	3.47	2.73	Pipe Channel, C 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.012 Concrete pipe, finished
17.3	436	Total			

Summary for Subcatchment 13.0S: Building

Runoff = 2.24 cfs @ 12.08 hrs, Volume= 0.183 af, Depth= 5.56"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-YR Rainfall=5.80"

Area (sf)	CN	Description
0	98	Paved parking, HSG C
0	98	Paved parking, HSG D
0	74	>75% Grass cover, Good, HSG C
0	80	>75% Grass cover, Good, HSG D
9,791	98	Roofs, HSG C
7,413	98	Roofs, HSG D
0	70	Woods, Good, HSG C
0	77	Woods, Good, HSG D
0	96	Gravel surface, HSG C
0	96	Gravel surface, HSG D
17,204	98	Weighted Average
17,204		100.00% Impervious Area

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

Summary for Subcatchment 13.1S: Building

Runoff = 2.21 cfs @ 12.08 hrs, Volume= 0.181 af, Depth= 5.56"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-YR Rainfall=5.80"

Area (sf)	CN	Description
0	98	Paved parking, HSG C
0	98	Paved parking, HSG D
0	74	>75% Grass cover, Good, HSG C
0	80	>75% Grass cover, Good, HSG D
7,807	98	Roofs, HSG C
9,167	98	Roofs, HSG D
0	70	Woods, Good, HSG C
0	77	Woods, Good, HSG D
0	96	Gravel surface, HSG C
0	96	Gravel surface, HSG D
16,974	98	Weighted Average
16,974		100.00% Impervious Area

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

Summary for Subcatchment 20.0S:

Runoff = 0.60 cfs @ 12.26 hrs, Volume= 0.061 af, Depth= 2.65"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-YR Rainfall=5.80"

Area (sf)	CN	Description
0	98	Paved parking, HSG C
0	98	Paved parking, HSG D
0	74	>75% Grass cover, Good, HSG C
0	80	>75% Grass cover, Good, HSG D
0	98	Roofs, HSG C
0	98	Roofs, HSG D
12,129	70	Woods, Good, HSG C
0	77	Woods, Good, HSG D
0	96	Gravel surface, HSG C
0	96	Gravel surface, HSG D
12,129	70	Weighted Average
12,129		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
18.0	100	0.0300	0.09		Sheet Flow, A Woods: Light underbrush n= 0.400 P2= 3.30"

Summary for Subcatchment 30.0S:

Runoff = 2.14 cfs @ 12.22 hrs, Volume= 0.207 af, Depth= 2.92"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-YR Rainfall=5.80"

Area (sf)	CN	Description
0	98	Paved parking, HSG C
0	98	Paved parking, HSG D
8,150	74	>75% Grass cover, Good, HSG C
4,260	80	>75% Grass cover, Good, HSG D
0	98	Roofs, HSG C
0	98	Roofs, HSG D
19,072	70	Woods, Good, HSG C
5,523	77	Woods, Good, HSG D
0	96	Gravel surface, HSG C
0	96	Gravel surface, HSG D
37,005	73	Weighted Average
37,005		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.2	27	0.0600	0.14		Sheet Flow, A Grass: Dense n= 0.240 P2= 3.30"
10.0	73	0.0700	0.12		Sheet Flow, B Woods: Light underbrush n= 0.400 P2= 3.30"
2.9	192	0.0500	1.12		Shallow Concentrated Flow, C Woodland Kv= 5.0 fps
16.1	292	Total			

Summary for Reach 10.1R:

Inflow Area = 2.629 ac, 21.75% Impervious, Inflow Depth = 3.60" for 25-YR event
Inflow = 6.90 cfs @ 12.35 hrs, Volume= 0.789 af
Outflow = 5.92 cfs @ 12.48 hrs, Volume= 0.789 af, Atten= 14%, Lag= 8.1 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2

Max. Velocity= 0.64 fps, Min. Travel Time= 12.7 min

Avg. Velocity = 0.19 fps, Avg. Travel Time= 43.6 min

Peak Storage= 4,508 cf @ 12.48 hrs

Average Depth at Peak Storage= 0.21'

Bank-Full Depth= 1.00' Flow Area= 100.0 sf, Capacity= 153.49 cfs

30.00' x 1.00' deep channel, n= 0.100 Very weedy reaches w/pools

Side Slope Z-value= 70.0 '/' Top Width= 170.00'

Length= 485.0' Slope= 0.0216 '/'

Inlet Invert= 89.00', Outlet Invert= 78.50'



Stage-Area-Storage for Reach 10.1R:

Elevation (feet)	End-Area (sq-ft)	Storage (cubic-feet)	Elevation (feet)	End-Area (sq-ft)	Storage (cubic-feet)
89.00	0.0	0	89.52	34.5	16,746
89.01	0.3	149	89.53	35.6	17,248
89.02	0.6	305	89.54	36.6	17,757
89.03	1.0	467	89.55	37.7	18,272
89.04	1.3	636	89.56	38.8	18,795
89.05	1.7	812	89.57	39.8	19,324
89.06	2.1	995	89.58	40.9	19,860
89.07	2.4	1,185	89.59	42.1	20,402
89.08	2.8	1,381	89.60	43.2	20,952
89.09	3.3	1,584	89.61	44.3	21,508
89.10	3.7	1,795	89.62	45.5	22,071
89.11	4.1	2,011	89.63	46.7	22,641
89.12	4.6	2,235	89.64	47.9	23,218
89.13	5.1	2,465	89.65	49.1	23,801
89.14	5.6	2,702	89.66	50.3	24,392
89.15	6.1	2,946	89.67	51.5	24,989
89.16	6.6	3,197	89.68	52.8	25,592
89.17	7.1	3,455	89.69	54.0	26,203
89.18	7.7	3,719	89.70	55.3	26,821
89.19	8.2	3,990	89.71	56.6	27,445
89.20	8.8	4,268	89.72	57.9	28,076
89.21	9.4	4,553	89.73	59.2	28,713
89.22	10.0	4,844	89.74	60.5	29,358
89.23	10.6	5,142	89.75	61.9	30,009
89.24	11.2	5,448	89.76	63.2	30,668
89.25	11.9	5,759	89.77	64.6	31,332
89.26	12.5	6,078	89.78	66.0	32,004
89.27	13.2	6,403	89.79	67.4	32,683
89.28	13.9	6,736	89.80	68.8	33,368
89.29	14.6	7,075	89.81	70.2	34,060
89.30	15.3	7,420	89.82	71.7	34,759
89.31	16.0	7,773	89.83	73.1	35,465
89.32	16.8	8,132	89.84	74.6	36,177
89.33	17.5	8,499	89.85	76.1	36,896
89.34	18.3	8,872	89.86	77.6	37,622
89.35	19.1	9,251	89.87	79.1	38,355
89.36	19.9	9,638	89.88	80.6	39,095
89.37	20.7	10,031	89.89	82.1	39,841
89.38	21.5	10,431	89.90	83.7	40,595
89.39	22.3	10,838	89.91	85.3	41,354
89.40	23.2	11,252	89.92	86.8	42,121
89.41	24.1	11,672	89.93	88.4	42,895
89.42	24.9	12,100	89.94	90.1	43,675
89.43	25.8	12,534	89.95	91.7	44,462
89.44	26.8	12,975	89.96	93.3	45,256
89.45	27.7	13,422	89.97	95.0	46,057
89.46	28.6	13,877	89.98	96.6	46,865
89.47	29.6	14,338	89.99	98.3	47,679
89.48	30.5	14,806	90.00	100.0	48,500
89.49	31.5	15,281			
89.50	32.5	15,763			
89.51	33.5	16,251			

Summary for Reach 11.0R:

Inflow Area = 3.087 ac, 47.79% Impervious, Inflow Depth > 3.66" for 25-YR event
Inflow = 5.98 cfs @ 12.44 hrs, Volume= 0.941 af
Outflow = 5.57 cfs @ 12.62 hrs, Volume= 0.936 af, Atten= 7%, Lag= 11.2 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2

Max. Velocity= 0.42 fps, Min. Travel Time= 11.5 min

Avg. Velocity = 0.12 fps, Avg. Travel Time= 39.7 min

Peak Storage= 3,842 cf @ 12.62 hrs

Average Depth at Peak Storage= 0.21'

Bank-Full Depth= 1.00' Flow Area= 120.0 sf, Capacity= 121.87 cfs

50.00' x 1.00' deep channel, n= 0.100 Very weedy reaches w/pools

Side Slope Z-value= 70.0 '/' Top Width= 190.00'

Length= 290.0' Slope= 0.0086 '/'

Inlet Invert= 81.00', Outlet Invert= 78.50'



Stage-Area-Storage for Reach 11.0R:

Elevation (feet)	End-Area (sq-ft)	Storage (cubic-feet)	Elevation (feet)	End-Area (sq-ft)	Storage (cubic-feet)
81.00	0.0	0	81.52	44.9	13,029
81.01	0.5	147	81.53	46.2	13,387
81.02	1.0	298	81.54	47.4	13,749
81.03	1.6	453	81.55	48.7	14,116
81.04	2.1	612	81.56	50.0	14,486
81.05	2.7	776	81.57	51.2	14,860
81.06	3.3	943	81.58	52.5	15,239
81.07	3.8	1,114	81.59	53.9	15,621
81.08	4.4	1,290	81.60	55.2	16,008
81.09	5.1	1,469	81.61	56.5	16,399
81.10	5.7	1,653	81.62	57.9	16,793
81.11	6.3	1,841	81.63	59.3	17,192
81.12	7.0	2,032	81.64	60.7	17,595
81.13	7.7	2,228	81.65	62.1	18,002
81.14	8.4	2,428	81.66	63.5	18,413
81.15	9.1	2,632	81.67	64.9	18,828
81.16	9.8	2,840	81.68	66.4	19,247
81.17	10.5	3,052	81.69	67.8	19,670
81.18	11.3	3,268	81.70	69.3	20,097
81.19	12.0	3,488	81.71	70.8	20,528
81.20	12.8	3,712	81.72	72.3	20,964
81.21	13.6	3,940	81.73	73.8	21,403
81.22	14.4	4,173	81.74	75.3	21,846
81.23	15.2	4,409	81.75	76.9	22,294
81.24	16.0	4,649	81.76	78.4	22,745
81.25	16.9	4,894	81.77	80.0	23,201
81.26	17.7	5,142	81.78	81.6	23,661
81.27	18.6	5,395	81.79	83.2	24,124
81.28	19.5	5,652	81.80	84.8	24,592
81.29	20.4	5,912	81.81	86.4	25,064
81.30	21.3	6,177	81.82	88.1	25,540
81.31	22.2	6,446	81.83	89.7	26,020
81.32	23.2	6,719	81.84	91.4	26,504
81.33	24.1	6,996	81.85	93.1	26,992
81.34	25.1	7,277	81.86	94.8	27,484
81.35	26.1	7,562	81.87	96.5	27,980
81.36	27.1	7,851	81.88	98.2	28,480
81.37	28.1	8,144	81.89	99.9	28,985
81.38	29.1	8,441	81.90	101.7	29,493
81.39	30.1	8,743	81.91	103.5	30,005
81.40	31.2	9,048	81.92	105.2	30,522
81.41	32.3	9,357	81.93	107.0	31,042
81.42	33.3	9,671	81.94	108.9	31,567
81.43	34.4	9,988	81.95	110.7	32,096
81.44	35.6	10,310	81.96	112.5	32,628
81.45	36.7	10,636	81.97	114.4	33,165
81.46	37.8	10,965	81.98	116.2	33,706
81.47	39.0	11,299	81.99	118.1	34,251
81.48	40.1	11,637	82.00	120.0	34,800
81.49	41.3	11,979			
81.50	42.5	12,325			
81.51	43.7	12,675			

Summary for Reach 12.0R:

Inflow Area = 1.290 ac, 48.58% Impervious, Inflow Depth > 3.95" for 25-YR event
Inflow = 4.14 cfs @ 12.31 hrs, Volume= 0.425 af
Outflow = 2.46 cfs @ 12.59 hrs, Volume= 0.418 af, Atten= 41%, Lag= 17.1 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2

Max. Velocity= 0.36 fps, Min. Travel Time= 25.5 min

Avg. Velocity = 0.11 fps, Avg. Travel Time= 82.9 min

Peak Storage= 3,765 cf @ 12.59 hrs

Average Depth at Peak Storage= 0.12'

Bank-Full Depth= 1.00' Flow Area= 120.0 sf, Capacity= 143.08 cfs

50.00' x 1.00' deep channel, n= 0.100 Very weedy reaches w/pools

Side Slope Z-value= 70.0 '/' Top Width= 190.00'

Length= 547.0' Slope= 0.0119 '/'

Inlet Invert= 85.00', Outlet Invert= 78.50'



Stage-Area-Storage for Reach 12.0R:

Elevation (feet)	End-Area (sq-ft)	Storage (cubic-feet)	Elevation (feet)	End-Area (sq-ft)	Storage (cubic-feet)
85.00	0.0	0	85.52	44.9	24,576
85.01	0.5	277	85.53	46.2	25,251
85.02	1.0	562	85.54	47.4	25,934
85.03	1.6	855	85.55	48.7	26,625
85.04	2.1	1,155	85.56	50.0	27,324
85.05	2.7	1,463	85.57	51.2	28,030
85.06	3.3	1,779	85.58	52.5	28,744
85.07	3.8	2,102	85.59	53.9	29,465
85.08	4.4	2,433	85.60	55.2	30,194
85.09	5.1	2,772	85.61	56.5	30,931
85.10	5.7	3,118	85.62	57.9	31,676
85.11	6.3	3,472	85.63	59.3	32,428
85.12	7.0	3,833	85.64	60.7	33,188
85.13	7.7	4,203	85.65	62.1	33,955
85.14	8.4	4,579	85.66	63.5	34,730
85.15	9.1	4,964	85.67	64.9	35,513
85.16	9.8	5,356	85.68	66.4	36,303
85.17	10.5	5,756	85.69	67.8	37,101
85.18	11.3	6,164	85.70	69.3	37,907
85.19	12.0	6,579	85.71	70.8	38,720
85.20	12.8	7,002	85.72	72.3	39,542
85.21	13.6	7,432	85.73	73.8	40,370
85.22	14.4	7,870	85.74	75.3	41,207
85.23	15.2	8,316	85.75	76.9	42,051
85.24	16.0	8,770	85.76	78.4	42,902
85.25	16.9	9,231	85.77	80.0	43,762
85.26	17.7	9,699	85.78	81.6	44,629
85.27	18.6	10,176	85.79	83.2	45,503
85.28	19.5	10,660	85.80	84.8	46,386
85.29	20.4	11,152	85.81	86.4	47,276
85.30	21.3	11,651	85.82	88.1	48,173
85.31	22.2	12,158	85.83	89.7	49,078
85.32	23.2	12,673	85.84	91.4	49,991
85.33	24.1	13,195	85.85	93.1	50,912
85.34	25.1	13,725	85.86	94.8	51,840
85.35	26.1	14,263	85.87	96.5	52,776
85.36	27.1	14,808	85.88	98.2	53,720
85.37	28.1	15,361	85.89	99.9	54,671
85.38	29.1	15,922	85.90	101.7	55,630
85.39	30.1	16,490	85.91	103.5	56,596
85.40	31.2	17,066	85.92	105.2	57,571
85.41	32.3	17,650	85.93	107.0	58,553
85.42	33.3	18,241	85.94	108.9	59,542
85.43	34.4	18,840	85.95	110.7	60,539
85.44	35.6	19,447	85.96	112.5	61,544
85.45	36.7	20,061	85.97	114.4	62,557
85.46	37.8	20,683	85.98	116.2	63,577
85.47	39.0	21,313	85.99	118.1	64,605
85.48	40.1	21,950	86.00	120.0	65,640
85.49	41.3	22,595			
85.50	42.5	23,248			
85.51	43.7	23,908			

Summary for Reach 13.0R:

Inflow Area = 0.395 ac, 100.00% Impervious, Inflow Depth = 5.56" for 25-YR event
Inflow = 0.86 cfs @ 12.31 hrs, Volume= 0.183 af
Outflow = 0.48 cfs @ 12.85 hrs, Volume= 0.183 af, Atten= 44%, Lag= 32.4 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Max. Velocity= 0.20 fps, Min. Travel Time= 43.2 min
Avg. Velocity = 0.09 fps, Avg. Travel Time= 94.8 min

Peak Storage= 1,253 cf @ 12.85 hrs
Average Depth at Peak Storage= 0.04'
Bank-Full Depth= 1.00' Flow Area= 120.0 sf, Capacity= 146.05 cfs

50.00' x 1.00' deep channel, n= 0.100 Very weedy reaches w/pools
Side Slope Z-value= 70.0 '/' Top Width= 190.00'
Length= 525.0' Slope= 0.0124 '/'
Inlet Invert= 85.00', Outlet Invert= 78.50'



Stage-Area-Storage for Reach 13.0R:

Elevation (feet)	End-Area (sq-ft)	Storage (cubic-feet)	Elevation (feet)	End-Area (sq-ft)	Storage (cubic-feet)
85.00	0.0	0	85.52	44.9	23,587
85.01	0.5	266	85.53	46.2	24,236
85.02	1.0	540	85.54	47.4	24,891
85.03	1.6	821	85.55	48.7	25,554
85.04	2.1	1,109	85.56	50.0	26,225
85.05	2.7	1,404	85.57	51.2	26,903
85.06	3.3	1,707	85.58	52.5	27,588
85.07	3.8	2,018	85.59	53.9	28,280
85.08	4.4	2,335	85.60	55.2	28,980
85.09	5.1	2,660	85.61	56.5	29,687
85.10	5.7	2,993	85.62	57.9	30,402
85.11	6.3	3,332	85.63	59.3	31,124
85.12	7.0	3,679	85.64	60.7	31,853
85.13	7.7	4,034	85.65	62.1	32,589
85.14	8.4	4,395	85.66	63.5	33,333
85.15	9.1	4,764	85.67	64.9	34,085
85.16	9.8	5,141	85.68	66.4	34,843
85.17	10.5	5,525	85.69	67.8	35,609
85.18	11.3	5,916	85.70	69.3	36,383
85.19	12.0	6,314	85.71	70.8	37,163
85.20	12.8	6,720	85.72	72.3	37,951
85.21	13.6	7,133	85.73	73.8	38,747
85.22	14.4	7,554	85.74	75.3	39,549
85.23	15.2	7,982	85.75	76.9	40,359
85.24	16.0	8,417	85.76	78.4	41,177
85.25	16.9	8,859	85.77	80.0	42,002
85.26	17.7	9,309	85.78	81.6	42,834
85.27	18.6	9,767	85.79	83.2	43,673
85.28	19.5	10,231	85.80	84.8	44,520
85.29	20.4	10,703	85.81	86.4	45,374
85.30	21.3	11,183	85.82	88.1	46,236
85.31	22.2	11,669	85.83	89.7	47,105
85.32	23.2	12,163	85.84	91.4	47,981
85.33	24.1	12,665	85.85	93.1	48,864
85.34	25.1	13,173	85.86	94.8	49,755
85.35	26.1	13,689	85.87	96.5	50,654
85.36	27.1	14,213	85.88	98.2	51,559
85.37	28.1	14,744	85.89	99.9	52,472
85.38	29.1	15,282	85.90	101.7	53,393
85.39	30.1	15,827	85.91	103.5	54,320
85.40	31.2	16,380	85.92	105.2	55,255
85.41	32.3	16,940	85.93	107.0	56,198
85.42	33.3	17,508	85.94	108.9	57,147
85.43	34.4	18,083	85.95	110.7	58,104
85.44	35.6	18,665	85.96	112.5	59,069
85.45	36.7	19,254	85.97	114.4	60,041
85.46	37.8	19,851	85.98	116.2	61,020
85.47	39.0	20,456	85.99	118.1	62,006
85.48	40.1	21,067	86.00	120.0	63,000
85.49	41.3	21,686			
85.50	42.5	22,313			
85.51	43.7	22,946			

Summary for Reach 13.1R:

Inflow Area = 0.390 ac, 100.00% Impervious, Inflow Depth = 5.56" for 25-YR event
Inflow = 0.89 cfs @ 12.29 hrs, Volume= 0.181 af
Outflow = 0.56 cfs @ 12.47 hrs, Volume= 0.181 af, Atten= 37%, Lag= 11.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2

Max. Velocity= 0.22 fps, Min. Travel Time= 23.5 min

Avg. Velocity = 0.10 fps, Avg. Travel Time= 52.8 min

Peak Storage= 791 cf @ 12.47 hrs

Average Depth at Peak Storage= 0.05'

Bank-Full Depth= 1.00' Flow Area= 120.0 sf, Capacity= 156.88 cfs

50.00' x 1.00' deep channel, n= 0.100 Very weedy reaches w/pools

Side Slope Z-value= 70.0 '/' Top Width= 190.00'

Length= 315.0' Slope= 0.0143 '/'

Inlet Invert= 83.00', Outlet Invert= 78.50'



Stage-Area-Storage for Reach 13.1R:

Elevation (feet)	End-Area (sq-ft)	Storage (cubic-feet)	Elevation (feet)	End-Area (sq-ft)	Storage (cubic-feet)
83.00	0.0	0	83.52	44.9	14,152
83.01	0.5	160	83.53	46.2	14,541
83.02	1.0	324	83.54	47.4	14,935
83.03	1.6	492	83.55	48.7	15,333
83.04	2.1	665	83.56	50.0	15,735
83.05	2.7	843	83.57	51.2	16,142
83.06	3.3	1,024	83.58	52.5	16,553
83.07	3.8	1,211	83.59	53.9	16,968
83.08	4.4	1,401	83.60	55.2	17,388
83.09	5.1	1,596	83.61	56.5	17,812
83.10	5.7	1,796	83.62	57.9	18,241
83.11	6.3	1,999	83.63	59.3	18,674
83.12	7.0	2,208	83.64	60.7	19,112
83.13	7.7	2,420	83.65	62.1	19,554
83.14	8.4	2,637	83.66	63.5	20,000
83.15	9.1	2,859	83.67	64.9	20,451
83.16	9.8	3,084	83.68	66.4	20,906
83.17	10.5	3,315	83.69	67.8	21,366
83.18	11.3	3,549	83.70	69.3	21,830
83.19	12.0	3,789	83.71	70.8	22,298
83.20	12.8	4,032	83.72	72.3	22,771
83.21	13.6	4,280	83.73	73.8	23,248
83.22	14.4	4,532	83.74	75.3	23,730
83.23	15.2	4,789	83.75	76.9	24,216
83.24	16.0	5,050	83.76	78.4	24,706
83.25	16.9	5,316	83.77	80.0	25,201
83.26	17.7	5,586	83.78	81.6	25,700
83.27	18.6	5,860	83.79	83.2	26,204
83.28	19.5	6,139	83.80	84.8	26,712
83.29	20.4	6,422	83.81	86.4	27,225
83.30	21.3	6,710	83.82	88.1	27,741
83.31	22.2	7,002	83.83	89.7	28,263
83.32	23.2	7,298	83.84	91.4	28,788
83.33	24.1	7,599	83.85	93.1	29,319
83.34	25.1	7,904	83.86	94.8	29,853
83.35	26.1	8,214	83.87	96.5	30,392
83.36	27.1	8,528	83.88	98.2	30,936
83.37	28.1	8,846	83.89	99.9	31,483
83.38	29.1	9,169	83.90	101.7	32,036
83.39	30.1	9,496	83.91	103.5	32,592
83.40	31.2	9,828	83.92	105.2	33,153
83.41	32.3	10,164	83.93	107.0	33,719
83.42	33.3	10,505	83.94	108.9	34,288
83.43	34.4	10,850	83.95	110.7	34,863
83.44	35.6	11,199	83.96	112.5	35,441
83.45	36.7	11,553	83.97	114.4	36,024
83.46	37.8	11,911	83.98	116.2	36,612
83.47	39.0	12,273	83.99	118.1	37,204
83.48	40.1	12,640	84.00	120.0	37,800
83.49	41.3	13,012			
83.50	42.5	13,388			
83.51	43.7	13,768			

Summary for Pond 10.1P: Culvert

Inflow Area = 2.629 ac, 21.75% Impervious, Inflow Depth = 3.60" for 25-YR event
 Inflow = 6.92 cfs @ 12.33 hrs, Volume= 0.789 af
 Outflow = 6.90 cfs @ 12.35 hrs, Volume= 0.789 af, Atten= 0%, Lag= 1.3 min
 Primary = 6.90 cfs @ 12.35 hrs, Volume= 0.789 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2

Peak Elev= 91.81' @ 12.35 hrs Surf.Area= 224 sf Storage= 137 cf

Flood Elev= 93.00' Surf.Area= 500 sf Storage= 558 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)

Center-of-Mass det. time= 0.1 min (832.2 - 832.1)

Volume	Invert	Avail.Storage	Storage Description
#1	91.00'	3,993 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
91.00	115	0	0
92.00	250	183	183
93.00	500	375	558
94.00	2,580	1,540	2,098
94.50	5,000	1,895	3,993

Device	Routing	Invert	Outlet Devices
#1	Primary	90.00'	18.0" Round 18" PIPE L= 48.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 90.00' / 88.00' S= 0.0417 ' / Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Secondary	93.00'	40.0' long x 2.0' breadth Overflow at Driveway Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=6.90 cfs @ 12.35 hrs HW=91.81' TW=89.19' (Dynamic Tailwater)

↑ **1=18" PIPE** (Inlet Controls 6.90 cfs @ 3.91 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=91.00' TW=89.00' (Dynamic Tailwater)

↑ **2=Overflow at Driveway** (Controls 0.00 cfs)

Stage-Area-Storage for Pond 10.1P: Culvert

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
91.00	115	0	93.60	1,748	1,232
91.05	122	6	93.65	1,852	1,322
91.10	128	12	93.70	1,956	1,417
91.15	135	19	93.75	2,060	1,518
91.20	142	26	93.80	2,164	1,623
91.25	149	33	93.85	2,268	1,734
91.30	155	41	93.90	2,372	1,850
91.35	162	49	93.95	2,476	1,971
91.40	169	57	94.00	2,580	2,098
91.45	176	65	94.05	2,822	2,233
91.50	183	74	94.10	3,064	2,380
91.55	189	84	94.15	3,306	2,539
91.60	196	93	94.20	3,548	2,710
91.65	203	103	94.25	3,790	2,894
91.70	210	114	94.30	4,032	3,089
91.75	216	124	94.35	4,274	3,297
91.80	223	135	94.40	4,516	3,517
91.85	230	147	94.45	4,758	3,749
91.90	237	158	94.50	5,000	3,993
91.95	243	170			
92.00	250	183			
92.05	262	195			
92.10	275	209			
92.15	288	223			
92.20	300	238			
92.25	313	253			
92.30	325	269			
92.35	337	285			
92.40	350	303			
92.45	363	320			
92.50	375	339			
92.55	387	358			
92.60	400	377			
92.65	413	398			
92.70	425	419			
92.75	438	440			
92.80	450	462			
92.85	462	485			
92.90	475	509			
92.95	488	533			
93.00	500	558			
93.05	604	585			
93.10	708	618			
93.15	812	656			
93.20	916	699			
93.25	1,020	748			
93.30	1,124	801			
93.35	1,228	860			
93.40	1,332	924			
93.45	1,436	993			
93.50	1,540	1,068			
93.55	1,644	1,147			

Summary for Pond 11.0P: GW-1

Inflow Area = 3.087 ac, 47.79% Impervious, Inflow Depth = 4.35" for 25-YR event
 Inflow = 11.79 cfs @ 12.17 hrs, Volume= 1.118 af
 Outflow = 5.98 cfs @ 12.44 hrs, Volume= 0.941 af, Atten= 49%, Lag= 16.1 min
 Primary = 5.98 cfs @ 12.44 hrs, Volume= 0.941 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2

Peak Elev= 83.42' @ 12.44 hrs Surf.Area= 9,949 sf Storage= 19,185 cf

Flood Elev= 84.80' Surf.Area= 10,850 sf Storage= 25,208 cf

Plug-Flow detention time= 210.1 min calculated for 0.941 af (84% of inflow)

Center-of-Mass det. time= 143.5 min (940.3 - 796.8)

Volume	Invert	Avail.Storage	Storage Description
#1	81.00'	25,208 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
81.00	6,175	0	0
82.00	7,400	6,788	6,788
83.00	9,295	8,348	15,135
84.00	10,850	10,073	25,208

Device	Routing	Invert	Outlet Devices
#1	Primary	80.67'	15.0" Round Culvert L= 20.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 80.67' / 80.50' S= 0.0085 '/' Cc= 0.900 n= 0.013, Flow Area= 1.23 sf
#2	Device 1	80.67'	1.6" Vert. Orifice C= 0.600
#3	Device 1	82.50'	36.0" W x 6.0" H Vert. WQV Orifice C= 0.600
#4	Secondary	83.50'	25.0' long x 6.0' breadth Emergency Spillway Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.37 2.51 2.70 2.68 2.68 2.67 2.65 2.65 2.65 2.65 2.66 2.66 2.67 2.69 2.72 2.76 2.83

Primary OutFlow Max=5.98 cfs @ 12.44 hrs HW=83.42' TW=81.19' (Dynamic Tailwater)

↑ **1=Culvert** (Passes 5.98 cfs of 8.62 cfs potential flow)
 ↑ **2=Orifice** (Orifice Controls 0.10 cfs @ 7.19 fps)
 ↑ **3=WQV Orifice** (Orifice Controls 5.88 cfs @ 3.92 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=81.00' TW=81.00' (Dynamic Tailwater)

↑ **4=Emergency Spillway** (Controls 0.00 cfs)

Stage-Area-Storage for Pond 11.0P: GW-1

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
81.00	6,175	0	83.60	10,228	20,992
81.05	6,236	310	83.65	10,306	21,505
81.10	6,297	624	83.70	10,384	22,022
81.15	6,359	940	83.75	10,461	22,544
81.20	6,420	1,260	83.80	10,539	23,069
81.25	6,481	1,582	83.85	10,617	23,597
81.30	6,542	1,908	83.90	10,695	24,130
81.35	6,604	2,236	83.95	10,772	24,667
81.40	6,665	2,568	84.00	10,850	25,208
81.45	6,726	2,903	84.05	10,850	25,208
81.50	6,788	3,241	84.10	10,850	25,208
81.55	6,849	3,582	84.15	10,850	25,208
81.60	6,910	3,925	84.20	10,850	25,208
81.65	6,971	4,273	84.25	10,850	25,208
81.70	7,033	4,623	84.30	10,850	25,208
81.75	7,094	4,976	84.35	10,850	25,208
81.80	7,155	5,332	84.40	10,850	25,208
81.85	7,216	5,691	84.45	10,850	25,208
81.90	7,278	6,054	84.50	10,850	25,208
81.95	7,339	6,419	84.55	10,850	25,208
82.00	7,400	6,788	84.60	10,850	25,208
82.05	7,495	7,160	84.65	10,850	25,208
82.10	7,589	7,537	84.70	10,850	25,208
82.15	7,684	7,919	84.75	10,850	25,208
82.20	7,779	8,305	84.80	10,850	25,208
82.25	7,874	8,697			
82.30	7,968	9,093			
82.35	8,063	9,494			
82.40	8,158	9,899			
82.45	8,253	10,309			
82.50	8,348	10,724			
82.55	8,442	11,144			
82.60	8,537	11,569			
82.65	8,632	11,998			
82.70	8,727	12,432			
82.75	8,821	12,870			
82.80	8,916	13,314			
82.85	9,011	13,762			
82.90	9,106	14,215			
82.95	9,200	14,673			
83.00	9,295	15,135			
83.05	9,373	15,602			
83.10	9,450	16,072			
83.15	9,528	16,547			
83.20	9,606	17,025			
83.25	9,684	17,507			
83.30	9,761	17,993			
83.35	9,839	18,483			
83.40	9,917	18,977			
83.45	9,995	19,475			
83.50	10,073	19,977			
83.55	10,150	20,482			

Summary for Pond 11.1P: Culvert

Inflow Area = 0.537 ac, 0.00% Impervious, Inflow Depth = 3.21" for 25-YR event
 Inflow = 1.42 cfs @ 12.25 hrs, Volume= 0.144 af
 Outflow = 1.42 cfs @ 12.25 hrs, Volume= 0.144 af, Atten= 0%, Lag= 0.0 min
 Primary = 1.42 cfs @ 12.25 hrs, Volume= 0.144 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2

Peak Elev= 84.37' @ 12.27 hrs

Flood Elev= 87.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	83.70'	12.0" Round 12" PIPE L= 146.0' CMP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 83.70' / 82.50' S= 0.0082 ' / Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=1.42 cfs @ 12.25 hrs HW=84.37' TW=83.28' (Dynamic Tailwater)

↑ **1=12" PIPE** (Outlet Controls 1.42 cfs @ 3.60 fps)

Stage-Area-Storage for Pond 11.1P: Culvert

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
83.70	0	86.30	0
83.75	0	86.35	0
83.80	0	86.40	0
83.85	0	86.45	0
83.90	0	86.50	0
83.95	0	86.55	0
84.00	0	86.60	0
84.05	0	86.65	0
84.10	0	86.70	0
84.15	0	86.75	0
84.20	0	86.80	0
84.25	0	86.85	0
84.30	0	86.90	0
84.35	0	86.95	0
84.40	0	87.00	0
84.45	0		
84.50	0		
84.55	0		
84.60	0		
84.65	0		
84.70	0		
84.75	0		
84.80	0		
84.85	0		
84.90	0		
84.95	0		
85.00	0		
85.05	0		
85.10	0		
85.15	0		
85.20	0		
85.25	0		
85.30	0		
85.35	0		
85.40	0		
85.45	0		
85.50	0		
85.55	0		
85.60	0		
85.65	0		
85.70	0		
85.75	0		
85.80	0		
85.85	0		
85.90	0		
85.95	0		
86.00	0		
86.05	0		
86.10	0		
86.15	0		
86.20	0		
86.25	0		

Summary for Pond 12.0P: UDSF-1

Inflow Area = 1.290 ac, 48.58% Impervious, Inflow Depth = 4.33" for 25-YR event
 Inflow = 4.58 cfs @ 12.23 hrs, Volume= 0.465 af
 Outflow = 4.14 cfs @ 12.31 hrs, Volume= 0.425 af, Atten= 10%, Lag= 4.7 min
 Primary = 4.14 cfs @ 12.31 hrs, Volume= 0.425 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2

Peak Elev= 89.47' @ 12.31 hrs Surf.Area= 3,386 sf Storage= 5,242 cf

Flood Elev= 90.80' Surf.Area= 4,200 sf Storage= 9,144 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)

Center-of-Mass det. time= 144.1 min (950.4 - 806.3)

Volume	Invert	Avail.Storage	Storage Description
#1	87.50'	9,144 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
87.50	1,955	0	0
88.00	2,304	1,065	1,065
89.00	3,050	2,677	3,742
90.00	3,770	3,410	7,152
90.50	4,200	1,993	9,144

Device	Routing	Invert	Outlet Devices
#1	Primary	85.30'	12.0" Round Culvert L= 90.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 85.30' / 84.30' S= 0.0111 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf
#2	Device 1	85.30'	1.0" Vert. Controlling Orifice C= 0.600
#3	Device 2	85.30'	4.0" Round UD Header L= 90.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 85.30' / 85.30' S= 0.0000 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.09 sf
#4	Device 1	89.00'	48.0" W x 6.0" H Vert. WQV Orifice C= 0.600
#5	Secondary	89.50'	10.0' long x 3.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 Coef. (English) 2.44 2.58 2.68 2.67 2.65 2.64 2.64 2.68 2.68 2.72 2.81 2.92 2.97 3.07 3.32

Primary OutFlow Max=4.14 cfs @ 12.31 hrs HW=89.47' TW=85.08' (Dynamic Tailwater)

↑ **1=Culvert** (Passes 4.14 cfs of 5.72 cfs potential flow)
 ↑ **2=Controlling Orifice** (Orifice Controls 0.05 cfs @ 9.78 fps)
 ↑ **3=UD Header** (Passes 0.05 cfs of 0.36 cfs potential flow)
 ↑ **4=WQV Orifice** (Orifice Controls 4.09 cfs @ 2.19 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=87.50' TW=85.00' (Dynamic Tailwater)

↑ **5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Stage-Area-Storage for Pond 12.0P: UDSF-1

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
87.50	1,955	0	90.10	3,856	7,533
87.55	1,990	99	90.15	3,899	7,727
87.60	2,025	199	90.20	3,942	7,923
87.65	2,060	301	90.25	3,985	8,121
87.70	2,095	405	90.30	4,028	8,321
87.75	2,130	511	90.35	4,071	8,524
87.80	2,164	618	90.40	4,114	8,729
87.85	2,199	727	90.45	4,157	8,935
87.90	2,234	838	90.50	4,200	9,144
87.95	2,269	950	90.55	4,200	9,144
88.00	2,304	1,065	90.60	4,200	9,144
88.05	2,341	1,181	90.65	4,200	9,144
88.10	2,379	1,299	90.70	4,200	9,144
88.15	2,416	1,419	90.75	4,200	9,144
88.20	2,453	1,540	90.80	4,200	9,144
88.25	2,491	1,664			
88.30	2,528	1,790			
88.35	2,565	1,917			
88.40	2,602	2,046			
88.45	2,640	2,177			
88.50	2,677	2,310			
88.55	2,714	2,445			
88.60	2,752	2,581			
88.65	2,789	2,720			
88.70	2,826	2,860			
88.75	2,864	3,003			
88.80	2,901	3,147			
88.85	2,938	3,293			
88.90	2,975	3,440			
88.95	3,013	3,590			
89.00	3,050	3,742			
89.05	3,086	3,895			
89.10	3,122	4,050			
89.15	3,158	4,207			
89.20	3,194	4,366			
89.25	3,230	4,527			
89.30	3,266	4,689			
89.35	3,302	4,853			
89.40	3,338	5,019			
89.45	3,374	5,187			
89.50	3,410	5,357			
89.55	3,446	5,528			
89.60	3,482	5,701			
89.65	3,518	5,876			
89.70	3,554	6,053			
89.75	3,590	6,232			
89.80	3,626	6,412			
89.85	3,662	6,594			
89.90	3,698	6,778			
89.95	3,734	6,964			
90.00	3,770	7,152			
90.05	3,813	7,341			

Summary for Pond 13.0P: Dripedge 1

Inflow Area = 0.395 ac, 100.00% Impervious, Inflow Depth = 5.56" for 25-YR event
 Inflow = 2.24 cfs @ 12.08 hrs, Volume= 0.183 af
 Outflow = 0.86 cfs @ 12.31 hrs, Volume= 0.183 af, Atten= 62%, Lag= 13.6 min
 Primary = 0.51 cfs @ 12.31 hrs, Volume= 0.178 af
 Secondary = 0.35 cfs @ 12.31 hrs, Volume= 0.005 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2

Peak Elev= 101.01' @ 12.31 hrs Surf.Area= 3,843 sf Storage= 2,064 cf

Flood Elev= 101.20' Surf.Area= 10,000 sf Storage= 2,660 cf

Plug-Flow detention time= 40.4 min calculated for 0.183 af (100% of inflow)

Center-of-Mass det. time= 40.1 min (785.7 - 745.7)

Volume	Invert	Avail.Storage	Storage Description	
#1	98.50'	2,660 cf	Custom Stage Data (Prismatic) Listed below (Recalc)	
Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
98.50	2,850	0.0	0	0
98.51	2,850	20.0	6	6
99.00	2,850	20.0	279	285
99.99	2,850	20.0	564	849
100.00	2,850	40.0	11	861
100.99	2,850	40.0	1,129	1,989
101.00	2,850	100.0	29	2,018
101.10	10,000	100.0	642	2,660

Device	Routing	Invert	Outlet Devices
#1	Primary	98.50'	4.0" Round Culvert L= 30.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 98.50' / 82.30' S= 0.5400 ' / Cc= 0.900 n= 0.012, Flow Area= 0.09 sf
#2	Secondary	101.00'	80.0' long x 1.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31 3.30 3.31 3.32

Primary OutFlow Max=0.51 cfs @ 12.31 hrs HW=101.01' TW=85.04' (Dynamic Tailwater)

↑ **1=Culvert** (Inlet Controls 0.51 cfs @ 5.82 fps)

Secondary OutFlow Max=0.35 cfs @ 12.31 hrs HW=101.01' TW=85.04' (Dynamic Tailwater)

↑ **2=Broad-Crested Rectangular Weir** (Weir Controls 0.35 cfs @ 0.32 fps)

Stage-Area-Storage for Pond 13.0P: Dripedge 1

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
98.50	2,850	0	101.10	10,000	2,660
98.55	2,850	28	101.15	10,000	2,660
98.60	2,850	57	101.20	10,000	2,660
98.65	2,850	86			
98.70	2,850	114			
98.75	2,850	143			
98.80	2,850	171			
98.85	2,850	199			
98.90	2,850	228			
98.95	2,850	257			
99.00	2,850	285			
99.05	2,850	313			
99.10	2,850	342			
99.15	2,850	371			
99.20	2,850	399			
99.25	2,850	428			
99.30	2,850	456			
99.35	2,850	484			
99.40	2,850	513			
99.45	2,850	542			
99.50	2,850	570			
99.55	2,850	598			
99.60	2,850	627			
99.65	2,850	656			
99.70	2,850	684			
99.75	2,850	713			
99.80	2,850	741			
99.85	2,850	769			
99.90	2,850	798			
99.95	2,850	827			
100.00	2,850	861			
100.05	2,850	918			
100.10	2,850	975			
100.15	2,850	1,032			
100.20	2,850	1,089			
100.25	2,850	1,146			
100.30	2,850	1,203			
100.35	2,850	1,260			
100.40	2,850	1,317			
100.45	2,850	1,374			
100.50	2,850	1,431			
100.55	2,850	1,488			
100.60	2,850	1,545			
100.65	2,850	1,602			
100.70	2,850	1,659			
100.75	2,850	1,716			
100.80	2,850	1,773			
100.85	2,850	1,830			
100.90	2,850	1,887			
100.95	2,850	1,944			
101.00	2,850	2,018			
101.05	6,425	2,250			

Summary for Pond 13.1P: Dripedge 2

Inflow Area = 0.390 ac, 100.00% Impervious, Inflow Depth = 5.56" for 25-YR event
 Inflow = 2.21 cfs @ 12.08 hrs, Volume= 0.181 af
 Outflow = 0.89 cfs @ 12.29 hrs, Volume= 0.181 af, Atten= 60%, Lag= 12.5 min
 Primary = 0.37 cfs @ 12.27 hrs, Volume= 0.172 af
 Secondary = 0.52 cfs @ 12.29 hrs, Volume= 0.008 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2

Peak Elev= 88.02' @ 12.29 hrs Surf.Area= 3,810 sf Storage= 1,791 cf

Flood Elev= 88.20' Surf.Area= 10,000 sf Storage= 2,357 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)

Center-of-Mass det. time= 24.9 min (770.6 - 745.7)

Volume	Invert	Avail.Storage	Storage Description	
#1	85.50'	2,357 cf	Custom Stage Data (Prismatic) Listed below (Recalc)	
Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
85.50	2,450	0.0	0	0
85.51	2,450	20.0	5	5
86.00	2,450	20.0	240	245
86.99	2,450	20.0	485	730
87.00	2,450	40.0	10	740
87.99	2,450	40.0	970	1,710
88.00	2,450	100.0	25	1,735
88.10	10,000	100.0	622	2,357

Device	Routing	Invert	Outlet Devices
#1	Primary	84.00'	4.0" Round Culvert L= 135.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 84.00' / 80.70' S= 0.0244 ' / S= 0.0244 ' Cc= 0.900 n= 0.012, Flow Area= 0.09 sf
#2	Secondary	88.00'	80.0' long x 1.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31 3.30 3.31 3.32

Primary OutFlow Max=0.37 cfs @ 12.27 hrs HW=88.02' TW=83.04' (Dynamic Tailwater)

↑ **1=Culvert** (Outlet Controls 0.37 cfs @ 4.28 fps)

Secondary OutFlow Max=0.52 cfs @ 12.29 hrs HW=88.02' TW=83.04' (Dynamic Tailwater)

↑ **2=Broad-Crested Rectangular Weir** (Weir Controls 0.52 cfs @ 0.36 fps)

Stage-Area-Storage for Pond 13.1P: Dripedge 2

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
85.50	2,450	0	88.10	10,000	2,357
85.55	2,450	24	88.15	10,000	2,357
85.60	2,450	49	88.20	10,000	2,357
85.65	2,450	74			
85.70	2,450	98			
85.75	2,450	123			
85.80	2,450	147			
85.85	2,450	171			
85.90	2,450	196			
85.95	2,450	221			
86.00	2,450	245			
86.05	2,450	269			
86.10	2,450	294			
86.15	2,450	319			
86.20	2,450	343			
86.25	2,450	368			
86.30	2,450	392			
86.35	2,450	416			
86.40	2,450	441			
86.45	2,450	466			
86.50	2,450	490			
86.55	2,450	514			
86.60	2,450	539			
86.65	2,450	564			
86.70	2,450	588			
86.75	2,450	613			
86.80	2,450	637			
86.85	2,450	661			
86.90	2,450	686			
86.95	2,450	711			
87.00	2,450	740			
87.05	2,450	789			
87.10	2,450	838			
87.15	2,450	887			
87.20	2,450	936			
87.25	2,450	985			
87.30	2,450	1,034			
87.35	2,450	1,083			
87.40	2,450	1,132			
87.45	2,450	1,181			
87.50	2,450	1,230			
87.55	2,450	1,279			
87.60	2,450	1,328			
87.65	2,450	1,377			
87.70	2,450	1,426			
87.75	2,450	1,475			
87.80	2,450	1,524			
87.85	2,450	1,573			
87.90	2,450	1,622			
87.95	2,450	1,671			
88.00	2,450	1,735			
88.05	6,225	1,951			

Summary for Link SP-1:

Inflow Area = 12.330 ac, 29.66% Impervious, Inflow Depth > 3.73" for 25-YR event
Inflow = 24.66 cfs @ 12.47 hrs, Volume= 3.831 af
Primary = 24.66 cfs @ 12.47 hrs, Volume= 3.831 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs

Summary for Link SP-2:

Inflow Area = 0.278 ac, 0.00% Impervious, Inflow Depth = 2.65" for 25-YR event
Inflow = 0.60 cfs @ 12.26 hrs, Volume= 0.061 af
Primary = 0.60 cfs @ 12.26 hrs, Volume= 0.061 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs

Summary for Link SP-3:

Inflow Area = 0.850 ac, 0.00% Impervious, Inflow Depth = 2.92" for 25-YR event
Inflow = 2.14 cfs @ 12.22 hrs, Volume= 0.207 af
Primary = 2.14 cfs @ 12.22 hrs, Volume= 0.207 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs

Summary for Pond 11.0P: GW-1

Inflow Area = 3.087 ac, 47.79% Impervious, Inflow Depth = 6.55" for 100-YR event
 Inflow = 17.44 cfs @ 12.17 hrs, Volume= 1.684 af
 Outflow = 16.28 cfs @ 12.22 hrs, Volume= 1.226 af, Atten= 7%, Lag= 3.1 min
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Secondary = 16.28 cfs @ 12.22 hrs, Volume= 1.226 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2

Peak Elev= 83.91' @ 12.22 hrs Surf.Area= 10,704 sf Storage= 24,196 cf

Flood Elev= 84.80' Surf.Area= 10,850 sf Storage= 25,208 cf

Plug-Flow detention time= 160.6 min calculated for 1.226 af (73% of inflow)

Center-of-Mass det. time= 71.7 min (858.7 - 787.0)

Volume	Invert	Avail.Storage	Storage Description
#1	81.00'	25,208 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
81.00	6,175	0	0
82.00	7,400	6,788	6,788
83.00	9,295	8,348	15,135
84.00	10,850	10,073	25,208

Device	Routing	Invert	Outlet Devices
#1	Primary	80.67'	15.0" Round Culvert X 0.00 L= 20.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 80.67' / 80.50' S= 0.0085 ' S= 0.0085 ' Cc= 0.900 n= 0.013, Flow Area= 1.23 sf
#2	Device 1	80.67'	1.6" Vert. Orifice C= 0.600
#3	Device 1	82.50'	36.0" W x 6.0" H Vert. WQV Orifice C= 0.600
#4	Secondary	83.50'	25.0' long x 6.0' breadth Emergency Spillway Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.37 2.51 2.70 2.68 2.68 2.67 2.65 2.65 2.65 2.65 2.66 2.66 2.67 2.69 2.72 2.76 2.83

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=81.00' TW=81.00' (Dynamic Tailwater)

↑ **1=Culvert** (Controls 0.00 cfs)
 ↑ **2=Orifice** (Controls 0.00 cfs)
 ↑ **3=WQV Orifice** (Controls 0.00 cfs)

Secondary OutFlow Max=16.28 cfs @ 12.22 hrs HW=83.91' TW=81.27' (Dynamic Tailwater)

↑ **4=Emergency Spillway** (Weir Controls 16.28 cfs @ 1.60 fps)

Summary for Pond 12.0P: UDSF-1

Inflow Area = 1.290 ac, 48.58% Impervious, Inflow Depth = 6.55" for 100-YR event
 Inflow = 6.80 cfs @ 12.23 hrs, Volume= 0.704 af
 Outflow = 6.60 cfs @ 12.27 hrs, Volume= 0.581 af, Atten= 3%, Lag= 2.3 min
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Secondary = 6.60 cfs @ 12.27 hrs, Volume= 0.581 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2

Peak Elev= 89.90' @ 12.27 hrs Surf.Area= 3,700 sf Storage= 6,789 cf

Flood Elev= 90.80' Surf.Area= 4,200 sf Storage= 9,144 cf

Plug-Flow detention time= 119.9 min calculated for 0.581 af (83% of inflow)

Center-of-Mass det. time= 50.0 min (845.1 - 795.1)

Volume	Invert	Avail.Storage	Storage Description
#1	87.50'	9,144 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
87.50	1,955	0	0
88.00	2,304	1,065	1,065
89.00	3,050	2,677	3,742
90.00	3,770	3,410	7,152
90.50	4,200	1,993	9,144

Device	Routing	Invert	Outlet Devices
#1	Primary	85.30'	12.0" Round Culvert X 0.00 L= 90.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 85.30' / 84.30' S= 0.0111 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf
#2	Device 1	85.30'	1.0" Vert. Controlling Orifice C= 0.600
#3	Device 2	85.30'	4.0" Round UD Header L= 90.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 85.30' / 85.30' S= 0.0000 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.09 sf
#4	Device 1	89.00'	48.0" W x 6.0" H Vert. WQV Orifice C= 0.600
#5	Secondary	89.50'	10.0' long x 3.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 Coef. (English) 2.44 2.58 2.68 2.67 2.65 2.64 2.64 2.68 2.68 2.72 2.81 2.92 2.97 3.07 3.32

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=87.50' TW=85.00' (Dynamic Tailwater)

↑ **1=Culvert** (Controls 0.00 cfs)

↑ **2=Controlling Orifice** (Passes 0.00 cfs of 0.04 cfs potential flow)

↑ **3=UD Header** (Passes 0.00 cfs of 0.25 cfs potential flow)

↑ **4=WQV Orifice** (Controls 0.00 cfs)

Secondary OutFlow Max=6.60 cfs @ 12.27 hrs HW=89.90' TW=85.14' (Dynamic Tailwater)

↑ **5=Broad-Crested Rectangular Weir** (Weir Controls 6.60 cfs @ 1.64 fps)

Appendix 4

Inspection, Maintenance and Housekeeping Plan

INSPECTION, MAINTENANCE, AND HOUSEKEEPING PLAN

FALLBROOK COMMONS PORTLAND, MAINE

Introduction

The following plan outlines the anticipated inspection and maintenance procedures for the erosion and sedimentation control measures as well as stormwater management facilities for the project. This plan also outlines several housekeeping requirements that shall be followed during and after construction. These procedures shall be followed in order to ensure the intended function of the designed measures and to prevent unreasonably adverse impacts to the surrounding environment.

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

During Construction

1. **Inspection:** During the construction process, it is the Contractor's responsibility to comply with the inspection and maintenance procedures outlined in this section and the erosion and sedimentation control plan for the project. These responsibilities include inspecting disturbed and impervious areas, erosion control measures, materials storage areas that are exposed to precipitation, and locations where vehicles enter or exit the site. These areas shall be inspected at least once per week as well as before and after a storm event, and prior to completing permanent stabilization measures. A person with knowledge of erosion and stormwater control, including the standards and conditions in any applicable permits, shall conduct the inspections.
2. **Maintenance:** All measures shall be maintained in an effective operating condition until areas are permanently stabilized. If Best Management Practices (BMPs) need to be maintained or modified, additional BMPs are necessary, or other corrective action is needed, implementation must be completed within 7 calendar days and prior to any storm event (rainfall).
3. **Documentation:** A log summarizing the inspections and any corrective action taken must be maintained on-site. Correction action shall be performed in general conformance with the Maine Construction General Permit and Maine DEP Chapter 500 Stormwater standards. The log must include the name(s) and qualifications of the person making the inspections, the date(s) of the inspections, and major observations about the operation and maintenance of erosion and sedimentation controls, material storage areas, and vehicle access points to the site. Major observations must include BMPs that need maintenance, BMPs that failed to operate as designed or proved inadequate for a particular location, and locations where additional BMPs are needed. For each BMP requiring maintenance, BMP needing replacement, and location needing additional BMPs, note in the log the corrective action taken and when it was taken. The log must be made accessible to the appropriate regulatory agency upon request. The permittee shall retain a copy of the log for a period of at least three years from the completion of permanent stabilization.

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

A. Filter Berms:

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

B. Stone Check Dams:

- Inspect the center of the dam to make sure it is lower than the edges. Erosion caused by high flows around the edges of the dam must be corrected.
- Sediment accumulation shall be removed prior to reaching half of the original design height.
- Areas beneath stone check dams must be seeded and mulched upon removal.

C. Riprap Materials:

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

D. Erosion Control Blankets:

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

E. Stabilized Construction Entrances/Exits:

- The exit shall be maintained in a condition that will prevent tracking of sediment onto public rights-of-way.
- When the control pad becomes ineffective, the stone shall be removed along with the collected soil material. The entrance should then be reconstructed.
- Areas that have received mud-tracking or sediment deposits shall be swept or

washed. Washing shall be done on an area stabilized with aggregate, which drains into an approved sediment-trapping device (not into storm drains, ditches, or waterways).

F. Temporary Seed and Mulch:

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

G. Stabilized Temporary Drainage Swales:

- Sediment accumulation in the swale shall be removed once the cross section of the swale is reduced by 25%.
- The swales shall be inspected after rainfall events. Any evidence of sloughing of the side slopes or channel erosion shall be repaired and corrective action should be taken to prevent reoccurrence of the problem.
- In addition to the stabilized lining of the channel (i.e. erosion control blankets), stone check dams may be needed to further reduce channel velocity.

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

- A. Spill prevention: Controls must be used to prevent pollutants from being discharged from materials on-site, including storage practices to minimize exposure of the materials to stormwater, and appropriate spill prevention, containment, and response planning and implementation. A Spill, Prevention, Control and Countermeasures Plan is created for the project and is to be kept onsite at all times.
- B. Groundwater protection: During construction, liquid petroleum products and other hazardous materials with the potential to contaminate groundwater may not be stored or handled in areas of the site draining to an infiltration area. An "infiltration area" is any area of the site that by design or as a result of soils, topography and other relevant factors, accumulates runoff that infiltrates into the soil. Dikes, berms, sumps, and other forms of secondary containment that prevent discharge to groundwater may be used to isolate portions of the site for the purposes of storage and handling of these materials.
- C. Fugitive sediment and dust: Actions must be taken to ensure that activities do not result in noticeable erosion of soils or fugitive dust emissions during or after construction. Oil may not be used for dust control.
- D. Debris and other materials: Litter, construction debris, and chemicals exposed to stormwater must be prevented from becoming a pollutant source.
- E. Trench or foundation dewatering: Trench dewatering is the removal of water from

trenches, foundations, cofferdams, ponds, and other areas within the construction area that retain water after excavation. In most cases, the collected water is heavily silted and hinders correct and safe construction practices. The collected water must be removed from the ponded area, either through gravity or pumping, and must be spread through natural wooded buffers or removed to areas that are specifically designed to collect the maximum amount of sediment possible, like a cofferdam sedimentation basin. Avoid allowing the water to flow over disturbed areas of the site. Equivalent measures may be taken if approved.

Post-Construction

1. **Inspection:** After construction, it is the responsibility of the owner or assigned heirs to comply with the inspection and maintenance procedures outlined in this section. All measures must be maintained in effective operating condition. A person with knowledge of erosion and stormwater control, including the standards and conditions in all applicable permits, shall conduct the inspections.
2. **Specific Inspection and Maintenance Tasks:** The following is a list of permanent erosion control and stormwater management measures and the inspection and maintenance tasks to be performed after construction.

A. Vegetated Areas:

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

B. Ditches, Swales and Other Open Channels:

- Inspect ditches, swales, level spreaders and other open stormwater channels in the spring, in the late fall, and after heavy rains to remove any obstructions to flow. Remove accumulated sediments and debris, remove woody vegetative growth that could obstruct flow, and repair any erosion of the ditch lining.
- Vegetated ditches must be mowed at least annually or otherwise maintained to control the growth of woody vegetation and maintain flow capacity.
- Any woody vegetation growing through riprap linings must also be removed. Repair any slumping side slopes as soon as practicable.
- If the ditch has a riprap lining, replace riprap in areas where any underlying filter fabric or underdrain gravel is showing through the stone or where stones have dislodged.

C. Winter Sanding:

- Clear accumulations of winter sand along access road at least once a year, preferably in the spring.
- Accumulations of sand along road shoulders may be removed by grading excess

sand to the pavement edge and removing it manually or by a front-end loader or other acceptable method.

D. Culverts:

- Inspect culverts in the spring, in the late fall, and after heavy rains to remove any obstructions to flow.
- Remove accumulated sediments and debris at the inlet, at the outlet, and within the conduit.
- Inspect and repair any erosion damage at the culvert's inlet and outlet.

E. Underdrained Soil Filters:

- During the first year, the basin shall be inspected semi-annually and following major storm events.
- Debris and sediment buildup shall be removed from the forebay and basin as needed. Mowing of a grassed basin can occur semiannually to a height no less than 6 inches. Any bare area or erosion rills shall be repaired with new filter media or sandy loam then seeded and mulched. Maintaining good grass cover will minimize clogging with fine sediments and if ponding exceeds 48 hours, the top of the filter bed must be rototilled to reestablish the soil's filtration capacity.
- The soil filter should be inspected after every major storm in the first year to be sure it is functioning properly. Thereafter, the filter should be inspected at least once every six months to ensure that it is draining within 48 hours following a one inch storm or greater. Following storms that fill the system and overflow is observed, the soil filter should drain in no less than 36 to 60 hours. If the system drains too fast, an orifice may need to be added on the underdrain outlet or, if already present, may need to be modified.
- Soil Filter Replacement: The top several inches of the filter shall be replaced with fresh material when water ponds on the surface of the bed for more than 72 hours. Removed sediments should be disposed of in an acceptable manner.
- Sediment Removal: Sediment and plant debris should be removed from the pretreatment structure at least annually.
- Mowing: If mowing is desired, only handheld string trimmers or push-mowers are allowed on the filter (no tractor) and the grass bed should be mowed no more than 2 times per growing season to maintain grass heights of no less than 6 inches.
- Fertilization: Fertilization of the underdrained filter area should be avoided unless absolutely necessary to establish vegetation.
- Harvesting and Weeding: Harvesting and pruning of excessive growth will need to be done occasionally. Weeding to control unwanted or invasive plants may also be necessary.

F. Level Spreader:

- The level spreader pool should be inspected after rainfall events for sediment accumulation and debris that may reduce its capacity. Sediment and debris buildup should be removed once the volume of the pool has been reduced by 25%. The level berm must be constructed so that flows slowly seep across the berm as

sheet flow to the receiving downstream drainage way. Repair or reconstruction of the berm is required when flow from the spreader becomes channelized.

G. Gravel Wetland:

- During the first year, the basin shall be inspected semi-annually and following major storm events.
- Debris and sediment buildup shall be removed from the forebay and basin as needed. Any bare area or erosion rills shall be repaired with new filter media or sandy loam then seeded and mulched. Maintaining good vegetative cover will minimize clogging with fine sediments and if ponding exceeds 48 hours, the top of the filter bed must be rototilled to reestablish the soil's filtration capacity.
- The gravel wetland should be inspected after every major storm in the first year to be sure it is functioning properly. Thereafter, the filter should be inspected at least once every six months to ensure that it is draining within 48 hours following a one inch storm or greater. Following storms that fill the system and overflow is observed, the soil filter should drain in no less than 24 to 48 hours. If the system drains too fast, an orifice may need to be added on the underdrain outlet or, if already present, may need to be modified.
- Sediment Removal: Sediment and plant debris should be removed from the pretreatment structure at least annually.
- Check and clean the risers if there is evidence of standing water, discolored water or accumulated sediments in the cells.
- Removal any decaying vegetation, litter, and debris that may be found.
- Check for foreign species. Particular care must be used to avoid the unintended introduction of invasive species such as purple loosestrife (*Lythrum salicaria*) and common reed (*Phragmites australis*). It is recommended that a qualified wetland biologist be consulted when these are found in the area of the gravel wetland.
- Plant biomass shall be harvested annually.

3. **Documentation:**

- A. A log summarizing the inspections and any corrective action taken must be maintained. The log must include the name(s) and qualifications of the person making the inspections, the date(s) of the inspections, and major observations about the operation and maintenance of controls. Major observations must include BMPs that need maintenance, BMPs that failed to operate as designed or proved inadequate for a particular location, and locations where additional BMPs are needed. For each BMP requiring maintenance, BMP needing replacement, and location needing additional BMPs, note in the log the corrective action taken and when it was taken. The log must be made accessible to the appropriate regulatory agency upon request. A sample "Stormwater Inspection and Maintenance Form" has been included as Attachment 2 of this Inspection, Maintenance, and Housekeeping Plan.

4. **Maine DEP Recertification:** A certification of the following shall be submitted to the MDEP within three months of the expiration of each five-year interval from the date of issuance of MDEP permits.

- A. Identification and repair of erosion problems. All areas of the project site have been inspected for areas of erosion, and appropriate steps have been taken to permanently stabilize these areas.
 - B. Inspection and repair of stormwater control system. All aspects of the stormwater control system have been inspected for damage, wear, and malfunction, and appropriate steps have been taken to repair or replace the system, or portions of the system.
 - C. The Inspection, Maintenance, and Housekeeping Plan for the site is being implemented as written, or modifications to the plan have been submitted to and approved by the MDEP, and the maintenance log is being maintained.
5. **Duration of Maintenance:** Perform maintenance as described and required for any associated permits unless and until the system is formally accepted by a municipality or quasi-municipal district, or is placed under the jurisdiction of a legally created association that will be responsible for the maintenance of the system. If a municipality or quasi-municipal district chooses to accept a stormwater management system, or a component of a stormwater system, it must provide a letter to the MDEP stating that it assumes responsibility for the system. The letter must specify the components of the system for which the municipality or district will assume responsibility, and that the municipality or district agrees to maintain those components of the system in compliance with MDEP standards. Upon such assumption of responsibility, and approval by the MDEP, the municipality, quasi-municipal district, or association becomes a co-permittee for this purpose only and must comply with all terms and conditions of the permit.

Attachments

Attachment 1 – Stormwater Inspection and Maintenance Log Form

ATTACHMENT 1 – STORMWATER INSPECTION AND MAINTENANCE LOG**FALLBROOK COMMONS
PORTLAND, MAINE**

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

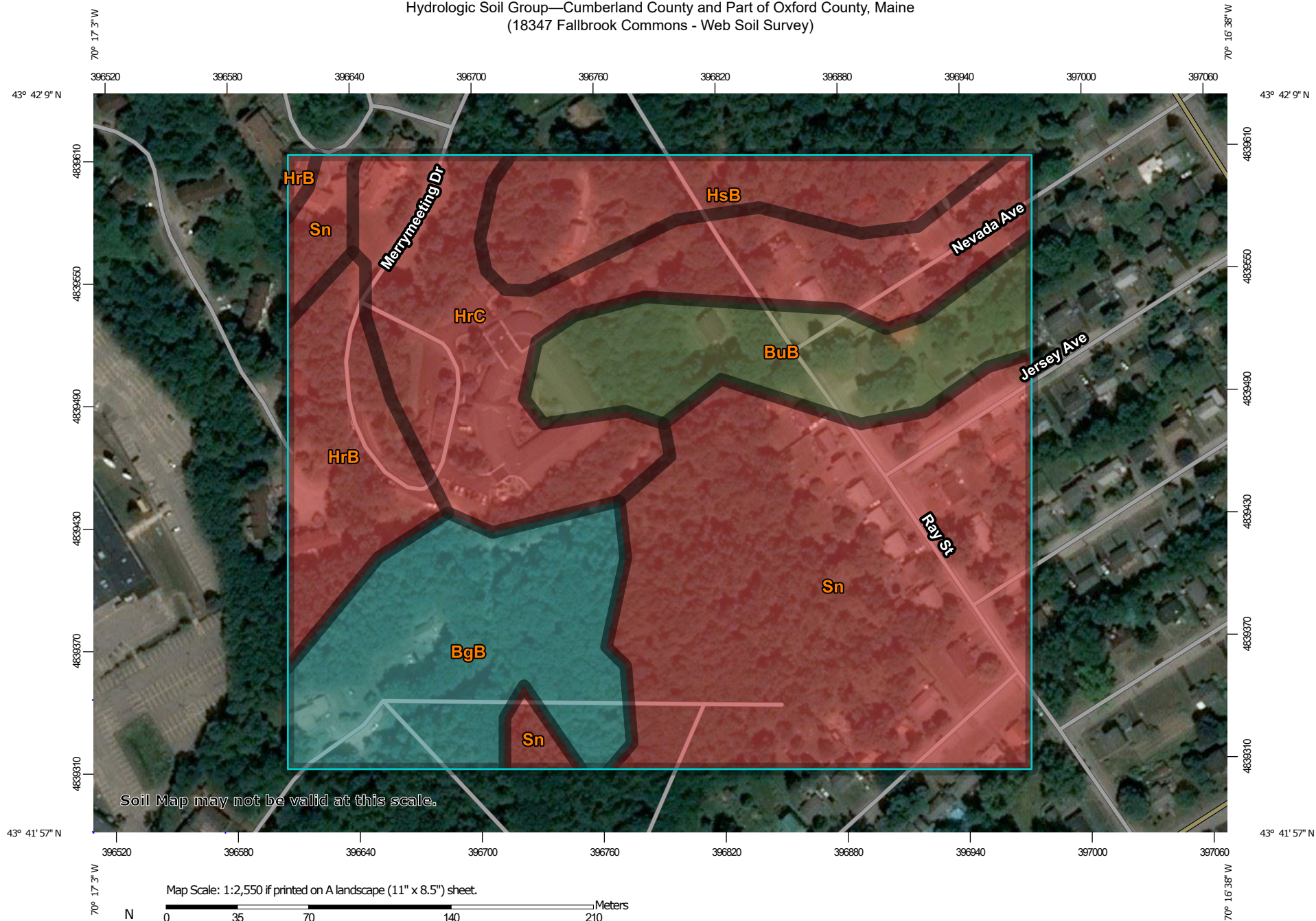
	INSPECTOR NAME	DATE PERFORMED	SUGGESTED INTERVAL
Vegetated Areas			
Inspect all slopes and embankments			Annually
Replant bare areas or areas with sparse growth			Annually
Paved Surfaces			
Clear accumulated winter sand			Annually
Remove sediment along edges and in pockets			Annually
Ditches & Swales			
Remove any obstructions and accumulated sediments and debris			Monthly
Repair any erosion of ditch lining			Annually
Mow vegetated ditches			Annually
Remove woody vegetation growing through riprap			Annually
Repair any slumping side slopes			Annually
Replace riprap where stones have dislodged			Annually
Level Spreader			
Remove sediment			Monthly
Check for evidence of channelized flow over berm			Monthly
Erosion (side slopes, embankment)			Monthly
Mowed			Semi-Annually
Culverts			
Remove accumulated sediments and debris at the inlet, outlet, within conduit			Annually
Repair any erosion at inlet and outlet			Annually
Sump Depth			Annually

Underdrained Soil Filters				
	Remove sediment & debris			Monthly
	Remove weeds			Monthly (during growing season)
	Erosion (side slopes, embankment)			Monthly
	Inspection after major storm to verify proper function			Bi-Annually
Gravel Wetland				
	Remove sediment & debris			Monthly
	Check and clean the risers			Monthly
	Erosion (side slopes, embankment)			Monthly
	Inspection after major storm to verify proper function			Bi-Annually
	Remove decaying vegetation, litter and debris			As-needed

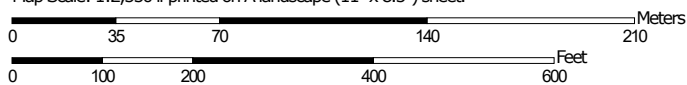
Appendix 5

Web Soil Survey

Hydrologic Soil Group—Cumberland County and Part of Oxford County, Maine (18347 Fallbrook Commons - Web Soil Survey)



Map Scale: 1:2,550 if printed on A landscape (11" x 8.5") sheet.



Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 19N WGS84



**Natural Resources
Conservation Service**

Web Soil Survey
National Cooperative Soil Survey

11/4/2019
Page 1 of 4

MAP LEGEND

Area of Interest (AOI)

Area of Interest (AOI)

Soils

Soil Rating Polygons

-  A
-  A/D
-  B
-  B/D
-  C
-  C/D
-  D
-  Not rated or not available

Soil Rating Lines

-  A
-  A/D
-  B
-  B/D
-  C
-  C/D
-  D
-  Not rated or not available

Soil Rating Points

-  A
-  A/D
-  B
-  B/D

-  C
-  C/D
-  D
-  Not rated or not available

Water Features

-  Streams and Canals

Transportation

-  Rails
-  Interstate Highways
-  US Routes
-  Major Roads
-  Local Roads

Background

-  Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Cumberland County and Part of Oxford County, Maine
Survey Area Data: Version 16, Sep 16, 2019

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

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

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

Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
BgB	Nicholville very fine sandy loam, 0 to 8 percent slopes	C	4.2	15.4%
BuB	Lamoine silt loam, 3 to 8 percent slopes	C/D	3.0	11.0%
HrB	Lyman-Tunbridge complex, 0 to 8 percent slopes, rocky	D	2.2	8.1%
HrC	Lyman-Tunbridge complex, 8 to 15 percent slopes, rocky	D	6.0	22.0%
HsB	Lyman-Abram complex, 0 to 8 percent slopes, very rocky	D	2.3	8.6%
Sn	Scantic silt loam, 0 to 3 percent slopes	D	9.6	35.0%
Totals for Area of Interest			27.3	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

Appendix 6

FEMA Map

Appendix 7

Form F: Soil Profile/Classification Information

Detailed Description of Subsurface Conditions at Project Sites

[illegible]

SOIL PROFILE/CLASSIFICATION INFORMATION

Detailed Description of Subsurface Conditions at Project Sites

Project Name: FALLBROOK COMMONS	Applicant Name: SANDY RIVER COMPANY	Project Location (municipality): PORTLAND
---	---	---

SOIL DESCRIPTION AND CLASSIFICATION				
DEPTH BELOW MINERAL SOIL SURFACE (inches)	Exploration Symbol: TP-105 ☒ Test Pit ☐ Boring			
	1-2" Depth of Organic Horizon Above Mineral Soil			
	Texture	Consistency	Color	Mottling
	1	LOAM	FRIABLE	2.5Y 4/3 OLIVE BROWN
	2			
	3			
	4			
	5			
	6			
	7			
	8			
	9			
	10			
	11			
	12			
	13			
	14			
	15			
	16			COMMON, MEDIUM, DISTINCT
	17			
18				
19				
20	SILT LOAM	FIRM	5Y 5/2 OLIVE GRAY	
21				
22				
23				
24				
25				
26				
27				
28				
29				
30				
31				
32				
33				
34				
35				
36				
37				
38				
39				
40				
41				
42				
43				
44				
45				
46				
47				
48				
49				
50				
51				
52				
53				
54				
55				
56				
57				
58				
59				
60				
61				
62				
63				
64				
65				
66				
67				
68				
69				
70				
71				
72				
73				
74				
75				
76				
77				
78				
79				
80				
81				
82				
83				
84				
85				
86				
87				
88				
89				
90				
91				
92				
93				
94				
95				
96				
97				
98				
99				
100				
101				
102				
103				
104				
105				
106				
107				
108				
109				
110				
111				
112				
113				
114				
115				
116				
117				
118				
119				
120				
121				
122				
123				
124				
125				
126				
127				
128				
129				
130				
131				
132				
133				
134				
135				
136				
137				
138				
139				
140				
141				
142				
143				
144				
145				
146				
147				
148				
149				
150				
151				
152				
153				
154				
155				
156				
157				
158				
159				
160				
161				
162				
163				
164				
165				
166				
167				
168				
169				
170				
171				
172				
173				
174				
175				
176				
177				
178				
179				
180				
181				
182				
183				
184				
185				
186				
187				
188				
189				
190				
191				
192				
193				
194				
195				
196				
197				
198				
199				
200				
201				
202				
203				
204				
205				
206				
207				
208				
209				
210				
211				
212				
213				
214				
215				
216				
217				
218				
219				
220				
221				
222				
223				
224				
225				
226				
227				
228				
229				
230				
231				
232				
233				
234				
235				
236				
237				
238				
239				
240				
241				
242				
243				
244				
245				
246				
247				
248				
249				
250				
251				
252				
253				
254				
255				
256				
257				
258				
259				
260				
261				
262				
263				
264				
265				
266				
267				
268				
269				
270				
271				
272				
273				
274				
275				
276				
277				
278				
279				
280				
281				
282				
283				
284				
285				
286				
287				
288				
289				
290				
291				
292				
293				
294				
295				
296				
297				
298				
299				
300				
301				
302				
303				
304				
305				
306				
307				
308				
309				
310				
311				
312				
313				
314				
315				
316				
317				
318				
319				
320				
321				
322				
323				
324				
325				
326				
327				
328				
329				
330				
331				
332				
333				
334				
335				
336				
337				
338				
339				
340				
341				
342				
343				
344				
345				
346				
347				
348				
349				
350				
351				
352				
353				
354				
355				
356				
357				
358				
359				
360				
361				
362				
363				
364				
365				
366				
367				
368				
369				
370				
371				
372				
373				
374				
375				
376				
377				
378				
379				
380				
381				
382				
383				
384				
385				
386				
387				
388				
389				
390				

Section 13

Urban Impaired Stream Submissions

Section 13**Urban Impaired Stream Standard**

Not applicable. The proposed project is within the watershed of an unnamed stream that is a tributary of the Presumpscot River, which is not classified as most-at-risk in the Chapter 502: Direct Watersheds of Lakes Most at Risk from New Development, And Urban Impaired Streams. Chapter 500 Stormwater Phosphorus Standards do not apply.

Section 14

Basic Standards Submissions

Basic Standards**Erosion & Sediment Control**

The design of the Fallbrook Commons facility has incorporated best management practices to minimize the potential for erosion and the transport of sediments from the construction activities. An Erosion and Sediment Control Plan has been prepared and is included in this section of the application and includes provisions for inspection, maintenance, and winter erosion control measures. Specific erosion control measures and their associated construction details are included on the design plans for the proposed development.

The site contractor for the project will be responsible for the maintenance of all erosion and sedimentation control measures during the construction of the project, and the keeping of records. At a minimum, the appropriate and relevant activities for each of the erosion and sedimentation control measures will be performed on the prescribed schedule.

- A. Siltation fencing needs to be inspected every seven days or after a major rainfall event to assure that debris or sediments do not reduce the effectiveness of the system. Any breaches in the siltation fencing should be repaired immediately. Any sediment which leaves the project site must be removed immediately. Siltation fencing shall be repaired in accordance with installation instruction shown on the project plan set.
- B. Stabilized construction entrances shall be maintained in a condition which will prevent tracking or flowing of sediment onto public right-of-way. This may require periodic top dressing with additional stone as conditions demand and repair and/or cleanout of any measures used to trap sediment. All sediment spilled dropped washed or tracked onto public right-of-way must be removed immediately.
- C. Following the temporary and/or final seeding the contractor shall inspect the work area semimonthly until the seeding has been established. Established means a minimum 85%-90% of areas vegetated with vigorous growth. Reseeding shall be carried out by the contractor with follow-up inspections in the event of any failures until vegetation is adequately established.
- D. The contractor must install any added measures which may be necessary to control erosion/sedimentation from the site dependent on the site and actual weather conditions.
- E. Maintenance measures shall be applied as needed during the entire construction cycle. After each rainfall, snow storm or period of thawing and runoff or at least every seven days, the contractor shall perform a visual inspection of all installed erosion control measures. The contractor shall perform repairs as needed to allow continued and proper functioning of the erosion control measure. The contractor shall provide the necessary regulating agencies with written documentation describing dates of inspections and any necessary follow up work to maintain erosion control measures meeting the requirements of the plan set.
- F. Care should be taken not to disturb erosion control measures during snowplowing. Any damage to erosion control measures during plowing should be repaired immediately.

Section 15

Groundwater

Groundwater**A. Narrative and Report****1. Location**

See this Section for a copy of a Bedrock & Surficial Geology map and a Sand & Gravel Aquifers map with the project location depicted.

2. Quantity

There will be no groundwater use or underground wastewater disposal. Potable water will be provided by the Portland Water District. It is estimated that approximately 16,000 gallons per day (gpd) will be required to service this facility.

3. Sources

The project does not involve any new facilities that would result in an increase in quantities of wastewater, solid waste, fuel or solvents to the project area groundwater. The project will be serviced by municipal sewer and no discharging to the groundwater is proposed other than from stormwater runoff and discharge from infiltration basins.

4. Measures to Prevent Degradation

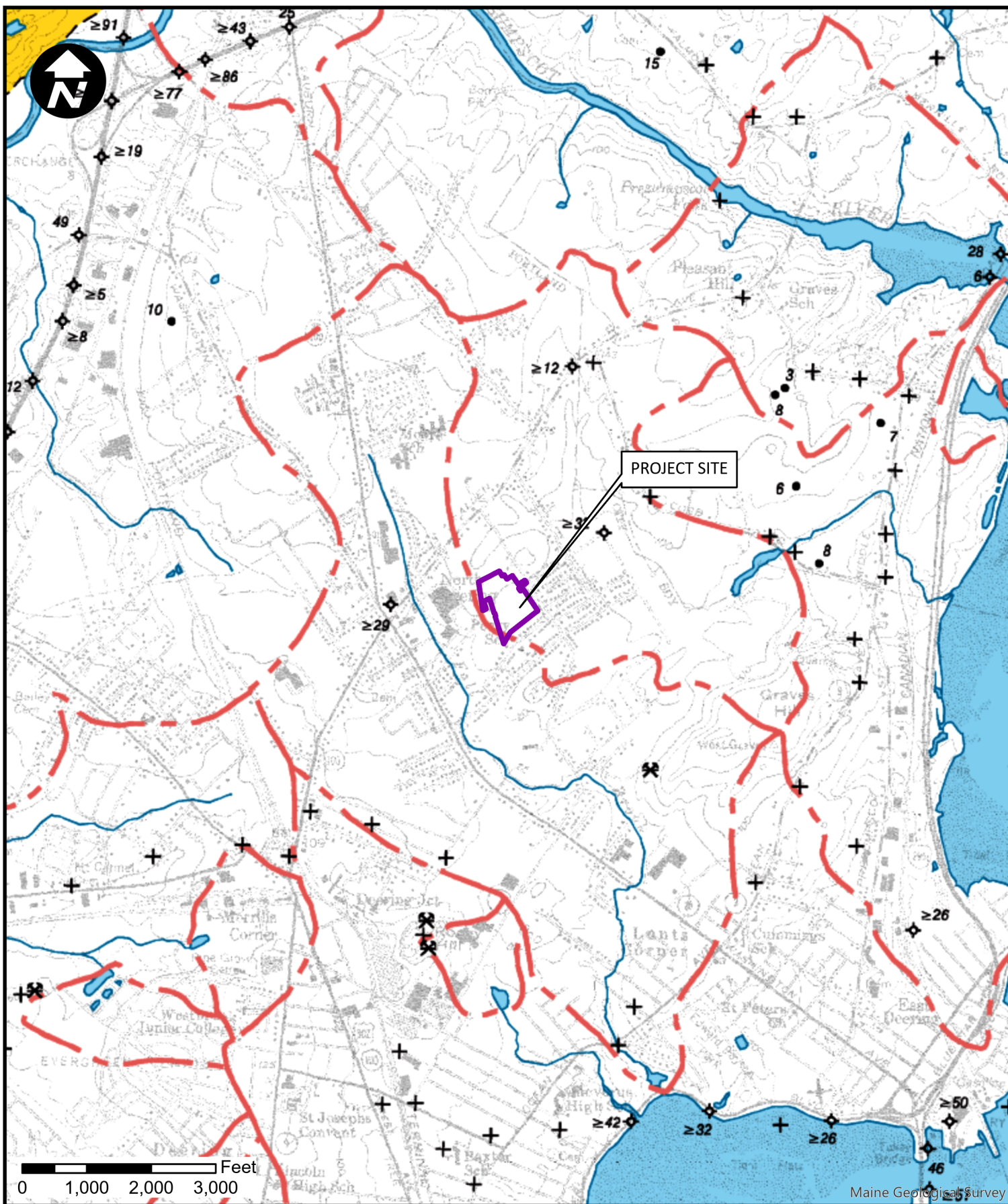
All impervious drainage areas associated with streets, drives and walkways are directed to stormwater management facilities designed to current DEP treatment standards. Please see the plan set for more detailed information.

B. Groundwater Protection Plan

There are no development plans to store or use petroleum products, pesticides, herbicides, road salt, solvents, acids or other materials with the potential to contaminate groundwater.

C. Monitoring Plan

Not applicable.



PROJECT SITE

0 1,000 2,000 3,000 Feet

Maine Geological Survey

SEBAGO
TECHNICS

WWW.SEBAGOTECHNICS.COM

75 John Roberts Rd. - Suite 4A
South Portland, ME 04106
Tel. 207-200-2100

SIGNIFICANT SAND AND GRAVEL AQUIFERS MAP FOR: FALLBROOK NURSING CENTER

LOCATION:

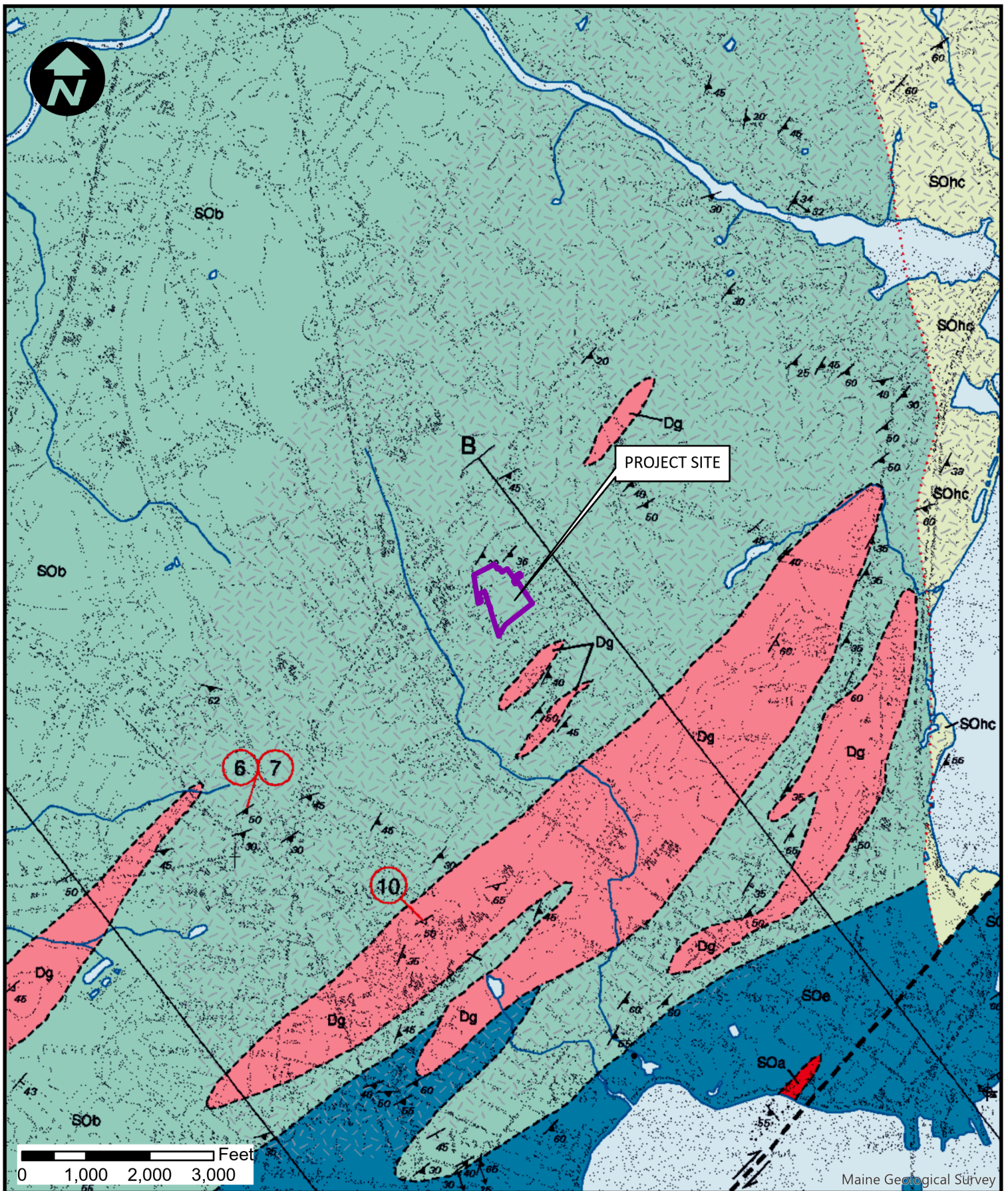
60 MERRYMEETING DRIVE
PORTLAND, ME

INFORMATION:

Maine Geological Survey_
Significant Sand and Gravel Aquifer Maps: Portland West Quad

SCALE: 1:24,000

DATE: 11/21/2019



Maine Geological Survey

SEBAGO
TECHNICS

WWW.SEBAGOTECHNICS.COM

75 John Roberts Rd. - Suite 4A
South Portland, ME 04106
Tel. 207-200-2100

BEDROCK GEOLOGY MAP FOR: FALLBROOK NURSING CENTER

LOCATION:

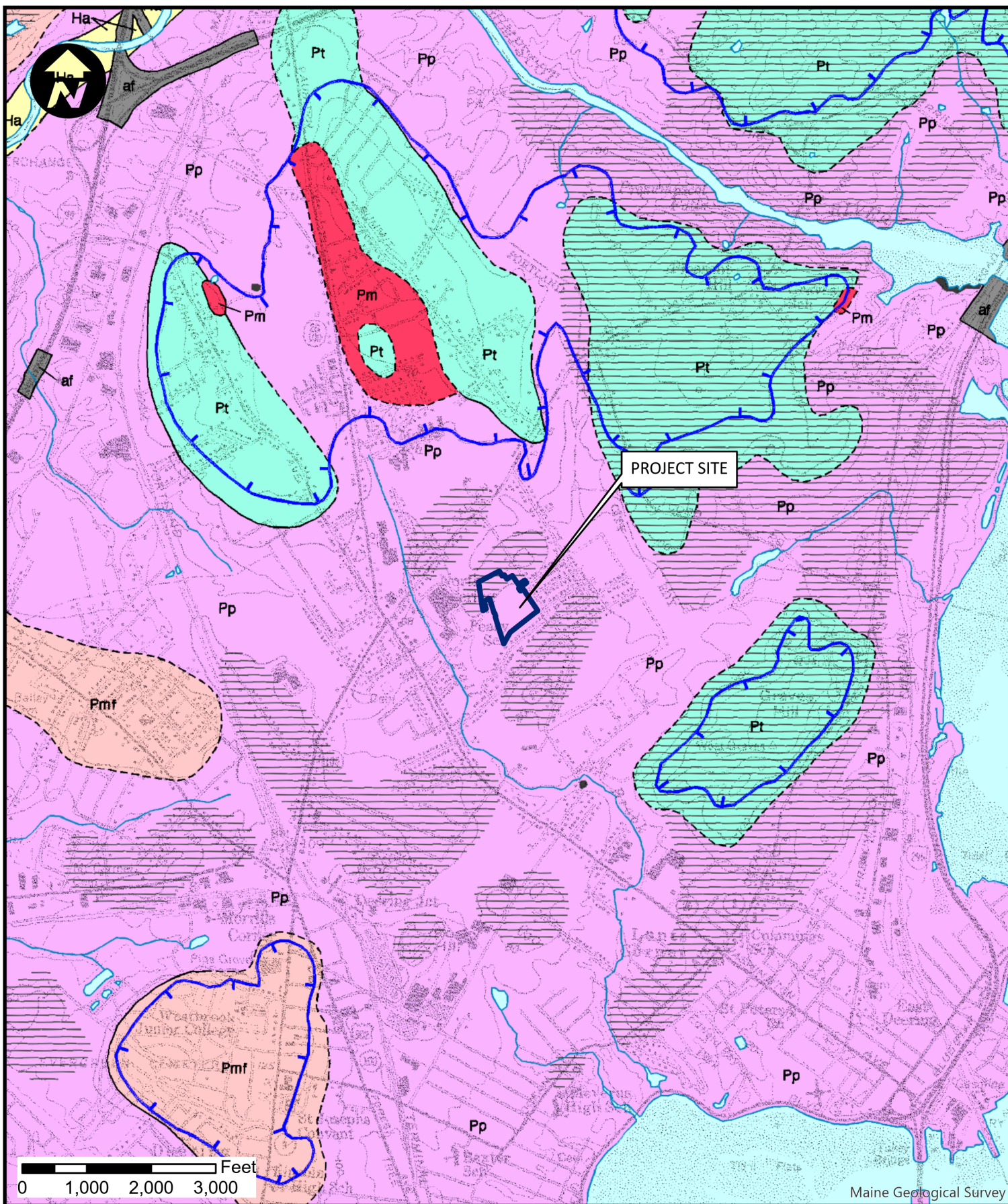
60 MERRYMEETING DRIVE
PORTLAND, ME

INFORMATION:

Maine Geological Survey_
Bedrock Geology Maps: Portland West Quad

SCALE: 1:24,000

DATE: 11/21/2019



SEBAGO
TECHNICS

WWW.SEBAGOTECHNICS.COM

75 John Roberts Rd. - Suite 4A
South Portland, ME 04106
Tel. 207-200-2100

SURFICIAL GEOLOGY MAP FOR: FALLBROOK NURSING CENTER

LOCATION:

60 MERRYMEETING DRIVE
PORTLAND, ME

INFORMATION:

Maine Geological Survey_
Surficial Geology Maps: Portland West Quad

SCALE: 1:24,000

DATE: 11/21/2019

Section 16

Water Supply

Water Supply**A. Water Supply Method**

The development will be serviced by municipal water supplied by the Portland Water District. It is anticipated that the facility will require approximately 16,000 gpd of water.

The Portland Water District has been contacted for confirmation of capacity. Please see this Section for the correspondence to the Portland Water District.

B. Subsurface Wastewater Disposal

Not applicable. The development will be serviced by municipal sanitary sewer.

C. Total Usage

The proposed improvements will result in approximately 16,000 gpd total water usage for the site.

D. Other

Not applicable.



October 2019
18347

MEANS
Portland Water District
225 Douglas Street
PO Box 3553
Portland, ME 04104

Request for Ability to Serve Letter
MEANS, Portland, Maine

Dear MEANS,

Sebago Technics has been retained as the civil engineer and landscape architect for a senior care facility in Portland named Fallbrook Health Center. This licensed facility will provide services in an assisted living environment. As depicted on the attached location map, the project site is located on Ray Street next to Fallbrook Woods assisted living facility. We anticipate extending the water main under Merrymeeting drive, to serve our project.

I am writing to request a capacity to serve letter for this project to submit to the Portland Planning Board as part of our site plan review application. The design flow for the new facility is expected to produce approximately 16,000 Gallons Per Day.

Please let me know if you have any questions or concerns; we look forward to working with the District as the project moves forward. Thank you.

Sincerely,

SEBAGO TECHNICS, Inc.

A handwritten signature in black ink, appearing to read "Dan Danvers", with a long horizontal flourish extending to the right.

Daniel M. Danvers, RLA
Maine Licensed Landscape Architect

DMD/Ilg
Enc.

cc: Daniel Maguire, Sandy River II

Section 17

Wastewater Disposal

Wastewater Disposal**A. On-Site Subsurface Wastewater Disposal Systems**

Not applicable. The project will not be serviced by individual on-site sewage disposal systems.

B. Nitrate-Nitrogen Impact Assessment

Not applicable. As no individual or common subsurface sewage disposal systems are proposed for this project, no hydrogeological or nitrate-nitrogen impact assessment is required.

C. Municipal Facility or Utility Company Letter

The proposed project involves the construction of a 90-bed nursing care center. The project site has not been previously developed. It is anticipated that the proposed development will require wastewater disposal needs of approximately 16,000 gpd.

The City of Portland has been contacted. Please see this Section for a copy of the correspondence to date and for the proposed pump station design

D. Wastewater Discharge Information

The proposed development will not discharge any liquid waste into any stream, river, pond, lake or other body of water.

E. Storage or Treatment Lagoons

The proposed development will not include any lagoons, impoundments, ponds or similar structures for storage involving liquid waste other than stormwater.

Pump Station Design

Building/Phase	Type of Use	# of units/SF	flow/unit	Total
Site				
	50	employees	12 gpd/employee	600 gpd
	90	beds	125 gpd/bed	11,250 gpd
			Total	11,850 gpd

Project flow from Mechanical Engineer 16,000 gpd

Higher Total Flow 16,000 gpd

Peak Factor, Peak Day 3.0

Peak Day = 3.0 x Average Daily Flow (ADF) = 48,000 gpd

Peak Factor, Peak Hour 5.6

Operating hours per day 16 hr

Peak Hour = 5.6 x ADF / 720 min/day (16 hour day) = 93.3333 gpm

Inflow/ Infiltration (I/I) Allowance

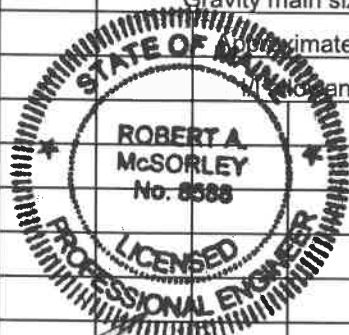
Gravity main size: 8 inches

Approximately 0 linear feet (0 miles) of 8" sewer line

Allowance = 250 gpd/inch diameter of pipe in inches/mile of sewer

Flow from Inflow/Infiltration = 0 gpd

Peak Hour = 0.00 gpm



[Signature]
11/1/19



75 John Roberts Road, Suite 4A
South Portland, Maine 04106

(207) 200-2100 FAX (207) 856-2206

JOB Fallbrook Nursing

SHEET NO. 2 OF 5

CALCULATED BY BAW DATE 10/30/2019

CHECKED BY RAM DATE 10/30/2019

FILE NAME 18347 Pump Station 2019-10-30

Cycle times for given flow rates and wetwell size: Buildout

Average wastewater flow =												16,000	GPD, or	16.67	GPM				
Peak Flow =												100.00	GPM =	6000	GPH				
Minimum Flow =												2.3	GPM =	140	GPH				
Proposed Forcemain size =												4	inches	HPDE DR 11		minimum velocity	3	fps	
Min. pump rate (larger of 1.50 x peak or min fm flow) =												GPM	150	GPM					
Use												150	GPM	50%	more than peak				
Diameter of wet well =												6	feet, so radius=	3	ft				
Travel (pump on to pump off) =												24	inches, or	2	ft				
So working volume =												56.5	cubic feet, or	423.0	gal.				
Is pump station for a septic field?												no							
For average design flow:																			
Effective pumping rate =												150	gpm -	16.67	gpm =	133.33	gpm		
Pump cycle =												423.0	gal /	133.3	gpm =	3.17	min		
Fill time =												423.0	gal /	16.67	gpm =	25.38	min		
Total cycle =														28.56	min or	0.48	hours		
Summary: Pump starts 2x/hour. Using alternating pumps																			
Peak on Maximum Day (Average x 6.0)																			
Effective pumping rate =												150	gpm -	100.00	gpm =	50.00	gpm		
Pump cycle =												423.0	gal /	50.0	gpm =	8.46	min		
Fill time =												423.0	gal /	100.00	gpm =	4.23	min		
Total cycle =														12.69	min or	0.21	hours		
Extreme minimum on minimum day (Average x 0.14)																			
Effective pumping rate =												150	gpm -	2.33	gpm =	147.67	gpm		
Pump cycle =												423.0	gal /	147.7	gpm =	2.86	min		
Fill time =												423.0	gal /	2.33	gpm =	181.30	min		
Total cycle =														184.17	min or	3.07	hours		



75 John Roberts Road, Suite 4A

South Portland, Maine 04106

(207) 200-2100 FAX (207) 856-2206

JOB Fallbrook Nursing

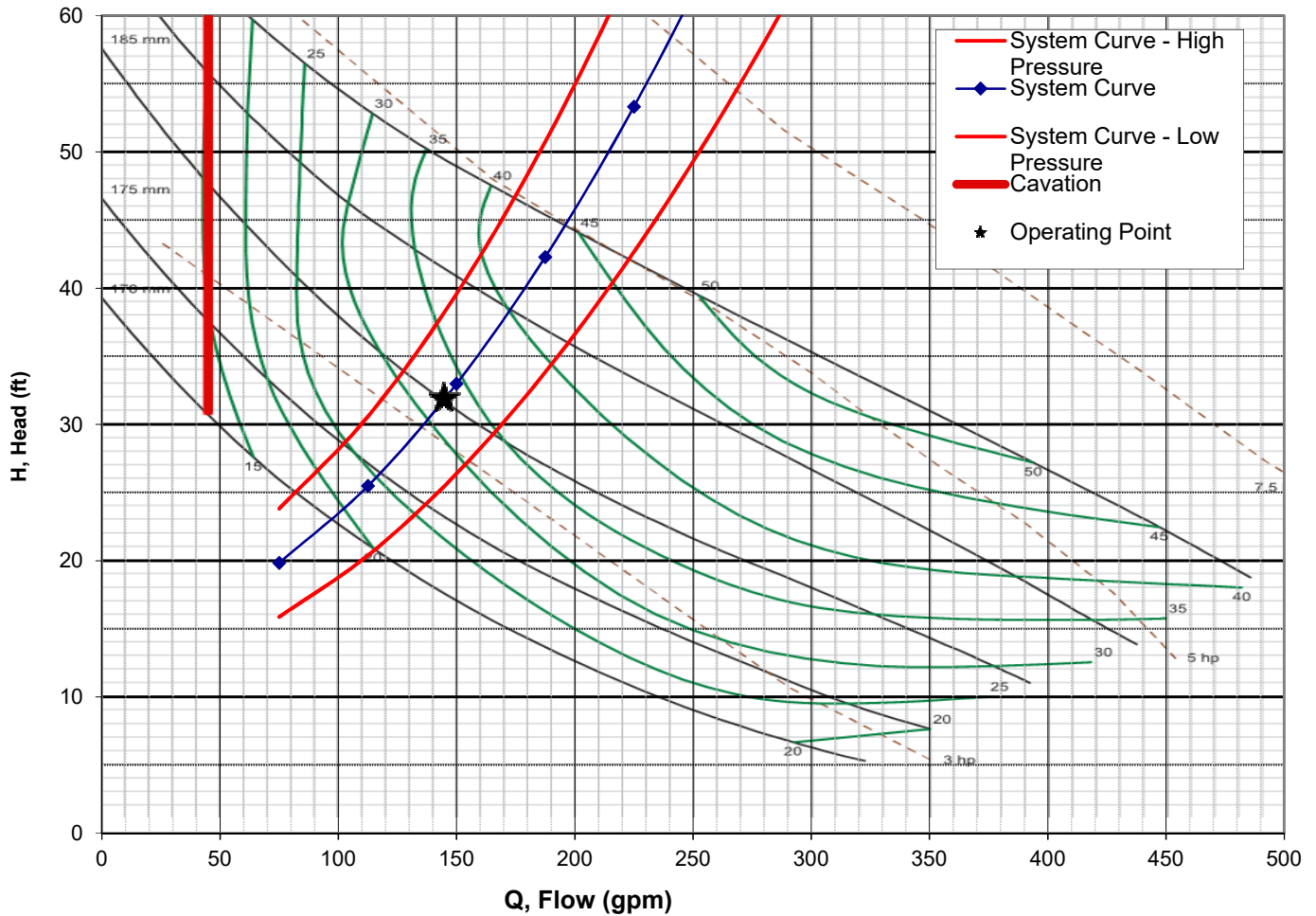
SHEET NO. 4 OF 5

CALCULATED BY BAW DATE 10/30/2019

CHECKED BY RAM DATE 10/30/2019

FILE NAME 18347 Pump Station 2019-10-30

Fallbrook Nursing



Duplex Barnes Sithe chopper, Model 3XSCMPA50N4, pump will flow **145** gpm at **32** ft TDH

5.0 H.P., 15.0 A, 230 Volt, 3 Phase, 60 Hz motor operating at 1750 RPM with 185mm impellor.

Velocity in **4** (in) HPDE DR 11 force main will be 4.5 ft/s

Flow	Pump	Fill	Total			
Low	2.97	181.3	184.3	min	3.07	hrs
Avg	3.30	25.38	28.68	min	0.48	hrs
Peak	9.40	4.23	13.63	min	0.23	hrs

Check cycle times



75 John Roberts Road, Suite 4A
South Portland, Maine 04106

(207) 200-2100 FAX (207) 856-2206

JOB Fallbrook Nursing
SHEET NO. 5 OF 5
CALCULATED BY BAW DATE 10/30/2019
CHECKED BY RAM DATE 10/30/2019
FILE NAME 18347 Pump Station 2019-10-30

FLOATATION CALCULATIONS									
PARAMETERS:									
1.	STATION TYPE(TREMIE/MONO/PACKAGE) =						MONO		
2.	DENSITY OF CONCRETE =						150.00	#/C.F.	
3.	GRANULAR BACKFILL =						120.00	#/C.F.	
4.	WETWELL DIAMETER =						6.00	FEET	
5.	WALL THICKNESS =						7.00	INCHES	
6.	TOP OF STATION ELEVATION =						90.50	N.A.V.D.	
7.	FINISHED GROUND ELEVATION (-8")=						89.83	N.A.V.D.	
8.	TOP OF BASE ELEVATION =						77.00	N.A.V.D.	
9.	THICKNESS OF TOP =						8.00	INCHES	
10.	THICKNESS OF BASE(MONO/PACKAGE) =						8.00	INCHES	
11.	WIDTH OF MONO SLAB = 12.00 IN						BASE DIAMETER =	110.00	INCHES
12.	THICKNESS OF TREMIE/FLOOR =							INCHES	
13.	AREA OF HATCH =						10.00	SQ. FEET	
BOUYANCY OF STRUCTURE:									
	CYLINDER =						544.58	CUBIC FEET	
	BASE =						44.00	CUBIC FEET	
	TOTAL =						588.57	CUBIC FEET	
BOUYANCY FORCE = VOLUME OF STRUCTURE x WEIGHT OF WATER(62.4 #/C.F.)									
	BOUYANCY FORCE =						36,726.91	POUNDS	
WEIGHT OF STRUCTURE:									
	BASE/TREMIE =						44.00	CUBIC FEET	
	CYLINDER =						154.83	CUBIC FEET	
	FILLET =						20.55	CUBIC FEET	
	TOP =						26.89	CUBIC FEET	
	HATCH =						-6.67	CUBIC FEET	
	TOTAL =						239.60	CUBIC FEET	
WEIGHT OF STRUCTURE = VOLUME OF CONCRETE x WEIGHT OF CONCRETE(150 #/C.F.)									
	WEIGHT OF STRUCTURE =						35,940.44	POUNDS	
WEIGHT OF OVERBURDEN:									
	VOLUME OF OVERBURDEN =						329.26	CUBIC FEET	
WEIGHT OF OVERBURDEN = VOLUME OF OVERBURDEN x DRY WEIGHT OF SOIL(120 #/C.F.)									
	WEIGHT OF OVERBURDEN =						18,965.17	POUNDS	
	TOTAL DOWNWARD FORCES =						54,905.61	POUNDS	
	FACTOR OF SAFETY =						1.49	OK	

Section 18

Solid Waste

Solid Waste**A. Estimated Quantities of Solid Waste**

The proposed development involves the construction of a 90-bed nursing care center. The proposed facility is expected to generate average quantities of waste as follows:

Construction Phase: The proposed improvements will result in approximately 488.85 c.y. of construction waste.

$$\begin{aligned} 58,197 \text{ s.f. facility} \times 4.2 \text{ lbs waste} &= 244,427 \text{ lbs of waste} \\ 244,427 \text{ lbs} / 500 \text{ lbs} &= 488.85 \text{ c.y. of waste} \end{aligned}$$

Municipal Solid Waste: Municipal solid waste (MSW) will be collected by a private hauler. The proposed facility has been designed to accommodate 90-beds and is anticipated to generate approximately 450 lbs of MSW a day.

$$\begin{aligned} \text{Proposed solid waste:} \\ 90 \text{ beds} \times 5 \text{ lbs per day} &= 450 \text{ lbs of waste per day.} \end{aligned}$$

Source - National Solid Waste Management Association
https://www.wastecare.com/usefulinfo/Waste_Generated_by_Industry.htm

B. Off-Site Disposal of Construction/Demolition Debris

Construction debris associated with building construction, including clean wood, material packaging, cardboard, etc. will be collected in onsite construction dumpsters. It is recommended that the contractor separate waste into 3 or 4 roll-off dumpsters. The waste material should be separated into the following types: wood, metal, all other material, and possibly cardboard (for recycling). Construction debris, waste generation is anticipated to be approximately 488.85 cubic yards. It will be the responsibility of the site contractor to remove this building waste from the site during construction. All construction waste will be transported and disposed of off-site by a licensed hauler to a local construction material recycling facility.

C. On-Site Disposal of Wood Waste/Land Clearing Debris

Any stumps or grubbing from the site will be ground on-site by a portable stump grinder and used as mulch in the stabilization of back slopes and for erosion control. It is acknowledged that the grinding must be completed within a 30-day time period if a DEP permit has not been obtained. Material that has been ground and is not being used on-site must be hauled off-site within a time-period of 30 days from the end of the grinding process by a licensed Non-Hazardous Waste Transporter.

D. **Special or Hazardous Waste**

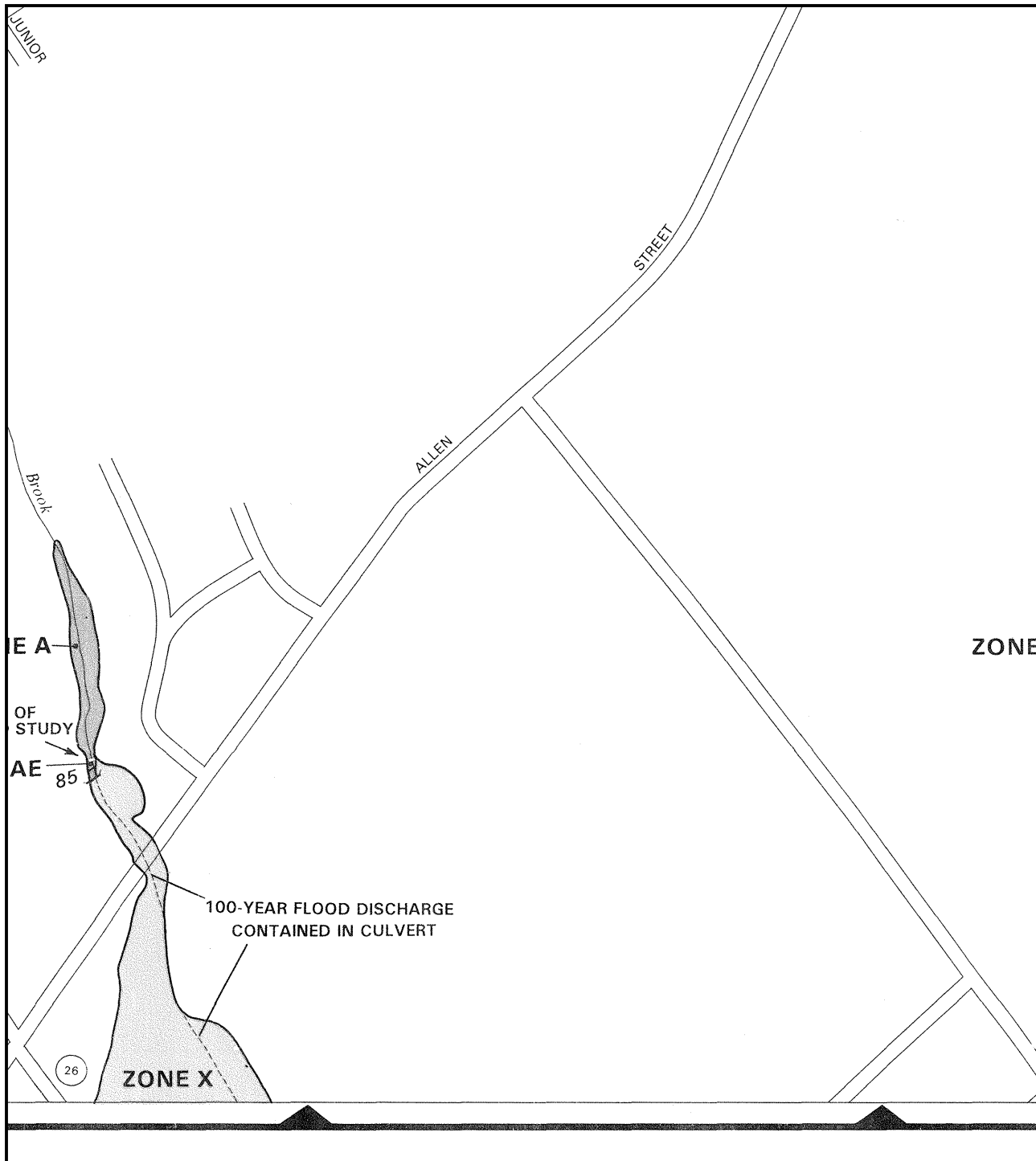
Not applicable. Past use of the site does not indicate that contaminated soils or other potential hazards to human health or the environment will be found during grading and excavation of the site, nor were any hazards visually apparent during the environmental site assessment field visits. Any hazardous material used during construction should be disposed of per applicable Federal and State laws regarding the detection, identification, handling, storage, transportation and disposal of special wastes and hazardous wastes.

Section 19

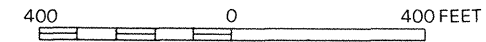
Flooding

Section 19**Flooding**

The Flood Insurance Rate Map (FIRM) for the City of Portland (Community Panel 230051 0002C, dated December 8, 1998) identifies the majority of the project site to be in an area of minimal flooding. It is not anticipated that the proposed project will cause or increase flooding, or create any flood hazard areas.



APPROXIMATE SCALE



NATIONAL FLOOD INSURANCE PROGRAM

FIRM
FLOOD INSURANCE RATE MAP

CITY OF
PORTLAND,
MAINE
CUMBERLAND COUNTY

PANEL 2 OF 17
(SEE MAP INDEX FOR PANELS NOT PRINTED)

COMMUNITY-PANEL NUMBER
230051 0002 C

MAP REVISED:
DECEMBER 8, 1998



Federal Emergency Management Agency

This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at www.msc.fema.gov

Section 20

Blasting

Blasting

Given the nature of the site it is anticipated that blasting will be required. Should ledge be encountered during construction, a blasting plan will be submitted for approval that has been developed to be in compliance with the accepted limit for safe levels of blasting vibrations as developed by the U.S. Bureau of Mines as presented in Appendix B of the U.S. Bureau of Mines, RI 8507.

Blasting Requirements

Should blasting be necessary, we recommend that the following controls be implemented for the project:

The Contractor should comply with all applicable laws, rules, ordinances, and regulations of the federal government, the State of Maine, and the City of Portland governing transportation, storage, handling and use of explosives.

Prior to the start of rock excavation or blasting work, notices should be sent to residents and businesses in the area describing the blasting and rock excavation work, indicating the approximate schedule of work, and describing blasting procedures, mitigation measures, and blast warning signals.

Prior to the start of blasting work, pre-blast condition surveys should be conducted of all existing structures and conditions on the site, adjacent to the site, or in the vicinity of the site. These surveys should extend to such structures, wells, or an item that may be affected by the Contractor's blasting operations. As a minimum, condition surveys should be performed on all structures within a half-mile of anticipated blasting areas.

Prior to the start of blasting work, the Contractor should submit to the engineer for review a blasting plan containing details of proposed blasting and construction operations including:

- A. Sequence and schedule of blasting rounds including the general sequence of drilling, blasting, excavating, etc.
- B. Specifics of typical blast rounds and open cut blast rounds in deepest rock cut areas and areas closest to existing structures.
- C. In each area specified, include the following blast round details:
 - Diameter, spacing, burden, depth and orientation of each blast hole for each round design.
 - Nomenclature and amount (in terms of weight and number of cartridges) of explosives and distribution of charge to be used within each hole, on each delay,

and the total for the blast.

- Nomenclature and type of detonators and delay pattern for the round.
 - Type and location of stemming to be used in holes.
 - Calculations of anticipated vibration levels at nearest adjacent structure or well.
- D. Specifics of Test Blasts to check effectiveness and vibration characteristics of typical trench and open cut blasting rounds.
- E. Methods of matting or covering the blast area to prevent fly rock and excessive air blast overpressure.
- F. Name and qualifications of licensed blaster who will be on site at all times directly supervising the loading and detonation of each blast.
- G. Name and qualifications of the person responsible for conducting pre-blast condition surveys.
- H. Name and qualifications of the person responsible for monitoring and reporting blast vibrations.
- I. Details of an audible advance signal system to be employed at the job site as a means of informing workers, Engineer, Architect, Owner, and the general public that a blast is about to occur. Details of access control during blasting.

The Contractor should conduct all blasting activity in such a manner that the peak particle velocity of ground vibration measured at the locations of the nearest structures or wells to the blast does not exceed the “safe limits” recommended by the U.S. Bureau of Mines as presented in Figure B-1 of Appendix B of U.S. Bureau of Mines, RI 8507.

The Contractor should conduct all blasting activities in such a way that sound levels from blasting shall not exceed the limits given in the Maine Department of Environmental Protection Rules, Chapter 375.10 (c)(4)(c).

<u># of Blasts Per Day</u>	<u>Sound Level Limit</u>
1	129 dBL
2	126 dBL
3	124 dBL
4	123 dBL

Blast monitoring should be conducted by an independent firm trained in the use of a seismograph, and records should be analyzed and results reported by persons familiar with analyzing and reporting the frequency content of a seismograph record. A minimum of two (2) engineering seismographs shall be used for each blast, one each adjacent to the nearest off-site structures or wells which lie within a 300-foot radius of blasting activities.

Blast Monitoring Equipment: All instrumentation proposed for use on the project shall have been calibrated within the previous six (6) months to a standard traceable to the National Bureau of Standards. Characteristics of required instrumentation are listed below:

- Measure the three (3) mutually perpendicular components of particle velocity in the directions vertical, radial and perpendicular to the vibration source.
- Measure and display the maximum peak particle velocity component and air blast overpressure. These readings must be displayed and be able to be read in the field, immediately after each blast.
- Furnish a permanent time history record of particle velocity waveforms and air blast overpressure waveforms, so that frequency and time of maximum peak particle velocity or air blast overpressure can be determined.

Blast Monitoring Reports: Within 24 hours following each blast, the Contractor should submit to the Engineer a Blast Monitoring Report. Each Blast Monitoring Report should include all of the following applicable items:

- Blast round design data, as indicate in Section C of the Blasting Requirements.
- Blast Monitoring Location Plan, indicating the location of the blast, the monitoring locations, and the distances from the blast to monitoring locations.
- Vibration and air blast overpressure data from each seismograph, including a copy of the strip chart (or other permanent record of velocity/time waveform) with calibration and monitoring record marked with the date, time and location of the blast.
- In the event that the Contractor's design round results in ground vibrations and/or air blast overpressures exceed the blasting limit criteria presented herein, the Contractor should immediately revise the round design appropriately and submit the revised round design to the Engineer for review. Allow sufficient time for review.
- The Contractor should report to the Engineer in writing all blasting complaints received by the Contractor within 24 hours of receipt. Each blast complaint report should include the name and address of the complaint, time received, date and time of blast complained about, and a description of the circumstances, which led to the complaint. Upon receipt of a written complaint from a resident alleging damage from the blasting, the Contractor's representative or a representative of the Blaster's Insurance Company should investigate the claim and a written report should be issued to the homeowner, with a copy to the Engineer, of the results of the investigation and the response of the Contractor. This written report should be received by the resident and the Engineer within 15 work days of receipt of the written complaint.

Review by the owner and the owner's consultant of the blast designs and techniques shall not relieve the Contractor of his responsibility for the accuracy, adequacy and safety of the blasting, exercising proper supervision and field judgment and producing the results within the blasting limits required by the requirements.

Blasting shall be limited to between the hours of 9:00 a.m. and 4:00 p.m., Monday through Friday.

Blasting mats shall be utilized for all blast rounds detonated to prevent the throw of fly rock from the blasting area, unless the Contractor's independent professional engineer/seismologist determines that the overburden is sufficient enough to prevent fly rock.

Ammonium Nitrate Fuel Oil (ANFO) shall not be permitted for blasting.

At the start of blasting, the Contractor shall perform a series of test blast to establish a site-specific relationship between the charge weight per millisecond delay and peak ground vibration levels at various distances from the blast. The results of the test blasts will form the basis for selection of maximum permissible charge weights during production blasting.

Section 21

Air Emissions

Section 21**Air Emissions**

The proposed development is not anticipated to generate adverse air emissions which could impact the developed area or abutting properties. Temporary emissions may occur during the construction of the project due to earth moving activities and construction equipment. These emissions are expected to be limited in nature and of short duration. Provisions for dust control, if needed during construction, have been included in the Erosion and Sediment Control Plan attached to Section 14 of this application.

Section 22

Odors

Odors

Odor generation is expected to be insignificant and consistent with surrounding areas. Temporary limited odors may arise during construction as a result of construction equipment working on the site. This odor potential is short-term and also not expected to be significant.

Section 23

Water Vapor

Water Vapor

This proposed site improvements will not generate water vapor emissions impacting the developed area or abutting properties.

Section 24

Sunlight

Sunlight

The proposed project will not result in a sunlight impact to abutting properties.

Section 25

Notices

Notices**A. Evidence That a Notice Has Been Sent**

Please see this Section for a copy of Form B.

The public notice was published in the Portland Press Herald on February 3, 2020.

A public informational meeting was held on February 18, 2020.

Please see this Section for a copy of Form C.

B. List of Abutters

See attached.

Public Notice
Notice of Intent to File

Please take notice that Fallbrook Senior Care Development, LLC is intending to file a Natural Resource Protection Act and an amended Site Location of Development Act permit application with the Maine Department of Environmental Protection pursuant to the provisions of 38 M.R.S.A. §§ 480-A thru 480-BB and §§ 481 thru 490 on or about February 20, 2020.

A Public Informational Meeting will be held at **6 P.M** on **February 18th** at **Fallbrook Woods, 60 Merrymeeting Drive, Portland.**

The applicant is proposing to construct a new two-story 58,197 s.f. senior care facility. Improvements will result in approximately 37,787 s.f of wetland impacts, the creation of approximately 2.7 acres of new impervious surface, and 5.6 acres of developed area.

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 during normal working hours. A copy of the application may also be seen at the City of Portland municipal offices.

Written public comments may be sent to the Southern Maine Regional Office in Portland at MDEP, Southern Maine Regional Office, 312 Canco Road, Portland, Maine 04103 where the application is filed for public inspection.

FORM C

PUBLIC NOTICE FILING AND CERTIFICATION

The DEP Rules, Chapter 2, require an applicant to provide public notice for all Site Location projects with the exception of minor revisions and condition compliance applications. In the notice, the applicant must describe the proposed activity and where it is located. "**Abutter**" for the purposes of the notice provision means any person who owns property that is BOTH (1) adjoining and (2) within one mile of the delineated project boundary, including owners of property directly across a public or private right of way.

1. **Newspaper:** You must publish the Notice of Intent to File in a newspaper circulated in the area where the activity is located. The notice must appear in the newspaper within 30 days prior to the filing of the application with the Department. You may use the attached Notice of Intent to File form, or one containing identical information, for newspaper publication and certified mailing.
2. **Abutting Property Owners:** You must send a copy of the Notice of Intent to File by certified mail to the owners of the property abutting the activity. Their names and addresses can be obtained from the town tax maps or local officials. They must receive notice within 30 days prior to the filing of the application with the Department.
3. **Municipal Office:** You must send a copy of the Notice of Intent to File and a **duplicate of the entire application** to the Municipal Office.

ATTACH a list of the names and addresses of the owners of abutting property.

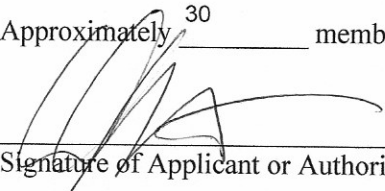
CERTIFICATION

By signing below, the applicant or authorized agent certifies that:

1. A Notice of Intent to File was published in a newspaper circulated in the area where the project site is located within 30 days prior to filing the application;
2. A certified mailing of the Notice of Intent to File was sent to all abutters within 30 days of the filing of the application;
3. A certified mailing of the Notice of Intent to File, and a duplicate copy of the application was sent to the town office of the municipality in which the project is located; and
4. Provided notice of, if required, and held a public informational meeting in accordance with Chapter 2, Rules Concerning the Processing of Applications, Section 14, prior to filing the application. Notice of the meeting was sent by certified mail to abutters and to the town office of the municipality in which the project is located at least ten days prior to the meeting. Notice of the meeting was also published once in a newspaper circulated in the area where the project site is located at least seven days prior to the meeting.

The Public Informational Meeting was held on February 18, 2020
Date

Approximately ³⁰ members of the public attended the Public Informational Meeting.


Signature of Applicant or Authorized Agent

2/20/20
Date

Public Notice

Notice of Intent to File

Please take notice that Fallbrook Senior Care Development, LLC is intending to file a Natural Resource Protection Act and an amended Site Location of Development Act permit application with the Maine Department of Environmental Protection pursuant to the provisions of 38 M.R.S.A. §§ 480-A thru 480-BB and §§ 481 thru 490 on or about February 20, 2020.

A Public Informational Meeting will be held at 6 PM on February 18th at Fallbrook Woods, 60 Merrymeeting Drive, Portland.

The applicant is proposing to construct a new two-story 58,197 s.f. senior care facility. Improvements will result in approximately 37,787 s.f. of wetland impacts, the creation of approximately 2.7 acres of new impervious surface, and 5.6 acres of developed area.

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 during normal working hours. A copy of the application may also be seen at the City of Portland municipal offices.

Written public comments may be sent to the Southern Maine Regional Office in Portland at MDEP Southern Maine Regional Office, 312 Canco Road, Portland, Maine 04103 where the application is filed for public inspection.

From: Lori Gunn <lgunn@sebagotechnics.com>

Sent: Monday, February 03, 2020 9:17 AM

To: Joan Jensen <jjensen@pressherald.com>

18347

7019 0160 0000 5675 1336

U.S. Postal Service™ CERTIFIED MAIL® RECEIPT Domestic Mail Only	
For delivery information, visit our website at www.usps.com ®.	
OFFICIAL USE	
Certified Mail Fee \$	Postmark Here
Extra Services & Fees (check box, add fee as appropriate)	
☐ Return Receipt (hardcopy) \$	
☐ Return Receipt (electronic) \$	
☐ Certified Mail Restricted Delivery \$	
☐ Adult Signature Required \$	
☐ Adult Signature Restricted Delivery \$	
Postage	
FALLBROOK PROPERTIES LLC 418 RAY ST PORTLAND ME 04103	
PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions	

7019 0160 0000 5675 1343

U.S. Postal Service™ CERTIFIED MAIL® RECEIPT Domestic Mail Only	
For delivery information, visit our website at www.usps.com ®.	
OFFICIAL USE	
Certified Mail Fee \$	Postmark Here
Extra Services & Fees (check box, add fee as appropriate)	
☐ Return Receipt (hardcopy) \$	
☐ Return Receipt (electronic) \$	
☐ Certified Mail Restricted Delivery \$	
☐ Adult Signature Required \$	
☐ Adult Signature Restricted Delivery \$	
Postage	
FORSICK LESLIE 114 MAINE AVE PORTLAND ME 04103	
PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions	

7019 0160 0000 5675 1350

U.S. Postal Service™ CERTIFIED MAIL® RECEIPT Domestic Mail Only	
For delivery information, visit our website at www.usps.com ®.	
OFFICIAL USE	
Certified Mail Fee \$	Postmark Here
Extra Services & Fees (check box, add fee as appropriate)	
☐ Return Receipt (hardcopy) \$	
☐ Return Receipt (electronic) \$	
☐ Certified Mail Restricted Delivery \$	
☐ Adult Signature Required \$	
☐ Adult Signature Restricted Delivery \$	
Postage	
\$ Total	
\$ Sent	
\$ Sine	
\$ City,	
GAUDET MONIQUE R 59 GERTRUDE AVE PORTLAND ME 04103	
PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions	

7019 0160 0000 5675 1305

U.S. Postal Service™ CERTIFIED MAIL® RECEIPT <i>Domestic Mail Only</i>	
For delivery information, visit our website at www.usps.com ®.	
OFFICIAL USE	
Certified Mail Fee \$	Postmark Here
Extra Services & Fees (check box, add fee as appropriate)	
☐ Return Receipt (hardcopy) \$	
☐ Return Receipt (electronic) \$	
☐ Certified Mail Restricted Delivery \$	
☐ Adult Signature Required \$	
☐ Adult Signature Restricted Delivery \$	
Postage \$	
Total \$	
Sent \$	DENBOW DEBRA A
Street	69 FLORIDA AVE
City, State, ZIP+4®	PORTLAND ME 04103
PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions	

7019 0160 0000 5675 1312

U.S. Postal Service™ CERTIFIED MAIL® RECEIPT <i>Domestic Mail Only</i>	
For delivery information, visit our website at www.usps.com ®.	
OFFICIAL USE	
Certified Mail Fee \$	Postmark Here
Extra Services & Fees (check box, add fee as appropriate)	
☐ Return Receipt (hardcopy) \$	
☐ Return Receipt (electronic) \$	
☐ Certified Mail Restricted Delivery \$	
☐ Adult Signature Required \$	
☐ Adult Signature Restricted Delivery \$	
Postage \$	
Total \$	
Sent \$	DOUGHTY BEN HILTON & CAROL N DOUGHTY
Street	JTS
City, State, ZIP+4®	54 FLORIDA AVE PORTLAND ME 04103
PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions	

7019 0160 0000 5675 1329

U.S. Postal Service™ CERTIFIED MAIL® RECEIPT <i>Domestic Mail Only</i>	
For delivery information, visit our website at www.usps.com ®.	
OFFICIAL USE	
Certified Mail Fee \$	Postmark Here
Extra Services & Fees (check box, add fee as appropriate)	
☐ Return Receipt (hardcopy) \$	
☐ Return Receipt (electronic) \$	
☐ Certified Mail Restricted Delivery \$	
☐ Adult Signature Required \$	
☐ Adult Signature Restricted Delivery \$	
Postage \$	
Total \$	
Sent \$	DUNCAN JORDAN TYLER & KATHERINE ELISE
Street	DUNCAN JTS
City, State, ZIP+4®	365 RAY ST PORTLAND ME 04103
PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions	

7019 0160 0000 5675 1244

U.S. Postal Service™ CERTIFIED MAIL® RECEIPT Domestic Mail Only	
For delivery information, visit our website at www.usps.com® .	
OFFICIAL USE	
Certified Mail Fee \$	Postmark Here
Extra Services & Fees (check box, add fee as appropriate)	
☐ Return Receipt (hardcopy) \$	
☐ Return Receipt (electronic) \$	
☐ Certified Mail Restricted Delivery \$	
☐ Adult Signature Required \$	
☐ Adult Signature Restricted Delivery \$	
Postage \$ Tr \$ \$ \$ \$ C	FOERSTER CAROLYN D 17 VERMONT AVE PORTLAND ME 04103
PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions	

7019 0160 0000 5675 1251

U.S. Postal Service™ CERTIFIED MAIL® RECEIPT Domestic Mail Only	
For delivery information, visit our website at www.usps.com® .	
OFFICIAL USE	
Certified Mail Fee \$	Postmark Here
Extra Services & Fees (check box, add fee as appropriate)	
☐ Return Receipt (hardcopy) \$	
☐ Return Receipt (electronic) \$	
☐ Certified Mail Restricted Delivery \$	
☐ Adult Signature Required \$	
☐ Adult Signature Restricted Delivery \$	
Postage \$ Tr \$ \$ \$ \$ C	GARCIA LUIS O & MONICA M GARCIA JTS 80 FLORIDA AVE PORTLAND ME 04103
PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions	

7019 0160 0000 5675 1268

U.S. Postal Service™ CERTIFIED MAIL® RECEIPT Domestic Mail Only	
For delivery information, visit our website at www.usps.com® .	
OFFICIAL USE	
Certified Mail Fee \$	Postmark Here
Extra Services & Fees (check box, add fee as appropriate)	
☐ Return Receipt (hardcopy) \$	
☐ Return Receipt (electronic) \$	
☐ Certified Mail Restricted Delivery \$	
☐ Adult Signature Required \$	
☐ Adult Signature Restricted Delivery \$	
Postage \$ Tr \$ \$ \$ \$ C	GELINAS GREGORY P & PATRICIA A JTS 124 MAINE AVE PORTLAND ME 04103
PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions	

7019 0160 0000 5675 1275

U.S. Postal Service™ CERTIFIED MAIL® RECEIPT <i>Domestic Mail Only</i>	
For delivery information, visit our website at www.usps.com ®.	
OFFICIAL USE	
Certified Mail Fee \$	Postmark Here
Extra Services & Fees (check box, add fee as appropriate)	
☐ Return Receipt (hardcopy) \$	
☐ Return Receipt (electronic) \$	
☐ Certified Mail Restricted Delivery \$	
☐ Adult Signature Required \$	
☐ Adult Signature Restricted Delivery \$	
Postage \$	
Total Post \$	
Sent To	CONNELLY AMANDA J
Street and	356 RAY ST
City, State,	PORTLAND ME 04103
PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions	

7019 0160 0000 5675 1282

U.S. Postal Service™ CERTIFIED MAIL® RECEIPT <i>Domestic Mail Only</i>	
For delivery information, visit our website at www.usps.com ®.	
OFFICIAL USE	
Certified Mail Fee \$	Postmark Here
Extra Services & Fees (check box, add fee as appropriate)	
☐ Return Receipt (hardcopy) \$	
☐ Return Receipt (electronic) \$	
☐ Certified Mail Restricted Delivery \$	
☐ Adult Signature Required \$	
☐ Adult Signature Restricted Delivery \$	
Postage \$	
Total \$	
Sent To	COURNOYER PAUL B & KYMBERLEY T
Street	COURNOYER JTS
City,	24 MERRYMEETING DR
	PORTLAND ME 04103
PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions	

7019 0160 0000 5675 1299

U.S. Postal Service™ CERTIFIED MAIL® RECEIPT <i>Domestic Mail Only</i>	
For delivery information, visit our website at www.usps.com ®.	
OFFICIAL USE	
Certified Mail Fee \$	Postmark Here
Extra Services & Fees (check box, add fee as appropriate)	
☐ Return Receipt (hardcopy) \$	
☐ Return Receipt (electronic) \$	
☐ Certified Mail Restricted Delivery \$	
☐ Adult Signature Required \$	
☐ Adult Signature Restricted Delivery \$	
Postage \$	
Total \$	
Sent To	CROSBY RONALD H SR
Street	18 JERSEY AVE
City,	PORTLAND ME 04103
PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions	

7019 0160 0000 5675 1183

U.S. Postal Service™ CERTIFIED MAIL® RECEIPT <i>Domestic Mail Only</i>	
For delivery information, visit our website at www.usps.com ®.	
OFFICIAL USE	
Certified Mail Fee \$ _____	Postmark Here
Extra Services & Fees (check box, add fee as appropriate)	
☐ Return Receipt (hardcopy) \$ _____	
☐ Return Receipt (electronic) \$ _____	
☐ Certified Mail Restricted Delivery \$ _____	
☐ Adult Signature Required \$ _____	
☐ Adult Signature Restricted Delivery \$ _____	
Postage \$ _____	
Total P \$ _____	
Sent To _____	COTE ELIZABETH M 14 MERRYMEETING DR PORTLAND ME 04103
Street _____	
City, St _____	
PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions	

7019 0160 0000 5675 1190

U.S. Postal Service™ CERTIFIED MAIL® RECEIPT <i>Domestic Mail Only</i>	
For delivery information, visit our website at www.usps.com ®.	
OFFICIAL USE	
Certified Mail Fee \$ _____	Postmark Here
Extra Services & Fees (check box, add fee as appropriate)	
☐ Return Receipt (hardcopy) \$ _____	
☐ Return Receipt (electronic) \$ _____	
☐ Certified Mail Restricted Delivery \$ _____	
☐ Adult Signature Required \$ _____	
☐ Adult Signature Restricted Delivery \$ _____	
Postage \$ _____	
Total P \$ _____	
Sent To _____	CRESSEY WESLEY O VN VET & BETTY ANN JTS 23 JERSEY AVE PORTLAND ME 04103
Street _____	
City, S _____	
PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions	

7019 0160 0000 5675 1206

U.S. Postal Service™ CERTIFIED MAIL® RECEIPT <i>Domestic Mail Only</i>	
For delivery information, visit our website at www.usps.com ®.	
OFFICIAL USE	
Certified Mail Fee \$ _____	Postmark Here
Extra Services & Fees (check box, add fee as appropriate)	
☐ Return Receipt (hardcopy) \$ _____	
☐ Return Receipt (electronic) \$ _____	
☐ Certified Mail Restricted Delivery \$ _____	
☐ Adult Signature Required \$ _____	
☐ Adult Signature Restricted Delivery \$ _____	
Postage \$ _____	
Total \$ _____	
Sent To _____	DEARBORN CAROL A & DAVID L DUMONT JTS 2 MERRYMEETING DR PORTLAND ME 04103
Street _____	
City, _____	
PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions	

7019 0160 0000 5675 1213

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at www.usps.com®.

OFFICIAL USE

Certified Mail Fee

\$

Extra Services & Fees (check box, add fee as appropriate)

☐ Return Receipt (hardcopy) \$
☐ Return Receipt (electronic) \$
☐ Certified Mail Restricted Delivery \$
☐ Adult Signature Required \$
☐ Adult Signature Restricted Delivery \$

Postmark
Here

Postage

\$

Total P:

\$

DONOVAN ROBYN J & TIMOTHY P DONOVAN

Sent To

JTS

Street a.

378 RAY ST

City, Sta

PORTLAND ME 04103

PS Form 3800, April 2015 PSN 7530-02-000-9047

See Reverse for Instructions

7019 0160 0000 5675 1220

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at www.usps.com®.

OFFICIAL USE

Certified Mail Fee

\$

Extra Services & Fees (check box, add fee as appropriate)

☐ Return Receipt (hardcopy) \$
☐ Return Receipt (electronic) \$
☐ Certified Mail Restricted Delivery \$
☐ Adult Signature Required \$
☐ Adult Signature Restricted Delivery \$

Postmark
Here

Postage

\$

Total

\$

DUKES DAVID A & ROSE HEITHOFF JTS

\$

30 TAYLOR ST

\$

PORTLAND ME 04102

\$

\$

PS Form 3800, April 2015 PSN 7530-02-000-9047

See Reverse for Instructions

7019 0160 0000 5675 1237

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at www.usps.com®.

OFFICIAL USE

Certified Mail Fee

\$

Extra Services & Fees (check box, add fee as appropriate)

☐ Return Receipt (hardcopy) \$
☐ Return Receipt (electronic) \$
☐ Certified Mail Restricted Delivery \$
☐ Adult Signature Required \$
☐ Adult Signature Restricted Delivery \$

Postmark
Here

Postage

\$

Total

\$

DUNLAP KYAN JAMES & KAYLA LISA DUNLAP

Ser.

JTS

Str.

94 SKYARK RD

City,

PORTLAND ME 04103

PS Form 3800, April 2015 PSN 7530-02-000-9047

See Reverse for Instructions

7019 0160 0000 5675 1121

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at www.usps.com®.

OFFICIAL USE

Certified Mail Fee

\$

Extra Services & Fees (check box, add fee as appropriate)

☐ Return Receipt (hardcopy) \$
☐ Return Receipt (electronic) \$
☐ Certified Mail Restricted Delivery \$
☐ Adult Signature Required \$
☐ Adult Signature Restricted Delivery \$

Postmark
Here

Postage

\$

Total

\$

Sent

Street

City

DOWNES KENNETH W & JANICE E JTS
 469 ALLEN AVE
 PORTLAND ME 04103

PS Form 3800, April 2015 PSN 7530-02-000-9047

See Reverse for Instructions

7019 0160 0000 5675 1138

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at www.usps.com®.

OFFICIAL USE

Certified Mail Fee

\$

Extra Services & Fees (check box, add fee as appropriate)

☐ Return Receipt (hardcopy) \$
☐ Return Receipt (electronic) \$
☐ Certified Mail Restricted Delivery \$
☐ Adult Signature Required \$
☐ Adult Signature Restricted Delivery \$

Postmark
Here

Postage

\$

Total

\$

Sent

Street

City

DUNLAP KYAN J
 459 ALLEN AVE # 14
 PORTLAND ME 04103

PS Form 3800, April 2015 PSN 7530-02-000-9047

See Reverse for Instructions

7019 0160 0000 5675 1145

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at www.usps.com®.

OFFICIAL USE

Certified Mail Fee

\$

Extra Services & Fees (check box, add fee as appropriate)

☐ Return Receipt (hardcopy) \$
☐ Return Receipt (electronic) \$
☐ Certified Mail Restricted Delivery \$
☐ Adult Signature Required \$
☐ Adult Signature Restricted Delivery \$

Postmark
Here

Postage

\$

Total

\$

Sent

Street

City

FEENEY ANTONETTA S
 186 MAINE AVE
 PORTLAND ME 04103

PS Form 3800, April 2015 PSN 7530-02-000-9047

See Reverse for Instructions

7019 0160 0000 5675 1152

U.S. Postal Service™ CERTIFIED MAIL® RECEIPT Domestic Mail Only	
For delivery information, visit our website at www.usps.com ®.	
OFFICIAL USE	
Certified Mail Fee \$	Postmark Here
Extra Services & Fees (check box, add fee as appropriate)	
☐ Return Receipt (hardcopy) \$	
☐ Return Receipt (electronic) \$	
☐ Certified Mail Restricted Delivery \$	
☐ Adult Signature Required \$	
☐ Adult Signature Restricted Delivery \$	
Postage \$	
Total P \$	
Sent To \$	
Street \$	
City, State, ZIP+4®	
PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions	

FROZEN PIPE PROPERTY LLC
2 WASHINGTON AVE
SCARBOROUGH ME 04074

7019 0160 0000 5675 1169

U.S. Postal Service™ CERTIFIED MAIL® RECEIPT Domestic Mail Only	
For delivery information, visit our website at www.usps.com ®.	
OFFICIAL USE	
Certified Mail Fee \$	Postmark Here
Extra Services & Fees (check box, add fee as appropriate)	
☐ Return Receipt (hardcopy) \$	
☐ Return Receipt (electronic) \$	
☐ Certified Mail Restricted Delivery \$	
☐ Adult Signature Required \$	
☐ Adult Signature Restricted Delivery \$	
Postage \$	
Total \$	
Sent To \$	
Street \$	
City, State, ZIP+4®	
PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions	

GEE BRANNEN M & KAITLIN M GEE JTS
75 FLORIDA AVE
PORTLAND ME 04103

7019 0160 0000 5675 1176

U.S. Postal Service™ CERTIFIED MAIL® RECEIPT Domestic Mail Only	
For delivery information, visit our website at www.usps.com ®.	
OFFICIAL USE	
Certified Mail Fee \$	Postmark Here
Extra Services & Fees (check box, add fee as appropriate)	
☐ Return Receipt (hardcopy) \$	
☐ Return Receipt (electronic) \$	
☐ Certified Mail Restricted Delivery \$	
☐ Adult Signature Required \$	
☐ Adult Signature Restricted Delivery \$	
Postage \$	
Total \$	
Sent To \$	
Street \$	
City, State, ZIP+4®	
PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions	

COHEN BRIAN F & TARA COHEN JTS
32 NEVADA AVE
PORTLAND ME 04103

7019 0160 0000 5675 1091

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at www.usps.com®.

OFFICIAL USE

Certified Mail Fee	
\$	
Extra Services & Fees (check box, add fee as appropriate)	
☐ Return Receipt (hardcopy)	\$
☐ Return Receipt (electronic)	\$
☐ Certified Mail Restricted Delivery	\$
☐ Adult Signature Required	\$
☐ Adult Signature Restricted Delivery	\$

Postmark
Here

Postage

\$

Total

\$

Sent To

Street

City, St

CRABTREE VIRGINIA A
 152 MAINE AVE
 PORTLAND ME 04103

PS Form 3800, April 2015 PSN 7530-02-000-9047

See Reverse for Instructions

7019 0160 0000 5675 1107

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at www.usps.com®.

OFFICIAL USE

Certified Mail Fee	
\$	
Extra Services & Fees (check box, add fee as appropriate)	
☐ Return Receipt (hardcopy)	\$
☐ Return Receipt (electronic)	\$
☐ Certified Mail Restricted Delivery	\$
☐ Adult Signature Required	\$
☐ Adult Signature Restricted Delivery	\$

Postmark
Here

Postage

\$

Total

\$

Sent To

Street

City, St

DALL MEGAN N & RYAN C DALL JTS
 402 RAY ST
 PORTLAND ME 04103

PS Form 3800, April 2015 PSN 7530-02-000-9047

See Reverse for Instructions

7019 0160 0000 5675 1114

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at www.usps.com®.

OFFICIAL USE

Certified Mail Fee	
\$	
Extra Services & Fees (check box, add fee as appropriate)	
☐ Return Receipt (hardcopy)	\$
☐ Return Receipt (electronic)	\$
☐ Certified Mail Restricted Delivery	\$
☐ Adult Signature Required	\$
☐ Adult Signature Restricted Delivery	\$

Postmark
Here

Postage

\$

Total F

\$

Sent To

Street

City, St

DIPIETRO DAVID
 326 RAY ST
 PORTLAND ME 04103

PS Form 3800, April 2015 PSN 7530-02-000-9047

See Reverse for Instructions

7019 0160 0000 5675 1060

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at www.usps.com®.

OFFICIAL USE

Certified Mail Fee	
\$	
Extra Services & Fees (check box, add fee as appropriate)	
☐ Return Receipt (hardcopy)	\$
☐ Return Receipt (electronic)	\$
☐ Certified Mail Restricted Delivery	\$
☐ Adult Signature Required	\$
☐ Adult Signature Restricted Delivery	\$

Postmark Here

Postage

\$ Tot

\$ Ser

\$ Str

\$ City

CLARKIN REBECCA
8 NEVADA AVE
PORTLAND ME 04103

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

7019 0160 0000 5675 1077

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at www.usps.com®.

OFFICIAL USE

Certified Mail Fee	
\$	
Extra Services & Fees (check box, add fee as appropriate)	
☐ Return Receipt (hardcopy)	\$
☐ Return Receipt (electronic)	\$
☐ Certified Mail Restricted Delivery	\$
☐ Adult Signature Required	\$
☐ Adult Signature Restricted Delivery	\$

Postmark Here

Postage

\$ Tot

\$ Ser

\$ Str

\$ City

CLEALE ELIZABETH & LEO SMITH
25 FLORIDA AVE
PORTLAND ME 04103

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

7019 0160 0000 5675 1084

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at www.usps.com®.

OFFICIAL USE

Certified Mail Fee	
\$	
Extra Services & Fees (check box, add fee as appropriate)	
☐ Return Receipt (hardcopy)	\$
☐ Return Receipt (electronic)	\$
☐ Certified Mail Restricted Delivery	\$
☐ Adult Signature Required	\$
☐ Adult Signature Restricted Delivery	\$

Postmark Here

Postage

\$ Tot

\$ Ser

\$ Str

\$ City

COOMBS PATRICIA L
459 ALLEN AVE APT 24
PORTLAND ME 04103

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

7019 0160 0000 5675 0841

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at www.usps.com®.

OFFICIAL USE

Certified Mail Fee	\$
Extra Services & Fees (check box, add fee as appropriate)	
☐ Return Receipt (hardcopy)	\$
☐ Return Receipt (electronic)	\$
☐ Certified Mail Restricted Delivery	\$
☐ Adult Signature Required	\$
☐ Adult Signature Restricted Delivery	\$
Postage	\$
Tot	\$

Postmark Here

BARBER GEORGE & KENNETH D BARBER JTS
 19 MERRYMEETING DR
 PORTLAND ME 04103

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

7019 0160 0000 5675 0858

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at www.usps.com®.

OFFICIAL USE

Certified Mail Fee	\$
Extra Services & Fees (check box, add fee as appropriate)	
☐ Return Receipt (hardcopy)	\$
☐ Return Receipt (electronic)	\$
☐ Certified Mail Restricted Delivery	\$
☐ Adult Signature Required	\$
☐ Adult Signature Restricted Delivery	\$
Postage	\$
Tot	\$

Postmark Here

BESEMER LORI T & JOHN W BESEMER IV JTS
 16 PENN AVE
 PORTLAND ME 04103

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

7019 0160 0000 5675 0865

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at www.usps.com®.

OFFICIAL USE

Certified Mail Fee	\$
Extra Services & Fees (check box, add fee as appropriate)	
☐ Return Receipt (hardcopy)	\$
☐ Return Receipt (electronic)	\$
☐ Certified Mail Restricted Delivery	\$
☐ Adult Signature Required	\$
☐ Adult Signature Restricted Delivery	\$
Postage	\$
Tot	\$

Postmark Here

BROWN ROBERT A & VALARIE J JTS
 28 PENN AVE
 PORTLAND ME 04103

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

7019 0160 0000 5675 0872

U.S. Postal Service™	
CERTIFIED MAIL® RECEIPT	
Domestic Mail Only	
For delivery information, visit our website at www.usps.com ®.	
OFFICIAL USE	
Certified Mail Fee	
\$	
Extra Services & Fees (check box, add fee as appropriate)	
☐ Return Receipt (hardcopy)	\$
☐ Return Receipt (electronic)	\$
☐ Certified Mail Restricted Delivery	\$
☐ Adult Signature Required	\$
☐ Adult Signature Restricted Delivery	\$
Postage	
\$	
Tot	
\$	
Se	CARTER JENNELL A & ALICIA M MENARD JTS
Str	146 MAINE AVE
City	PORTLAND ME 04103
PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions	

7019 0160 0000 5675 0889

U.S. Postal Service™	
CERTIFIED MAIL® RECEIPT	
Domestic Mail Only	
For delivery information, visit our website at www.usps.com ®.	
OFFICIAL USE	
Certified Mail Fee	
\$	
Extra Services & Fees (check box, add fee as appropriate)	
☐ Return Receipt (hardcopy)	\$
☐ Return Receipt (electronic)	\$
☐ Certified Mail Restricted Delivery	\$
☐ Adult Signature Required	\$
☐ Adult Signature Restricted Delivery	\$
Postage	
\$	
Tot	
\$	
Se	CHRISTIAN SABRINA KATHRYN
Str	110 FLORIDA AVE
City	PORTLAND ME 04103
PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions	

7019 0160 0000 5675 0896

U.S. Postal Service™	
CERTIFIED MAIL® RECEIPT	
Domestic Mail Only	
For delivery information, visit our website at www.usps.com ®.	
OFFICIAL USE	
Certified Mail Fee	
\$	
Extra Services & Fees (check box, add fee as appropriate)	
☐ Return Receipt (hardcopy)	\$
☐ Return Receipt (electronic)	\$
☐ Certified Mail Restricted Delivery	\$
☐ Adult Signature Required	\$
☐ Adult Signature Restricted Delivery	\$
Postage	
\$	
Tot	
\$	
Se	CHRISTY KEVIN R & DAWN M JTS
Str	160 MAINE AVE
City	PORTLAND ME 04103
PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions	

7019 0160 0000 5675 0780

U.S. Postal Service[™]
CERTIFIED MAIL[®] RECEIPT
Domestic Mail Only

For delivery information, visit our website at www.usps.com[®].

OFFICIAL USE

Certified Mail Fee	
\$	
Extra Services & Fees (check box, add fee as appropriate)	
☐ Return Receipt (hardcopy)	\$
☐ Return Receipt (electronic)	\$
☐ Certified Mail Restricted Delivery	\$
☐ Adult Signature Required	\$
☐ Adult Signature Restricted Delivery	\$
Postage	
\$	
Total	
\$	
Sent To	CHASE DAVID A & BETTI J CHASE JTS
Street	23 MERRYMEETING DR
City, State	PORTLAND ME 04103

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

Postmark Here

7019 0160 0000 5675 0797

U.S. Postal Service[™]
CERTIFIED MAIL[®] RECEIPT
Domestic Mail Only

For delivery information, visit our website at www.usps.com[®].

OFFICIAL USE

Certified Mail Fee	
\$	
Extra Services & Fees (check box, add fee as appropriate)	
☐ Return Receipt (hardcopy)	\$
☐ Return Receipt (electronic)	\$
☐ Certified Mail Restricted Delivery	\$
☐ Adult Signature Required	\$
☐ Adult Signature Restricted Delivery	\$
Postage	
\$	
Total	
\$	
Sent To	CHRISTY KEVIN R & DAWN M CHRISTY JTS
Street	160 MAINE AVE
City, State	PORTLAND ME 04103

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

Postmark Here

7019 0160 0000 5675 0803

U.S. Postal Service[™]
CERTIFIED MAIL[®] RECEIPT
Domestic Mail Only

For delivery information, visit our website at www.usps.com[®].

OFFICIAL USE

Certified Mail Fee	
\$	
Extra Services & Fees (check box, add fee as appropriate)	
☐ Return Receipt (hardcopy)	\$
☐ Return Receipt (electronic)	\$
☐ Certified Mail Restricted Delivery	\$
☐ Adult Signature Required	\$
☐ Adult Signature Restricted Delivery	\$
Postage	
\$	
Total	
\$	
Sent To	CLARK LESLIE M
Street	12 TEXAS ST
City, State	PORTLAND ME 04103

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

Postmark Here

7019 0160 0000 5675 0810

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at www.usps.com®.

OFFICIAL USE

Certified Mail Fee	
\$	
Extra Services & Fees (check box, add fee as appropriate)	
☐ Return Receipt (hardcopy)	\$
☐ Return Receipt (electronic)	\$
☐ Certified Mail Restricted Delivery	\$
☐ Adult Signature Required	\$
☐ Adult Signature Restricted Delivery	\$

Postmark
Here

Postage

\$
Tr
\$
St
\$
St
City

AIKEN ANNA J & JAMES W AIKEN
 JTS336
 RAY ST
 PORTLAND ME 04103

PS Form 3800, April 2015 PSN 7530-02-000-9047

See Reverse for Instructions

7019 0160 0000 5675 0827

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at www.usps.com®.

OFFICIAL USE

Certified Mail Fee	
\$	
Extra Services & Fees (check box, add fee as appropriate)	
☐ Return Receipt (hardcopy)	\$
☐ Return Receipt (electronic)	\$
☐ Certified Mail Restricted Delivery	\$
☐ Adult Signature Required	\$
☐ Adult Signature Restricted Delivery	\$

Postmark
Here

Postage

\$
Total
\$
Sent
\$
St
City

ANDERSON MATTHEW A
 76 FLORIDA AVE
 PORTLAND ME 04103

PS Form 3800, April 2015 PSN 7530-02-000-9047

See Reverse for Instructions

7019 0160 0000 5675 0834

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at www.usps.com®.

OFFICIAL USE

Certified Mail Fee	
\$	
Extra Services & Fees (check box, add fee as appropriate)	
☐ Return Receipt (hardcopy)	\$
☐ Return Receipt (electronic)	\$
☐ Certified Mail Restricted Delivery	\$
☐ Adult Signature Required	\$
☐ Adult Signature Restricted Delivery	\$

Postmark
Here

Postage

\$
Total
\$
Sent
\$
St
City

ANDERSON-CHRISTIE SUZAN F & MARGERY C
 SUDBAY JTS
 21 MERRYMEETING DR
 PORTLAND ME 04103

PS Form 3800, April 2015 PSN 7530-02-000-9047

See Reverse for Instructions

7019 0160 0000 5675 1015

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
 Domestic Mail Only

For delivery information, visit our website at www.usps.com®.

OFFICIAL USE

Certified Mail Fee

\$

Extra Services & Fees (check box, add fee as appropriate)

- ☐ Return Receipt (hardcopy) \$
- ☐ Return Receipt (electronic) \$
- ☐ Certified Mail Restricted Delivery \$
- ☐ Adult Signature Required \$
- ☐ Adult Signature Restricted Delivery \$

Postmark
Here

Postage

\$

Total

\$

Sent

Street

City, State

ANASTOS ELLEN B
 459 ALLEN AVE # 25
 PORTLAND ME 04103

PS Form 3800, April 2015 PSN 7530-02-000-9047

See Reverse for Instructions

7019 0160 0000 5675 1022

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
 Domestic Mail Only

For delivery information, visit our website at www.usps.com®.

OFFICIAL USE

Certified Mail Fee

\$

Extra Services & Fees (check box, add fee as appropriate)

- ☐ Return Receipt (hardcopy) \$
- ☐ Return Receipt (electronic) \$
- ☐ Certified Mail Restricted Delivery \$
- ☐ Adult Signature Required \$
- ☐ Adult Signature Restricted Delivery \$

Postmark
Here

Postage

\$

Total

\$

Sent

Street

City, State

ANDERSON ROBERTA R
 455 ALLEN AVE
 PORTLAND ME 04103

PS Form 3800, April 2015 PSN 7530-02-000-9047

See Reverse for Instructions

7019 0160 0000 5675 1039

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
 Domestic Mail Only

For delivery information, visit our website at www.usps.com®.

OFFICIAL USE

Certified Mail Fee

\$

Extra Services & Fees (check box, add fee as appropriate)

- ☐ Return Receipt (hardcopy) \$
- ☐ Return Receipt (electronic) \$
- ☐ Certified Mail Restricted Delivery \$
- ☐ Adult Signature Required \$
- ☐ Adult Signature Restricted Delivery \$

Postmark
Here

Postage

\$

Total Po

\$

Sent To

Street or

City, State

AUTO EUROPE LLC
 39 COMMERCIAL ST
 PORTLAND ME 04101

PS Form 3800, April 2015 PSN 7530-02-000-9047

See Reverse for Instructions

7019 0160 0000 5675 1046

U.S. Postal Service™ CERTIFIED MAIL® RECEIPT <i>Domestic Mail Only</i>	
For delivery information, visit our website at www.usps.com ®.	
OFFICIAL USE	
Certified Mail Fee \$ _____	Postmark Here
Extra Services & Fees (check box, add fee as appropriate)	
☐ Return Receipt (hardcopy) \$ _____	
☐ Return Receipt (electronic) \$ _____	
☐ Certified Mail Restricted Delivery \$ _____	
☐ Adult Signature Required \$ _____	
☐ Adult Signature Restricted Delivery \$ _____	
Postage \$ _____	
Total \$ _____	
BEAUPRE JOHN D & TRACY ALLEN BEAUPRE	
Sent To JTS	
Street 459 ALLEN AVE # 4	
City, St. PORTLAND ME 04103	
PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions	

7019 0160 0000 5675 1053

U.S. Postal Service™ CERTIFIED MAIL® RECEIPT <i>Domestic Mail Only</i>	
For delivery information, visit our website at www.usps.com ®.	
OFFICIAL USE	
Certified Mail Fee \$ _____	Postmark Here
Extra Services & Fees (check box, add fee as appropriate)	
☐ Return Receipt (hardcopy) \$ _____	
☐ Return Receipt (electronic) \$ _____	
☐ Certified Mail Restricted Delivery \$ _____	
☐ Adult Signature Required \$ _____	
☐ Adult Signature Restricted Delivery \$ _____	
Postage \$ _____	
Total \$ _____	
BORLAWSKY JOY M & MICHAEL J SR	
Sent To 62 FLORIDA AVE	
Street PORTLAND ME 04103	
City, St. 	
PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions	

7019 0160 0000 5675 0773

U.S. Postal Service™ CERTIFIED MAIL® RECEIPT <i>Domestic Mail Only</i>	
For delivery information, visit our website at www.usps.com ®.	
OFFICIAL USE	
Certified Mail Fee \$ _____	Postmark Here
Extra Services & Fees (check box, add fee as appropriate)	
☐ Return Receipt (hardcopy) \$ _____	
☐ Return Receipt (electronic) \$ _____	
☐ Certified Mail Restricted Delivery \$ _____	
☐ Adult Signature Required \$ _____	
☐ Adult Signature Restricted Delivery \$ _____	
Postage \$ _____	
Total \$ _____	
CARR HILARY	
Sent To 11 QUAIL TRL	
Street BUXTON ME 04093	
City, St. 	
PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions	

7019 0160 0000 5675 0957

U.S. Postal Service™ CERTIFIED MAIL® RECEIPT Domestic Mail Only	
For delivery information, visit our website at www.usps.com ®.	
OFFICIAL USE	
Certified Mail Fee \$	Postmark Here
Extra Services & Fees (check box, add fee as appropriate)	
☐ Return Receipt (hardcopy) \$	
☐ Return Receipt (electronic) \$	
☐ Certified Mail Restricted Delivery \$	
☐ Adult Signature Required \$	
☐ Adult Signature Restricted Delivery \$	
Postage \$	
Total \$	
Sent To	BLUE WAGON LLC
Street	41 GORE RD
City, St	RAYMOND ME 04071
PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions	

7019 0160 0000 5675 0964

U.S. Postal Service™ CERTIFIED MAIL® RECEIPT Domestic Mail Only	
For delivery information, visit our website at www.usps.com ®.	
OFFICIAL USE	
Certified Mail Fee \$	Postmark Here
Extra Services & Fees (check box, add fee as appropriate)	
☐ Return Receipt (hardcopy) \$	
☐ Return Receipt (electronic) \$	
☐ Certified Mail Restricted Delivery \$	
☐ Adult Signature Required \$	
☐ Adult Signature Restricted Delivery \$	
Postage \$	
Tot	
Ser	CAETANO VASCO
Str	3 MERRYMEETING DR
City	PORTLAND ME 04103
PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions	

7019 0160 0000 5675 0971

U.S. Postal Service™ CERTIFIED MAIL® RECEIPT Domestic Mail Only	
For delivery information, visit our website at www.usps.com ®.	
OFFICIAL USE	
Certified Mail Fee \$	Postmark Here
Extra Services & Fees (check box, add fee as appropriate)	
☐ Return Receipt (hardcopy) \$	
☐ Return Receipt (electronic) \$	
☐ Certified Mail Restricted Delivery \$	
☐ Adult Signature Required \$	
☐ Adult Signature Restricted Delivery \$	
Postage \$	
Total \$	
Sent To	CHACE WILLIAM J
Street	74 GERTRUDE AVE
City, St	PORTLAND ME 04103
PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions	

7019 0160 0000 5675 0988

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at www.usps.com®.

OFFICIAL USE

Certified Mail Fee	
\$	
Extra Services & Fees (check box, add fee as appropriate)	
☐ Return Receipt (hardcopy)	\$
☐ Return Receipt (electronic)	\$
☐ Certified Mail Restricted Delivery	\$
☐ Adult Signature Required	\$
☐ Adult Signature Restricted Delivery	\$

Postmark
Here

Postage

\$

Total

\$

Sent

Street

City

CHRISTY ALEXIA L
156 MAINE AVE
PORTLAND ME 04103

PS Form 3800, April 2015 PSN 7530-02-000-9047

See Reverse for Instructions

7019 0160 0000 5675 0995

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at www.usps.com®.

OFFICIAL USE

Certified Mail Fee	
\$	
Extra Services & Fees (check box, add fee as appropriate)	
☐ Return Receipt (hardcopy)	\$
☐ Return Receipt (electronic)	\$
☐ Certified Mail Restricted Delivery	\$
☐ Adult Signature Required	\$
☐ Adult Signature Restricted Delivery	\$

Postmark
Here

Postage

\$

Total

\$

Sent

Street

City

CHURCH RONALD C & DONNA I JTS
325 RAY ST
PORTLAND ME 04103

PS Form 3800, April 2015 PSN 7530-02-000-9047

See Reverse for Instructions

7019 0160 0000 5675 1008

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at www.usps.com®.

OFFICIAL USE

Certified Mail Fee	
\$	
Extra Services & Fees (check box, add fee as appropriate)	
☐ Return Receipt (hardcopy)	\$
☐ Return Receipt (electronic)	\$
☐ Certified Mail Restricted Delivery	\$
☐ Adult Signature Required	\$
☐ Adult Signature Restricted Delivery	\$

Postmark
Here

Postage

\$

Total

\$

Sent

Street

City

ACHESON ANN W & JAMES M ACHESON
JTS28
MERRYMEETING DR
PORTLAND ME 04103

PS Form 3800, April 2015 PSN 7530-02-000-9047

See Reverse for Instructions

7019 0160 0000 5675 0766

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at www.usps.com®.

OFFICIAL USE

Certified Mail Fee

\$

Extra Services & Fees (check box, add fee as appropriate)

☐ Return Receipt (hardcopy) \$
☐ Return Receipt (electronic) \$
☐ Certified Mail Restricted Delivery \$
☐ Adult Signature Required \$
☐ Adult Signature Restricted Delivery \$

Postmark
Here

Postage

\$

\$

\$

\$

\$

\$

\$

REP Glenn Cummings
 District 37
 24 Nevens Street
 Portland ME 04103

PS Form 3800, April 2015 PSN 7530-02-000-9047

See Reverse for Instructions

7019 0160 0000 5675 0902

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at www.usps.com®.

OFFICIAL USE

Certified Mail Fee

\$

Extra Services & Fees (check box, add fee as appropriate)

☐ Return Receipt (hardcopy) \$
☐ Return Receipt (electronic) \$
☐ Certified Mail Restricted Delivery \$
☐ Adult Signature Required \$
☐ Adult Signature Restricted Delivery \$

Postmark
Here

Postage

\$

\$

\$

\$

\$

\$

\$

9 NEVADA LLC
 111 POND RD
 NEW GLOUCESTER ME 04260

PS Form 3800, April 2015 PSN 7530-02-000-9047

See Reverse for Instructions

7019 0160 0000 5675 0919

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at www.usps.com®.

OFFICIAL USE

Certified Mail Fee

\$

Extra Services & Fees (check box, add fee as appropriate)

☐ Return Receipt (hardcopy) \$
☐ Return Receipt (electronic) \$
☐ Certified Mail Restricted Delivery \$
☐ Adult Signature Required \$
☐ Adult Signature Restricted Delivery \$

Postmark
Here

Postage

\$

\$

\$

\$

\$

\$

\$

ALLAIRE JENNIFER & GERARD ALLAIRE JTS
 19 NEVADA AVE
 PORTLAND ME 04103

PS Form 3800, April 2015 PSN 7530-02-000-9047

See Reverse for Instructions

7019 0160 0000 5675 0926

U.S. Postal ServiceTM
CERTIFIED MAIL[®] RECEIPT
Domestic Mail Only

For delivery information, visit our website at www.usps.com[®].

OFFICIAL USE

Certified Mail Fee	\$	
Extra Services & Fees (check box, add fee as appropriate)		
☐ Return Receipt (hardcopy)	\$	
☐ Return Receipt (electronic)	\$	
☐ Certified Mail Restricted Delivery	\$	
☐ Adult Signature Required	\$	
☐ Adult Signature Restricted Delivery	\$	
Postage	\$	
Total	\$	
Sent To	ANDERSON PATTI J & RICHARD E JR	
Street	JTS	
City, St	97 FLORIDA AVE	
	PORTLAND ME 04103	

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

Postmark
Here

7019 0160 0000 5675 0933

U.S. Postal ServiceTM
CERTIFIED MAIL[®] RECEIPT
Domestic Mail Only

For delivery information, visit our website at www.usps.com[®].

OFFICIAL USE

Certified Mail Fee	\$	
Extra Services & Fees (check box, add fee as appropriate)		
☐ Return Receipt (hardcopy)	\$	
☐ Return Receipt (electronic)	\$	
☐ Certified Mail Restricted Delivery	\$	
☐ Adult Signature Required	\$	
☐ Adult Signature Restricted Delivery	\$	
Postage	\$	
Total F	\$	
Sent To	ATTIX LEE & SUSAN ROWAN JTS	
Street	18 MERRYMEETING DR	
City, St	PORTLAND ME 04103	

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

Postmark
Here

7019 0160 0000 5675 0940

U.S. Postal ServiceTM
CERTIFIED MAIL[®] RECEIPT
Domestic Mail Only

For delivery information, visit our website at www.usps.com[®].

OFFICIAL USE

Certified Mail Fee	\$	
Extra Services & Fees (check box, add fee as appropriate)		
☐ Return Receipt (hardcopy)	\$	
☐ Return Receipt (electronic)	\$	
☐ Certified Mail Restricted Delivery	\$	
☐ Adult Signature Required	\$	
☐ Adult Signature Restricted Delivery	\$	
Postage	\$	
Total F	\$	
Sent To	BASSETT SANDRA J	
Street	12 VERMONT AVE	
City, St	PORTLAND ME 04103	

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

Postmark
Here

7019 0160 0000 5675 0704

U.S. Postal Service™ CERTIFIED MAIL® RECEIPT <i>Domestic Mail Only</i>	
For delivery information, visit our website at www.usps.com ®.	
OFFICIAL USE	
Certified Mail Fee \$	Postmark Here
Extra Services & Fees (check box, add fee as appropriate)	
☐ Return Receipt (hardcopy) \$	
☐ Return Receipt (electronic) \$	
☐ Certified Mail Restricted Delivery \$	
☐ Adult Signature Required \$	
☐ Adult Signature Restricted Delivery \$	
Postage \$	
Total \$	
Sent To \$	
Street \$	
City	
PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions	

7019 0160 0000 5675 0711

U.S. Postal Service™ CERTIFIED MAIL® RECEIPT <i>Domestic Mail Only</i>	
For delivery information, visit our website at www.usps.com ®.	
OFFICIAL USE	
Certified Mail Fee \$	Postmark Here
Extra Services & Fees (check box, add fee as appropriate)	
☐ Return Receipt (hardcopy) \$	
☐ Return Receipt (electronic) \$	
☐ Certified Mail Restricted Delivery \$	
☐ Adult Signature Required \$	
☐ Adult Signature Restricted Delivery \$	
Postage \$	
Total Paid \$	
Sent To \$	
Street \$	
City, State	
PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions	

7019 0160 0000 5675 0728

U.S. Postal Service™ CERTIFIED MAIL® RECEIPT <i>Domestic Mail Only</i>	
For delivery information, visit our website at www.usps.com ®.	
OFFICIAL USE	
Certified Mail Fee \$	Postmark Here
Extra Services & Fees (check box, add fee as appropriate)	
☐ Return Receipt (hardcopy) \$	
☐ Return Receipt (electronic) \$	
☐ Certified Mail Restricted Delivery \$	
☐ Adult Signature Required \$	
☐ Adult Signature Restricted Delivery \$	
Postage \$	
Total \$	
Sent To \$	
Street \$	
City	
PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions	

7019 0160 0000 5675 0735

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at www.usps.com®.

OFFICIAL USE

Certified Mail Fee	
\$	
Extra Services & Fees (check box, add fee as appropriate)	
☐ Return Receipt (hardcopy)	\$
☐ Return Receipt (electronic)	\$
☐ Certified Mail Restricted Delivery	\$
☐ Adult Signature Required	\$
☐ Adult Signature Restricted Delivery	\$

Postmark
Here

Postage

\$

Total

\$

Sent

Street

City

Vahan Tufankijan
 Seaside Healthcare
 850 Baxter Boulevard
 Portland ME 04103

PS Form 3800, April 2015 PSN 7530-02-000-9047

See Reverse for Instructions

7019 0160 0000 5675 0742

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at www.usps.com®.

OFFICIAL USE

Certified Mail Fee	
\$	
Extra Services & Fees (check box, add fee as appropriate)	
☐ Return Receipt (hardcopy)	\$
☐ Return Receipt (electronic)	\$
☐ Certified Mail Restricted Delivery	\$
☐ Adult Signature Required	\$
☐ Adult Signature Restricted Delivery	\$

Postmark
Here

Postage

\$

Total

\$

Sent

Street

City

Paul Dubois
 1915 Congress Street
 Portland ME 04102

PS Form 3800, April 2015 PSN 7530-02-000-9047

See Reverse for Instructions

7019 0160 0000 5675 0759

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at www.usps.com®.

OFFICIAL USE

Certified Mail Fee	
\$	
Extra Services & Fees (check box, add fee as appropriate)	
☐ Return Receipt (hardcopy)	\$
☐ Return Receipt (electronic)	\$
☐ Certified Mail Restricted Delivery	\$
☐ Adult Signature Required	\$
☐ Adult Signature Restricted Delivery	\$

Postmark
Here

Postage

\$

Total

\$

Sent

Street

City

Priscilla LaVallee
 190 US Route 1, Unit 2
 Falmouth ME 04105

PS Form 3800, April 2015 PSN 7530-02-000-9047

See Reverse for Instructions

7019 0160 0000 5675 0643

U.S. Postal Service™ CERTIFIED MAIL® RECEIPT <i>Domestic Mail Only</i>	
For delivery information, visit our website at www.usps.com ®.	
OFFICIAL USE	
Certified Mail Fee \$ _____	Postmark Here
Extra Services & Fees (check box, add fee as appropriate)	
☐ Return Receipt (hardcopy) \$ _____	
☐ Return Receipt (electronic) \$ _____	
☐ Certified Mail Restricted Delivery \$ _____	
☐ Adult Signature Required \$ _____	
☐ Adult Signature Restricted Delivery \$ _____	
Postage \$ _____	
Total Price \$ _____	
Sent To _____	
Street _____	
City, State, ZIP+4® _____	
PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions	

Jesse Thompson
Kaplan Thompson Architects
100 Exchange Street
Portland ME 04103

7019 0160 0000 5675 0650

U.S. Postal Service™ CERTIFIED MAIL® RECEIPT <i>Domestic Mail Only</i>	
For delivery information, visit our website at www.usps.com ®.	
OFFICIAL USE	
Certified Mail Fee \$ _____	Postmark Here
Extra Services & Fees (check box, add fee as appropriate)	
☐ Return Receipt (hardcopy) \$ _____	
☐ Return Receipt (electronic) \$ _____	
☐ Certified Mail Restricted Delivery \$ _____	
☐ Adult Signature Required \$ _____	
☐ Adult Signature Restricted Delivery \$ _____	
Postage \$ _____	
Total Price \$ _____	
Sent To _____	
Street _____	
City, State, ZIP+4® _____	
PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions	

Mary Griffity
6 E. Prom, Unit #2
Portland ME 04103

7019 0160 0000 5675 0667

U.S. Postal Service™ CERTIFIED MAIL® RECEIPT <i>Domestic Mail Only</i>	
For delivery information, visit our website at www.usps.com ®.	
OFFICIAL USE	
Certified Mail Fee \$ _____	Postmark Here
Extra Services & Fees (check box, add fee as appropriate)	
☐ Return Receipt (hardcopy) \$ _____	
☐ Return Receipt (electronic) \$ _____	
☐ Certified Mail Restricted Delivery \$ _____	
☐ Adult Signature Required \$ _____	
☐ Adult Signature Restricted Delivery \$ _____	
Postage \$ _____	
Total Price \$ _____	
Sent To _____	
Street _____	
City, State, ZIP+4® _____	
PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions	

Pam Burnside
64 Lester Drive
Portland ME 04103

7019 0160 0000 5675 0674

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at www.usps.com®.

OFFICIAL USE

Certified Mail Fee

\$

Extra Services & Fees (check box, add fee as appropriate)

☐ Return Receipt (hardcopy) \$
☐ Return Receipt (electronic) \$
☐ Certified Mail Restricted Delivery \$
☐ Adult Signature Required \$
☐ Adult Signature Restricted Delivery \$

Postmark
Here

Postage

\$

Total

\$

Sent To

Street

City

State

Zip

Philip Haughey
 1660 Soldiers Field Road
 Boston MA 02135

PS Form 3800, April 2015 PSN 7530-02-000-9047

See Reverse for Instructions

7019 0160 0000 5675 0681

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at www.usps.com®.

OFFICIAL USE

Certified Mail Fee

\$

Extra Services & Fees (check box, add fee as appropriate)

☐ Return Receipt (hardcopy) \$
☐ Return Receipt (electronic) \$
☐ Certified Mail Restricted Delivery \$
☐ Adult Signature Required \$
☐ Adult Signature Restricted Delivery \$

Postmark
Here

Postage

\$

Total

\$

Sent To

Street

City

State

Zip

REP Benjamin Dudley III
 District 30
 9 Ponce Street
 Portland ME 04101

PS Form 3800, April 2015 PSN 7530-02-000-9047

See Reverse for Instructions

7019 0160 0000 5675 0698

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at www.usps.com®.

OFFICIAL USE

Certified Mail Fee

\$

Extra Services & Fees (check box, add fee as appropriate)

☐ Return Receipt (hardcopy) \$
☐ Return Receipt (electronic) \$
☐ Certified Mail Restricted Delivery \$
☐ Adult Signature Required \$
☐ Adult Signature Restricted Delivery \$

Postmark
Here

Postage

\$

Total

\$

Sent To

Street

City

State

Zip

Chris Castelsky
 Fairpoint Communications
 521 East Morehead Street
 Charlotte NC 28202

PS Form 3800, April 2015 PSN 7530-02-000-9047

See Reverse for Instructions

7019 0160 0000 5675 0582

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at www.usps.com®.

OFFICIAL USE

Certified Mail Fee

\$

Extra Services & Fees (check box, add fee as appropriate)

☐ Return Receipt (hardcopy) \$
☐ Return Receipt (electronic) \$
☐ Certified Mail Restricted Delivery \$
☐ Adult Signature Required \$
☐ Adult Signature Restricted Delivery \$

Postmark
Here

Postage

\$

Total

\$

Sent

Street

City,

Peggy Morin
 66 Farnham Street
 Portland ME 04101

PS Form 3800, April 2015 PSN 7530-02-000-9047

See Reverse for Instructions

7019 0160 0000 5675 0599

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at www.usps.com®.

OFFICIAL USE

Certified Mail Fee

\$

Extra Services & Fees (check box, add fee as appropriate)

☐ Return Receipt (hardcopy) \$
☐ Return Receipt (electronic) \$
☐ Certified Mail Restricted Delivery \$
☐ Adult Signature Required \$
☐ Adult Signature Restricted Delivery \$

Postmark
Here

Postage

\$

Total Po

\$

Sent To

Street a

City, St

Rebecca Halla
 Waste Management of Maine
 2000 Forest Avenue
 Portland ME 04103

PS Form 3800, April 2015 PSN 7530-02-000-9047

See Reverse for Instructions

7019 0160 0000 5675 0605

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at www.usps.com®.

OFFICIAL USE

Certified Mail Fee

\$

Extra Services & Fees (check box, add fee as appropriate)

☐ Return Receipt (hardcopy) \$
☐ Return Receipt (electronic) \$
☐ Certified Mail Restricted Delivery \$
☐ Adult Signature Required \$
☐ Adult Signature Restricted Delivery \$

Postmark
Here

Postage

\$

Total

\$

Sent

Street

City,

Robert Hains
 250 Holm Avenue
 Portland ME 04102-1208

PS Form 3800, April 2015 PSN 7530-02-000-9047

See Reverse for Instructions

7019 0160 0000 5675 0612

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at www.usps.com®.

OFFICIAL USE

Certified Mail Fee	
\$	
Extra Services & Fees (check box, add fee as appropriate)	
☐ Return Receipt (hardcopy)	\$
☐ Return Receipt (electronic)	\$
☐ Certified Mail Restricted Delivery	\$
☐ Adult Signature Required	\$
☐ Adult Signature Restricted Delivery	\$

Postage

\$

Total

\$

Sent

Street

City

Barbara Wood
125 Emery Street
Portland ME 04102

Postmark Here

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

7019 0160 0000 5675 0629

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at www.usps.com®.

OFFICIAL USE

Certified Mail Fee	
\$	
Extra Services & Fees (check box, add fee as appropriate)	
☐ Return Receipt (hardcopy)	\$
☐ Return Receipt (electronic)	\$
☐ Certified Mail Restricted Delivery	\$
☐ Adult Signature Required	\$
☐ Adult Signature Restricted Delivery	\$

Postage

\$

Total

\$

Sent

Street

City

Deb Keenan
28 Dorothy Street
Portland ME 04103

Postmark Here

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

7019 0160 0000 5675 0636

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at www.usps.com®.

OFFICIAL USE

Certified Mail Fee	
\$	
Extra Services & Fees (check box, add fee as appropriate)	
☐ Return Receipt (hardcopy)	\$
☐ Return Receipt (electronic)	\$
☐ Certified Mail Restricted Delivery	\$
☐ Adult Signature Required	\$
☐ Adult Signature Restricted Delivery	\$

Postage

\$

Total

\$

Sent

Street

City

Greater Portland Council of Governments
970 Baxter Blvd., 2nd Floor
Portland ME 04103

Postmark Here

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

7019 0160 0000 5675 0018

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at www.usps.com®.

OFFICIAL USE

Certified Mail Fee

\$

Extra Services & Fees (check box, add fee as appropriate)

☐ Return Receipt (hardcopy) \$
☐ Return Receipt (electronic) \$
☐ Certified Mail Restricted Delivery \$
☐ Adult Signature Required \$
☐ Adult Signature Restricted Delivery \$

Postmark
Here

Postage

\$

Total

\$

Sent

Street

City

Anthony Donovan
 27 Riverview Street
 Portland ME 04102

PS Form 3800, April 2015 PSN 7530-02-000-9047

See Reverse for Instructions

7019 0160 0000 5675 0537

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at www.usps.com®.

OFFICIAL USE

Certified Mail Fee

\$

Extra Services & Fees (check box, add fee as appropriate)

☐ Return Receipt (hardcopy) \$
☐ Return Receipt (electronic) \$
☐ Certified Mail Restricted Delivery \$
☐ Adult Signature Required \$
☐ Adult Signature Restricted Delivery \$

Postmark
Here

Postage

\$

Total

\$

Sent

Street

City

David Nowlin
 215 Oxford Street
 Portland ME 04102

PS Form 3800, April 2015 PSN 7530-02-000-9047

See Reverse for Instructions

7019 0160 0000 5675 0544

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at www.usps.com®.

OFFICIAL USE

Certified Mail Fee

\$

Extra Services & Fees (check box, add fee as appropriate)

☐ Return Receipt (hardcopy) \$
☐ Return Receipt (electronic) \$
☐ Certified Mail Restricted Delivery \$
☐ Adult Signature Required \$
☐ Adult Signature Restricted Delivery \$

Postmark
Here

Postage

\$

Total

\$

Sent

Street

City

Edward Suslovic
 District 3
 46 Kenwood Street
 Portland ME 04103

PS Form 3800, April 2015 PSN 7530-02-000-9047

See Reverse for Instructions

7019 0160 0000 5675 0551

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at www.usps.com®.

OFFICIAL USE

Certified Mail Fee

\$

Extra Services & Fees (check box, add fee as appropriate)

☐ Return Receipt (hardcopy) \$
☐ Return Receipt (electronic) \$
☐ Certified Mail Restricted Delivery \$
☐ Adult Signature Required \$
☐ Adult Signature Restricted Delivery \$

Postmark
Here

Postage

\$

Total

\$

Sent

Street

City,

Jennifer Munson
 City of Portland
 389 Congress Street
 Portland ME 04101

PS Form 3800, April 2015 PSN 7530-02-000-9047

See Reverse for Instructions

7019 0160 0000 5675 0568

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at www.usps.com®.

OFFICIAL USE

Certified Mail Fee

\$

Extra Services & Fees (check box, add fee as appropriate)

☐ Return Receipt (hardcopy) \$
☐ Return Receipt (electronic) \$
☐ Certified Mail Restricted Delivery \$
☐ Adult Signature Required \$
☐ Adult Signature Restricted Delivery \$

Postmark
Here

Postage

\$

Total

\$

Sent

Street

City,

Lynn Clarkson
 145 Marlborough Road
 Portland ME 04103

PS Form 3800, April 2015 PSN 7530-02-000-9047

See Reverse for Instructions

7019 0160 0000 5675 0575

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at www.usps.com®.

OFFICIAL USE

Certified Mail Fee

\$

Extra Services & Fees (check box, add fee as appropriate)

☐ Return Receipt (hardcopy) \$
☐ Return Receipt (electronic) \$
☐ Certified Mail Restricted Delivery \$
☐ Adult Signature Required \$
☐ Adult Signature Restricted Delivery \$

Postmark
Here

Postage

\$

Total

\$

Sent

Street

City,

Nancy Bartlett
 PO Box 7965
 Portland ME 04112

PS Form 3800, April 2015 PSN 7530-02-000-9047

See Reverse for Instructions

7019 0160 0000 5675 0070

U.S. Postal Service[™]
CERTIFIED MAIL[®] RECEIPT
Domestic Mail Only

For delivery information, visit our website at www.usps.com[®].

OFFICIAL USE

Certified Mail Fee	\$	
Extra Services & Fees (check box, add fee as appropriate)		
☐ Return Receipt (hardcopy)	\$	
☐ Return Receipt (electronic)	\$	
☐ Certified Mail Restricted Delivery	\$	
☐ Adult Signature Required	\$	
☐ Adult Signature Restricted Delivery	\$	
Postage		
\$		
To		
\$		
St		
City		

WOODBERRY KAREN E
459 ALLEN AVE #26
PORTLAND ME 04103

Postmark
Here

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

7019 0160 0000 5675 0087

U.S. Postal Service[™]
CERTIFIED MAIL[®] RECEIPT
Domestic Mail Only

For delivery information, visit our website at www.usps.com[®].

OFFICIAL USE

Certified Mail Fee	\$	
Extra Services & Fees (check box, add fee as appropriate)		
☐ Return Receipt (hardcopy)	\$	
☐ Return Receipt (electronic)	\$	
☐ Certified Mail Restricted Delivery	\$	
☐ Adult Signature Required	\$	
☐ Adult Signature Restricted Delivery	\$	
Postage		
\$		
Total		
\$		
Sent		
Street		
City, St		

YEBOAH DUKE
17 PENN AVE
PORTLAND ME 04103

Postmark
Here

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

7019 0160 0000 5675 0131

U.S. Postal Service[™]
CERTIFIED MAIL[®] RECEIPT
Domestic Mail Only

For delivery information, visit our website at www.usps.com[®].

OFFICIAL USE

Certified Mail Fee	\$	
Extra Services & Fees (check box, add fee as appropriate)		
☐ Return Receipt (hardcopy)	\$	
☐ Return Receipt (electronic)	\$	
☐ Certified Mail Restricted Delivery	\$	
☐ Adult Signature Required	\$	
☐ Adult Signature Restricted Delivery	\$	
Postage		
\$		
Total		
\$		
St		
Str		
City		

ZIMMERMAN ROBERTA L
12 MERRYMEETING DR
PORTLAND ME 04103

Postmark
Here

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

7019 0160 0000 5675 0124

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at www.usps.com®.

OFFICIAL USE

Certified Mail Fee	
\$	
Extra Services & Fees (check box, add fee as appropriate)	
☐ Return Receipt (hardcopy)	\$
☐ Return Receipt (electronic)	\$
☐ Certified Mail Restricted Delivery	\$
☐ Adult Signature Required	\$
☐ Adult Signature Restricted Delivery	\$
Postage	
\$	
Total	
\$	
Ser	
Stre	
City	

Postmark
Here

YORK MEGAN T & JONATHAN A YORK JTS
 72 FLORIDA AVE
 PORTLAND ME 04103

PS Form 3800, April 2015 PSN 7530-02-000-9047

See Reverse for Instructions

7019 0160 0000 5675 0117

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at www.usps.com®.

OFFICIAL USE

Certified Mail Fee	
\$	
Extra Services & Fees (check box, add fee as appropriate)	
☐ Return Receipt (hardcopy)	\$
☐ Return Receipt (electronic)	\$
☐ Certified Mail Restricted Delivery	\$
☐ Adult Signature Required	\$
☐ Adult Signature Restricted Delivery	\$
Postage	
\$	
Total	
\$	
Ser	
Stre	
City	

Postmark
Here

ZUB PATRICIA A
 308 E 120TH AVE
 TAMPA FL 33612

PS Form 3800, April 2015 PSN 7530-02-000-9047

See Reverse for Instructions

7019 0160 0000 5675 0100

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at www.usps.com®.

OFFICIAL USE

Certified Mail Fee	
\$	
Extra Services & Fees (check box, add fee as appropriate)	
☐ Return Receipt (hardcopy)	\$
☐ Return Receipt (electronic)	\$
☐ Certified Mail Restricted Delivery	\$
☐ Adult Signature Required	\$
☐ Adult Signature Restricted Delivery	\$
Postage	
\$	
Total	
\$	
Ser	
Stre	
City	

Postmark
Here

YOUNGBLOOD ALEC N & JOSHUA T AVERY JTS
 344 RAY ST
 PORTLAND ME 04103

PS Form 3800, April 2015 PSN 7530-02-000-9047

See Reverse for Instructions

7019 0160 0000 5675 2500

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at www.usps.com®.

OFFICIAL USE

Certified Mail Fee	
\$	
Extra Services & Fees (check box, add fee as appropriate)	
☐ Return Receipt (hardcopy)	\$
☐ Return Receipt (electronic)	\$
☐ Certified Mail Restricted Delivery	\$
☐ Adult Signature Required	\$
☐ Adult Signature Restricted Delivery	\$

Postmark
Here

Postage

\$

Total Postage

\$

Sent To

Street and

City, State, ZIP+4®

TOWLE WALTER D WWII VET & DONNA
 MARIE TOWLE JTS
 8 MERRYMEETING DR
 PORTLAND ME 04103

PS Form 3800, April 2015 PSN 7530-02-000-9047

See Reverse for Instructions

7019 0160 0000 5675 0025

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at www.usps.com®.

OFFICIAL USE

Certified Mail Fee	
\$	
Extra Services & Fees (check box, add fee as appropriate)	
☐ Return Receipt (hardcopy)	\$
☐ Return Receipt (electronic)	\$
☐ Certified Mail Restricted Delivery	\$
☐ Adult Signature Required	\$
☐ Adult Signature Restricted Delivery	\$

Postmark
Here

Postage

\$

Total Postage

\$

Sent To

Street

City, State, ZIP+4®

TUTOR THOMAS L
 20 VERMONT AVE
 PORTLAND ME 04103

PS Form 3800, April 2015 PSN 7530-02-000-9047

See Reverse for Instructions

7019 0160 0000 5675 0032

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at www.usps.com®.

OFFICIAL USE

Certified Mail Fee	
\$	
Extra Services & Fees (check box, add fee as appropriate)	
☐ Return Receipt (hardcopy)	\$
☐ Return Receipt (electronic)	\$
☐ Certified Mail Restricted Delivery	\$
☐ Adult Signature Required	\$
☐ Adult Signature Restricted Delivery	\$

Postmark
Here

Postage

\$

Total Postage

\$

Sent To

Street

City, State, ZIP+4®

WAGNER THERESA
 65 WHITNEY FARM RD
 NORTH YARMOUTH ME 04097

PS Form 3800, April 2015 PSN 7530-02-000-9047

See Reverse for Instructions

7019 0160 0000 5675 0049

U.S. Postal Service™ CERTIFIED MAIL® RECEIPT <i>Domestic Mail Only</i>	
For delivery information, visit our website at www.usps.com ®.	
OFFICIAL USE	
Certified Mail Fee \$ _____	Postmark Here
Extra Services & Fees (check box, add fee as appropriate)	
☐ Return Receipt (hardcopy) \$ _____	
☐ Return Receipt (electronic) \$ _____	
☐ Certified Mail Restricted Delivery \$ _____	
☐ Adult Signature Required \$ _____	
☐ Adult Signature Restricted Delivery \$ _____	
Postage \$ _____	
Total \$ _____	
Sent To _____	WEBSTER BETH A PO BOX 8228 PORTLAND ME 04104
Street _____	
City, St _____	
PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions	

7019 0160 0000 5675 0056

U.S. Postal Service™ CERTIFIED MAIL® RECEIPT <i>Domestic Mail Only</i>	
For delivery information, visit our website at www.usps.com ®.	
OFFICIAL USE	
Certified Mail Fee \$ _____	Postmark Here
Extra Services & Fees (check box, add fee as appropriate)	
☐ Return Receipt (hardcopy) \$ _____	
☐ Return Receipt (electronic) \$ _____	
☐ Certified Mail Restricted Delivery \$ _____	
☐ Adult Signature Required \$ _____	
☐ Adult Signature Restricted Delivery \$ _____	
Postage \$ _____	
Total \$ _____	
Sent To _____	WELSH RICHARD J & MARIE K WELSH JTS 13 MERRYMEETING DR PORTLAND ME 04103
Street _____	
City, _____	
PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions	

7019 0160 0000 5675 0063

U.S. Postal Service™ CERTIFIED MAIL® RECEIPT <i>Domestic Mail Only</i>	
For delivery information, visit our website at www.usps.com ®.	
OFFICIAL USE	
Certified Mail Fee \$ _____	Postmark Here
Extra Services & Fees (check box, add fee as appropriate)	
☐ Return Receipt (hardcopy) \$ _____	
☐ Return Receipt (electronic) \$ _____	
☐ Certified Mail Restricted Delivery \$ _____	
☐ Adult Signature Required \$ _____	
☐ Adult Signature Restricted Delivery \$ _____	
Postage \$ _____	
Total \$ _____	
Sent To _____	WHALEN MAUREEN 459 ALLEN AVE APT 23 PORTLAND ME 04103
Street _____	
City, _____	
PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions	

7019 0160 0000 5675 2449

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at www.usps.com®.

OFFICIAL USE

Certified Mail Fee	\$
Extra Services & Fees (check box, add fee as appropriate)	
☐ Return Receipt (hardcopy)	\$
☐ Return Receipt (electronic)	\$
☐ Certified Mail Restricted Delivery	\$
☐ Adult Signature Required	\$
☐ Adult Signature Restricted Delivery	\$

Postmark
Here

Postage

\$

Total F

\$

Sent To

Street

City, St

WELSH RICHARD E & SUSAN WELSH JTS
5 MERRYMEETING DR
PORTLAND ME 04103

PS Form 3800, April 2015 PSN 7530-02-000-9047

See Reverse for Instructions

7019 0160 0000 5675 2456

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at www.usps.com®.

OFFICIAL USE

Certified Mail Fee	\$
Extra Services & Fees (check box, add fee as appropriate)	
☐ Return Receipt (hardcopy)	\$
☐ Return Receipt (electronic)	\$
☐ Certified Mail Restricted Delivery	\$
☐ Adult Signature Required	\$
☐ Adult Signature Restricted Delivery	\$

Postmark
Here

Postage

\$

Total

\$

Sent To

Street

City, St

WGME INC
81 NORTHPORT DR
PORTLAND ME 04103

PS Form 3800, April 2015 PSN 7530-02-000-9047

See Reverse for Instructions

7019 0160 0000 5675 2463

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at www.usps.com®.

OFFICIAL USE

Certified Mail Fee	\$
Extra Services & Fees (check box, add fee as appropriate)	
☐ Return Receipt (hardcopy)	\$
☐ Return Receipt (electronic)	\$
☐ Certified Mail Restricted Delivery	\$
☐ Adult Signature Required	\$
☐ Adult Signature Restricted Delivery	\$

Postmark
Here

Postage

\$

Total P

\$

Sent To

Street

City, St

WHITNEY LEE ANN
1 MERRYMEETING DR
PORTLAND ME 04103

PS Form 3800, April 2015 PSN 7530-02-000-9047

See Reverse for Instructions

7019 0160 0000 5675 2470

U.S. Postal Service™ CERTIFIED MAIL® RECEIPT <i>Domestic Mail Only</i>	
For delivery information, visit our website at www.usps.com® .	
OFFICIAL USE	
Certified Mail Fee \$	Postmark Here
Extra Services & Fees (check box, add fee as appropriate)	
☐ Return Receipt (hardcopy) \$	
☐ Return Receipt (electronic) \$	
☐ Certified Mail Restricted Delivery \$	
☐ Adult Signature Required \$	
☐ Adult Signature Restricted Delivery \$	
Postage \$	
Total \$	
Sent To \$	
Street	
City, State	
PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions	

SNOW CORY & SHEILA J SULLIVAN JTS
398 RAY ST
PORTLAND ME 04103

7019 0160 0000 5675 2487

U.S. Postal Service™ CERTIFIED MAIL® RECEIPT <i>Domestic Mail Only</i>	
For delivery information, visit our website at www.usps.com® .	
OFFICIAL USE	
Certified Mail Fee \$	Postmark Here
Extra Services & Fees (check box, add fee as appropriate)	
☐ Return Receipt (hardcopy) \$	
☐ Return Receipt (electronic) \$	
☐ Certified Mail Restricted Delivery \$	
☐ Adult Signature Required \$	
☐ Adult Signature Restricted Delivery \$	
Postage \$	
Total \$	
Sent To \$	
Street	
City, State	
PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions	

STEVENS CHERYL A & CHESTER STEVENS JTS
9 TEXAS ST
PORTLAND ME 04103

7019 0160 0000 5675 2494

U.S. Postal Service™ CERTIFIED MAIL® RECEIPT <i>Domestic Mail Only</i>	
For delivery information, visit our website at www.usps.com® .	
OFFICIAL USE	
Certified Mail Fee \$	Postmark Here
Extra Services & Fees (check box, add fee as appropriate)	
☐ Return Receipt (hardcopy) \$	
☐ Return Receipt (electronic) \$	
☐ Certified Mail Restricted Delivery \$	
☐ Adult Signature Required \$	
☐ Adult Signature Restricted Delivery \$	
Postage \$	
Total \$	
Sent To \$	
Street	
City, State	
PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions	

TAYLOR DAWN M
459 ALLEN AVE # 11
PORTLAND ME 04103

7019 0160 0000 5675 2388

U.S. Postal Service™	
CERTIFIED MAIL® RECEIPT	
Domestic Mail Only	
For delivery information, visit our website at www.usps.com® .	
OFFICIAL USE	
Certified Mail Fee	
\$	
Extra Services & Fees (check box, add fee as appropriate)	
☐ Return Receipt (hardcopy)	\$
☐ Return Receipt (electronic)	\$
☐ Certified Mail Restricted Delivery	\$
☐ Adult Signature Required	\$
☐ Adult Signature Restricted Delivery	\$
Postage	
\$	
Total F	
\$	
Sent To	STANTON ELIZABETH M
Street	16 MERRYMEETING DR
City, St.	PORTLAND ME 04103
PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions	

7019 0160 0000 5675 2395

U.S. Postal Service™	
CERTIFIED MAIL® RECEIPT	
Domestic Mail Only	
For delivery information, visit our website at www.usps.com® .	
OFFICIAL USE	
Certified Mail Fee	
\$	
Extra Services & Fees (check box, add fee as appropriate)	
☐ Return Receipt (hardcopy)	\$
☐ Return Receipt (electronic)	\$
☐ Certified Mail Restricted Delivery	\$
☐ Adult Signature Required	\$
☐ Adult Signature Restricted Delivery	\$
Postage	
\$	
Total F	
\$	
Sent To	TALBOT JOSEPH F & JUDITH A HARRIS JTS
Street	16 NEVADA AVE
City, St.	PORTLAND ME 04103
PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions	

7019 0160 0000 5675 2401

U.S. Postal Service™	
CERTIFIED MAIL® RECEIPT	
Domestic Mail Only	
For delivery information, visit our website at www.usps.com® .	
OFFICIAL USE	
Certified Mail Fee	
\$	
Extra Services & Fees (check box, add fee as appropriate)	
☐ Return Receipt (hardcopy)	\$
☐ Return Receipt (electronic)	\$
☐ Certified Mail Restricted Delivery	\$
☐ Adult Signature Required	\$
☐ Adult Signature Restricted Delivery	\$
Postage	
\$	
Total F	
\$	
Sent To	THOMPSON DONALD A & EVELYN L JTS 488
Street	FORT HILL RD
City, St.	GORHAM ME 04038
PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions	

7019 0160 0000 5675 2418

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at www.usps.com®.

OFFICIAL USE

Certified Mail Fee	
\$	
Extra Services & Fees (check box, add fee as appropriate)	
☐ Return Receipt (hardcopy)	\$
☐ Return Receipt (electronic)	\$
☐ Certified Mail Restricted Delivery	\$
☐ Adult Signature Required	\$
☐ Adult Signature Restricted Delivery	\$

Postmark
Here

Postage

\$

Total

\$

Sent To

Street

City, State

TURNER CAROL A & SUSAN C VILLETТА JTS
 18 WISEMAN ST
 NEWPORT ME 04953

PS Form 3800, April 2015 PSN 7530-02-000-9047

See Reverse for Instructions

7019 0160 0000 5675 2425

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at www.usps.com®.

OFFICIAL USE

Certified Mail Fee	
\$	
Extra Services & Fees (check box, add fee as appropriate)	
☐ Return Receipt (hardcopy)	\$
☐ Return Receipt (electronic)	\$
☐ Certified Mail Restricted Delivery	\$
☐ Adult Signature Required	\$
☐ Adult Signature Restricted Delivery	\$

Postmark
Here

Postage

\$

Total Paid

\$

Sent To

Street and

City, State

URBACH PAULA M
 92 FLORIDA AVE
 PORTLAND ME 04103

PS Form 3800, April 2015 PSN 7530-02-000-9047

See Reverse for Instructions

7019 0160 0000 5675 2432

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at www.usps.com®.

OFFICIAL USE

Certified Mail Fee	
\$	
Extra Services & Fees (check box, add fee as appropriate)	
☐ Return Receipt (hardcopy)	\$
☐ Return Receipt (electronic)	\$
☐ Certified Mail Restricted Delivery	\$
☐ Adult Signature Required	\$
☐ Adult Signature Restricted Delivery	\$

Postmark
Here

Postage

\$

Total Paid

\$

Sent To

Street and

City, State

WEBB MARILYN D
 340 RAY ST
 PORTLAND ME 04103

PS Form 3800, April 2015 PSN 7530-02-000-9047

See Reverse for Instructions

7019 0160 0000 5675 2326

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at www.usps.com®.

OFFICIAL USE

Certified Mail Fee	
\$	
Extra Services & Fees (check box, add fee as appropriate)	
☐ Return Receipt (hardcopy)	\$
☐ Return Receipt (electronic)	\$
☐ Certified Mail Restricted Delivery	\$
☐ Adult Signature Required	\$
☐ Adult Signature Restricted Delivery	\$

Postmark
Here

Postage

\$

To

\$

Se

Str

City

City

UMBEL WILLIAM R
 122 GERTRUDE AVE
 PORTLAND ME 04103

PS Form 3800, April 2015 PSN 7530-02-000-9047

See Reverse for Instructions

7019 0160 0000 5675 2333

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at www.usps.com®.

OFFICIAL USE

Certified Mail Fee	
\$	
Extra Services & Fees (check box, add fee as appropriate)	
☐ Return Receipt (hardcopy)	\$
☐ Return Receipt (electronic)	\$
☐ Certified Mail Restricted Delivery	\$
☐ Adult Signature Required	\$
☐ Adult Signature Restricted Delivery	\$

Postmark
Here

Postage

\$

To

\$

Sen

Str

City

City

WARREN JARED P
 459 ALLEN AVE #7 P
 ORTLAND ME 04103

PS Form 3800, April 2015 PSN 7530-02-000-9047

See Reverse for Instructions

7019 0160 0000 5675 2340

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at www.usps.com®.

OFFICIAL USE

Certified Mail Fee	
\$	
Extra Services & Fees (check box, add fee as appropriate)	
☐ Return Receipt (hardcopy)	\$
☐ Return Receipt (electronic)	\$
☐ Certified Mail Restricted Delivery	\$
☐ Adult Signature Required	\$
☐ Adult Signature Restricted Delivery	\$

Postmark
Here

Postage

\$

To

\$

Str

City

City

WEISS LISA KOCH & LAURA JEAN WEISS JTS
 35 HAMMOND ST
 PORTLAND ME 04101

PS Form 3800, April 2015 PSN 7530-02-000-9047

See Reverse for Instructions

7019 0160 0000 5675 2357

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at www.usps.com®.

OFFICIAL USE

Certified Mail Fee	
\$	
Extra Services & Fees (check box, add fee as appropriate)	
☐ Return Receipt (hardcopy)	\$
☐ Return Receipt (electronic)	\$
☐ Certified Mail Restricted Delivery	\$
☐ Adult Signature Required	\$
☐ Adult Signature Restricted Delivery	\$

Postmark
Here

Postage

\$

Total

\$

Sent

Street

City, State

WELTY MARTHA & CHARLES WELTY JTS
 4 MERRYMEETING DR
 PORTLAND ME 04103

PS Form 3800, April 2015 PSN 7530-02-000-9047

See Reverse for Instructions

7019 0160 0000 5675 2364

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at www.usps.com®.

OFFICIAL USE

Certified Mail Fee	
\$	
Extra Services & Fees (check box, add fee as appropriate)	
☐ Return Receipt (hardcopy)	\$
☐ Return Receipt (electronic)	\$
☐ Certified Mail Restricted Delivery	\$
☐ Adult Signature Required	\$
☐ Adult Signature Restricted Delivery	\$

Postmark
Here

Postage

\$

Total

\$

Sent

Street

City, State

WHIPKEY RENEE & RYAN WHIPKEY JTS
 22 PENN AVE P
 PORTLAND ME 04103

PS Form 3800, April 2015 PSN 7530-02-000-9047

See Reverse for Instructions

7019 0160 0000 5675 2371

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at www.usps.com®.

OFFICIAL USE

Certified Mail Fee	
\$	
Extra Services & Fees (check box, add fee as appropriate)	
☐ Return Receipt (hardcopy)	\$
☐ Return Receipt (electronic)	\$
☐ Certified Mail Restricted Delivery	\$
☐ Adult Signature Required	\$
☐ Adult Signature Restricted Delivery	\$

Postmark
Here

Postage

\$

Total

\$

Sent

Street

City, State

SMITH JASON D & LAURIE R SMITH JTS 354
 RAY ST
 PORTLAND ME 04103

PS Form 3800, April 2015 PSN 7530-02-000-9047

See Reverse for Instructions

7019 0160 0000 5675 2234

U.S. Postal Service™ CERTIFIED MAIL® RECEIPT <i>Domestic Mail Only</i>	
For delivery information, visit our website at www.usps.com ®.	
OFFICIAL USE	
Certified Mail Fee \$ _____	Postmark Here
Extra Services & Fees (check box, add fee as appropriate)	
☐ Return Receipt (hardcopy) \$ _____	
☐ Return Receipt (electronic) \$ _____	
☐ Certified Mail Restricted Delivery \$ _____	
☐ Adult Signature Required \$ _____	
☐ Adult Signature Restricted Delivery \$ _____	
Postage \$ _____	
Total \$ _____	
Sent RODNEY ROBERT J II & CHRISTINE A RODNEY	
JTS	
Street 121 WALTON ST	
City PORTLAND ME 04103	
PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions	

7019 0160 0000 5675 2241

U.S. Postal Service™ CERTIFIED MAIL® RECEIPT <i>Domestic Mail Only</i>	
For delivery information, visit our website at www.usps.com ®.	
OFFICIAL USE	
Certified Mail Fee \$ _____	Postmark Here
Extra Services & Fees (check box, add fee as appropriate)	
☐ Return Receipt (hardcopy) \$ _____	
☐ Return Receipt (electronic) \$ _____	
☐ Certified Mail Restricted Delivery \$ _____	
☐ Adult Signature Required \$ _____	
☐ Adult Signature Restricted Delivery \$ _____	
Postage \$ _____	
Total \$ _____	
Sent ROY KIMBERLY A	
459 ALLEN AVE # 2	
PORTLAND ME 04103	
PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions	

7019 0160 0000 5675 2250

U.S. Postal Service™ CERTIFIED MAIL® RECEIPT <i>Domestic Mail Only</i>	
For delivery information, visit our website at www.usps.com ®.	
OFFICIAL USE	
Certified Mail Fee \$ _____	Postmark Here
Extra Services & Fees (check box, add fee as appropriate)	
☐ Return Receipt (hardcopy) \$ _____	
☐ Return Receipt (electronic) \$ _____	
☐ Certified Mail Restricted Delivery \$ _____	
☐ Adult Signature Required \$ _____	
☐ Adult Signature Restricted Delivery \$ _____	
Postage \$ _____	
Total \$ _____	
Sent SCHOLZ JOHN M	
334 RAY ST	
PORTLAND ME 04103	
PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions	

7019 0160 0000 5675 2265

U.S. Postal Service™	
CERTIFIED MAIL® RECEIPT	
Domestic Mail Only	
For delivery information, visit our website at www.usps.com ®.	
OFFICIAL USE	
Certified Mail Fee	\$
Extra Services & Fees (check box, add fee as appropriate)	
☐ Return Receipt (hardcopy)	\$
☐ Return Receipt (electronic)	\$
☐ Certified Mail Restricted Delivery	\$
☐ Adult Signature Required	\$
☐ Adult Signature Restricted Delivery	\$
Postage	\$
Total	\$
Sent	\$
Street	
City, State, ZIP+4®	
PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions	

SILVERNAIL DAVID L
459 ALLEN AVE APT 16
PORTLAND ME 04103

Postmark
Here

7019 0160 0000 5675 2302

U.S. Postal Service™	
CERTIFIED MAIL® RECEIPT	
Domestic Mail Only	
For delivery information, visit our website at www.usps.com ®.	
OFFICIAL USE	
Certified Mail Fee	\$
Extra Services & Fees (check box, add fee as appropriate)	
☐ Return Receipt (hardcopy)	\$
☐ Return Receipt (electronic)	\$
☐ Certified Mail Restricted Delivery	\$
☐ Adult Signature Required	\$
☐ Adult Signature Restricted Delivery	\$
Postage	\$
Total	\$
Sent	\$
Street	
City, State, ZIP+4®	
PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions	

THOMPSON BARBARA E
65 FLORIDA AVE
PORTLAND ME 04103

Postmark
Here

7019 0160 0000 5675 2319

U.S. Postal Service™	
CERTIFIED MAIL® RECEIPT	
Domestic Mail Only	
For delivery information, visit our website at www.usps.com ®.	
OFFICIAL USE	
Certified Mail Fee	\$
Extra Services & Fees (check box, add fee as appropriate)	
☐ Return Receipt (hardcopy)	\$
☐ Return Receipt (electronic)	\$
☐ Certified Mail Restricted Delivery	\$
☐ Adult Signature Required	\$
☐ Adult Signature Restricted Delivery	\$
Postage	\$
Total	\$
Sent	\$
Street	
City, State, ZIP+4®	
PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions	

TUFTS BARBARA J
6 MERRYMEETING DR # 6
PORTLAND ME 04103

Postmark
Here

7019 0160 0000 5675 2173

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at www.usps.com®.

OFFICIAL USE

Certified Mail Fee	
\$	
Extra Services & Fees (check box, add fee as appropriate)	
☐ Return Receipt (hardcopy)	\$
☐ Return Receipt (electronic)	\$
☐ Certified Mail Restricted Delivery	\$
☐ Adult Signature Required	\$
☐ Adult Signature Restricted Delivery	\$

Postmark
Here

Postage

\$

Total

\$

Sent To

Street

City, State

City, State

OAKES RYAN E
 34 JERSEY AVE
 PORTLAND ME 04103

PS Form 3800, April 2015 PSN 7530-02-000-9047

See Reverse for Instructions

7019 0160 0000 5675 2180

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at www.usps.com®.

OFFICIAL USE

Certified Mail Fee	
\$	
Extra Services & Fees (check box, add fee as appropriate)	
☐ Return Receipt (hardcopy)	\$
☐ Return Receipt (electronic)	\$
☐ Certified Mail Restricted Delivery	\$
☐ Adult Signature Required	\$
☐ Adult Signature Restricted Delivery	\$

Postmark
Here

Postage

\$

Total

\$

Sent To

Street

City, State

City, State

PARADIS WILLIAM M & SARAH C PARADIS JTS
 355 RAY ST
 PORTLAND ME 04103

PS Form 3800, April 2015 PSN 7530-02-000-9047

See Reverse for Instructions

7019 0160 0000 5675 2197

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at www.usps.com®.

OFFICIAL USE

Certified Mail Fee	
\$	
Extra Services & Fees (check box, add fee as appropriate)	
☐ Return Receipt (hardcopy)	\$
☐ Return Receipt (electronic)	\$
☐ Certified Mail Restricted Delivery	\$
☐ Adult Signature Required	\$
☐ Adult Signature Restricted Delivery	\$

Postmark
Here

Postage

\$

Total P

\$

Sent To

Street

City, State

City, State

PERKINS SARAH & JILL PERKINS-BOUCHARD
 11 JERSEY AVE
 PORTLAND ME 04103

PS Form 3800, April 2015 PSN 7530-02-000-9047

See Reverse for Instructions

7019 0160 0000 5675 2203

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at www.usps.com®.

OFFICIAL USE

Certified Mail Fee	
\$	
Extra Services & Fees (check box, add fee as appropriate)	
☐ Return Receipt (hardcopy)	\$
☐ Return Receipt (electronic)	\$
☐ Certified Mail Restricted Delivery	\$
☐ Adult Signature Required	\$
☐ Adult Signature Restricted Delivery	\$

Postmark
Here

Postage

\$

Total

\$

Sent

Street

City, State

PROIA SUSANNA
44 FLORIDA AVE
PORTLAND ME 04103

PS Form 3800, April 2015 PSN 7530-02-000-9047

See Reverse for Instructions

7019 0160 0000 5675 2210

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at www.usps.com®.

OFFICIAL USE

Certified Mail Fee	
\$	
Extra Services & Fees (check box, add fee as appropriate)	
☐ Return Receipt (hardcopy)	\$
☐ Return Receipt (electronic)	\$
☐ Certified Mail Restricted Delivery	\$
☐ Adult Signature Required	\$
☐ Adult Signature Restricted Delivery	\$

Postmark
Here

Post

\$

Total

\$

Sent

Street

City, State

RAMSDELL DARRIN L & LINDSEY M RAMSDELL
JTS
12 PENN AVE
PORTLAND ME 04103

PS Form 3800, April 2015 PSN 7530-02-000-9047

See Reverse for Instructions

7019 0160 0000 5675 2227

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at www.usps.com®.

OFFICIAL USE

Certified Mail Fee	
\$	
Extra Services & Fees (check box, add fee as appropriate)	
☐ Return Receipt (hardcopy)	\$
☐ Return Receipt (electronic)	\$
☐ Certified Mail Restricted Delivery	\$
☐ Adult Signature Required	\$
☐ Adult Signature Restricted Delivery	\$

Postmark
Here

Postage

\$

Total

\$

Sent

Street

City, State

RICE JULIANNE L
459 ALLEN AVE # 17
PORTLAND ME 04103

PS Form 3800, April 2015 PSN 7530-02-000-9047

See Reverse for Instructions

7019 0160 0000 5675 2128

U.S. Postal Service™ CERTIFIED MAIL® RECEIPT <i>Domestic Mail Only</i>	
For delivery information, visit our website at www.usps.com ®.	
OFFICIAL USE	
Certified Mail Fee \$ _____	Postmark Here
Extra Services & Fees (check box, add fee as appropriate)	
☐ Return Receipt (hardcopy) \$ _____	
☐ Return Receipt (electronic) \$ _____	
☐ Certified Mail Restricted Delivery \$ _____	
☐ Adult Signature Required \$ _____	
☐ Adult Signature Restricted Delivery \$ _____	
Postage \$ _____	
Total \$ _____	
Sent _____	
Street _____	
City, _____	
PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions	

REGAN BRENDAN S
114 FLORIDA AVE
PORTLAND ME 04103

7019 0160 0000 5675 2111

U.S. Postal Service™ CERTIFIED MAIL® RECEIPT <i>Domestic Mail Only</i>	
For delivery information, visit our website at www.usps.com ®.	
OFFICIAL USE	
Certified Mail Fee \$ _____	Postmark Here
Extra Services & Fees (check box, add fee as appropriate)	
☐ Return Receipt (hardcopy) \$ _____	
☐ Return Receipt (electronic) \$ _____	
☐ Certified Mail Restricted Delivery \$ _____	
☐ Adult Signature Required \$ _____	
☐ Adult Signature Restricted Delivery \$ _____	
Postage \$ _____	
Total \$ _____	
Sent _____	
Street _____	
City, _____	
PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions	

QUINN SUSAN LOUISE
35 NEVADA AVE
PORTLAND ME 04103

7019 0160 0000 5675 2135

U.S. Postal Service™ CERTIFIED MAIL® RECEIPT <i>Domestic Mail Only</i>	
For delivery information, visit our website at www.usps.com ®.	
OFFICIAL USE	
Certified Mail Fee \$ _____	Postmark Here
Extra Services & Fees (check box, add fee as appropriate)	
☐ Return Receipt (hardcopy) \$ _____	
☐ Return Receipt (electronic) \$ _____	
☐ Certified Mail Restricted Delivery \$ _____	
☐ Adult Signature Required \$ _____	
☐ Adult Signature Restricted Delivery \$ _____	
Postage \$ _____	
Total \$ _____	
Sent _____	
Street _____	
City, _____	
PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions	

ROBINSON BEVERLY D
459 ALLEN AVE # 3
PORTLAND ME 04103

7019 0160 0000 5675 2142

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at www.usps.com®.

OFFICIAL USE

Certified Mail Fee	
\$	
Extra Services & Fees (check box, add fee as appropriate)	
☐ Return Receipt (hardcopy)	\$
☐ Return Receipt (electronic)	\$
☐ Certified Mail Restricted Delivery	\$
☐ Adult Signature Required	\$
☐ Adult Signature Restricted Delivery	\$

Postmark
Here

Postage

\$

Total P

\$

Sent To

Street

City, State, ZIP

ROWE EUGENE L & ELLEN R ROWE JTS 295
 RAY ST
 PORTLAND ME 04103

PS Form 3800, April 2015 PSN 7530-02-000-9047

See Reverse for Instructions

7019 0160 0000 5675 2159

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at www.usps.com®.

OFFICIAL USE

Certified Mail Fee	
\$	
Extra Services & Fees (check box, add fee as appropriate)	
☐ Return Receipt (hardcopy)	\$
☐ Return Receipt (electronic)	\$
☐ Certified Mail Restricted Delivery	\$
☐ Adult Signature Required	\$
☐ Adult Signature Restricted Delivery	\$

Postmark
Here

Postage

\$

To

\$

Se

Str

City

SCHAIBERGER SCOTT C
 138 MAINE AVE
 PORTLAND ME 04103

PS Form 3800, April 2015 PSN 7530-02-000-9047

See Reverse for Instructions

7019 0160 0000 5675 2166

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at www.usps.com®.

OFFICIAL USE

Certified Mail Fee	
\$	
Extra Services & Fees (check box, add fee as appropriate)	
☐ Return Receipt (hardcopy)	\$
☐ Return Receipt (electronic)	\$
☐ Certified Mail Restricted Delivery	\$
☐ Adult Signature Required	\$
☐ Adult Signature Restricted Delivery	\$

Postmark
Here

Postage

\$

Total Pos

\$

Sent To

Street an

City, State

SHEA STEPHEN M & DIANE L JTS
 101 FLORIDA AVE
 PORTLAND ME 04103

PS Form 3800, April 2015 PSN 7530-02-000-9047

See Reverse for Instructions

7019 0160 0000 5675 2050

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at www.usps.com®.

OFFICIAL USE

Certified Mail Fee

\$

Extra Services & Fees (check box, add fee as appropriate)

☐ Return Receipt (hardcopy) \$
☐ Return Receipt (electronic) \$
☐ Certified Mail Restricted Delivery \$
☐ Adult Signature Required \$
☐ Adult Signature Restricted Delivery \$

Postage

\$

\$

\$

\$

\$

\$

\$

\$

\$

\$

\$

\$

\$

\$

\$

\$

\$

\$

\$

\$

\$

\$

\$

\$

\$

\$

\$

\$

\$

\$

\$

\$

\$

\$

\$

\$

\$

\$

\$

\$

\$

\$

\$

\$

\$

\$

\$

\$

\$

\$

\$

\$

\$

\$

\$

\$

\$

\$

\$

\$

\$

\$

\$

\$

\$

\$

\$

\$

\$

\$

\$

\$

\$

\$

\$

\$

\$

\$

\$

\$

\$

\$

\$

\$

\$

\$

RUTHERFORD PATRIIA A
28 JERSEY AVE
PORTLAND ME 04103

Postmark
Here

PS Form 3800, April 2015 PSN 7530-02-000-9047

See Reverse for Instructions

7019 0160 0000 5675 2067

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at www.usps.com®.

OFFICIAL USE

Certified Mail Fee

\$

Extra Services & Fees (check box, add fee as appropriate)

☐ Return Receipt (hardcopy) \$
☐ Return Receipt (electronic) \$
☐ Certified Mail Restricted Delivery \$
☐ Adult Signature Required \$
☐ Adult Signature Restricted Delivery \$

Postage

\$

\$

\$

\$

\$

\$

\$

\$

\$

\$

\$

\$

\$

\$

\$

\$

\$

\$

\$

\$

\$

\$

\$

\$

\$

\$

\$

\$

\$

\$

\$

\$

\$

\$

\$

\$

\$

\$

\$

\$

\$

\$

\$

\$

\$

\$

\$

\$

\$

\$

\$

\$

\$

SENDZE KATIE
459 ALLEN AVE # 21
PORTLAND ME 04103

Postmark
Here

PS Form 3800, April 2015 PSN 7530-02-000-9047

See Reverse for Instructions

7019 0160 0000 5675 2074

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at www.usps.com®.

OFFICIAL USE

Certified Mail Fee

\$

Extra Services & Fees (check box, add fee as appropriate)

☐ Return Receipt (hardcopy) \$
☐ Return Receipt (electronic) \$
☐ Certified Mail Restricted Delivery \$
☐ Adult Signature Required \$
☐ Adult Signature Restricted Delivery \$

Postage

\$

\$

\$

\$

\$

\$

\$

\$

\$

\$

\$

\$

\$

\$

\$

\$

\$

\$

\$

NORTON KIRSTEN & NATHANIEL DUDLEY JTS
170 MAINE AVE
PORTLAND ME 04103

Postmark
Here

PS Form 3800, April 2015 PSN 7530-02-000-9047

See Reverse for Instructions

7019 0160 0000 5675 2081

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at www.usps.com®.

OFFICIAL USE

Certified Mail Fee	
\$	
Extra Services & Fees (check box, add fee as appropriate)	
☐ Return Receipt (hardcopy)	\$
☐ Return Receipt (electronic)	\$
☐ Certified Mail Restricted Delivery	\$
☐ Adult Signature Required	\$
☐ Adult Signature Restricted Delivery	\$

Postmark
Here

Postage

\$

Total Po

\$

Sent To

Street or

City, Sta.

PACKARD MARY A & AMANDA M & ALICIA L

PACKARD

106 FLORIDA AVE

PORTLAND ME 04103

PS Form 3800, April 2015 PSN 7530-02-000-9047

See Reverse for Instructions

7019 0160 0000 5675 2098

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at www.usps.com®.

OFFICIAL USE

Certified Mail Fee	
\$	
Extra Services & Fees (check box, add fee as appropriate)	
☐ Return Receipt (hardcopy)	\$
☐ Return Receipt (electronic)	\$
☐ Certified Mail Restricted Delivery	\$
☐ Adult Signature Required	\$
☐ Adult Signature Restricted Delivery	\$

Postmark
Here

Postage

\$

Total F

\$

Sent To

Street or

City, St

PELLETIER ANGELA M

128 MAINE AVE

PORTLAND ME 04103

PS Form 3800, April 2015 PSN 7530-02-000-9047

See Reverse for Instructions

7019 0160 0000 5675 2104

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at www.usps.com®.

OFFICIAL USE

Certified Mail Fee	
\$	
Extra Services & Fees (check box, add fee as appropriate)	
☐ Return Receipt (hardcopy)	\$
☐ Return Receipt (electronic)	\$
☐ Certified Mail Restricted Delivery	\$
☐ Adult Signature Required	\$
☐ Adult Signature Restricted Delivery	\$

Postmark
Here

Postage

\$

Total P

\$

Sent To

Street or

City, St.

PRESTON SHANNON R & RYAN VICTOR

JAROCHYM JTS

12 JERSEY AVE

PORTLAND ME 04103

PS Form 3800, April 2015 PSN 7530-02-000-9047

See Reverse for Instructions

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at www.usps.com®.

OFFICIAL USE

Certified Mail Fee

\$

Extra Services & Fees (check box, add fee as appropriate)

☐ Return Receipt (hardcopy) \$
☐ Return Receipt (electronic) \$
☐ Certified Mail Restricted Delivery \$
☐ Adult Signature Required \$
☐ Adult Signature Restricted Delivery \$

Postmark
Here

Postage

\$

Total

\$

Sent To

Street

City, St

O'SULLIVAN PADRAIG N & SARAH E GODFREY

JTS 406 RAY ST PORTLAND ME 04103

Portland ME 04103

PS Form 3800, April 2015 PSN 7530-02-000-9047

See Reverse for Instructions

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at www.usps.com®.

OFFICIAL USE

Certified Mail Fee

\$

Extra Services & Fees (check box, add fee as appropriate)

☐ Return Receipt (hardcopy) \$
☐ Return Receipt (electronic) \$
☐ Certified Mail Restricted Delivery \$
☐ Adult Signature Required \$
☐ Adult Signature Restricted Delivery \$

Postmark
Here

Postage

\$

Total

\$

Sent To

Street

City, St

PLOURDE ROBERT E

100 MAIN ST

CORNISH ME 04020

PS Form 3800, April 2015 PSN 7530-02-000-9047

See Reverse for Instructions

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at www.usps.com®.

OFFICIAL USE

Certified Mail Fee

\$

Extra Services & Fees (check box, add fee as appropriate)

☐ Return Receipt (hardcopy) \$
☐ Return Receipt (electronic) \$
☐ Certified Mail Restricted Delivery \$
☐ Adult Signature Required \$
☐ Adult Signature Restricted Delivery \$

Postmark
Here

Postage

\$

Total

\$

Sent To

Street

City

PURCELL LINNEA J
24 VERMONT AVE
PORTLAND ME 04103

PS Form 3800, April 2015 PSN 7530-02-000-9047

See Reverse for Instructions

7019 0160 0000 5675 2029

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
*Domestic Mail Only*For delivery information, visit our website at www.usps.com®.**OFFICIAL USE**

Certified Mail Fee	\$
Extra Services & Fees (check box, add fee as appropriate)	
☐ Return Receipt (hardcopy)	\$
☐ Return Receipt (electronic)	\$
☐ Certified Mail Restricted Delivery	\$
☐ Adult Signature Required	\$
☐ Adult Signature Restricted Delivery	\$
Postage	\$
Total	\$
Sent	
Street	
City	

Postmark
HereREEDER SUSAN W
24 JERSEY AVE
PORTLAND ME 04103

PS Form 3800, April 2015 PSN 7530-02-000-9047

See Reverse for Instructions

7019 0160 0000 5675 2036

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
*Domestic Mail Only*For delivery information, visit our website at www.usps.com®.**OFFICIAL USE**

Certified Mail Fee	\$
Extra Services & Fees (check box, add fee as appropriate)	
☐ Return Receipt (hardcopy)	\$
☐ Return Receipt (electronic)	\$
☐ Certified Mail Restricted Delivery	\$
☐ Adult Signature Required	\$
☐ Adult Signature Restricted Delivery	\$
Postage	\$
Total	\$
Sent	
Street	
City	

Postmark
HereROBERTS LEANNE
459 ALLEN AVE # 1
PORTLAND ME 04103

PS Form 3800, April 2015 PSN 7530-02-000-9047

See Reverse for Instructions

7019 0160 0000 5675 2043

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
*Domestic Mail Only*For delivery information, visit our website at www.usps.com®.**OFFICIAL USE**

Certified Mail Fee	\$
Extra Services & Fees (check box, add fee as appropriate)	
☐ Return Receipt (hardcopy)	\$
☐ Return Receipt (electronic)	\$
☐ Certified Mail Restricted Delivery	\$
☐ Adult Signature Required	\$
☐ Adult Signature Restricted Delivery	\$
Postage	\$
Total	\$
Sent	
Street	
City	

Postmark
HereROE LAURENCE L
160 MAINE AVE
PORTLAND ME 04103

PS Form 3800, April 2015 PSN 7530-02-000-9047

See Reverse for Instructions

7019 0160 0000 5675 1930

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at www.usps.com®.

OFFICIAL USE

Certified Mail Fee	
\$	
Extra Services & Fees (check box, add fee as appropriate)	
☐ Return Receipt (hardcopy)	\$
☐ Return Receipt (electronic)	\$
☐ Certified Mail Restricted Delivery	\$
☐ Adult Signature Required	\$
☐ Adult Signature Restricted Delivery	\$

Postmark
Here

Postage

MORGAN DEBORA
D3 52 RAY ST
PORTLAND ME 04103

PS Form 3800, April 2015 PSN 7530-02-000-9047

See Reverse for Instructions

7019 0160 0000 5675 1947

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at www.usps.com®.

OFFICIAL USE

Certified Mail Fee	
\$	
Extra Services & Fees (check box, add fee as appropriate)	
☐ Return Receipt (hardcopy)	\$
☐ Return Receipt (electronic)	\$
☐ Certified Mail Restricted Delivery	\$
☐ Adult Signature Required	\$
☐ Adult Signature Restricted Delivery	\$

Postmark
Here

Postage

\$
Total
\$
Sent To
\$
City

MURPHY JANICE E
459 ALLEN AVE # 8
PORTLAND ME 04103

PS Form 3800, April 2015 PSN 7530-02-000-9047

See Reverse for Instructions

7019 0160 0000 5675 1954

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at www.usps.com®.

OFFICIAL USE

Certified Mail Fee	
\$	
Extra Services & Fees (check box, add fee as appropriate)	
☐ Return Receipt (hardcopy)	\$
☐ Return Receipt (electronic)	\$
☐ Certified Mail Restricted Delivery	\$
☐ Adult Signature Required	\$
☐ Adult Signature Restricted Delivery	\$

Postmark
Here

Postage

\$
Total P
\$
Sent To
\$
Street
City, State, ZIP

NEILL DONALD L & LINDA H LORD JTS
17 MERRYMEETING DR
PORTLAND ME 04103

PS Form 3800, April 2015 PSN 7530-02-000-9047

See Reverse for Instructions

7019 0160 0000 5675 1961

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at www.usps.com®.

OFFICIAL USE

Certified Mail Fee	
\$	
Extra Services & Fees (check box, add fee as appropriate)	
☐ Return Receipt (hardcopy)	\$
☐ Return Receipt (electronic)	\$
☐ Certified Mail Restricted Delivery	\$
☐ Adult Signature Required	\$
☐ Adult Signature Restricted Delivery	\$

Postage

\$

Total

\$

Sent To

Street

City, St

NIZIOLEK CAROL A
 22 MERRYMEETING DR
 PORTLAND ME 04103

Postmark
 Here

PS Form 3800, April 2015 PSN 7530-02-000-9047

See Reverse for Instructions

7019 0160 0000 5675 1978

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at www.usps.com®.

OFFICIAL USE

Certified Mail Fee	
\$	
Extra Services & Fees (check box, add fee as appropriate)	
☐ Return Receipt (hardcopy)	\$
☐ Return Receipt (electronic)	\$
☐ Certified Mail Restricted Delivery	\$
☐ Adult Signature Required	\$
☐ Adult Signature Restricted Delivery	\$

Postage

\$

Total P

\$

Sent To

Street

City, St

NORMANDIN ADAM
 459 ALLEN AVE # 22
 PORTLAND ME 04103

Postmark
 Here

PS Form 3800, April 2015 PSN 7530-02-000-9047

See Reverse for Instructions

7019 0160 0000 5675 1992

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at www.usps.com®.

OFFICIAL USE

Certified Mail Fee	
\$	
Extra Services & Fees (check box, add fee as appropriate)	
☐ Return Receipt (hardcopy)	\$
☐ Return Receipt (electronic)	\$
☐ Certified Mail Restricted Delivery	\$
☐ Adult Signature Required	\$
☐ Adult Signature Restricted Delivery	\$

Postage

\$

Total i

\$

Sent To

Street

City, St

PARE MATTHEW P
 142 MAINE AVE
 PORTLAND ME 04103

Postmark
 Here

PS Form 3800, April 2015 PSN 7530-02-000-9047

See Reverse for Instructions

7019 0160 0000 5675 1879

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at www.usps.com®.

OFFICIAL USE

Certified Mail Fee	\$
Extra Services & Fees (check box, add fee as appropriate)	
☐ Return Receipt (hardcopy)	\$
☐ Return Receipt (electronic)	\$
☐ Certified Mail Restricted Delivery	\$
☐ Adult Signature Required	\$
☐ Adult Signature Restricted Delivery	\$
Postage	\$
Total	\$

Sent _____

Street _____

City, _____

LIBBY CHRISTINE A
 19 JERSEY AVE
 PORTLAND ME 04103

Postmark Here

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

7019 0160 0000 5675 1886

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at www.usps.com®.

OFFICIAL USE

Certified Mail Fee	\$
Extra Services & Fees (check box, add fee as appropriate)	
☐ Return Receipt (hardcopy)	\$
☐ Return Receipt (electronic)	\$
☐ Certified Mail Restricted Delivery	\$
☐ Adult Signature Required	\$
☐ Adult Signature Restricted Delivery	\$
Postage	\$
Total	\$

Sent _____

Street _____

City _____

LITVAK PROPERTIES LLC
 66 PYA RD
 PORTLAND ME 04103

Postmark Here

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

7019 0160 0000 5675 1893

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at www.usps.com®.

OFFICIAL USE

Certified Mail Fee	\$
Extra Services & Fees (check box, add fee as appropriate)	
☐ Return Receipt (hardcopy)	\$
☐ Return Receipt (electronic)	\$
☐ Certified Mail Restricted Delivery	\$
☐ Adult Signature Required	\$
☐ Adult Signature Restricted Delivery	\$
Postage	\$
Total	\$

Sent _____

Street _____

City _____

LPS PROPERTIES LLC
 117 FLORIDA AVE
 PORTLAND ME 04103

Postmark Here

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

7019 0160 0000 5675 1909

U.S. Postal Service™ CERTIFIED MAIL® RECEIPT <i>Domestic Mail Only</i>	
For delivery information, visit our website at www.usps.com ®.	
OFFICIAL USE	
Certified Mail Fee \$ _____	Postmark Here
Extra Services & Fees (check box, add fee as appropriate)	
☐ Return Receipt (hardcopy) \$ _____	
☐ Return Receipt (electronic) \$ _____	
☐ Certified Mail Restricted Delivery \$ _____	
☐ Adult Signature Required \$ _____	
☐ Adult Signature Restricted Delivery \$ _____	
Postage \$ _____	
Total \$ _____	
Sent \$ _____	
Street _____	
City _____	
PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions	

MARCHANT NICHOLAS M
18 FLORIDA AVE
PORTLAND ME 04103

7019 0160 0000 5675 1916

U.S. Postal Service™ CERTIFIED MAIL® RECEIPT <i>Domestic Mail Only</i>	
For delivery information, visit our website at www.usps.com ®.	
OFFICIAL USE	
Certified Mail Fee \$ _____	Postmark Here
Extra Services & Fees (check box, add fee as appropriate)	
☐ Return Receipt (hardcopy) \$ _____	
☐ Return Receipt (electronic) \$ _____	
☐ Certified Mail Restricted Delivery \$ _____	
☐ Adult Signature Required \$ _____	
☐ Adult Signature Restricted Delivery \$ _____	
Postage \$ _____	
Total \$ _____	
Sent \$ _____	
Street _____	
City _____	
PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions	

MCDONALD CHRISTOPHER A
91 FLORIDA AVE
PORTLAND ME 04103

7019 0160 0000 5675 1923

U.S. Postal Service™ CERTIFIED MAIL® RECEIPT <i>Domestic Mail Only</i>	
For delivery information, visit our website at www.usps.com ®.	
OFFICIAL USE	
Certified Mail Fee \$ _____	Postmark Here
Extra Services & Fees (check box, add fee as appropriate)	
☐ Return Receipt (hardcopy) \$ _____	
☐ Return Receipt (electronic) \$ _____	
☐ Certified Mail Restricted Delivery \$ _____	
☐ Adult Signature Required \$ _____	
☐ Adult Signature Restricted Delivery \$ _____	
Postage \$ _____	
Total \$ _____	
Sent \$ _____	
Street _____	
City _____	
PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions	

MINAT CORPORATION THE
PO BOX 7332
PORTLAND ME 04112

7019 0160 0000 5675 1817

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at www.usps.com®.

OFFICIAL USE

Certified Mail Fee	
\$	
Extra Services & Fees (check box, add fee as appropriate)	
☐ Return Receipt (hardcopy)	\$
☐ Return Receipt (electronic)	\$
☐ Certified Mail Restricted Delivery	\$
☐ Adult Signature Required	\$
☐ Adult Signature Restricted Delivery	\$

Postmark
Here

Postage

\$

Total

\$

Sent

Street

City

MASON ALISON M
 371 RAY ST
 PORTLAND ME 04103

PS Form 3800, April 2015 PSN 7530-02-000-9047

See Reverse for Instructions

7019 0160 0000 5675 1824

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at www.usps.com®.

OFFICIAL USE

Certified Mail Fee	
\$	
Extra Services & Fees (check box, add fee as appropriate)	
☐ Return Receipt (hardcopy)	\$
☐ Return Receipt (electronic)	\$
☐ Certified Mail Restricted Delivery	\$
☐ Adult Signature Required	\$
☐ Adult Signature Restricted Delivery	\$

Postmark
Here

Postage

\$

Total

\$

Sent

Street

City

MINAT CORPORATION
 PO BOX 7332 PORTLAND ME 04112

PS Form 3800, April 2015 PSN 7530-02-000-9047

See Reverse for Instructions

7019 0160 0000 5675 1831

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at www.usps.com®.

OFFICIAL USE

Certified Mail Fee	
\$	
Extra Services & Fees (check box, add fee as appropriate)	
☐ Return Receipt (hardcopy)	\$
☐ Return Receipt (electronic)	\$
☐ Certified Mail Restricted Delivery	\$
☐ Adult Signature Required	\$
☐ Adult Signature Restricted Delivery	\$

Postmark
Here

Postage

\$

Total Po

\$

Sent To

Street a

City, Sta

MOREAU CHERYL
 459 ALLEN AVE # 10
 PORTLAND ME 04103

PS Form 3800, April 2015 PSN 7530-02-000-9047

See Reverse for Instructions

7019 0160 0000 5675 1848

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at www.usps.com®.

OFFICIAL USE

Certified Mail Fee

\$

Extra Services & Fees (check box, add fee as appropriate)

☐ Return Receipt (hardcopy) \$
☐ Return Receipt (electronic) \$
☐ Certified Mail Restricted Delivery \$
☐ Adult Signature Required \$
☐ Adult Signature Restricted Delivery \$

Postmark
Here

Postage

\$

Total

\$

Sent

Street

City, State, ZIP+4®

MULLEN SUSAN L & JOHN H R MULLEN JTS
 105 ALICE ST
 PORTLAND ME 04103

PS Form 3800, April 2015 PSN 7530-02-000-9047

See Reverse for Instructions

7019 0160 0000 5675 1855

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at www.usps.com®.

OFFICIAL USE

Certified Mail Fee

\$

Extra Services & Fees (check box, add fee as appropriate)

☐ Return Receipt (hardcopy) \$
☐ Return Receipt (electronic) \$
☐ Certified Mail Restricted Delivery \$
☐ Adult Signature Required \$
☐ Adult Signature Restricted Delivery \$

Postmark
Here

Postage

\$

Total

\$

Sent

Street

City, State, ZIP+4®

NEILAN DAVID M
 459 ALLEN AVE # 18
 PORTLAND ME 04103

PS Form 3800, April 2015 PSN 7530-02-000-9047

See Reverse for Instructions

7019 0160 0000 5675 1862

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at www.usps.com®.

OFFICIAL USE

Certified Mail Fee

\$

Extra Services & Fees (check box, add fee as appropriate)

☐ Return Receipt (hardcopy) \$
☐ Return Receipt (electronic) \$
☐ Certified Mail Restricted Delivery \$
☐ Adult Signature Required \$
☐ Adult Signature Restricted Delivery \$

Postmark
Here

Postage

\$

Total

\$

Sent

Street

City, State, ZIP+4®

NGUYEN KHANHLY & CHE Q NGUYEN 286
 RAY ST
 PORTLAND ME 04103

PS Form 3800, April 2015 PSN 7530-02-000-9047

See Reverse for Instructions

7019 0160 0000 5675 1756

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at www.usps.com®.

OFFICIAL USE

Certified Mail Fee	
\$	
Extra Services & Fees (check box, add fee as appropriate)	
☐ Return Receipt (hardcopy)	\$
☐ Return Receipt (electronic)	\$
☐ Certified Mail Restricted Delivery	\$
☐ Adult Signature Required	\$
☐ Adult Signature Restricted Delivery	\$

Postmark
Here

Postage
\$
Total Postage
\$
Sent To
Street and Ap
City, State, Zi

MURRAY DAVID & NATALIE MURRAY JTS 53
 FLORIDA AVE
 PORTLAND ME 04103

7019 0160 0000 5675 1763

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at www.usps.com®.

OFFICIAL USE

Certified Mail Fee	
\$	
Extra Services & Fees (check box, add fee as appropriate)	
☐ Return Receipt (hardcopy)	\$
☐ Return Receipt (electronic)	\$
☐ Certified Mail Restricted Delivery	\$
☐ Adult Signature Required	\$
☐ Adult Signature Restricted Delivery	\$

Postmark
Here

Postage
\$
Total Po
\$
Sent To
Street e
City, St.

NEWMAN PHOEBE J
 111 FLORIDA AVE
 PORTLAND ME 04103

7019 0160 0000 5675 1770

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at www.usps.com®.

OFFICIAL USE

Certified Mail Fee	
\$	
Extra Services & Fees (check box, add fee as appropriate)	
☐ Return Receipt (hardcopy)	\$
☐ Return Receipt (electronic)	\$
☐ Certified Mail Restricted Delivery	\$
☐ Adult Signature Required	\$
☐ Adult Signature Restricted Delivery	\$

Postmark
Here

Postage
\$
Total f
\$
Sent T
Street
City, State, Zip

LEE THERESA
 459 ALLEN AVE # 6
 PORTLAND ME 04103

7019 0160 0000 5675 1787

U.S. Postal Service™ CERTIFIED MAIL® RECEIPT <i>Domestic Mail Only</i>	
For delivery information, visit our website at www.usps.com ®.	
OFFICIAL USE	
Certified Mail Fee \$ _____	Postmark Here
Extra Services & Fees (check box, add fee as appropriate)	
☐ Return Receipt (hardcopy) \$ _____	
☐ Return Receipt (electronic) \$ _____	
☐ Certified Mail Restricted Delivery \$ _____	
☐ Adult Signature Required \$ _____	
☐ Adult Signature Restricted Delivery \$ _____	
Postage \$ _____	
Total Postage \$ _____	
Sent To LINDVALL JAMES W II & LINDSAY A CARR JTS 38 FLORIDA AVE PORTLAND ME 04103	
PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions	

7019 0160 0000 5675 1794

U.S. Postal Service™ CERTIFIED MAIL® RECEIPT <i>Domestic Mail Only</i>	
For delivery information, visit our website at www.usps.com ®.	
OFFICIAL USE	
Certified Mail Fee \$ _____	Postmark Here
Extra Services & Fees (check box, add fee as appropriate)	
☐ Return Receipt (hardcopy) \$ _____	
☐ Return Receipt (electronic) \$ _____	
☐ Certified Mail Restricted Delivery \$ _____	
☐ Adult Signature Required \$ _____	
☐ Adult Signature Restricted Delivery \$ _____	
Postage \$ _____	
Total Postage \$ _____	
Sent To LL BEAN INC 15 CASCO ST FREEPORT ME 04033	
PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions	

7019 0160 0000 5675 1800

U.S. Postal Service™ CERTIFIED MAIL® RECEIPT <i>Domestic Mail Only</i>	
For delivery information, visit our website at www.usps.com ®.	
OFFICIAL USE	
Certified Mail Fee \$ _____	Postmark Here
Extra Services & Fees (check box, add fee as appropriate)	
☐ Return Receipt (hardcopy) \$ _____	
☐ Return Receipt (electronic) \$ _____	
☐ Certified Mail Restricted Delivery \$ _____	
☐ Adult Signature Required \$ _____	
☐ Adult Signature Restricted Delivery \$ _____	
Postage \$ _____	
Total Postage \$ _____	
Sent To MACISSO JOSEPH J JR & EILEEN F MACISSO JTS 27 PENN AVE PORTLAND ME 04103	
PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions	

7019 0160 0000 5675 1695

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at www.usps.com®.

OFFICIAL USE

Certified Mail Fee

\$

Extra Services & Fees (check box, add fee as appropriate)

☐ Return Receipt (hardcopy) \$

☐ Return Receipt (electronic) \$

☐ Certified Mail Restricted Delivery \$

☐ Adult Signature Required \$

☐ Adult Signature Restricted Delivery \$

Postmark
Here

Postage

\$

Total

\$

Sent

LITVAK PROPERTIES LLC

PO BOX 7332

PORTLAND ME 04112

Street

City

PS Form 3800, April 2015 PSN 7530-02-000-9047

See Reverse for Instructions

7019 0160 0000 5675 1701

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at www.usps.com®.

OFFICIAL USE

Certified Mail Fee

\$

Extra Services & Fees (check box, add fee as appropriate)

☐ Return Receipt (hardcopy) \$

☐ Return Receipt (electronic) \$

☐ Certified Mail Restricted Delivery \$

☐ Adult Signature Required \$

☐ Adult Signature Restricted Delivery \$

Postmark
Here

Postage

\$

Total

\$

Sent

LUTTON LAURA J

26 NEVADA AVE

PORTLAND ME 04103

Street

City

PS Form 3800, April 2015 PSN 7530-02-000-9047

See Reverse for Instructions

7019 0160 0000 5675 1718

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at www.usps.com®.

OFFICIAL USE

Certified Mail Fee

\$

Extra Services & Fees (check box, add fee as appropriate)

☐ Return Receipt (hardcopy) \$

☐ Return Receipt (electronic) \$

☐ Certified Mail Restricted Delivery \$

☐ Adult Signature Required \$

☐ Adult Signature Restricted Delivery \$

Postmark
Here

Postage

\$

Total

\$

Sent

MARTIN'S POINT HEALTH CARE INC

PO BOX 9746

PORTLAND ME 04112

Street

City

PS Form 3800, April 2015 PSN 7530-02-000-9047

See Reverse for Instructions

7019 0160 0000 5675 1725

U.S. Postal Service™ CERTIFIED MAIL® RECEIPT Domestic Mail Only	
For delivery information, visit our website at www.usps.com ®.	
OFFICIAL USE	
Certified Mail Fee \$	Postmark Here
Extra Services & Fees (check box, add fee as appropriate)	
☐ Return Receipt (hardcopy) \$	
☐ Return Receipt (electronic) \$	
☐ Certified Mail Restricted Delivery \$	
☐ Adult Signature Required \$	
☐ Adult Signature Restricted Delivery \$	
Postage \$	
Total \$	
Sent \$	
Street	MCDONALD PATRICIA A 368 RAY ST PORTLAND ME 04103 portland ME 04103
City, State	
PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions	

7019 0160 0000 5675 1732

U.S. Postal Service™ CERTIFIED MAIL® RECEIPT Domestic Mail Only	
For delivery information, visit our website at www.usps.com ®.	
OFFICIAL USE	
Certified Mail Fee \$	Postmark Here
Extra Services & Fees (check box, add fee as appropriate)	
☐ Return Receipt (hardcopy) \$	
☐ Return Receipt (electronic) \$	
☐ Certified Mail Restricted Delivery \$	
☐ Adult Signature Required \$	
☐ Adult Signature Restricted Delivery \$	
Postage \$	
Total \$	
Sent \$	
Street	MINVIELLE PETER M VN VET 25 MERRYMEETING DR PORTLAND ME 04103
City, State	
PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions	

7019 0160 0000 5675 1749

U.S. Postal Service™ CERTIFIED MAIL® RECEIPT Domestic Mail Only	
For delivery information, visit our website at www.usps.com ®.	
OFFICIAL USE	
Certified Mail Fee \$	Postmark Here
Extra Services & Fees (check box, add fee as appropriate)	
☐ Return Receipt (hardcopy) \$	
☐ Return Receipt (electronic) \$	
☐ Certified Mail Restricted Delivery \$	
☐ Adult Signature Required \$	
☐ Adult Signature Restricted Delivery \$	
Postage \$	
Total \$	
Sent \$	
Street	MORIN TERESA R 29 JERSEY AVE PORTLAND ME 04103
City, State	
PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions	

7019 0160 0000 5675 1664

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at www.usps.com®.

OFFICIAL USE

Certified Mail Fee	\$
Extra Services & Fees (check box, add fee as appropriate)	
☐ Return Receipt (hardcopy)	\$
☐ Return Receipt (electronic)	\$
☐ Certified Mail Restricted Delivery	\$
☐ Adult Signature Required	\$
☐ Adult Signature Restricted Delivery	\$

Postmark
Here

Postage

\$

To

\$

Se

Str

City

LAGERSTROM LYNN C
57 FLORIDA AVE
PORTLAND ME 04103

PS Form 3800, April 2015 PSN 7530-02-000-9047

See Reverse for Instructions

7019 0160 0000 5675 2272

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at www.usps.com®.

OFFICIAL USE

Certified Mail Fee	\$
Extra Services & Fees (check box, add fee as appropriate)	
☐ Return Receipt (hardcopy)	\$
☐ Return Receipt (electronic)	\$
☐ Certified Mail Restricted Delivery	\$
☐ Adult Signature Required	\$
☐ Adult Signature Restricted Delivery	\$

Postmark
Here

Postage

\$

Tot

\$

Ser

Str

City

SINCLAIR DANIEL C & KIMBERLY A BRISSETTE
JTS
333 RAY ST
PORTLAND ME 04103

PS Form 3800, April 2015 PSN 7530-02-000-9047

See Reverse for Instructions

7019 0160 0000 5675 2289

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at www.usps.com®.

OFFICIAL USE

Certified Mail Fee	\$
Extra Services & Fees (check box, add fee as appropriate)	
☐ Return Receipt (hardcopy)	\$
☐ Return Receipt (electronic)	\$
☐ Certified Mail Restricted Delivery	\$
☐ Adult Signature Required	\$
☐ Adult Signature Restricted Delivery	\$

Postmark
Here

Postage

\$

To

\$

Se

Str

City

ST CLAIR GEORGE W JR
36 NEVADA AVE
PORTLAND ME 04103

PS Form 3800, April 2015 PSN 7530-02-000-9047

See Reverse for Instructions

7019 0160 0000 5675 2296

U.S. Postal Service™ CERTIFIED MAIL® RECEIPT <i>Domestic Mail Only</i>	
For delivery information, visit our website at www.usps.com ®.	
OFFICIAL USE	
Certified Mail Fee \$	Postmark Here
Extra Services & Fees (check box, add fee as appropriate)	
☐ Return Receipt (hardcopy) \$	
☐ Return Receipt (electronic) \$	
☐ Certified Mail Restricted Delivery \$	
☐ Adult Signature Required \$	
☐ Adult Signature Restricted Delivery \$	
Postage \$	
Total \$	
Sent To Street	SULLIVAN JAMES A JR 83 FLORIDA AVE PORTLAND ME 04103
City, State, ZIP+4®	
PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions	

7019 0160 0000 5675 1671

U.S. Postal Service™ CERTIFIED MAIL® RECEIPT <i>Domestic Mail Only</i>	
For delivery information, visit our website at www.usps.com ®.	
OFFICIAL USE	
Certified Mail Fee \$	Postmark Here
Extra Services & Fees (check box, add fee as appropriate)	
☐ Return Receipt (hardcopy) \$	
☐ Return Receipt (electronic) \$	
☐ Certified Mail Restricted Delivery \$	
☐ Adult Signature Required \$	
☐ Adult Signature Restricted Delivery \$	
Postage \$	
Total \$	
Sent To Street	LAPLANTE CAROLE ANN 105 FLORIDA AVE PORTLAND ME 04103
City, State, ZIP+4®	
PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions	

7019 0160 0000 5675 1688

U.S. Postal Service™ CERTIFIED MAIL® RECEIPT <i>Domestic Mail Only</i>	
For delivery information, visit our website at www.usps.com ®.	
OFFICIAL USE	
Certified Mail Fee \$	Postmark Here
Extra Services & Fees (check box, add fee as appropriate)	
☐ Return Receipt (hardcopy) \$	
☐ Return Receipt (electronic) \$	
☐ Certified Mail Restricted Delivery \$	
☐ Adult Signature Required \$	
☐ Adult Signature Restricted Delivery \$	
Postage \$	
Total \$	
Sent To Street	LIBBY RANDOLPH 17 LARCHWOOD RD SOUTH PORTLAND ME 04106
City, State, ZIP+4®	
PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions	

7019 0160 0000 5675 1633

U.S. Postal Service™ CERTIFIED MAIL® RECEIPT Domestic Mail Only	
For delivery information, visit our website at www.usps.com ®.	
OFFICIAL USE	
Certified Mail Fee \$	Postmark Here
Extra Services & Fees (check box, add fee as appropriate)	
☐ Return Receipt (hardcopy) \$	
☐ Return Receipt (electronic) \$	
☐ Certified Mail Restricted Delivery \$	
☐ Adult Signature Required \$	
☐ Adult Signature Restricted Delivery \$	
Postage	
ISHERWOOD DONALD D VN VET 23 PENN AVE PORTLAND ME 04103	
PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions	

7019 0160 0000 5675 1640

U.S. Postal Service™ CERTIFIED MAIL® RECEIPT Domestic Mail Only	
For delivery information, visit our website at www.usps.com ®.	
OFFICIAL USE	
Certified Mail Fee \$	Postmark Here
Extra Services & Fees (check box, add fee as appropriate)	
☐ Return Receipt (hardcopy) \$	
☐ Return Receipt (electronic) \$	
☐ Certified Mail Restricted Delivery \$	
☐ Adult Signature Required \$	
☐ Adult Signature Restricted Delivery \$	
Postage	
JOHNSON RONALD S & LINDA J JTS 26 MERRYMEETING DR PORTLAND ME 04103	
PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions	

7019 0160 0000 5675 1657

U.S. Postal Service™ CERTIFIED MAIL® RECEIPT Domestic Mail Only	
For delivery information, visit our website at www.usps.com ®.	
OFFICIAL USE	
Certified Mail Fee \$	Postmark Here
Extra Services & Fees (check box, add fee as appropriate)	
☐ Return Receipt (hardcopy) \$	
☐ Return Receipt (electronic) \$	
☐ Certified Mail Restricted Delivery \$	
☐ Adult Signature Required \$	
☐ Adult Signature Restricted Delivery \$	
Postage	
KHUU HON 316 RAY ST PORTLAND ME 04103	
PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions	

7019 0160 0000 5675 1602

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at www.usps.com®.

OFFICIAL USE

Certified Mail Fee	
\$	
Extra Services & Fees (check box, add fee as appropriate)	
☐ Return Receipt (hardcopy)	\$
☐ Return Receipt (electronic)	\$
☐ Certified Mail Restricted Delivery	\$
☐ Adult Signature Required	\$
☐ Adult Signature Restricted Delivery	\$

Postmark
Here

Postage

\$

Tot

\$

Ser

Str

City

HEROUX KAREN J
 304 RAY ST
 PORTLAND ME 04103

PS Form 3800, April 2015 PSN 7530-02-000-9047

See Reverse for Instructions

7019 0160 0000 5675 1619

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at www.usps.com®.

OFFICIAL USE

Certified Mail Fee	
\$	
Extra Services & Fees (check box, add fee as appropriate)	
☐ Return Receipt (hardcopy)	\$
☐ Return Receipt (electronic)	\$
☐ Certified Mail Restricted Delivery	\$
☐ Adult Signature Required	\$
☐ Adult Signature Restricted Delivery	\$

Postmark
Here

Postage

\$

Tot

\$

Ser

Str

City

HOLMES MARK A & LORI A HOLMES JTS 56
 QUALEY RD
 GRAY ME 04039

PS Form 3800, April 2015 PSN 7530-02-000-9047

See Reverse for Instructions

7019 0160 0000 5675 1626

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at www.usps.com®.

OFFICIAL USE

Certified Mail Fee	
\$	
Extra Services & Fees (check box, add fee as appropriate)	
☐ Return Receipt (hardcopy)	\$
☐ Return Receipt (electronic)	\$
☐ Certified Mail Restricted Delivery	\$
☐ Adult Signature Required	\$
☐ Adult Signature Restricted Delivery	\$

Postmark
Here

Post

\$

Tot

\$

Ser

Str

City

HOWARD SUSAN
 10 MERRYMEETING DR
 PORTLAND ME 04103

PS Form 3800, April 2015 PSN 7530-02-000-9047

See Reverse for Instructions

7019 0160 0000 5675 1541

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at www.usps.com®.

OFFICIAL USE

Certified Mail Fee		Postmark Here
\$		
Extra Services & Fees (check box, add fee as appropriate)		
☐ Return Receipt (hardcopy)	\$	
☐ Return Receipt (electronic)	\$	
☐ Certified Mail Restricted Delivery	\$	
☐ Adult Signature Required	\$	
☐ Adult Signature Restricted Delivery	\$	
Postage		
\$		
To		
\$	JOHNSON JOSEPH & CHRISTINA M JOHNSON	
St	JTS	
St	118 MAINE AVE	
City	PORTLAND ME 04103	

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

7019 0160 0000 5675 1558

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at www.usps.com®.

OFFICIAL USE

Certified Mail Fee		Postmark Here
\$		
Extra Services & Fees (check box, add fee as appropriate)		
☐ Return Receipt (hardcopy)	\$	
☐ Return Receipt (electronic)	\$	
☐ Certified Mail Restricted Delivery	\$	
☐ Adult Signature Required	\$	
☐ Adult Signature Restricted Delivery	\$	
Postage		
\$		
To		
\$	KANTROVITZ LARISA	
St	166 MAINE AVE	
St	PORTLAND ME 04103	
City		

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

7019 0160 0000 5675 1565

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at www.usps.com®.

OFFICIAL USE

Certified Mail Fee		Postmark Here
\$		
Extra Services & Fees (check box, add fee as appropriate)		
☐ Return Receipt (hardcopy)	\$	
☐ Return Receipt (electronic)	\$	
☐ Certified Mail Restricted Delivery	\$	
☐ Adult Signature Required	\$	
☐ Adult Signature Restricted Delivery	\$	
Postage		
\$		
To		
\$	KWIECIEN STANISLAW	
St	343 RAY ST	
St	PORTLAND ME 04103	
City		

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

7019 0160 0000 5675 1572

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
 Domestic Mail Only

For delivery information, visit our website at www.usps.com®.

OFFICIAL USE

Certified Mail Fee

\$

Extra Services & Fees (check box, add fee as appropriate)

☐ Return Receipt (hardcopy) \$
☐ Return Receipt (electronic) \$
☐ Certified Mail Restricted Delivery \$
☐ Adult Signature Required \$
☐ Adult Signature Restricted Delivery \$

Postmark
Here

Post

\$

Total

\$

Sender

Street

City

GROVER KELSEY E
 271 BATH RD
 WISCASSET ME 04578

PS Form 3800, April 2015 PSN 7530-02-000-9047

See Reverse for Instructions

7019 0160 0000 5675 1589

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
 Domestic Mail Only

For delivery information, visit our website at www.usps.com®.

OFFICIAL USE

Certified Mail Fee

\$

Extra Services & Fees (check box, add fee as appropriate)

☐ Return Receipt (hardcopy) \$
☐ Return Receipt (electronic) \$
☐ Certified Mail Restricted Delivery \$
☐ Adult Signature Required \$
☐ Adult Signature Restricted Delivery \$

Postmark
Here

Post

\$

Total

\$

Sender

Street

City

City, State, ZIP+4®

HARTLEY DANIELLE A
 5 TEXAS ST
 PORTLAND ME 04103

PS Form 3800, April 2015 PSN 7530-02-000-9047

See Reverse for Instructions

7019 0160 0000 5675 1596

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
 Domestic Mail Only

For delivery information, visit our website at www.usps.com®.

OFFICIAL USE

Certified Mail Fee

\$

Extra Services & Fees (check box, add fee as appropriate)

☐ Return Receipt (hardcopy) \$
☐ Return Receipt (electronic) \$
☐ Certified Mail Restricted Delivery \$
☐ Adult Signature Required \$
☐ Adult Signature Restricted Delivery \$

Postmark
Here

Post

\$

Total

\$

Sender

Street

City

City, State, ZIP+4®

HAYES JEFFREY A TRUSTEE
 21 MARTIN AVE
 SCARBOROUGH ME 04074

PS Form 3800, April 2015 PSN 7530-02-000-9047

See Reverse for Instructions

7019 0160 0000 5675 1480

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at www.usps.com®.

OFFICIAL USE

Certified Mail Fee	
\$	
Extra Services & Fees (check box, add fee as appropriate)	
☐ Return Receipt (hardcopy)	\$
☐ Return Receipt (electronic)	\$
☐ Certified Mail Restricted Delivery	\$
☐ Adult Signature Required	\$
☐ Adult Signature Restricted Delivery	\$

Postmark
Here

Postage

\$

Total

\$

Sent

Street

City

HARKINS DONALD L & SUSAN B JTS
 50 FLORIDA AVE
 PORTLAND ME 04103

PS Form 3800, April 2015 PSN 7530-02-000-9047

See Reverse for Instructions

7019 0160 0000 5675 1497

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at www.usps.com®.

OFFICIAL USE

Certified Mail Fee	
\$	
Extra Services & Fees (check box, add fee as appropriate)	
☐ Return Receipt (hardcopy)	\$
☐ Return Receipt (electronic)	\$
☐ Certified Mail Restricted Delivery	\$
☐ Adult Signature Required	\$
☐ Adult Signature Restricted Delivery	\$

Postmark
Here

Postage

\$

Total

\$

Sent

Street

City

HASSON HAYLEE E
 100 FLORIDA AVE
 PORTLAND ME 04103

PS Form 3800, April 2015 PSN 7530-02-000-9047

See Reverse for Instructions

7019 0160 0000 5675 1503

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at www.usps.com®.

OFFICIAL USE

Certified Mail Fee	
\$	
Extra Services & Fees (check box, add fee as appropriate)	
☐ Return Receipt (hardcopy)	\$
☐ Return Receipt (electronic)	\$
☐ Certified Mail Restricted Delivery	\$
☐ Adult Signature Required	\$
☐ Adult Signature Restricted Delivery	\$

Postmark
Here

Postage

\$

Total

\$

Sent

Street

City

HEASLY RACHEL & MARK ABDALLAH JTS 15
 NEVADA AVE
 PORTLAND ME 04103

PS Form 3800, April 2015 PSN 7530-02-000-9047

See Reverse for Instructions

7019 0160 0000 5675 1510

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at www.usps.com®.

OFFICIAL USE

Certified Mail Fee

\$

Extra Services & Fees (check box, add fee as appropriate)

☐ Return Receipt (hardcopy) \$
☐ Return Receipt (electronic) \$
☐ Certified Mail Restricted Delivery \$
☐ Adult Signature Required \$
☐ Adult Signature Restricted Delivery \$

Postmark
Here

Postage

\$

\$

\$

\$

\$

\$

HITZROT ANN H
 459 ALLEN AVE # 13
 PORTLAND ME 04103

PS Form 3800, April 2015 PSN 7530-02-000-9047

See Reverse for Instructions

7019 0160 0000 5675 1527

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at www.usps.com®.

OFFICIAL USE

Certified Mail Fee

\$

Extra Services & Fees (check box, add fee as appropriate)

☐ Return Receipt (hardcopy) \$
☐ Return Receipt (electronic) \$
☐ Certified Mail Restricted Delivery \$
☐ Adult Signature Required \$
☐ Adult Signature Restricted Delivery \$

Postmark
Here

Postage

\$

\$

\$

\$

\$

\$

HOUSES OF HOGWARTS LLC
 86 CRAIGIE ST
 PORTLAND ME 04102

PS Form 3800, April 2015 PSN 7530-02-000-9047

See Reverse for Instructions

7019 0160 0000 5675 1534

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at www.usps.com®.

OFFICIAL USE

Certified Mail Fee

\$

Extra Services & Fees (check box, add fee as appropriate)

☐ Return Receipt (hardcopy) \$
☐ Return Receipt (electronic) \$
☐ Certified Mail Restricted Delivery \$
☐ Adult Signature Required \$
☐ Adult Signature Restricted Delivery \$

Postmark
Here

Postage

\$

\$

\$

\$

\$

\$

HUNTLEY KENNETH VN VET & ELIZABETH A
 HUNTLEY JTS
 31 NEVADA AVE
 PORTLAND ME 04103

PS Form 3800, April 2015 PSN 7530-02-000-9047

See Reverse for Instructions

7019 0160 0000 5675 1428

U.S. Postal Service™ CERTIFIED MAIL® RECEIPT <i>Domestic Mail Only</i>	
For delivery information, visit our website at www.usps.com ®.	
OFFICIAL USE	
Certified Mail Fee \$ _____	Postmark Here
Extra Services & Fees (check box, add fee as appropriate)	
☐ Return Receipt (hardcopy) \$ _____	
☐ Return Receipt (electronic) \$ _____	
☐ Certified Mail Restricted Delivery \$ _____	
☐ Adult Signature Required \$ _____	HOUSEAL IAN P 86 FLORIDA AVE PORTLAND ME 04103
☐ Adult Signature Restricted Delivery \$ _____	
Postage	
\$ To _____	
\$ Se _____ \$ St _____ \$ Ci _____	
PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions	

7019 0160 0000 5675 1435

U.S. Postal Service™ CERTIFIED MAIL® RECEIPT <i>Domestic Mail Only</i>	
For delivery information, visit our website at www.usps.com ®.	
OFFICIAL USE	
Certified Mail Fee \$ _____	Postmark Here
Extra Services & Fees (check box, add fee as appropriate)	
☐ Return Receipt (hardcopy) \$ _____	
☐ Return Receipt (electronic) \$ _____	
☐ Certified Mail Restricted Delivery \$ _____	
☐ Adult Signature Required \$ _____	HUNT DANIEL P 20 MERRYMEETING DR PORTLAND ME 04103
☐ Adult Signature Restricted Delivery \$ _____	
Postage	
\$ To _____	
\$ Se _____ \$ St _____ \$ Ci _____	
PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions	

7019 0160 0000 5675 1442

U.S. Postal Service™ CERTIFIED MAIL® RECEIPT <i>Domestic Mail Only</i>	
For delivery information, visit our website at www.usps.com ®.	
OFFICIAL USE	
Certified Mail Fee \$ _____	Postmark Here
Extra Services & Fees (check box, add fee as appropriate)	
☐ Return Receipt (hardcopy) \$ _____	
☐ Return Receipt (electronic) \$ _____	
☐ Certified Mail Restricted Delivery \$ _____	
☐ Adult Signature Required \$ _____	JANCO SCOTT J 70 GERTRUDE AVE PORTLAND ME 04103
☐ Adult Signature Restricted Delivery \$ _____	
Postage	
\$ To _____	
\$ Se _____ \$ St _____ \$ Ci _____	
PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions	

7019 0160 0000 5675 1459

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at www.usps.com®.

OFFICIAL USE

Certified Mail Fee	\$
Extra Services & Fees (check box, add fee as appropriate)	
☐ Return Receipt (hardcopy)	\$
☐ Return Receipt (electronic)	\$
☐ Certified Mail Restricted Delivery	\$
☐ Adult Signature Required	\$
☐ Adult Signature Restricted Delivery	\$

Postmark
Here

Postage
\$
To
\$
Se
\$
Sa
Ca

JUDKINS BERTHA L
127 PINE TREE LN
FARMINGTON ME 04938

PS Form 3800, April 2015 PSN 7530-02-000-9047

See Reverse for Instructions

7019 0160 0000 5675 1466

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at www.usps.com®.

OFFICIAL USE

Certified Mail Fee	\$
Extra Services & Fees (check box, add fee as appropriate)	
☐ Return Receipt (hardcopy)	\$
☐ Return Receipt (electronic)	\$
☐ Certified Mail Restricted Delivery	\$
☐ Adult Signature Required	\$
☐ Adult Signature Restricted Delivery	\$

Postmark
Here

Postage
\$
To
\$
Se
\$
Sa
Ca

KONAN VIRGINIA J
22 NEVADA AVE
PORTLAND ME 04103

PS Form 3800, April 2015 PSN 7530-02-000-9047

See Reverse for Instructions

7019 0160 0000 5675 1473

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at www.usps.com®.

OFFICIAL USE

Certified Mail Fee	\$
Extra Services & Fees (check box, add fee as appropriate)	
☐ Return Receipt (hardcopy)	\$
☐ Return Receipt (electronic)	\$
☐ Certified Mail Restricted Delivery	\$
☐ Adult Signature Required	\$
☐ Adult Signature Restricted Delivery	\$

Postmark
Here

Postage
\$
To
\$
Se
\$
Sa
Ca

GRIFFIN MAUREEN H
15 MERRYMEETING DR
PORTLAND ME 04103

PS Form 3800, April 2015 PSN 7530-02-000-9047

See Reverse for Instructions

7019 0160 0000 5675 1398

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at www.usps.com®.

OFFICIAL USE

Certified Mail Fee	
\$	
Extra Services & Fees (check box, add fee as appropriate)	
☐ Return Receipt (hardcopy)	\$
☐ Return Receipt (electronic)	\$
☐ Certified Mail Restricted Delivery	\$
☐ Adult Signature Required	\$
☐ Adult Signature Restricted Delivery	\$

Postage

HARWOOD JOSEPH D
58 PROVIDENCE AVE
SOUTH PORTLAND ME 04106

Postmark Here

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

7019 0160 0000 5675 1404

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at www.usps.com®.

OFFICIAL USE

Certified Mail Fee	
\$	
Extra Services & Fees (check box, add fee as appropriate)	
☐ Return Receipt (hardcopy)	\$
☐ Return Receipt (electronic)	\$
☐ Certified Mail Restricted Delivery	\$
☐ Adult Signature Required	\$
☐ Adult Signature Restricted Delivery	\$

Postage

\$ Tot

\$ Se

\$ Str

\$ Cit

HAZARD JAMES
12 BIRKDALE RD
FALMOUTH ME 04105

Postmark Here

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

7019 0160 0000 5675 1411

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at www.usps.com®.

OFFICIAL USE

Certified Mail Fee	
\$	
Extra Services & Fees (check box, add fee as appropriate)	
☐ Return Receipt (hardcopy)	\$
☐ Return Receipt (electronic)	\$
☐ Certified Mail Restricted Delivery	\$
☐ Adult Signature Required	\$
☐ Adult Signature Restricted Delivery	\$

Postage

\$ Tr

\$ S

\$ S

\$ S

\$ C

HILTZ JAIME L
11 BUNKER HILL TER
SCARBOROUGH ME 04074

Postmark Here

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

7019 0160 0000 5675 1367

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at www.usps.com®.

OFFICIAL USE

Certified Mail Fee

\$

Extra Services & Fees (check box, add fee as appropriate)

- ☐ Return Receipt (hardcopy) \$
- ☐ Return Receipt (electronic) \$
- ☐ Certified Mail Restricted Delivery \$
- ☐ Adult Signature Required \$
- ☐ Adult Signature Restricted Delivery \$

Postmark
Here

Postage

\$

Tot

\$ GELINAS KATIE L & PETER R ANDREWS JTS 27

St

MERRYMEETING DR
PORTLAND ME 04103

City

City

PS Form 3800, April 2015 PSN 7530-02-000-9047

See Reverse for Instructions

7019 0160 0000 5675 1374

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at www.usps.com®.

OFFICIAL USE

Certified Mail Fee

\$

Extra Services & Fees (check box, add fee as appropriate)

- ☐ Return Receipt (hardcopy) \$
- ☐ Return Receipt (electronic) \$
- ☐ Certified Mail Restricted Delivery \$
- ☐ Adult Signature Required \$
- ☐ Adult Signature Restricted Delivery \$

Postmark
Here

Postage

\$

Tot

GRIBIZIS RUDINA R & WILLIAM G GRIBIZIS JTS

285 CLIFTON ST
PORTLAND ME 04103

City

City

PS Form 3800, April 2015 PSN 7530-02-000-9047

See Reverse for Instructions

7019 0160 0000 5675 1381

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at www.usps.com®.

OFFICIAL USE

Certified Mail Fee

\$

Extra Services & Fees (check box, add fee as appropriate)

- ☐ Return Receipt (hardcopy) \$
- ☐ Return Receipt (electronic) \$
- ☐ Certified Mail Restricted Delivery \$
- ☐ Adult Signature Required \$
- ☐ Adult Signature Restricted Delivery \$

Postmark
Here

Postage

\$

Tot

\$

St

HALLETT LORI
13 PENN AVE
PORTLAND ME 04103

City

City

PS Form 3800, April 2015 PSN 7530-02-000-9047

See Reverse for Instructions

7019 0160 0000 5675 0094

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at www.usps.com®.

OFFICIAL USE

Certified Mail Fee

\$

Extra Services & Fees (check box, add fee as appropriate)

- | | | |
|--|----|--|
| ☐ Return Receipt (hardcopy) | \$ | |
| ☐ Return Receipt (electronic) | \$ | |
| ☐ Certified Mail Restricted Delivery | \$ | |
| ☐ Adult Signature Required | \$ | |
| ☐ Adult Signature Restricted Delivery | \$ | |

Postmark
Here

Postage

\$

Total

\$

Sent

Street

City

298 RAY LLC
LEIGHTON AVE
PORTLAND ME 04103

PS Form 3800, April 2015 PSN 7530-02-000-9047

See Reverse for Instructions

Anthony Donovan
27 Riverview Street
Portland ME 04102

Barbara Wood
125 Emery Street
Portland ME 04102

Chris Castelsky
Fairpoint Communications
521 East Morehead Street
Charlotte NC 28202

David Nowlin
215 Oxford Street
Portland ME 04102

Deb Keenan
28 Dorothy Street
Portland ME 04103

Devon Platte
26 North Street, #3
Portland ME 04101

Edward Suslovic
District 3
46 Kenwood Street
Portland ME 04103

Greater Portland Council of Governments
970 Baxter Blvd., 2nd Floor
Portland ME 04103

Janice Carpenter
9 W. Commonwealth Drive
Portland ME 04103

Jennifer Munson
City of Portland
389 Congress Street
Portland ME 04101

Jesse Thompson
Kaplan Thompson Architects
100 Exchange Street
Portland ME 04103

Len Anderson
543 Allen Avenue
Portland ME 04103

Lynn Clarkson
145 Marlborough Road
Portland ME 04103

Mary Griffity
6 E. Prom, Unit #2
Portland ME 04103

Vahan Tufankijan
Seaside Healthcare
850 Baxter Boulevard
Portland ME 04103

Nancy Bartlett
PO Box 7965
Portland ME 04112

Pam Burnside
64 Lester Drive
Portland ME 04103

Paul Dubois
1915 Congress Street
Portland ME 04102

Peggy Morin
66 Farnham Street
Portland ME 04101

Philip Haughey
1660 Soldiers Field Road
Boston MA 02135

Priscilla LaVallee
190 US Route 1, Unit 2
Falmouth ME 04105

Rebecca Halla
Waste Management of Maine
2000 Forest Avenue
Portland ME 04103

REP Benjamin Dudley III
District 30
9 Ponce Street
Portland ME 04101

REP Glenn Cummings
District 37
24 Nevens Street
Portland ME 04103

Robert Hains
250 Holm Avenue
Portland ME 04102-1208

9 NEVADA LLC
111 POND RD
NEW GLOUCESTER ME 04260

ACHESON ANN W & JAMES M ACHESON
JTS28
MERRYMEETING DR
PORTLAND ME 04103

AIKEN ANNA J & JAMES W AIKEN
JTS336
RAY ST
PORTLAND ME 04103

ALLAIRE JENNIFER & GERARD ALLAIRE JTS
19 NEVADA AVE
PORTLAND ME 04103

ANASTOS ELLEN B
459 ALLEN AVE # 25
PORTLAND ME 04103

ANDERSON MATTHEW A
76 FLORIDA AVE
PORTLAND ME 04103

ANDERSON PATTI J & RICHARD E JR
JTS
97 FLORIDA AVE
PORTLAND ME 04103

ANDERSON ROBERTA R
455 ALLEN AVE
PORTLAND ME 04103

ANDERSON-CHRISTIE SUZAN F & MARGERY C
SUDBAY JTS
21 MERRYMEETING DR
PORTLAND ME 04103

ATTIX LEE & SUSAN ROWAN JTS
18 MERRYMEETING DR
PORTLAND ME 04103

AUTO EUROPE LLC
39 COMMERCIAL ST
PORTLAND ME 04101

BARBER GEORGE & KENNETH D BARBER JTS
19 MERRYMEETING DR
PORTLAND ME 04103

BASSETT SANDRA J
12 VERMONT AVE
PORTLAND ME 04103

BEAUPRE JOHN D & TRACY ALLEN BEAUPRE
JTS
459 ALLEN AVE # 4
PORTLAND ME 04103

BESEMER LORI T & JOHN W BESEMER IV JTS
16 PENN AVE
PORTLAND ME 04103

BLUE WAGON LLC
41 GORE RD
RAYMOND ME 04071

BORLAWSKY JOY M & MICHAEL J SR
62 FLORIDA AVE
PORTLAND ME 04103

BROWN ROBERT A & VALARIE J JTS
28 PENN AVE
PORTLAND ME 04103

CAETANO VASCO
3 MERRYMEETING DR
PORTLAND ME 04103

CARR HILARY
11 QUAIL TRL
BUXTON ME 04093

CARTER JENNELL A & ALICIA M MENARD JTS
146 MAINE AVE
PORTLAND ME 04103

CHACE WILLIAM J
74 GERTRUDE AVE
PORTLAND ME 04103

CHASE DAVID A & BETTI J CHASE JTS
23 MERRYMEETING DR
PORTLAND ME 04103

CHRISTIAN SABRINA KATHRYN
110 FLORIDA AVE
PORTLAND ME 04103

CHRISTY ALEXIA L
156 MAINE AVE
PORTLAND ME 04103

CHRISTY KEVIN R & DAWN M CHRISTY JTS
160 MAINE AVE
PORTLAND ME 04103

CHRISTY KEVIN R & DAWN M JTS
160 MAINE AVE
PORTLAND ME 04103

CHURCH RONALD C & DONNA I JTS
325 RAY ST
PORTLAND ME 04103

CLARK LESLIE M
12 TEXAS ST
PORTLAND ME 04103

CLARKIN REBECCA
8 NEVADA AVE
PORTLAND ME 04103

CLEALE ELIZABETH & LEO SMITH
25 FLORIDA AVE
PORTLAND ME 04103

COHEN BRIAN F & TARA COHEN JTS
32 NEVADA AVE
PORTLAND ME 04103

CONNELLY AMANDA J
356 RAY ST
PORTLAND ME 04103

COOMBS PATRICIA L
459 ALLEN AVE APT 24
PORTLAND ME 04103

COTE ELIZABETH M
14 MERRYMEETING DR
PORTLAND ME 04103

COURNOYER PAUL B & KYMBERLEY T
COURNOYER JTS
24 MERRYMEETING DR
PORTLAND ME 04103

CRABTREE VIRGINIA A
152 MAINE AVE
PORTLAND ME 04103

CRESSEY WESLEY O VN VET & BETTY ANN JTS
23 JERSEY AVE
PORTLAND ME 04103

CROSBY RONALD H SR
18 JERSEY AVE
PORTLAND ME 04103

DALL MEGAN N & RYAN C DALL JTS
402 RAY ST
PORTLAND ME 04103

DEARBORN CAROL A & DAVID L DUMONT JTS
2 MERRYMEETING DR
PORTLAND ME 04103

DENBOW DEBRA A
69 FLORIDA AVE
PORTLAND ME 04103

DIPIETRO DAVID
326 RAY ST
PORTLAND ME 04103

DONOVAN ROBYN J & TIMOTHY P DONOVAN
JTS
378 RAY ST
PORTLAND ME 04103

DOUGHTY BEN HILTON & CAROL N DOUGHTY
JTS
54 FLORIDA AVE
PORTLAND ME 04103

DOWNS KENNETH W & JANICE E JTS
469 ALLEN AVE
PORTLAND ME 04103

DUKES DAVID A & ROSE HEITHOFF JTS
30 TAYLOR ST
PORTLAND ME 04102

DUNCAN JORDAN TYLER & KATHERINE ELISE
DUNCAN JTS
365 RAY ST
PORTLAND ME 04103

DUNLAP KYAN J
459 ALLEN AVE # 14
PORTLAND ME 04103

DUNLAP KYAN JAMES & KAYLA LISA DUNLAP
JTS
94 SKYARK RD
PORTLAND ME 04103

FALLBROOK PROPERTIES LLC
418 RAY ST
PORTLAND ME 04103

FEENEY ANTONETTA S
186 MAINE AVE
PORTLAND ME 04103

FOERSTER CAROLYN D
17 VERMONT AVE
PORTLAND ME 04103

FORSDICK LESLIE
114 MAINE AVE
PORTLAND ME 04103

FROZEN PIPE PROPERTY LLC
2 WASHINGTON AVE
SCARBOROUGH ME 04074

GARCIA LUIS O & MONICA M GARCIA JTS 80
FLORIDA AVE
PORTLAND ME 04103

GAUDET MONIQUE R
59 GERTRUDE AVE
PORTLAND ME 04103

GEE BRANNEN M & KAITLIN M GEE JTS
75 FLORIDA AVE
PORTLAND ME 04103

GELINAS GREGORY P & PATRICIA A JTS 124
MAINE AVE
PORTLAND ME 04103

GELINAS KATIE L & PETER R ANDREWS JTS 27
MERRYMEETING DR
PORTLAND ME 04103

GRIBIZIS RUDINA R & WILLIAM G GRIBIZIS JTS
285 CLIFTON ST
PORTLAND ME 04103

GRIFFIN MAUREEN H
15 MERRYMEETING DR
PORTLAND ME 04103

GROVER KELSEY E
271 BATH RD
WISCASSET ME 04578

HALLETT LORI
13 PENN AVE
PORTLAND ME 04103

HARKINS DONALD L & SUSAN B JTS
50 FLORIDA AVE
PORTLAND ME 04103

HARTLEY DANIELLE A
5 TEXAS ST
PORTLAND ME 04103

HARWOOD JOSEPH D
58 PROVIDENCE AVE
SOUTH PORTLAND ME 04106

HASSON HAYLEE E
100 FLORIDA AVE
PORTLAND ME 04103

HAYES JEFFREY A TRUSTEE
21 MARTIN AVE
SCARBOROUGH ME 04074

HAZARD JAMES
12 BIRKDALE RD
FALMOUTH ME 04105

HEASLY RACHEL & MARK ABDALLAH JTS 15
NEVADA AVE
PORTLAND ME 04103

HEROUX KAREN J
304 RAY ST
PORTLAND ME 04103

HILTZ JAIME L
11 BUNKER HILL TER
SCARBOROUGH ME 04074

HITZROT ANN H
459 ALLEN AVE # 13
PORTLAND ME 04103

HOLMES MARK A & LORI A HOLMES JTS 56
QUALEY RD
GRAY ME 04039

HOUSEAL IAN P
86 FLORIDA AVE
PORTLAND ME 04103

HOUSES OF HOGWARTS LLC
86 CRAIGIE ST
PORTLAND ME 04102

HOWARD SUSAN
10 MERRYMEETING DR
PORTLAND ME 04103

HUNT DANIEL P
20 MERRYMEETING DR
PORTLAND ME 04103

HUNTLEY KENNETH VN VET & ELIZABETH A
HUNTLEY JTS
31 NEVADA AVE
PORTLAND ME 04103

ISHERWOOD DONALD D VN VET
23 PENN AVE
PORTLAND ME 04103

JANCO SCOTT J
70 GERTRUDE AVE
PORTLAND ME 04103

JOHNSON JOSEPH & CHRISTINA M JOHNSON
JTS
118 MAINE AVE
PORTLAND ME 04103

JOHNSON RONALD S & LINDA J JTS
26 MERRYMEETING DR
PORTLAND ME 04103

JUDKINS BERTHA L
127 PINE TREE LN
FARMINGTON ME 04938

KANTROVITZ LARISA
166 MAINE AVE
PORTLAND ME 04103

KHUU HON
316 RAY ST
PORTLAND ME 04103

KONAN VIRGINIA J
22 NEVADA AVE
PORTLAND ME 04103

KWIECIEN STANISLAW
343 RAY ST
PORTLAND ME 04103

LAGERSTROM LYNN C
57 FLORIDA AVE
PORTLAND ME 04103

LAPLANTE CAROLE ANN
105 FLORIDA AVE
PORTLAND ME 04103

LEE THERESA
459 ALLEN AVE # 6
PORTLAND ME 04103

LIBBY CHRISTINE A
19 JERSEY AVE
PORTLAND ME 04103

LIBBY RANDOLPH
17 LARCHWOOD RD
SOUTH PORTLAND ME 04106

LINDVALL JAMES W II & LINDSAY A CARR JTS
38 FLORIDA AVE
PORTLAND ME 04103

LITVAK PROPERTIES LLC
66 PYA RD
PORTLAND ME 04103

LITVAK PROPERTIES LLC
PO BOX 7332
PORTLAND ME 04112

LL BEAN INC
15 CASCO ST
FREEPORT ME 04033

LPS PROPERTIES LLC
117 FLORIDA AVE
PORTLAND ME 04103

LUTTON LAURA J
26 NEVADA AVE
PORTLAND ME 04103

MACISSO JOSEPH J JR & EILEEN F MACISSO
JTS
27 PENN AVE
PORTLAND ME 04103

MARCHANT NICHOLAS M
18 FLORIDA AVE
PORTLAND ME 04103

MARTIN'S POINT HEALTH CARE INC
PO BOX 9746
PORTLAND ME 04112

MASON ALISON M
371 RAY ST
PORTLAND ME 04103

MCDONALD CHRISTOPHER A
91 FLORIDA AVE
PORTLAND ME 04103

MCDONALD PATRICIA A
368 RAY ST PORTLAND ME 04103

MINAT CORPORATION
PO BOX 7332 PORTLAND ME 04112

MINAT CORPORATION THE
PO BOX 7332
PORTLAND ME 04112

MINVIELLE PETER M VN VET
25 MERRYMEETING DR
PORTLAND ME 04103

MOREAU CHERYL
459 ALLEN AVE # 10
PORTLAND ME 04103

MORGAN DEBORA
D3 52 RAY ST
PORTLAND ME 04103

MORIN TERESA R
29 JERSEY AVE
PORTLAND ME 04103

MULLEN SUSAN L & JOHN H R MULLEN JTS
105 ALICE ST
PORTLAND ME 04103

MURPHY JANICE E
459 ALLEN AVE # 8
PORTLAND ME 04103

MURRAY DAVID & NATALIE MURRAY JTS 53
FLORIDA AVE
PORTLAND ME 04103

NEILAN DAVID M
459 ALLEN AVE # 18
PORTLAND ME 04103

NEILL DONALD L & LINDA H LORD JTS
17 MERRYMEETING DR
PORTLAND ME 04103

NEWMAN PHOEBE J
111 FLORIDA AVE
PORTLAND ME 04103

NGUYEN KHANHLY & CHE Q NGUYEN 286
RAY ST
PORTLAND ME 04103

NIZIOLEK CAROL A
22 MERRYMEETING DR
PORTLAND ME 04103

NORMANDIN ADAM
459 ALLEN AVE # 22
PORTLAND ME 04103

NORTON KIRSTEN & NATHANIEL DUDLEY JTS
170 MAINE AVE
PORTLAND ME 04103

OAKES RYAN E
34 JERSEY AVE
PORTLAND ME 04103

O'SULLIVAN PADRAIG N & SARAH E GODFREY
JTS 406 RAY ST PORTLAND ME 04103

PACKARD MARY A & AMANDA M & ALICIA L
PACKARD
106 FLORIDA AVE
PORTLAND ME 04103

PARADIS WILLIAM M & SARAH C PARADIS JTS
355 RAY ST
PORTLAND ME 04103

PARE MATTHEW P
142 MAINE AVE
PORTLAND ME 04103

PELLETIER ANGELA M
128 MAINE AVE
PORTLAND ME 04103

PERKINS SARAH & JILL PERKINS-BOUCHARD
11 JERSEY AVE
PORTLAND ME 04103

PLOURDE ROBERT E
100 MAIN ST
CORNISH ME 04020

PRESTON SHANNON R & RYAN VICTOR
JAROCHYM JTS
12 JERSEY AVE
PORTLAND ME 04103

PROIA SUSANNA
44 FLORIDA AVE
PORTLAND ME 04103

PURCELL LINNEA J
24 VERMONT AVE
PORTLAND ME 04103

QUINN SUSAN LOUISE
35 NEVADA AVE
PORTLAND ME 04103

RAMSDELL DARRIN L & LINDSEY M RAMSDELL
JTS
12 PENN AVE
PORTLAND ME 04103

REEDER SUSAN W
24 JERSEY AVE
PORTLAND ME 04103

REGAN BRENDAN S
114 FLORIDA AVE
PORTLAND ME 04103

RICE JULIANNE L
459 ALLEN AVE # 17
PORTLAND ME 04103

ROBERTS LEANNE
459 ALLEN AVE # 1
PORTLAND ME 04103

ROBINSON BEVERLY D
459 ALLEN AVE # 3
PORTLAND ME 04103

RODNEY ROBERT J II & CHRISTINE A RODNEY
JTS
121 WALTON ST
PORTLAND ME 04103

ROE LAURENCE L
160 MAINE AVE
PORTLAND ME 04103

ROWE EUGENE L & ELLEN R ROWE JTS 295
RAY ST
PORTLAND ME 04103

ROY KIMBERLY A
459 ALLEN AVE # 2
PORTLAND ME 04103

RUTHERFORD PATRIIA A
28 JERSEY AVE
PORTLAND ME 04103

SCHAIBERGER SCOTT C
138 MAINE AVE
PORTLAND ME 04103

SCHOLZ JOHN M
334 RAY ST
PORTLAND ME 04103

SENDZE KATIE
459 ALLEN AVE # 21
PORTLAND ME 04103

SHEA STEPHEN M & DIANE L JTS
101 FLORIDA AVE
PORTLAND ME 04103

SILVERNAIL DAVID L
459 ALLEN AVE APT 16
PORTLAND ME 04103

SINCLAIR DANIEL C & KIMBERLY A BRISSETTE
JTS
333 RAY ST
PORTLAND ME 04103

SMITH JASON D & LAURIE R SMITH JTS 354
RAY ST
PORTLAND ME 04103

SNOW CORY & SHEILA J SULLIVAN JTS
398 RAY ST
PORTLAND ME 04103

ST CLAIR GEORGE W JR
36 NEVADA AVE
PORTLAND ME 04103

STANTON ELIZABETH M
16 MERRYMEETING DR
PORTLAND ME 04103

STEVENS CHERYL A & CHESTER STEVENS JTS
9 TEXAS ST
PORTLAND ME 04103

SULLIVAN JAMES A JR
83 FLORIDA AVE
PORTLAND ME 04103

TALBOT JOSEPH F & JUDITH A HARRIS JTS
16 NEVADA AVE
PORTLAND ME 04103

TAYLOR DAWN M
459 ALLEN AVE # 11
PORTLAND ME 04103

THOMPSON BARBARA E
65 FLORIDA AVE
PORTLAND ME 04103

THOMPSON DONALD A & EVELYN L JTS 488
FORT HILL RD
GORHAM ME 04038

TOWLE WALTER D WWII VET & DONNA
MARIE TOWLE JTS
8 MERRYMEETING DR
PORTLAND ME 04103

TUFTS BARBARA J
6 MERRYMEETING DR # 6
PORTLAND ME 04103

TURNER CAROL A & SUSAN C VILLETТА JTS
18 WISEMAN ST
NEWPORT ME 04953

TUTOR THOMAS L
20 VERMONT AVE
PORTLAND ME 04103

UMBEL WILLIAM R
122 GERTRUDE AVE
PORTLAND ME 04103

URBACH PAULA M
92 FLORIDA AVE
PORTLAND ME 04103

WAGNER THERESA
65 WHITNEY FARM RD
NORTH YARMOUTH ME 04097

WARREN JARED P
459 ALLEN AVE #7 P
ORTLAND ME 04103

WEBB MARILYN D
340 RAY ST
PORTLAND ME 04103

WEBSTER BETH A
PO BOX 8228
PORTLAND ME 04104

WEISS LISA KOCH & LAURA JEAN WEISS JTS
35 HAMMOND ST
PORTLAND ME 04101

WELSH RICHARD E & SUSAN WELSH JTS
5 MERRYMEETING DR
PORTLAND ME 04103

WELSH RICHARD J & MARIE K WELSH JTS 13
MERRYMEETING DR
PORTLAND ME 04103

WELTY MARTHA & CHARLES WELTY JTS
4 MERRYMEETING DR
PORTLAND ME 04103

WGME INC
81 NORTHPORT DR
PORTLAND ME 04103

WHALEN MAUREEN
459 ALLEN AVE APT 23
PORTLAND ME 04103

WHIPKEY RENEE & RYAN WHIPKEY JTS
22 PENN AVE P
ORTLAND ME 04103

WHITNEY LEE ANN
1 MERRYMEETING DR
PORTLAND ME 04103

WOODBERRY KAREN E
459 ALLEN AVE #26
PORTLAND ME 04103

YEBOAH DUKE
17 PENN AVE
PORTLAND ME 04103

YORK MEGAN T & JONATHAN A YORK JTS
72 FLORIDA AVE
PORTLAND ME 04103

YOUNGBLOOD ALEC N & JOSHUA T AVERY JTS
344 RAY ST
PORTLAND ME 04103

ZIMMERMAN ROBERTA L
12 MERRYMEETING DR
PORTLAND ME 04103

ZUB PATRICIA A
308 E 120TH AVE
TAMPA FL 33612

298 RAY LLC
LEIGHTON AVE
PORTLAND ME 04103



CIVIL ENGINEERING • SURVEYING • LANDSCAPE ARCHITECTURE

STORMWATER MANAGEMENT PLAN

For

**FALLBROOK COMMONS
PORTLAND, MAINE**

Prepared for

Sandy River Company
217 Commercial Street
Portland, Maine 04112

Revised May 14, 2020

Table of Contents

Contents

I. Introduction.....	1
II. Existing Conditions	1
III. Soils.....	1
IV. Proposed Site Improvements.....	2
V. Pre-Development Conditions Model.....	2
VI. Post-Development Conditions Model	3
VII. Stormwater Management.....	4
Basic Standard - Chapter 500, Section 4(B)	4
General Standard - Chapter 500, Section 4(C).....	5
Flooding Standard - Chapter 500, Section 4(F).....	5
VIII. Summary.....	7

Appendices

Appendix 1:	Watershed Plans and Stormwater Treatment Plans
Appendix 2:	Stormwater Quality Calculations
Appendix 3A:	Hydrologic Modeling – Pre-Development Model (HydroCAD) Summary
Appendix 3B:	Hydrologic Modeling – Post-Development Model (HydroCAD) Summary
Appendix 4:	Inspection, Maintenance and Housekeeping Plan
Appendix 5:	Web Soil Survey
Appendix 6:	FEMA Map
Appendix 7:	Form F: Soil Profile/Classification Information

STORMWATER MANAGEMENT PLAN REPORT
Fallbrook Commons
Portland, Maine

I. Introduction

This Stormwater Management Plan Report has been prepared to present analyses performed to address the potential impacts associated with the project due to proposed modification to stormwater runoff characteristics and land cover changes. The stormwater management controls outlined in this report have been designed to suit the proposed development and to comply with applicable regulatory requirements.

II. Existing Conditions

The project site is comprised of undeveloped land consisting of mostly wooded land coverage with access from Ray Street and Merrymeeting Drive. The site is approximately 12.78 acres and is bounded by Florida Avenue and Ray Street residences to the south and east, Fallbrook Woods senior center to the north, and Topsham Street and undeveloped residential parcels to the west. Paper streets Wadco Street and Ash Street are located to the south and southeast of the site and are currently undeveloped.

Slopes on the site range from flat low-lying easterly wetland areas to undeveloped slopes ranging from 5-40% with exposed ledge areas located in the western portion of the parcel. Site drainage generally travels easterly toward the wetland area nearest the intersection and residences of Ray Street and Florida Avenue and enters a closed drainage system in the Ray Street right of way. Small portions of the site drain west to a wetland in the Topsham Street right of way.

The site is tributary to an unnamed stream draining northeasterly from the site and discharging at the mouth of the Presumpscot River, which is not classified as most-at-risk or urban impaired according to Chapter 502, Direct Watersheds of Lakes Most At-Risk From New Development, and Urban Impaired Stream Standards.

The proposed development area of the site is not located in an identified flood zone per the FEMA Flood Insurance Rate Map for the City of Portland, community-panel number 230051 002 C. Please find a copy of the FEMA map attached as Appendix 6.

III. Soils

Soil information for the site was obtained via the USDA United States Department of Agriculture and Natural Resources Conservation Service's Web Soil Survey. The Hydrologic Soil Group (HSG) of the site soils are classified by Technical Release TR-55 of the Soil Conservation Service as follows:

Soil Name	Soil Symbol	HSG	Slope (%)
BELGRADE	BgB	C	0-8
BUXTON	BuB	D	3-8
HOLLIS	HrB	C	0-8
HOLLIS	HrC	C	8-15
HOLLIS	HsB	C	0-8
SCANTIC	Sn	D	0-3

Hydrologic Soil Group boundaries are delineated on the Watershed Map. A copy of the Web Soil Survey is included as Appendix 5.

IV. Proposed Site Improvements

The project includes a new senior living facility located next to the existing Fallbrook Woods Assisted Living facility. The development includes the construction of a two story, 37,455 sf building that will house 90 bedrooms, a commercial kitchen, community areas, and two parking areas totaling 93 parking spaces. Fallbrook Health Center proposes an entrance off of Merrymeeting Drive, and an emergency connection off of Ray Street.

This project will happen as one phase, which will involve clearing the vegetation as required, ledge removal, and site preparations for the building, and stormwater BMP's. Construction is expected to commence Summer 2020 and be completed by 2021.

The property is 12.78 acres, exists within the Residential-3 zone, and has frontage along Ray Street. The proposed development will improve approximately 5.6 acres of undeveloped land, as shown on the General Standards worksheet attached as Appendix 2. This includes approximately 2.7 acres of new impervious area.

Improvements to the existing Fallbrook Woods Assisted Living Facility include 16 new parking spaces, a proposed sidewalk to Merrymeeting Drive and a sidewalk along Merrymeeting Drive to Ray Street.

V. Pre-Development Conditions Model

The pre-development watershed plan consists of eight subcatchments labeled 1.0S, 1.1S, 2.0S, 3.0S, OS-4.0S, OS-4.1S, OS-5.0S, and OS5.1S in the HydroCAD model. Five locations were identified as Study Points (SP) for comparing peak runoff rates.

SP-1 is located in the easterly corner of the lot where runoff leaves the site via a wetland. Watershed 1.0S directly contributes runoff to this study point with a tributary area of approximately 9.4 acres. Subcatchment 1.1S flows into to 1.0S through an existing 15" culvert with an inlet control structure identified as node 1.1P. The culvert crosses under an existing gravel access road draining an area of approximately 2.7 acres. SP-1 and the

associated drainage area are tributary to an offsite unnamed stream traveling northeasterly from the site and discharging to the Presumpscot River.

SP-2 is located in the undeveloped southerly corner of the lot where runoff leaves the site via overland flow into the paper street right of way of Wadco Street. Subcatchment 2.0S contributes runoff to this study point with a tributary area of approximately 0.4 acres. SP-2 and its associated drainage area drain to an offsite unnamed stream discharging to the Presumpscot River.

SP-3 is located in the westerly corner of the lot that is a majority undeveloped where runoff leaves the site into the undeveloped Topsham Street right of way. A small portion of this area includes previously developed grass and pavement area from the neighboring Fallbrook Woods facility. Watershed 3.0S contributes runoff to this study point with a tributary area of approximately 0.9 acres. SP-3 and the associated drainage area are also tributary to an offsite unnamed stream discharging to the Presumpscot River.

SP-4 is located in the western corner of the lot. A portion of the existing Fallbrook Woods Assisted Living Facility drains across the existing parking lot/access road to a wetland. The wetland drains through two existing 12-inch concrete culverts Watersheds OS-4.0S and OS-4.1S contribute runoff to this study point with tributary areas of approximately 2.13 acres. SP-4 and the associated drainage area are tributary to an offsite unnamed stream traveling westerly from the site and discharging to the Presumpscot River.

SP-5 is located in the northerly corner of the lot. This portion of the site includes Merrymeeting Drive and adjacent properties southeasterly of Merrymeeting Drive. Watersheds OS-5.0S and OS-5.2S contribute runoff to this study point with tributary areas of approximately 2.70 acres. SP-5 and the associated drainage area are tributary to an offsite unnamed stream traveling westerly from the site and discharging to the Presumpscot River.

VI. Post-Development Conditions Model

The post-development watershed area consists of the same overall area as the pre-development plan, however, the subcatchments have been broken into smaller areas as a result of the proposed development.

SP-1: Post-development subcatchments 10.0S and 10.1S represent the existing undeveloped and developed land within pre-development subcatchments 1.0S and 1.1S respectively. Subcatchments 11.0S, 11.1S, 11.2S, 12.0S, 13.0S, and 13.1S represent the majority of the proposed developed area including the building, parking areas, and landscaped islands.

Subcatchments 11.0S, 11.1S, and 11.2S represent approximately 3.1 acres of the developed site tributary to a proposed Gravel Wetland (GW-1) modeled as node 11.0P which provides both quantity and quality treatment of the stormwater runoff. Portions of subcatchment

11.1S include developed areas from the neighboring Fallbrook Woods facility and are directed to a proposed replacement culvert modeled as node 11.1P.

Subcatchment 12.0S represents approximately 1.3 acres of the developed area and is tributary to the proposed Underdrained Soil Filter (UDSF-1) modeled as node 12.0P which provides both quantity and quality treatment of the stormwater runoff.

Subcatchments 13.0S and 13.1S are approximately 0.8 acres of the proposed building roofline area and is tributary to the proposed Roof Drip Edge BMPs modeled as nodes 13.0P and 13.1P which provide quality treatment of the stormwater runoff.

SP-2: Post-development subcatchment 20.0S represents the remaining undeveloped land from pre-development subcatchment 2.0S.

SP-3: Post-development subcatchment 30.0S represents the remaining undeveloped land from pre-development subcatchment 3.0S and a small portion of developed landscape and pavement directed via constructed grassed swale and sheet flow to an existing wetland area.

SP-4: Post-development subcatchments OS-40S and OS-41S included proposed parking spaces and a proposed sidewalk to Merrymeeting Drive. Runoff from OS-41S is directed to an existing culvert running under the driveway.

SP-5: Post-development subcatchments OS-50S and OS-51S included the proposed sidewalk along Merrymeeting Drive to Ray Street.

The three Best Management Practices (gravel wetland, underdrained soil filter, and roof drip edge) have been designed and sized in accordance with MDEP BMP standards contained within Chapter 500 and the BMP Manual. The proposed BMPs treat runoff tributary to SP-1. The areas tributary to SP-2, SP-3, SP-4 and SP-5 are reduced in the post-development conditions due to site development. Sizing calculations can be found in Appendix 2.

VII. Stormwater Management

Basic Standard - Chapter 500, Section 4(B)

Since the project will disturb more than one (1) acre of land area, MDEP Basic Standards apply, requiring that grading or other construction activities on the site do not impede or otherwise alter drainage ways to have an unreasonable adverse impact. The project avoids adverse impacts by implementing an Erosion & Sedimentation Control Plan, and an Inspection, Maintenance and Housekeeping Plan (Appendix 4) during construction and post-construction stabilization of the site. These construction requirements have been developed following Best Management Practice guidelines.

General Standard - Chapter 500, Section 4(C)

Since the project will create more than one (1) acre of impervious surface, MDEP General Standards apply, which require a project's stormwater management system to include treatment measures that will mitigate for the increased frequency and duration of channel erosive flows due to runoff from smaller storms, provide for effective treatment of pollutants in stormwater, and mitigate potential temperature impacts. The General Standards require treatment of no less than 95% of the site's created impervious area and no less than 80% of the site's created developed area (landscaped area and impervious area combined).

To mitigate the changes in hydrologic patterns due to the development of this project, an underdrained soil filter, a gravel wetland, and a roof drip edge filters have been included in the stormwater management infrastructure. Filtration BMPs are effective at removing a wide range of pollutants through the use of soil filter media.

BMP sizing and treatment calculations are provided as Appendix 2.

Through the use of the proposed BMP's, 106.5% of new impervious area and 91.8% of new developed area will be receiving treatment. This exceeds the requirements for the Maine DEP General Standards. The project exceeds 100% of the new impervious area treated by directing untreated offsite impervious area to the proposed gravel wetland.

Flooding Standard - Chapter 500, Section 4(F)

Since the planned project will create less than three (3) acres of impervious surface, MDEP Flooding Standards are not required to be met. However, the Flooding Standard has been met as a local requirement. The Flooding Standard requires a project's stormwater management system detain, retain, or result in the infiltration of stormwater from 24-hour storms of the 2, 10, and 25-year frequencies such that the peak flows of stormwater from the project site do not exceed the peak flows of stormwater prior to undertaking the project.

A runoff evaluation was performed using the methodology outlined in the USDA Soil Conservation Service's "Urban Hydrology for Small Watersheds - Technical Release #55 (TR-55)". HydroCAD computer software was utilized to perform the calculations.

Runoff curve numbers were determined for each of the watersheds by measuring the area of each hydrologic soil group within each type of land cover. The type of land cover was determined based on survey data, field reconnaissance and aerial photography. Times of concentration were determined from site topographic maps in accordance with SCS procedures.

The 24-hour rainfall values utilized in the hydrologic model were obtained from Appendix H of MDEP's Chapter 500: Stormwater Management (effective date August 2015). Rainfall values for York County are listed in the table below.

Storm Frequency Precipitation (in./24 hr) Cumberland County	
2-year	3.1
10-year	4.6
25-year	5.8

The following table presents the watershed data for pre- and post-development conditions, as delineated for the analysis.

Subcatchment (Watershed)	Pre-Development			Post-Development		
	Area (ac)	Cn	Tc (Min.)	Area (ac)	Cn	Tc (Min.)
1.0S	9.42	77	29.3			
1.1S	2.68	80	23.9			
2.0S	0.44	70	18.7			
3.0S	0.92	72	16.1			
OS-4.0S	1.22	81	9.3			
OS-4.1S	0.98	80	16.2			
OS-5.0S	2.48	78	6.0			
OS-5.1S	0.22	92	6.0			
10.0S				4.54	79	28.5
10.1S				2.63	80	23.9
11.0S				1.93	92	11.7
11.1S				0.54	76	18.0
11.2S				0.62	81	15.0
12.0S				1.29	87	17.3
13.0S				0.40	98	6.0
13.1S				0.39	98	6.0
20.0S				0.28	70	18.0
30.0S				0.85	73	16.1
OS-40S				1.22	83	6.2
OS-41S				0.98	81	15.9
OS-50S				2.48	78	6.0
OS-51S				0.22	92	6.0
Total	18.37			18.37		

The following table presents the results of the stormwater runoff calculations at the analysis points for the pre-development and post-developed conditions.

Stormwater Runoff Summary Table			
Study Point	Storm Event	Pre-Development (cfs)	Post-Development (cfs)
SP-1	2-year	8.4	6.3
	10-year	19.4	17.2
	25-year	25.9	24.7
SP-2	2-year	0.2	0.2
	10-year	0.7	0.4
	25-year	0.9	0.6
SP-3	2-year	0.6	0.6
	10-year	1.6	1.5
	25-year	2.2	2.1
SP-4	2-year	1.3	1.3
	10-year	2.4	2.4
	25-year	2.9	2.9
SP-5	2-year	4.0	4.0
	10-year	8.3	8.3
	25-year	11.1	11.1

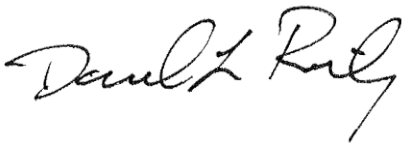
The HydroCAD Data output sheets from this analysis are appended to this report (Appendix 3) along with pre-development and post-development watershed maps (Appendix 1). The model predicts that the peak runoff rates in the post-development condition at Study Points 1, 2, 3, 4 and 5 are at or below pre-development runoff rates for the 2, 10, and 25-year storm events with implementation of the proposed stormwater management practices.

VIII. Summary

The proposed development has been designed to manage stormwater runoff through Best Management Practices approved by MDEP. Stormwater BMP's provide treatment to 100.19% (95% required) of impervious areas, and 89.07% (80% required) of the total developed area. Runoff discharging from the site will be at or below pre-development conditions for the 2, 10 and 25-year storm events at all five study points. Additionally, erosion and sedimentation controls along with associated maintenance and housekeeping procedures have been outlined to prevent unreasonable impacts on the site and to the surrounding environment.

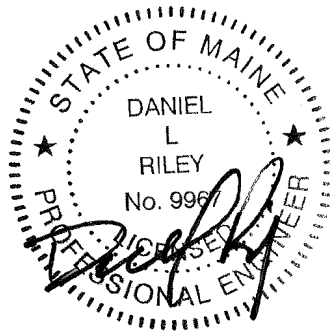
Prepared by:

SEBAGO TECHNICS, INC.



Daniel L. Riley, P.E.
Vice President, Engineering

DLR/BAW



05/15/2020

Appendix 1

Watershed Plans

(see plan set)

Appendix 2

Stormwater Quality Calculations

Table 1: MDEP GENERAL STANDARD CALCULATIONS

Job # 18347 Fallbrook Commons Date: 5/14/2020

AREA ID	WATERSHED SIZE (S.F.)	EXISTING ONSITE IMPERVIOUS AREA TO REMAIN (S.F.)	NEW ONSITE IMPERVIOUS AREA (S.F.)	EXISTING ONSITE LANDSCAPED AREA TO REMAIN (S.F.)	NEW ONSITE LANDSCAPED AREA (S.F.)	NET NEW DEVELOPED AREA (S.F.)	NET EXISTING DEVELOPED AREAS (S.F.)	TREATMENT PROVIDED?	IMPERVIOUS AREA TREATED (S.F.)	LANDSCAPED AREA TREATED (S.F.)	DEVELOPED AREA TREATED (S.F.)	TREATMENT BMP
10.0S	197,762	8,676	226	167,582	21,278	21,504	176,258	NO	0	0	0	
10.1S	114,524	24,914	0	85,730	3,880	3,880	110,644	NO	0	0	0	
11.0S	83,879	0	55,667	0	28,212	83,879	0	YES	55,667	28,212	83,879	GW-1
11.1S	23,407	0	0	0	23,407	23,407	0	YES	0	23,407	23,407	GW-1
11.2S	27,173	7,890	700	9,821	8,762	9,462	17,711	YES	8,590	18,583	27,173	GW-1
12.0S	56,194	0	27,298	0	28,896	56,194	0	YES	27,298	28,896	56,194	UDSF-1
13.0S	17,204	0	17,204	0	0	17,204	0	YES	17,204	0	17,204	DL
13.1S	16,974	0	16,974	0	0	16,974	0	YES	16,974	0	16,974	DL
20.0S	12,129	0	0	12,129	0	0	12,129	NO	0	0	0	
30.0S	37,005	0	0	24,501	12,504	12,504	24,501	NO	0	0	0	
OS-40S	53,510	17,041	3,120	33,349	0	3,120	50,390	NO	0	0	0	
OS-41S	39,122	10,996	2,045	26,081	0	2,045	37,077	NO	0	0	0	
OS-50S	107,926	29,442	771	77,713	0	771	107,155	NO	0	0	0	
OS-51S	9,601	4,072	1,485	4,044	0	1,485	8,116	NO	0	0	0	
TOTAL (S.F.)	796,410	103,031	125,490	440,950	126,939	252,429	543,981		125,733	99,098	224,831	

TOTAL NEW IMPERVIOUS AREA (S.F.)	125,490	TOTAL DEVELOPED AREA (S.F.)	252,429
TOTAL IMPERVIOUS AREA RECEIVING TREATMENT (S.F.)	125,733	TOTAL AREA RECEIVING TREATMENT (S.F.)	224,831
% OF IMPERVIOUS AREA RECEIVING TREATMENT	100.19%	% OF AREA RECEIVING TREATMENT	89.07%

SEBAGO TECHNICS, INC.

75 John Roberts Road Suite 4A

South Portland, Maine 04106

Tel. (207) 200-2100

JOB

18347 Fallbrook Commons

SHEET NO.

1

OF

1

CALCULATED BY

BAW

DATE

11/11/2019

FILE NAME

18347 WQC.xlsx

PRINT DATE

11/11/2019

GRAVEL WETLAND

Task: Calculate water quality volume per MDEP chapter 500 regulations

References 1. Maine DEP Chapter 500, Section 4.C.(3)(b)

"must detain a runoff volume equal to 1.0 inch times

the subcatchment's impervious area plus 0.4 inch times the subcatchment's landscaped area"

2. Maine DEP Best Management Practices Stormwater Manual, Section 7.4

a. "two wetland cells must be capable of holding 45% of the water quality volume each."

b. "forebay and any swale or discharge pipe to the system....holding 10% of the water quality volume"

c. "surface should represent 5% of impervious area and 2% of landscaped area"

Tributary to**GRAVEL WETLAND**

Landscaped Area

70,202.0

SF

Impervious Area

64,257.0

SF

Minimum Surface Area

Required

(2% X Landscaped + 5% X Impervious)

Total Landscaped Area

70,202.00

SF

Area

1,404.0

SF

Total Impervious Area

64,257.00

SF

Area

3,212.9

SF

Required Minimum Surface Area

4,616.9

SF

Provided Surface Area

6,175.0

SF

Treatment Volume

Required

(0.4" X Landscaped + 1.0" X Impervious)

Landscaped Area

70,202.00

SF

Volume

2,340.1

Impervious Area

64,257.00

SF

Volume

5,354.8

Treatment Volume Required

7,694.8

CF

0.177

AF

Minimum Treatment Cell Volume (45%)

3,462.7

CF

0.079

AF

Provided Treatment Volume (Bay 1)

4,790.0

CF

Provided Treatment Volume (Bay 2)

5,860.0

CF

Total Provided Treatment Volume

10,650.0

CF

Minimum "Forebay" Cell Volume (10%)

769.5

CF

Provided Treatment Volume (Forebay)

800.0

CF

SEBAGO TECHNICS, INC.

75 John Roberts Road Suite 4A

South Portland, Maine 04106

Tel. (207) 200-2100

JOB

18347 Fallbrook Commons

SHEET NO.

1

OF

1

CALCULATED BY

BAW

DATE

11/11/2019

FILE NAME

18347 WQC.xlsx

PRINT DATE

11/11/2019

UNDERDRAINED SOIL FILTER										
Task:	Calculate water quality volume per MDEP chapter 500 regulations									
1. Maine DEP Chapter 500, Section 4.C.(3)(b)										
References										
a.	"must detain a runoff volume equal to 1.0 inch times the subcatchment's impervious area plus 0.4 inch times the subcatchment's landscaped area"									
2. Maine DEP Best Management Practices Stormwater Manual, Section 7.1										
a.	"surface should represent 5% of impervious area and 2% of landscaped area"									
Tributary to Underdrained Filter										
		UDSF-1								
Landscaped Area		28,896.00	SF							
Impervious Area		27,298.00	SF							
Minimum Surface Area										
Required		(2% X Landscaped + 5% X Impervious)								
Total Landscaped Area		28,896.00	SF	Area	577.9	SF				
Total Impervious Area		27,298.00	SF	Area	1,364.9	SF				
Required Minimum Surface Area					1,942.8	SF				
Provided Surface Area					1,955.0	SF				
Treatment Volume										
Required		(0.4" X Landscaped + 1.0" X Impervious)								
Landscaped Area		28,896.00	SF	Volume	963.2					
Impervious Area		27,298.00	SF	Volume	2,274.8					
Treatment Volume Required					3,238.0	CF	0.074	AF		
Provided Treatment Volume					3,730.0	CF	0.086	AF		
Sediment Pre-Treatment										
Per Reference 2, Chapter 7.1		"Pretreatment devices shall be provided to minimize discharge of sediment to the soil filter"								
Annual Sediment Load:		55 cubic feet per acre per year of sanded area								
Area to be sanded:		27,298.00	SF							
Sediment Volume		34	CF							
Provided		160	CF	16	Inch Deep Forebay	with area of	120	sf		

SEBAGO TECHNICS, INC.

75 John Roberts Road Suite 4A

South Portland, Maine 04106

Tel. (207) 200-2100

JOB	18347 Fallbrook Commons		
SHEET NO.	1	OF	2
CALCULATED BY	BAW	DATE	11/11/2019
FILE NAME	18347 WQC.xlsx	PRNT DATE	11/11/2019

Gravel Wetland - Orifice Sizing CalculationOrifice Equation $Q = CA \sqrt{2gh}$

Q = Rate of Discharge (cfs)

A = Orifice Area (sf)

G = Gravitational Constant (32.2 ft/s²)

h = Depth of water above the flow line (center) of the orifice (ft)

C = Orifice coefficient (usually assumed = 0.6)

Average discharge rate required to drawdown the treatment volume in a desired amount of time is:

$$Q = \frac{TV}{tCF}$$

T = Treatment Volume (cf)

t = Recovery Time (hrs)

CF = Conversion Factor = 3600 sec/hr

TV = 10,650 cf

t = 24 hr

$$Q = \frac{TV}{tCF} = 0.12 \text{ cfs}$$

surface area of filter = 6,175 SF

h = 1.72 ft

$$A = \frac{Q}{C \sqrt{2gh}} = 0.019 \text{ sf} = 2.81 \text{ sq. in.}$$

Max. Diam = 1.89 in

SEBAGO TECHNICS, INC.

75 John Roberts Road Suite 4A

South Portland, Maine 04106

Tel. (207) 200-2100

JOB	18347 Fallbrook Commons		
SHEET NO.	2	OF	2
CALCULATED BY	BAW	DATE	11/11/2019
FILE NAME	18347 WQC.xlsx	PRNT DATE	11/11/2019

Underdrained Soil Filter 1 - Orifice Sizing CalculationOrifice Equation $Q = CA \sqrt{2gh}$

Q = Rate of Discharge (cfs)

A = Orifice Area (sf)

G = Gravitational Constant (32.2 ft/s²)

h = Depth of water above the flow line (center) of the orifice (ft)

C = Orifice coefficient (usually assumed = 0.6)

Average discharge rate required to drawdown the treatment volume in a desired amount of time is:

$$Q = \frac{TV}{tCF}$$

T = Treatment Volume (cf)

t = Recovery Time (hrs)

CF = Conversion Factor = 3600 sec/hr

TV = 3,730 cf

t = 24 hr

$$Q = \frac{TV}{tCF} = 0.04 \text{ cfs}$$

surface area of filter = 1,955 SF

h = 1.91 ft

$$A = \frac{Q}{C \sqrt{2gh}} = 0.006 \text{ sf} = 0.93 \text{ sq. in.}$$

Max. Diam = 1.09 in

SEBAGO TECHNICS, INC.
 75 John Roberts Road, Suite 4A
 South Portland, ME 04106
(207) 200-2100 FAX (207) 856-2206

JOB	18347 Fallbrook Commons		
SHEET NO.	1	OF	1
CALCULATED BY	BAW	DATE	11/11/2019
CHECKED BY	BJB		
FILE NAME	18347 WQC.xlsx	PRINT DATE	11/11/2019

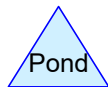
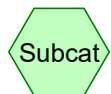
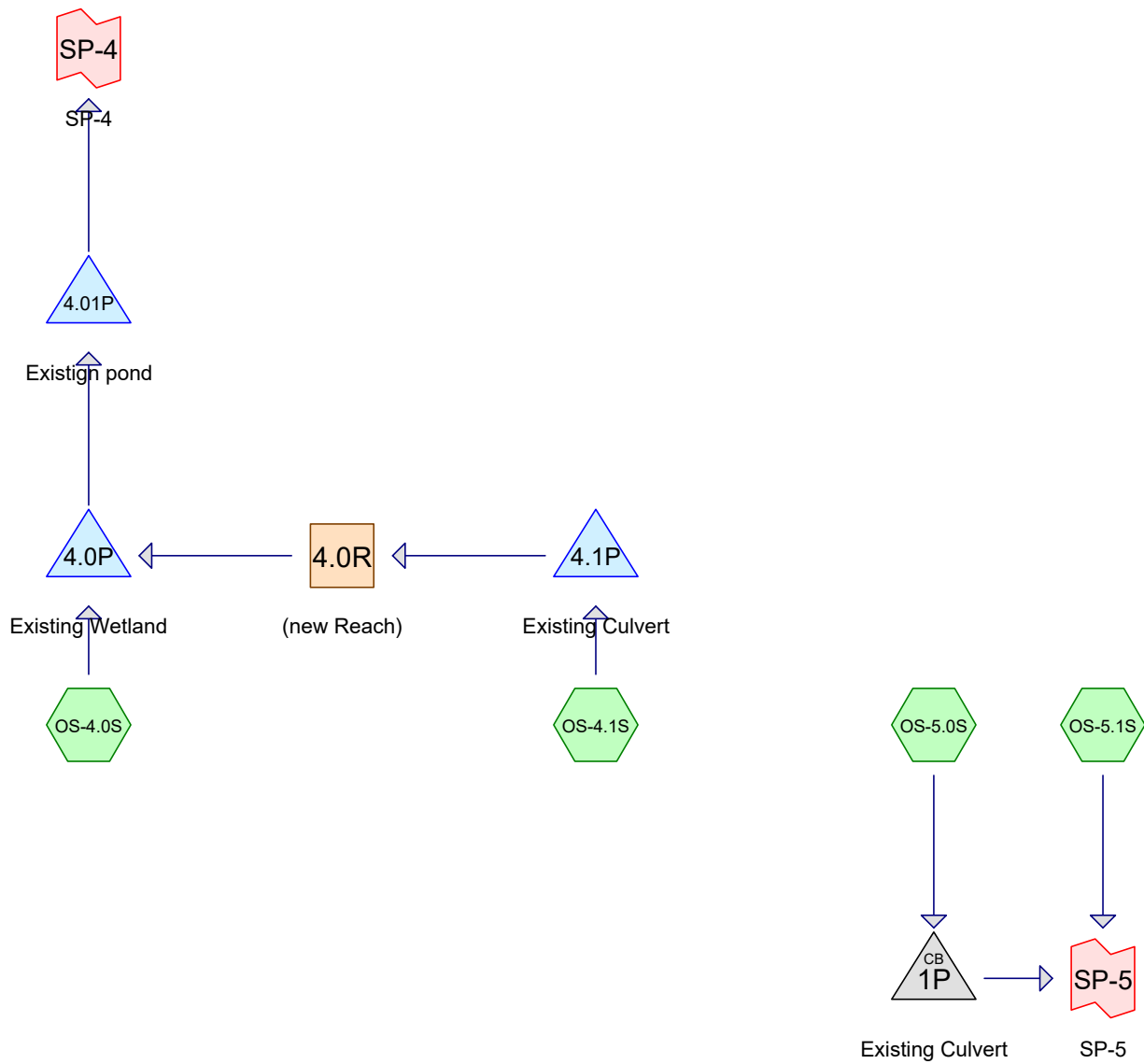
Treatment Calculations for Proposed Roof Drip Edge						
WQV Calculation						
(WQV = Water Quality Volume)						
Total Impervious Area =	34,180	sf				
WQV (MDEP)= 1" x Impervious Area =	2,848.3	cf	0.065	acre-ft		
Length of Trench=	1510.0	ft.				
Width of Trench=	3.5	ft.				
Depth of Stone	12.0	in.	40% porosity			
Depth of Sand Media=	12.0	in.	20% porosity			
WQV Provided = Area of Trench * (Depth of stone*stone porosity + Depth of sand*sand porosity)						
WQV for first 1" =	2,114.0	cf				
Additional WQV Provided =	1,057.0	cf				
Total WQV Provided =	3,171.0	cf				

The stone reservoir volume for the drip edge filter was designed to provide the storage required to convey the water quality storm (storm that generates 1" of runoff over the roof) through the filter media under the stone. Additional water quality is provided in the porosity of the underdrain sand.

Appendix 3

HydroCAD Output Pre-Development and Post-Development Models

Appendix 3A
PREDEVELOPMENT



18347 PRE-DEVELOPMENT 2020-05-13

Prepared by Sebago Technics

Printed 5/14/2020

HydroCAD® 10.00-24 s/n 01856 © 2018 HydroCAD Software Solutions LLC

Page 2

Area Listing (selected nodes)

Area (acres)	CN	Description (subcatchment-numbers)
1.272	80	1/2 acre lots, 25% imp, HSG C (OS-5.0S)
1.105	74	>75% Grass cover, Good, HSG C (OS-4.0S, OS-4.1S)
0.457	98	Paved parking, HSG C (OS-4.0S, OS-4.1S)
0.578	92	Paved roads w/open ditches, 50% imp, HSG C (OS-5.0S, OS-5.1S)
0.187	98	Roofs, HSG C (OS-4.0S, OS-4.1S)
1.225	70	Woods, Good, HSG C (OS-4.0S, OS-4.1S, OS-5.0S)
4.825	80	TOTAL AREA

Time span=0.00-36.00 hrs, dt=0.01 hrs, 3601 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

SubcatchmentOS-4.0S: Runoff Area=53,510 sf 31.85% Impervious Runoff Depth=1.39"
 Flow Length=86' Tc=9.3 min CN=81 Runoff=1.8 cfs 0.142 af

SubcatchmentOS-4.1S: Runoff Area=39,122 sf 28.11% Impervious Runoff Depth=1.33"
 Flow Length=207' Tc=16.2 min CN=80 Runoff=1.0 cfs 0.099 af

SubcatchmentOS-5.0S: Runoff Area=107,926 sf 20.06% Impervious Runoff Depth=1.20"
 Flow Length=543' Tc=6.0 min CN=78 Runoff=3.4 cfs 0.248 af

SubcatchmentOS-5.1S: Runoff Area=9,601 sf 50.00% Impervious Runoff Depth=2.26"
 Flow Length=342' Tc=6.0 min CN=92 Runoff=0.6 cfs 0.041 af

Reach 4.0R: (new Reach) Avg. Flow Depth=0.18' Max Vel=0.46 fps Inflow=1.0 cfs 0.099 af
 n=0.100 L=190.0' S=0.0106 '/' Capacity=18.8 cfs Outflow=0.9 cfs 0.099 af

Pond 1P: Existing Culvert Peak Elev=96.93' Inflow=3.4 cfs 0.248 af
 15.0" Round Culvert n=0.013 L=43.0' S=0.0223 '/' Outflow=3.4 cfs 0.248 af

Pond 4.01P: Existign pond Peak Elev=106.11' Storage=1,406 cf Inflow=1.6 cfs 0.238 af
 12.0" Round Culvert n=0.020 L=20.0' S=0.0070 '/' Outflow=1.3 cfs 0.235 af

Pond 4.0P: Existing Wetland Peak Elev=106.51' Storage=2,029 cf Inflow=2.3 cfs 0.242 af
 12.0" Round Culvert x 2.00 n=0.012 L=53.0' S=0.0072 '/' Outflow=1.6 cfs 0.238 af

Pond 4.1P: Existing Culvert Peak Elev=108.82' Storage=49 cf Inflow=1.0 cfs 0.099 af
 15.0" Round Culvert n=0.012 L=38.0' S=0.0042 '/' Outflow=1.0 cfs 0.099 af

Link SP-4: SP-4 Inflow=1.3 cfs 0.235 af
 Primary=1.3 cfs 0.235 af

Link SP-5: SP-5 Inflow=4.0 cfs 0.289 af
 Primary=4.0 cfs 0.289 af

Total Runoff Area = 4.825 ac Runoff Volume = 0.531 af Average Runoff Depth = 1.32"
74.07% Pervious = 3.574 ac 25.93% Impervious = 1.251 ac

Time span=0.00-36.00 hrs, dt=0.01 hrs, 3601 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

SubcatchmentOS-4.0S: Runoff Area=53,510 sf 31.85% Impervious Runoff Depth=2.81"
 Flow Length=86' Tc=9.3 min CN=81 Runoff=3.6 cfs 0.288 af

SubcatchmentOS-4.1S: Runoff Area=39,122 sf 28.11% Impervious Runoff Depth=2.72"
 Flow Length=207' Tc=16.2 min CN=80 Runoff=2.1 cfs 0.204 af

SubcatchmentOS-5.0S: Runoff Area=107,926 sf 20.06% Impervious Runoff Depth=2.54"
 Flow Length=543' Tc=6.0 min CN=78 Runoff=7.4 cfs 0.525 af

SubcatchmentOS-5.1S: Runoff Area=9,601 sf 50.00% Impervious Runoff Depth=3.89"
 Flow Length=342' Tc=6.0 min CN=92 Runoff=1.0 cfs 0.072 af

Reach 4.0R: (new Reach) Avg. Flow Depth=0.28' Max Vel=0.61 fps Inflow=2.1 cfs 0.204 af
 n=0.100 L=190.0' S=0.0106 '/' Capacity=18.8 cfs Outflow=2.0 cfs 0.204 af

Pond 1P: Existing Culvert Peak Elev=98.91' Inflow=7.4 cfs 0.525 af
 15.0" Round Culvert n=0.013 L=43.0' S=0.0223 '/' Outflow=7.4 cfs 0.525 af

Pond 4.01P: Existign pond Peak Elev=106.61' Storage=2,783 cf Inflow=3.2 cfs 0.488 af
 12.0" Round Culvert n=0.020 L=20.0' S=0.0070 '/' Outflow=2.4 cfs 0.484 af

Pond 4.0P: Existing Wetland Peak Elev=106.86' Storage=3,724 cf Inflow=4.8 cfs 0.491 af
 12.0" Round Culvert x 2.00 n=0.012 L=53.0' S=0.0072 '/' Outflow=3.2 cfs 0.488 af

Pond 4.1P: Existing Culvert Peak Elev=109.09' Storage=109 cf Inflow=2.1 cfs 0.204 af
 15.0" Round Culvert n=0.012 L=38.0' S=0.0042 '/' Outflow=2.1 cfs 0.204 af

Link SP-4: SP-4 Inflow=2.4 cfs 0.484 af
 Primary=2.4 cfs 0.484 af

Link SP-5: SP-5 Inflow=8.3 cfs 0.597 af
 Primary=8.3 cfs 0.597 af

Total Runoff Area = 4.825 ac Runoff Volume = 1.088 af Average Runoff Depth = 2.71"
74.07% Pervious = 3.574 ac 25.93% Impervious = 1.251 ac

Time span=0.00-36.00 hrs, dt=0.01 hrs, 3601 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

SubcatchmentOS-4.0S: Runoff Area=53,510 sf 31.85% Impervious Runoff Depth=3.70"
 Flow Length=86' Tc=9.3 min CN=81 Runoff=4.7 cfs 0.379 af

SubcatchmentOS-4.1S: Runoff Area=39,122 sf 28.11% Impervious Runoff Depth=3.60"
 Flow Length=207' Tc=16.2 min CN=80 Runoff=2.8 cfs 0.270 af

SubcatchmentOS-5.0S: Runoff Area=107,926 sf 20.06% Impervious Runoff Depth=3.40"
 Flow Length=543' Tc=6.0 min CN=78 Runoff=9.9 cfs 0.703 af

SubcatchmentOS-5.1S: Runoff Area=9,601 sf 50.00% Impervious Runoff Depth=4.87"
 Flow Length=342' Tc=6.0 min CN=92 Runoff=1.2 cfs 0.090 af

Reach 4.0R: (new Reach) Avg. Flow Depth=0.33' Max Vel=0.67 fps Inflow=2.7 cfs 0.270 af
 n=0.100 L=190.0' S=0.0106 '/' Capacity=18.8 cfs Outflow=2.6 cfs 0.270 af

Pond 1P: Existing Culvert Peak Elev=100.89' Inflow=9.9 cfs 0.703 af
 15.0" Round Culvert n=0.013 L=43.0' S=0.0223 '/' Outflow=9.9 cfs 0.703 af

Pond 4.01P: Existign pond Peak Elev=106.89' Storage=3,705 cf Inflow=4.1 cfs 0.645 af
 12.0" Round Culvert n=0.020 L=20.0' S=0.0070 '/' Outflow=2.9 cfs 0.641 af

Pond 4.0P: Existing Wetland Peak Elev=107.08' Storage=4,959 cf Inflow=6.4 cfs 0.648 af
 12.0" Round Culvert x 2.00 n=0.012 L=53.0' S=0.0072 '/' Outflow=4.1 cfs 0.645 af

Pond 4.1P: Existing Culvert Peak Elev=109.24' Storage=168 cf Inflow=2.8 cfs 0.270 af
 15.0" Round Culvert n=0.012 L=38.0' S=0.0042 '/' Outflow=2.7 cfs 0.270 af

Link SP-4: SP-4 Inflow=2.9 cfs 0.641 af
 Primary=2.9 cfs 0.641 af

Link SP-5: SP-5 Inflow=11.1 cfs 0.792 af
 Primary=11.1 cfs 0.792 af

Total Runoff Area = 4.825 ac Runoff Volume = 1.441 af Average Runoff Depth = 3.58"
74.07% Pervious = 3.574 ac 25.93% Impervious = 1.251 ac

Summary for Subcatchment OS-4.0S:

Runoff = 4.7 cfs @ 12.13 hrs, Volume= 0.379 af, Depth= 3.70"

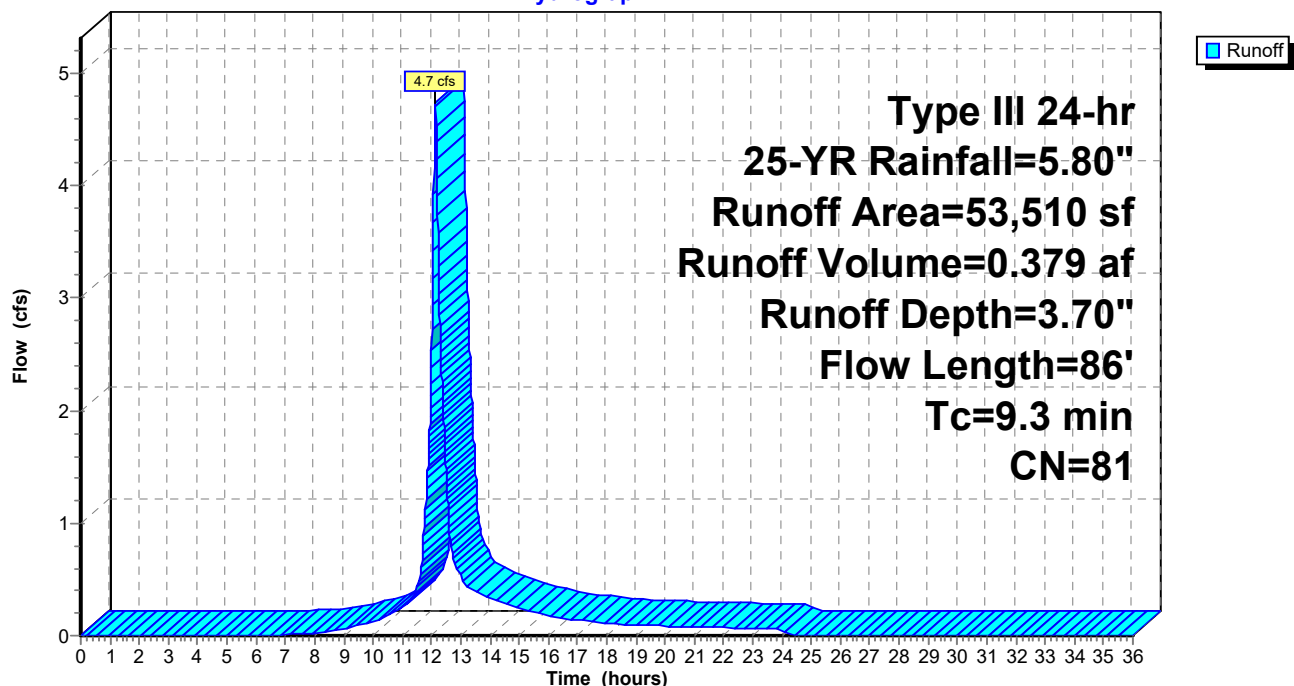
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-YR Rainfall=5.80"

Area (sf)	CN	Description
13,355	98	Paved parking, HSG C
31,929	74	>75% Grass cover, Good, HSG C
3,686	98	Roofs, HSG C
4,540	70	Woods, Good, HSG C
53,510	81	Weighted Average
36,469		68.15% Pervious Area
17,041		31.85% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.9	40	0.0100	0.07		Sheet Flow, A-B
					Grass: Dense n= 0.240 P2= 3.30"
0.1	17	0.0250	3.21		Shallow Concentrated Flow, B-C
					Paved Kv= 20.3 fps
0.3	29	0.0600	1.71		Shallow Concentrated Flow, C-D
					Short Grass Pasture Kv= 7.0 fps
9.3	86	Total			

Subcatchment OS-4.0S:

Hydrograph



Summary for Subcatchment OS-4.1S:

Runoff = 2.8 cfs @ 12.22 hrs, Volume= 0.270 af, Depth= 3.60"

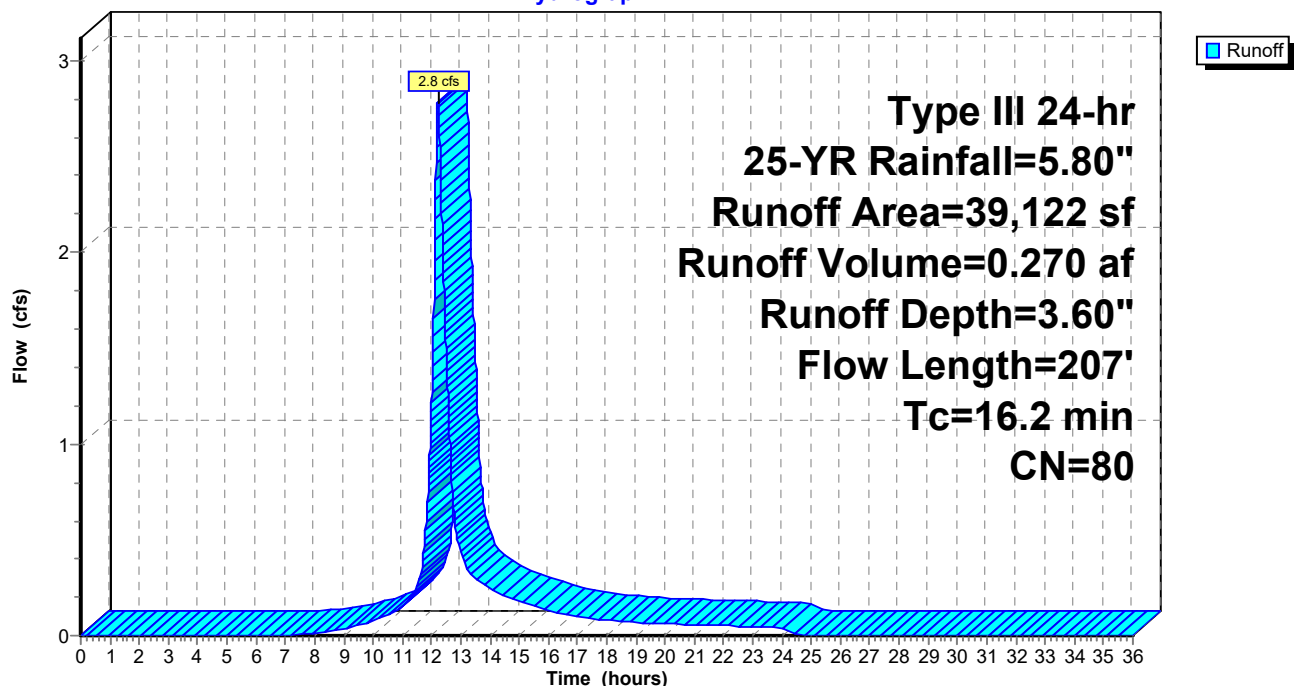
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-YR Rainfall=5.80"

Area (sf)	CN	Description
6,547	98	Paved parking, HSG C
16,225	74	>75% Grass cover, Good, HSG C
4,449	98	Roofs, HSG C
11,901	70	Woods, Good, HSG C
39,122	80	Weighted Average
28,126		71.89% Pervious Area
10,996		28.11% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.7	14	0.2100	0.14		Sheet Flow, A-B
					Woods: Light underbrush n= 0.400 P2= 3.30"
12.2	86	0.0580	0.12		Sheet Flow, B-C
					Woods: Light underbrush n= 0.400 P2= 3.30"
2.3	107	0.0250	0.79		Shallow Concentrated Flow, C-D
					Woodland Kv= 5.0 fps
16.2	207	Total			

Subcatchment OS-4.1S:

Hydrograph



Summary for Subcatchment OS-5.0S:

Runoff = 9.9 cfs @ 12.09 hrs, Volume= 0.703 af, Depth= 3.40"

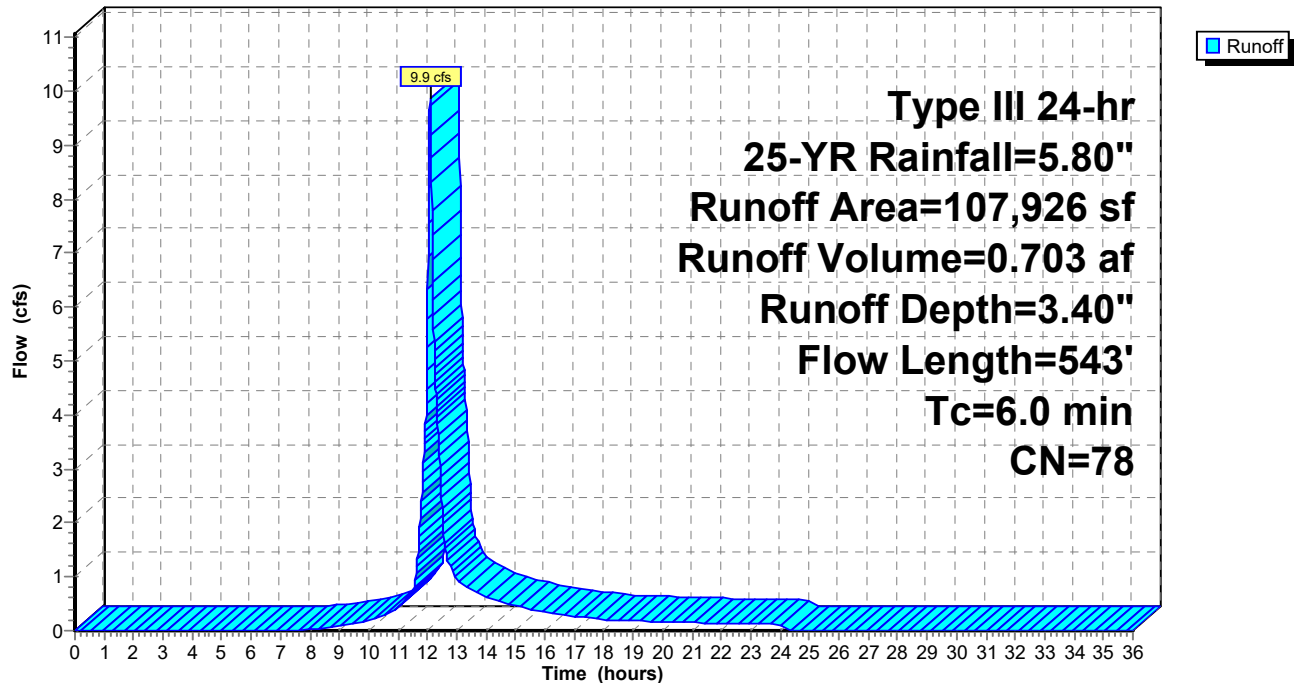
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-YR Rainfall=5.80"

Area (sf)	CN	Description
15,592	92	Paved roads w/open ditches, 50% imp, HSG C
55,403	80	1/2 acre lots, 25% imp, HSG C
36,931	70	Woods, Good, HSG C
107,926	78	Weighted Average
86,279		79.94% Pervious Area
21,647		20.06% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.3	477	0.0290	3.46		Shallow Concentrated Flow, A-B
					Paved Kv= 20.3 fps
0.9	66	0.0300	1.21		Shallow Concentrated Flow, B-C
					Short Grass Pasture Kv= 7.0 fps
2.8					Direct Entry,
6.0	543	Total			

Subcatchment OS-5.0S:

Hydrograph



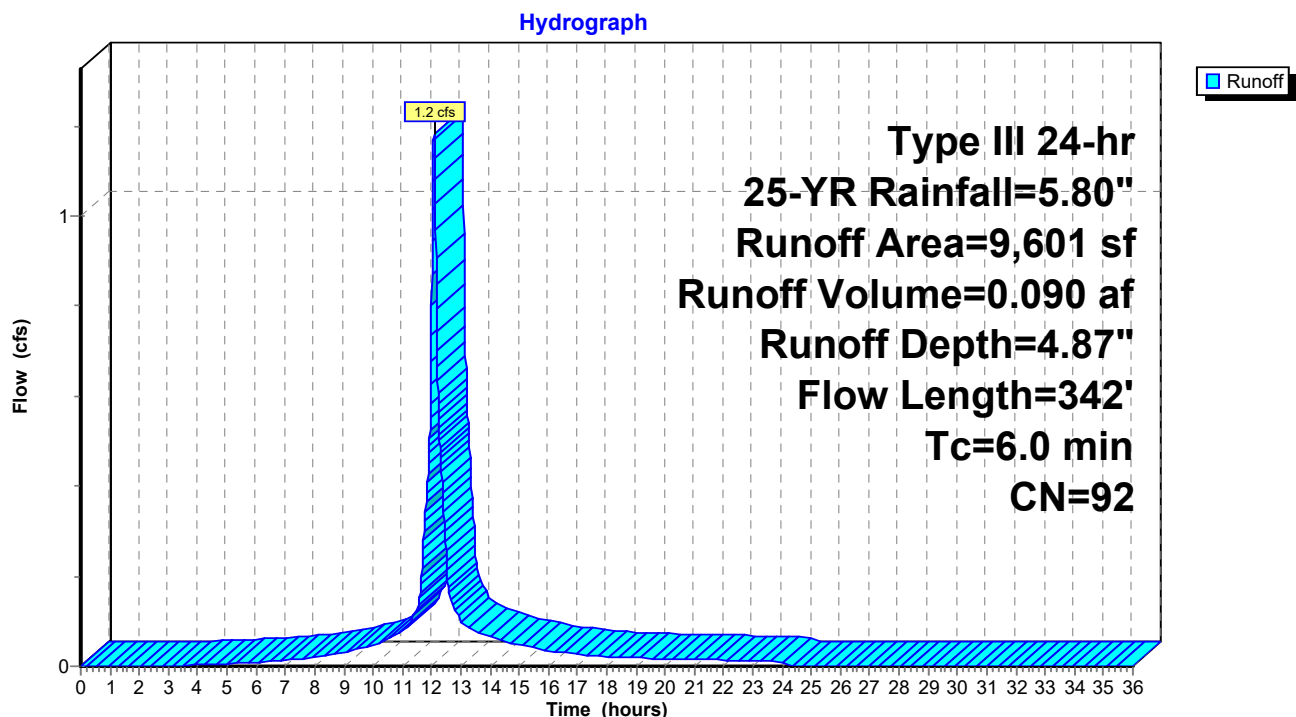
Summary for Subcatchment OS-5.1S:

Runoff = 1.2 cfs @ 12.08 hrs, Volume= 0.090 af, Depth= 4.87"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-YR Rainfall=5.80"

Area (sf)	CN	Description
9,601	92	Paved roads w/open ditches, 50% imp, HSG C
4,801		50.00% Pervious Area
4,801		50.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.5	320	0.0290	3.46		Shallow Concentrated Flow, A-B
					Paved Kv= 20.3 fps
0.1	22	0.1300	2.52		Shallow Concentrated Flow, B-C
					Short Grass Pasture Kv= 7.0 fps
4.4					Direct Entry,
6.0	342	Total			

Subcatchment OS-5.1S:

Summary for Reach 4.0R: (new Reach)

Inflow Area = 0.898 ac, 28.11% Impervious, Inflow Depth = 3.60" for 25-YR event
 Inflow = 2.7 cfs @ 12.25 hrs, Volume= 0.270 af
 Outflow = 2.6 cfs @ 12.30 hrs, Volume= 0.270 af, Atten= 4%, Lag= 3.2 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2

Max. Velocity= 0.67 fps, Min. Travel Time= 4.7 min

Avg. Velocity = 0.18 fps, Avg. Travel Time= 18.1 min

Peak Storage= 741 cf @ 12.30 hrs

Average Depth at Peak Storage= 0.33'

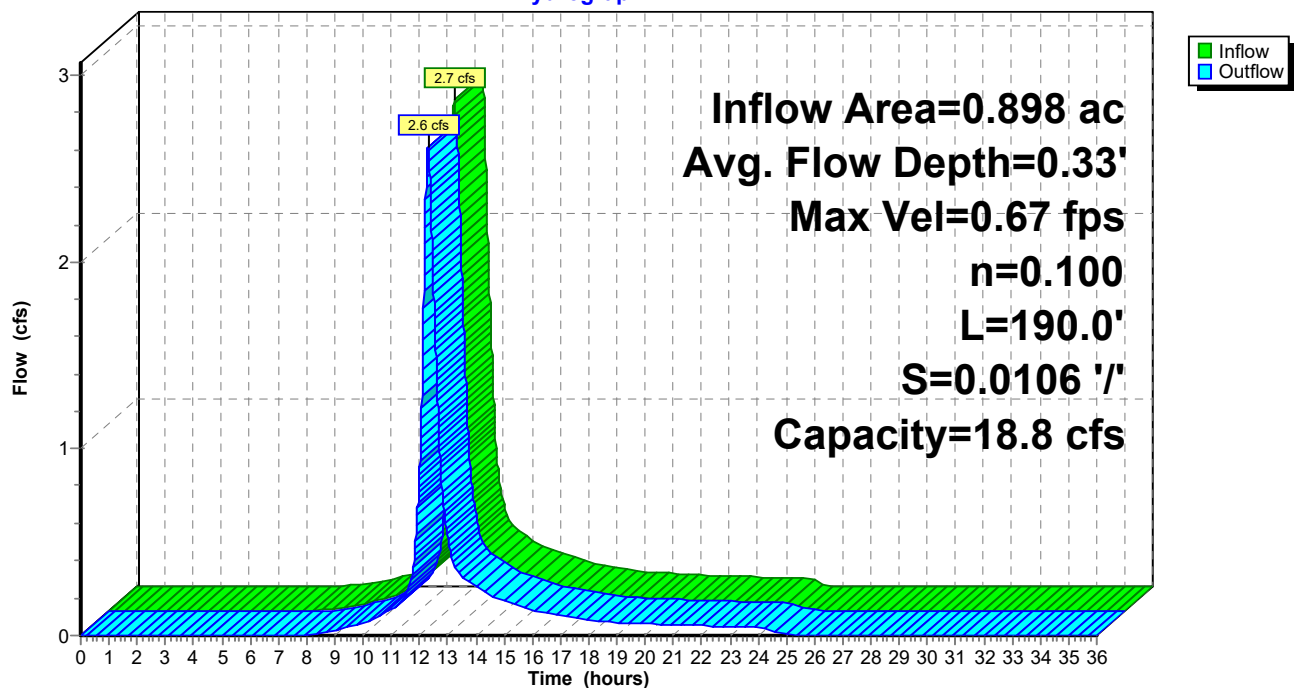
Bank-Full Depth= 1.00' Flow Area= 15.0 sf, Capacity= 18.8 cfs

10.00' x 1.00' deep channel, n= 0.100 Earth, dense brush, high stage

Side Slope Z-value= 5.0 '/' Top Width= 20.00'

Length= 190.0' Slope= 0.0106 '/'

Inlet Invert= 108.04', Outlet Invert= 106.03'

**Reach 4.0R: (new Reach)****Hydrograph**

Summary for Pond 1P: Existing Culvert

Inflow Area = 2.478 ac, 20.06% Impervious, Inflow Depth = 3.40" for 25-YR event
 Inflow = 9.9 cfs @ 12.09 hrs, Volume= 0.703 af
 Outflow = 9.9 cfs @ 12.09 hrs, Volume= 0.703 af, Atten= 0%, Lag= 0.0 min
 Primary = 9.9 cfs @ 12.09 hrs, Volume= 0.703 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2

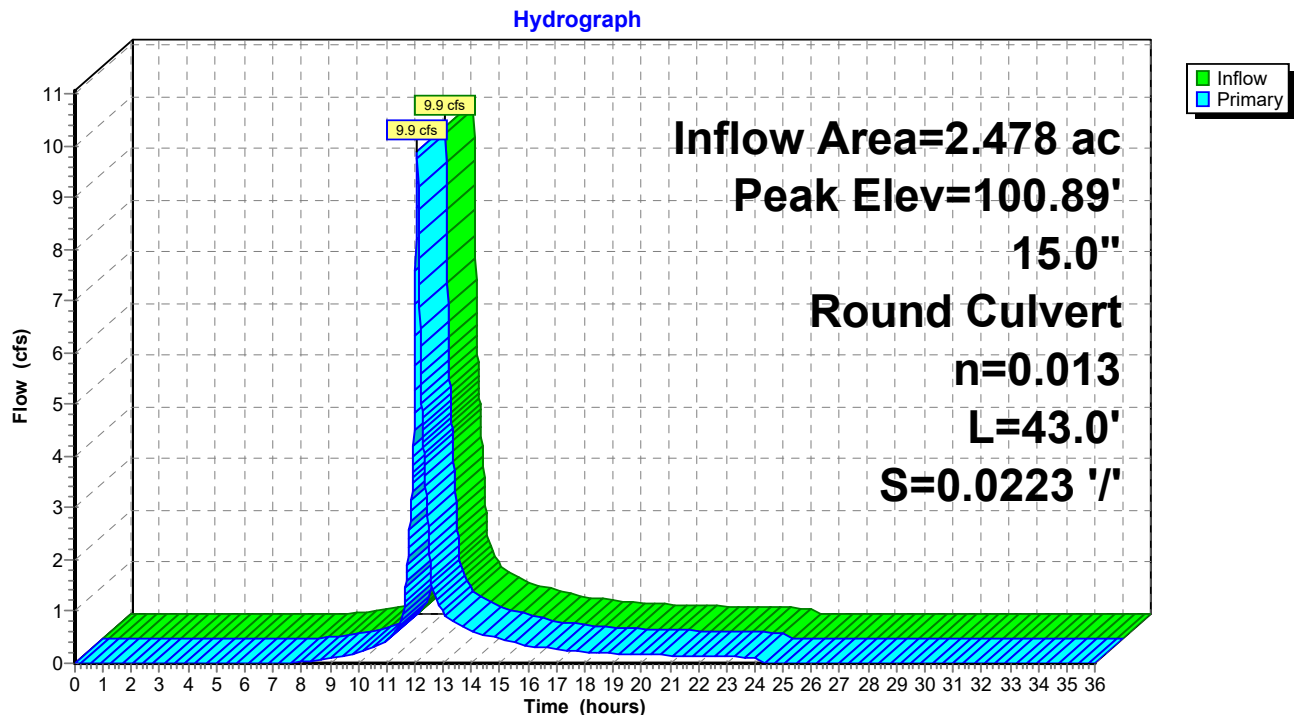
Peak Elev= 100.89' @ 12.09 hrs

Flood Elev= 100.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	95.78'	15.0" Round Culvert L= 43.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 95.78' / 94.82' S= 0.0223 '/ Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf

Primary OutFlow Max=9.9 cfs @ 12.09 hrs HW=100.88' TW=0.00' (Dynamic Tailwater)

↑1=Culvert (Inlet Controls 9.9 cfs @ 8.04 fps)

Pond 1P: Existing Culvert

Summary for Pond 4.01P: Existign pond

Inflow Area = 2.127 ac, 30.27% Impervious, Inflow Depth > 3.64" for 25-YR event
 Inflow = 4.1 cfs @ 12.26 hrs, Volume= 0.645 af
 Outflow = 2.9 cfs @ 12.61 hrs, Volume= 0.641 af, Atten= 29%, Lag= 21.0 min
 Primary = 2.9 cfs @ 12.61 hrs, Volume= 0.641 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
 Peak Elev= 106.89' @ 12.61 hrs Surf.Area= 3,565 sf Storage= 3,705 cf

Plug-Flow detention time= 26.7 min calculated for 0.641 af (99% of inflow)
 Center-of-Mass det. time= 22.0 min (880.0 - 858.1)

Volume	Invert	Avail.Storage	Storage Description
#1	105.00'	4,120 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
105.00	100	0	0
106.00	2,200	1,150	1,150
107.00	3,740	2,970	4,120

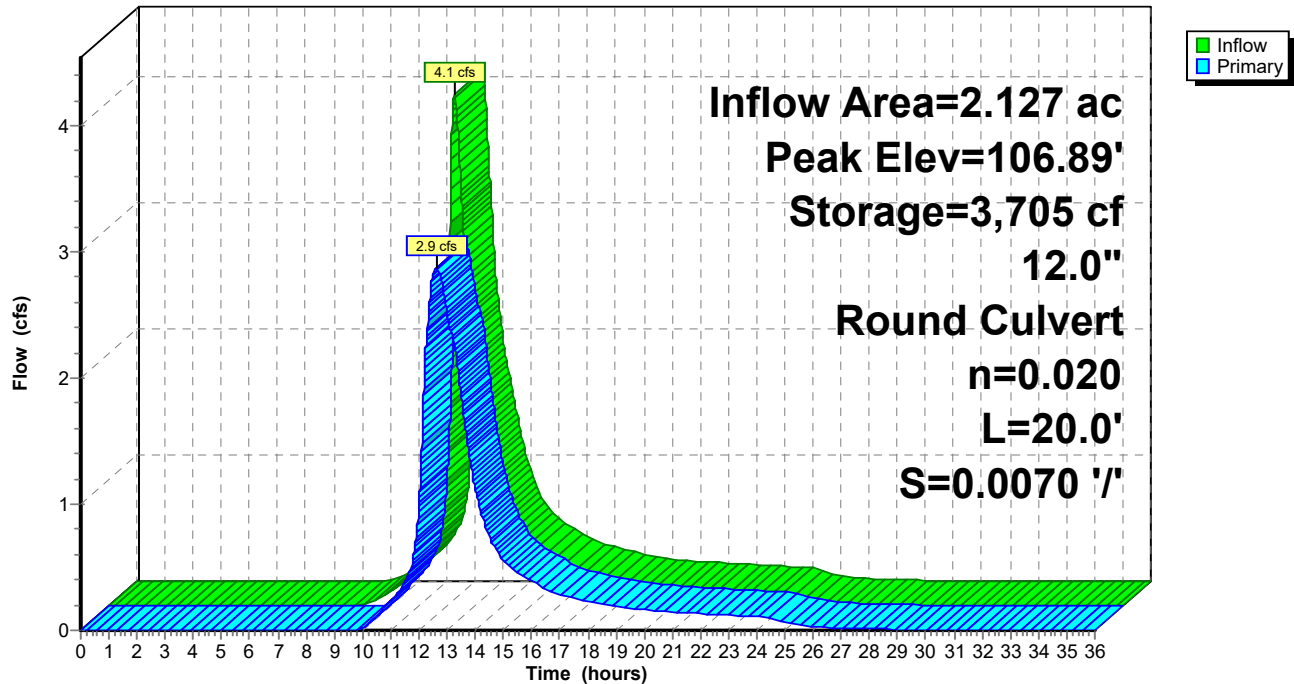
Device	Routing	Invert	Outlet Devices
#1	Primary	105.32'	12.0" Round Culvert L= 20.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 105.32' / 105.18' S= 0.0070 ' / ' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior, Flow Area= 0.79 sf

Primary OutFlow Max=2.9 cfs @ 12.61 hrs HW=106.89' TW=0.00' (Dynamic Tailwater)

↑ **1=Culvert** (Barrel Controls 2.9 cfs @ 3.66 fps)

Pond 4.01P: Existign pond

Hydrograph



Summary for Pond 4.0P: Existing Wetland

Inflow Area = 2.127 ac, 30.27% Impervious, Inflow Depth = 3.66" for 25-YR event
 Inflow = 6.4 cfs @ 12.15 hrs, Volume= 0.648 af
 Outflow = 4.1 cfs @ 12.26 hrs, Volume= 0.645 af, Atten= 37%, Lag= 6.8 min
 Primary = 4.1 cfs @ 12.26 hrs, Volume= 0.645 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2

Peak Elev= 107.08' @ 12.50 hrs Surf.Area= 5,998 sf Storage= 4,959 cf

Flood Elev= 109.00' Surf.Area= 11,962 sf Storage= 18,373 cf

Plug-Flow detention time= 37.0 min calculated for 0.645 af (99% of inflow)

Center-of-Mass det. time= 33.7 min (858.1 - 824.4)

Volume	Invert	Avail.Storage	Storage Description
#1	106.00'	18,373 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
106.00	3,400	0	0
107.00	5,564	4,482	4,482
108.00	10,824	8,194	12,676
108.50	11,962	5,697	18,373

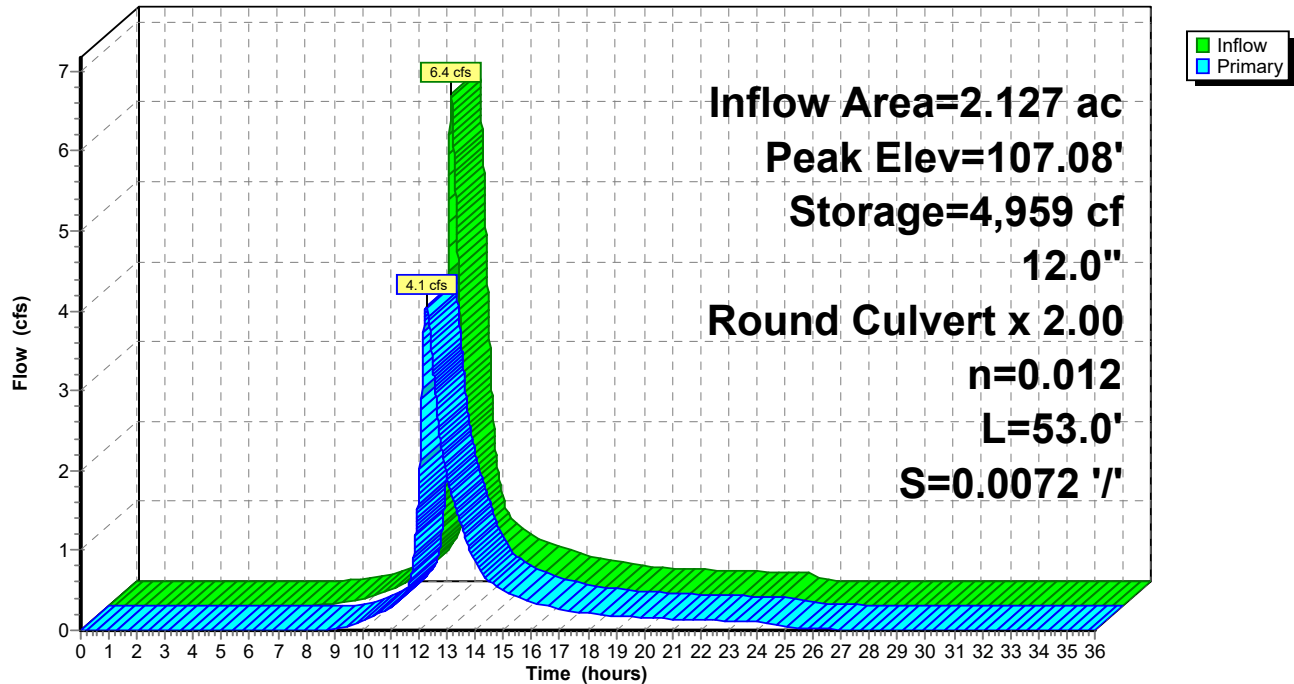
Device	Routing	Invert	Outlet Devices
#1	Primary	106.03'	12.0" Round Culvert X 2.00 L= 53.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 106.03' / 105.65' S= 0.0072 ' / Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 0.79 sf

Primary OutFlow Max=4.1 cfs @ 12.26 hrs HW=106.97' TW=106.55' (Dynamic Tailwater)

↑ **1=Culvert** (Outlet Controls 4.1 cfs @ 3.42 fps)

Pond 4.0P: Existing Wetland

Hydrograph



Summary for Pond 4.1P: Existing Culvert

Inflow Area = 0.898 ac, 28.11% Impervious, Inflow Depth = 3.60" for 25-YR event
 Inflow = 2.8 cfs @ 12.22 hrs, Volume= 0.270 af
 Outflow = 2.7 cfs @ 12.25 hrs, Volume= 0.270 af, Atten= 2%, Lag= 1.7 min
 Primary = 2.7 cfs @ 12.25 hrs, Volume= 0.270 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2

Peak Elev= 109.24' @ 12.25 hrs Surf.Area= 493 sf Storage= 168 cf

Flood Elev= 111.00' Surf.Area= 4,030 sf Storage= 3,589 cf

Plug-Flow detention time= 0.9 min calculated for 0.269 af (100% of inflow)

Center-of-Mass det. time= 0.9 min (825.9 - 825.0)

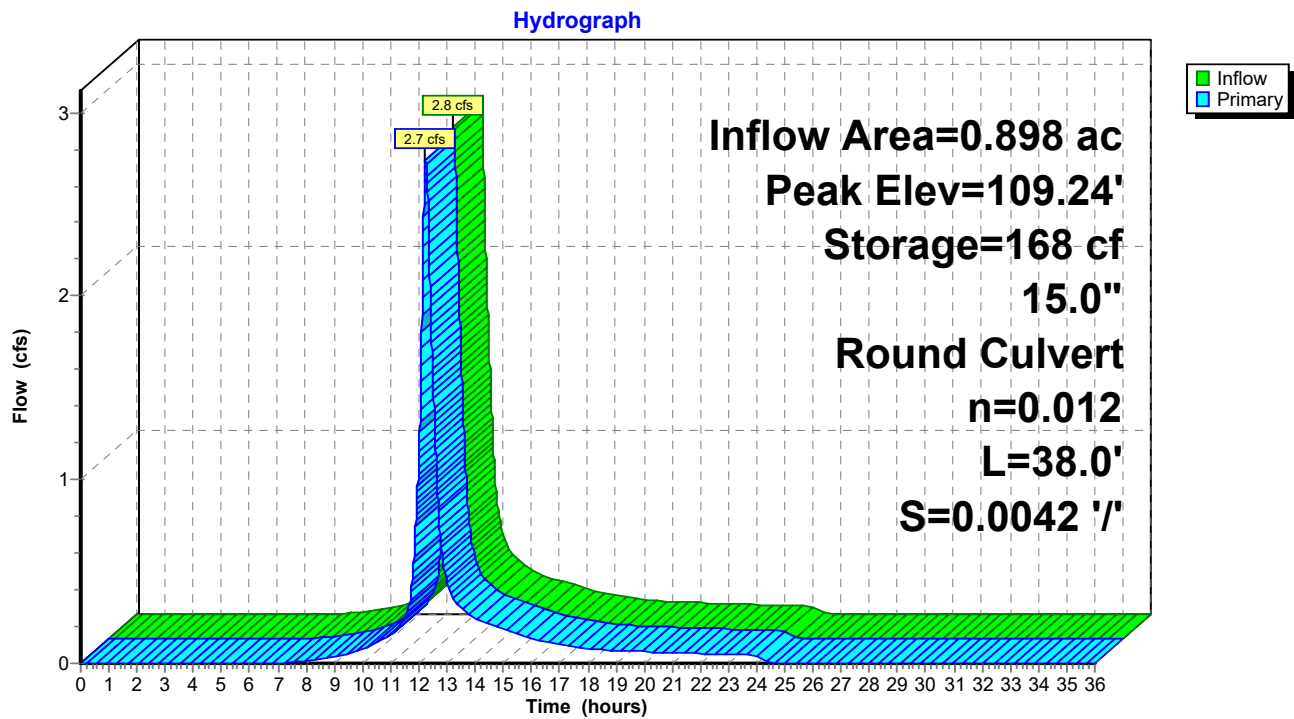
Volume	Invert	Avail.Storage	Storage Description
#1	108.27'	3,589 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
108.27	10	0	0
109.00	220	84	84
110.00	1,380	800	884
111.00	4,030	2,705	3,589

Device	Routing	Invert	Outlet Devices
#1	Primary	108.27'	15.0" Round Culvert L= 38.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 108.27' / 108.11' S= 0.0042 ' / S= 0.0042 ' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 1.23 sf

Primary OutFlow Max=2.7 cfs @ 12.25 hrs HW=109.24' TW=108.36' (Dynamic Tailwater)

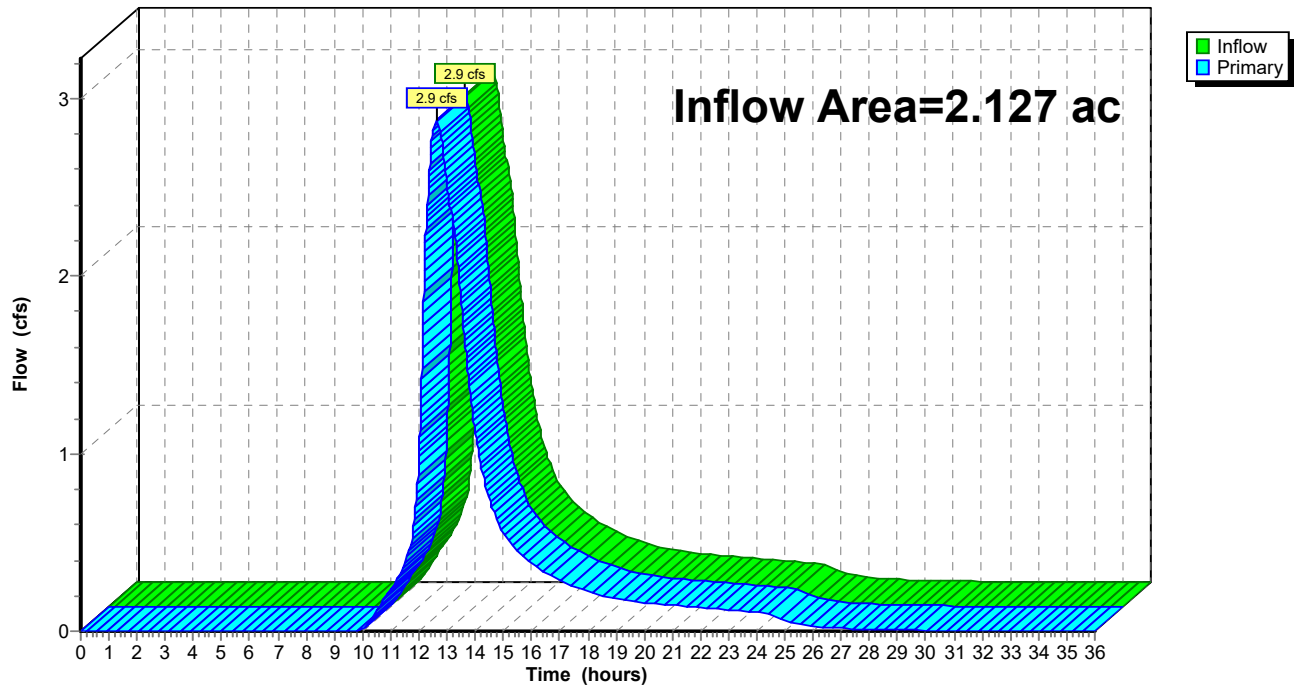
↑ **1=Culvert** (Barrel Controls 2.7 cfs @ 3.71 fps)

Pond 4.1P: Existing Culvert

Summary for Link SP-4: SP-4

Inflow Area = 2.127 ac, 30.27% Impervious, Inflow Depth > 3.62" for 25-YR event
Inflow = 2.9 cfs @ 12.61 hrs, Volume= 0.641 af
Primary = 2.9 cfs @ 12.61 hrs, Volume= 0.641 af, Atten= 0%, Lag= 0.0 min

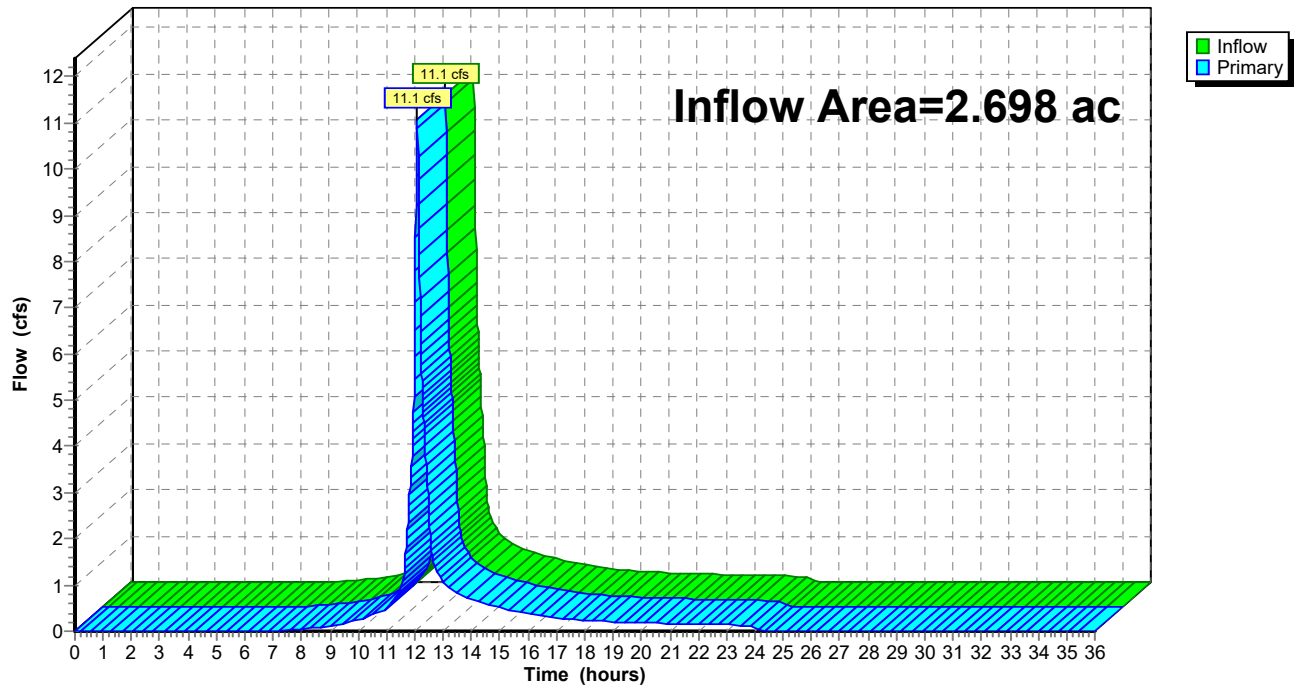
Primary outflow = Inflow, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs

Link SP-4: SP-4**Hydrograph**

Summary for Link SP-5: SP-5

Inflow Area = 2.698 ac, 22.50% Impervious, Inflow Depth = 3.52" for 25-YR event
Inflow = 11.1 cfs @ 12.09 hrs, Volume= 0.792 af
Primary = 11.1 cfs @ 12.09 hrs, Volume= 0.792 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs

Link SP-5: SP-5**Hydrograph**

Time span=0.00-36.00 hrs, dt=0.01 hrs, 3601 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

SubcatchmentOS-4.0S: Runoff Area=53,510 sf 31.85% Impervious Runoff Depth=4.71"
 Flow Length=86' Tc=9.3 min CN=81 Runoff=6.0 cfs 0.482 af

SubcatchmentOS-4.1S: Runoff Area=39,122 sf 28.11% Impervious Runoff Depth=4.60"
 Flow Length=207' Tc=16.2 min CN=80 Runoff=3.5 cfs 0.344 af

SubcatchmentOS-5.0S: Runoff Area=107,926 sf 20.06% Impervious Runoff Depth=4.38"
 Flow Length=543' Tc=6.0 min CN=78 Runoff=12.7 cfs 0.905 af

SubcatchmentOS-5.1S: Runoff Area=9,601 sf 50.00% Impervious Runoff Depth=5.96"
 Flow Length=342' Tc=6.0 min CN=92 Runoff=1.4 cfs 0.109 af

Reach 4.0R: (new Reach) Avg. Flow Depth=0.38' Max Vel=0.73 fps Inflow=3.4 cfs 0.344 af
 n=0.100 L=190.0' S=0.0106 '/' Capacity=18.8 cfs Outflow=3.3 cfs 0.344 af

Pond 1P: Existing Culvert Peak Elev=103.79' Inflow=12.7 cfs 0.905 af
 15.0" Round Culvert n=0.013 L=43.0' S=0.0223 '/' Outflow=12.7 cfs 0.905 af

Pond 4.01P: Existign pond Peak Elev=108.62' Storage=4,120 cf Inflow=4.8 cfs 0.827 af
 12.0" Round Culvert n=0.020 L=20.0' S=0.0070 '/' Outflow=5.0 cfs 0.823 af

Pond 4.0P: Existing Wetland Peak Elev=107.33' Storage=6,608 cf Inflow=8.1 cfs 0.827 af
 12.0" Round Culvert x 2.00 n=0.012 L=53.0' S=0.0072 '/' Outflow=4.8 cfs 0.823 af

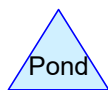
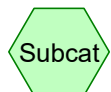
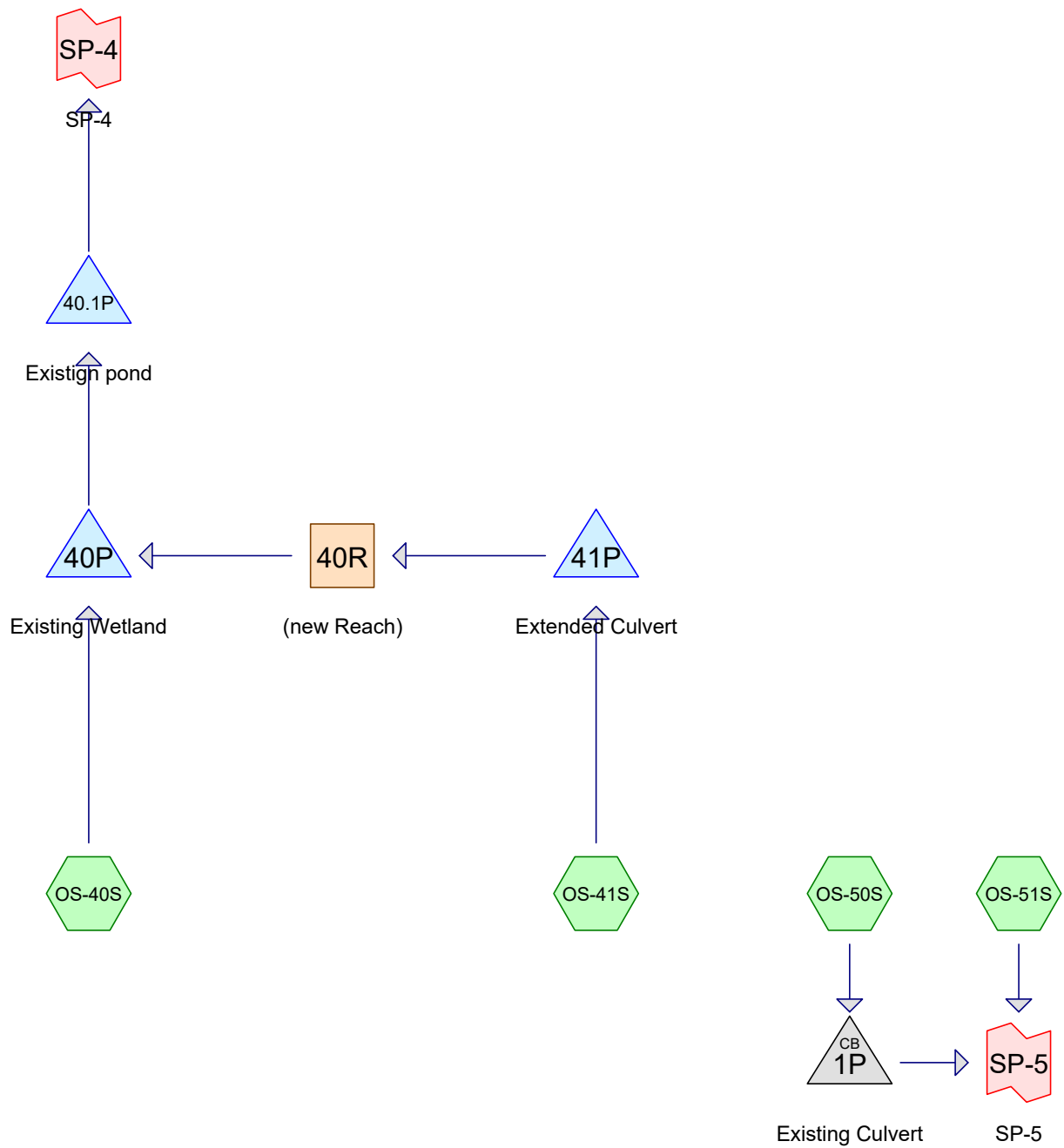
Pond 4.1P: Existing Culvert Peak Elev=109.39' Storage=256 cf Inflow=3.5 cfs 0.344 af
 15.0" Round Culvert n=0.012 L=38.0' S=0.0042 '/' Outflow=3.4 cfs 0.344 af

Link SP-4: SP-4 Inflow=5.0 cfs 0.823 af
 Primary=5.0 cfs 0.823 af

Link SP-5: SP-5 Inflow=14.1 cfs 1.015 af
 Primary=14.1 cfs 1.015 af

Total Runoff Area = 4.825 ac Runoff Volume = 1.841 af Average Runoff Depth = 4.58"
74.07% Pervious = 3.574 ac 25.93% Impervious = 1.251 ac

Appendix 3B
POSTDEVELOPMENT



Routing Diagram for 18347 POST-DEVELOPMENT 2019-05-13
 Prepared by Sebago Technics, Printed 5/14/2020
 HydroCAD® 10.00-24 s/n 01856 © 2018 HydroCAD Software Solutions LLC

18347 POST-DEVELOPMENT 2019-05-13

Prepared by Sebago Technics

Printed 5/14/2020

HydroCAD® 10.00-24 s/n 01856 © 2018 HydroCAD Software Solutions LLC

Page 2

Area Listing (selected nodes)

Area (acres)	CN	Description (subcatchment-numbers)
1.272	80	1/2 acre lots, 25% imp, HSG C (OS-50S)
1.006	74	>75% Grass cover, Good, HSG C (OS-40S, OS-41S)
0.575	98	Paved parking, HSG C (OS-40S, OS-41S)
0.596	92	Paved roads w/open ditches, 50% imp, HSG C (OS-50S, OS-51S)
0.187	98	Roofs, HSG C (OS-40S, OS-41S)
1.189	70	Woods, Good, HSG C (OS-40S, OS-41S, OS-50S)
4.825	81	TOTAL AREA

Time span=0.00-36.00 hrs, dt=0.01 hrs, 3601 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

SubcatchmentOS-40S: Runoff Area=53,510 sf 37.68% Impervious Runoff Depth=1.53"
 Flow Length=129' Tc=6.2 min CN=83 Runoff=2.2 cfs 0.156 af

SubcatchmentOS-41S: Runoff Area=39,122 sf 33.33% Impervious Runoff Depth=1.39"
 Flow Length=193' Tc=15.9 min CN=81 Runoff=1.1 cfs 0.104 af

SubcatchmentOS-50S: Runoff Area=107,926 sf 20.41% Impervious Runoff Depth=1.20"
 Flow Length=543' Tc=6.0 min CN=78 Runoff=3.4 cfs 0.248 af

SubcatchmentOS-51S: Runoff Area=9,601 sf 50.00% Impervious Runoff Depth=2.26"
 Flow Length=342' Tc=6.0 min CN=92 Runoff=0.6 cfs 0.041 af

Reach 40R: (new Reach) Avg. Flow Depth=0.18' Max Vel=0.47 fps Inflow=1.0 cfs 0.102 af
 n=0.100 L=190.0' S=0.0106 '/' Capacity=18.8 cfs Outflow=0.9 cfs 0.102 af

Pond 1P: Existing Culvert Peak Elev=96.93' Inflow=3.4 cfs 0.248 af
 15.0" Round Culvert n=0.013 L=43.0' S=0.0223 '/' Outflow=3.4 cfs 0.248 af

Pond 40.1P: Existign pond Peak Elev=106.13' Storage=1,455 cf Inflow=1.6 cfs 0.255 af
 12.0" Round Culvert n=0.020 L=20.0' S=0.0070 '/' Outflow=1.3 cfs 0.251 af

Pond 40P: Existing Wetland Peak Elev=106.52' Storage=2,063 cf Inflow=2.5 cfs 0.258 af
 12.0" Round Culvert x 2.00 n=0.012 L=53.0' S=0.0072 '/' Outflow=1.6 cfs 0.255 af

Pond 41P: Extended Culvert Peak Elev=108.80' Storage=395 cf Inflow=1.1 cfs 0.104 af
 15.0" Round Culvert n=0.012 L=55.0' S=0.0049 '/' Outflow=1.0 cfs 0.102 af

Link SP-4: SP-4 Inflow=1.3 cfs 0.251 af
 Primary=1.3 cfs 0.251 af

Link SP-5: SP-5 Inflow=4.0 cfs 0.289 af
 Primary=4.0 cfs 0.289 af

Total Runoff Area = 4.825 ac Runoff Volume = 0.550 af Average Runoff Depth = 1.37"
71.43% Pervious = 3.446 ac 28.57% Impervious = 1.378 ac

Time span=0.00-36.00 hrs, dt=0.01 hrs, 3601 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

SubcatchmentOS-40S: Runoff Area=53,510 sf 37.68% Impervious Runoff Depth=2.99"
Flow Length=129' Tc=6.2 min CN=83 Runoff=4.3 cfs 0.306 af

SubcatchmentOS-41S: Runoff Area=39,122 sf 33.33% Impervious Runoff Depth=2.81"
Flow Length=193' Tc=15.9 min CN=81 Runoff=2.2 cfs 0.210 af

SubcatchmentOS-50S: Runoff Area=107,926 sf 20.41% Impervious Runoff Depth=2.54"
Flow Length=543' Tc=6.0 min CN=78 Runoff=7.4 cfs 0.525 af

SubcatchmentOS-51S: Runoff Area=9,601 sf 50.00% Impervious Runoff Depth=3.89"
Flow Length=342' Tc=6.0 min CN=92 Runoff=1.0 cfs 0.072 af

Reach 40R: (new Reach) Avg. Flow Depth=0.28' Max Vel=0.61 fps Inflow=2.1 cfs 0.208 af
n=0.100 L=190.0' S=0.0106 '/' Capacity=18.8 cfs Outflow=2.0 cfs 0.208 af

Pond 1P: Existing Culvert Peak Elev=98.91' Inflow=7.4 cfs 0.525 af
15.0" Round Culvert n=0.013 L=43.0' S=0.0223 '/' Outflow=7.4 cfs 0.525 af

Pond 40.1P: Existign pond Peak Elev=106.63' Storage=2,856 cf Inflow=3.1 cfs 0.511 af
12.0" Round Culvert n=0.020 L=20.0' S=0.0070 '/' Outflow=2.4 cfs 0.507 af

Pond 40P: Existing Wetland Peak Elev=106.87' Storage=3,791 cf Inflow=5.1 cfs 0.514 af
12.0" Round Culvert x 2.00 n=0.012 L=53.0' S=0.0072 '/' Outflow=3.1 cfs 0.511 af

Pond 41P: Extended Culvert Peak Elev=109.07' Storage=583 cf Inflow=2.2 cfs 0.210 af
15.0" Round Culvert n=0.012 L=55.0' S=0.0049 '/' Outflow=2.1 cfs 0.208 af

Link SP-4: SP-4 Inflow=2.4 cfs 0.507 af
Primary=2.4 cfs 0.507 af

Link SP-5: SP-5 Inflow=8.3 cfs 0.597 af
Primary=8.3 cfs 0.597 af

Total Runoff Area = 4.825 ac Runoff Volume = 1.113 af Average Runoff Depth = 2.77"
71.43% Pervious = 3.446 ac 28.57% Impervious = 1.378 ac

Time span=0.00-36.00 hrs, dt=0.01 hrs, 3601 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

SubcatchmentOS-40S: Runoff Area=53,510 sf 37.68% Impervious Runoff Depth=3.91"
Flow Length=129' Tc=6.2 min CN=83 Runoff=5.5 cfs 0.400 af

SubcatchmentOS-41S: Runoff Area=39,122 sf 33.33% Impervious Runoff Depth=3.70"
Flow Length=193' Tc=15.9 min CN=81 Runoff=2.9 cfs 0.277 af

SubcatchmentOS-50S: Runoff Area=107,926 sf 20.41% Impervious Runoff Depth=3.40"
Flow Length=543' Tc=6.0 min CN=78 Runoff=9.9 cfs 0.703 af

SubcatchmentOS-51S: Runoff Area=9,601 sf 50.00% Impervious Runoff Depth=4.87"
Flow Length=342' Tc=6.0 min CN=92 Runoff=1.2 cfs 0.090 af

Reach 40R: (new Reach) Avg. Flow Depth=0.33' Max Vel=0.67 fps Inflow=2.7 cfs 0.275 af
n=0.100 L=190.0' S=0.0106 '/' Capacity=18.8 cfs Outflow=2.6 cfs 0.275 af

Pond 1P: Existing Culvert Peak Elev=100.89' Inflow=9.9 cfs 0.703 af
15.0" Round Culvert n=0.013 L=43.0' S=0.0223 '/' Outflow=9.9 cfs 0.703 af

Pond 40.1P: Existign pond Peak Elev=106.90' Storage=3,768 cf Inflow=4.0 cfs 0.671 af
12.0" Round Culvert n=0.020 L=20.0' S=0.0070 '/' Outflow=2.9 cfs 0.667 af

Pond 40P: Existing Wetland Peak Elev=107.10' Storage=5,046 cf Inflow=6.7 cfs 0.674 af
12.0" Round Culvert x 2.00 n=0.012 L=53.0' S=0.0072 '/' Outflow=4.0 cfs 0.671 af

Pond 41P: Extended Culvert Peak Elev=109.21' Storage=697 cf Inflow=2.9 cfs 0.277 af
15.0" Round Culvert n=0.012 L=55.0' S=0.0049 '/' Outflow=2.7 cfs 0.275 af

Link SP-4: SP-4 Inflow=2.9 cfs 0.667 af
Primary=2.9 cfs 0.667 af

Link SP-5: SP-5 Inflow=11.1 cfs 0.792 af
Primary=11.1 cfs 0.792 af

Total Runoff Area = 4.825 ac Runoff Volume = 1.469 af Average Runoff Depth = 3.65"
71.43% Pervious = 3.446 ac 28.57% Impervious = 1.378 ac

Summary for Subcatchment OS-40S:

Runoff = 5.5 cfs @ 12.09 hrs, Volume= 0.400 af, Depth= 3.91"

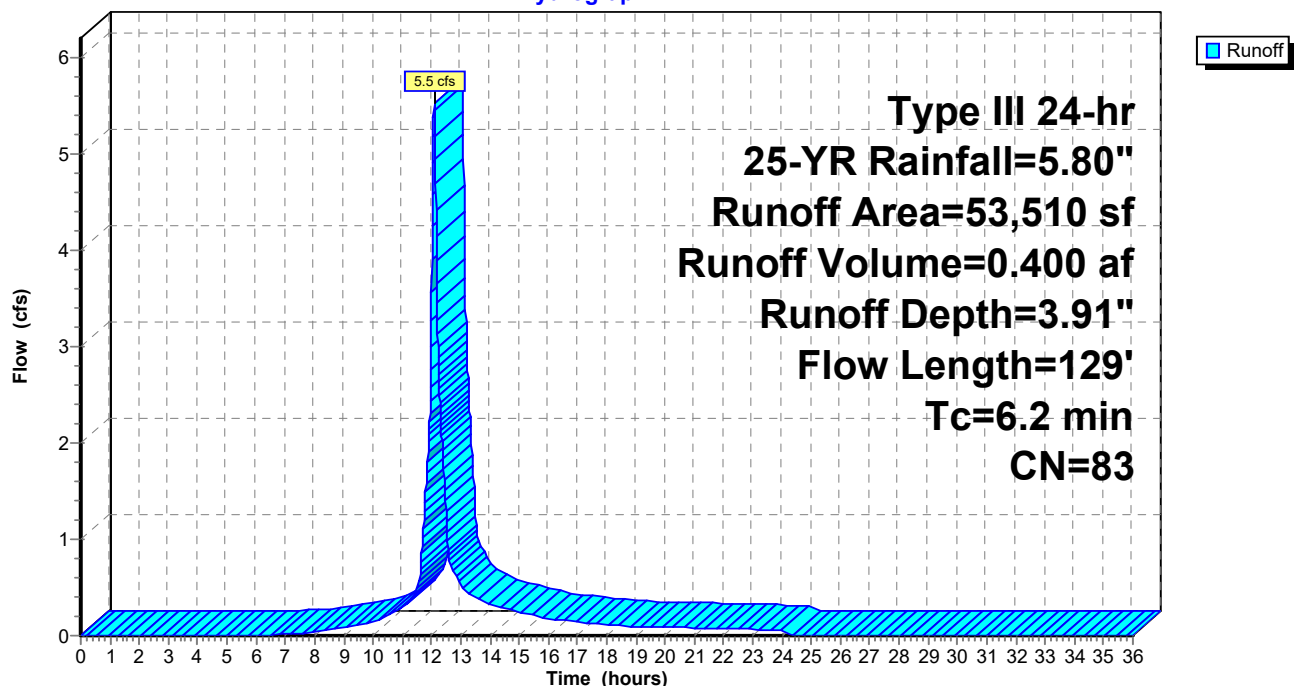
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-YR Rainfall=5.80"

Area (sf)	CN	Description
16,475	98	Paved parking, HSG C
29,634	74	>75% Grass cover, Good, HSG C
3,686	98	Roofs, HSG C
3,715	70	Woods, Good, HSG C
53,510	83	Weighted Average
33,349		62.32% Pervious Area
20,161		37.68% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.5	22	0.0100	0.07		Sheet Flow, A-B
					Grass: Dense n= 0.240 P2= 3.30"
0.4	65	0.0200	2.87		Shallow Concentrated Flow, B-C
					Paved Kv= 20.3 fps
0.3	42	0.1000	2.21		Shallow Concentrated Flow, C-D
					Short Grass Pasture Kv= 7.0 fps
6.2	129	Total			

Subcatchment OS-40S:

Hydrograph



Summary for Subcatchment OS-41S:

Runoff = 2.9 cfs @ 12.21 hrs, Volume= 0.277 af, Depth= 3.70"

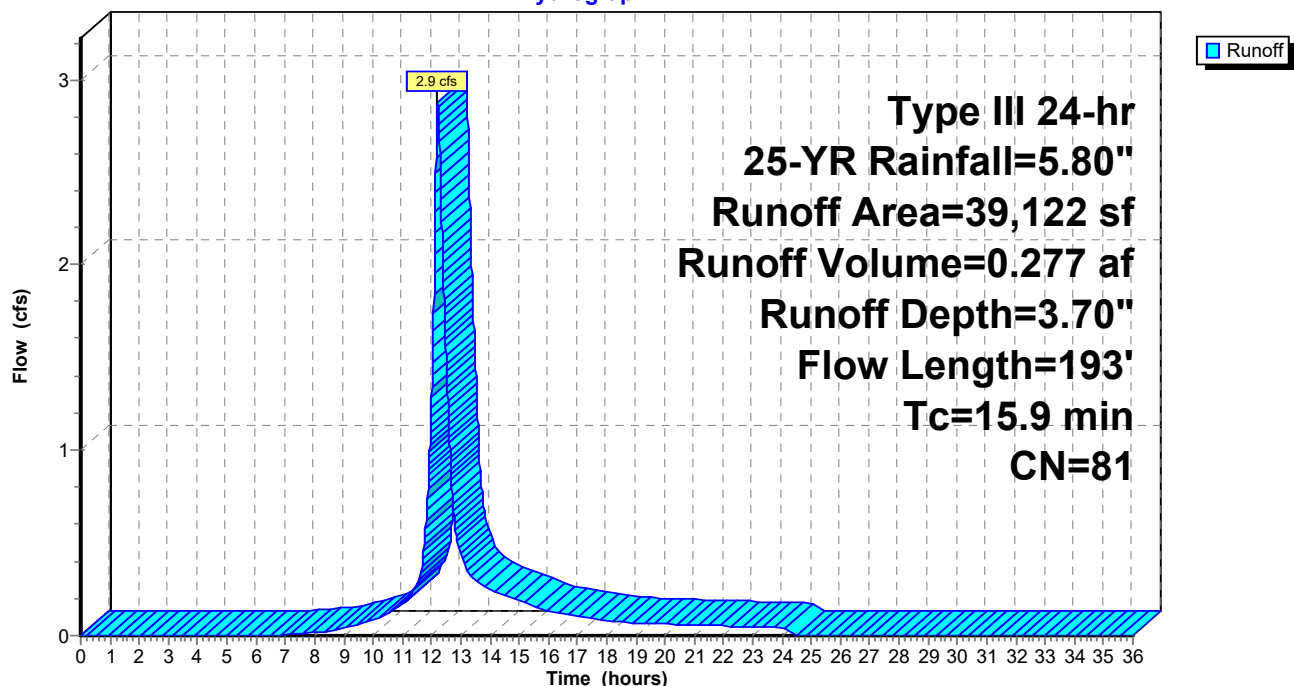
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-YR Rainfall=5.80"

Area (sf)	CN	Description
8,592	98	Paved parking, HSG C
14,180	74	>75% Grass cover, Good, HSG C
4,449	98	Roofs, HSG C
11,901	70	Woods, Good, HSG C
39,122	81	Weighted Average
26,081		66.67% Pervious Area
13,041		33.33% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.7	14	0.2100	0.14		Sheet Flow, A-B
					Woods: Light underbrush n= 0.400 P2= 3.30"
12.2	86	0.0580	0.12		Sheet Flow, B-C
					Woods: Light underbrush n= 0.400 P2= 3.30"
2.0	93	0.0250	0.79		Shallow Concentrated Flow, C-D
					Woodland Kv= 5.0 fps
15.9	193	Total			

Subcatchment OS-41S:

Hydrograph



Summary for Subcatchment OS-50S:

Runoff = 9.9 cfs @ 12.09 hrs, Volume= 0.703 af, Depth= 3.40"

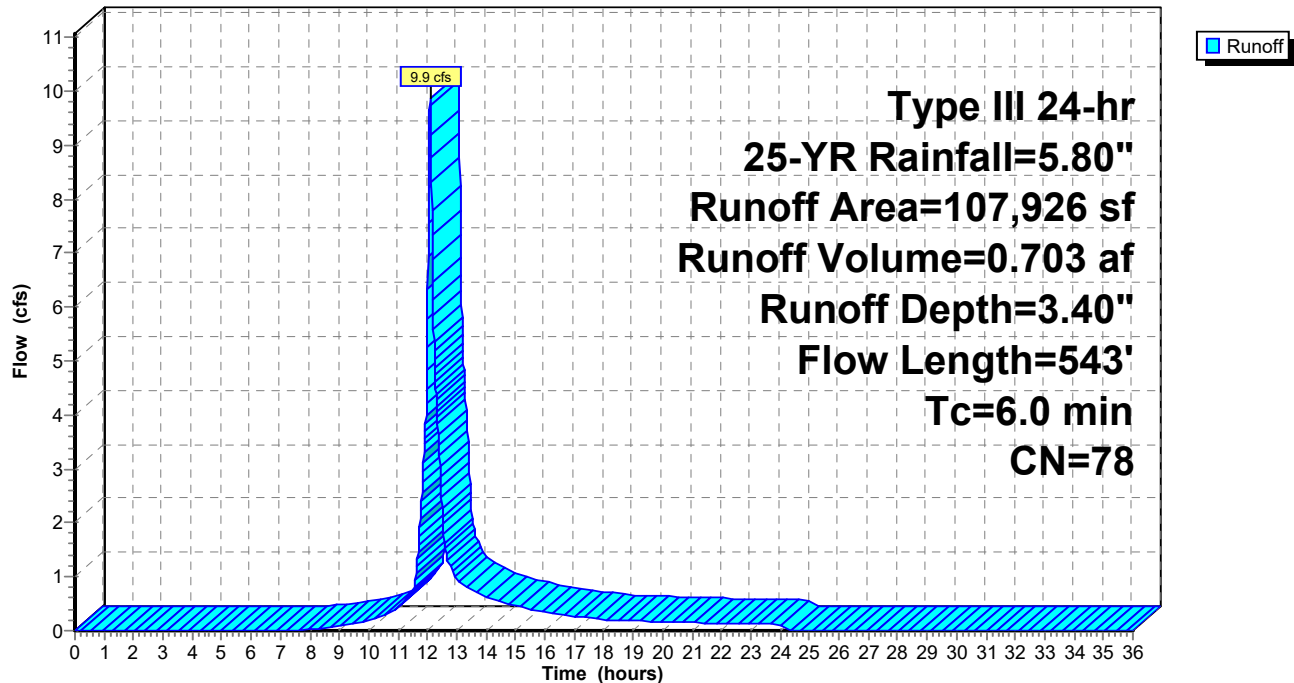
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-YR Rainfall=5.80"

Area (sf)	CN	Description
16,363	92	Paved roads w/open ditches, 50% imp, HSG C
55,403	80	1/2 acre lots, 25% imp, HSG C
36,160	70	Woods, Good, HSG C
107,926	78	Weighted Average
85,894		79.59% Pervious Area
22,032		20.41% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.3	477	0.0290	3.46		Shallow Concentrated Flow, A-B
					Paved Kv= 20.3 fps
0.9	66	0.0300	1.21		Shallow Concentrated Flow, B-C
					Short Grass Pasture Kv= 7.0 fps
2.8					Direct Entry,
6.0	543	Total			

Subcatchment OS-50S:

Hydrograph



Summary for Subcatchment OS-51S:

Runoff = 1.2 cfs @ 12.08 hrs, Volume= 0.090 af, Depth= 4.87"

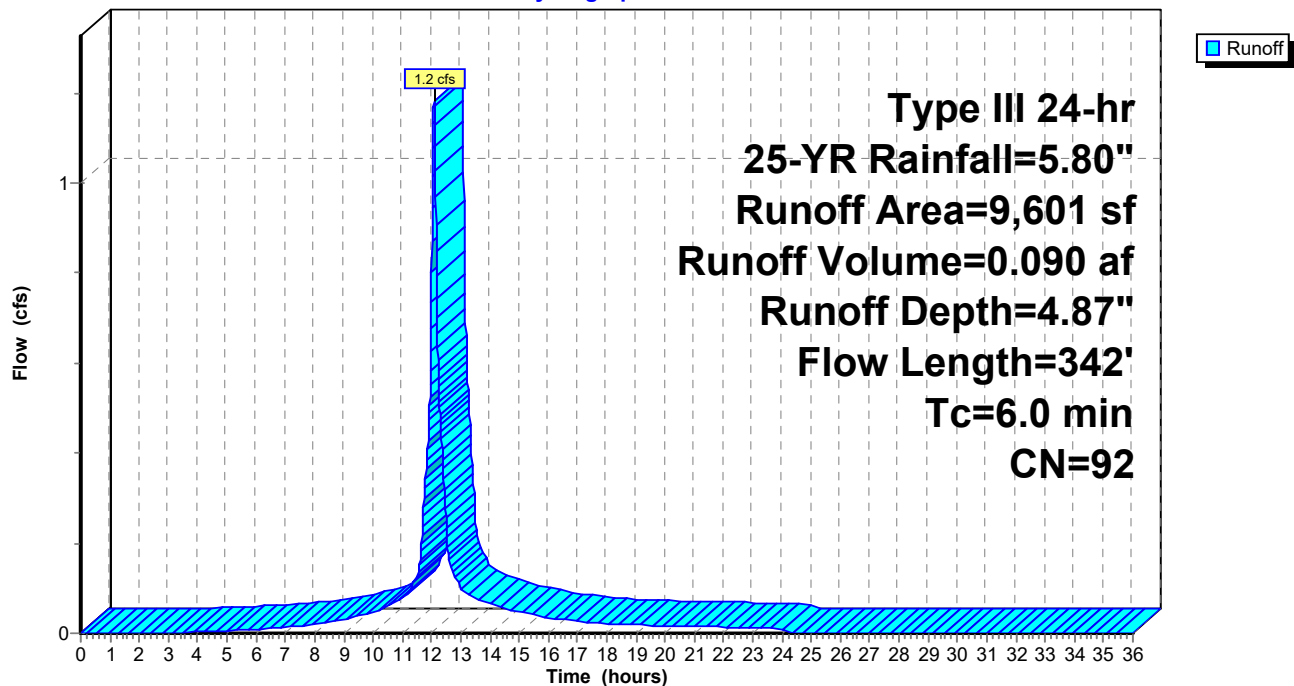
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-YR Rainfall=5.80"

Area (sf)	CN	Description
9,601	92	Paved roads w/open ditches, 50% imp, HSG C
4,801		50.00% Pervious Area
4,801		50.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.5	320	0.0290	3.46		Shallow Concentrated Flow, A-B
					Paved Kv= 20.3 fps
0.1	22	0.1300	2.52		Shallow Concentrated Flow, B-C
					Short Grass Pasture Kv= 7.0 fps
4.4					Direct Entry,
6.0	342	Total			

Subcatchment OS-51S:

Hydrograph



Summary for Reach 40R: (new Reach)

Inflow Area = 0.898 ac, 33.33% Impervious, Inflow Depth = 3.67" for 25-YR event
 Inflow = 2.7 cfs @ 12.26 hrs, Volume= 0.275 af
 Outflow = 2.6 cfs @ 12.32 hrs, Volume= 0.275 af, Atten= 4%, Lag= 3.3 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2

Max. Velocity= 0.67 fps, Min. Travel Time= 4.7 min

Avg. Velocity = 0.16 fps, Avg. Travel Time= 19.9 min

Peak Storage= 743 cf @ 12.32 hrs

Average Depth at Peak Storage= 0.33'

Bank-Full Depth= 1.00' Flow Area= 15.0 sf, Capacity= 18.8 cfs

10.00' x 1.00' deep channel, n= 0.100 Earth, dense brush, high stage

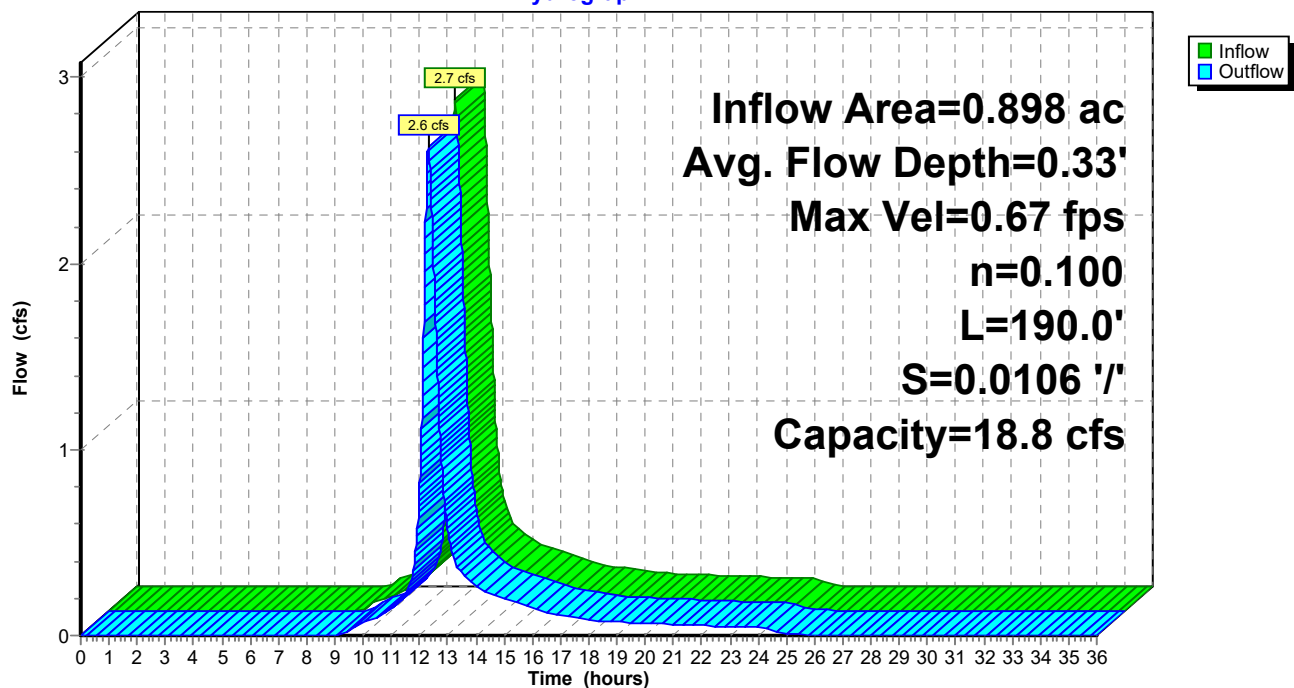
Side Slope Z-value= 5.0 '/' Top Width= 20.00'

Length= 190.0' Slope= 0.0106 '/'

Inlet Invert= 108.04', Outlet Invert= 106.03'

**Reach 40R: (new Reach)**

Hydrograph



Summary for Pond 1P: Existing Culvert

[58] Hint: Peaked 0.89' above defined flood level

Inflow Area = 2.478 ac, 20.41% Impervious, Inflow Depth = 3.40" for 25-YR event
 Inflow = 9.9 cfs @ 12.09 hrs, Volume= 0.703 af
 Outflow = 9.9 cfs @ 12.09 hrs, Volume= 0.703 af, Atten= 0%, Lag= 0.0 min
 Primary = 9.9 cfs @ 12.09 hrs, Volume= 0.703 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2

Peak Elev= 100.89' @ 12.09 hrs

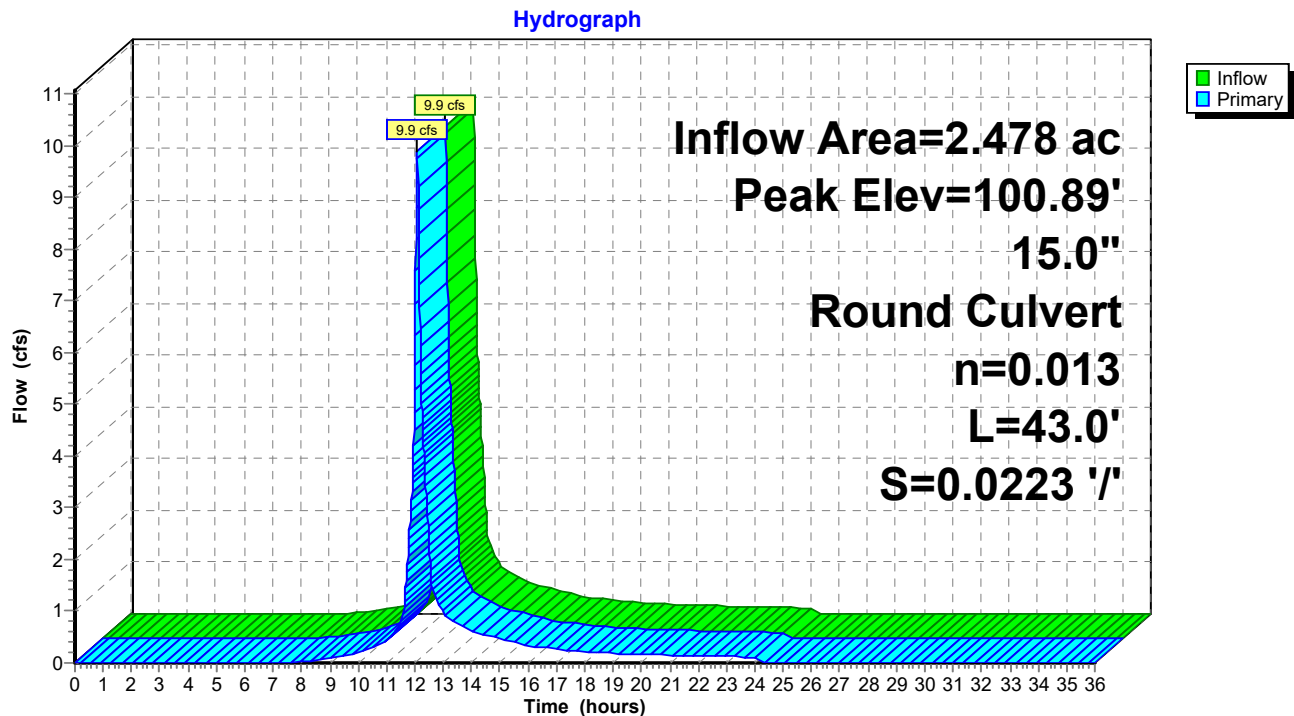
Flood Elev= 100.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	95.78'	15.0" Round Culvert L= 43.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 95.78' / 94.82' S= 0.0223 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf

Primary OutFlow Max=9.9 cfs @ 12.09 hrs HW=100.88' TW=0.00' (Dynamic Tailwater)

↑1=Culvert (Inlet Controls 9.9 cfs @ 8.04 fps)

Pond 1P: Existing Culvert



Summary for Pond 40.1P: Existign pond

Inflow Area = 2.127 ac, 35.84% Impervious, Inflow Depth > 3.79" for 25-YR event
 Inflow = 4.0 cfs @ 12.18 hrs, Volume= 0.671 af
 Outflow = 2.9 cfs @ 12.60 hrs, Volume= 0.667 af, Atten= 27%, Lag= 25.0 min
 Primary = 2.9 cfs @ 12.60 hrs, Volume= 0.667 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
 Peak Elev= 106.90' @ 12.60 hrs Surf.Area= 3,592 sf Storage= 3,768 cf

Plug-Flow detention time= 26.6 min calculated for 0.667 af (99% of inflow)
 Center-of-Mass det. time= 21.9 min (877.6 - 855.7)

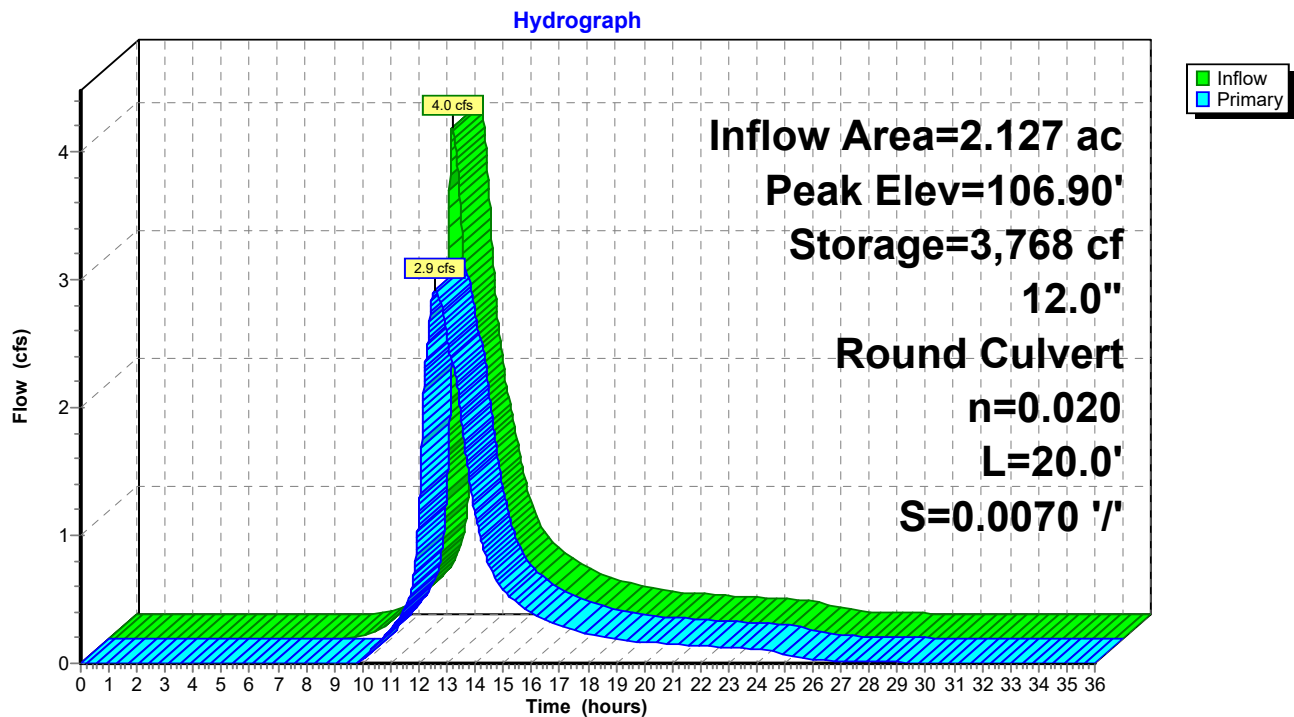
Volume	Invert	Avail.Storage	Storage Description
#1	105.00'	4,120 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
105.00	100	0	0
106.00	2,200	1,150	1,150
107.00	3,740	2,970	4,120

Device	Routing	Invert	Outlet Devices
#1	Primary	105.32'	12.0" Round Culvert L= 20.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 105.32' / 105.18' S= 0.0070 ' / ' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior, Flow Area= 0.79 sf

Primary OutFlow Max=2.9 cfs @ 12.60 hrs HW=106.90' TW=0.00' (Dynamic Tailwater)

↑ **1=Culvert** (Barrel Controls 2.9 cfs @ 3.71 fps)

Pond 40.1P: Existign pond

Summary for Pond 40P: Existing Wetland

[62] Hint: Exceeded Reach 40R OUTLET depth by 0.80' @ 12.63 hrs

Inflow Area = 2.127 ac, 35.84% Impervious, Inflow Depth = 3.81" for 25-YR event
 Inflow = 6.7 cfs @ 12.10 hrs, Volume= 0.674 af
 Outflow = 4.0 cfs @ 12.18 hrs, Volume= 0.671 af, Atten= 40%, Lag= 5.2 min
 Primary = 4.0 cfs @ 12.18 hrs, Volume= 0.671 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2

Peak Elev= 107.10' @ 12.49 hrs Surf.Area= 6,074 sf Storage= 5,046 cf

Flood Elev= 109.00' Surf.Area= 11,962 sf Storage= 18,373 cf

Plug-Flow detention time= 36.8 min calculated for 0.671 af (99% of inflow)

Center-of-Mass det. time= 33.6 min (855.7 - 822.1)

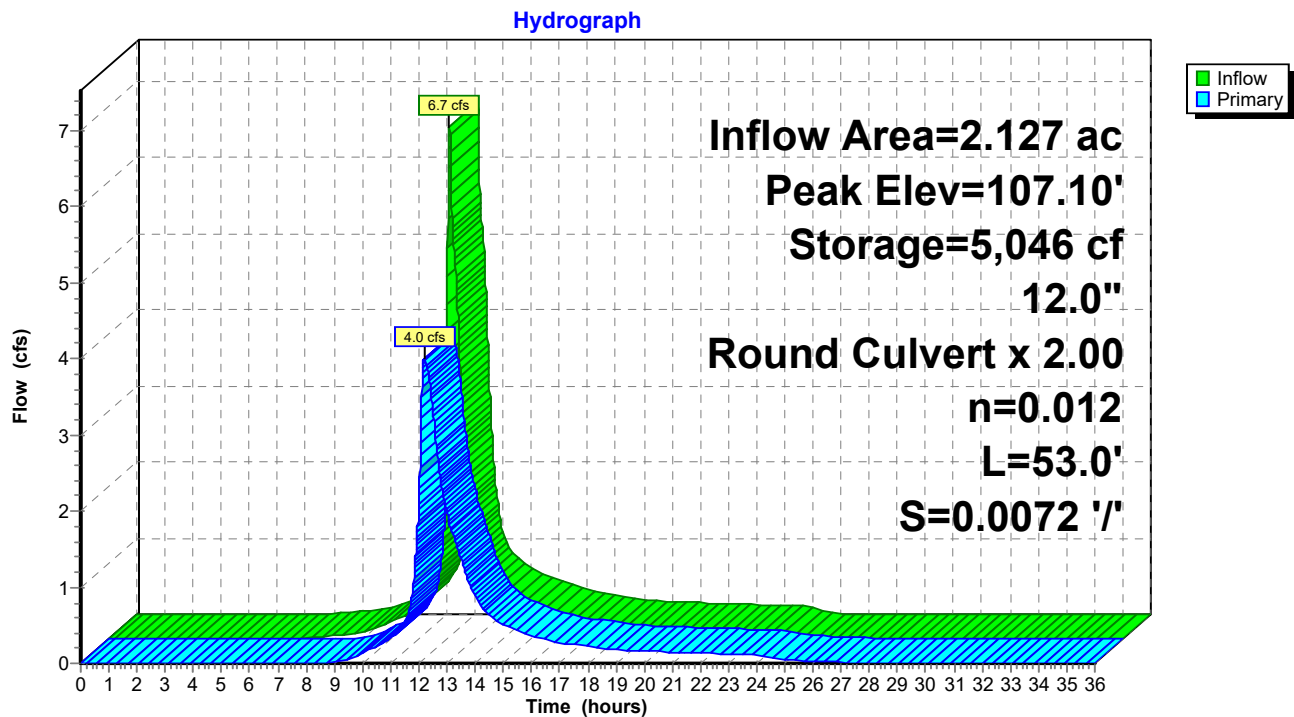
Volume	Invert	Avail.Storage	Storage Description
#1	106.00'	18,373 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
106.00	3,400	0	0
107.00	5,564	4,482	4,482
108.00	10,824	8,194	12,676
108.50	11,962	5,697	18,373

Device	Routing	Invert	Outlet Devices
#1	Primary	106.03'	12.0" Round Culvert X 2.00 L= 53.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 106.03' / 105.65' S= 0.0072 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 0.79 sf

Primary OutFlow Max=4.0 cfs @ 12.18 hrs HW=106.93' TW=106.48' (Dynamic Tailwater)

↑ **1=Culvert** (Outlet Controls 4.0 cfs @ 3.54 fps)

Pond 40P: Existing Wetland

Summary for Pond 41P: Extended Culvert

Inflow Area = 0.898 ac, 33.33% Impervious, Inflow Depth = 3.70" for 25-YR event
 Inflow = 2.9 cfs @ 12.21 hrs, Volume= 0.277 af
 Outflow = 2.7 cfs @ 12.26 hrs, Volume= 0.275 af, Atten= 4%, Lag= 3.0 min
 Primary = 2.7 cfs @ 12.26 hrs, Volume= 0.275 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2

Peak Elev= 109.21' @ 12.26 hrs Surf.Area= 838 sf Storage= 697 cf

Flood Elev= 111.00' Surf.Area= 3,710 sf Storage= 3,983 cf

Plug-Flow detention time= 16.3 min calculated for 0.275 af (99% of inflow)

Center-of-Mass det. time= 10.8 min (832.9 - 822.1)

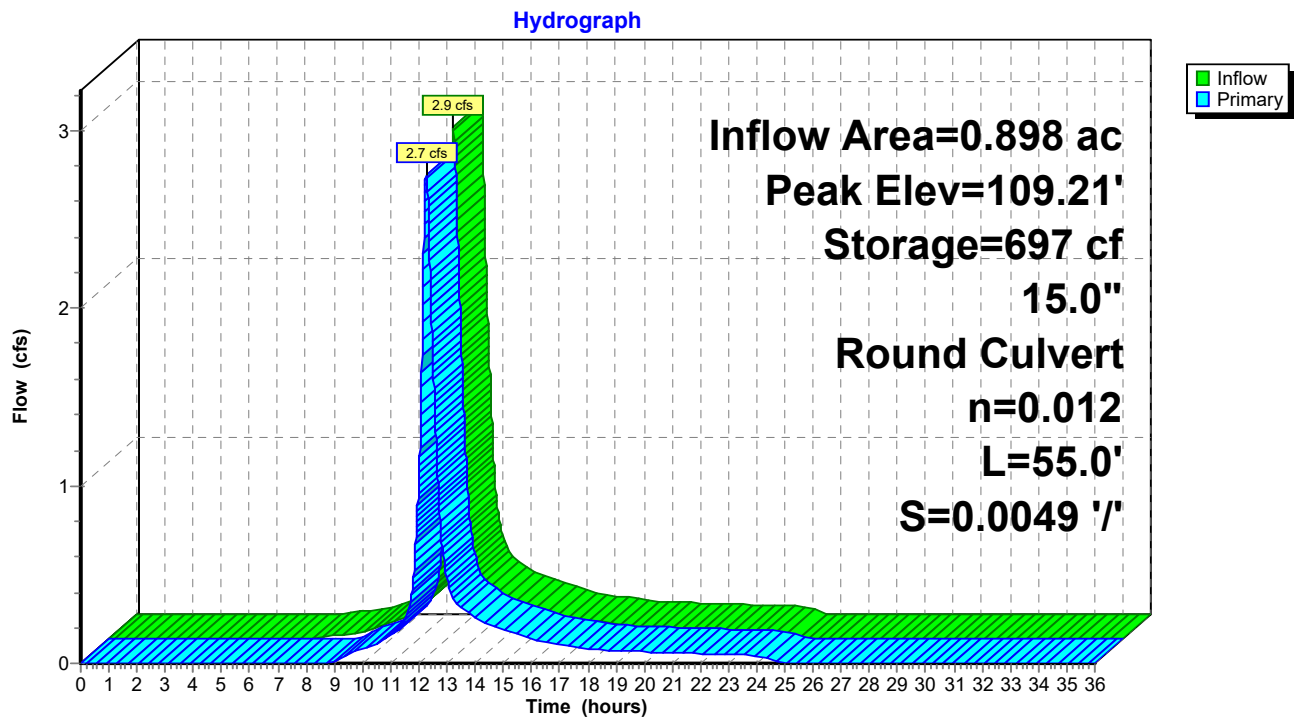
Volume	Invert	Avail.Storage	Storage Description
#1	108.00'	3,983 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
108.00	330	0	0
109.00	733	532	532
110.00	1,230	982	1,513
111.00	3,710	2,470	3,983

Device	Routing	Invert	Outlet Devices
#1	Primary	108.27'	15.0" Round Culvert L= 55.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 108.27' / 108.00' S= 0.0049 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 1.23 sf

Primary OutFlow Max=2.7 cfs @ 12.26 hrs HW=109.21' TW=108.37' (Dynamic Tailwater)

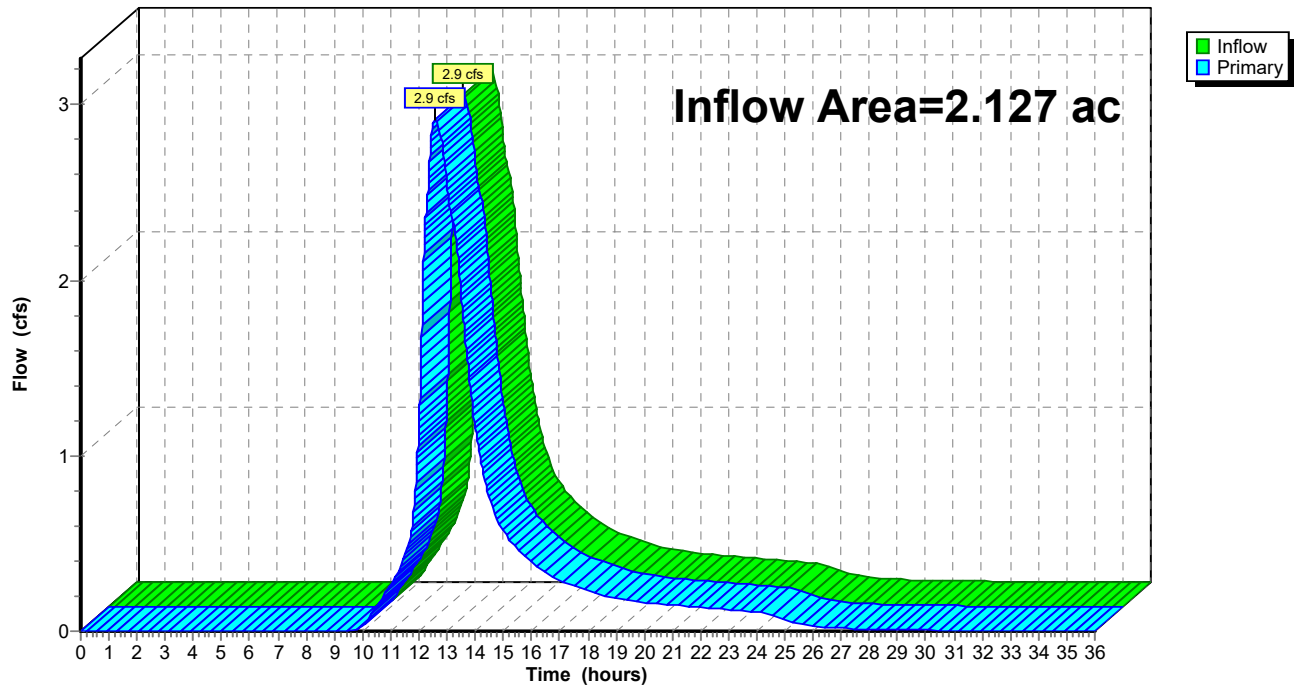
↑ **1=Culvert** (Barrel Controls 2.7 cfs @ 3.85 fps)

Pond 41P: Extended Culvert

Summary for Link SP-4: SP-4

Inflow Area = 2.127 ac, 35.84% Impervious, Inflow Depth > 3.77" for 25-YR event
Inflow = 2.9 cfs @ 12.60 hrs, Volume= 0.667 af
Primary = 2.9 cfs @ 12.60 hrs, Volume= 0.667 af, Atten= 0%, Lag= 0.0 min

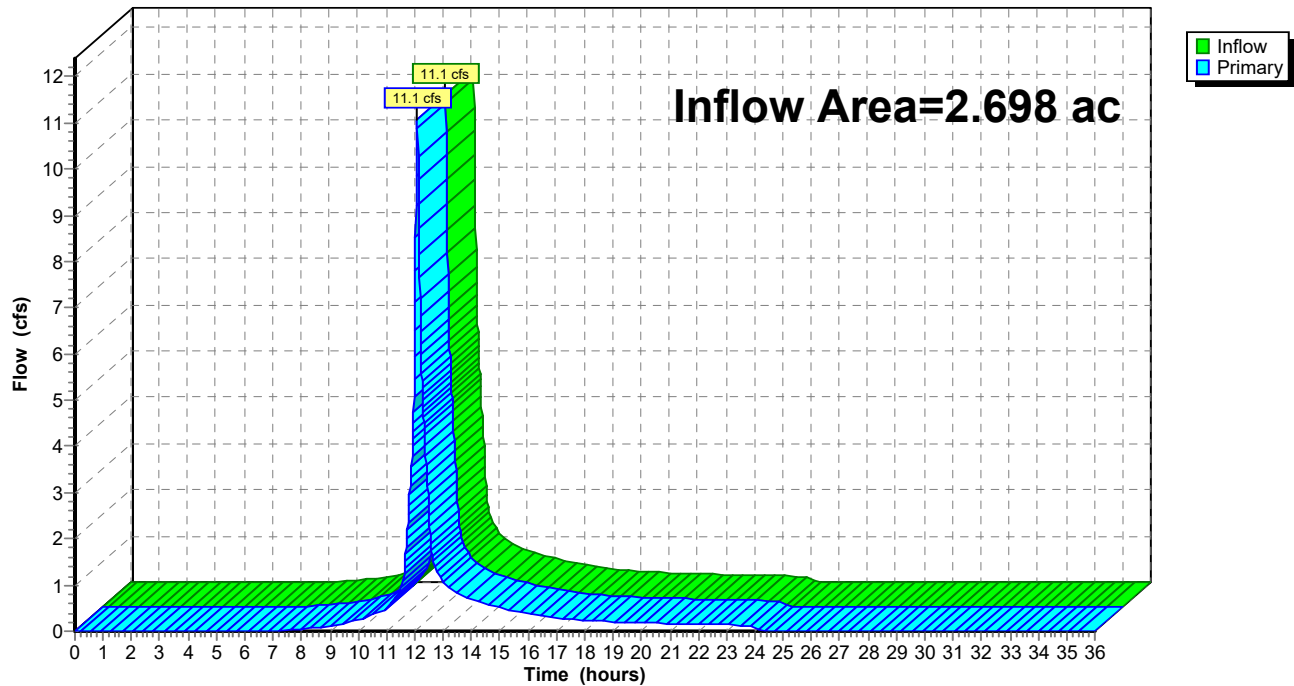
Primary outflow = Inflow, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs

Link SP-4: SP-4**Hydrograph**

Summary for Link SP-5: SP-5

Inflow Area = 2.698 ac, 22.83% Impervious, Inflow Depth = 3.52" for 25-YR event
Inflow = 11.1 cfs @ 12.09 hrs, Volume= 0.792 af
Primary = 11.1 cfs @ 12.09 hrs, Volume= 0.792 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs

Link SP-5: SP-5**Hydrograph**

Time span=0.00-36.00 hrs, dt=0.01 hrs, 3601 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

SubcatchmentOS-40S: Runoff Area=53,510 sf 37.68% Impervious Runoff Depth=4.93"
 Flow Length=129' Tc=6.2 min CN=83 Runoff=6.9 cfs 0.505 af

SubcatchmentOS-41S: Runoff Area=39,122 sf 33.33% Impervious Runoff Depth=4.71"
 Flow Length=193' Tc=15.9 min CN=81 Runoff=3.6 cfs 0.353 af

SubcatchmentOS-50S: Runoff Area=107,926 sf 20.41% Impervious Runoff Depth=4.38"
 Flow Length=543' Tc=6.0 min CN=78 Runoff=12.7 cfs 0.905 af

SubcatchmentOS-51S: Runoff Area=9,601 sf 50.00% Impervious Runoff Depth=5.96"
 Flow Length=342' Tc=6.0 min CN=92 Runoff=1.4 cfs 0.109 af

Reach 40R: (new Reach) Avg. Flow Depth=0.38' Max Vel=0.73 fps Inflow=3.5 cfs 0.350 af
 n=0.100 L=190.0' S=0.0106 '/' Capacity=18.8 cfs Outflow=3.3 cfs 0.350 af

Pond 1P: Existing Culvert Peak Elev=103.79' Inflow=12.7 cfs 0.905 af
 15.0" Round Culvert n=0.013 L=43.0' S=0.0223 '/' Outflow=12.7 cfs 0.905 af

Pond 40.1P: Existign pond Peak Elev=108.47' Storage=4,120 cf Inflow=4.8 cfs 0.855 af
 12.0" Round Culvert n=0.020 L=20.0' S=0.0070 '/' Outflow=4.9 cfs 0.852 af

Pond 40P: Existing Wetland Peak Elev=107.33' Storage=6,631 cf Inflow=8.5 cfs 0.855 af
 12.0" Round Culvert x 2.00 n=0.012 L=53.0' S=0.0072 '/' Outflow=4.8 cfs 0.852 af

Pond 41P: Extended Culvert Peak Elev=109.36' Storage=828 cf Inflow=3.6 cfs 0.353 af
 15.0" Round Culvert n=0.012 L=55.0' S=0.0049 '/' Outflow=3.5 cfs 0.350 af

Link SP-4: SP-4 Inflow=4.9 cfs 0.852 af
 Primary=4.9 cfs 0.852 af

Link SP-5: SP-5 Inflow=14.1 cfs 1.015 af
 Primary=14.1 cfs 1.015 af

Total Runoff Area = 4.825 ac Runoff Volume = 1.872 af Average Runoff Depth = 4.66"
71.43% Pervious = 3.446 ac 28.57% Impervious = 1.378 ac

Appendix 4

Inspection, Maintenance and Housekeeping Plan

INSPECTION, MAINTENANCE, AND HOUSEKEEPING PLAN

FALLBROOK COMMONS PORTLAND, MAINE

Introduction

The following plan outlines the anticipated inspection and maintenance procedures for the erosion and sedimentation control measures as well as stormwater management facilities for the project. This plan also outlines several housekeeping requirements that shall be followed during and after construction. These procedures shall be followed in order to ensure the intended function of the designed measures and to prevent unreasonably adverse impacts to the surrounding environment.

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

During Construction

1. **Inspection:** During the construction process, it is the Contractor's responsibility to comply with the inspection and maintenance procedures outlined in this section and the erosion and sedimentation control plan for the project. These responsibilities include inspecting disturbed and impervious areas, erosion control measures, materials storage areas that are exposed to precipitation, and locations where vehicles enter or exit the site. These areas shall be inspected at least once per week as well as before and after a storm event, and prior to completing permanent stabilization measures. A person with knowledge of erosion and stormwater control, including the standards and conditions in any applicable permits, shall conduct the inspections.
2. **Maintenance:** All measures shall be maintained in an effective operating condition until areas are permanently stabilized. If Best Management Practices (BMPs) need to be maintained or modified, additional BMPs are necessary, or other corrective action is needed, implementation must be completed within 7 calendar days and prior to any storm event (rainfall).
3. **Documentation:** A log summarizing the inspections and any corrective action taken must be maintained on-site. Correction action shall be performed in general conformance with the Maine Construction General Permit and Maine DEP Chapter 500 Stormwater standards. The log must include the name(s) and qualifications of the person making the inspections, the date(s) of the inspections, and major observations about the operation and maintenance of erosion and sedimentation controls, material storage areas, and vehicle access points to the site. Major observations must include BMPs that need maintenance, BMPs that failed to operate as designed or proved inadequate for a particular location, and locations where additional BMPs are needed. For each BMP requiring maintenance, BMP needing replacement, and location needing additional BMPs, note in the log the corrective action taken and when it was taken. The log must be made accessible to the appropriate regulatory agency upon request. The permittee shall retain a copy of the log for a period of at least three years from the completion of permanent stabilization.

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

A. Filter Berms:

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

B. Stone Check Dams:

- Inspect the center of the dam to make sure it is lower than the edges. Erosion caused by high flows around the edges of the dam must be corrected.
- Sediment accumulation shall be removed prior to reaching half of the original design height.
- Areas beneath stone check dams must be seeded and mulched upon removal.

C. Riprap Materials:

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

D. Erosion Control Blankets:

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

E. Stabilized Construction Entrances/Exits:

- The exit shall be maintained in a condition that will prevent tracking of sediment onto public rights-of-way.
- When the control pad becomes ineffective, the stone shall be removed along with the collected soil material. The entrance should then be reconstructed.
- Areas that have received mud-tracking or sediment deposits shall be swept or

washed. Washing shall be done on an area stabilized with aggregate, which drains into an approved sediment-trapping device (not into storm drains, ditches, or waterways).

F. Temporary Seed and Mulch:

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

G. Stabilized Temporary Drainage Swales:

- Sediment accumulation in the swale shall be removed once the cross section of the swale is reduced by 25%.
- The swales shall be inspected after rainfall events. Any evidence of sloughing of the side slopes or channel erosion shall be repaired and corrective action should be taken to prevent reoccurrence of the problem.
- In addition to the stabilized lining of the channel (i.e. erosion control blankets), stone check dams may be needed to further reduce channel velocity.

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

- A. Spill prevention: Controls must be used to prevent pollutants from being discharged from materials on-site, including storage practices to minimize exposure of the materials to stormwater, and appropriate spill prevention, containment, and response planning and implementation. A Spill, Prevention, Control and Countermeasures Plan is created for the project and is to be kept onsite at all times.
- B. Groundwater protection: During construction, liquid petroleum products and other hazardous materials with the potential to contaminate groundwater may not be stored or handled in areas of the site draining to an infiltration area. An "infiltration area" is any area of the site that by design or as a result of soils, topography and other relevant factors, accumulates runoff that infiltrates into the soil. Dikes, berms, sumps, and other forms of secondary containment that prevent discharge to groundwater may be used to isolate portions of the site for the purposes of storage and handling of these materials.
- C. Fugitive sediment and dust: Actions must be taken to ensure that activities do not result in noticeable erosion of soils or fugitive dust emissions during or after construction. Oil may not be used for dust control.
- D. Debris and other materials: Litter, construction debris, and chemicals exposed to stormwater must be prevented from becoming a pollutant source.
- E. Trench or foundation dewatering: Trench dewatering is the removal of water from

trenches, foundations, cofferdams, ponds, and other areas within the construction area that retain water after excavation. In most cases, the collected water is heavily silted and hinders correct and safe construction practices. The collected water must be removed from the ponded area, either through gravity or pumping, and must be spread through natural wooded buffers or removed to areas that are specifically designed to collect the maximum amount of sediment possible, like a cofferdam sedimentation basin. Avoid allowing the water to flow over disturbed areas of the site. Equivalent measures may be taken if approved.

Post-Construction

1. **Inspection:** After construction, it is the responsibility of the owner or assigned heirs to comply with the inspection and maintenance procedures outlined in this section. All measures must be maintained in effective operating condition. A person with knowledge of erosion and stormwater control, including the standards and conditions in all applicable permits, shall conduct the inspections.
2. **Specific Inspection and Maintenance Tasks:** The following is a list of permanent erosion control and stormwater management measures and the inspection and maintenance tasks to be performed after construction.

A. Vegetated Areas:

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

B. Ditches, Swales and Other Open Channels:

- Inspect ditches, swales, level spreaders and other open stormwater channels in the spring, in the late fall, and after heavy rains to remove any obstructions to flow. Remove accumulated sediments and debris, remove woody vegetative growth that could obstruct flow, and repair any erosion of the ditch lining.
- Vegetated ditches must be mowed at least annually or otherwise maintained to control the growth of woody vegetation and maintain flow capacity.
- Any woody vegetation growing through riprap linings must also be removed. Repair any slumping side slopes as soon as practicable.
- If the ditch has a riprap lining, replace riprap in areas where any underlying filter fabric or underdrain gravel is showing through the stone or where stones have dislodged.

C. Winter Sanding:

- Clear accumulations of winter sand along access road at least once a year, preferably in the spring.
- Accumulations of sand along road shoulders may be removed by grading excess

sand to the pavement edge and removing it manually or by a front-end loader or other acceptable method.

D. Culverts:

- Inspect culverts in the spring, in the late fall, and after heavy rains to remove any obstructions to flow.
- Remove accumulated sediments and debris at the inlet, at the outlet, and within the conduit.
- Inspect and repair any erosion damage at the culvert's inlet and outlet.

E. Underdrained Soil Filters:

- During the first year, the basin shall be inspected semi-annually and following major storm events.
- Debris and sediment buildup shall be removed from the forebay and basin as needed. Mowing of a grassed basin can occur semiannually to a height no less than 6 inches. Any bare area or erosion rills shall be repaired with new filter media or sandy loam then seeded and mulched. Maintaining good grass cover will minimize clogging with fine sediments and if ponding exceeds 48 hours, the top of the filter bed must be rototilled to reestablish the soil's filtration capacity.
- The soil filter should be inspected after every major storm in the first year to be sure it is functioning properly. Thereafter, the filter should be inspected at least once every six months to ensure that it is draining within 48 hours following a one inch storm or greater. Following storms that fill the system and overflow is observed, the soil filter should drain in no less than 36 to 60 hours. If the system drains too fast, an orifice may need to be added on the underdrain outlet or, if already present, may need to be modified.
- Soil Filter Replacement: The top several inches of the filter shall be replaced with fresh material when water ponds on the surface of the bed for more than 72 hours. Removed sediments should be disposed of in an acceptable manner.
- Sediment Removal: Sediment and plant debris should be removed from the pretreatment structure at least annually.
- Mowing: If mowing is desired, only handheld string trimmers or push-mowers are allowed on the filter (no tractor) and the grass bed should be mowed no more than 2 times per growing season to maintain grass heights of no less than 6 inches.
- Fertilization: Fertilization of the underdrained filter area should be avoided unless absolutely necessary to establish vegetation.
- Harvesting and Weeding: Harvesting and pruning of excessive growth will need to be done occasionally. Weeding to control unwanted or invasive plants may also be necessary.

F. Level Spreader:

- The level spreader pool should be inspected after rainfall events for sediment accumulation and debris that may reduce its capacity. Sediment and debris buildup should be removed once the volume of the pool has been reduced by 25%. The level berm must be constructed so that flows slowly seep across the berm as

sheet flow to the receiving downstream drainage way. Repair or reconstruction of the berm is required when flow from the spreader becomes channelized.

G. Gravel Wetland:

- During the first year, the basin shall be inspected semi-annually and following major storm events.
- Debris and sediment buildup shall be removed from the forebay and basin as needed. Any bare area or erosion rills shall be repaired with new filter media or sandy loam then seeded and mulched. Maintaining good vegetative cover will minimize clogging with fine sediments and if ponding exceeds 48 hours, the top of the filter bed must be rototilled to reestablish the soil's filtration capacity.
- The gravel wetland should be inspected after every major storm in the first year to be sure it is functioning properly. Thereafter, the filter should be inspected at least once every six months to ensure that it is draining within 48 hours following a one inch storm or greater. Following storms that fill the system and overflow is observed, the soil filter should drain in no less than 24 to 48 hours. If the system drains too fast, an orifice may need to be added on the underdrain outlet or, if already present, may need to be modified.
- Sediment Removal: Sediment and plant debris should be removed from the pretreatment structure at least annually.
- Check and clean the risers if there is evidence of standing water, discolored water or accumulated sediments in the cells.
- Removal any decaying vegetation, litter, and debris that may be found.
- Check for foreign species. Particular care must be used to avoid the unintended introduction of invasive species such as purple loosestrife (*Lythrum salicaria*) and common reed (*Phragmites australis*). It is recommended that a qualified wetland biologist be consulted when these are found in the area of the gravel wetland.
- Plant biomass shall be harvested annually.

3. **Documentation:**

- A. A log summarizing the inspections and any corrective action taken must be maintained. The log must include the name(s) and qualifications of the person making the inspections, the date(s) of the inspections, and major observations about the operation and maintenance of controls. Major observations must include BMPs that need maintenance, BMPs that failed to operate as designed or proved inadequate for a particular location, and locations where additional BMPs are needed. For each BMP requiring maintenance, BMP needing replacement, and location needing additional BMPs, note in the log the corrective action taken and when it was taken. The log must be made accessible to the appropriate regulatory agency upon request. A sample "Stormwater Inspection and Maintenance Form" has been included as Attachment 2 of this Inspection, Maintenance, and Housekeeping Plan.

4. **Maine DEP Recertification:** A certification of the following shall be submitted to the MDEP within three months of the expiration of each five-year interval from the date of issuance of MDEP permits.

- A. Identification and repair of erosion problems. All areas of the project site have been inspected for areas of erosion, and appropriate steps have been taken to permanently stabilize these areas.
 - B. Inspection and repair of stormwater control system. All aspects of the stormwater control system have been inspected for damage, wear, and malfunction, and appropriate steps have been taken to repair or replace the system, or portions of the system.
 - C. The Inspection, Maintenance, and Housekeeping Plan for the site is being implemented as written, or modifications to the plan have been submitted to and approved by the MDEP, and the maintenance log is being maintained.
5. **Duration of Maintenance:** Perform maintenance as described and required for any associated permits unless and until the system is formally accepted by a municipality or quasi-municipal district, or is placed under the jurisdiction of a legally created association that will be responsible for the maintenance of the system. If a municipality or quasi-municipal district chooses to accept a stormwater management system, or a component of a stormwater system, it must provide a letter to the MDEP stating that it assumes responsibility for the system. The letter must specify the components of the system for which the municipality or district will assume responsibility, and that the municipality or district agrees to maintain those components of the system in compliance with MDEP standards. Upon such assumption of responsibility, and approval by the MDEP, the municipality, quasi-municipal district, or association becomes a co-permittee for this purpose only and must comply with all terms and conditions of the permit.

Attachments

Attachment 1 – Stormwater Inspection and Maintenance Log Form

ATTACHMENT 1 – STORMWATER INSPECTION AND MAINTENANCE LOG

FALLBROOK COMMONS PORTLAND, MAINE

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

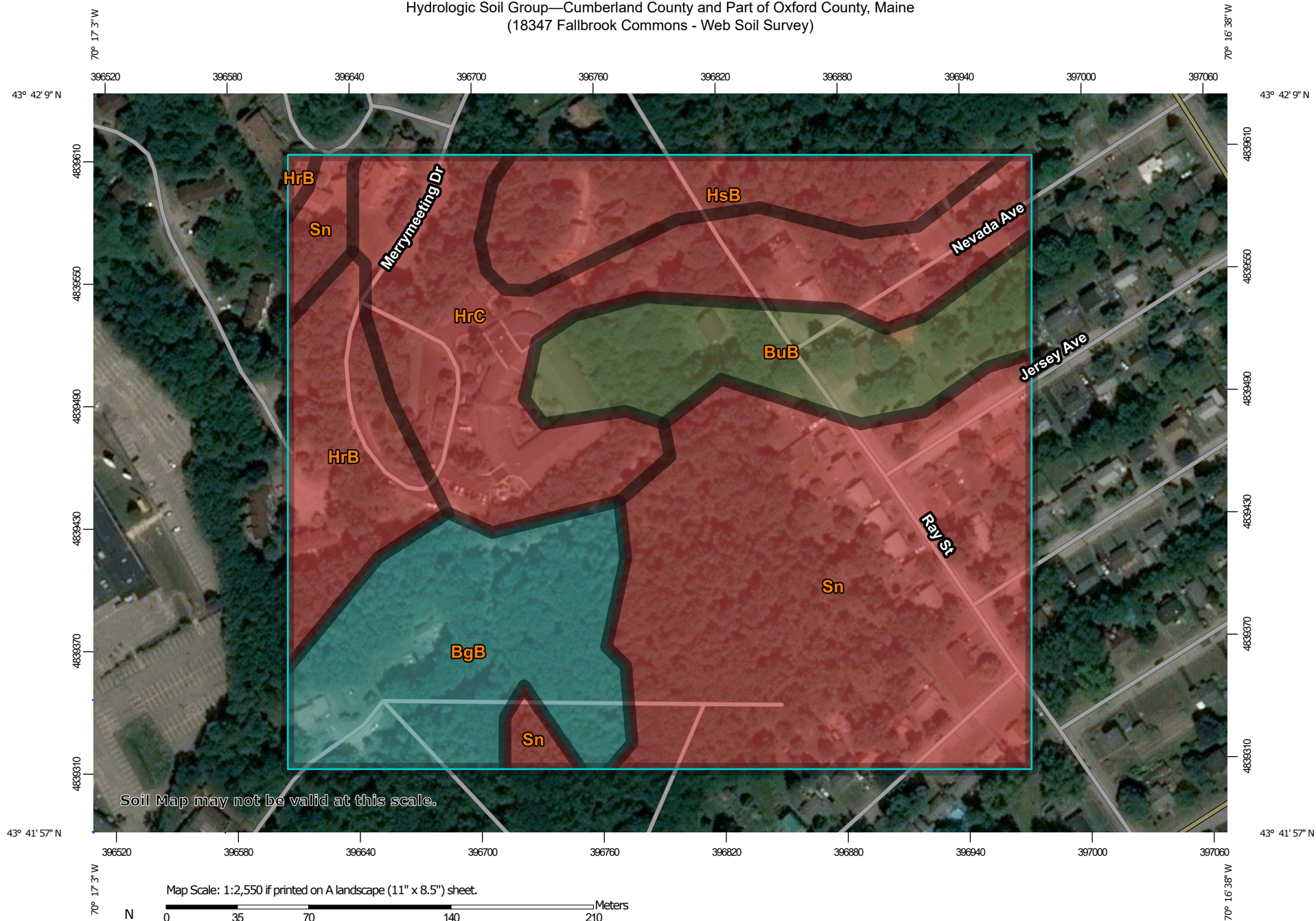
	INSPECTOR NAME	DATE PERFORMED	SUGGESTED INTERVAL
Vegetated Areas			
Inspect all slopes and embankments			Annually
Replant bare areas or areas with sparse growth			Annually
Paved Surfaces			
Clear accumulated winter sand			Annually
Remove sediment along edges and in pockets			Annually
Ditches & Swales			
Remove any obstructions and accumulated sediments and debris			Monthly
Repair any erosion of ditch lining			Annually
Mow vegetated ditches			Annually
Remove woody vegetation growing through riprap			Annually
Repair any slumping side slopes			Annually
Replace riprap where stones have dislodged			Annually
Level Spreader			
Remove sediment			Monthly
Check for evidence of channelized flow over berm			Monthly
Erosion (side slopes, embankment)			Monthly
Mowed			Semi-Annually
Culverts			
Remove accumulated sediments and debris at the inlet, outlet, within conduit			Annually
Repair any erosion at inlet and outlet			Annually
Sump Depth			Annually

Underdrained Soil Filters				
	Remove sediment & debris			Monthly
	Remove weeds			Monthly (during growing season)
	Erosion (side slopes, embankment)			Monthly
	Inspection after major storm to verify proper function			Bi-Annually
Gravel Wetland				
	Remove sediment & debris			Monthly
	Check and clean the risers			Monthly
	Erosion (side slopes, embankment)			Monthly
	Inspection after major storm to verify proper function			Bi-Annually
	Remove decaying vegetation, litter and debris			As-needed

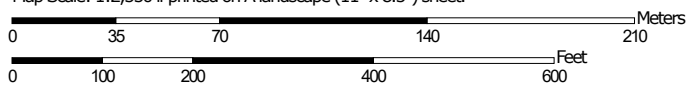
Appendix 5

Web Soil Survey

Hydrologic Soil Group—Cumberland County and Part of Oxford County, Maine (18347 Fallbrook Commons - Web Soil Survey)



Map Scale: 1:2,550 if printed on A landscape (11" x 8.5") sheet.



Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 19N WGS84



**Natural Resources
Conservation Service**

Web Soil Survey
National Cooperative Soil Survey

11/4/2019
Page 1 of 4

MAP LEGEND

Area of Interest (AOI)

Area of Interest (AOI)

Soils

Soil Rating Polygons

-  A
-  A/D
-  B
-  B/D
-  C
-  C/D
-  D
-  Not rated or not available

Soil Rating Lines

-  A
-  A/D
-  B
-  B/D
-  C
-  C/D
-  D
-  Not rated or not available

Soil Rating Points

-  A
-  A/D
-  B
-  B/D

-  C
-  C/D
-  D
-  Not rated or not available

Water Features

-  Streams and Canals

Transportation

-  Rails
-  Interstate Highways
-  US Routes
-  Major Roads
-  Local Roads

Background

-  Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Cumberland County and Part of Oxford County, Maine
Survey Area Data: Version 16, Sep 16, 2019

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

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

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

Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
BgB	Nicholville very fine sandy loam, 0 to 8 percent slopes	C	4.2	15.4%
BuB	Lamoine silt loam, 3 to 8 percent slopes	C/D	3.0	11.0%
HrB	Lyman-Tunbridge complex, 0 to 8 percent slopes, rocky	D	2.2	8.1%
HrC	Lyman-Tunbridge complex, 8 to 15 percent slopes, rocky	D	6.0	22.0%
HsB	Lyman-Abram complex, 0 to 8 percent slopes, very rocky	D	2.3	8.6%
Sn	Scantic silt loam, 0 to 3 percent slopes	D	9.6	35.0%
Totals for Area of Interest			27.3	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

Appendix 6

FEMA Map

Appendix 7

Form F: Soil Profile/Classification Information

Detailed Description of Subsurface Conditions at Project Sites

[illegible]

SOIL PROFILE/CLASSIFICATION INFORMATION

Detailed Description of Subsurface Conditions at Project Sites

Project Name: FALLBROOK COMMONS	Applicant Name: SANDY RIVER COMPANY	Project Location (municipality): PORTLAND
---	---	---

SOIL DESCRIPTION AND CLASSIFICATION				
DEPTH BELOW MINERAL SOIL SURFACE (inches)	Exploration Symbol: TP-105 ☒ Test Pit ☐ Boring			
	1-2" Depth of Organic Horizon Above Mineral Soil			
	Texture	Consistency	Color	Mottling
	1	LOAM	FRIABLE	2.5Y 4/3 OLIVE BROWN
	2			
	3			
	4			
	5			
	6			
	7			
	8			
	9			
	10			
	11			
	12			
	13			
	14			
	15			
	16			COMMON, MEDIUM, DISTINCT
	17			
18				
19				
20	SILT LOAM	FIRM	5Y 5/2 OLIVE GRAY	
21				
22				
23				
24				
25				
26				
27				
28				
29				
30				
31				
32				
33				
34				
35				
36				
37				
38				
39				
40				
41				
42				
43				
44				
45				
46				
47				
48				
49				
50				
51				
52				
53				
54				
55				
56				
57				
58				
59				
60				
61				
62				
63				
64				
65				
66				
67				
68				
69				
70				
71				
72				
73				
74				
75				
76				
77				
78				
79				
80				
81				
82				
83				
84				
85				
86				
87				
88				
89				
90				
91				
92				
93				
94				
95				
96				
97				
98				
99				
100				
101				
102				
103				
104				
105				
106				
107				
108				
109				
110				
111				
112				
113				
114				
115				
116				
117				
118				
119				
120				
121				
122				
123				
124				
125				
126				
127				
128				
129				
130				
131				
132				
133				
134				
135				
136				
137				
138				
139				
140				
141				
142				
143				
144				
145				
146				
147				
148				
149				
150				
151				
152				
153				
154				
155				
156				
157				
158				
159				
160				
161				
162				
163				
164				
165				
166				
167				
168				
169				
170				
171				
172				
173				
174				
175				
176				
177				
178				
179				
180				
181				
182				
183				
184				
185				
186				
187				
188				
189				
190				
191				
192				
193				
194				
195				
196				
197				
198				
199				
200				
201				
202				
203				
204				
205				
206				
207				
208				
209				
210				
211				
212				
213				
214				
215				
216				
217				
218				
219				
220				
221				
222				
223				
224				
225				
226				
227				
228				
229				
230				
231				
232				
233				
234				
235				
236				
237				
238				
239				
240				
241				
242				
243				
244				
245				
246				
247				
248				
249				
250				
251				
252				
253				
254				
255				
256				
257				
258				
259				
260				
261				
262				
263				
264				
265				
266				
267				
268				
269				
270				
271				
272				
273				
274				
275				
276				
277				
278				
279				
280				
281				
282				
283				
284				
285				
286				
287				
288				
289				
290				
291				
292				
293				
294				
295				
296				
297				
298				
299				
300				
301				
302				
303				
304				
305				
306				
307				
308				
309				
310				
311				
312				
313				
314				
315				
316				
317				
318				
319				
320				
321				
322				
323				
324				
325				
326				
327				
328				
329				
330				
331				
332				
333				
334				
335				
336				
337				
338				
339				
340				
341				
342				
343				
344				
345				
346				
347				
348				
349				
350				
351				
352				
353				
354				
355				
356				
357				
358				
359				
360				
361				
362				
363				
364				
365				
366				
367				
368				
369				
370				
371				
372				
373				
374				
375				
376				
377				
378				
379				
380				
381				
382				
383				
384				
385				
386				
387				
388				
389				
390				

Memorandum

18347

To: Daniel Danvers, RLA, Sebago Technics
From: Derek Caldwell, P.E., PTOE, Sebago Technics
Date: May 6, 2020
Subject: Revised Traffic Impact Statement
Fallbrook Commons Nursing Care Center
Portland, Maine

This memorandum serves to supersede the previously provided Traffic Impact Statement dated November 9, 2019 for the subject project.

We have completed a trip generation and site access assessment for the proposed Fallbrook Commons Licensed Nursing Care Center to be located at 418 Ray Street in Portland. It is our understanding the project is to consist of a 56,000 square foot facility with 90 nursing care beds. The development will be accessed by Merrymeeting Drive, an existing private roadway serving the Fallbrook Woods Assisted Living Facility and the Merrymeeting Condominiums.

Trip Generation

Trip generation for the proposed development is calculated using the 10th Edition of the *Institute of Transportation Engineers Trip Generation Manual*. Land Use Code (LUC) 620 – Nursing Home was used for the calculation based upon the independent variable of 1,000 square feet and beds. The total proposed trip generation for the development is based on an average of the trip generation calculations using each variable. Tables 1 and 2 show the result of the trip generation calculation using the variable of square feet and beds, respectively.

Table 1
Trip Generation
LUC 620 – Nursing Home
56,000 Square Feet

Time Period	Average Rate/ 1,000 SF	Total Trips	Entering %	Exiting %	Entering Trips	Exiting Trips
Weekday	6.64	372	50%	50%	186	186
AM Peak Hour of Adjacent Street	0.55	31	78%	22%	24	7
PM Peak Hour of Adjacent Street	0.59	33	41%	59%	14	19
AM Peak Hour of Generator	0.64	36	63%	37%	23	13
PM Peak Hour of Generator	0.86	48	43%	57%	21	27

Table 2
Trip Generation
LUC 620 – Nursing Home
90 Beds

Time Period	Average Rate/Bed	Total Trips	Entering %	Exiting %	Entering Trips	Exiting Trips
Weekday	3.06	275	50%	50%	138	137
AM Peak Hour of Adjacent Street	0.17	15	72%	28%	11	4
PM Peak Hour of Adjacent Street	0.22	20	33%	67%	7	13
AM Peak Hour of Generator	0.22	20	63%	37%	13	7
PM Peak Hour of Generator	0.37	33	41%	59%	14	19

Table 3 shows the total calculated trip generation for the proposed development, found by averaging the values found in Tables 1 and 2.

Table 3
Total Trip Generation

Time Period	Total Trips	Entering Trips	Exiting Trips
Weekday	324	162	162
AM Peak Hour of Adjacent Street	23	18	5
PM Peak Hour of Adjacent Street	27	11	16
AM Peak Hour of Generator	28	18	10
PM Peak Hour of Generator	41	18	23

In addition, we have evaluated the need for an additional traffic study based upon the Section 1.1 of the *City of Portland Technical Manual*. A traffic study is required if 25 or more passenger car equivalent (PCE) trips are generated in a peak hour and the following applies to the project location:

- (1) on an arterial; and/or
- (2) within ½ mile of a high crash location; and/or
- (3) within ¼ mile of an intersection that has been identified in a previous traffic study as a failing intersection, with an overall level of service below level of service D,

Although the development is projected to generate more than 25 PCE during the PM Peak Hour of the Generator, a traffic study is not required due to the following:

- 1.) Ray Street is classified as a local roadway.
- 2.) The project site is not located within a ½ mile of a high crash location. The closest High Crash Location is the segment of Allen Avenue from Washington Avenue to Braeburn Road, a distance of just over ½ mile to the northwest.
- 3.) The project site is not within ¼ mile of an intersection that has previously been identified as a failing intersection.

Site Access

Access to the site is proposed by way of Merrymeeting Drive, an existing private roadway serving the Merrymeeting Condominiums and the existing Fallbrook Woods Assisted Living Facility. Merrymeeting Drive intersects Ray Street at an existing all-way stop controlled intersection. At this intersection location, Ray Street is classified as an urban local roadway with a posted speed limit of 25 miles per hour. The project proposes to provide improvements to this intersection including new stop signs, stop bars, and a new marked pedestrian crossing across Ray Street. This crossing would connect a proposed sidewalk on Merrymeeting Drive with the existing sidewalk on the eastern side of Ray Street.

It is also proposed to construct an emergency-only access drive connecting the proposed facility directly with Ray Street. This restricted access drive would intersect Ray Street opposite Nevada Avenue. A locked gate, equipped with a Knox Box, will be installed to prevent unauthorized use.

Conclusion

The proposed Fallbrook Commons Nursing Care Center is projected to generate 28 trips during the AM Peak Hour of the Generator and 41 trips during the PM Peak Hour of the Generator. This level of trip generation does not require a MaineDOT Traffic Movement Permit, nor does it warrant further traffic study based upon the criteria set forth in the City of Portland Technical Manual. This low vehicular trip generation is not expected to have an adverse impact on the surrounding area roadways. The main access to the site will be by the existing private Merrymeeting Drive. Proposed improvements at the intersection of Merrymeeting Drive and Ray Street include new stop signs and stop bars, and a new pedestrian crossing.

Access and Circulation (14-526 (a) 2 a)

- (i) The development provides safe and reasonable access and internal circulation for the entire site for all users of the site and complies with the standards set forth in Section 1 of the Technical Manual. Please see the vehicle tracking plan.
- (ii) The points of access and egress have been located to avoid conflicts with the existing turning movements and traffic flows. Please see the vehicle tracking plan.
- (iii) Not applicable. There are no drive-up features associated with this project.

Loading and Servicing (14-526 (a) 2 b)

- (i) The development/proposed addition has been designed for proper circulation of delivery and other service vehicles.

Sidewalks (14-526 (a) 2 c)

- (i) The development has been designed with the appropriate sidewalk and curb layout. Please see the site plan.
- (ii) Not applicable. There is no existing sidewalk to be utilized for this project.
- (iii) The internal sidewalk leads from the proposed facility (Fallbrook Commons) to the existing facility (Fallbrook Woods). From there, the applicant is proposing a sidewalk along Merrymeeting Drive, that will connect to Ray Street's sidewalk.

Public Transit (14-526 (a) 3)

Not applicable. Bus service is available on Ray Street only on days that the area schools are open. The closest daily, year-round bus service is on Washington Avenue. The facility will have a private shuttle service for residents.

Off-Street Parking: Vehicle & Motorcycle/Scooter (14-526 (a) 4 a and c)

- a. The proposed project meets the parking requirements for the zone and development size. The parking spaces have been designed in accordance with City Regulations and the parking surface will be a paved surface. Please see the site plan.
- c. The proposed parking lot can accommodate motorcycle and scooter parking, though no spaces have been created specifically for motorcycle or scooter parking. Please see the site plan.

Bicycle Parking (14-526 (a) 4 b)

The proposed project provides space for ten bicycles to be parked on site. Please see the site plan for the bicycle rack location. The proposed bicycle rack product information has been included as part of this section.

BOLA®

Product Data Sheet



An artful solution for bicycle storage and security that meets Association of Pedestrian and Bicycle and Professionals (APBP) recommendations. Bola's understated design doesn't conflict with other site elements. An artful solution for bicycle storage and security that meets Association of Pedestrian and Bicycle and Professionals (APBP) recommendations. Bola's understated design doesn't conflict with other site elements.

Bike Rack

- Capacity: 2 bikes
- Bike racks made of 1.5" o.d., .120" wall stainless steel tubing, with a #4 satin electropolish finish on bare stainless steel.
- Bola is also available in powdercoated steel.
- Bola must be embedded.
- Bola can secure two bicycles parked parallel to the rack.
- The bicycles can be headed in opposite directions, or in the same direction. The rack provides two-point contact to prevent the bicycle from tipping over.
- A standard D-shaped bike lock can secure both a wheel and the frame.

	STYLE	DEPTH	WIDTH	HEIGHT	PRODUCT WEIGHT
	Bola	1.5"	28.25"	32"	13 lb

Finishes

- All metal parts are finished with Landscape Forms' proprietary Pangard II® polyester powdercoat, a hard yet flexible finish that resists rusting, chipping, peeling and fading.
- Call for standard color chart.

To Specify

- Select bike rack style. Specify powdercoat color or stainless steel.

Designed by Brian Kane, IDSA

All Landscape Forms bike racks meet guidelines established by the Association of Pedestrian and Bicycle Professionals.

Visit our landscapeforms.com for more information. Specifications are subject to change without notice. Landscape Forms supports the Landscape Architecture Foundation at the Second Century level. ©2016 Landscape Forms, Inc. Printed in U.S.A.

Landscape Forms, Inc. | 800.521.2546 | F 269.381.3455 | 7800 E. Michigan Ave., Kalamazoo, MI 49048

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

- (i) Snow storage areas have been provided for the site. Please see the site plan.
- (ii) The proposed snow storage areas will not encroach on areas designated to meet minimum parking requirements or pedestrian walkways. They are not located in areas that will interfere with the storm water management plan of the site.

Environmental and Landscape Features

Preservation of significant Natural Features (14-526 (b) 1)

The development has been designed to preserve and protect significant natural features. A Tier 2 Natural Resource Protection Act application has been filed with the Maine Department of Environmental Protection for any proposed wetland impacts. Please see the site plan and landscape plan for additional information.

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

- (i) The proposed project involves some tree removal to allow for site development. Existing tree cover was incorporated into the landscaping plan as was practicable providing a wooded buffer between the proposed development and the existing abutters.
- (ii) No trees with a 10-inch DBH or greater within the setback are to be impacted. Please see the site plan.
- (iii) Vegetation will be protected during construction in accordance with tree preservation standards listed in Section 4 of the Technical Manual.
- (iv) No waivers for vegetation are sought.
- (v) Not Applicable. The proposed project site is not located in the Shoreland Zone.

Site Landscaping (14-526 (b) 2 b)

The proposed project has been designed in accordance to the requirements of the City Ordinance. The proposed development has been designed to provide a wooded and landscaped buffer between the development and surrounding properties.

Please see the Site plan and the Landscape plan.

Parking Lot Landscaping (14-526 (b) 2 b ii)

Landscaped islands have been provided as part of the proposed development plan. There are plantings proposed for the two islands located within the parking area, as well as plantings along the perimeter of the parking areas and building.

Please see the Site Plan and Landscape Plan for more detailed information.

Street Trees (14-526 (b) 2 b iii)

The proposed planting plan was designed in accordance to the specifications of Section 4 of the City's Technical Manual. Please see the Site Plan for more detailed information.

Consistency with City Master Plans (14-526 (c) 1)

The proposed development is consistent with the City Master Plan. The proposed development involves the construction of a senior living facility. The development will not result in any unreasonable burdens to the City's resources, nor the unnecessary decrease of undeveloped parcels. The proposed use is consistent with the surrounding area.

Massing, Ventilations and Wind Impact (14-526 (d) 1)

- a. The bulk and height of the proposed building will not result in health or safety problems from a reduction in ventilation to abutting structures. Please see the site plan.
- b. The bulk, location, and height of the proposed building will not minimize the value or utility of the neighboring buildings. The proposed development is in keeping with the neighborhood. Please see the plan set.
- c. The HVAC venting mechanisms have not been sited on the plan as the appropriately sized system has not yet been determined. The building will be constructed with the all venting systems directed away from public spaces and residential properties.

Shadows (14-526 (d) 2)

Not applicable. There are no open public spaces surrounding the property.

Snow and Ice Loading (14-526 (d) 3)

The building will be designed to prevent significant amounts of accumulated snow and ice from loading or falling onto adjacent properties or public ways.

Historic Resources (14-526 (d) 5)

The proposed development will not impact nor is it in close proximity of any historic resources. A letter has been sent to the Maine Historic Preservation Commission. As of the submittal date a response from them had not yet been received. Their response letter will be forwarded upon receipt.

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

Not Applicable. There is no equipment associated with the proposed use that would result in the generation of noise or vibrations.

Signage and Wayfinding (14-526 (d) 8)

Please see the plan set for signage information.

Zone Related Design Standards (14-526 (d) 5)

Not Applicable. There are no specific design standards associated with the zone of the subject site.

Environmental and Stormwater

Water Quality, Stormwater Management and Erosion Control (14-526 (b) 3 a)

The proposed site has been designed in accordance to City and Chapter 500 requirements to minimize the amount of stormwater leaving the site.

Please see this exhibit for the Stormwater Management Plan.

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

- a. Crime Prevention - The proposed facility has been designed with planting that will complement the site but will not provide concealment for illegal activities. The parking area is well lit. Please see the plan set.
- b. There is adequate access to the site for emergency vehicles. Please see the plan set.
- c. The site has been designed to be consistent with the standards of the City of Portland Technical Manual. Please see the plan set.

Fire Checklist will be submitted under separate cover.

Availability and Adequacy of Public Utilities (14-526 (c) 3) (Technical Manual, Sections 2 & 9)

- a. The development will not overburden sanitary sewers and storm drains, water lines, or other public infrastructure and utilities.
- b. Electrical service has been designed to be underground.
- c. All proposed sanitary sewers, storm drains, water lines or other utilities meet the provisions of the City Technical manual.
- d. The proposed development will connect to an existing sewer line. There is a pump station proposed for this project. Please see the proposed pump station design attached.
- e. All proposed sanitary sewer and stormwater utilities are designed to City standards.
- f. The proposed project involves the construction of a healthcare facility that will have a solid waste removal plan. Please see the Site Plan for the dumpster location.

Pump Station Design

Building/Phase	Type of Use	# of units/SF	flow/unit	Total
Site				
	50	employees	12 gpd/employee	600 gpd
	90	beds	125 gpd/bed	11,250 gpd
			Total	11,850 gpd

Project flow from Mechanical Engineer 16,000 gpd

Higher Total Flow 16,000 gpd

Peak Factor, Peak Day 3.0

Peak Day = 3.0 x Average Daily Flow (ADF) = 48,000 gpd

Peak Factor, Peak Hour 5.6

Operating hours per day 16 hr

Peak Hour = 5.6 x ADF / 720 min/day (16 hour day) = 93.3333 gpm

Inflow/ Infiltration (I/I) Allowance

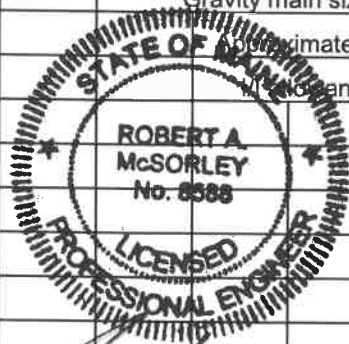
Gravity main size: 8 inches

Approximately 0 linear feet (0 miles) of 8" sewer line

Allowance = 250 gpd/inch diameter of pipe in inches/mile of sewer

Flow from Inflow/Infiltration = 0 gpd

Peak Hour = 0.00 gpm



[Signature]
11/1/19



75 John Roberts Road, Suite 4A
South Portland, Maine 04106

(207) 200-2100 FAX (207) 856-2206

JOB Fallbrook Nursing

SHEET NO. 2 OF 5

CALCULATED BY BAW DATE 10/30/2019

CHECKED BY RAM DATE 10/30/2019

FILE NAME 18347 Pump Station 2019-10-30

Cycle times for given flow rates and wetwell size: Buildout

Average wastewater flow =												16,000	GPD, or	16.67	GPM		
Peak Flow =												100.00	GPM =	6000	GPH		
Minimum Flow =												2.3	GPM =	140	GPH		
Proposed Forcemain size =												4	inches	HPDE DR 11	minimum velocity	3	fps
Min. pump rate (larger of 1.50 x peak or min fm flow) =												GPM	150	GPM			
Use												150	GPM	50%	more than peak		
Diameter of wet well =												6	feet, so radius=	3	ft		
Travel (pump on to pump off) =												24	inches, or	2	ft		
So working volume =												56.5	cubic feet, or	423.0	gal.		
Is pump station for a septic field?												no					
For average design flow:																	
Effective pumping rate =												150	gpm -	16.67	gpm =	133.33	gpm
Pump cycle =												423.0	gal /	133.3	gpm =	3.17	min
Fill time =												423.0	gal /	16.67	gpm =	25.38	min
Total cycle =														28.56	min or	0.48	hours
Summary: Pump starts 2x/hour. Using alternating pumps																	
Peak on Maximum Day (Average x 6.0)																	
Effective pumping rate =												150	gpm -	100.00	gpm =	50.00	gpm
Pump cycle =												423.0	gal /	50.0	gpm =	8.46	min
Fill time =												423.0	gal /	100.00	gpm =	4.23	min
Total cycle =														12.69	min or	0.21	hours
Extreme minimum on minimum day (Average x 0.14)																	
Effective pumping rate =												150	gpm -	2.33	gpm =	147.67	gpm
Pump cycle =												423.0	gal /	147.7	gpm =	2.86	min
Fill time =												423.0	gal /	2.33	gpm =	181.30	min
Total cycle =														184.17	min or	3.07	hours



75 John Roberts Road, Suite 4A

South Portland, Maine 04106

(207) 200-2100 FAX (207) 856-2206

JOB Fallbrook Nursing

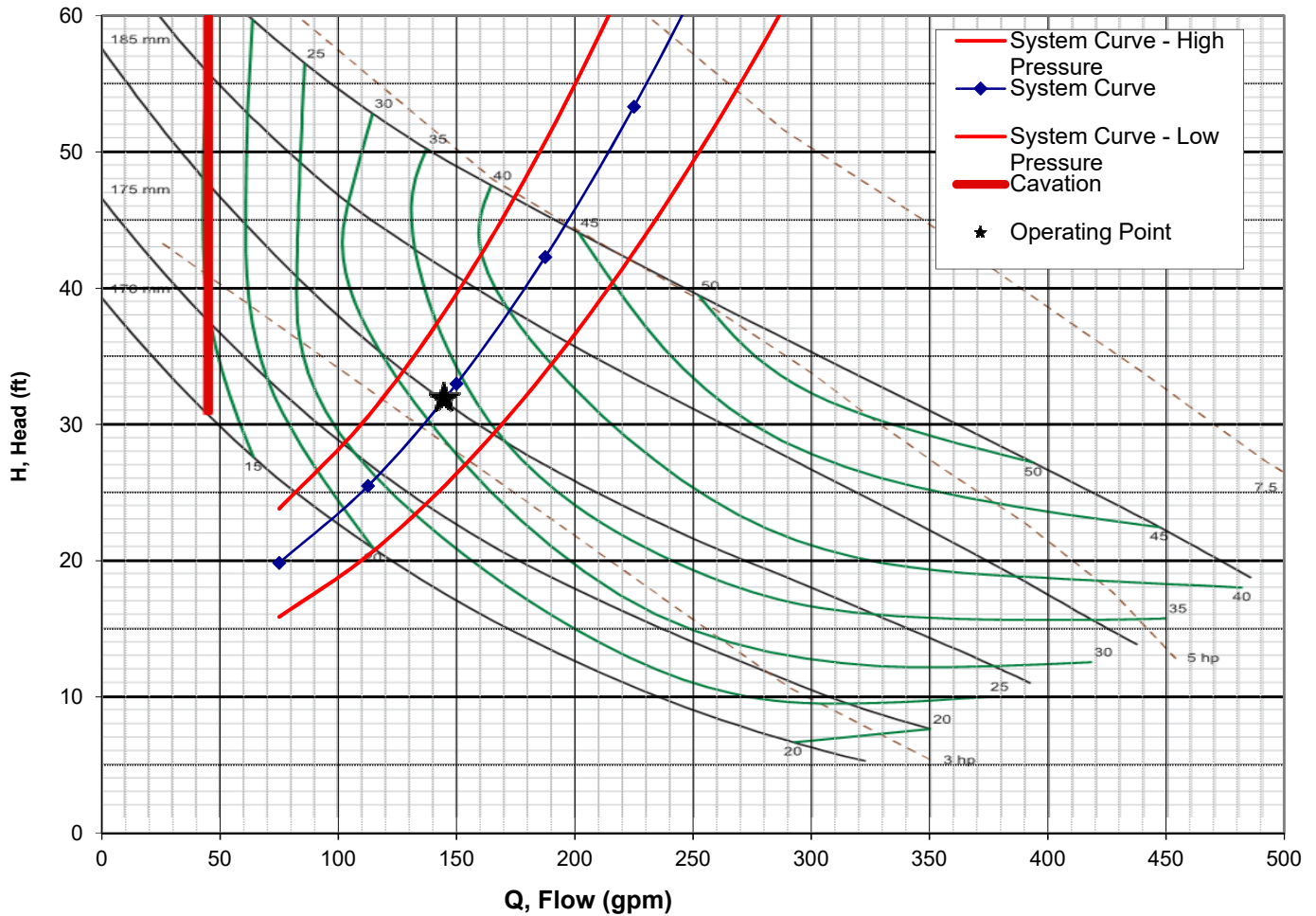
SHEET NO. 4 OF 5

CALCULATED BY BAW DATE 10/30/2019

CHECKED BY RAM DATE 10/30/2019

FILE NAME 18347 Pump Station 2019-10-30

Fallbrook Nursing



Duplex Barnes Sithe chopper, Model 3XSCMPA50N4, pump will flow **145** gpm at **32** ft TDH

5.0 H.P., 15.0 A, 230 Volt, 3 Phase, 60 Hz motor operating at 1750 RPM with 185mm impellor.

Velocity in **4** (in) HPDE DR 11 force main will be 4.5 ft/s

Flow	Pump	Fill	Total			
Low	2.97	181.3	184.3	min	3.07	hrs
Avg	3.30	25.38	28.68	min	0.48	hrs
Peak	9.40	4.23	13.63	min	0.23	hrs

Check cycle times



75 John Roberts Road, Suite 4A
South Portland, Maine 04106

(207) 200-2100 FAX (207) 856-2206

JOB Fallbrook Nursing
SHEET NO. 5 OF 5
CALCULATED BY BAW DATE 10/30/2019
CHECKED BY RAM DATE 10/30/2019
FILE NAME 18347 Pump Station 2019-10-30

FLOATATION CALCULATIONS									
PARAMETERS:									
1.	STATION TYPE(TREMIE/MONO/PACKAGE) =						MONO		
2.	DENSITY OF CONCRETE =						150.00	#/C.F.	
3.	GRANULAR BACKFILL =						120.00	#/C.F.	
4.	WETWELL DIAMETER =						6.00	FEET	
5.	WALL THICKNESS =						7.00	INCHES	
6.	TOP OF STATION ELEVATION =						90.50	N.A.V.D.	
7.	FINISHED GROUND ELEVATION (-8")=						89.83	N.A.V.D.	
8.	TOP OF BASE ELEVATION =						77.00	N.A.V.D.	
9.	THICKNESS OF TOP =						8.00	INCHES	
10.	THICKNESS OF BASE(MONO/PACKAGE) =						8.00	INCHES	
11.	WIDTH OF MONO SLAB = 12.00 IN						BASE DIAMETER =	110.00	INCHES
12.	THICKNESS OF TREMIE/FLOOR =							INCHES	
13.	AREA OF HATCH =						10.00	SQ. FEET	
BOUYANCY OF STRUCTURE:									
	CYLINDER =						544.58	CUBIC FEET	
	BASE =						44.00	CUBIC FEET	
	TOTAL =						588.57	CUBIC FEET	
BOUYANCY FORCE = VOLUME OF STRUCTURE x WEIGHT OF WATER(62.4 #/C.F.)									
	BOUYANCY FORCE =						36,726.91	POUNDS	
WEIGHT OF STRUCTURE:									
	BASE/TREMIE =						44.00	CUBIC FEET	
	CYLINDER =						154.83	CUBIC FEET	
	FILLET =						20.55	CUBIC FEET	
	TOP =						26.89	CUBIC FEET	
	HATCH =						-6.67	CUBIC FEET	
	TOTAL =						239.60	CUBIC FEET	
WEIGHT OF STRUCTURE = VOLUME OF CONCRETE x WEIGHT OF CONCRETE(150 #/C.F.)									
	WEIGHT OF STRUCTURE =						35,940.44	POUNDS	
WEIGHT OF OVERBURDEN:									
	VOLUME OF OVERBURDEN =						329.26	CUBIC FEET	
WEIGHT OF OVERBURDEN = VOLUME OF OVERBURDEN x DRY WEIGHT OF SOIL(120 #/C.F.)									
	WEIGHT OF OVERBURDEN =						18,965.17	POUNDS	
	TOTAL DOWNWARD FORCES =						54,905.61	POUNDS	
	FACTOR OF SAFETY =						1.49	OK	

Construction Management Plan
Fallbrook Health Center
Sandy River Company /Applicant
Landry French
Construction/Contractor

The Construction Management includes the following:

- 1) a construction management site plan (See attached plan);
- 2) a construction schedule (time frame); and
- 3) a written narrative.

Construction Management Principles

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

Prior to scheduling a preconstruction meeting and the issuance of any city required permits, [Applicant and Contractor] shall meet all of the requirements contained in Section 14-530. Development review fees and post approval requirements and 14-532. General requirements and enforcement of Portland's Land Use Code.

Other permits, as applicable, include

1. **Street Opening and Street Occupancy Permits:** Construction activity in the public right-of-way are controlled by Chapter 25 and sewer and stormwater system connections are controlled by Chapters 24 and 32 of the Land Use Code. All required permits shall be obtained through the Department of Public Works and the requests shall conform with the approved construction management plan.
2. **Blasting:** 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.
3. **Building Code:** Employ the best practices, as applicable, of Chapter 33 Safeguards During Construction, from the 2009 International Building Code.

B. Construction Administration and Communication

[Applicant and Contractor] will work diligently to implement a communication strategy as outlined below. The communication strategy is intended to ensure that all construction operations are performed in accordance with all agreements, ordinances and special permits applicable to this project. The Construction Manager will work closely with adjacent abutters, businesses, nearby construction sites, and all parties informed, as far in advance as possible, of scheduled work, particularly work anticipated to cause significant noise, vibrations, or dust. The final construction management plan shall provide for the following:

1. Contact Person and contact information for the [applicant and contractor] and who is available 24 hours
2. Construction Signage posted on the site with Contact Information for Contractor
3. Describe any additional communication strategies
4. All construction site signage is temporary and shall be removed at project completion.

C. Construction Schedule

1. The contractor will begin construction in June 2020, with an estimated completion date of October 2021.
2. Hours of Construction. Construction may occur during the daytime hours as defined in Section 17-18. Construction Activities for Building permit (Attachment 1) and Section 25-129. Noise, dust and debris (Attachment 2).
3. Extended Hours or Night Work: Pursuant to Section 17-18, this section not apply to emergency utility work or “Situations where the public works authority or the office of building inspections determines that the construction activity is of a unique character which cannot reasonably be completed or performed during the permitted hours and which is not of a recurring nature, provided that prior to engaging in such activity the contractor or his representatives gives notice of the time and scope of such proposed activity, the notice to be given in a manner approved by the public works authority.”
4. Material Deliveries: Schedule and designated location for delivery of materials and boxed goods.

D. Security & Public Safety

1. The Construction Management Plan depicts all proposed fencing or other barriers and access gates (with knox locking devices) with the intent of separating pedestrian and vehicle circulation from the construction site.
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. An overall construction of demolition fire safety program shall be developed. Essential items to be emphasized include the following:
 - Good Housekeeping
 - On-site security
 - Installation of new fire protection systems as construction progresses
 - Preservation of existing systems during demolition
 - Organization and training of an on-site fire brigade
 - Development of a pre-fire plan with the local fire department
 - Rapid communication
 - Consideration of special hazards resulting from previous occupancies
 - Protection of existing structures and equipment from exposure fires resulting from construction, alteration, and demolition operations
4. Blasting, if required, shall conform with all measures of Article VIII. Regulation of Explosives in the Land Use Code and Section 3.7 Standards for Blasting and Regulation of Explosives in Portland’s Technical Manual.
5. Any proposed temporary security lighting shall be shown on CMP and all fixtures shall be full cutoffs.

E. Construction Permitting and Traffic Control Plans

1. Construction Activity in Public Streets: Construction activity in the public right-of-way is controlled by Chapter 25 Article VII of the City Code of Ordinances. Required licenses and permits, restrictions on activity, and fees & area are outlined in that Chapter. Rules and Regulations for Excavation Activity are available through the Street Opening Clerk at the Department of Public Works. At no time can construction

activity including delivery vehicles 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 water 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. Projects are required to submit a satisfactory 'maintenance of traffic' (MOT) plan prior to any site plan, subdivision, or street opening permit approval. MOT plans may be required for projects that have impacts on local streets.

Maintenance of Traffic (MOT) plans shall provide for the safe passage of the public through or along the construction work zone. On a case-by-case basis, applicants may be allowed to close a street and/or detour a mode of traffic when absolutely necessary for safety. 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 are an obstruction to bicycles or pedestrians.
- In some situations, flaggers may be required.
- Police details may be required at lighted intersections and may be requested by the City's transportation engineer or his designee.

All existing modes of travel in 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 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.

F. Site Management and Controls

The final Construction Management Plan will address maintaining the site in a safe condition and will include the following:

1. Regular trash and debris removal
2. Street cleaning and damage controls
3. Dust controls- The construction shall comply with Portland's requirements under Section 25-129 on Noise, dust and debris (Attachment 2).

4. Noise: The construction shall comply with Portland's requirements under Section 17-18 of the City Code (Attachment 1) and Section 25-129 on Noise, dust and debris Attachment 2).
5. Rodent Control will be provided, if applicable, by a professional exterminator and consistent with Chapter 22 of the City Code.
6. Snow Removal: Pursuant to Section 25-173 Contractors to ensure a safe means of travel within the work zone.
 - 1) Snow/ice removal or commence automatically from (1" of snow and up) or Ice
 - 2) Remove snow as needed within the work zone, including parking spaces & not to block any driveways or sight lines with the piles of snow.
 - 3) Clear all walks & ramps with the work zone
 - 4) Sand or Salt as needed
 - 5) Clear all basin or drainage to help snow melt
 - 6) This would include Monday-Friday Sat/Sunday/Holidays

G. Erosion Control and Preservation of Trees

1. The [contractor] shall install all erosion and sedimentation controls as depicted on the approved erosion and sedimentation control plan 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 significant storm events, and maintain any installed temporary or permanent stormwater management systems in 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 or the U.S. Environmental Protection Agency upon request.
2. The [contractor] shall maintain all tree and landscaping preservation measures as depicted on the landscaping plan (Exhibit) within the area of construction.
3. The storage of materials shall be identified and avoid being located under/near trees.

H. Construction Staging Area

1. The Construction Management Plan shall depict location of the material staging areas, the location on onsite temporary construction trailers, the location on onsite truck delivery holding areas, the location onsite truck washing stations, masonry mixing stations, the general location of the construction security fence and the general location of temporary construction dumpsters. An open storage area shall be shown on the plan.
2. Delivery Truck Holding Areas On-Site: The delivery holding area shall be shown on the plan and shall not be blocked during construction. 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 the 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 queueing on public streets.
3. Delivery Truck Holding Areas Off-Site: In the event that adequate on-site area for holding of trucks is not available, an off-site marshalling area will be utilized for trucking. The designated off-site location will be identified in the construction management plan.

I. Parking During Construction

1. Construction Parking: Adequate parking for construction workers shall be provided on

site or arrangements for off-street parking at an off-site location shall be provided. The parking arrangements shall be included in the construction management plan.

2. **Parking:** Where existing facilities are remaining in operation during construction, the construction management plan shall identify how the parking for employees and others shall be managed.
3. **Truck Routes and Volumes:** The Construction Management Plan shall address the designated truck routes and expected truck volumes.

J. Dewatering Plans

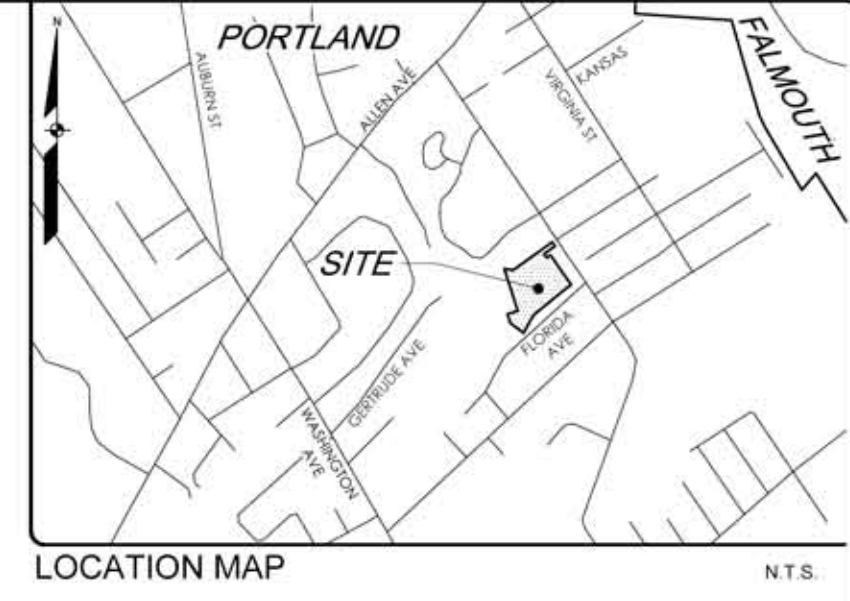
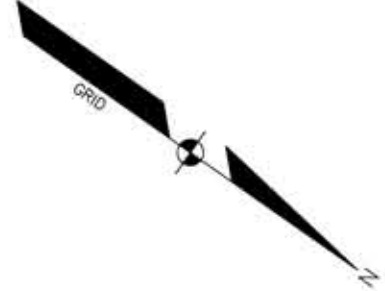
A basic dewatering plan for any construction work is required. The plan must cover construction sites where groundwater is not expected but the impact of rainwater may require dewatering. The plan must include operating procedures, equipment to be used, including filters, erosion and sediment control measures, or other methods of removing sediment from approved discharges.

For construction work that will require frequent dewatering of groundwater from site, a dewatering plan must be prepared and approved by the Department of Public Works. Groundwater and/or soil testing may be required to determine course of action if treatment is necessary. Approval for all discharges to City infrastructure is required.

The proposed plan must address the following:

- Project duration, discharge location, storage equipment on-site, dewatering schematic, and emergency contact.
- General requirements include trained staff on-site for all approved discharges and required site log for documentation of all discharges.
- Storage and/or treatment process should include proper settling time and maintain proper use of filtering medium as required.
- Contingency/maintenance plan for all dewatering equipment devices and filtration mediums.

Any water that is removed from an excavation must be pumped from a perforated device buried in crush stone prior discharge and/or prior to storage and treatment. There will be no discharge allowed during precipitation events.



PROGRESS PRINT

NOT FOR CONSTRUCTION

DANIEL L. BILEY, P.E. 6696

N.T.S.

DANIEL M. DANVERS, R.L.A. 4815

N.T.S.

N.T.S.

N.T.S.

N.T.S.

N.T.S.

N.T.S.

N.T.S.

N.T.S.

N.T.S.

N.T.S.

N.T.S.

N.T.S.

N.T.S.

N.T.S.

N.T.S.

N.T.S.

N.T.S.

N.T.S.

N.T.S.

N.T.S.

N.T.S.

N.T.S.

N.T.S.

N.T.S.

N.T.S.

N.T.S.

N.T.S.

N.T.S.

N.T.S.

N.T.S.

N.T.S.

N.T.S.

N.T.S.

N.T.S.

N.T.S.

N.T.S.

N.T.S.

N.T.S.

N.T.S.

N.T.S.

N.T.S.

N.T.S.

N.T.S.

N.T.S.

N.T.S.

N.T.S.

N.T.S.

N.T.S.

N.T.S.

N.T.S.

N.T.S.

N.T.S.

N.T.S.

N.T.S.

N.T.S.

N.T.S.

N.T.S.

N.T.S.

N.T.S.

N.T.S.

N.T.S.

N.T.S.

N.T.S.

N.T.S.

N.T.S.

N.T.S.

N.T.S.

N.T.S.

N.T.S.

N.T.S.

N.T.S.

N.T.S.

N.T.S.

N.T.S.

N.T.S.

N.T.S.

N.T.S.

N.T.S.

N.T.S.

SEBAGO
TECHNICS

WWW.SEBAGOTECHNICS.COM
75 John Roberts Rd.
Suite 4A
South Portland, ME 04106
Tel. 207-200-2100

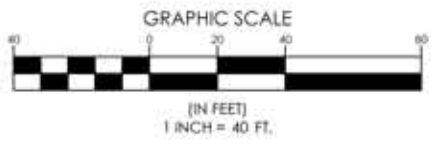
SITE PLAN
OF:
FALLBROOK NURSING CARE
PORTLAND, MAINE

FOR:
SANDY RIVER COMPANY
C/O MERRIMEETING DRIVE
PORTLAND, MAINE 04112

DESIGNED DMD
DRAWN SRC
CHECKED BJB
DATE 11/01/19
SCALE 1" = 40'
PROJECT 18347

18347-000- TAB 5

SHEET 3 OF 16





June 4, 2020
18347

Andrew Tufts
Department of Planning and Urban Development City of Portland
4th Floor, City Hall
389 Congress Street
Portland, ME 04101

**RE: Response to Comments for Fallbrook Commons
Parcel ID: 400 D 023001**

Dear Andrew:

A neighborhood meeting for the Fallbrook Commons project was held on February 18th at Fallbrook Woods, approximately 30 of neighbors attended the meeting. We have made a number of revisions to the plans based on comments and concerns raised at the meeting. These concerns were primarily related to the proposed entrance off of Ray Street, the parking areas at the existing facility (Fallbrook Woods), and pedestrian access along Merrymeeting Drive.

The applicant proposes the following changes to the project:

- The proposed access from Ray Street opposite Nevada Avenue has been revised to be an Emergency Only Entrance. This emergency access driveway will be gated with a Knox box for emergency access only to both the proposed and existing facilities.
- The primary entrance to the proposed facility will be from the Merrymeeting Drive, through the existing facility.
- Sidewalks have been added along Merrymeeting Drive for pedestrians and the existing roadway will be repaved to improve its condition
- The parking area at the existing facility (Fallbrook Woods) will be modified and expanded to relocate existing on street parking from Merrymeeting Drive to the facility's parking lot.

We have included revised sections of the original application to reflect the project design, revised plans, and offer the following response to staff comments received in February 2020.

Response to Comments- Planning and Urban Development

Comments from- Mike Tremblay: *"There is a crest vertical curve on Ray Street approximately 200 feet northwest of the site driveway. Vehicles traveling along Ray Street may not be able to see a vehicle entering or exiting the site driveway, depending on the speed of the approaching vehicle and weather conditions. The stopping sight distance for a vehicle traveling 30mph is 200 feet, assuming a flat roadway surface. The marked speed limit on Ray Street is 25mph, but prevailing speeds may be higher. The Applicant should provide sight distance analysis at the site driveway. If sight distance is found to be insufficient, the applicant should provide solutions."*

Response: Sebago Technics traffic engineer has measured sight distance to be 270' from the Ray Street entrance exceeding the requirements for the posted 25 mph speed limit and a 30MPH assumed speed. The applicant has revised the plans to make the entrance off Ray Street opposite Nevada Avenue a gated

emergency fire entrance only. The applicant proposes to use Merrymeeting Drive as the primary entrance to the proposed facility. Additionally, the applicant proposes to improve the pedestrian and vehicular access along Merrymeeting Drive by repaving the road and adding a sidewalk from Ray Street to the new facility as shown on the plans attached to this submission.

Comment from- Mike Tremblay: *"In the bay of parking immediately outside the main entrance to the site, there are accessible parking signs that appear to be installed directly into the ground between parking spaces. This would appear to be challenging to plow/maintain and may result in damage/removal of the signs. A raised area where these signs could be mounted is suggested."*

Response: The applicant is proposing signs on bollards within the parking area to protect them from plowing / mechanical damage. A detail further of the sign on bollard is provided on sheet 16.

Comment from- Mike Tremblay: *"There are 92 parking spaces proposed on-site. There is little information provided about the anticipated parking demand. Given that the site has significant wetlands impacts, right-sizing the parking lots is of paramount importance. The applicant should provide justification for the parking supplied on-site."*

Response: Parking for 92 vehicles is proposed to accommodate the anticipated staffing and visitor requirements of the facility and is based on the applicants experience at similar facilities of this size and use. The facility is expected to employ up to 113 Full time equivalent (FTE) employees as submitted in projections with the Maine Department of Health and Human Services. The staff occurs in shifts. with 55 employees during the day shift, 25 during the evening shift and 10 employees during the night shift. The applicant's experience has been that providing parking for day shift employees with an allowance of approximately one visitor space per 2.5 beds meets the requirements for a typical day use for family visitors, and specialty service vehicle needs at their other facilities.

Comment from- Mike Tremblay: *"Of the 92 proposed parking spaces, 4 are universally accessible. ADA guidelines require 10% of spaces to be accessible for outpatient medical facilities, and 20% of spaces to be accessible for mobility rehabilitation facilities. Understanding that the proposal is for an assisted living/nursing care facility, and thus does not fall under one of the above categories, the number of accessible spaces provided on-site should be considered carefully, as the minimum amount required may not be appropriate."*

Response: This facility is not an outpatient medical facility or a rehabilitation facility, the parking count meets the ADA 208.2.3 Residential Facilities Standards. Residents of this facility will not have cars, leaving all parking spaces to be for guests, employees, and other Non-residents (208.2.3.3). This section refers the requirements back to the standard ADA parking table (Table 208.2) requiring 4 spaces. All ADA spaces at Fallbrook Commons will be Van Accessible.

Comment from- Mike Tremblay: *"None of the accessible spaces are provided in the lower satellite parking area containing the majority of parking spaces. It appears these spaces serve a different level of the building than the main entrance. The applicant should consider the appropriateness of providing a portion of, or additional, accessible spaces in the lower lot. Note that this lot appears to be closest to the courtyard area, which could be the best area for a resident to wait for a relative to pick them up, etc. in this case, the parking area closest to the courtyard would be the lower parking lot. "*

Response: All ADA spaces have been located nearest the primary entrance to the building for employees, guests, and visitors. All public access to the building is controlled through the main entrance. The courtyard entrances are for egress and maintenance/staff access only and are not open to visitors or residents from the outside the front door is the primary entrance for staff and is the only entrance for visitors.

Comment from- Mike Tremblay: *"None of the six parking spaces serving the service entrance, presumably provided for employees, is accessible. "*

Response: The service area is for contractors and facilities maintenance vehicles. Employees and other visitors will use the upper lots.

Comment from- Mike Tremblay: *"Understanding that there is a significant grade challenge, and that this area is currently proposed to be landscaped, the apparent desire line between the courtyard and the lower parking area is a direct line between the courtyard and lower parking area. The Applicant should consider providing a staircase serving this desire line, in addition to the accessible route already proposed. "*

Response: The courtyards are not accessible to the public from the outside. The gates are for egress and maintenance access only. The desire line from the parking areas will be to the front door of the facility.

Comment from- Mike Tremblay: *"The intersection of the site driveway with the internal driveway between sites appears to have two of the three legs under stop control. This is irregular and not recommended. An all-way stop, or partial stop control where only the site driveway has a stop sign, is recommended. "*

Response: The intersection has been revised to an all-way stop.

Comment from- Benjamin Pearson: *"2000-gallon external grease interceptor proposed. A junction manhole is required with channel where grease interceptor outlet connects to sanitary sewer. (See sheet 10 of 19) / Utility Plan 1. Circled in red below. "*

Response: Sewer Man Hole (SMH) 1 has been added to Utility drawing 2.

Comment from- Benjamin Pearson: *"No construction management plan narrative - map provided. A CMP using newest template will be required with building permit submittal. "*

Response: A construction management plan, and map have been provided as section 37 in our application documents. Uploaded 01.08.2020. We have also uploaded this plan to the Construction Management Plan section of E-plan for clarity.

Response to Comments- Lauren Swett from Woodard and Curran

Comment from- Lauren Swett: *"The project is required to conform with Maine DEP Chapter 500 Stormwater Regulations as well as with the City of Portland Section 5 of the Technical Manual. Conformance with the Basic, General and Flooding Standards is required. "*

Response:

- Basic Standards – The Applicant has proposed erosion and sedimentation control measures in conformance with the Basic Standards.
- General Standards – The Applicant has proposed an under drained soil filter, gravel wetland, and roof drip edge filters to treat the proposed project area.
- Flooding Standards – The proposed project will not increase flows in the post-development condition, in conformance with the Flooding Standards.

Comment from- Lauren Swett: *"The Applicant should evaluate the steepness of some of their pipes. In particular pipes SD-21 and RD-4 are steep, due to the proposed change in grade. RD-1 is also relatively steep. Please consider potential velocity issues at the ends of these pipes. "*

Response: Given the relatively small tributary areas and corresponding flow rates we do not have a concern regarding the slopes at these locations. To address the concern, we have adjusted the grades of SD-12 at the upstream and downstream structures. We have revised the alignment of the roof drains and added connection/drop structures at the top of the slope to flatten the grade.

Comment from- Lauren Swett: *"Pipe SD-18 is missing from the Stormdrain Pipe Data tables. "*

Response: Pipe SD-18 has been added to the tables

Comment from- Lauren Swett: *"Wall drains are noted to be connected to CB-8. Please clarify the depth of these connections to verify that the pipe can connect to the structure with all of the other proposed stormdrain connections. "*

Response: Inverts for the wall drain inverts have been added to the labels. The wall drains enter above the site drainage pipes to accommodate the connection.

Comment from- Lauren Swett: *"Ability to serve confirmation will be required from utilities, including the Portland Water District for domestic and fire water services and the Department of Public Works for sewer. "*

Response: We have reached out to Portland Water District and are working with them on the sizing of the domestic, Fire, and Sewer services.

Response to Comments- Robert Bartels- PWD

Comment from- Robert Bartels: *"We are going to want to see the public water main extended through the site from Merrymeeting Drive to the entrance at Ray Street. The hydrant can then be public and the domestic service will not need a meter pit. Please update your design to show a public water main in an easement through the access drive. Please use the attached as reference. Connect the two 8" mains. "*

Response: We have complied with this request. Changes will be shown on the next round of drawings.

Response to Comments- Jason Grant- Life Safety CEO

Comment from- Robert Bartels: *"The hydrant should be moved to somewhere in the vicinity of the arrow marked on the attached plan. "*

Response: We have relocated the hydrant to the desired location. This change will be reflected on the next round of drawings.

Thank you for your time and consideration during your review. We look forward to the planning board workshop and continued feedback from staff.

Sincerely,

SEBAGO TECHNICS, INC.

A handwritten signature in black ink, appearing to read "Daniel M. Danvers". The signature is fluid and cursive, with a long horizontal stroke at the end.

Daniel M Danvers, RLA
Maine Licensed Landscape Architect

Cc: Daniel Maguire / John Orestis / Doug Gardner

Evidence of State or federal Approvals

A NRPA Tier 2 application has been submitted to the Maine DEP for their review. A Site Location of Development application will be submitted under separate cover to the City for delegated review.

Exterior Lighting (14-526 (d) 6)

Included with this section please find the lighting product cutsheets. Please see the plan set for the lighting plan.

CIMARRON LED

Cat.#

Job

Type



HUBBELL
Outdoor Lighting

Approvals

SPECIFICATIONS

Construction:

- Stylish vertically finned die-cast solid top housing for maximum heat dissipation; Stops collection of unsightly debris from gathering on top of the housing
- Rugged lower die-cast aluminum heat sink accelerates thermal management and optimizes PCB and optical performance
- Separate optical and electrical compartment for optimum component operation
- One piece die cut silicone gasket ensures weather proof seal around each individual LED for IP65 rating
- Backlight Control (BC) option available for 85% spill light reduction, doesn't change fixture appearance or EPA, recommended for Type III and Type IV distributions
- Stamped bezel provides mechanical compression to seal the optical assembly
- Complements the Hubbell Southwest series of outdoor fixtures
- Weight - 45.0 pounds, EPA - 1.3 ft²
- Suitable for applications requiring 3G testing prescribed by ANSI C136.31

Optics:

- Choice of 72 high brightness LED configurations with individual acrylic lenses specially designed for IES Type II, III, IV and V distributions
- Auto optics designed for front row 1A and interior rows 2A (see distribution under ordering and page 2)
- CCT: 3000K (80 CRI), 4000K (70 CRI), 5000K (70 CRI), and turtle friendly Amber LED options

Electrical:

- Universal input voltage 120-277 VAC, 50/60 Hz
- Integral step-down transformer for 347V & 480V
- Ambient operating temperature -40° C to 40° C
- Automatic thermal self-protection
- Drivers have greater than 90% power factor and less than 10% THD
- Optional continuous dimming to 10% or dual circuitry available

- LED drivers have output power over-voltage, over-current protection and short circuit protection with auto recovery
- 1050 mA driver available with 90L configuration for increased lumen output
- LED electrical assembly, including PR devices, consumes no power in the 'off' state
- Surge protection - 20KA; Turns fixture off at end of life; Includes LED for end of life indication (see surge suppressor page 4)

Controls:

- Drivers are 0-10V dimming standard. Photocell, occupancy sensor and wireless controls available for complete on/off and dimming control

Lumen maintenance:

- L90 at 60,000 hours (Projected per IESNA TM-21-11)

Installation:

- Two die-cast aluminum arm designs: The decorative arm offers a sleek upswept look while the straight arm follows the housing's contoured lines for continuity of style
- Fixture ships with arm installed for ease of installation and mounts to #2 drill pattern
- Wall bracket, mast arm fitter and pole accessories are also available allowing easy mounting for virtually any application

Finish:

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

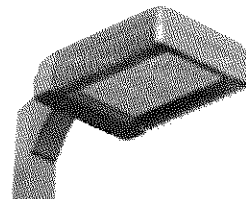
Warranty:

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

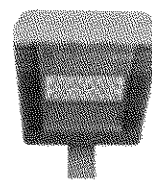
Listings:

- Listed to UL1598 and CSA C22.2#250.0-24 for wet locations
- Models meet DesignLights Consortium (DLC) qualifications, consult DLC website for more details: <http://www.designlights.org/QPL>
- IDA approved • IP65

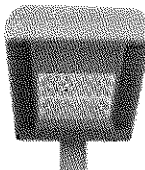
PRODUCT IMAGE(S)



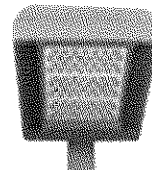
90 LED 3/4 VIEW



30 LED

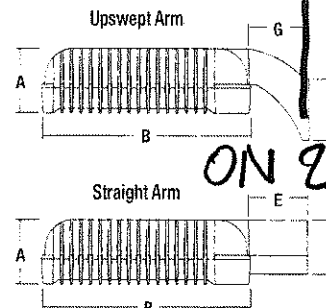


60 LED

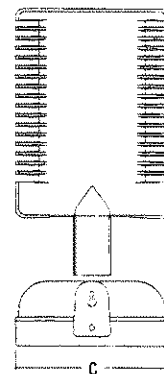


90 LED

DIMENSIONS



ON 20' poles



A	B	C	D	E	F	G
6 3/4" 171mm	21 3/4" 552mm	18" 406mm	6 5/8" 168mm	8 5/16" 160mm	5 5/8" 143mm	6 1/8" 159mm

CERTIFICATIONS/LISTINGS



*3000K and warmer CCTs only

ORDERING INFORMATION SEE NEXT PAGE



HUBBELL
Outdoor Lighting

Hubbell Outdoor Lighting • 701 Millennium Boulevard • Greenville, SC 29607 • Phone: 864-678-1000
Due to our continued efforts to improve our products, product specifications are subject to change without notice.



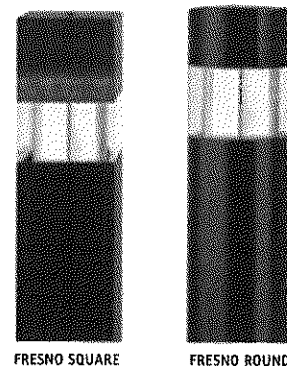
HUBBELL
Lighting

© 2018 HUBBELL OUTDOOR LIGHTING. All Rights Reserved • For more information visit our website: www.hubbelloutdoor.com • Printed in USA DL1LED-SPEC January 23, 2018 11:44 AM

Fresno FN

Bollards

- Rotatable LED assembly adjustment for ideal placement and aiming of asymmetric light pattern
- 24 high brightness LEDs at 500mA deliver symmetric distribution at 46w
- 12 high brightness LEDs at 700mA deliver asymmetric distribution at 30w
- Available in three different color correlated temperatures
- >60,000 HOUR L90
- Extruded aluminum housing with single screw access for top relamping; Decorative cast top with tamper resistant hardware
- Sealed one-piece, clear acrylic lens
- Durable Lektrocote™ TGIC thermoset polyester powder coat paint finish assures long life and maintenance-free service
- Concealed, cast aluminum anchor base; Four 1/2" x 10" anchor bolts on 4" diameter bolt circle
- Listed to UL1598 for use in wet locations
- 5 year limited system warranty



BOLLARDS

MADE-TO-ORDER ORDERING INFORMATION

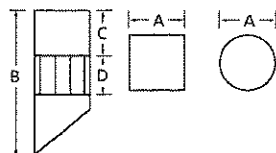
SERIES	SOURCE/WATTAGE/LED	VOLTAGE	COLOR	OPTIONS ¹
FN1 Fresno Square	12LU-3K asymmetric, 27W, 3000K CCT	U 120V-277V	DB Dark Bronze	CD 0-10V dimmable
FN2 Fresno Round	12LU-4K asymmetric, 27W, 4000K CCT	1 120	BL Black	24 24" OAH ²
	12LU-5K asymmetric, 27W, 5000K CCT	2 277	WH White	30 30" OAH ²
	24LU-3K symmetric, 41W, 3000K CCT	3 240	GR Gray	36 36" OAH ²
	24LU-4K symmetric, 41W, 4000K CCT	4 277	PS Platinum Silver	F(X) Fusing ³
	24LU-5K symmetric, 41W, 5000K CCT	5 480	RD Red (premium color)	P(X) Button Photocell ³
	24LU-AM symmetric, 20W, Amber 590nm	F 347	FG Forest Green (premium color)	ABS Bolts shipped ahead
			CC Custom Color (consult factory)	

¹ Any or all options may be used together

² Standard fixture height is 42", only one overall height (OAH) may be selected

³ Replace 'X' with corresponding voltage (1=120, 2=208, 3=240, 4=277, 5=480, 6=347), Button Photocell not available in 480V

DIMENSIONS



	A	B	C	D	Weight
FN1	6 3/4" sq. 171 mm	42" 1067 mm	6" 152 mm	4" 102 mm	41 lbs. 18.6 kg
	7" dia.	42"	6"	4"	41 lbs.
FN2	178 mm	1067 mm	152 mm	102 mm	18.6 kg

CIMARRON LED

Cat.#

Job

Type



HUBBELL
Outdoor Lighting

Approvals

SPECIFICATIONS

Construction:

- Stylish vertically finned die-cast solid top housing for maximum heat dissipation; Stops collection of unsightly debris from gathering on top of the housing
- Rugged lower die-cast aluminum heat sink accelerates thermal management and optimizes PCB and optical performance
- Separate optical and electrical compartment for optimum component operation
- One piece die cut silicone gasket ensures weather proof seal around each individual LED for IP65 rating
- Backlight Control (BC) option available for 85% spill light reduction, doesn't change fixture appearance or EPA, recommended for Type III and Type IV distributions
- Stamped bezel provides mechanical compression to seal the optical assembly
- Complements the Hubbell Southwest series of outdoor fixtures
- Weight - 45.0 pounds, EPA - 1.3 ft²
- Suitable for applications requiring 3G testing prescribed by ANSI C136.31

Optics:

- Choice of 72 high brightness LED configurations with individual acrylic lenses specially designed for IES Type II, III, IV and V distributions
- Auto optics designed for front row 1A and interior rows 2A (see distribution under ordering and page 2)
- CCT: 3000K (80 CRI), 4000K (70 CRI), 5000K (70 CRI), and turtle friendly Amber LED options

Electrical:

- Universal input voltage 120-277 VAC, 50/60 Hz
- Integral step-down transformer for 347V & 480V
- Ambient operating temperature -40° C to 40° C
- Automatic thermal self-protection
- Drivers have greater than 90% power factor and less than 10% THD
- Optional continuous dimming to 10% or dual circuitry available

- LED drivers have output power over-voltage, over-current protection and short circuit protection with auto recovery
- 1050 mA driver available with 90L configuration for increased lumen output
- LED electrical assembly, including PR devices, consumes no power in the 'off' state
- Surge protection - 20KA; Turns fixture off at end of life; Includes LED for end of life indication (see surge suppressor page 4)

Controls:

- Drivers are 0-10V dimming standard. Photocell, occupancy sensor and wireless controls available for complete on/off and dimming control

Lumen maintenance:

- L90 at 60,000 hours (Projected per IESNA TM-21-11)

Installation:

- Two die-cast aluminum arm designs: The decorative arm offers a sleek upswept look while the straight arm follows the housing's contoured lines for continuity of style
- Fixture ships with arm installed for ease of installation and mounts to #2 drill pattern
- Wall bracket, mast arm fitter and pole accessories are also available allowing easy mounting for virtually any application

Finish:

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

Warranty:

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

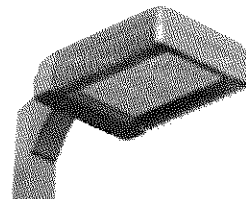
Listings:

- Listed to UL1598 and CSA C22.2#250.0-24 for wet locations

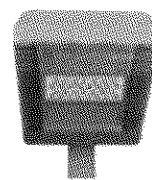
- Models meet DesignLights Consortium (DLC) qualifications, consult DLC website for more details: <http://www.designlights.org/QPL>

- IDA approved • IP65

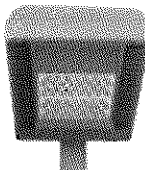
PRODUCT IMAGE(S)



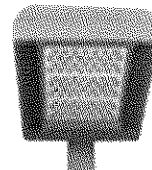
90 LED 3/4 VIEW



30 LED

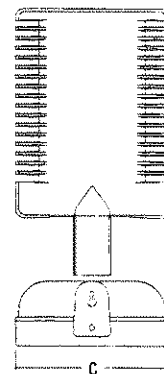
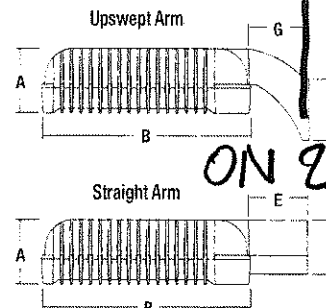


60 LED



90 LED

DIMENSIONS



A	B	C	D	E	F	G
6 3/4" 171mm	21 3/4" 552mm	18" 406mm	6 5/8" 168mm	8 5/16" 160mm	5 5/8" 143mm	6 1/8" 159mm

CERTIFICATIONS/LISTINGS



*3000K and warmer CCTs only

ORDERING INFORMATION SEE NEXT PAGE



HUBBELL
Outdoor Lighting

Hubbell Outdoor Lighting • 701 Millennium Boulevard • Greenville, SC 29607 • Phone: 864-678-1000
Due to our continued efforts to improve our products, product specifications are subject to change without notice.



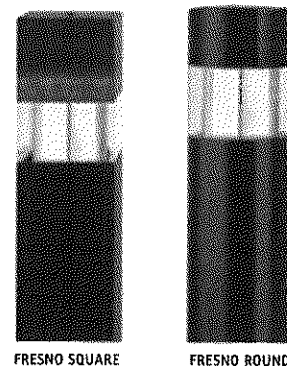
HUBBELL
Lighting

© 2018 HUBBELL OUTDOOR LIGHTING. All Rights Reserved • For more information visit our website: www.hubbelloutdoor.com • Printed in USA DL1LED-SPEC January 23, 2018 11:44 AM

Fresno FN

Bollards

- Rotatable LED assembly adjustment for ideal placement and aiming of asymmetric light pattern
- 24 high brightness LEDs at 500mA deliver symmetric distribution at 46w
- 12 high brightness LEDs at 700mA deliver asymmetric distribution at 30w
- Available in three different color correlated temperatures
- >60,000 HOUR L90
- Extruded aluminum housing with single screw access for top relamping; Decorative cast top with tamper resistant hardware
- Sealed one-piece, clear acrylic lens
- Durable Lektrocote™ TGIC thermoset polyester powder coat paint finish assures long life and maintenance-free service
- Concealed, cast aluminum anchor base; Four 1/2" x 10" anchor bolts on 4" diameter bolt circle
- Listed to UL1598 for use in wet locations
- 5 year limited system warranty



BOLLARDS

MADE-TO-ORDER ORDERING INFORMATION

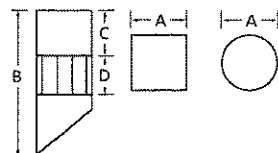
SERIES	SOURCE/WATTAGE/LED	VOLTAGE	COLOR	OPTIONS ¹
FN1 Fresno Square	12LU-3K asymmetric, 27W, 3000K CCT	U 120V-277V	DB Dark Bronze	CD 0-10V dimmable
FN2 Fresno Round	12LU-4K asymmetric, 27W, 4000K CCT	1 120	BL Black	24 24" OAH ²
	12LU-5K asymmetric, 27W, 5000K CCT	2 277	WH White	30 30" OAH ²
	24LU-3K symmetric, 41W, 3000K CCT	3 240	GR Gray	36 36" OAH ²
	24LU-4K symmetric, 41W, 4000K CCT	4 277	PS Platinum Silver	F(X) Fusing ³
	24LU-5K symmetric, 41W, 5000K CCT	5 480	RD Red (premium color)	P(X) Button Photocell ³
	24LU-AM symmetric, 20W, Amber 590nm	F 347	FG Forest Green (premium color)	ABS Bolts shipped ahead
			CC Custom Color (consult factory)	

¹ Any or all options may be used together

² Standard fixture height is 42", only one overall height (OAH) may be selected

³ Replace '(X)' with corresponding voltage (1=120, 2=208, 3=240, 4=277, 5=480, 6=347).
Button Photocell not available in 480V

DIMENSIONS



	A	B	C	D	Weight
FN1	6 3/4" sq. 171 mm	42" 1067 mm	6" 152 mm	4" 102 mm	41 lbs. 18.6 kg
FN2	7" dia. 178 mm	42" 1067 mm	6" 152 mm	4" 102 mm	41 lbs. 18.6 kg

RAY STREET
PORTLAND, MAINE

SEBAGO
T E C H N I C S

WWW.SEBAGOTECHNICS.COM

75 John Roberts Rd.
South Portland, ME 04106
Tel: 207-200-2100

FALLBROOK COMMONS DEVELOPMENT LLC.

217 COMMERCIAL STREET, SUITE 201
PORTLAND, MAINE 04106

COVER SHEET

FALLBROOK COMMONS

OF
FALLBROOK COMMONS
PORTLAND, MAINE

FOR:

DESIGNED DMD

DRAWN SRC

CHECKED DLR

DATE 05-15-20

SCALE AS SHOWN

PROJECT 18347

OFFICE OF
FALLBROOK COMMONS
PORTLAND, MAINE

FALLBROOK COMMONS DEVELOPMENT LLC.

217 COMMERCIAL STREET, SUITE 201
PORTLAND, MAINE 04106

DESIGNED DMD

DRAWN SRC

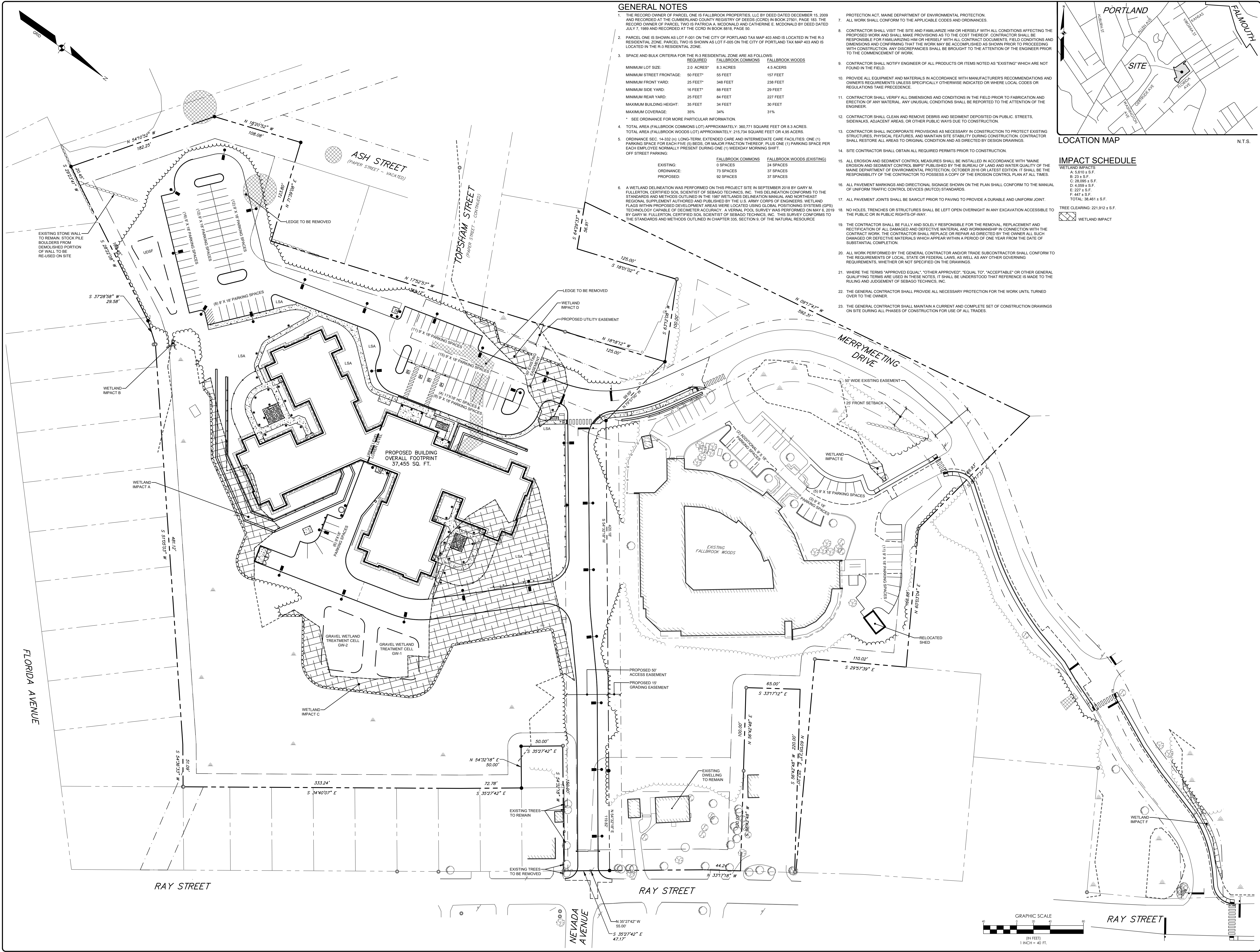
CHECKED DLR

DATE 05-15-20

SCALE AS SHOWN

PROJECT 18347

05/15/2020



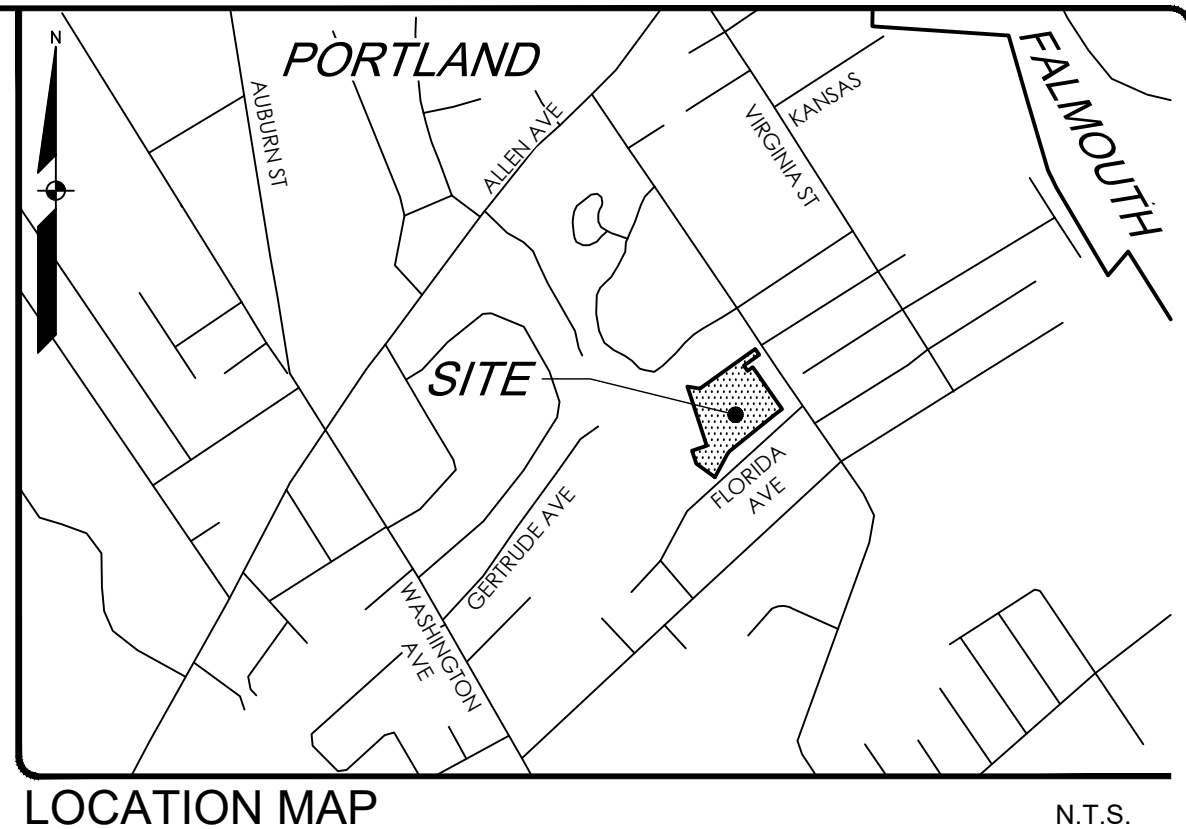
GENERAL NOTES

- THE RECORD OWNER OF PARCEL ONE IS FALLBROOK PROPERTIES, LLC BY DEED DATED DECEMBER 15, 2009 AND RECORDED AT THE CUMBERLAND COUNTY REGISTRY OF DEEDS (CGRD) IN BOOK 2761, PAGE 185. THE RECORD OWNER OF PARCEL TWO IS PATRICIA A. McDONALD AND CATHERINE E. McDONALD BY DEED DATED JULY 7, 1980 AND RECORDED AT THE CGRD IN BOOK 8818, PAGE 50.
- PARCEL ONE IS SHOWN AS LOT F-001 ON THE CITY OF PORTLAND TAX MAP 403 AND IS LOCATED IN THE R-3 RESIDENTIAL ZONE. PARCEL TWO IS SHOWN AS LOT F-005 ON THE CITY OF PORTLAND TAX MAP 403 AND IS LOCATED IN THE R-3 RESIDENTIAL ZONE.
- SPACE AND BULK CRITERIA FOR THE R-3 RESIDENTIAL ZONE ARE AS FOLLOWS:

REQUIRED	FALLBROOK COMMONS	FALLBROOK WOODS
MINIMUM LOT SIZE:	2.0 ACRES	4.5 ACRES
MINIMUM STREET FRONTAGE:	50 FEET	55 FEET
MINIMUM FRONT YARD:	25 FEET	348 FEET
MINIMUM SIDE YARD:	16 FEET	88 FEET
MINIMUM REAR YARD:	25 FEET	84 FEET
MAXIMUM BUILDING HEIGHT:	35 FEET	34 FEET
MAXIMUM COVERAGE:	35%	34%

* SEE ORDINANCE FOR MORE PARTICULAR INFORMATION.
- TOTAL AREA (FALLBROOK COMMONS LOT) APPROXIMATELY: 360,771 SQUARE FEET OR 8.3 ACRES.
TOTAL AREA (FALLBROOK WOODS LOT) APPROXIMATELY: 215,734 SQUARE FEET OR 4.96 ACERS.
- ORDINANCE SEC. 14.332 (n) LONG-TERM, EXTENDED CARE AND INTERMEDIATE CARE FACILITIES: ONE (1) PARKING SPACE FOR EACH FIVE (5) BEDS, OR MAJOR FRACTION THEREOF, PLUS ONE (1) PARKING SPACE PER EACH EMPLOYEE NORMALLY PRESENT DURING ONE (1) WEEKDAY MORNING SHIFT.
OFF STREET PARKING:

EXISTING	FALLBROOK COMMONS	FALLBROOK WOODS (EXISTING)
ORDINANCE:	0 SPACES	24 SPACES
PROPOSED:	73 SPACES	37 SPACES
- A WETLAND DELINEATION WAS PERFORMED ON THIS PROJECT SITE IN SEPTEMBER 2018 BY GARY M. FULLERTON, CERTIFIED SOIL SCIENTIST OF SEBAGO TECHNICS, INC. THIS DELINEATION CONFORMS TO THE STANDARDS AND METHODS OUTLINED IN THE 1987 WETLANDS DELINEATION MANUAL AND NORTHEAST REGIONAL SUPPLEMENT AUTHORED AND PUBLISHED BY THE U.S. ARMY CORPS OF ENGINEERS. WETLAND FLAGS WITHIN PROPOSED DEVELOPMENT AREAS WERE LOCATED USING GLOBAL POSITIONING SYSTEMS (GPS) TECHNOLOGY CAPABLE OF DECIMETER ACCURACY. A WETLAND POOL SURVEY WAS PERFORMED ON MAY 6, 2019 BY GARY M. FULLERTON, CERTIFIED SOIL SCIENTIST OF SEBAGO TECHNICS, INC. THIS SURVEY CONFORMS TO THE STANDARDS AND METHODS OUTLINED IN CHAPTER 335, SECTION 9, OF THE NATURAL RESOURCE PROTECTION ACT, MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION.
ALL WORK SHALL CONFORM TO THE APPLICABLE CODES AND ORDINANCES.
- CONTRACTOR SHALL VISIT THE SITE AND FAMILIARIZE HIM OR HERSELF WITH ALL CONDITIONS AFFECTING THE PROPOSED WORK AND SHALL MAKE PROVISIONS AS TO THE COST THEREOF. CONTRACTOR SHALL BE RESPONSIBLE FOR FAMILIARIZING HIM OR HERSELF WITH ALL CONTRACT DOCUMENTS, FIELD CONDITIONS AND DIMENSIONS AND CONFIRMING THAT THE WORK MAY BE ACCOMPLISHED AS SHOWN PRIOR TO PROCEEDING WITH CONSTRUCTION. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO THE COMMENCEMENT OF WORK.
- CONTRACTOR SHALL NOTIFY ENGINEER OF ALL PRODUCTS OR ITEMS NOTED AS "EXISTING" WHICH ARE NOT FOUND IN THE FIELD.
- PROVIDE ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS AND OWNER'S REQUIREMENTS UNLESS SPECIFICALLY OTHERWISE INDICATED OR WHERE LOCAL CODES OR REGULATIONS TAKE PRECEDENCE.
- CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS IN THE FIELD PRIOR TO FABRICATION AND ERECTION OF ANY MATERIAL. ANY UNUSUAL CONDITIONS SHALL BE REPORTED TO THE ATTENTION OF THE ENGINEER.
- CONTRACTOR SHALL CLEAN AND REMOVE DEBRIS AND SEDIMENT DEPOSITED ON PUBLIC STREETS, SIDEWALKS, ADJACENT AREAS, OR OTHER PUBLIC WAYS DUE TO CONSTRUCTION.
- CONTRACTOR SHALL INCORPORATE PROVISIONS AS NECESSARY IN CONSTRUCTION TO PROTECT EXISTING STRUCTURES, PHYSICAL FEATURES, AND MAINTAIN SITE STABILITY DURING CONSTRUCTION. CONTRACTOR SHALL RESTORE ALL AREAS TO ORIGINAL CONDITION AND AS DIRECTED BY DESIGN DRAWINGS.
- SITE CONTRACTOR SHALL OBTAIN ALL REQUIRED PERMITS PRIOR TO CONSTRUCTION.
- ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED IN ACCORDANCE WITH "MAINE EROSION AND SEDIMENT CONTROL BMP'S" PUBLISHED BY THE BUREAU OF LAND AND WATER QUALITY OF THE MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION, OCTOBER 2016 OR LATEST EDITION. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO POSSESS A COPY OF THE EROSION CONTROL PLAN AT ALL TIMES.
- ALL PAVEMENT MARKINGS AND DIRECTIONAL SIGNAGE SHOWN ON THE PLAN SHALL CONFORM TO THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) STANDARDS.
- ALL PAVEMENT JOINTS SHALL BE SAWCUT PRIOR TO PAVING TO PROVIDE A DURABLE AND UNIFORM JOINT.
- NO HOLES, TRENCHES OR STRUCTURES SHALL BE LEFT OPEN OVERNIGHT IN ANY EXCAVATION ACCESSIBLE TO THE PUBLIC OR IN PUBLIC RIGHTS-OF-WAY.
- THE CONTRACTOR SHALL BE FULLY AND SOLELY RESPONSIBLE FOR THE REMOVAL, REPLACEMENT AND RECTIFICATION OF ALL DAMAGED AND DEFECTIVE MATERIAL AND WORKMANSHIP IN CONNECTION WITH THE CONTRACT WORK. THE CONTRACTOR SHALL REPLACE OR REPAIR AS DIRECTED BY THE OWNER ALL SUCH DAMAGED OR DEFECTIVE MATERIALS WHICH APPEAR WITHIN A PERIOD OF ONE YEAR FROM THE DATE OF SUBSTANTIAL COMPLETION.
- ALL WORK PERFORMED BY THE GENERAL CONTRACTOR AND/OR TRADE SUBCONTRACTOR SHALL CONFORM TO THE REQUIREMENTS OF LOCAL, STATE OR FEDERAL LAWS, AS WELL AS ANY OTHER GOVERNING REQUIREMENTS, WHETHER OR NOT SPECIFIED ON THE DRAWINGS.
- WHERE THE TERMS "APPROVED EQUAL," "OTHER APPROVED," "EQUAL TO," "ACCEPTABLE" OR OTHER GENERAL QUALIFYING TERMS ARE USED IN THESE NOTES, IT SHALL BE UNDERSTOOD THAT REFERENCE IS MADE TO THE RULING AND JUDGEMENT OF SEBAGO TECHNICS, INC.
- THE GENERAL CONTRACTOR SHALL PROVIDE ALL NECESSARY PROTECTION FOR THE WORK UNTIL TURNED OVER TO THE OWNER.
- THE GENERAL CONTRACTOR SHALL MAINTAIN A CURRENT AND COMPLETE SET OF CONSTRUCTION DRAWINGS ON SITE DURING ALL PHASES OF CONSTRUCTION FOR USE OF ALL TRADES.



IMPACT SCHEDULE

WETLAND IMPACTS

A:	5,610 ± S.F.
B:	23 ± S.F.
C:	28,095 ± S.F.
D:	4,059 ± S.F.
E:	227 ± S.F.
F:	447 ± S.F.
TOTAL:	38,461 ± S.F.

TREE CLEARING: 211,912 ± S.F.

WETLAND IMPACT

18-0475-0.mxd, TAB 5

DESIGNED: DMD
DRAWN: SRC
CHECKED: DLR
DATE: 05-15-20
SCALE: 1" = 40'
PROJECT: 18347

OVERALL SITE PLAN
OF:
FALLBROOK COMMONS
RAY STREET
PORTLAND, MAINE
FOR:
FALLBROOK COMMONS DEVELOPMENT LLC.
202 COMMERCIAL STREET, SUITE 201
PORTLAND, MAINE 04112

SEBAGO TECHNICS
WWW.SEBOGOTECHNICS.COM
75 JOHNSON STREET, 3RD FLOOR
SOUTH PORTLAND, ME 04106
TEL: 207-205-2100

DANIEL L. RILEY, P.E. 6096
DANIEL M. DANKERS, R.L.A. 4815
DANIEL M. DANKERS, R.L.A. 4815
NOT FOR CONSTRUCTION
B DMD 05-15-20 SUBMITTED FOR RESPONSE TO COMMENTS
A DMD 12-18-19 SUBMIT TO CITY OF PORTLAND
REV: BY: DATE: STATUS:
THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM SEBAGO TECHNICS, INC. ANY ALTERATIONS, ADDITIONS OR DELETIONS SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO SEBAGO TECHNICS, INC.



GENERAL NOTES

- THE RECORD OWNER OF PARCEL ONE IS FALLBROOK PROPERTIES, LLC BY DEED DATED DECEMBER 13, 2009 AND RECORDED AT THE CUMBERLAND COUNTY REGISTRY OF DEEDS (C20D) IN BOOK 27501, PAGE 183. THE RECORD OWNER OF PARCEL TWO IS PATRICIA A. McDONALD AND CATHERINE E. McDONALD BY DEED DATED JULY 1, 1980 AND RECORDED AT THE CORD IN BOOK 818, PAGE 55.
- PARCEL ONE IS SHOWN AS LOT F-001 ON THE CITY OF PORTLAND TAX MAP 403 AND IS LOCATED IN THE R-3 RESIDENTIAL ZONE. PARCEL TWO IS SHOWN AS LOT F-005 ON THE CITY OF PORTLAND TAX MAP 403 AND IS LOCATED IN THE R-3 RESIDENTIAL ZONE.
- SPACE AND BULK CRITERIA FOR THE R-3 RESIDENTIAL ZONE ARE AS FOLLOWS:

REQUIRED	FALLBROOK COMMONS	FALLBROOK WOODS
MINIMUM LOT SIZE	2.8 ACRES	4.5 ACRES
MINIMUM STREET FRONTAGE	50 FEET	55 FEET
MINIMUM FRONT YARD	25 FEET	30 FEET
MINIMUM SIDE YARD	10 FEET	10 FEET
MINIMUM REAR YARD	25 FEET	30 FEET
MAXIMUM BUILDING HEIGHT	35 FEET	30 FEET
MAXIMUM COVERAGE	30%	31%
- * SEE ORDINANCE FOR MORE PARTICULAR INFORMATION.
- TOTAL AREA FALLBROOK COMMONS LOT APPROXIMATELY 350,771 SQUARE FEET OR 8.3 ACRES. TOTAL AREA FALLBROOK WOODS LOT APPROXIMATELY 215,734 SQUARE FEET OR 4.95 ACRES.
- ORDINANCE SEC. 14-332 (a) LONG-TERM, EXTENDED CARE AND INTERMEDIATE CARE FACILITIES, ONE (1) PARKING SPACE FOR EACH FIVE (5) BEDS, OR MAJOR FACILITY THEREOF, PLUS ONE (1) PARKING SPACE PER EACH EMPLOYEE NORMALLY PRESENT DURING ONE (1) WEEK-DAY MORNING SHIFT.
- A WETLAND DELINEATION WAS PERFORMED ON THIS PROJECT SITE IN SEPTEMBER 2018 BY GARY M. FULLERTON, CERTIFIED SOIL SCIENTIST OF SEBAGO TECHNIQS, INC. THIS DELINEATION CONFORMS TO THE STANDARDS AND METHODS OUTLINED IN THE 1984 WETLANDS DELINEATION MANUAL AND NORTH EAST REGIONAL SUPPLEMENT AUTHORIZED AND PUBLISHED BY THE U.S. ARMY CORPS OF ENGINEERS. WETLAND PLANS WITHIN PROPOSED DEVELOPMENT AREAS WERE LOCATED USING GLOBAL POSITIONING SYSTEMS (GPS) TECHNOLOGY CAPABLE OF DECI-METER ACCURACY. A VISUAL POCK SURVEY WAS PERFORMED ON MAY 14, 2019 BY GARY M. FULLERTON, CERTIFIED SOIL SCIENTIST OF SEBAGO TECHNIQS, INC. THIS SURVEY CONFORMS TO THE STANDARDS AND METHODS OUTLINED IN CHAPTER 335, SECTION 9. OF THE NATURAL RESOURCE

- PROTECTION ACT, MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION. ALL WORK SHALL CONFORM TO THE APPLICABLE CODES AND ORDINANCES.
- CONTRACTOR SHALL VISIT THE SITE AND FAMILIARIZE HIM OR HERSELF WITH ALL CONDITIONS AFFECTING THE PROJECT. CONTRACTOR SHALL BE RESPONSIBLE FOR FAMILIARIZING HIM OR HERSELF WITH ALL CONTRACT DOCUMENTS, FIELD CONDITIONS AND DIMENSIONS AND CONFIRMING THAT THE WORK HAVING BEEN ACCURATELY IDENTIFIED PRIOR TO PROCEEDING WITH CONSTRUCTION. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO THE COMMENCEMENT OF WORK.
- CONTRACTOR SHALL NOTIFY ENGINEER OF ALL PRODUCTS OR ITEMS NOTED AS "EXISTING" WHICH ARE NOT FOUND IN THE FIELD.
- PROVIDE ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS AND OWNER'S REQUIREMENTS UNLESS SPECIFICALLY OTHERWISE INDICATED OR WHERE LOCAL CODES OR REGULATIONS TAKE PRECEDENCE.
- CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS IN THE FIELD PRIOR TO FABRICATION AND ERECTION OF ANY MATERIAL. ANY UNUSUAL CONDITIONS SHALL BE REPORTED TO THE ATTENTION OF THE ENGINEER.
- CONTRACTOR SHALL CLEAN AND REMOVE DEBRIS AND SEDIMENT DEPOSITED ON PUBLIC STREETS, SIDEWALKS, ADJACENT AREAS, OR OTHER PUBLIC WAYS DUE TO CONSTRUCTION.
- CONTRACTOR SHALL INCORPORATE PROVISIONS AS NECESSARY IN CONSTRUCTION TO PROTECT EXISTING STRUCTURES, PHYSICAL FEATURES, AND MAINTAIN SITE STABILITY DURING CONSTRUCTION. CONTRACTOR SHALL RESTORE ALL AREAS TO ORIGINAL CONDITION AND AS DIRECTED BY DESIGN DRAWINGS.
- SITE CONTRACTOR SHALL OBTAIN ALL REQUIRED PERMITS PRIOR TO CONSTRUCTION.
- ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED IN ACCORDANCE WITH "MAINE EROSION AND SEDIMENT CONTROL BMPs" PUBLISHED BY THE BUREAU OF LAND AND WATER QUALITY OF THE MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION, OCTOBER 2018 OR LATEST EDITION. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO POSSESS A COPY OF THE EROSION CONTROL PLAN AT ALL TIMES.
- ALL PAVEMENT MARKINGS AND DIRECTIONAL SIGNAGE SHOWN ON THE PLAN SHALL CONFORM TO THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) STANDARDS.
- ALL PAVEMENT JOINTS SHALL BE SAWCUT PRIOR TO PAVING TO PROVIDE A DURABLE AND UNIFORM JOINT.
- NO HOLES, TRENCHES OR STRUCTURES SHALL BE LEFT OPEN OR OVERNIGHT IN ANY EXCAVATION ACCESSIBLE TO THE PUBLIC OR IN PUBLIC RIGHTS-OF-WAY.
- THE CONTRACTOR SHALL BE FULLY AND SOLELY RESPONSIBLE FOR THE REMOVAL, REPLACEMENT AND RECTIFICATION OF ALL DAMAGED AND DEFECTIVE MATERIAL AND WORKMANSHIP IN CONNECTION WITH THE CONTRACT. WORK THE CONTRACTOR SHALL REPAIR OR REPAIR AS DIRECTED BY THE OWNER ALL SUCH DAMAGED OR DEFECTIVE MATERIALS WHICH APPEAR WITHIN A PERIOD OF ONE YEAR FROM THE DATE OF SUBstantial COMPLETION.
- ALL WORK PERFORMED BY THE GENERAL CONTRACTOR AND/OR TRADE SUBCONTRACTOR SHALL CONFORM TO THE REQUIREMENTS OF LOCAL, STATE OR FEDERAL LAWS, AS WELL AS ANY OTHER GOVERNING REQUIREMENTS WHICH ARE NOT SPECIFIED ON THE DRAWINGS.
- WHERE THE TERMS "APPROVED EQUAL," "OTHER APPROVED," "EQUAL TO," "ACCEPTABLE" OR OTHER GENERAL QUALIFYING TERMS ARE USED IN THESE NOTES, IT SHALL BE UNDERSTOOD THAT REFERENCE IS MADE TO THE RULING AND JUDGEMENT OF SEBAGO TECHNIQS, INC.
- THE GENERAL CONTRACTOR SHALL PROVIDE ALL NECESSARY PROTECTION FOR THE WORK UNTIL TURNED OVER TO THE OWNER.
- THE GENERAL CONTRACTOR SHALL MAINTAIN A CURRENT AND COMPLETE SET OF CONSTRUCTION DRAWINGS ON SITE DURING ALL PHASES OF CONSTRUCTION FOR USE OF ALL TRADES.

IMPACT SCHEDULE

WETLAND IMPACTS	
A	5,819 ± S.F.
B	23 ± S.F.
C	28,095 ± S.F.
D	4,059 ± S.F.
E	227 ± S.F.
F	447 ± S.F.
TOTAL	35,461 ± S.F.

TREE CLEARING: 221,812 ± S.F.

WETLAND IMPACT



DANIEL M. DAVIES RLA 4815

DANIEL L. RILEY PE 6698

NOT FOR CONSTRUCTION

B	DMD 05-15-20	SUBMITTED FOR RESPONSE TO COMMENTS	
A	DMD 12-18-19	SUBMIT TO CITY OF PORTLAND	
REV.	BY:	DATE:	STATUS:

THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM SEBAGO TECHNIQS, INC. ANY ALTERATIONS, ADDITIONS OR DELETIONS SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO SEBAGO TECHNIQS, INC.

SEBAGO
TECHNIQS
INC.

WWW.SEAGOTECHNIQS.COM
75 JOHNSON ROAD
SOUTH PORTLAND, ME 04106
TEL: 207-200-2100

OVERALL SITE PLAN
OF:
FALLBROOK COMMONS
RAY STREET
PORTLAND, MAINE

FOR:
FALLBROOK COMMONS DEVELOPMENT LLC.
202 COMMERCIAL STREET, SUITE 201
PORTLAND, MAINE 04101

DESIGNED	DMD
DRAWN	SRG
CHECKED	DLR
DATE	05-15-20
SCALE	1" = 40'
PROJECT	18347

SHEET 3 OF 23

EXISTING	PROPOSED
PROPERTY LINE R.O.W.	PROPERTY LINE R.O.W.
ABUTTER LINE R.O.W.	ABUTTER LINE R.O.W.
DEED LINE R.O.W.	DEED LINE R.O.W.
TIE LINE	TIE LINE
SETBACK	SETBACK
EASEMENT	EASEMENT
BUFFER	BUFFER
FLOODPLAIN	FLOODPLAIN
FLOODWAY	FLOODWAY
CENTERLINE	CENTERLINE
MONUMENT	MONUMENT
IRON PIPEPOD	IRON PIPEPOD
DRILL HOLE	DRILL HOLE
C1/L1	C1/L1
DEED CALL	DEED CALL
CURVILINE NO.	CURVILINE NO.
SOILS	SOILS
ZONE LINE	ZONE LINE
ZONE LINE ON PL.	ZONE LINE ON PL.
BENCHMARK DESCRIPTION WITH ELEVATION	BENCHMARK
SURVEY CONTROL	SURVEY CONTROL
TP-1	TP-1
MONITORING WELL	MONITORING WELL
B-1	B-1
BUILDING	BUILDING
DECK/STEPS/ OVERHANG	DECK/STEPS/ OVERHANG
EDGE WETLAND	EDGE WETLAND
WETLANDS	WETLANDS
URLANDS	URLANDS
STREAM	STREAM
LEDGE	LEDGE
EDGE PAVEMENT	EDGE PAVEMENT
PAVEMENT SAWCUT	PAVEMENT SAWCUT
EDGE CONCRETE	EDGE CONCRETE
PAVEMENT PAINT	PAVEMENT PAINT
EDGE GRAVEL	EDGE GRAVEL
CURB LINE	CURB LINE
EDGE OF WATER	EDGE OF WATER
TREELINE	TREELINE
-120.00 -118	-120.00
SPOT GRADE	SPOT GRADE
CHAIN LINK FENCE	CHAIN LINK FENCE
BARB WIRE FENCE	BARB WIRE FENCE
X	X
STOCKADE FENCE	STOCKADE FENCE
GUARDRAIL	GUARDRAIL
STONE WALL	STONE WALL
RETAINING WALL	RETAINING WALL
DECIDUOUS TREE	DECIDUOUS TREE
CONIFEROUS TREE	CONIFEROUS TREE
MULCH LINE	MULCH LINE
BOLLARD	BOLLARD
SIGN	SIGN
RAILROAD	RAILROAD
GAS	GAS
GAS GAS VALVE	GAS GAS VALVE
GAS METER	GAS METER
GAS MANHOLE	GAS MANHOLE
WATER	WATER
WATER GAS VALVE	WATER GAS VALVE
WATER SHUT OFF	WATER SHUT OFF
HYDRANT	HYDRANT
WATER MANHOLE	WATER MANHOLE
WELL	WELL
SANITARY SEWER	SANITARY SEWER
FORCE MAIN	FORCE MAIN
SANITARY MANHOLE	SANITARY MANHOLE
SD	SD
STORM DRAIN	STORM DRAIN
UD	UD
UNDER DRAIN	UNDER DRAIN
DRAINAGE MANHOLE	DRAINAGE MANHOLE
CATCH BASIN	CATCH BASIN
ORPU	ORPU
OVERHEAD UTILITY	OVERHEAD UTILITY
UGU	UGU
UNDERGROUND UTILITY	UNDERGROUND UTILITY
TRANSFORMER PAD	TRANSFORMER PAD
ELECTRICAL MANHOLE	ELECTRICAL MANHOLE
ELECTRIC METER	ELECTRIC METER
HVAC UNIT	HVAC UNIT
TELEPHONE MANHOLE	TELEPHONE MANHOLE
LIGHT POLE	LIGHT POLE
UTILITY POLE	UTILITY POLE
GUY WIRE	GUY WIRE
DRAINAGE DITCH	DRAINAGE DITCH
EROSION CONTROL BLANKET	EROSION CONTROL BLANKET
FILTER BARRIER	FILTER BARRIER
RIPRAP	RIPRAP
CHECK DAM	CHECK DAM
INLET PROTECTION BOULDER	INLET PROTECTION BOULDER
STONE DRIP EDGE	STONE DRIP EDGE
ROOF OVERHANG	ROOF OVERHANG
TREE TO BE REMOVED	TREE TO BE REMOVED

DUCTILE IRON	DI
HIGH-DENSITY	
POLYETHYLENE	HDPE
LANDSCAPED AREA	LSA
MEET EXISTING	±ME
MECHICAL JOIN	MJ

1. THE RECORD OWNER OF PARCEL ONE IS FALLBROOK PROPERTIES, LLC BY DEED DATED DECEMBER 15, 2009 AND RECORDED AT THE CUMBERLAND COUNTY REGISTER OF DEEDS (CCRD) IN BOOK 2750, PAGE 58. THE RECORD OWNER OF PARCEL TWO IS PATRICIA A. McDONALD AND CATHERINE E. McDONALD BY DEED DATED JULY 7, 1989 AND RECORDED AT THE CCRD IN BOOK 8818, PAGE 50.

2. PARCEL ONE IS SHOWN AS LOT F-001 ON THE CITY OF PORTLAND TAX MAP 403 AND IS LOCATED IN THE R-3 RESIDENTIAL ZONE. PARCEL TWO IS SHOWN AS LOT F-005 ON THE CITY OF PORTLAND TAX MAP 403 AND IS LOCATED IN THE R-3 RESIDENTIAL ZONE.

3. SPACE AND BULK CRITERIA FOR THE R-3 RESIDENTIAL ZONE ARE AS FOLLOWS:

MINIMUM LOT SIZE:	2 ACRES*
MINIMUM STREET FRONTAGE:	50 FEET*
MINIMUM FRONT YARD:	25 FEET*
MINIMUM SIDE YARD:	16 FEET*
MINIMUM REAR YARD:	25 FEET
MAXIMUM BUILDING HEIGHT:	35 FEET
MAXIMUM LOT COVERAGE:	35%

* SEE ORDINANCE FOR MORE PARTICULAR INFORMATION.

- TOTAL AREA OF PARCEL ONE IS APPROXIMATELY 12.78 ACRES. TOTAL AREA OF PARCEL TWO IS APPROXIMATELY 19.573 SQUARE FEET OR 0.443 ACRES.
5. BOUNDARY INFORMATION FOR PARCEL ONE IS AS DEPICTED ON PLAN REFERENCE 6A, SEBAGO TECHNICS, INC. HAS NOT PERFORMED AN INDEPENDENT BOUNDARY REAPPRAISAL SURVEY. BOUNDARY INFORMATION FOR PARCEL TWO IS AS DEPICTED ON PLAN REFERENCE 6B, SEBAGO TECHNICS, INC. HAS NOT PERFORMED AN INDEPENDENT BOUNDARY REAPPRAISAL SURVEY. TOPOGRAPHIC INFORMATION FOR PARCEL ONE AND TWO IS BASED UPON FIELD WORK PERFORMED BY SEBAGO TECHNICS, INC. IN MAY OF 2019 AND IN JULY OF 2019.
- PLAN REFERENCES:
- A. "PLAN OF LAND OF FALLBROOK WOODS ON PARK STREET, PORTLAND, MAINE PREPARED FOR THE BOARD OF FORD FALLBROOK, INC. 7340YD LANE, FALMOUTH, MAINE 04101 BY LAND USE CONSULTANTS, DATED SEPTEMBER 28, 1992 AND REVISION DATED OCTOBER 9, 1992 AND RECORDED AT THE CREDITED PLAN BOOK 193, PAGE 248.
- B. "CONDOMINIUM PLAN #11 FOR FALLBROOK, A CONDOMINIUM ON PARK STREET, PORTLAND, MAINE FOR MERIDIAN CORP. BY OWEN HANSELL, INC. DATED MAY 11, 1998 AND RECORDED AT THE CREDITED PLAN BOOK 185, PAGE 15.
- C. "PLAN OF WADCO PARK, PROPERTY OF DERHAM AND WESTCO, WASHINGTON, V.A. PORTLAND, MAINE" DATED AUGUST 1905 AND RECORDED AT THE CGRD IN PLAN BOOK 12, 1905.
- D. "THE PINES, PORTLAND MAINE, OWNED BY THE A.H. CHAPMAN LAND CO., PORTLAND, MAINE, SECTION 'A' BY PERCY H. RICHARDSON, C.E. DATED APRIL 1925.
7. PLAN ORIENTATION IS GRID NORTH. MAINE STATE PLANE COORDINATE SYSTEM, WEST ZONE COORDINATES DEPICTED HEREON ARE NGVD29, BASED ON DUAL FREQUENCY GPS OBSERVATIONS.
8. PER STANDARDS ASCC 3.6-2; SANITARY AND STORM DRAINAGE LINES SHOWN HEREON ARE QUALITY LEVEL B; ELECTRIC, COMMUNICATION, AND WATER LINES SHOWN HEREON ARE QUALITY LEVEL B, AS DELINEATED BY DIGISMAF OF MAINE IN MAY 2019. GAS LINES SHOWN HEREON ARE QUALITY LEVEL B BASED UPON FOUND ABOVE GROUND EVIDENCE. CONTRACTORS AND/OR DESIGNERS NEED NOT CONTACT DIG-SAFE SYSTEMS, INC. (1-888-DIG-SAFE) AND FIELD VERIFY EXISTING UTILITIES WITHIN THE PROJECT AREA PRIOR TO CONSTRUCTION AND/OR EXCAVATION.
9. THE LOCUS PROPERTIES AS DEPICTED HEREON DOES NOT FALL WITHIN A SPECIAL FLOOD HAZARD AREA AS DELINEATED ON THE FLOOD INSURANCE RATE MAP FOR PORTLAND, MAINE, CANCELLED AND CANCELLED, EFFECTIVE DATE 0005/10/00, HAVING AN EFFECTIVE DATE OF DECEMBER 8, 1998. THE LOCUS FALLS WITHIN AN AREA IDENTIFIED AS ZONE X, AREAS DETERMINED TO BE OUTSIDE THE 500-YEAR FLOODPLAIN.
10. PER THE CITY OF PORTLAND, MAINE, ASH STREET AND WADCO STREET HAVE BEEN VACATED. THESE STREETS PER THE CITY OF PORTLAND, MAINE, ARE NOT TO BE RECONSTRUCTED BY M.A.S.A. 30277. THERE MAY STILL BE RIGHTS ACQUIRED WITH THE PAPER STREET FOR THE LOTS AS DEPICTED IN PLAN REFERENCE 6B.
11. A WELLHEAD DELINEATION WAS PERFORMED ON THIS PROJECT SITE IN SEPTEMBER 2018 BY GARY M. FULLERTON, CERTIFIED SOIL, SCIENTIST OF SEBAGO TECHNICS, INC. THIS DELINEATION WAS USED TO DETERMINE THE LOCATION OF THE SUBSURFACE WATER TABLE. THE DELINEATION MANUAL AND NORTHEAST REGIONAL SUPPLEMENT AUTHORED AND PUBLISHED BY THE U.S. ARMY CORP OF ENGINEERS, WASHINGTON, D.C. 20315, MAY 1997, IS USED TO CONFORM TO THE LOCATION LOCATED USING GLOBAL POSITIONING SYSTEMS (GPS) TECHNOLOGY CAPABLE OF DECIHER ACCURACY. A VERNAL POOL SURVEY WAS PERFORMED ON MAY 6, 2019 BY GARY M. FULLERTON, CERTIFIED SOIL, SCIENTIST OF SEBAGO TECHNICS, INC. THIS SURVEY CONFORMS TO THE STANDARDS AND METHODS OUTLINED IN CHAPTER 353, SECTION 9. OF THE NATURAL RESOURCE PROTECTION ACT, MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION.
12. ALL WORK SHALL CONFORM TO THE APPLICABLE CODES AND ORDINANCES.
- CONTRACTOR SHALL VISIT THE SITE AND FAMILIARIZE HIM OR HERSELF WITH ALL CONDITIONS AFFECTING THE PROPOSED WORK AND SHALL MAKE PROVISIONS AS TO THE COST THEREOF. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS WITH ALL CONTRACT DOCUMENTS, FIELD CONDITIONS AND DIMENSIONS AND CONFIRMING THAT THE WORK MAY BE COMPLETED WITHIN THE SPECIFIED TIME FRAME. CONTRACTOR SHALL BE RESPONSIBLE FOR THE COSTS BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO THE COMMENCEMENT OF WORK.
13. CONTRACTOR SHALL NOTIFY ENGINEER PRIOR TO ALL STRUCTURES OR ITEMS NOTED AS "EXISTING" WHICH ARE NOT IN PLACE IN THE FIELD.
14. PROVIDE ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURERS' RECOMMENDATIONS AND OWNER'S REQUIREMENTS (UNLESS SPECIFICALLY OTHERWISE INDICATED) OR WHERE LOCAL CODES OR REGULATIONS TAKE PRECEDENCE.
15. CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS IN THE FIELD PRIOR TO FABRICATION AND ERECTION OF ANY MATERIAL. ANY UNUSUAL CONDITIONS SHALL BE REPORTED TO THE ATTENTION OF THE ENGINEER.
16. CONTRACTOR SHALL CLEAN AND REMOVE DEBRIS AND SEDIMENT DEPOSITED ON PUBLIC STREETS, SIDEWALKS, ADJACENT AREAS, OR OTHER PUBLIC WAYS DUE TO CONSTRUCTION.
17. CONTRACTOR SHALL INCORPORATE PROVISIONS AS NECESSARY IN CONSTRUCTION TO PROTECT EXISTING STRUCTURES, PHYSICAL FEATURES, AND MAINTAIN SITE STABILITY DURING CONSTRUCTION. CONTRACTOR SHALL RESTORE ALL AREAS TO ORIGINAL CONDITION AND AS DIRECTED BY DESIGN DRAWINGS.
18. SITE CONTRACTOR SHALL OBTAIN ALL REQUIRED PERMITS PRIOR TO CONSTRUCTION.
19. ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED IN ACCORDANCE WITH EROSION CONTROL AND SEDIMENT CONTROL BARS PUBLISHED BY THE BUREAU OF LAND AND WATER QUALITY OF THE MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION, OCTOBER 2016. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL REQUIRED PERMITS TO POSSESS A COPY OF THE EROSION CONTROL PLAN, AT ALL TIMES.
20. THE CONTRACTOR IS HEREBY CAUTIONED THAT ALL SITE FEATURES SHOWN HEREON ARE BASED ON FIELD OBSERVATIONS BY THE SURVEYOR AND BY INFORMATION PROVIDED BY UTILITY COMPANIES. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL INFORMATION ON ANY EXISTING UTILITIES WHICH MAY CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THESE PLANS. IF A UTILITY CONFLICT ARISES, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE OWNER, THE MUNICIPAL ENGINEER AND APPROPRIATE UTILITY COMPANY PRIOR TO PROCEEDING WITH ANY RELOCATION.
21. CONTRACTOR SHALL BE AWARE THAT IDENTIFY ONLY NOTIFIES ITS "MEMBER UTILITY ADJUSTERS" OF THE WHEN IDENTIFYING UTILITIES. ADVISE CONTRACTOR OF MEMBER UTILITIES IN THE AREA. CONTRACTOR IS RESPONSIBLE FOR IDENTIFYING AND CONTACTING NON-MEMBER UTILITY COMPANIES. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL INFORMATION ON ANY EXISTING UTILITIES WHICH MAY CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THESE PLANS. IF A UTILITY CONFLICT ARISES, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE OWNER, THE MUNICIPAL ENGINEER AND APPROPRIATE UTILITY COMPANY PRIOR TO PROCEEDING WITH ANY RELOCATION.
22. CONTRACTORS SHALL BE RESPONSIBLE FOR COMPLIANCE WITH THE REQUIREMENTS OF 23 MRSA 3360-A. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE WITH THE MUNICIPAL ENGINEER AND THE MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION TO OBTAIN ALL REQUIRED PERMITS TO CONDUCT ANY WORKS/WORKSMAN IN CONNECTION WITH THE CONTRACT WORK. THE CONTRACTOR SHALL REPLACE OR REPAIR AS DIRECTED BY THE OWNER ALL SUCH DAMAGED OR DEFECTIVE MATERIALS WHICH ARE DAMAGED OR DEFECTIVE DURING THE WORK.
23. ALL WORK PERFORMED BY THE GENERAL CONTRACTOR AND/OR TRADE SUBCONTRACTOR SHALL CONFORM TO THE REQUIREMENTS OF LOCAL, STATE OR FEDERAL LAWS, AS WELL AS ANY OTHER GOVERNING REQUIREMENTS, WHETHER OR NOT SPECIFIED ON THE DRAWINGS.
24. WHERE THE TERMS "APPROVED QUALITY," "OTHER APPROVED," "EQUAL TO," "ACCEPTABLE" OR OTHER GENERAL "QUALITY/VOLUNTARY" TERMS ARE USED IN THESE NOTES, IT SHALL BE UNDERSTOOD THAT THE MEANING IS MADE BY THE BOARDING AND JUDGED BY SEBAGO TECHNICS, INC.
25. THE GENERAL CONTRACTOR SHALL PROVIDE ALL NECESSARY MATERIALS FOR THE WORK UNTIL TURNED OVER TO THE OWNER.
26. THE GENERAL CONTRACTOR SHALL MAINTAIN A CURRENT AND COMPLETE SET OF CONSTRUCTION DRAWINGS ON SITE DURING ALL PHASES OF CONSTRUCTION FOR USE OF ALL

THE CONTRACTOR SHALL TAKE FULL RESPONSIBILITY FOR ANY CHANGES AND DEVIATION OF APPROVED PLANS NOT AUTHORIZED BY THE ARCHITECT/ENGINEER AND/OR CLIENT/OWNER.

DETAILS ARE INTENDED TO SHOW END RESULT OF DESIGN. ANY MODIFICATION TO SUCH FIELD DIMENSION AND CONDITION SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW AND APPROVAL PRIOR TO ANY WORK.

BEFORE THE FINAL ACCEPTANCE OF THE PROJECT, THE CONTRACTOR SHALL REMOVE ALL EQUIPMENT AND MATERIALS, REPAIR OR REPLACE PRIVATE OR PUBLIC PROPERTY WHICH MAY BE DAMAGED OR DAMAGED TO CONSTRUCTION, CLEAN THE AREAS WITHIN AND ADJACENT TO THE PROJECT WHICH HAVE BEEN OBSTRUCTED BY HIS/HER OPERATIONS, AND LEAVE THE PROJECT AREA NEAT AND PRESENTABLE.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING FLOW THROUGH THE EXISTING CLOSURE TO MAINTAIN DRAINAGE SYSTEMS, CONSTRUCTION AND SHALL SUBMIT A WORK PLAN FOR APPROVAL BY THE DESIGN ENGINEER.

TILITY DEMOLITION NOTES

PROTECT EXISTING BOUNDARY LINE MONUMENTATION IF DISTURBED, EXISTING VERTICES MONUMENTATION TO BE RESET BY A PROFESSIONAL LAND SURVEYOR.

DEMOLITION OF UTILITIES REQUIRING TREE REMOVAL SHALL BE COORDINATED WITH THE OWNER AND IN ACCORDANCE WITH PROJECT PLANS.

UTILITY DEMOLITION SHALL BE COMPLETED IN COORDINATION WITH NEW INFRASTRUCTURE. CONTRACTOR SHALL ENSURE EXISTING SURFACE DRAINAGE IS MAINTAINED DURING CONSTRUCTION.

PROTECT EXISTING UTILITIES ALONG IN PUBLIC R.O.W. UNLESS NOTED OTHERWISE.

DEMOLITION SHOWN IS FOR MAJOR SITE ELEMENTS TO BE DEMOLISHED. OTHER MINOR DEMOLITION MAY BE REQUIRED AS PART OF CONSTRUCTION AND SHALL BE CONSIDERED ADDITIONAL TO THE DEMOLITION CONSTRUCTION. COORDINATE ALL DEMOLITION WORK WITH SITE AND BUILDING DRAWINGS.

PRIOR TO ANY DEMOLITION, THE CONTRACTOR SHALL SUBMIT A SEQUENCE OF DEMOLITION PLANS TO THE OWNER. THIS PLAN SHALL DEPICT LOCATIONS OF PROPOSED TERMINATIONS AND TEMPORARY STRUCTURES THAT WILL BE NEEDED.

CONTRACTOR REQUIRED TO COMPLY/MAINTAIN BENCHMARKS, IF IMPACTED CONTRACTOR IS RESPONSIBLE FOR NOTIFICATION/RELOCATION AND COORDINATION WITH PROJECT TEAM.

UTILITY INFORMATION DEPICTED HEREIN IS COMPILED USING PHYSICAL EVIDENCE LOCATED IN THE UTILITIES DEPICTED HEREON BUT NOT NECESSARILY REPRESENT ALL EXISTING UTILITIES. CONTRACTORS AND/OR DESIGNERS NEED TO CONTACT DIG-SAFE SYSTEMS, INC. 1-888-633-6245 AND FIELD VERIFY EXISTING UTILITIES PRIOR TO CONSTRUCTION AND/OR EXCAVATION. PROTECT EXISTING SEWER PIPE AND ADJUST MANHOLE RIMS TO GRADE WHERE APPLICABLE.

2. GRADE VENTED PIPES SHALL BE INSTALLED USING A PIPE LASER AND TARGET SYSTEM THROUGH THE PIPE. ON PIPE RUNS 50 FEET OR LESS, THE CONTRACTOR SHALL REQUEST ENGINEER'S APPROVAL TO USE OR NOT USE A GROUND LASER.

3. MAINTAIN MINIMUM 5'-0" OF COVER ABOVE TOP OF WATER SERVICE PIPE.

4. MAINTAIN MINIMUM 10'-0" HORIZONTAL SEPARATION BETWEEN WATER SERVICES AND SEWER SERVICES. MAINTAIN MINIMUM 18 INCHES VERTICAL SEPARATION BETWEEN WATER SERVICES AND OTHER UTILITIES.

5. LOWER OR RAISE WATER SERVICES AS REQUIRED TO MAINTAIN MINIMUM 12 INCH VERTICAL SEPARATION FROM OTHER UTILITIES. WATER SERVICES CROSSING SEWERS SHALL BE PROVIDED 12 INCH VERTICAL SEPARATION BETWEEN THE BOTTOM OF WATER LINE AND TOP OF SEWER UNLESS NOTED OTHERWISE ON THE PLANS.

6. PIPE:

- SEWER PIPE SHALL BE SDR 35 PVC OR APPROVED EQUAL.
- FORCEMAIN PIPE SHALL BE 8" TO 11" HDPE OR APPROVED EQUAL.
- STORMDRAIN SHALL BE AOS 12 IN 2' DUAL WALL HDPE WATER PIPE WITH SMOOTH-WALLED INTERIOR OR APPROVED EQUAL.
- WATER PIPE SHALL BE 8" TO 11" HDPE OR APPROVED EQUAL.
- WATER PIPE AND FITTINGS SHALL CONFORM TO PORTLAND WATER DISTRICT WATER PIPING SPECIFICATIONS. MAIN WATER SERVICE PIPE SHALL BE DUCTILE IRON, CLASS 50 PUSH-ON PIPE WITH 150 LB. THE REQUIRED MINIMUM WALL THICKNESS IS 11.14 IN (LATEST REVISION). PIPE SHALL BE CEMENT-LINER AWWARDW C104041-4 WITH A LINING TYPE THE THICKNESS SPECIFIED, AND COATED WITH A BITUMINOUS SLIC-CLAY COATING. PROVIDE THRUST BLOCKS AT ALL WATER SERVICE BENDS.

7. COORDINATE FOUNDATION UNDERDRAIN LOCATIONS WITH ARCHITECTURAL AND STRUCTURAL DRAWINGS.

8. COORDINATE GRADE INTERCEPTOR LOCATIONS WITH ARCHITECTURAL AND PLUMBING DRAWINGS.

9. COORDINATE UTILITY LOCATIONS AT BUILDING WITH ARCHITECTURAL, STRUCTURAL AND PLUMBING DRAWINGS.

10. COORDINATE LOCATION OF SEWER, WATER, GAS, FOUNDATION DRAINS AND ROOF DRAIN INVERTS AT THE BUILDING WITH ARCHITECTURAL DRAWINGS.

11. WATER SERVICE ENTRANCE DESIGNS TO INCLUDE METERS AND BACKFLOW PREVENTERS TO MEET ALL STANDARDS AND REQUIREMENTS OF THE PORTLAND WATER DISTRICT.

12. THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY GRADE CHANGES THAT WILL IMPACT STORM DRAINAGE INFRASTRUCTURE FROM OTHER UTILITIES.

13. UTILITIES WITHIN 5 FEET FROM FACE OF BUILDINGS ARE COORDINATED ON RELEVANT M.E.P. DRAWINGS. CONTRACTOR SHALL COORDINATE UTILITIES, CONNECTIONS AND MATERIALS WITH ALL DRAWINGS.

14. CONTRACTOR SHALL FURNISH AND INSTALL TRENCING, MATERIALS AND BACKFILL FOR ALL UTILITIES. ELECTRICAL AND TELECOM DATA PROVIDERS WILL PAID PRIMARY SERVICE TO TELECOM PROVIDER. CONTRACTOR SHALL BE RESPONSIBLE FOR TIE-INS AND COORDINATION WITH UTILITIES AND DRAWINGS. COORDINATE WITH ELECTRICAL DRAWINGS FOR CONDUIT SCHEDULE, TYPE AND SIZES.

15. COORDINATE ALL WATER RELATED WORK WITH PORTLAND WATER DISTRICT.

PUMP STATION: ROB MCSOULEY PE - SEBAGO TECHNICS INC 207-200-2074

UTILITY CONTACTS:

• SEBAGO: TECHNICS INC

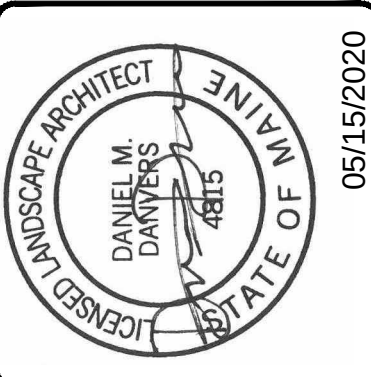
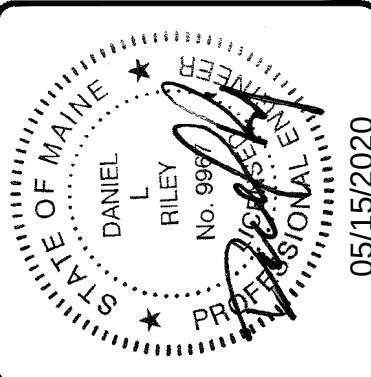
1. PLANT QUANTITIES SHOWN ON PLANS ARE FOR CONVENIENCE TO THE CONTRACTOR ONLY. THE CONTRACTOR IS RESPONSIBLE FOR ALL PLANT MATERIAL INSTALLATION AS SHOWN ON PLANS.
2. SIZE AND GRADING STANDARDS FOR PLANT MATERIALS SHALL CONFORM TO THE LATEST EDITION OF "U.S. STANDARD FOR NURSERY STOCK" BY THE AMERICAN ASSOCIATION OF NURSERYMEN, INC.
3. ALL PLANT MATERIAL SHALL BE FREE FROM INSECTS AND DISEASE.
4. ALL PLANTING SHALL BE DONE IN ACCORDANCE WITH ACCEPTABLE HORTICULTURAL, TURTLE, PRACTICES. PLANTING SHALL INCLUDE PROPER PLANTING MIX, PLANT BEDS AND TREE-TIE PLANTING, PRUNING, STAKING OR GUYING, WRAPPING, SPRAYING, FERTILIZATION, PLANTING AND ADEQUATE MAINTENANCE UNTIL ACCEPTANCE BY THE OWNER.
5. PLANT MATERIAL SHALL BE GUARANTEED FOR A PERIOD OF ONE YEAR BY THE CONTRACTOR AND ONE YEAR BY THE OWNER. PLANTING SHALL BE GUARANTEED FOR ONE YEAR. DURING THE ONE YEAR GUARANTEE PERIOD, DEAD PLANT MATERIAL SHALL BE REPLACED AT NO COST TO THE OWNER. AT THE END OF THE ONE YEAR PERIOD, THE CONTRACTOR SHALL OBTAIN FINAL ACCEPTANCE FROM THE OWNER.
6. ALL GRASS, OTHER VEGETATION AND DEBRIS SHALL BE REMOVED FROM ALL PLANTING AREAS PRIOR TO PLANTING.
7. EXISTING TREES TO BE PRESERVED WILL BE PROTECTED DURING CONSTRUCTION AND SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR.
8. THE LANDSCAPE CONTRACTOR IS ADVISED OF THE PRESENCE OF THE UNDERGROUND UTILITIES AND SHALL VERIFY THE EXISTENCE AND LOCATION OF SAME BEFORE COMMENCING AND DIGGING OPERATIONS. IF THE LANDSCAPE CONTRACTOR SHALL REPAIR THE LANDSCAPE UTILITIES (PAVING, WALKS, CURBING, ETC. DAMAGED IN PERFORMANCE OF THIS JOB AT NO ADDITIONAL COST TO THE OWNER.
9. ALL SHRUB BEDS SHALL BE MULCHED WITH 1" CLEAN SHREDED DARK AGED BROWN BARK MULCH.
10. THE CONTRACTOR SHALL PROVIDE A LOAM FOR ALL AREAS TO BE SOODED OR SEEDED PLANTING. QUALITY OR CONDITION OF THE SOIL SHALL BE THE RESPONSIBILITY OF THE OWNER AND LANDSCAPE ARCHITECT (AND MUNICIPAL AUTHORITY, IF APPLICABLE) PRIOR TO INSTALLATION ON SITE.
11. WHERE INDICATED ON PLAN, PLANTING SOIL MIXTURE FOR PERENNIAL AND ANNUAL FLOWER BED AREAS SHALL CONSIST OF FOUR PARTS TOPSOIL, TWO PARTS SPAGNUM PEAT MOSS, AND ONE PART COMPOST. WHERE NOT INDICATED, THE SOIL MIXTURE MAY BE SUBSTITUTED WITH WELL-ROTTED OR DEHYDRATED MANURE OR COMPOST, ROTOTILLED BEDS TO A DEPTH OF 8 INCHES.

1. ALL SEDIMENT AND EROSION CONTROL MEASURES SHALL BE INSTALLED IN ACCORDANCE WITH "MAINE EROSION AND SEDIMENT CONTROL BMP'S" MANUAL PUBLISHED BY BUREAU OF LAND AND WATER QUALITY MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION, OCTOBER 2018 OR LATEST EDITION. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO POSSESS A COPY OF THE EROSION CONTROL PLAN AT ALL TIMES.
2. ALL AREAS DISTURBED DURING CONSTRUCTION AND NOT RESTORED WITH IMPERVIOUS SURFACES (BUILDINGS, PAVEMENTS, WALKS, ETC.) SHALL RECEIVE LOAM AND SEED PER DETAIL.
3. SEE GRADING AND UTILITY DRAWINGS FOR PIPE AND STRUCTURE DATA TABLES.

1. PROVIDE EROSION CONTROL MEASURES PRIOR TO SITE DISTURBANCE.
2. WETLANDS, ASSOCIATED SETBACKS AND STREAM SETBACKS TO BE STAKED BY OWNER PRIOR TO SITE DISTURBANCE.
3. GRADING AND CLEARING LIMITS SHALL NOT ENCROACH ON ADJACENT PROPERTIES UNLESS NOTED OTHERWISE ON THE PLANS.
4. OPEN AREAS SHALL BE LIMITED TO AREAS BEING WORKED IN. THE AREA STRIPPED OF EXISTING VEGETATION AT ANY GIVEN TIME SHALL BE MINIMIZED AND BE PHASED WHERE PRACTICAL SO THAT AREAS ARE REVEGETATED AND PERMANENTLY STABILIZED BEFORE ADDITIONAL AREAS ARE STRIPPED OF EXISTING VEGETATION. CONSTRUCTION BY USE OF BERMAP, SEED, MULCH, OR OTHER GROUND COVER WITHIN ONE WEEK FROM THE TIME IT WAS ACTIVELY WORKED. SURFACES SHALL BE STABILIZED PRIOR TO DIRECTING STORMWATER RUNOFF TOWARD STORMWATER BMPs. PLEASE REFER TO DRAINAGE PLANS FOR WATERSHED AREAS.

OF:
FALLBROOK COMMONS
RAY STREET
PORTLAND, MAINE

DESIGNED	DMD
DRAWN	SRC
CHECKED	DLR
DATE	05-15-20
SCALE	AS SHOWN
PROJECT	18347



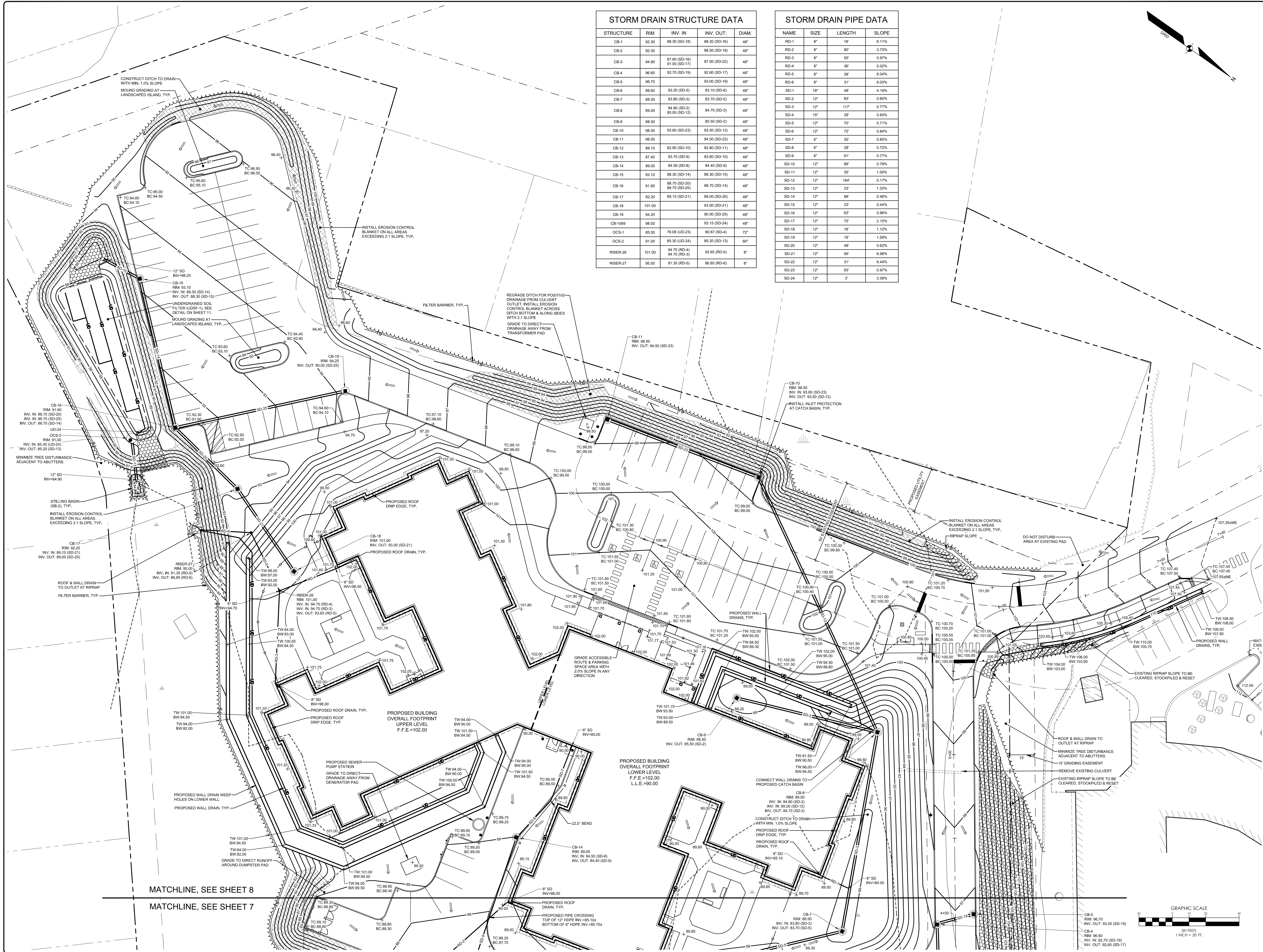
NOT FOR
CONSTRUCTION

[illegible]

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



FALLBROOK COMMONS DEVELOPMENT LLC.



STORM DRAIN STRUCTURE DATA				
STRUCTURE	RIM	INV. IN	INV. OUT	DIAM.
CB-1	92.30	88.30 (SD-18)	88.20 (SD-16)	48"
CB-2	92.30		88.50 (SD-18)	48"
CB-3	94.80	87.60 (SD-16) 91.00 (SD-17)	87.50 (SD-22)	48"
CB-4	96.60	92.70 (SD-19)	92.60 (SD-17)	48"
CB-5	96.70		93.00 (SD-19)	48"
CB-6	88.60	83.20 (SD-5)	83.10 (SD-6)	48"
CB-7	88.50	83.80 (SD-3)	83.70 (SD-5)	48"
CB-8	89.00	84.80 (SD-2) 85.00 (SD-12)	84.70 (SD-3)	48"
CB-9	88.50		85.50 (SD-2)	48"
CB-10	98.50	93.60 (SD-23)	93.50 (SD-12)	48"
CB-11	98.50		94.50 (SD-23)	48"
CB-12	89.10	82.90 (SD-10)	82.80 (SD-11)	48"
CB-13	87.40	83.70 (SD-9)	83.60 (SD-10)	48"
CB-14	89.00	84.50 (SD-8)	84.40 (SD-9)	48"
CB-15	93.10	88.30 (SD-14)	88.30 (SD-15)	48"
CB-16	91.60	88.70 (SD-20) 88.70 (SD-25)	88.70 (SD-14)	48"
CB-17	92.20	89.10 (SD-21)	89.00 (SD-20)	48"
CB-18	101.00		93.00 (SD-21)	48"
CB-19	94.20		90.00 (SD-25)	48"
CB-1069	98.00		93.15 (SD-24)	48"
OCS-1	85.50	78.08 (UD-23)	80.67 (SD-4)	72"
OCS-2	91.00	85.30 (UD-24)	85.20 (SD-13)	60"
RISER-26	101.00	94.70 (RD-4) 94.70 (RD-3)	93.65 (RD-5)	8"
RISER-27	95.00	91.35 (RD-6)	86.85 (RD-6)	8"

STORM DRAIN PIPE DATA				
NAME	SIZE	LENGTH	SLOPE	
RD-1	8"	18'	6.11%	
RD-2	8"	80'	3.73%	
RD-3	8"	55'	5.97%	
RD-4	8"	36'	5.02%	
RD-5	8"	38'	6.04%	
RD-6	8"	31'	6.03%	
SD-1	18"	48'	4.19%	
SD-2	12"	83'	0.85%	
SD-3	12"	117'	0.77%	
SD-4	15"	28'	0.60%	
SD-5	12"	70'	0.71%	
SD-6	12"	72'	0.84%	
SD-7	6"	35'	0.85%	
SD-8	6"	28'	0.72%	
SD-9	6"	91'	0.77%	
SD-10	12"	89'	0.78%	
SD-11	12"	30'	1.00%	
SD-12	12"	164'	5.17%	
SD-13	12"	23'	1.33%	
SD-14	12"	88'	0.46%	
SD-15	12"	23'	0.44%	
SD-16	12"	63'	0.96%	
SD-17	12"	75'	2.15%	
SD-18	12"	18'	1.12%	
SD-19	12"	19'	1.59%	
SD-20	12"	48'	0.62%	
SD-21	12"	56'	6.98%	
SD-22	12"	31'	6.44%	
SD-23	12"	93'	0.97%	
SD-24	12"	3'	3.39%	

DANIEL M. DANVERS RLA 4815

DANIEL L. RILEY PE 6996

NOT FOR CONSTRUCTION

C. DMD 05-21-20 SUBMITTED FOR RESPONSE TO COMMENTS

B. DMD 05-15-20 SUBMITTED FOR RESPONSE TO COMMENTS

A. DMD 12-18-19 SUBMIT TO CITY OF PORTLAND

REV. BY: DATE: STATUS:

THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM SEBAGO TECHNIQUES, INC. ANY ALTERATIONS, ADJUSTMENTS OR CHANGES SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO SEBAGO TECHNIQUES, INC.

WWW.SEBAGOTECHNICS.COM

75 JOHNSON STREET, SUITE 200

PORTLAND, ME 04106

TEL: 207-205-2100

GRADING PLAN 1

OF:

FALLBROOK COMMONS

DRAWN BY:

RAY STREET

PORTLAND, MAINE

FOR:

FALLBROOK COMMONS DEVELOPMENT LLC.

227 COMMERCIAL STREET, SUITE 201

PORTLAND, MAINE 04112

DESIGNED: DMD

DRAWN: SRC

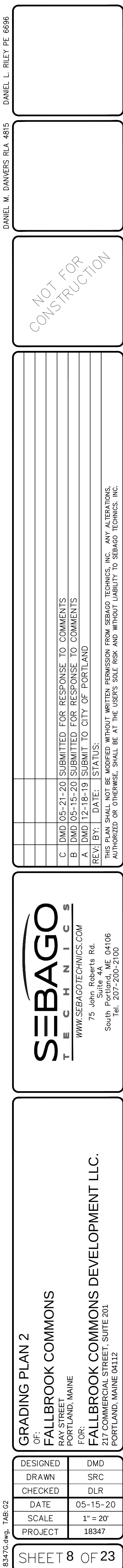
CHECKED: DLR

DATE: 05-15-20

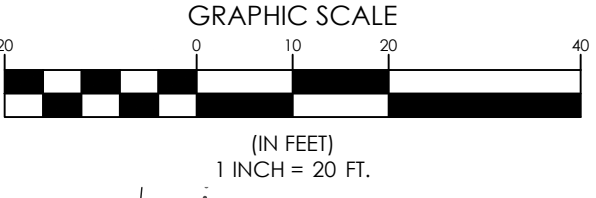
SCALE: 1" = 20'

PROJECT: 18347

SHEET 7 OF 23



NAME	SIZE	LENGTH	SLOPE
RD-1	8"	18'	6.11%
RD-2	8"	80'	3.73%
RD-3	8"	55'	5.97%
RD-4	8"	36'	5.02%
RD-5	8"	38'	6.04%
RD-6	8"	31'	6.03%
SD-1	18"	48'	4.19%
SD-2	12"	82'	0.85%
SD-3	12"	117'	0.77%
SD-4	15"	28'	0.60%
SD-5	12"	70'	0.71%
SD-6	12"	72'	0.84%
SD-7	6"	35'	0.85%
SD-8	6"	28'	0.72%
SD-9	6"	91'	0.77%
SD-10	12"	89'	0.78%
SD-11	12"	30'	1.00%
SD-12	12"	164'	5.17%
SD-13	12"	23'	1.33%
SD-14	12"	88'	0.46%
SD-15	12"	23'	0.44%
SD-16	12"	63'	0.96%
SD-17	12"	75'	2.15%
SD-18	12"	18'	1.12%
SD-19	12"	19'	1.59%
SD-20	12"	49'	0.62%
SD-21	12"	56'	6.98%
SD-22	12"	31'	6.44%
SD-23	12"	93'	0.97%
SD-24	12"	3'	3.39%



183476.dwg, TAB:G3

DESIGNED DMD
DRAWN SRC
CHECKED DLR
DATE 05-15-20
SCALE 1" = 20'
PROJECT 18347

SEBAGO
TECHNICS
WWW.SEBAGOTECHNICS.COM
75 JOHNSON STREET, SUITE 201
SOUTH PORTLAND, ME 04106
TEL: 207-204-2100

GRADING PLAN 3
OF:
FALLBROOK COMMONS
PORTLAND, MAINE
FOR:
FALLBROOK COMMONS DEVELOPMENT LLC.
207 COMMERCIAL STREET, SUITE 201
PORTLAND, MAINE 04112

NOT FOR CONSTRUCTION

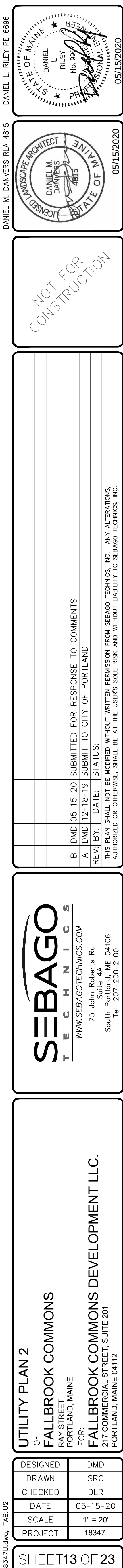
B	DMD 05-15-20	SUBMITTED FOR RESPONSE TO COMMENTS
A	DMD 12-18-19	SUBMIT TO CITY OF PORTLAND

REV: BY: DATE: STATUS:
THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM SEBAGO TECHNIQUES, INC. ANY ALTERATIONS, ADDITIONS OR DELETIONS SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO SEBAGO TECHNIQUES, INC.

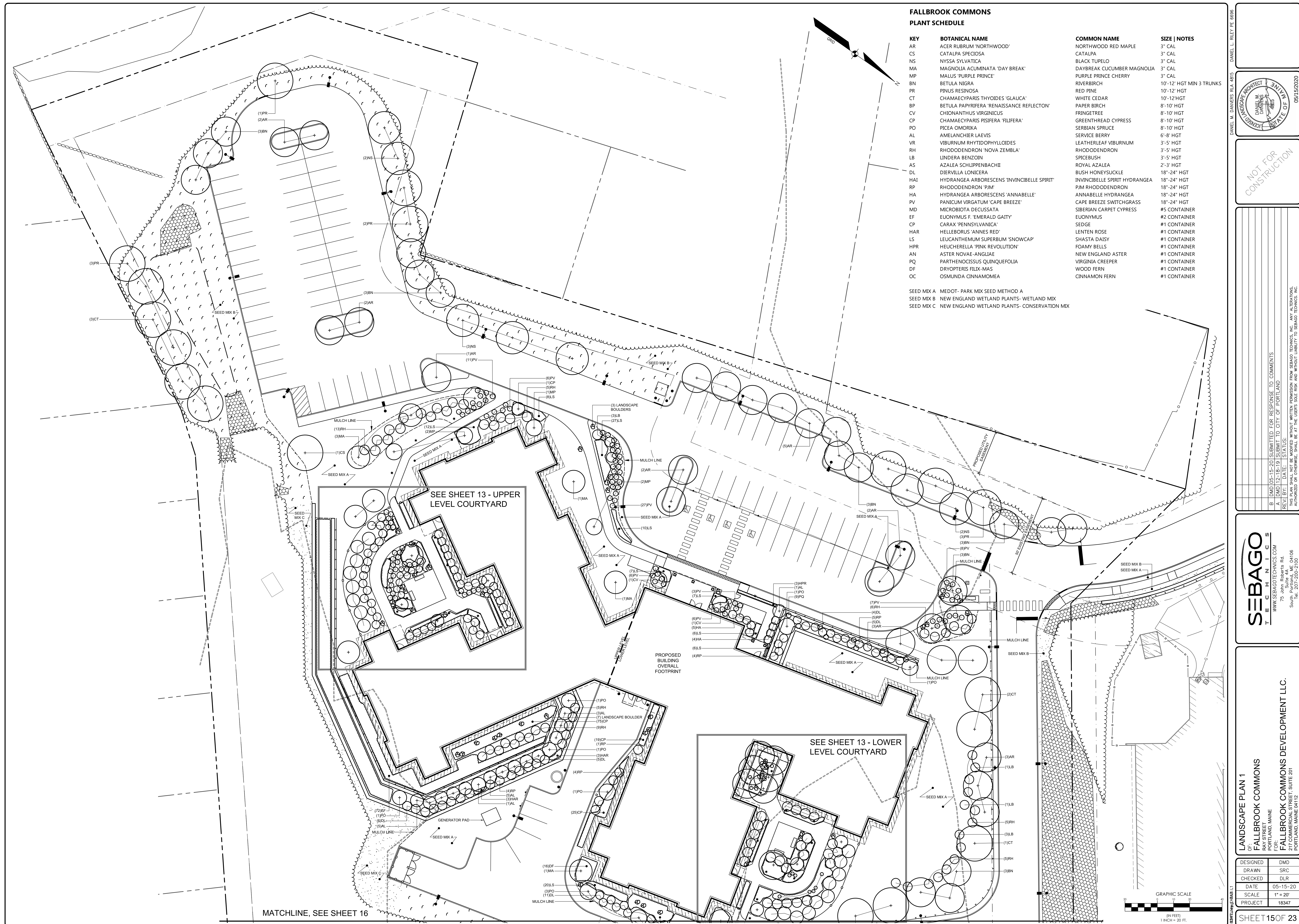
DANIEL M. DANKERS RLA 4815
DANIEL L. RILEY PE 6996

SEAL
DANIEL M. DANKERS
ARCHITECT
STATE OF MAINE
05152020

SEAL
DANIEL L. RILEY
PE
STATE OF MAINE
05152020



SANITARY SEWER STRUCTURE DATA				
STRUCTURE	RIM	INV. IN	INV. OUT:	DIAM.
SMH 1055	94.23	85.69 [EX.SS-6] 85.74 [EX.SS-1]	85.60 [EX.SS-2]	48"
SMH 1155	94.53		86.42 [EX.SS-6]	48"
SMH 1197	111.69	103.67 [EX.SS-4]	93.86 [EX.SS-6]	48"
SMH 1789	94.72	87.24 [EX.SS-3]	87.12 [EX.SS-5]	48"



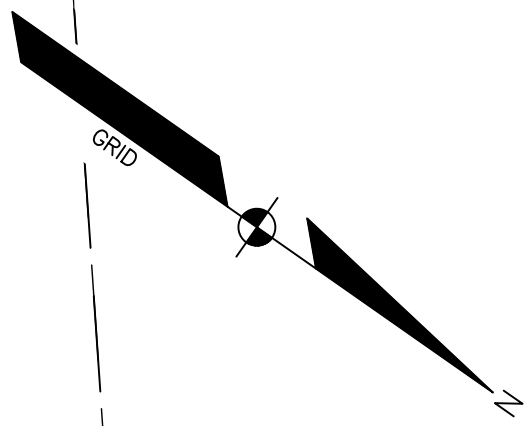
FALLBROOK COMMONS
PLANT SCHEDULE

KEY	BOTANICAL NAME	COMMON NAME	SIZE NOTES
AR	ACER RUBRUM 'NORTHWOOD'	NORTHWOOD RED MAPLE	3" CAL
CS	CATALPA SPECIOSA	CATALPA	3" CAL
NS	NYSSA SYLVATICA	BLACK TUPELO	3" CAL
MA	MAGNOLIA ACUMINATA 'DAY BREAK'	DAYBREAK CUCUMBER MAGNOLIA	3" CAL
MP	MALLUS 'PURPLE PRINCE'	PURPLE PRINCE CHERRY	3" CAL
BN	BETULA NIGRA	RIVERBIRCH	10'-12" HGT MIN 3 TRUNKS
PR	PINUS RESINOSA	RED PINE	10'-12" HGT
CT	CHAMAECYPARIS THYOIDES 'GLAUCO'	WHITE CEDAR	10'-12" HGT
BP	BETULA PAPYRIFERA 'RENAISSANCE REFLECTON'	PAPER BIRCH	8'-10" HGT
CV	CHIONANTHUS VIRGINICUS	FRINGETREE	8'-10" HGT
CP	CHAMAECYPARIS PISIFERA 'FILIFERA'	GREENTHREAD CYPRESS	8'-10" HGT
PO	PICEA OMORICA	SERBIAN SPRUCE	8'-10" HGT
AL	AMELANCHIER LAEVIS	SERVICE BERRY	6'-8" HGT
VR	VIBURNUM RHYTIDOPHYLLOIDES	LEATHERLEAF VIBURNUM	3'-5" HGT
RH	RHODODENDRON 'NOVA ZEMBLA'	RHODODENDRON	3'-5" HGT
LB	LINDERA BENZOIN	SPICEBUSH	3'-5" HGT
AS	AZALEA SCHLIPPENBACHII	ROYAL AZALEA	2'-3' HGT
DL	DIERVILLA LONICERA	BUSH HONEYSUCKLE	18"-24" HGT
HAI	HYDRANGEA ARBORESCENS 'INVINCIBELLE SPIRIT'	INVINCIBELLE SPIRIT HYDRANGEA	18"-24" HGT
RP	RHODODENDRON 'PJM'	PJM RHODODENDRON	18"-24" HGT
HA	HYDRANGEA ARBORESCENS 'ANNABELLE'	ANNABELLE HYDRANGEA	18"-24" HGT
PV	PANICUM VIRGATUM 'CAPE BREEZE'	CAPE BREEZE SWITCHGRASS	18"-24" HGT
MD	MICROBIOTA DECUSSATA	SIBERIAN CARPET CYPRESS	#5 CONTAINER
EF	EUONYMUS F. 'EMERALD GAITY'	EUONYMUS	#2 CONTAINER
CP	CARAX 'PENNSYLVANICA'	SEDGE	#1 CONTAINER
HAR	HELLEBORUS 'ANNES RED'	LENTEN ROSE	#1 CONTAINER
LS	LEUCANTHEMUM SUPERBUM 'SNOWCAP'	SHASTA DAISY	#1 CONTAINER
HPR	HEUCHERELLA 'PINK REVOLUTION'	FOAMY BELLS	#1 CONTAINER
AN	ASTER NOVAE-ANGLIAE	NEW ENGLAND ASTER	#1 CONTAINER
PQ	PARTHENOCISSUS QUINQUEFOLIA	VIRGINIA CREEPER	#1 CONTAINER
DF	DRYOPTERIS FILIX-MAS	WOOD FERN	#1 CONTAINER
OC	OSMUNDA CINNAMOMEA	CINNAMON FERN	#1 CONTAINER

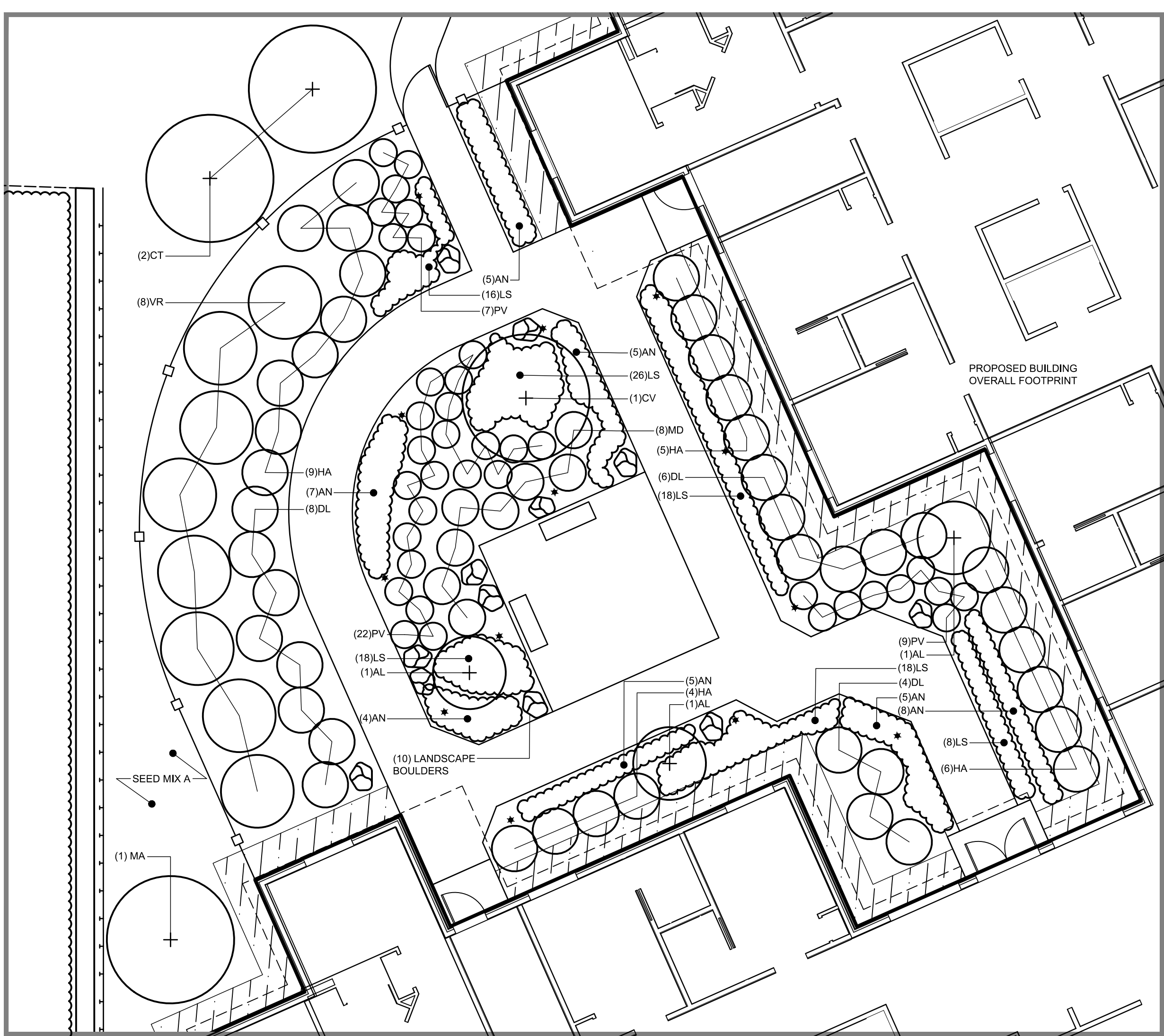
SEED MIX A MEDOT- PARK MIX SEED METHOD A
SEED MIX B NEW ENGLAND WETLAND PLANTS- WETLAND MIX
SEED MIX C NEW ENGLAND WETLAND PLANTS- CONSERVATION MIX

MATCHLINE, SEE SHEET 16

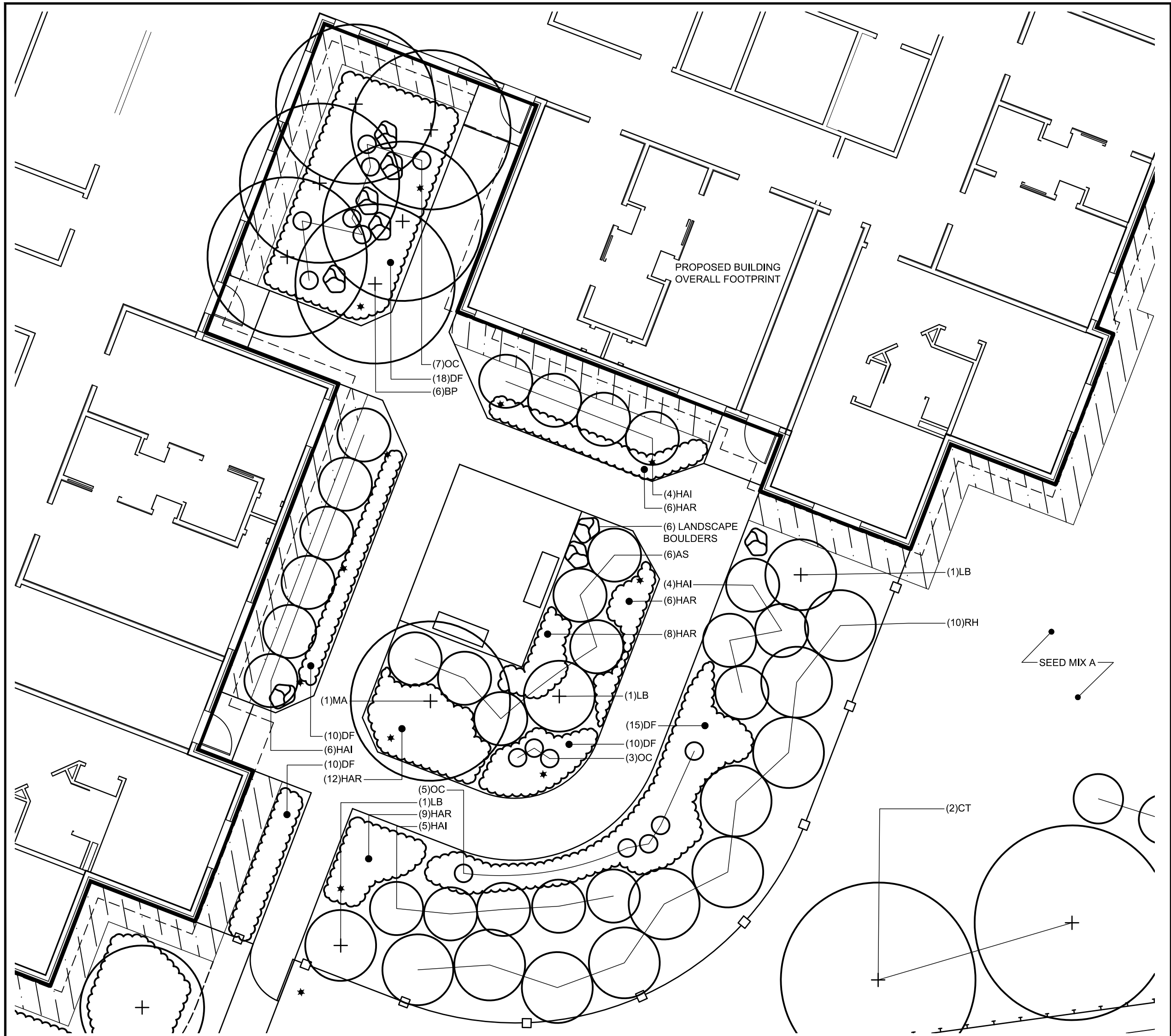
MATCHLINE, SEE SHEET 15



EXISTING TREES TO REMAIN

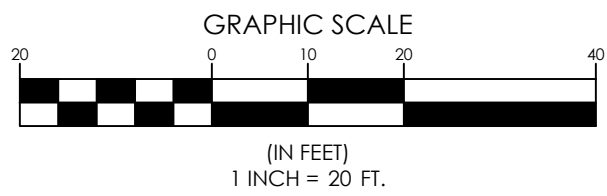


UPPER LEVEL COURTYARD
SCALE: 1" = 10'



LOWER LEVEL COURTYARD
SCALE: 1" = 10'

RAY STREET



18347-006-16L2

LANDSCAPE PLAN 2
OF:
FALLBROOK COMMONS
RAY STREET
PORTLAND, MAINE
FOR:
FALLBROOK COMMONS DEVELOPMENT LLC.
217 COMMERCIAL STREET, SUITE 201
PORTLAND, MAINE 04112

DESIGNED	DMD
DRAWN	SRG
CHECKED	DLR
DATE	05-15-20
SCALE	1" = 20'
PROJECT	18347

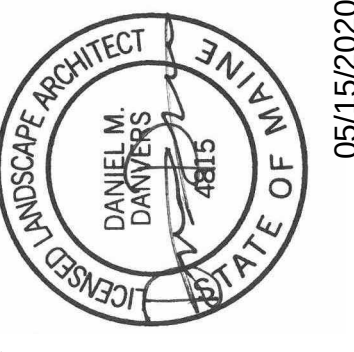
SHEET 16 OF 23

SEBAGO
TECHNICS
WWW.SEBAGOTECHNICS.COM
75 Jordan Mills Rd.
Suite 404
South Portland, ME 04106
Tel. 207-266-2100

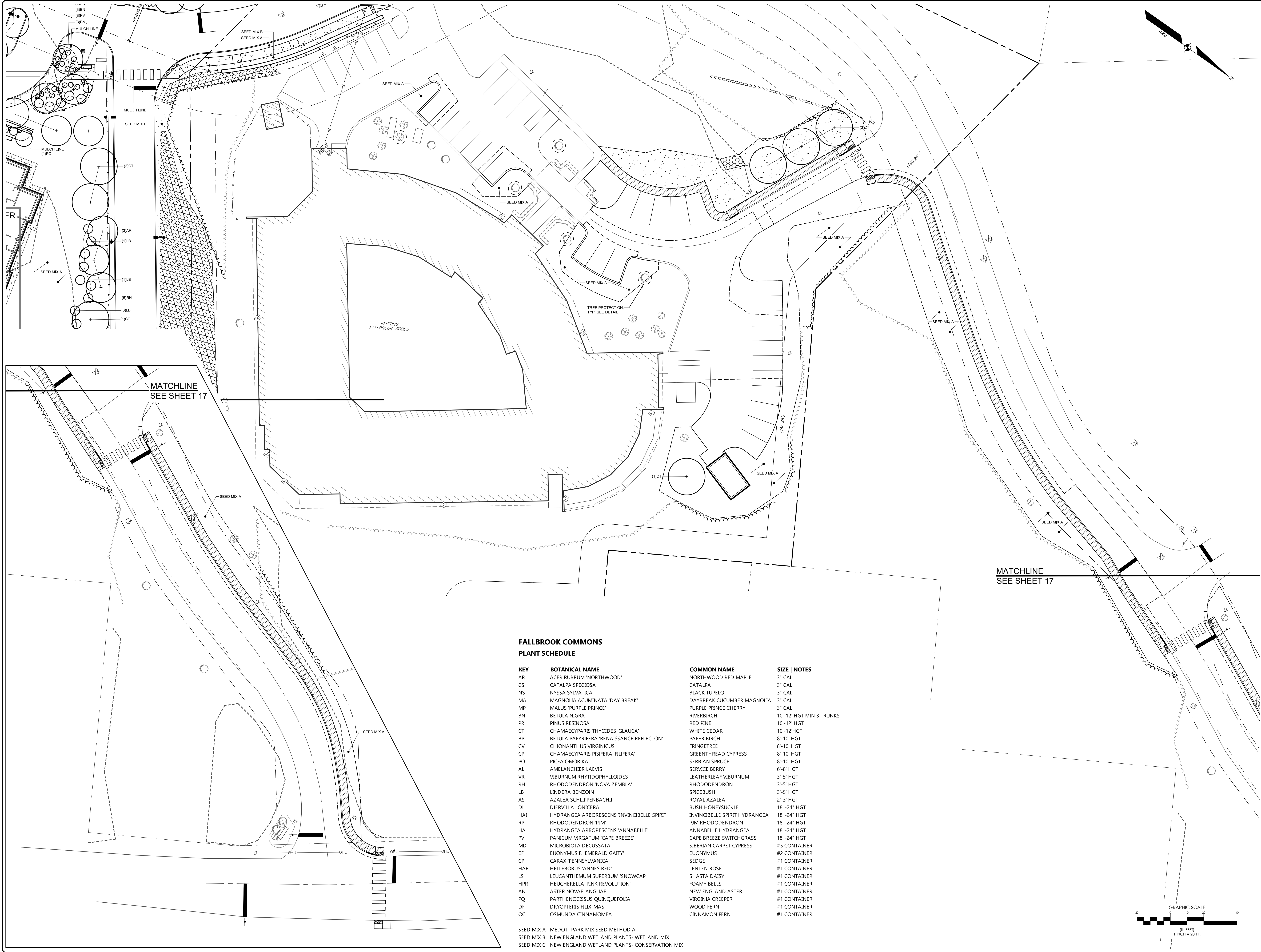
B	DMD 05-15-20	SUBMITTED FOR RESPONSE TO COMMENTS
A	DMD 12-18-19	SUBMIT TO CITY OF PORTLAND
REV.	BY:	DATE:
STATUS:		

THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM SEBAGO TECHNIQUES, INC. ANY ALTERATIONS, ADDITIONS, OR DELETIONS SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO SEBAGO TECHNIQUES, INC.

NOT FOR
CONSTRUCTION



DANIEL M. DANVERS R.E. 4815
DANIELS@SEBAGO.COM



FALLBROOK COMMONS
PLANT SCHEDULE

KEY	BOTANICAL NAME	COMMON NAME	SIZE NOTES
AR	ACER RUBRUM 'NORTHWOOD'	NORTHWOOD RED MAPLE	3" CAL
CS	CATALPA SPECIOSA	CATALPA	3" CAL
NS	NYSSA SYLVATICA	BLACK TUPELO	3" CAL
MA	MAGNOLIA ACUMINATA 'DAY BREAK'	DAYBREAK CUCUMBER MAGNOLIA	3" CAL
MP	MALUS 'PURPLE PRINCE'	PURPLE PRINCE CHERRY	3" CAL
BN	BETULA NIGRA	RIVERBIRCH	10'-12" HGT MIN 3 TRUNKS
PR	PINUS RESINOSA	RED PINE	10'-12" HGT
CT	CHAMAECYPARIS THYOIDES 'GLAUCA'	WHITE CEDAR	10'-12" HGT
BP	BETULA PAPYRIFERA 'RENAISSANCE REFLECTON'	PAPER BIRCH	8'-10' HGT
CV	CHIONANTHUS VIRGINICUS	FRINGETREE	8'-10' HGT
CP	CHAMAECYPARIS PISIFERA 'FILIFERA'	GREENTHREAD CYPRESS	8'-10' HGT
PO	PICEA OMORIKA	SERBIAN SPRUCE	8'-10' HGT
AL	AMELANCHIER LAEVIS	SERVICE BERRY	6'-8' HGT
VR	VIBURNUM RHYTIDOPHYLLOIDES	LEATHERLEAF VIBURNUM	3'-5' HGT
RH	RHODODENDRON 'NOVA ZEMBLA'	RHODODENDRON	3'-5' HGT
LB	LINDERA BENZOIN	SPICEBUSH	3'-5' HGT
AS	AZALEA SCHULIPPENBACHII	ROYAL AZALEA	2'-3' HGT
DL	DIERVILLA LONICERA	BUSH HONEYSUCKLE	18"-24" HGT
HAI	HYDRANGEA ARBORESCENS 'INVINCIBELLE SPIRIT'	INVINCIBELLE SPIRIT HYDRANGEA	18"-24" HGT
RP	RHODODENDRON 'PJM'	PJM RHODODENDRON	18"-24" HGT
HA	HYDRANGEA ARBORESCENS 'ANNABELLE'	ANNABELLE HYDRANGEA	18"-24" HGT
PV	PANICUM VIRGATUM 'CAPE BREEZE'	CAPE BREEZE SWITCHGRASS	18"-24" HGT
MD	MICROBIOTA DECUSSATA	SIBERIAN CARPET CYPRESS	#5 CONTAINER
EF	EUONYMUS F. 'EMERALD GAITY'	EUONYMUS	#2 CONTAINER
CP	CARAX 'PENNSYLVANICA'	SEDGE	#1 CONTAINER
HAR	HELLEBORUS 'ANNES RED'	LENTEN ROSE	#1 CONTAINER
LS	LEUCANTHEMUM SUPERBUM 'SNOWCAP'	SHASTA DAISY	#1 CONTAINER
HPR	HEUCHERELLA 'PINK REVOLUTION'	FOAMY BELLS	#1 CONTAINER
AN	ASTER NOVAE-ANGLIAE	NEW ENGLAND ASTER	#1 CONTAINER
PQ	PARTHENOCESSUS QUINQUEFOLIA	VIRGINIA CREEPER	#1 CONTAINER
DF	DRYOPTERIS FILIX-MAS	WOOD FERN	#1 CONTAINER
OC	OSMUNDA CINNAMOMEA	CINNAMON FERN	#1 CONTAINER

SEED MIX A MEDOT- PARK MIX SEED METHOD A
SEED MIX B NEW ENGLAND WETLAND PLANTS- WETLAND MIX
SEED MIX C NEW ENGLAND WETLAND PLANTS- CONSERVATION MIX

LANDSCAPE PLAN 3
OF:
FALLBROOK COMMONS
RAY STREET
PORTLAND, MAINE

FOR:
FALLBROOK COMMONS DEVELOPMENT LLC.
207 COMMERCIAL STREET, SUITE 201
PORTLAND, MAINE 04106

DESIGNED DMD
DRAWN SRC
CHECKED DLR
DATE 05-15-20
SCALE 1" = 20'
PROJECT 18347

SHEET 17 OF 23

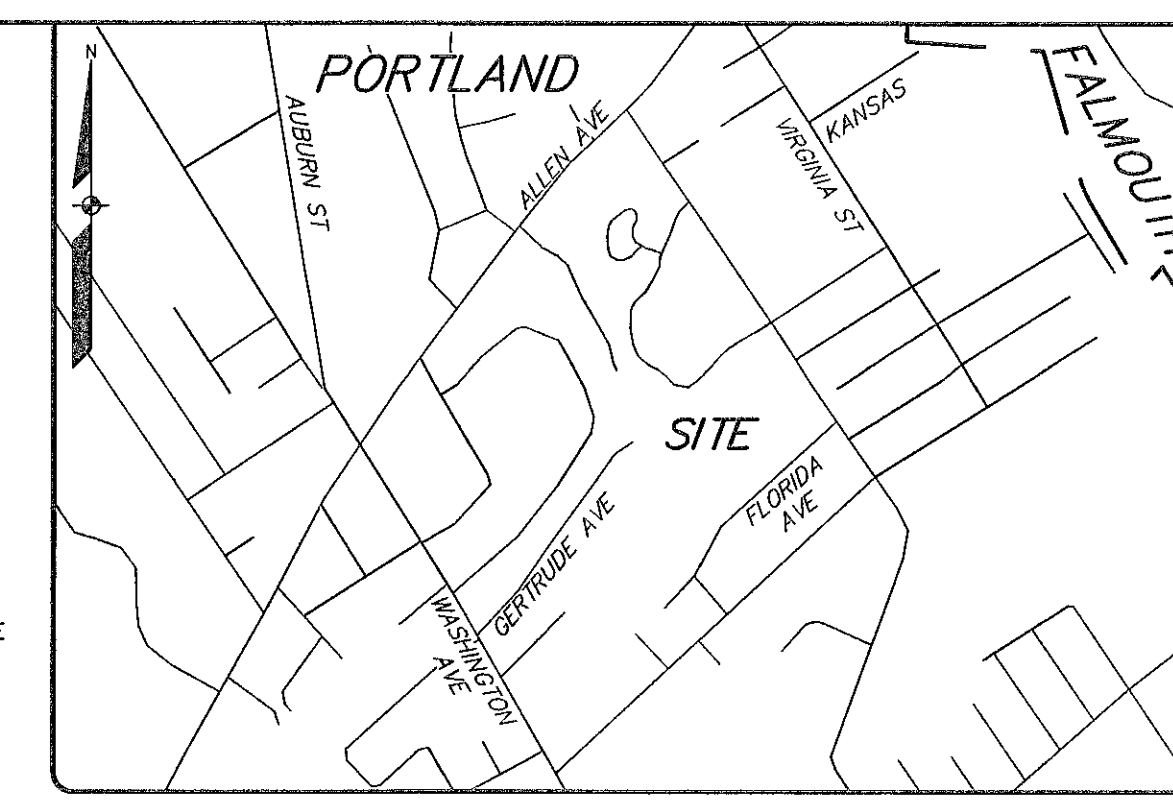
WWW.SEBAGOTECHNICS.COM
75 JOHNSON STREET, SUITE 404
SOUTH PORTLAND, ME 04106
TEL: 207-266-2100

SEBAGO
TECHNICS

NOT FOR
CONSTRUCTION

LANDSCAPE ARCHITECT
DANIEL M. DANKERS
4815
STATE OF
MAINE
05152020

DANIEL M. DANKERS RLA 4815
DANIEL L. RILEY PE 6896



1. THE RECORD OWNER OF PARCEL ONE IS FALLBROOK PROPERTIES, LLC BY DEED DATED DECEMBER 15, 2009 AND RECORDED AT THE CUMBERLAND COUNTY REGISTRY OF DEEDS (CCRD) IN BOOK 27501, PAGE 183. THE RECORD OWNER OF PARCEL TWO IS PATRICIA A. McDONALD AND CATHERINE E. MCNEILD BY DEED DATED JULY 7, 1989 AND RECORDED AT THE CCRD IN BOOK 8818, PAGE 50.
2. PARCEL ONE IS SHOWN AS LOT F-001 ON THE CITY OF PORTLAND TAX MAP 403 AND IS LOCATED IN THE R-3 RESIDENTIAL ZONE. PARCEL TWO IS SHOWN AS LOT F-005 ON THE CITY OF PORTLAND TAX MAP 403 AND IS LOCATED IN THE R-3 RESIDENTIAL ZONE.
3. SPACE AND BULK CRITERIA FOR THE R-3 RESIDENTIAL ZONE ARE AS FOLLOWS:

MINIMUM LOT SIZE:	6,500 SQUARE FEET*
MINIMUM STREET FRONTAGE:	50 FEET*
MINIMUM FRONT YARD:	25 FEET*
MINIMUM SIDE YARD:	16 FEET*
MINIMUM REAR YARD:	25 FEET
MAXIMUM BUILDING HEIGHT:	35 FEET
MAXIMUM LOT COVERAGE:	35%

 - * SEE ORDINANCE FOR MORE PARTICULAR INFORMATION.
4. TOTAL AREA OF PARCEL ONE IS APPROXIMATELY 12.78 ACRES. TOTAL AREA OF PARCEL TWO IS APPROXIMATELY 19,573 SQUARE FEET OR 0.449 ACRES.
5. BOUNDARY INFORMATION FOR PARCEL ONE IS AS DEPICTED ON PLAN REFERENCE 6A, SEBAGO TECHNICS, INC. HAS NOT PERFORMED AN INDEPENDENT BOUNDARY RETRACEMENT SURVEY. BOUNDARY INFORMATION FOR PARCEL TWO IS BASED UPON AN INDEPENDENT BOUNDARY SURVEY. TOPOGRAPHIC INFORMATION SHOWN HEREON IS BASED UPON FIELD WORK PERFORMED BY SEBAGO TECHNICS, INC. IN MAY OF 2019 AND IN JULY OF 2019.
6. PLAN REFERENCES:
 - A. "PLAN OF LAND OF FALLBROOK WOODS ON RAY STREET, PORTLAND, MAINE PREPARED FOR OWNER OF RECORD FALLBROOK, INC., 7 SHADY LAKE, FALMOUTH, MAINE" BY LAND USE CONSULTANTS, DATED SEPTEMBER 25, 1992 AND REVISED THROUGH OCTOBER 9, 1992 AND RECORDED AT THE CCRD IN PLAN BOOK 193, PAGE 248.
 - B. "CONDOMINIUM PLAN III FOR FALLBROOK, A CONDOMINIUM ON RAY STREET, PORTLAND, MAINE FOR MERRELL CORP. BY OWEN HASKELL, INC. DATED MAY 10, 1990 AND RECORDED AT THE CCRD IN PLAN BOOK 185, PAGE 15.
 - C. "PLAN OF WADCO PARK, PROPERTY OF DERRAH AND WESCOTT, WASHINGTON AVE. PORTLAND, MAINE" DATED AUGUST 1905 AND RECORDED AT THE CCRD IN PLAN BOOK 12, PAGE 17.
 - D. "THE PINES, PORTLAND MAINE, OWNED BY THE A.H. CHAPMAN LAND CO., PORTLAND, MAINE, SECTION A" BY PERCY H. RICHARDSON, C.E. DATED APRIL 1925.
7. PLAN ORIENTATION IS GRID NORTH, MAINE STATE PLANE COORDINATE SYSTEM, WEST ZONE 1802-NAD83. ELEVATIONS DEPICTED HEREON ARE NGVD29, BASED ON DUAL FREQUENCY GPS OBSERVATIONS.
8. PER STANDARDS ASCE/CI 38-02: SANITARY AND STORM DRAINAGE LINES SHOWN HEREON ARE QUALITY LEVEL C, ELECTRIC, COMMUNICATION, AND WATER LINES SHOWN HEREON ARE QUALITY LEVEL B, AS DELINEATED BY DISGMART OF MAINE IN MAY 2019; GAS LINES SHOWN HEREON ARE QUALITY LEVEL D BASED UPON FLOOD ABOVE GROUND EVIDENCE. CONTRACTORS AND/OR DESIGNERS NEED TO CONTACT DIS-SAFE SYSTEMS, INC. FOR SUBB-DIG-GATE) AND FIELD VERIFY EXISTING UTILITIES WITHIN THE PROJECT AREA PRIOR TO CONSTRUCTION AND/OR EXCAVATION.
9. THE LOCUS PROPERTIES AS DEPICTED HEREON DOES NOT FALL WITHIN A SPECIAL FLOOD HAZARD AREA AS DELINEATED ON THE FLOOD INSURANCE RATE MAP FOR PORTLAND, MAINE, CUMBERLAND COUNTY, COMMUNITY-PANEL NUMBER 230051 0002 C, HAVING AN EFFECTIVE DATE OF DECEMBER 8, 1998. THE LOCUS FALLS WITHIN AN AREA IDENTIFIED AS ZONE X, AREAS DETERMINED TO BE OUTSIDE THE 500-YEAR FLOODPLAIN.
10. PER THE CITY OF PORTLAND, MAINE, ASH STREET AND WADCO STREET HAVE BEEN VACATED. THIS REVERTS THE PROPERTY LINE TO THE CENTERLINE OF THE PAPER STREETS (23 M.R.S.A. 3027). THERE MAY STILL BE RIGHTS ASSOCIATED WITH THE PAPER STREET FRONT LOT LOTS AS DEPICTED IN PLAN REFERENCE 6C.
11. A WETLAND DELINEATION WAS PERFORMED ON THIS PROJECT SITE IN SEPTEMBER 2018 BY GARY M. FULLERTON, CERTIFIED SOIL SCIENTIST OF SEBAGO TECHNICS, INC. THIS DELINEATION CONFORMS TO THE STANDARDS AND METHODS OUTLINED IN THE 1987 WETLANDS DELINEATION MANUAL AND NORTHEAST REGIONAL SUPPLEMENT AUTHORED AND PUBLISHED BY THE ARMY CORPS OF ENGINEERS. WETLAND FLAGS WITHIN PROPOSED DEVELOPMENT AREAS WERE LOCATED USING GLOBAL POSITIONING SYSTEMS (GPS) TECHNOLOGY CAPABLE OF DECIMETER ACCURACY.

A VERNAL POOL SURVEY WAS PERFORMED ON MAY 6, 2019 BY GARY M. FULLERTON, CERTIFIED SOIL SCIENTIST OF SEBAGO TECHNICS, INC. THIS SURVEY CONFORMS TO THE STANDARDS AND METHODS OUTLINED IN CHAPTER 335, SECTION 9, OF THE NATURAL RESOURCE PROTECTION ACT, MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION.

STRUCTURE TABLE								
POINT #	STRUCTURE TYPE	RIM EL.	INV.	INV. EL.	SIZE (INCHES)	TYPE	LOCATION (N=12)	COMMENTS
1018	CBR	97.71	OUT	93.97	10"	PIPE W/ HYDROBRAKE	7	PVC PIPE MEASURED TOP WATER
			SUMP	91				
1031	DMH	94.17	IN	89.6	10"	PVC	11	
			IN	89.53	10"	PVC	1	
			OUT	89.52	12"	PVC	6	
			SHELF	90.15"				
1055	SMH	94.23	IN	85.69	8"	PVC	9	
			IN	85.74	8"	PVC	1	
			OUT	85.5	8"	PVC	5	
			SHELF	86.2				
1069	CBR	97.09	OUT	93.08	10"	PIPE W/ CASCO TRAP	5	HOOD TRAP INSTALLED MEASURED TOP OF WATER APPROX 1 FOOT SILT ON BOTTOM
			SUMP	89.91				
1155	SMH	94.53	IN	86.47	8"	PVC	10	
			OUT	86.42	8"	PVC	3	
			SHELF	86.94				
1197	SMH	111.69	IN	103.67	8"	PVC	9	WITH DOWNSPOUT
			OUT	93.86	8"	PVC	5	
			SHELF	94.9				
1789	SMH	94.72	IN	87.24	8"	PVC	11	
			OUT	87.12	8"	PVC	3	
			SHELF	87.81				

CHARLES D. MARCHESE, PLS 2009

EROSION CONTROL MEASURES

PRE-CONSTRUCTION PHASE

PRIOR TO CONSTRUCTION, PROPERLY INSTALL SEDIMENT BARRIERS AT THE DOWNWIND EDGE OF ANY AREA TO BE DISTURBED AND ADJACENT TO ANY DRAINAGE CHANNELS WITHIN THE DISTURBED AREA. SEDIMENT BARRIERS SHOULD BE INSTALLED DOWNGRADIENT OF SOIL OR SEDIMENT STOCKPILES AND STORMWATER PREVENTED FROM RUNNING INTO THE STOCKPILE. MAINTAIN THE SEDIMENT BARRIERS BY REMOVING ACCUMULATED SEDIMENT. THE DISTURBED AREA IS PERMANENTLY STABILIZED. WHEN A STOCKPILE IS REMOVED, THERE MUST BE A DISCHARGE TO A STORM DRAIN INLET OCCURS. IF THE STORM DRAIN CARRIES WATER DIRECTLY TO A SURFACE WATER AND YOU HAVE AUTHORITY TO ACCESS THE STORM DRAIN INLET, YOU MUST INSTALL AND MAINTAIN PROTECTION MEASURES THAT REMOVE SEDIMENT FROM THE DISCHARGE.

PRIOR TO CONSTRUCTION, PROPERLY INSTALL A STABILIZED CONSTRUCTION ENTRANCE (SCE) AT ALL POINTS OF EGRESS FROM THE SITE. THE SCE IS A STABILIZED PAD OF AGGREGATE, UNDERLAIN BY A GEOTEXTILE FILTER FABRIC, USED TO PREVENT TRAFFIC FROM TRACKING MATERIAL AWAY FROM THE SITE ONTO PUBLIC ROADS. MAINTAIN THE SCE UNTIL ALL DISTURBED AREAS ARE STABILIZED.

PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL PREPARE A DETAILED SCHEDULE AND MARKED UP PLAN INDICATING AREAS AND COMPONENTS OF THE WORK AND KEY DATES SHOWING DATE OF DISTURBANCE AND COMPLETION OF THE WORK. THE CONTRACTOR SHALL SCHEDULE A PRE-CONSTRUCTION MEETING WITH THE MUNICIPAL STAFF. THREE COPIES OF THE SCHEDULE AND MARKED UP PLAN SHALL BE PROVIDED TO THE MUNICIPALITY THREE DAYS PRIOR TO THE SCHEDULED PRE-CONSTRUCTION MEETING. SPECIAL ATTENTION SHALL BE GIVEN TO THE 14 DAY LIMIT OF DISTURBANCE IN THE SCHEDULE ADDRESSING TEMPORARY AND PERMANENT VEGETATION MEASURES.

CONSTRUCTION AND POST-CONSTRUCTION PHASE

DURING CONSTRUCTION

- INSPECTION AND CORRECTIVE ACTION:
 - INSPECT DISTURBED AND IMPERVIOUS AREAS (EROSION CONTROL MEASURES, MATERIALS STORAGE AREAS THAT ARE EXPOSED TO PRECIPITATION, AND LOCATIONS WHERE VEHICLES ENTER OR EXIT THE SITE. INSPECT THESE AREAS AT LEAST ONCE A WEEK AS WELL AS BEFORE AND WITHIN 24 HOURS AFTER A STORM EVENT (RAINFALL), AND PRIOR TO COMPLETING PERMANENT STABILIZATION MEASURES. A PERSON WITH KNOWLEDGE OF EROSION AND STORMWATER CONTROL, INCLUDING THE STANDARDS AND CONDITIONS IN THE PERMIT, SHALL CONDUCT THE INSPECTIONS.
- MAINTENANCE:
 - IF BEST MANAGEMENT PRACTICES (BMPs) NEED TO BE REPAIRED, THE REPAIR WORK SHOULD BE INITIATED UPON DISCOVERY OF THE PROBLEM BUT NO LATER THAN THE FIRST OF THE NEXT WORKDAY. IF ADDITIONAL BMPs OR SIGNIFICANT REPAIR OF BMPs ARE NECESSARY, IMPLEMENTATION MUST BE COMPLETED WITHIN 7 CALENDAR DAYS AND PRIOR TO ANY STORM EVENT (RAINFALL). ALL MEASURES MUST BE MAINTAINED IN EFFECTIVE OPERATING CONDITION UNTIL AREAS ARE PERMANENTLY STABILIZED.
- DOCUMENTATION:
 - KEEP A LOG (PERMIT) SUMMARIZING THE INSPECTIONS AND ANY CORRECTIVE ACTION TAKEN. THE LOG MUST INCLUDE THE NAME(S) AND QUALIFICATIONS OF THE PERSON MAKING THE INSPECTIONS, THE DATE(S) OF THE INSPECTIONS, AND MAJOR OBSERVATIONS ABOUT THE OPERATION AND MAINTENANCE OF EROSION AND SEDIMENTATION CONTROLS, MATERIALS STORAGE AREAS, AND VEHICLES ACCESS POINTS TO THE PUBLIC. MAJOR OBSERVATIONS MUST INCLUDE BMPs THAT NEED MAINTENANCE, BMPs THAT FAILED TO OPERATE AS DESIGNED OR PROVED INADEQUATE FOR A PARTICULAR LOCATION, AND LOCATIONS WHERE ADDITIONAL BMPs ARE NEEDED. FOR EACH BMP REQUIRING MAINTENANCE, BMP NEEDING REPLACEMENT, AND LOCATION NEEDING ADDITIONAL BMPs, NOTE IN THE LOG THE CORRECTIVE ACTION TAKEN AND WHEN IT WAS TAKEN.

THE LOG MUST BE MADE ACCESSIBLE TO DEPARTMENT STAFF AND A COPY MUST BE PROVIDED UPON REQUEST. THE PERMITTEE SHALL RETAIN A COPY OF THE LOG FOR A PERIOD OF AT LEAST THREE YEARS FROM THE COMPLETION OF PERMANENT STABILIZATION.

POST-CONSTRUCTION

- PLAN:
 - CARRY OUT AN APPROVED INSPECTION AND MAINTENANCE PLAN THAT IS CONSISTENT WITH THE MINIMUM REQUIREMENTS OF THIS SECTION. THE PLAN MUST ADDRESS INSPECTION AND MAINTENANCE OF THE PROJECT'S PERMANENT EROSION CONTROL MEASURES AND STORMWATER MANAGEMENT SYSTEM. THIS PLAN MAY BE COMBINED WITH THE PLAN LISTED IN SECTION 2(A) OF THIS APPENDIX. SEE SECTION 7(C)(2) FOR SUBMISSION REQUIREMENTS.
- INSPECTION AND MAINTENANCE:
 - AT ALL MEASURES MUST BE MAINTAINED IN EFFECTIVE OPERATING CONDITION. A PERSON WITH KNOWLEDGE OF EROSION AND STORMWATER CONTROL, INCLUDING THE STANDARDS AND CONDITIONS IN THE PERMIT, SHALL CONDUCT THE INSPECTIONS. THE FOLLOWING ARE FACILITIES, AND MEASURES MUST BE INSPECTED AND IDENTIFIED DEFICIENCIES MUST BE CORRECTED. AREAS, FACILITIES, AND MEASURES OTHER THAN THOSE LISTED BELOW ALSO MUST REQUIRE INSPECTION ON A SPECIFIC SITE. INSPECTION OR MAINTENANCE TASKS OTHER THAN THOSE DISCUSSED BELOW MUST BE INCLUDED IN THE MAINTENANCE PLAN DEVELOPED FOR A SPECIFIC SITE.
- REGULAR MAINTENANCE:
 - KEEP A LOG (PERMIT) OF WINTER SAND IN PARKING LOTS AND ALONG ROADWAYS AT LEAST ONCE A YEAR, PREFERABLY IN THE SPRING. ACCUMULATIONS ON PAVEMENT MAY BE REMOVED BY PAVEMENT SWEEPING. ACCUMULATIONS OF SAND ALONG ROAD SHOULDERS MAY BE REMOVED BY GRADING EXPOSED SAND TO THE PAVEMENT EDGE AND REMOVING IT MANUALLY OR BY A FRONT-END LOADER. GRADING OF GRAVEL ROADS, OR GRADING OF THE GRAVEL SHOULDERS OF PAVED ROADS, MUST BE ROUTINELY PERFORMED TO ENSURE THAT STORMWATER DRAINS IMMEDIATELY OFF THE ROAD SURFACE TO ADJACENT BUFFER AREAS OR STABLE DITCHES AND IS NOT IMPEDED BY ACCUMULATIONS OF GRAVATION AT THE DITCHES. WHEN EXCAVATION OF FALSE DITCHES IN THE SHOULDER, IF WATER BARRIERS OR OPEN-TOP CULVERTS ARE USED TO DIVERT RUNOFF FROM ROAD SURFACES, CLEAN-OUT ANY SEDIMENTS WITHIN OR AT THE OUTLET OF THESE STRUCTURES TO RESTORE THEIR FUNCTION.
- DOCUMENTATION:
 - KEEP A LOG (PERMIT) SUMMARIZING INSPECTIONS, MAINTENANCE, AND ANY CORRECTIVE ACTIONS TAKEN. THE LOG MUST INCLUDE THE DATE ON WHICH EACH INSPECTION OR MAINTENANCE TASK WAS PERFORMED, A DESCRIPTION OF THE INSPECTION FINDINGS OR MAINTENANCE COMPLETED, AND THE NAME OF THE INSPECTOR OR MAINTENANCE PERSONNEL. PERFORMING THE TASK, IF A MAINTENANCE TASK REQUIRES THE CLEAN-OUT OF ANY SEDIMENTS OR DEBRIS, INDICATE WHERE THE SEDIMENT AND DEBRIS WAS DISPOSED AFTER REMOVAL. THE LOG MUST BE MADE ACCESSIBLE TO DEPARTMENT STAFF AND A COPY PROVIDED TO THE DEPARTMENT UPON REQUEST. THE PERMITTEE SHALL RETAIN A COPY OF THE LOG FOR A PERIOD OF AT LEAST FIVE YEARS FROM THE COMPLETION OF PERMANENT STABILIZATION.

EROSION CONTROL APPLICATIONS & MEASURES

THE PLACEMENT OF EROSION CONTROL MEASURES SHALL BE COMPLETED IN ACCORDANCE WITH GUIDELINES ESTABLISHED WITHIN THE CURRENT MAJOR DEPARTMENT OF ENVIRONMENTAL PROTECTION (DEP) EROSION CONTROL MANUAL, DATED 3/2003. THE DEPARTMENTS SHALL FOLLOW THE ACCORDANCE WITH THE EROSION CONTROL PLAN AND DETAILS IN THE PLAN SET. EROSION CONTROL MEASURES MUST BE IN PLACE BEFORE THE ACTIVITY BEGINS. MEASURES MUST REMAIN IN PLACE AND FUNCTIONAL, UNTIL THE SITE IS PERMANENTLY STABILIZED. ADEQUATE AND TIMELY TEMPORARY AND PERMANENT STABILIZATION MEASURES MUST BE TAKEN.

- POLLUTION PREVENTION:
 - WHENEVER PRACTICABLE, NO DISTURBANCE ACTIVITIES SHOULD TAKE PLACE WITHIN 50 FEET OF ANY PROTECTED NATURAL RESOURCE. IF DISTURBANCE ACTIVITIES TAKE PLACE BETWEEN 30 FEET AND 50 FEET OF ANY PROTECTED NATURAL RESOURCE, AND STORMWATER DISCHARGES THROUGH THE DISTURBED AREAS TOWARD THE PROTECTED NATURAL RESOURCE, PERIMETER EROSION CONTROLS MUST BE DOUBLED. DISTURBANCE ACTIVITIES TAKE PLACE LESS THAN 30 FEET FROM ANY PROTECTED NATURAL RESOURCE, AND STORMWATER DISCHARGES THROUGH THE DISTURBED AREAS TOWARD THE PROTECTED NATURAL RESOURCE, PERIMETER EROSION CONTROLS MUST BE DOUBLED AND DISTURBED AREAS MUST BE TEMPORARILY OR PERMANENTLY STABILIZED WITHIN 48 HOURS.
- TEMPORARY MULCHING:
 - ALL DISTURBED AREAS SHALL BE MULCHED WITH MATERIALS SPECIFIED BELOW PRIOR TO ANY STORM EVENT. ALL DISTURBED AREAS NOT FINAL GRADED WITHIN 7 DAYS SHALL BE MULCHED. ALSO, AREAS, WHICH HAVE BEEN TEMPORARILY OR PERMANENTLY SEEDED, SHALL BE MULCHED IMMEDIATELY FOLLOWING SEEDING. EROSION CONTROL BLANKETS ARE RECOMMENDED TO BE USED AT THE BASE OF GRASSED ROADWAYS AND ON SLOPES GREATER THAN 10%. MULCH ANCHORS SHOULD BE USED ON SLOPES GREATER THAN 10% AFTER SEPTEMBER 15TH OF THE CONSTRUCTION YEAR (SEE WINTER EROSION CONTROL NOTES).
- VEGETATION OF MULCH:
 - HAY OR STRAW, SHALL BE APPLIED AT A RATE OF 75 LBS/1,000 S.F. (1.5 TONS PER ACRE).
- EROSION CONTROL MIX:
 - SHALL BE PLACED EVENLY AND MUST PROVIDE 100% SOIL COVERAGE. EROSION CONTROL MIX SHALL BE APPLIED SUCH THAT THE THICKNESS ON SLOPES 3:1 OR LESS IS 2 INCHES PLUS 1/2 INCH PER 20 FEET OF SLOPE UP TO 100 FEET. THE THICKNESS ON SLOPES BETWEEN 3:1 AND 2:1 SHALL BE 4 INCHES PLUS 1/2 INCH PER 20 FEET OF SLOPE UP TO 100 FEET. THIS SHALL NOT BE USED ON SLOPES GREATER THAN 2:1.
- EROSION CONTROL BLANKET:
 - SHALL BE INSTALLED SUCH THAT CONTINUOUS CONTACT BETWEEN THE MAT AND THE SOIL IS OBTAINED. INSTALL BLANKETS AND STAPLES IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
- SOIL STOCKPILES:
 - STOCKPILES OF SOIL OR SUBSOIL SHALL BE MULCHED WITH HAY OR STRAW AT A RATE OF 75 LBS/1,000 S.F. (1.5 TONS PER ACRE) OR WITH A FOUR-INCH LAYER OF WOOD WASTE EROSION CONTROL MIX. THIS WILL BE DONE WITHIN 24 HOURS OF STOCKING AND RE-ESTABLISHED PRIOR TO ANY RAINFALL. ANY SOIL STOCKPILE WILL NOT BE PLACED (EVEN COVERED WITH HAY OR STRAW) WITHIN 100 FEET FROM ANY NATURAL RESOURCES.
- NATURAL RESOURCES PROTECTION:
 - ANY AREAS WITHIN 100 FEET FROM ANY NATURAL RESOURCES, IF NOT STABILIZED WITH A MINIMUM OF 75% MATURE VEGETATION CATCH, SHALL BE STABILIZED USING TEMPORARY MULCHING (AS DESCRIBED IN PART 4 OF THIS SECTION) OR OTHER NON-ERODIBLE COVER WITHIN 48 HOURS OF EXPOSURE OR PRIOR TO ANY STORM EVENT. SEDIMENT BARRIERS (AS DESCRIBED IN PART 4 OF THIS SECTION) SHALL BE PLACED BETWEEN ANY NATURAL RESOURCE AND THE DISTURBED AREA. PROJECTS CROSSING THE NATURAL RESOURCE SHALL BE PROTECTED A MINIMUM DISTANCE OF 100 FEET ON EITHER SIDE FROM THE RESOURCE. IF DISTURBANCE TAKES PLACE LESS THAN 30 FEET FROM A PROTECTED RESOURCE, AND STORMWATER DISCHARGES THROUGH THE DISTURBED AREAS TO THE RESOURCE, PERIMETER EROSION CONTROLS MUST BE DOUBLED.
- SEDIMENT BARRIERS:
 - PRIOR TO THE BEGINNING OF ANY CONSTRUCTION, SEDIMENT BARRIERS SHALL BE STAKED ACROSS THE SLOPES, ON THE CONTOUR AT OR JUST BELOW THE LIMITS OF CLEARING OR GRUBBING, AND/OR JUST ABOVE ANY ADJACENT PROPERTY LINE OR WATERCOURSE TO PROTECT AGAINST CONSTRUCTION RELATED EROSION. SEDIMENT BARRIERS SHALL BE MAINTAINED BY THE CONTRACTOR UNTIL ALL EXPOSED SLOPES HAVE AT LEAST 60%-80% VIGOROUS PERENNIAL VEGETATIVE COVER TO PREVENT EROSION.
- SILT FENCE:
 - SHALL BE INSTALLED PER THE DETAIL ON THE PLANS. THE EFFECTIVE HEIGHT OF THE FENCE SHALL NOT EXCEED 36 INCHES. IT IS RECOMMENDED THAT SILT FENCE BE REMOVED BY CUTTING THE FENCE MATERIALS AT GROUND LEVEL, SO AS TO AVOID ADDITIONAL SOIL DISTURBANCE.
- HAY BALES:
 - SHALL BE INSTALLED PER THE DETAIL ON THE PLANS. BALES SHALL BE WIRE-BOUND OR STRUNG-TIED AND THESE BINDINGS MUST REMAIN PARALLEL TO THE SLOPE DURING OPERATION TO PREVENT DETRIORATION OF THE BINDINGS. HAY BALES SHALL BE INSTALLED WITH A MINIMUM 4 INCH DEEP TRENCH LINE WITH ENDS OF ADJACENT BALES TIGHTLY ABUTTING ONE ANOTHER.
- EROSION CONTROL MIX:
 - SHALL BE INSTALLED PER THE DETAIL ON THE PLANS. THE MIX SHALL CONSIST PRIMARILY OF ORGANIC MATERIAL AND CONTAIN A WELL-GRADED MIXTURE OF PARTICLE SIZES AND MAY CONTAIN ROCKS LESS THAN 4 INCHES IN DIAMETER. THE MIX COMPOSITION SHALL MEET THE STANDARDS DESCRIBED WITHIN THE MDP BEST MANAGEMENT PRACTICES. NO TRENCHING IS REQUIRED FOR INSTALLATION OF THIS BARRIER.

CONTINUOUS CONTAINED BERM SHALL BE INSTALLED PER THE DETAIL ON THE PLANS. THIS SEDIMENT BARRIER IS EROSION CONTROL MIX PLACED WITH A SYNTHETIC TUBULAR NETTING AND PERFORMS AS A STURDY SEDIMENT BARRIER THAT WORKS WELL ON HARD GROUND SUCH AS FROZEN CONDITIONS, TRAVELED AREAS OR PAVEMENT. NO TRENCHING IS REQUIRED FOR INSTALLATION OF THIS BARRIER.

NOTES:

- BURY THE TOP END OF THE MESH MATERIAL IN A 6" TRENCH AND BACKFILL AND TAMP TRENCHING SECURE END WITH STAPLES AT 6" SPACING, 4" DOWN FROM EXPOSED END.
- FLOW DIRECTION JOINTS TO HAVE UPPER END OF LOWER STRIP BURIED WITH UPPER LAYERS OVERLAPPED 4" AND STAPLED. OVERLAP B OVER A.
- LATERAL JOINTS TO HAVE 4" OVERLAP OF STRIPS. STAPLE 18" ON CENTER.
- STAPLE OUTSIDE LATERAL EDGE 2" ON CENTER.
- WIRE STAPLES TO BE MIN OF #11 WIRE 6" LONG AND 1-1/2" WIDE.
- USE NORTH AMERICAN GREEN DS 150 OR EQUIVALENT EQUAL.

2:1 FILL SLOPE AT WETLAND EDGE NOT TO SCALE

EROSION CONTROL MIX BERM NOT TO SCALE

- TEMPORARY CHECK DAMS:
 - SHALL BE INSTALLED PER THE DETAIL ON THE PLANS. CHECK DAMS ARE TO BE PLACED WITHIN DITCHES/SWALES AS SPECIFIED ON THE DESIGN PLANS IMMEDIATELY AFTER FINAL GRADING. CHECK DAMS SHALL BE 2 FEET HIGH. TEMPORARY CHECK DAMS MAY BE REMOVED ONLY AFTER THE ROADWAYS ARE PAVED WITHIN THE DISTURBED AREAS. EROSION CONTROL MATS, RIPRAP OR GRAVEL BASE ON A ROAD. LIMIT THE EXPOSED AREA TO BENEATH THE CHECK DAM MUST BE SEEDED AND MULCHED IMMEDIATELY AFTER REMOVAL OF THE CHECK DAM.
- STONE CHECK DAMS:
 - SHOULD BE CONSTRUCTED OF 2 TO 3 INCH STONE AND PLACED SUCH THAT COMPLETE COVERAGE OF THE SWALE IS OBTAINED AND THAT THE CENTER OF THE DAM IS 6 INCHES LOWER THAN THE OUTER EDGES.
- HAY BALE CHECK DAMS:
 - WE DO NOT RECOMMEND THE USE OF HAY BALES AS CHECK DAMS.
- MANUFACTURED CHECK DAMS:
 - MANUFACTURED CHECK DAMS, AS SPECIFIED IN THE DETAIL ON THE PLANS, MAY BE USED IF AUTHORIZED BY THE PROPER LOCAL, STATE OR FEDERAL REGULATING AGENCIES. THESE UNITS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
- STORMDRAIN INLET PROTECTION:
 - INLET PROTECTION SHALL BE PLACED AROUND A STORMDRAIN DROP INLET CURB INLET PRIOR TO PERMANENT STABILIZATION OF THE IMMEDIATE AND UPSTREAM DISTURBED AREAS. THEY SHALL BE CONSTRUCTED IN A MANNER THAT WILL FACILITATE CLEAN-OUT AND DISPOSAL OF TRAPPED SEDIMENTS AND MINIMIZE INTERFERENCE WITH CONSTRUCTION ACTIVITIES. ANY RESULTANT PONDING OF WATER FROM THE PROTECTION METHOD MUST NOT CAUSE EXCESSIVE CONVENIENCE OR DAMAGE TO ADJACENT AREAS OR STRUCTURES.
- HAY BALE DROP INLET PROTECTION:
 - WE DO NOT RECOMMEND THE USE OF HAY BALES AS INLET PROTECTION.

CONCRETE BLOCK AND STONE INLET SEDIMENT FILTER (DROP OR CURB INLET) SHALL BE INSTALLED PER THE DETAIL ON THE PLANS. THE HEIGHT OF THE CONCRETE BLOCK BARRIER CAN VARY BUT MUST BE BETWEEN 12 AND 24 INCHES TALL. A MINIMUM OF 1" INCH CRUSHED STONE SHALL BE USED.

MANUFACTURED SEDIMENT BARRIERS AND FILTER (DROP OR CURB INLET), MANUFACTURED FILTERS, AS SPECIFIED IN THE DETAIL ON THE PLANS, MAY BE USED IF INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

- STABILIZED CONSTRUCTION EXIT:
 - PRIOR TO CLEARING AND/OR GRUBBING THE SITE A STABILIZED CONSTRUCTION ENTRANCE/EXIT SHALL BE CONSTRUCTED WHEREVER TRAFFIC WILL EXIT THE CONSTRUCTION SITE ONTO A PAVED ROADWAY IN ORDER TO MINIMIZE THE TRACKING OF SEDIMENT AND DEBRIS FROM THE CONSTRUCTION SITE ONTO PUBLIC ROADWAYS. THE ENTRANCES AND ADJACENT ROADWAY AREAS SHALL BE PERIODICALLY SWEEP OR WASHED TO FURTHER MINIMIZE THE TRACKING OF MUD, DUST OR DEBRIS FROM THE CONSTRUCTION AREA. STABILIZED CONSTRUCTION EXITS SHALL BE CONSTRUCTED IN AREAS SPECIFIED ON THE PLANS AND AS DETAILED ON THE PLANS.
- DUST CONTROL:
 - CONTROL DURING CONSTRUCTION SHALL BE ACHIEVED BY THE USE OF A WATERING TRUCK TO PERIODICALLY SPRINKLE THE EXPOSED ROADWAY AREAS AS NECESSARY TO REDUCE DUST DURING THE DRY MONTHS, APPLYING OTHER DUST CONTROL PRODUCTS SUCH AS CALCIUM CHLORIDE OR OTHER MANUFACTURED PRODUCTS ARE ALLOWED IF AUTHORIZED BY THE PROPER LOCAL, STATE AND/OR FEDERAL REGULATING AGENCIES. HOWEVER, IT IS THE CONTRACTOR'S ULTIMATE RESPONSIBILITY TO MITIGATE DUST AND SOIL LOSS FROM THE SITE.
- TEMPORARY VEGETATION:
 - TEMPORARY VEGETATION SHALL BE APPLIED TO DISTURBED AREAS THAT WILL NOT RECEIVE FINAL GRADING FOR PERIODS UP TO 12 MONTHS. THIS PROCEDURE SHOULD BE USED EXTENSIVELY IN AREAS ADJACENT TO NATURAL RESOURCES. SEEDED PREPARATION AND APPLICATION OF SEED SHALL BE CONDUCTED AS DESCRIBED IN THE CONSTRUCTION OF THIS NARRATIVE. SPECIFIC SEEDS FAST GROWING AND SHORT LIVING SHALL BE SELECTED FROM THE MAINE EROSION AND SEDIMENT CONTROL BMP MANUAL DATED 3/2003 OR LATER. ALTERNATIVE EROSION CONTROL MEASURES SHOULD BE USED IF SEEDING CAN NOT BE DONE BEFORE SEPTEMBER 15TH OF THE CONSTRUCTION YEAR.
- PERMANENT VEGETATION:
 - REVEGETATION MEASURES SHALL COMMENCE IMMEDIATELY UPON COMPLETION OF FINAL GRADING OF AREAS TO BE LOAMED AND SEEDED. THE APPLICATION OF SEED SHALL BE CONDUCTED BETWEEN APRIL 1ST AND OCTOBER 1ST OF THE CONSTRUCTION YEAR. PLEASE REFER TO THE WINTER EROSION CONTROL NOTES FOR MORE DETAIL. REVEGETATION MEASURES SHALL CONSIST OF THE FOLLOWING:

SEEDED PREPARATION:

- FOUR (4) INCHES OF LOAM SHALL BE SPREAD OVER DISTURBED AREAS AND SMOOTHED TO A UNIFORM SURFACE. LOAM SHALL BE FREE OF SUBSOIL, CLAY LIMBS, STONES AND OTHER OBJECTS OVER 1 INCHES OR LARGER IN ANY DIMENSION, AND WITHOUT WEEDS, ROOTS OR OTHER OBJECTIONABLE MATERIAL.
- SOIL TESTS SHALL BE TAKEN AT THE TIME OF SOIL STRIPPING TO DETERMINE FERTILIZATION REQUIREMENTS. SOIL TESTS SHALL BE TAKEN PROMPTLY AS TO NOT INTERFERE WITH THE 14-DAY LIMIT ON SOIL EXPOSURE. BASED UPON TEST RESULTS, SOIL AMENDMENTS SHALL BE INCORPORATED INTO THE SOIL PRIOR TO FINAL SEEDING. SOIL AMENDMENTS SHALL BE MADE IN ACCORDANCE WITH SOIL TEST RECOMMENDATIONS.
- WORK SOIL AMENDMENTS INTO THE SOIL AS NEARLY AS PRACTICAL TO A DEPTH OF 4 INCHES WITH PROPER EQUIPMENT. ROLL THE AREA TO FIRM THE SEEDED EXPOSED ON CLAY OR SILTY SOILS OR COARSE SAND.

APPLICATION OF SEED:

- SEEDING SHALL BE CONDUCTED BETWEEN APRIL 1ST AND OCTOBER 1ST OF THE CONSTRUCTION YEAR. GENERALLY A SEED MIXTURE MAY BE APPLIED AS FOLLOWS (MDP SEED MIX X IS DISPLAYED):

SEED TYPE	APPLICATION RATE
CREEPING REED FESCUE	0.46 LBS/1,000 S.F. (20 LBS/ACRE)
RED TOP	0.05 LBS/1,000 S.F. (1 LBS/ACRE)
TALL FESCUE	0.46 LBS/1,000 S.F. (20 LBS/ACRE)
TOTAL:	0.97 LBS/1,000 S.F. (42 LBS/ACRE)

NOTE: A SPECIFIC SEED MIXTURE SHOULD BE CHOSEN TO MATCH THE SOILS CONDITION OF THE SITE. VARIOUS AGENCIES CAN RECOMMEND SEED MIXTURES. MDP RECOMMENDED SEED MIXTURES ARE IN THE EROSION AND SEDIMENT CONTROL BMP MANUAL DATED 3/2003 OR LATER.

- HYDROSEEDING SHALL BE CONDUCTED ON PREPARED AREAS WITH SLOPES LESS THAN 2:1. LIME AND FERTILIZER MAY BE APPLIED SIMULTANEOUSLY WITH THE SEED. RECOMMENDED SEEDING RATES MUST BE INCREASED BY 10% WHEN HYDROSEEDING.
- MULCHING SHALL COMMENCE IMMEDIATELY AFTER SEED IS APPLIED. REFER TO THE TEMPORARY MULCHING SECTION OF THIS NARRATIVE FOR DETAILS.

SODDING:

FOLLOWING SEEDED PREPARATION, SOD CAN BE APPLIED IN LIEU OF SEEDING IN AREAS WHERE IMMEDIATE VEGETATION IS MOST BENEFICIAL SUCH AS DITCHES, AROUND STORMWATER DROP INLETS AND AREAS OF AESTHETIC VALUE. SOD SHOULD BE LAID AT RIGHT ANGLES TO THE DIRECTION OF FLOW, STARTING AT THE LOWEST ELEVATION. SOD SHOULD BE ROLLED OR TAMPED DOWN TO EVEN OUT THE JOINTS ONCE LAID DOWN. WHERE FLOW IS PREVALENT, SOD MUST BE PROPERLY ANCHORED TO THE SOIL IMMEDIATELY AFTER INSTALLATION. IN MOST CASES, SOD CAN BE ESTABLISHED BETWEEN APRIL 1ST AND NOVEMBER 15TH OF THE CONSTRUCTION YEAR.

TRENCH DRAINAGE AND TEMPORARY STREAM DIVERSION:

WATER FROM CONSTRUCTION TRENCH DRAINAGE OR TEMPORARY STREAM DIVERSION WILL PASS FIRST THROUGH A FILTER BAG OR SECONDARY CONTAINMENT STRUCTURE (E.G. HAY BALE LINER POOL) PRIOR TO DISCHARGE. THE DISCHARGE SITE SHALL BE SELECTED TO AVOID FLOODING AND SEDIMENT DISCHARGES TO A PROTECTED RESOURCE. IN NO CASE SHALL THE FILTER BAG OR CONTAINMENT STRUCTURE BE LOCATED WITHIN 100 FEET OF A PROTECTED NATURAL RESOURCE.

STANDARDS FOR TIMELY STABILIZATION:

STANDARD FOR THE TIMELY STABILIZATION OF DISTURBED SLOPES – THE CONTRACTOR WILL CONSTRUCT AND STABILIZE STONE-COVERED SLOPES BY NOVEMBER 15. THE CONTRACTOR WILL SEED AND MULCH ALL SLOPES TO BE VEGETATED BY SEPTEMBER 15. THE MDP WILL CONSIDER ANY AREA HAVING A GRADE GREATER THAN 8% (12.5% H+V) TO BE A SLOPE. IF THE CONTRACTOR FAILS TO STABILIZE ANY SLOPE TO BE VEGETATED BY SEPTEMBER 15, THEN THE CONTRACTOR WILL TAKE ONE OF THE FOLLOWING ACTIONS TO STABILIZE THE SLOPE FOR LATE FALL AND WINTER.

- STABILIZE THE SOIL WITH TEMPORARY VEGETATION AND EROSION CONTROL MATS – BY OCTOBER 1 THE CONTRACTOR WILL SEED THE DISTURBED SLOPE WITH WINTER RYE AT A SEEDING RATE OF 3 POUNDS PER 1,000 SQUARE FEET AND APPLY EROSION CONTROL MATS OVER THE MULCHED SLOPE. THE CONTRACTOR WILL MONITOR GROWTH OF THE RYE OVER THE NEXT 30 DAYS. IF THE RYE FAILS TO GROW AT LEAST THREE INCHES OR COVER AT LEAST 75% OF THE DISTURBED SLOPE BY NOVEMBER 1, THEN THE APPLICANT WILL COVER THE SLOPE WITH A LAYER OF EROSION CONTROL MIX AS DESCRIBED IN ITEM 2(C) OF THIS STANDARD OR WITH STONE RIPRAP AS DESCRIBED IN ITEM 2(D) OF THIS STANDARD.
- STABILIZE THE SLOPE WITH SOD – THE CONTRACTOR WILL STABILIZE THE DISTURBED SLOPE WITH PROPERLY INSTALLED SOD BY NOVEMBER 15. PROPER INSTALLATION INCLUDES THE APPLICANT PINNING THE SOD ONTO THE SLOPE WITH WIRE PINS, ROLLING THE SOD TO GUARANTEE CONTACT BETWEEN THE SOD AND UNDERLYING SOIL, AND WATERING THE SOD TO PROMOTE ROOT GROWTH INTO THE DISTURBED SOIL. THE APPLICANT WILL NOT USE LATE-SEASON SOD INSTALLATION TO STABILIZE SLOPES HAVING A GRADE GREATER THAN 30% (H+V).
- STABILIZE THE SLOPE WITH EROSION CONTROL MIX – THE CONTRACTOR WILL PLACE A SIX-INCH LAYER OF EROSION CONTROL MIX ON THE SLOPE BY NOVEMBER 15. PRIOR TO PLACING THE EROSION CONTROL MIX, THE APPLICANT WILL REMOVE ANY SNOW ACCUMULATION ON THE DISTURBED SLOPE. DO NOT USE EROSION CONTROL MIX TO STABILIZE SLOPES HAVING GRADES GREATER THAN 10% (H+V) OR HAVING GROUNDWATER SEEPS ON THE SLOPE FACE.
- STABILIZE THE SLOPE WITH STONE RIPRAP – THE CONTRACTOR WILL PLACE A LAYER OF STONE RIPRAP ON THE SLOPE BY NOVEMBER 15. THE APPLICANT WILL HIRE A REGISTERED PROFESSIONAL ENGINEER TO DETERMINE THE STONE SIZE NEEDED FOR STABILITY AND TO DESIGN A FILTER LAYER FOR UNDERNEATH THE RIPRAP.

STANDARD FOR THE TIMELY STABILIZATION OF DISTURBED SLOPES – BY SEPTEMBER 15 THE CONTRACTOR WILL SEED AND MULCH ALL DISTURBED SLOPES ON AREAS HAVING A SLOPE LESS THAN 8%. IF THE CONTRACTOR FAILS TO STABILIZE THESE SLOPES BY THIS DATE, THEN THE CONTRACTOR WILL TAKE ONE OF THE FOLLOWING ACTIONS TO STABILIZE THE SLOPE FOR LATE FALL AND WINTER.

- STABILIZE THE SOIL WITH TEMPORARY VEGETATION – BY OCTOBER 1 THE CONTRACTOR WILL SEED THE DISTURBED SLOPE WITH WINTER RYE AT A SEEDING RATE OF 3 POUNDS PER 1,000 SQUARE FEET, LIGHTLY MULCH THE SEEDED SOIL WITH HAY OR STRAW AT 75 POUNDS PER 1,000 SQUARE FEET, AND ANCHOR THE MULCH WITH PLASTIC NETTING. THE APPLICANT WILL MONITOR GROWTH OF THE RYE OVER THE NEXT 30 DAYS. IF THE RYE FAILS TO GROW AT LEAST THREE INCHES OR COVER AT LEAST 75% OF THE DISTURBED SLOPE BEFORE NOVEMBER 15, THEN THE APPLICANT WILL MULCH THE AREA FOR OVER-WINTER PROTECTION AS DESCRIBED IN ITEM 3(C) OF THIS STANDARD.
- STABILIZE THE SOIL WITH SOD – BY NOVEMBER 15 THE APPLICANT WILL MULCH THE DISTURBED SLOPE BY SPREADING HAY OR STRAW AT A RATE OF AT LEAST 150 POUNDS PER 1,000 SQUARE FEET ON THE AREA SO THAT NO SOIL IS VISIBLE THROUGH THE MULCH. PRIOR TO APPLYING THE MULCH, THE APPLICANT WILL ANCHOR THE MULCH WITH PLASTIC NETTING TO PREVENT WIND FROM MOVING THE MULCH OFF THE DISTURBED SLOPE.
- STABILIZE THE SOIL WITH EROSION CONTROL MIX – THE CONTRACTOR WILL PLACE A MINIMUM TWO-INCH LAYER OF EROSION CONTROL MIX ON THE SLOPE BY NOVEMBER 15. PRIOR TO PLACING THE EROSION CONTROL MIX, THE APPLICANT WILL REMOVE ANY SNOW ACCUMULATION ON THE DISTURBED SLOPE.

STANDARD FOR THE TIMELY STABILIZATION OF DISTURBED SLOPES – BY SEPTEMBER 15 THE CONTRACTOR WILL SEED AND MULCH ALL DISTURBED SLOPES ON AREAS HAVING A SLOPE LESS THAN 8%. IF THE CONTRACTOR FAILS TO STABILIZE THESE SLOPES BY THIS DATE, THEN THE CONTRACTOR WILL TAKE ONE OF THE FOLLOWING ACTIONS TO STABILIZE THE SLOPE FOR LATE FALL AND WINTER.

- STABILIZE THE SOIL WITH TEMPORARY VEGETATION – BY OCTOBER 1 THE CONTRACTOR WILL SEED THE DISTURBED SLOPE WITH WINTER RYE AT A SEEDING RATE OF 3 POUNDS PER 1,000 SQUARE FEET, LIGHTLY MULCH THE SEEDED SOIL WITH HAY OR STRAW AT 75 POUNDS PER 1,000 SQUARE FEET, AND ANCHOR THE MULCH WITH PLASTIC NETTING. THE APPLICANT WILL MONITOR GROWTH OF THE RYE OVER THE NEXT 30 DAYS. IF THE RYE FAILS TO GROW AT LEAST THREE INCHES OR COVER AT LEAST 75% OF THE DISTURBED SLOPE BEFORE NOVEMBER 15, THEN THE APPLICANT WILL MULCH THE AREA FOR OVER-WINTER PROTECTION AS DESCRIBED IN ITEM 3(C) OF THIS STANDARD.
- STABILIZE THE SOIL WITH SOD – BY NOVEMBER 15 THE APPLICANT WILL MULCH THE DISTURBED SLOPE BY SPREADING HAY OR STRAW AT A RATE OF AT LEAST 150 POUNDS PER 1,000 SQUARE FEET ON THE AREA SO THAT NO SOIL IS VISIBLE THROUGH THE MULCH. PRIOR TO APPLYING THE MULCH, THE APPLICANT WILL ANCHOR THE MULCH WITH PLASTIC NETTING TO PREVENT WIND FROM MOVING THE MULCH OFF THE DISTURBED SLOPE.
- STABILIZE THE SOIL WITH EROSION CONTROL MIX – THE CONTRACTOR WILL PLACE A MINIMUM TWO-INCH LAYER OF EROSION CONTROL MIX ON THE SLOPE BY NOVEMBER 15. PRIOR TO PLACING THE EROSION CONTROL MIX, THE APPLICANT WILL REMOVE ANY SNOW ACCUMULATION ON THE DISTURBED SLOPE.

INSTALLATION:

- THE BARRIER MUST BE PLACED ACROSS THE SLOPE, ALONG THE CONTOUR.
- EXISTING GROUND SHALL BE PREPARED SUCH THAT THE BARRIER MAY BE NEARLY FLAT ALONG THE GROUND TO AVOID THE CREATION OF VOIDS AND BRIDGES IN ORDER TO MINIMIZE THE POTENTIAL OF WASH OUTS UNDER THE BARRIER.
- THE BARRIER SHALL BE A MINIMUM OF 1 FOOT HIGH (AS MEASURED ON THE UPHILL SIDE) AND 2 FEET WIDE FOR SLOPES LESS THAN 6% IN GRADE AND ACCOMMODATE THE ADDITIONAL RUNOFF.
- EROSION CONTROL MIX CAN BE INSTALLED WHERE SILT FENCE IS ILLUSTRATED ON THE DESIGN PLANS IN AREAS EXCEPT IN, BUT NOT LIMITED TO, THE FOLLOWING AREAS: WETLAND AREAS, AT POINTS OF CONCENTRATED FLOW, BELOW CULVERT OUTLET APRONS, AROUND CATCH BASINS AND CLOSED STORM SYSTEMS AND AT THE BOTTOM OF STEEP SLOPES THAT ARE MORE THAN 50 FEET FROM TOP TO BOTTOM.

FILTER BARRIER NOT TO SCALE

NOT TO SCALE

WINTER EROSION CONTROL MEASURES

THE WINTER CONSTRUCTION PERIOD IS FROM OCTOBER 1 THROUGH APRIL 15. IF THE CONSTRUCTION SITE IS NOT STABILIZED WITH PAVEMENT, A ROAD GRAVEL BASE, 75% MATURE VEGETATION COVER OR RIPRAP 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, RIPRAP OR GRAVEL BASE ON A ROAD. LIMIT THE EXPOSED AREA TO THOSE AREAS IN WHICH WORK IS EXPECTED TO BE UNDERTAKEN DURING THE PROCEEDING 15 DAYS AND THAT CAN BE MULCHED IN ONE DAY PRIOR TO ANY SNOW EVENT. ALL AREAS SHALL BE COVERED AND PROTECTED FROM THE SUBSUE GRASS. IS INSTALLED IN ROADWAY AREAS OR THE AREAS OF FUTURE LOAD AND SEED HAVE BEEN LOADED, SEEDED AND MULCHED. HAY AND STRAW MULCH RATE SHALL BE A MINIMUM OF 150 LBS/1,000 S.F. (3 TONS/ACRE) AND SHALL BE PROPERLY ANCHORED. THE CONTRACTOR MUST INSTALL ANY ADD MEASURES WHICH MAY BE NECESSARY TO CONTROL EROSION/SEDIMENTATION FROM THE SITE DEPENDENT UPON THE ACTUAL SITE AND WEATHER CONDITIONS. CONTINUATION OF EARTHWORK OPERATIONS ON ADDITIONAL AREAS SHALL NOT BEGIN UNTIL THE EXPOSED SOIL SURFACE ON THE AREA BEING WORKED HAS BEEN STABILIZED. IN ORDER TO MINIMIZE AREAS WITHOUT EROSION CONTROL PROTECTION.

1. SOIL STOCKPILES

STOCKPILES OF SOIL OR SUBSOIL WILL BE MULCHED FOR OVER WINTER PROTECTION WITH HAY OR STRAW AT TWICE THE NORMAL RATE OR AT 150 LBS/1,000 S.F. (3 TONS PER ACRE) OR WITH A FOUR-INCH LAYER OF WOOD WASTE EROSION CONTROL MIX. THIS WILL BE DONE WITHIN 24 HOURS OF STOCKING AND RE-ESTABLISHED PRIOR TO ANY RAINFALL OR SNOWFALL. ANY SOIL STOCKPILE WILL NOT BE PLACED (EVEN COVERED WITH HAY OR STRAW) WITHIN 100 FEET FROM ANY NATURAL RESOURCES.

2. NATURAL RESOURCES PROTECTION

ANY AREAS WITHIN 75 FEET FROM ANY NATURAL RESOURCES SHALL BE MULCHED BY DECEMBER 1 AND ANCHORED WITH PLASTIC NETTING OR PROTECTED WITH EROSION CONTROL MATS. DURING WINTER CONSTRUCTION, A DOUBLE LINE OF SEDIMENT BARRIERS (I.E. SILT FENCE BACKED WITH HAY BALES OR EROSION CONTROL MIX) WILL BE PLACED BETWEEN ANY NATURAL RESOURCE AND THE DISTURBED AREA.

PROJECTS CROSSING THE NATURAL RESOURCE SHALL BE PROTECTED A MINIMUM DISTANCE OF 100 FEET ON EITHER SIDE FROM THE RESOURCE. EXISTING PROJECTS NOT STABILIZED BY DECEMBER 1 SHALL BE PROTECTED WITH THE SECOND LINE OF SEDIMENT BARRIER TO ENSURE FUNCTIONALITY DURING THE SPRING THAW AND RAINS.

3. SEDIMENT BARRIERS

DURING FROZEN CONDITIONS, SEDIMENT BARRIERS SHALL CONSIST OF WOOD WASTE FILTER BERMS AS FROZEN SOIL PREVENTS THE PROPER INSTALLATION OF HAY BALES AND SEDIMENT SILT FENCES.

4. MULCHING

ALL AREA SHALL BE CONSIDERED TO BE DENUDE UNTIL AREAS OF FUTURE LOAD AND SEED HAVE BEEN LOADED, SEEDED AND MULCHED. HAY AND STRAW MULCH SHALL BE APPLIED AT A RATE OF 150 LB. PER 1,000 SQUARE FEET OR 3 TONS/ACRE (TWICE THE NORMAL ACCEPTED RATE OF 75 LBS/1,000 S.F. OR 1.5 TONS/ACRE) AND SHALL BE PROPERLY ANCHORED. MULCH SHALL NOT BE SPREAD ON TOP OF SNOW. THE SNOW MUST BE REMOVED DOWN TO A ONE-INCH LAYER 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 EITHER MULCHED WITH STRAW OR HAY AT A RATE OF 150 LB. PER 1,000 SQUARE FEET (3 TONS/ACRE) AND ADEQUATELY ANCHORED THAT GROUND SURFACE IS NOT VISIBLE THROUGH THE MULCH.

BETWEEN THE DATES OF SEPTEMBER 1 AND APRIL 15, ALL MULCH SHALL BE ANCHORED BY EITHER PEG LINE, MULCH NETTING, ASPHALT EMULSION CHEMICAL, TRACK OR WOOD CELLULOSE FIBER. WHEN GROUND SURFACE IS NOT VISIBLE THROUGH THE MULCH THEN COVER IS SUFFICIENT.

5. MULCHING ON SLOPES AND DITCHES

SLOPES SHALL NOT BE LEFT EXPOSED FOR ANY EXTENDED TIME OF WORK SUSPENSION UNLESS FULLY MULCHED AND ANCHORED WITH PEG AND NETTING OR WITH EROSION CONTROL BLANKETS. SLOPES GREATER THAN 8% SHALL BE APPLIED AT A RATE OF 200 LBS/1,000 S.F. ON ALL SLOPES GREATER THAN 8%. MULCH NETTING SHALL BE USED TO ANCHOR MULCH IN ALL DRAINAGE WAYS WITH A SLOPE GREATER THAN 3% FOR SLOPES EXPOSED TO DIRECT WINDS AND FOR ALL OTHER SLOPES GREATER THAN 8%. EROSION CONTROL MIX CAN BE USED TO SUBSTITUTE EROSION CONTROL BLANKETS ON ALL SLOPES EXCEPT DITCHES.

6. SEEDING

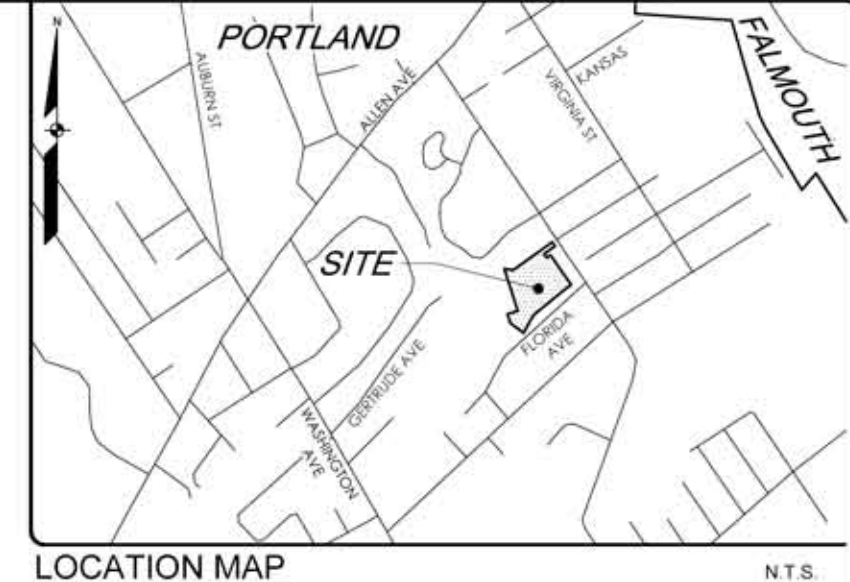
BETWEEN THE DATES OF OCTOBER 15 AND APRIL 1ST, LOAM OR SEED WILL NOT BE REQUIRED. DURING PERIODS OF ABOVE FREEZING TEMPERATURES FINISHED AREAS SHALL BE FINE GRADED AND EITHER PROTECTED WITH MULCH OR TEMPORARILY SEEDED AND MULCHED UNTIL SUCH TIME AS THE FINAL TREATMENT CAN BE APPLIED. IF THE DATE IS AFTER NOVEMBER 1ST AND IF THE EXPOSED AREA HAS BEEN LOAMED, FINE GRADED 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 SELECTED TO BE PLACED PRIOR TO THE PLACEMENT OF MULCH AND BARK NETTING ANCHORED WITH STAPLES. IF DORMANT SEEDING IS USED FOR THE SITE, ALL DISTURBED AREAS SHALL RECEIVE A 4" OF LOAM AND SEED AT AN APPLICATION RATE OF 4.8 LBS/1,000 S.F. ALL AREAS SEEDER DURING THE WINTER WILL BE INSPECTED IN THE SPRING FOR ADEQUATE CATCH. ALL AREAS SUFFICIENTLY VEGETATED (LESS THAN 75% CATCH) SHALL BE REVEGETATED BY REPLACING LOAM, SEED AND MULCH. IF DORMANT SEEDING IS NOT USED FOR THE SITE, ALL DISTURBED AREAS SHALL BE REVEGETATED IN THE SPRING. SEED TYPE SHALL BE WINTER RYE.

7. INSPECTION AND MONITORING

MAINTENANCE MEASURES SHALL BE APPLIED AS SEVEN DURING THE ENTIRE CONSTRUCTION PERIOD AT A MINIMUM, AFTER EACH RAINFALL, SNOW STORM OR PERIOD OF DRAINAGE AND RUNOFF. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PERFORM A VISUAL INSPECTION OF ALL INSTALLED EROSION CONTROL MEASURES AND PERFORM REPAIRS AS NEEDED TO INSURE THEIR CONTINUOUS FUNCTION. FOLLOWING THE TEMPORARY AND OR FINAL SEEDING AND MULCHING, THE CONTRACTOR SHALL IN THE SPRING INSPECT AND REPAIR ANY DAMAGES AND OR UNSTABILIZED SPOTS. ESTABLISHED VEGETATIVE COVER MEANS A MINIMUM OF 90% OF AREAS VEGETATED WITH VIGOROUS GROWTH.

STANDARDS FOR TIMELY STABILIZATION OF CONSTRUCTION SITES DURING WINTER

1. STANDARD FOR THE TIMELY STABILIZATION OF DITCHES AND CHANNELS – THE APPLICANT WILL CONSTRUCT AND STABILIZE ALL STONE-LINED DITCHES AND CHANNELS ON THE SITE BY NOVEMBER 15. THE APPLICANT WILL CONSTRUCT AND STABILIZE ALL GRASS-LINED DITCHES AND CHANNELS ON THE SITE BY SEPTEMBER 15. IF THE APPLICANT FAILS TO STABILIZE A DITCH OR CHANNEL TO BE GRASS-LINED BY SEPTEMBER 15, THEN THE APPLICANT WILL TAKE ONE OF THE FOLLOWING ACTIONS TO STABILIZE THE DITCH FOR LATE FALL AND WINTER.



PROGRESS
PRINT

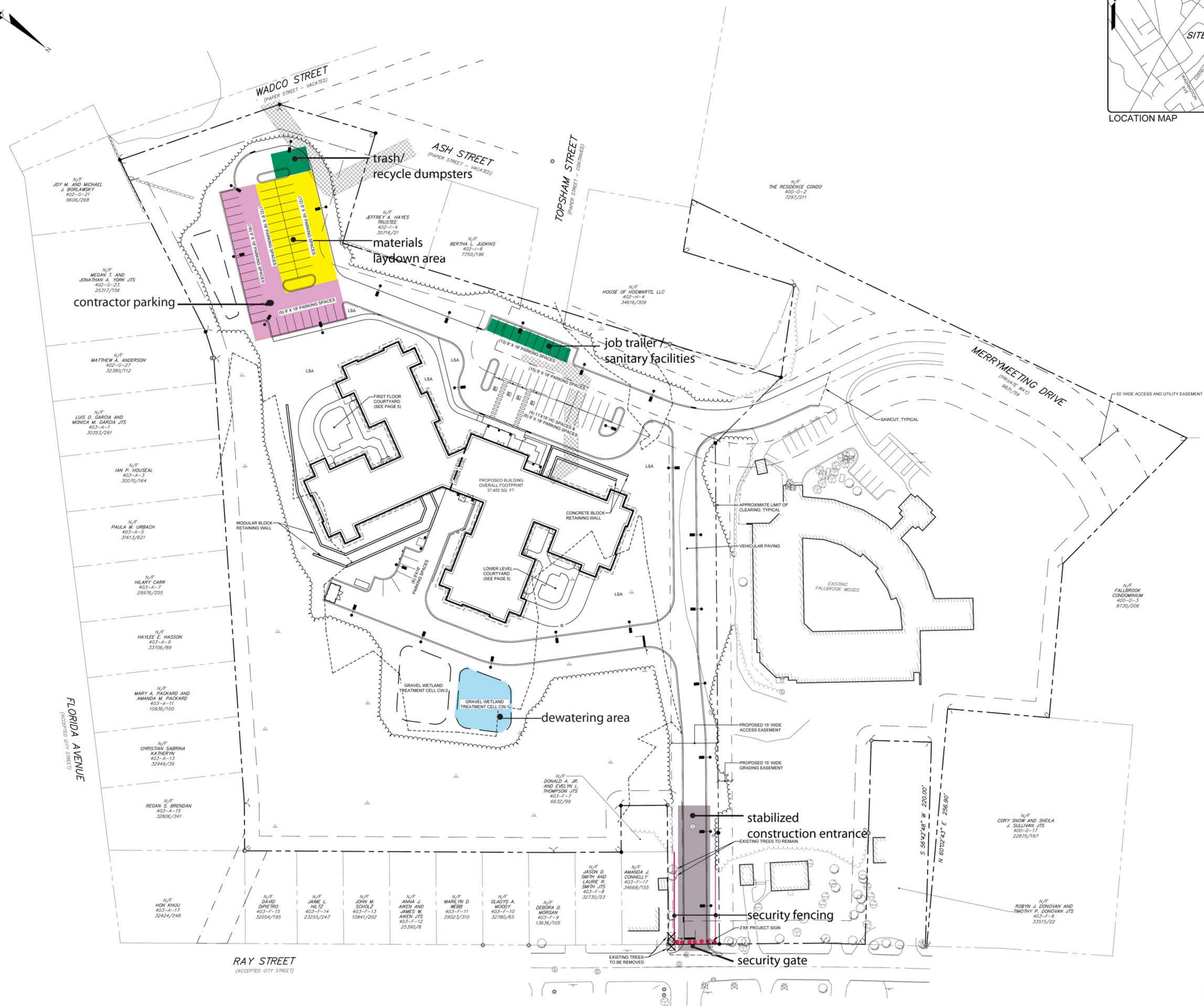
NOT FOR
CONSTRUCTION

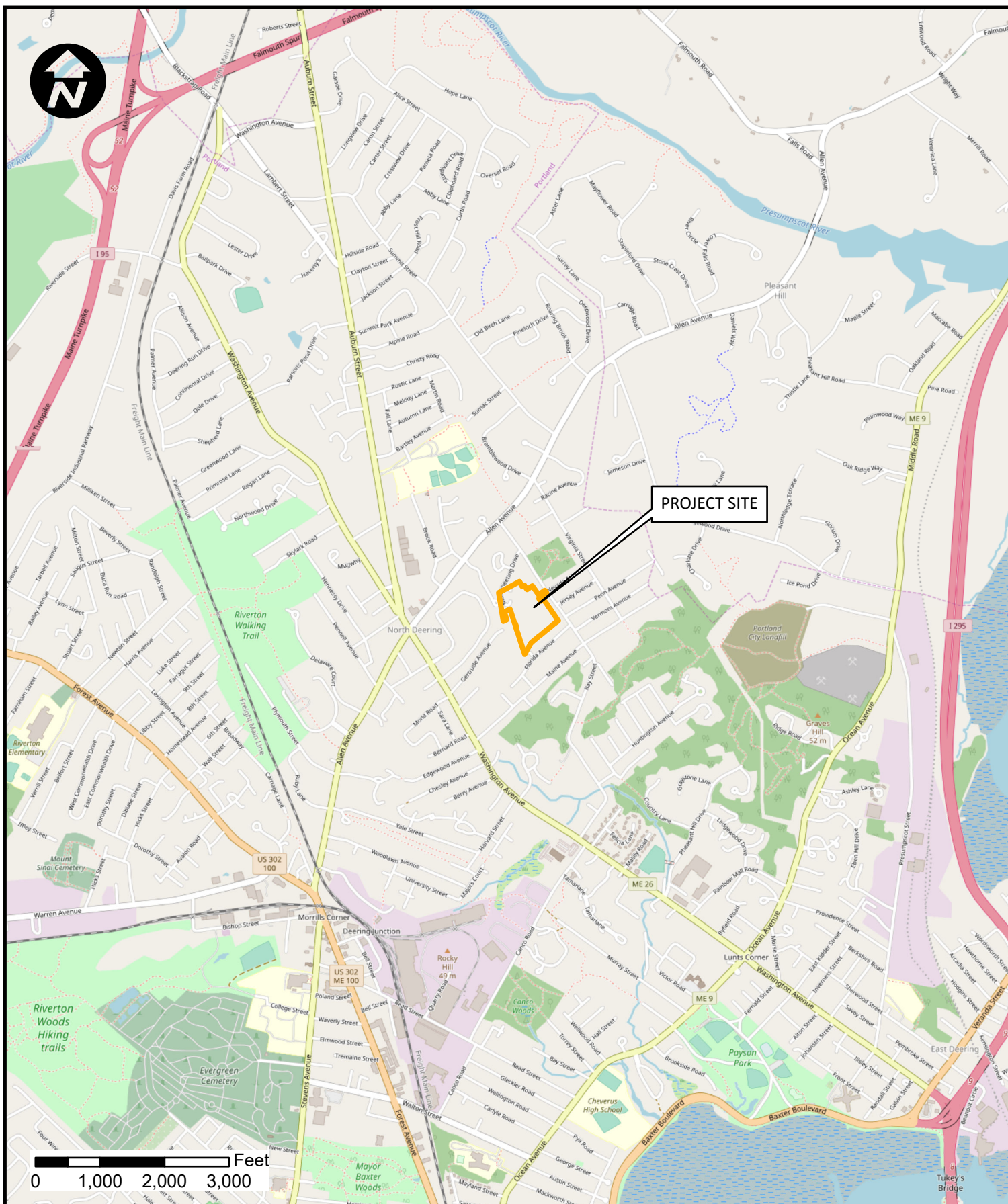
[illegible]

SEBAGO
TECHNICS
WWW.SEBAGOTECHNICS.COM
75 John Roberts Rd.
Suite 4A
South Portland, ME 04106
Tel: 207-200-2100

SITE PLAN
OF:
FALLBROOK NURSING CARE
MERRYMEETING DRIVE
PORTLAND, MAINE
FOR:
SANDY RIVER COMPANY
217 COMMERCIAL ST., SUITE 201
PORTLAND, MAINE 04112

DESIGNED	DMD
DRAWN	SRC
CHECKED	BJB
DATE	11/01/19
SCALE	1" = 40'
PROJECT	18347





SITE LOCATION MAP FOR: FALLBROOK NURSING CENTER

SCALE: 1:24,000

DATE: 10/22/2019

LOCATION:

60 MERRYMEETING DRIVE
PORTLAND, ME

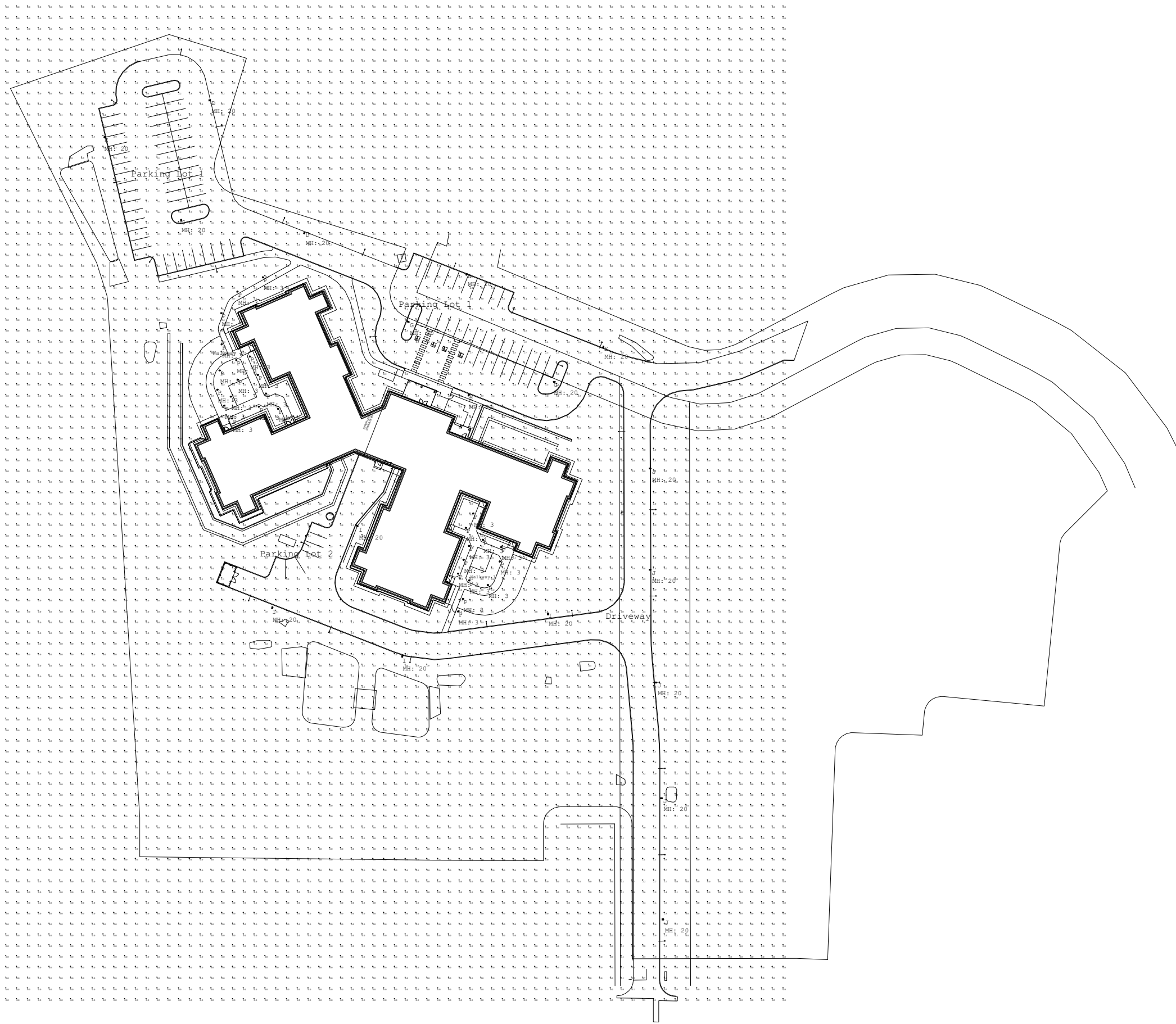
INFORMATION:

USGS Quadrangle: Portland West

SEBAGO
TECHNICS

WWW.SEBAGOTECHNICS.COM

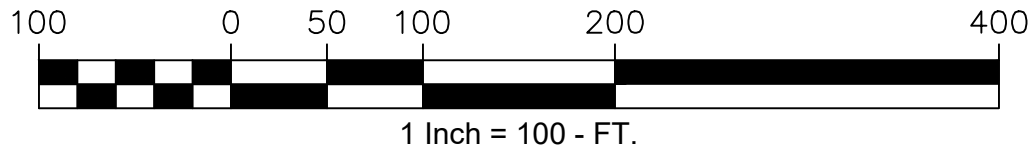
75 John Roberts Rd. - Suite 4A
South Portland, ME 04106
Tel. 207-200-2100



Luminaire Schedule							
Symbol	Label	Qty	Lum. Watts	Lum. Lumens	LLF	Arrangement	Description
	D	3	133.427	10544	0.850	SINGLE	VP-S-60L-136-4K7-3-BC
	E	3	133.155	14774	0.850	SINGLE	VP-S-60L-136-4K7-4W
	G	3	135.388	15071	0.850	SINGLE	VP-S-60L-136-4K7-5W
	I	4	135.383	15344	0.850	SINGLE	VP-S-60L-136-4K7-3
	J	5	133.829	11577	0.850	SINGLE	VP-S-60L-136-4K7-2-BC
	P	28	26.9	941	0.850	SINGLE	FN2-12LU-4K-XX

Calculation Summary							
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
Driveway	Illuminance	Fc	2.75	6.8	0.6	4.58	11.33
Parking Lot 1	Illuminance	Fc	1.83	4.7	0.5	3.66	9.40
Parking Lot 2	Illuminance	Fc	2.36	5.9	0.7	3.37	8.43
Property Line	Illuminance	Fc	0.00	0.1	0.0	N.A.	N.A.
Walkway 1	Illuminance	Fc	3.08	23.7	0.1	30.80	237.00
Walkway 2	Illuminance	Fc	2.39	26.5	0.0	N.A.	N.A.

Note:
Calculation Grid (10ft x 10ft) @ Ground Level.
Luminaire mounting heights are noted on each Luminaire Label.



1. THIS LIGHTING DESIGN IS BASED ON LIMITED INFORMATION SUPPLIED BY OTHERS TO HUBBELL LIGHTING. SITE DETAILS PROVIDED HEREON ARE REPRODUCED ONLY AS A VISUALIZATION AID. FIELD DEVIATIONS MAY SIGNIFICANTLY AFFECT PREDICTED PERFORMANCE. PRIOR TO INSTALLATION, CRITICAL SITE INFORMATION (POLE LOCATIONS, ORIENTATION, MOUNTING HEIGHT, ETC.) SHOULD BE COORDINATED WITH THE CONTRACTOR AND/OR SPECIFIER RESPONSIBLE FOR THE PROJECT.
2. LUMINAIRE DATA IS TESTED TO INDUSTRY STANDARDS UNDER LABORATORY CONDITIONS. OPERATING VOLTAGE AND NORMAL MANUFACTURING TOLERANCES OF LAMP, BALLAST, AND LUMINAIRE MAY AFFECT FIELD RESULTS.
3. CONFORMANCE TO FACILITY CODE AND OTHER LOCAL REQUIREMENTS IS THE RESPONSIBILITY OF THE OWNER AND/OR THE OWNER'S REPRESENTATIVE.

TITLE: PHOTOMETRIC PLAN Fallbrook Health Center	REVISED FROM DRAWING NUMBER(S):		 Hubbell Lighting, Inc. 701 MILLENNIUM BLVD. GREENVILLE, SC 29607	DN BY:	DATE:	CHK BY:
	19-25238			Kalyan	11-06-2019	Heath
	19-25238(R1)			REV. BY:	DATE:	SCALE:
						AS NOTED
			QUOTE: N/A	DRAWING / DESIGN NO.: 19-25238(R2)		



SOIL TYPES

SOIL SERIES	SYMBOL	HYDROLOGIC GROUP
BELGRADE	BuB	D
BUXTON	BuB	D
HOLLIS	HrC	D
HOLLIS	HrC	D
SCANTIC	Sp	D

NOTES

1. SOIL INFORMATION FOR THE SITE WAS OBTAINED VIA THE USDA UNITED STATES DEPARTMENT OF AGRICULTURE AND NATURAL RESOURCES CONSERVATION SERVICE'S WEB SOIL SURVEY.

LEGEND

- WATERSHED BOUNDARY
- TIME OF CONCENTRATION
- REACH
- WATERSHED LABEL
- REACH
- DETENTION POND
- STUDY POINT
- SOILS BOUNDARY
- SOIL TYPES

18347 PREPARED BY: DMD

DESIGNED: DMD

DRAWN: SRC

CHECKED: DLR

DATE: 05-15-20

SCALE: 1" = 40'

PROJECT: 18347

PRE-DEVELOPMENT STORMWATER PLAN

OF: FALLBROOK COMMONS

FOR: FALLBROOK COMMONS DEVELOPMENT LLC.

202 COMMERCIAL STREET, SUITE 201

PORTLAND, MAINE 04112

SEBAGO ENGINEERS

WWW.SEAGOTECHNICS.COM

75 JOHNSON STREET, SUITE 404

SOUTH PORTLAND, ME 04106

TEL: 207-266-2100

DMD 05-15-20 SUBMITTED FOR RESPONSE TO COMMENTS

A DMD 12-18-19 SUBMIT TO CITY OF PORTLAND

REV: BY: DATE: STATUS:

THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM SEBAGO TECHNIQUES, INC. ANY ALTERATIONS, ADDITIONS OR DELETIONS SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO SEBAGO TECHNIQUES, INC.

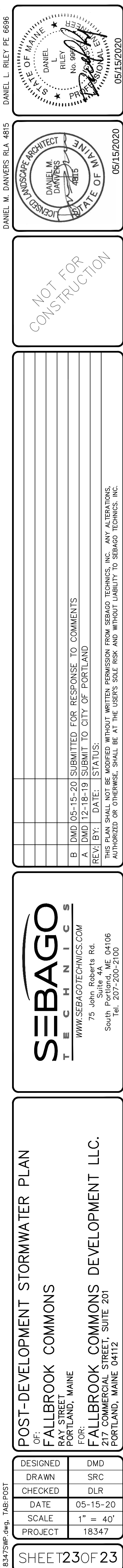
NOT FOR CONSTRUCTION

DANIEL M. DANVERS RLA 4815

DANIEL L. RILEY PE 6996

05/15/2020

05/15/2020



Job #	18347 Fallbrook Commons			Date: 5/6/2020								
Area ID	Watershed Size (S.F.)	Existing Onsite Impervious Area to Remain (S.F.)	New Onsite Impervious Area (S.F.)	Existing Onsite Landscaped Area to Remain (S.F.)	New Onsite Landscaped Area (S.F.)	Net New Developed Area (S.F.)	Net Existing Developed Areas (S.F.)	Treatment Provided?	Impervious Area Treated (S.F.)	Landscaped Area Treated (S.F.)	Developed Area Treated (S.F.)	Treatment BMP
10-05	197,762	8,676	226	167,582	21,278	21,504	176,258	NO	0	0	0	
10-15	114,524	24,914	0	85,730	3,880	3,880	110,644	NO	0	0	0	
11-05	83,879	0	55,667	0	28,212	83,879	0	YES	55,667	28,212	83,879	GW-1
11-15	23,407	0	0	0	23,407	23,407	0	YES	0	23,407	23,407	GW-1
11-25	27,173	7,890	700	9,821	8,762	9,462	17,711	YES	8,590	18,583	27,173	GW-1
12-05	56,194	0	27,298	0	28,896	56,194	0	YES	27,298	28,896	56,194	UDSF-1
13-05	17,204	0	17,204	0	0	17,204	0	YES	17,204	0	17,204	DtL
13-15	16,974	0	16,974	0	0	16,974	0	YES	16,974	0	16,974	DtL
20-05	12,129	0	0	12,129	0	0	12,129	NO	0	0	0	
30-05	37,005	0	0	24,501	12,504	12,504	24,501	NO	0	0	0	
05-405	53,510	17,041	3,120	33,349	0	3,120	50,390	NO	0	0	0	
05-415	39,122	10,996	2,045	26,081	0	2,045	37,077	NO	0	0	0	
05-505	107,926	29,442	771	77,713	0	771	107,155	NO	0	0	0	
05-515	9,601	4,072	1,485	4,044	0	1,485	8,116	NO	0	0	0	
TOTAL (S.F.)	796,410	103,031	125,490	440,950	126,939	252,429	543,981		125,733	99,098	224,831	
TOTAL NEW IMPERVIOUS AREA (S.F.)							125,490	TOTAL DEVELOPED AREA (S.F.)				252,429
TOTAL IMPERVIOUS AREA RECEIVING TREATMENT (S.F.)							125,733	TOTAL AREA RECEIVING TREATMENT (S.F.)				224,831
% OF IMPERVIOUS AREA RECEIVING TREATMENT							100.19%	% OF AREA RECEIVING TREATMENT				89.07%

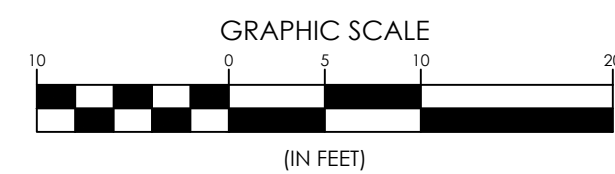
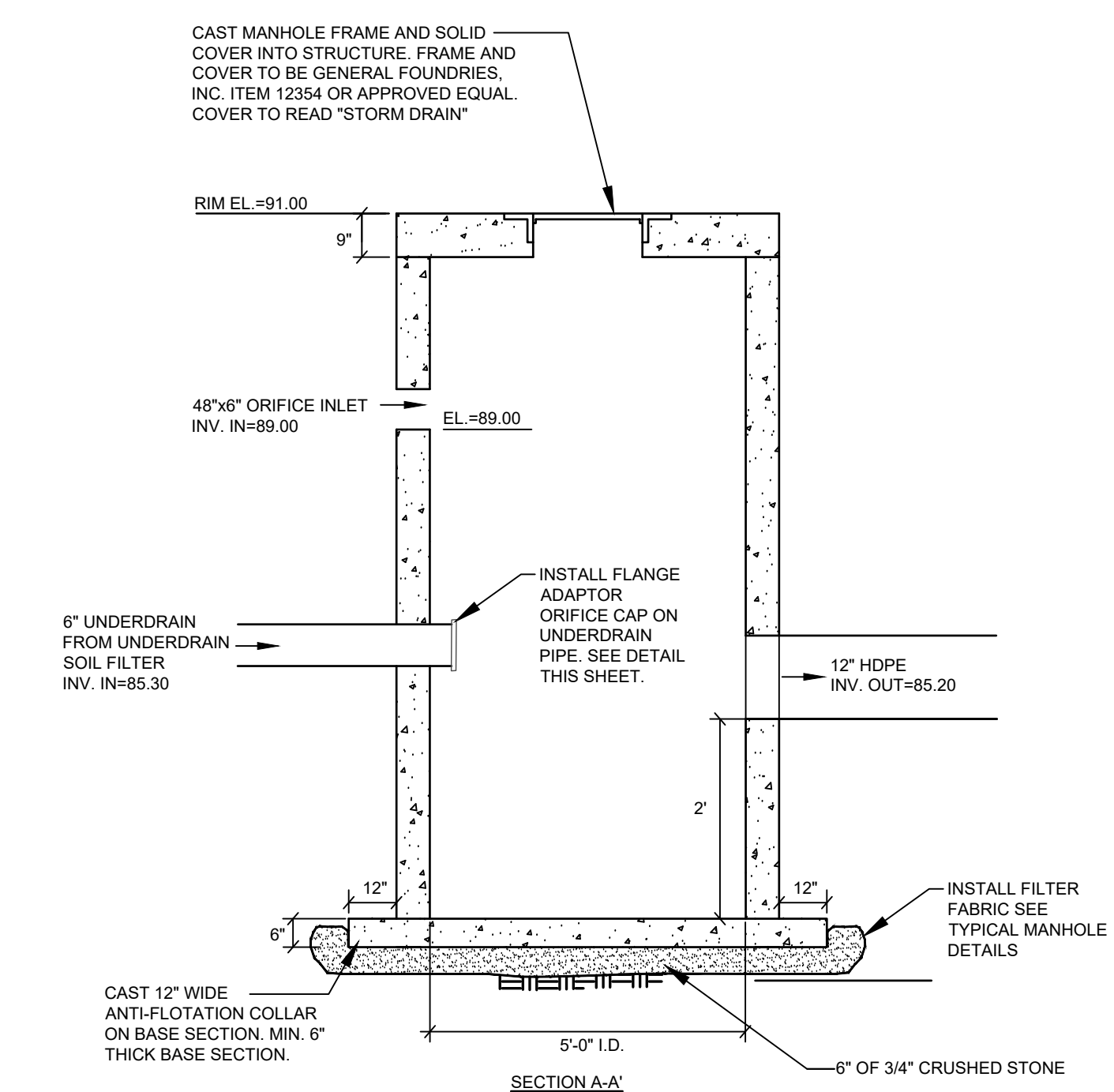
STRUCTURE	RIM	INV. IN	INV. OUT:	DIAM.
CB-15	93.10	88.30 (SD-14)	88.30 (SD-15)	48"
OCS-2	91.00	85.30 (UD-24)	85.20 (SD-13)	60"

NAME	SIZE	LENGTH	SLOPE
SD-13	12"	23'	1.33%
SD-15	12"	23'	0.44%
UD-24	6"	7'	0.00%

THE APPLICANT WILL RETAIN THE SERVICES OF A PROFESSIONAL ENGINEER TO INSPECT THE CONSTRUCTION AND STABILIZATION OF THE UNDERDRAIN. IF NECESSARY, THE INSPECTING ENGINEER WILL INTERPRET THE UNDERDRAIN'S CONSTRUCTION PLAN FOR THE CONTRACTOR. ONCE ALL STORMWATER MANAGEMENT STRUCTURES ARE CONSTRUCTED AND STABILIZED, THE INSPECTING ENGINEER WILL NOTIFY THE DEPARTMENT IN WRITING WITHIN 30 DAYS TO STATE THAT THE POND HAS BEEN COMPLETED. ACCOMPANYING THE NOTIFICATION MUST BE A LOG OF THE ENGINEER'S INSPECTIONS, DURING THE DATE OF EACH INSPECTION, THE TIME OF EACH INSPECTION, AND THE ITEMS INSPECTED ON EACH VISIT, AND INCLUDE ANY TESTING DATA OR SIEVE ANALYSIS DATA OF EVERY MINERAL SOIL AND SOIL MEDIA SPECIFIED IN THE PLANS AND USED ON SITE.

- TESTING AND SUBMITTALS
1. THE UNDERDRAIN SHALL CONSIST OF THE TOP THREE LAYERS IDENTIFIED AS LOAMY TOPSOIL, 2" TRANSITION AND 12" LOAMY COARSE SAND. THE CONTRACTOR SHALL IDENTIFY THE LOCATION OF THE SOURCE FOR EACH COMPONENT OF THE UNDERDRAIN AND SUBMIT GRADATIONS FOR THE UNDERDRAIN MATERIALS TO THE ENGINEER FOR APPROVAL. SAMPLES MUST BE A COMPOSITE OF THREE DIFFERENT LOCATIONS (GRABS) FROM THE STOCKPILE OR PIT FACE. SAMPLE SIZE REQUIRED WILL BE DETERMINED BY THE TESTING LABORATORY.

1. ONSITE LAYER SHALL BE SCREENED FOR STONES LARGER THAN 1 INCH AND BE TESTED TO VERIFY THERE IS LESS THAN 2% CLAY CONTENT AND 5% ORGANIC MATTER. IF ONSITE LAYER DOES NOT MEET THESE CRITERIA, THEN LAYER SHALL BE REPLACED WITH A NON-CLAYEY, LOAMY TOPSOIL SUCH AS A USDA SANDY LOAM TOPSOIL WITH 8-15% HUMIFIED ORGANIC MATTER.
2. THE TOPSOIL SHALL BE GENTLY MIXED WITH THE FILTER LAYER TO PROVIDE CONTINUITY FOR DEEP ROOT PENETRATION. THE TEETH OF A BACKHOE, A HAND RAKE, A SHOVEL, OR ROTOTILLING 2-3 INCHES MAY BE USED TO CREATE A LOOSENED TRANSITION.
3. THE LOAMY COARSE SAND LAYER SHALL BE TESTED IN ACCORDANCE WITH THE TESTING AND SUBMITTALS NOTES ABOVE.
4. A LAYER OF HAY SHALL BE PLACED BETWEEN 12" LOAMY COARSE LAYER AND UNDERDRAIN STONE BED. THE LAYER OF HAY SHOULD BE FREE OF ROOTS, TWIGS, OR PLUGGING OF THE SAND/GRAVEL/STONE LAYER AND/OR PIPE.
5. UNDERDRAIN STONE BEDDING MATERIAL MUST CONFORM TO THE MOOT SPECIFICATION 703.22 UNDERDRAIN TYPE B FOR UNDERDRAIN BACKFILL MATERIAL. THE BEDDING MATERIAL MUST HAVE NO MORE THAN 5% PASSING THE 200 SIEVE.
6. MATERIAL LAYERS ABOVE THE UNDERDRAIN BACKFILL LAYER SHALL BE A UNIFORM MIX, FREE OF STONES, STUMPS, ROOTS, OR OTHER SIMILAR OBJECTS LARGER THAN TWO INCHES. NO OTHER SUBSTANCES THAT COULD BE HARMFUL TO PLANT GROWTH OR PROVIDE A HINDERANCE TO THE PLANTING OR MAINTENANCE OPERATIONS CAN BE MIXED WITHIN THE FILTER. DURING CONSTRUCTION, CARE SHOULD BE TAKEN TO AVOID COMPACTON OF BOTH THE GRAVEL AND SOIL FILTER.
7. OVER COMPACTON OF UNDERDRAIN MATERIAL SHALL BE AVOIDED. VEHICLES AND HEAVY EQUIPMENT ARE PROHIBITED FROM DRIVING ON THE UNDERDRAINED SOIL FILTER SURFACE. IF OVER COMPACTON OCCURS, ROTOTILL AGAIN PRIOR TO SEEDING OR SODDING.
8. SNOW STORAGE IS PROHIBITED OVER THE UNDERDRAINED SOIL FILTER.

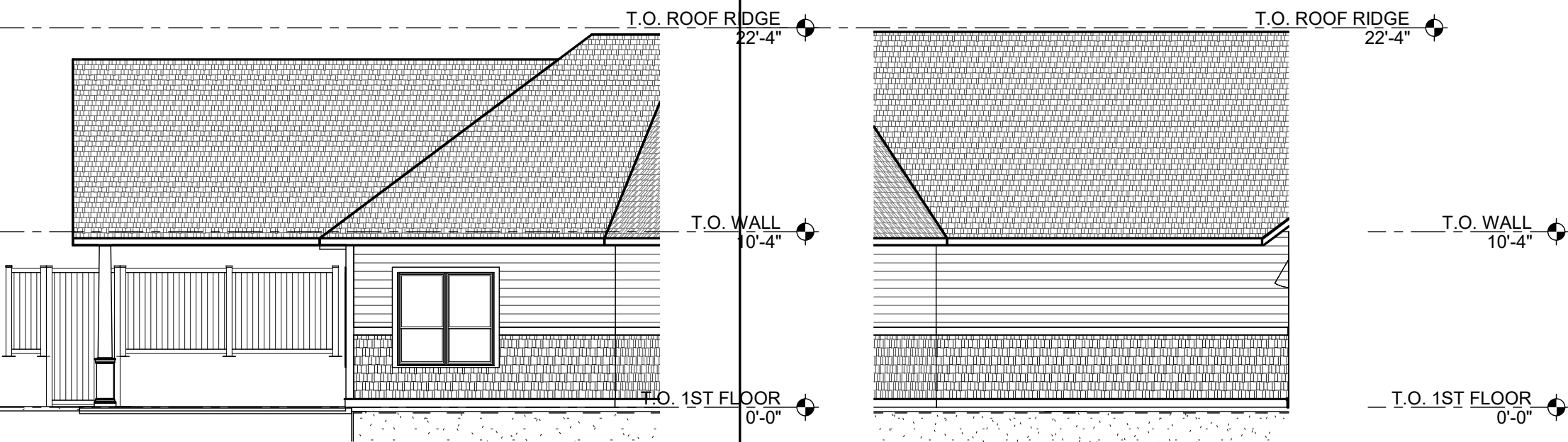






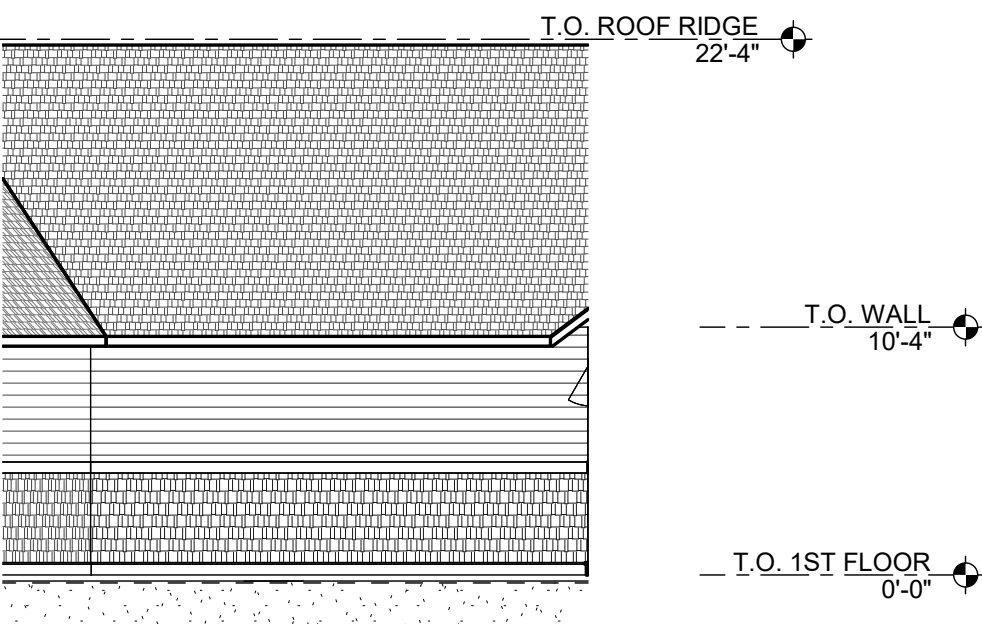
N1 EXTERIOR ELEVATION 1

1/8" = 1'-0"



J1 EXTERIOR ELEVATION 2

1/8" = 1'-0"



J5 EXTERIOR ELEVATION 3

1/8" = 1'-0"



J9 EXTERIOR ELEVATION 4

1/8" = 1'-0"



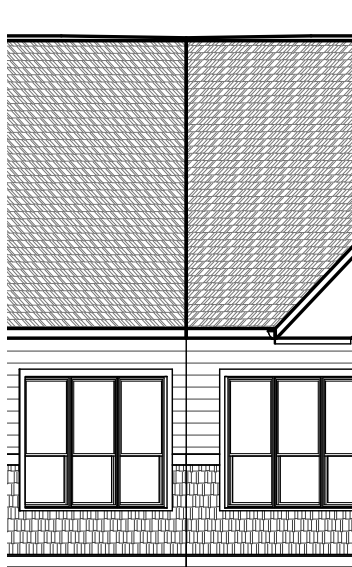
E1 EXTERIOR ELEVATION 5

1/8" = 1'-0"



E9 EXTERIOR ELEVATION 6

1/8" = 1'-0"



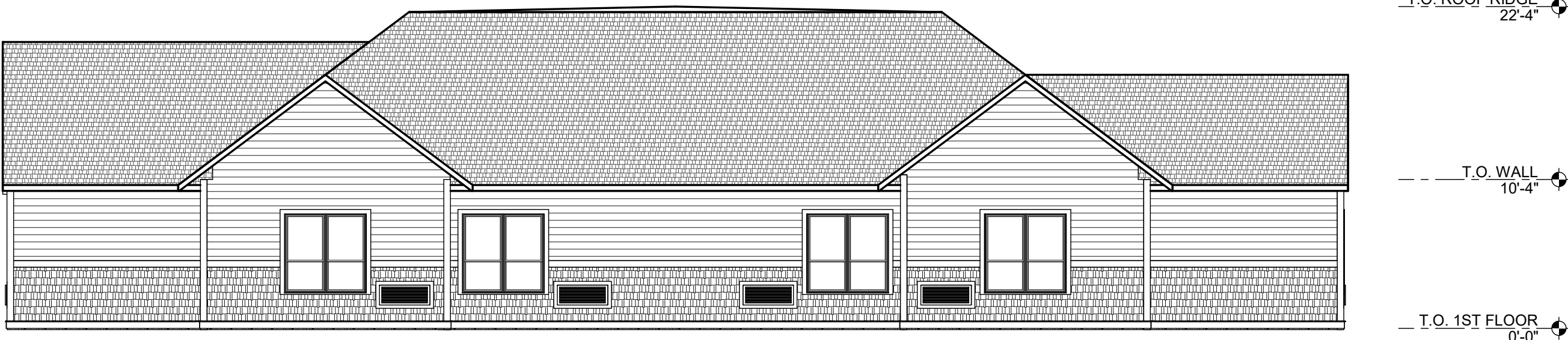
E18 EXTERIOR ELEV. 7

1/8" = 1'-0"



A1 EXTERIOR ELEVATION 8

1/8" = 1'-0"



A11 EXTERIOR ELEVATION 9

1/8" = 1'-0"

29 BLACK POINT ROAD
SCARBOROUGH, MAINE 04074
207-883-4307
WWW.GAWRONTURGEON.COM

**GAWRON
TURGEON**
ARCHITECTS, P.C.

**FALLBROOK
COMMONS**
TBD Ray Street
Portland, Maine 04103

REVISIONS

#	DATE	DESCRIPTION

DATE:	05.21.2020
PROJECT #	080318
DRAWN BY:	MRP
CHECKED BY:	RLD
DRAWING SCALE	1/8" = 1'-0"

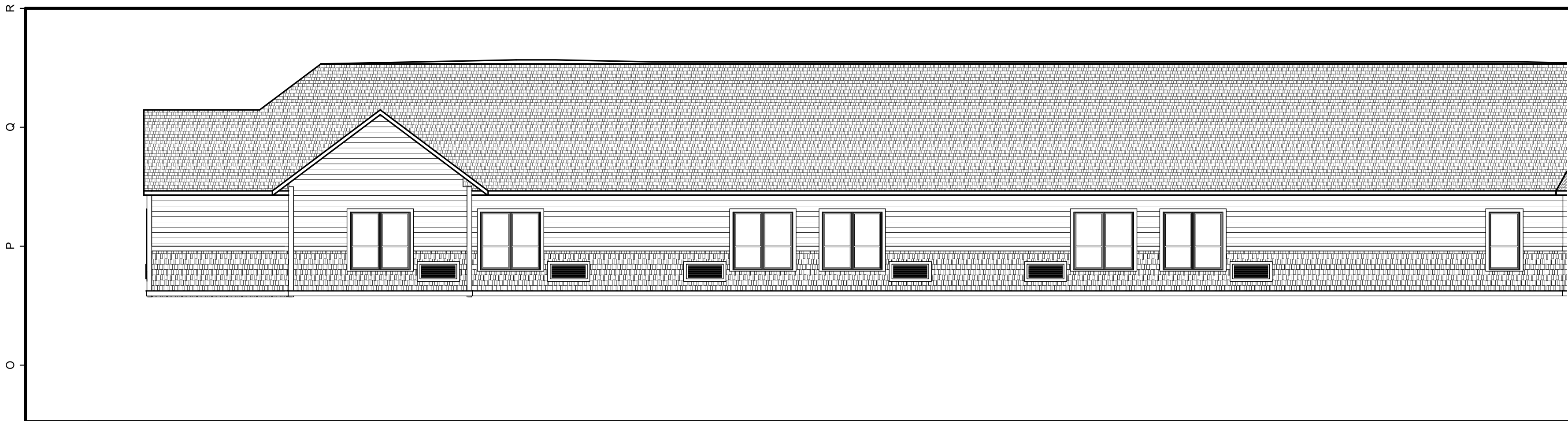
SHEET TITLE

SCHEMATIC
BUILDING
ELEVATIONS

A401

© COPYRIGHT 1985-2017
REPRODUCTION OR REUSE OF
THIS DOCUMENT WITHOUT
WRITTEN PERMISSION OF
GAWRON ARCHITECTS IS PROHIBITED

5/21/2020 9:30:30 AM MRP



N1 EXTERIOR ELEVATION 10

1/8" = 1'-0"



N14 EXTERIOR ELEVATION 11

1/8" = 1'-0"



J1 EXTERIOR ELEVATION 12

1/8" = 1'-0"



J11 EXTERIOR ELEVATION 13

1/8" = 1'-0"



E1 EXTERIOR ELEVATION 14

1/8" = 1'-0"



E11 EXTERIOR ELEVATION 15

1/8" = 1'-0"



A1 EXTERIOR ELEVATION 16

1/8" = 1'-0"

29 BLACK POINT ROAD
SCARBOROUGH, MAINE 04074
207-883-4307
WWW.GAWRONTURGEON.COM

**GAWRON
TURGEON**
ARCHITECTS, P.C.

**FALLBROOK
COMMONS**
TBD Ray Street
Portland, Maine 04103

REVISIONS		
#	DATE	DESCRIPTION

DATE:	05.21.2020
PROJECT #	080318
DRAWN BY:	MRP
CHECKED BY:	RLD
DRAWING SCALE	1/8" = 1'-0"

SHEET TITLE
SCHEMATIC
BUILDING
ELEVATIONS

A402

© COPYRIGHT 1985-2017
REPRODUCTION OR REUSE OF
THIS DOCUMENT WITHOUT
WRITTEN PERMISSION OF
GAWRON ARCHITECTS IS PROHIBITED





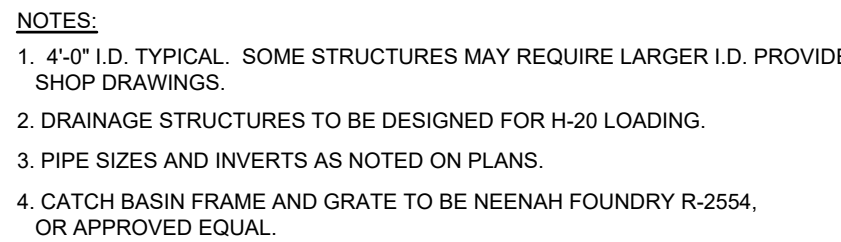


1. RIPRAP TO BE PROCESSED ANGULAR ROCK
2. RIPRAP GRADATION SHALL BE A WELL GRADED MIX FROM ABOUT 1.5 TIMES D SIZE TO 25 PERCENT OF THE D SIZE
3. THE RIPRAP STONES SHALL BE CAREFULLY PLACED FROM THE TOE OF THE SLOPE UPWARD
4. STONES SHALL BE LOWERED TO THE SLOPE AND NOT BE ALLOWED TO DROP MORE THAN 12" ONTO THE GEOTEXTILE
5. THE FINISHED SURFACE SHALL BE A RELATIVELY SMOOTH, UNIFORMLY SLOPED SURFACE

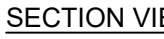
CULVERT DIAMETER - D (IN.)	APRON LENGTH - L (FT.)	WIDTH - W1 (FT.)	WIDTH - W2 (FT.)	RIPRAP D50 (IN.)	RIPRAP THICKNESS (IN.)
12	8	3	9	6	14
15	10	4	12	6	14
18	13	5	15	7	16
24	18	8	20	8	18
36	29	9	32	11	25
42	33	11	37	12	27
48	39	12	43	16	36

SIZING NOTES

1. VALUES CALCULATED USING AN HDPE CULVERT AT A SLOPE OF 1% FLOWING FULL.
2. APRON LENGTHS AND RIPRAP D50 SIZES DETERMINED FROM THE OUTLET PROTECTION SIZING CHART IN THE MARCH 2003 MAINE EROSION AND SEDIMENT CONTROL BMP MANUAL.
3. APRON WIDTHS W1 & W2 WERE BASED ON THE STANDARDS SET FORTH IN THE MARCH 2003 MAINE EROSION AND SEDIMENT CONTROL BMP MANUAL SECTION E-3-2.
4. THESE DIMENSIONS ARE MINIMUM VALUES FOR EACH PIPE. IF NECESSARY, THESE DIMENSIONS CAN BE INCREASED AND ARE LABELED BY THE ENGINEER ON THE PLANS.



TYPICAL CATCH BASIN
NOT TO SCALE

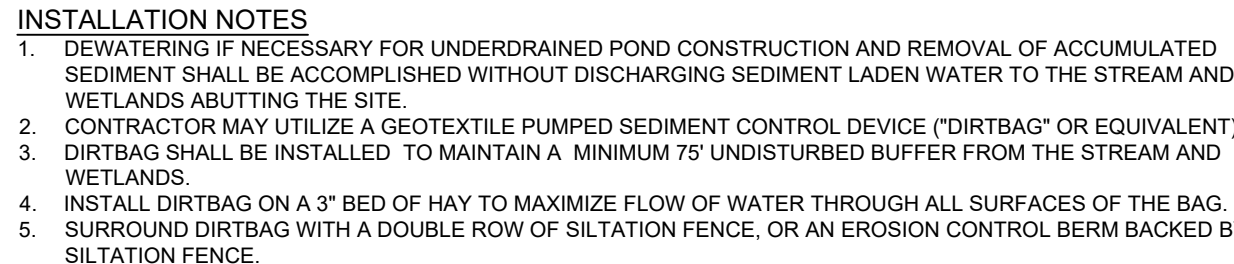


CAPACITY	LENGTH	WIDTH	HEIGHT	INLET	OUTLET	STD. ITEM#	H.D. ITEM#	WGT.
750 LB.	8'-6"	4'-10"	4'-1"	3'-2"	2'-11"	2003	2003A	5,720 lbs.
1,000 REG.	8'-6"	4'-10"	5'-4"	4'-6"	4'-3"	2014	2014A	7,080 lbs.
1,000 LB.	10'-6"	6'-4"	4'-0"	3'-2"	2'-11"	2019BB	2019C	10,600 lbs.
1,500 REG.	10'-6"	6'-4"	5'-4"	4'-6"	4'-1"	2022	2022A	11,260 lbs.
2,000 REG.	10'-6"	6'-4"	6'-2"	5'-4"	5'-1"	2032	2030B	13,260 lbs.

- NOTES:**
1. ALL CONCRETE HAS A MINIMUM COMPRESSIVE STRENGTH OF 4,000 PSI @ 28 DAYS.
 2. STANDARD TANKS ARE REINFORCED WITH 6"x6" @ 10" ON W.M.
 3. THE TONGUE AND GROOVE CENTER SEAM IS SEALED WITH A BUTYL SEALANT.
 4. 1/2" POLYESTER BATTLE DUCT SHALL BE INSTALLED ALONG THE INLET OR OUTLET.
 5. OPTIONAL CENTER WALL FOR TWO COMPARTMENT TANK.
 6. POLYPOK PIPE SEALS STANDARD AT ALL PIPE PENETRATIONS.
 7. INSTALLATION UNDER DRIVEWAYS, PARKING LOTS, AND WHEN THE TANK IS MORE THAN 3' FROM GRADE, REQUIRE HEAVY DUTY TANKS REINFORCED WITH 8" REBAR.
 8. DETAIL SHOWS GENERAL SPECIFICATION REQUIREMENTS. CONTRACTOR SHALL SUBMIT PROPOSED GREASE INTERCEPTOR INSTALLATION PLANS AND SPECIFICATIONS TO LOCAL AUTHORITIES FOR THEIR APPROVAL BEFORE ACQUISITION OF INTERCEPTOR. PROVIDE ALL NECESSARY ADJACENT STRUCTURAL STRENGTH TO ACCOMMODATE VEHICULAR TRAFFIC AT INSTALLATION LOCATION.
 9. GREASE TRAP AS MANUFACTURED BY GAGNE & SON OR APPROVED EQUAL.

PRE-CAST GREASE TRAP

NOT TO SCALE

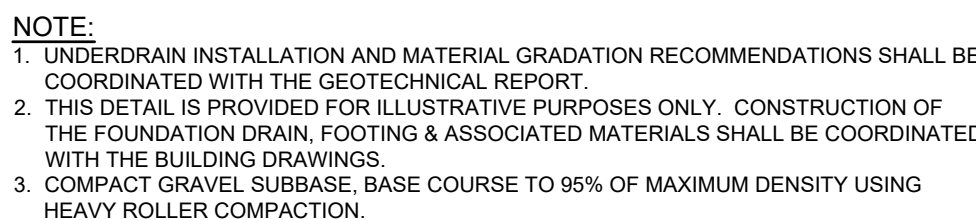


DIRTBAG PUMPED SILT CONTROL SYSTEM
NOT TO SCALE

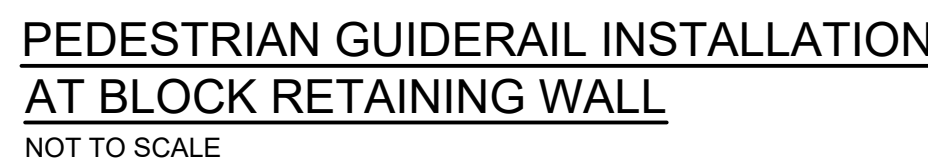
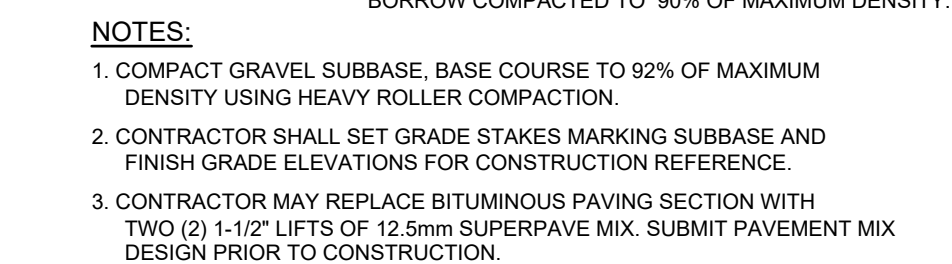
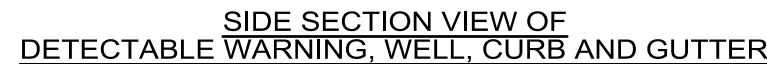
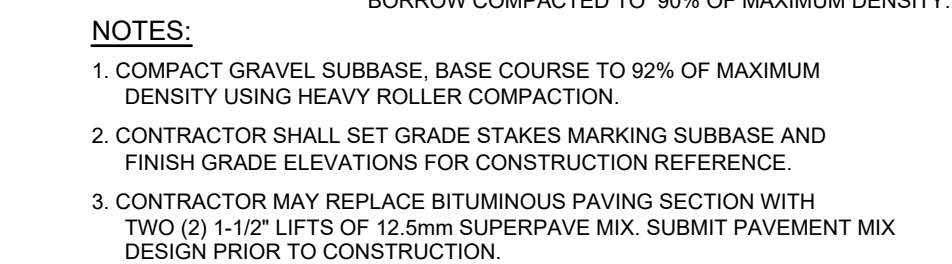


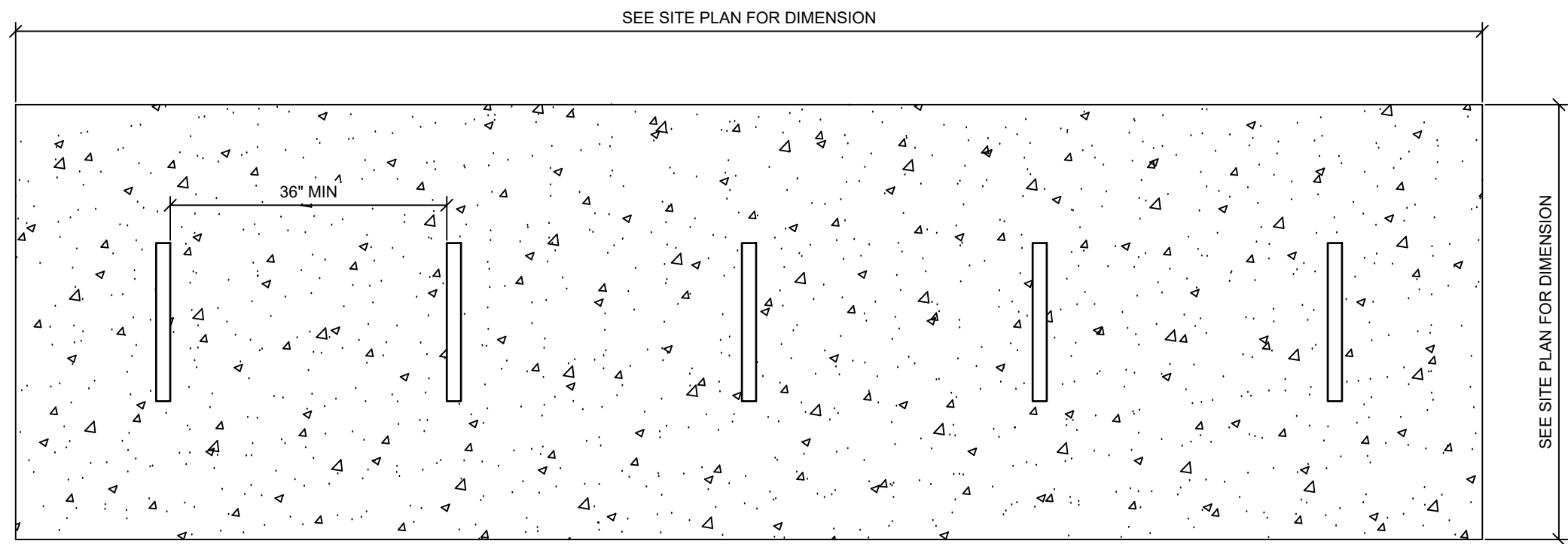
STILLING BASIN SCHEDULE									
STRUCTURE	DIMENSIONS (FT)						RIPRAP D50		
	A	B	C	D	E	F	W1	W2	
SB-1	16	3	10	3	4	1	6	8	6"
SB-2	10	2	6	2	3	0.7	4	6	6"

STILLING BASIN
NOT TO SCALE



UNDERDRAINED ROOF DRIP EDGE DETAIL NOT TO SCALE

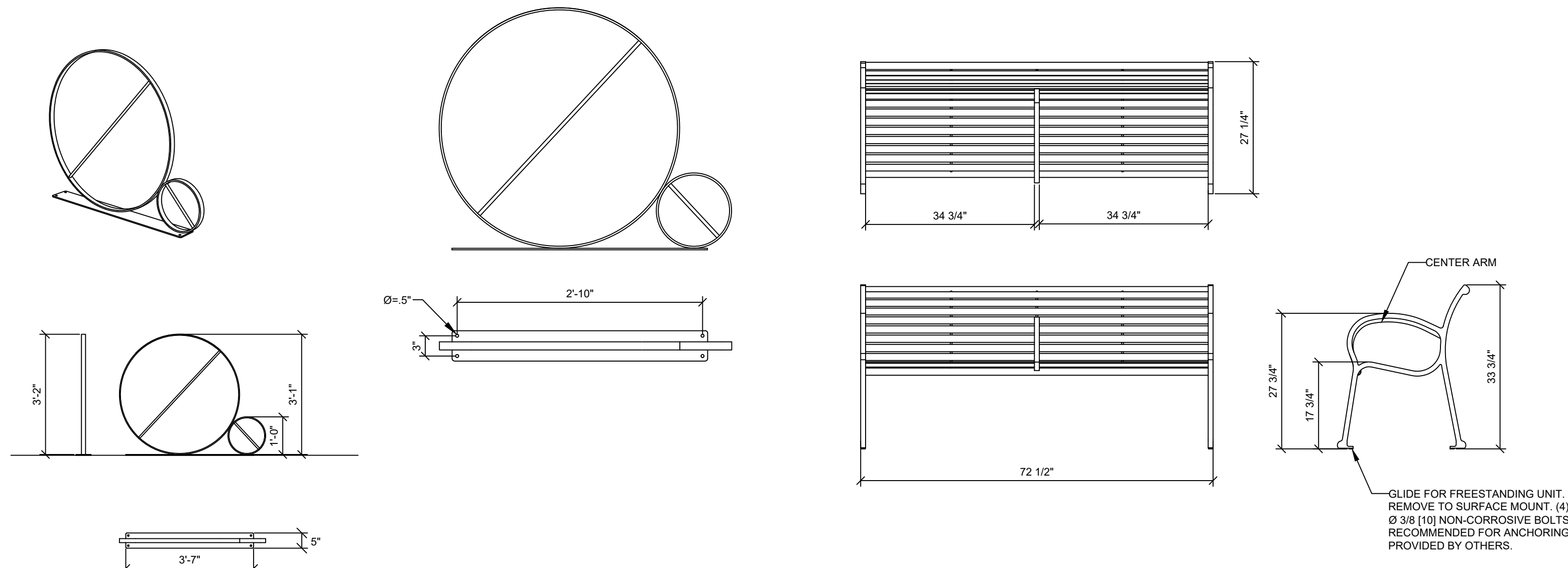




- NOTES:
1. PLACE BIKE RACKS IN A SERIES NO LESS THAN 36" APART TO ALLOW EASY ACCESS.
 2. ALLOW A MINIMUM OF 36" BETWEEN THE END OF A BIKE RACK AND A WALL OR OBSTACLE.

BIKE RACK PLACEMENT

NOT TO SCALE

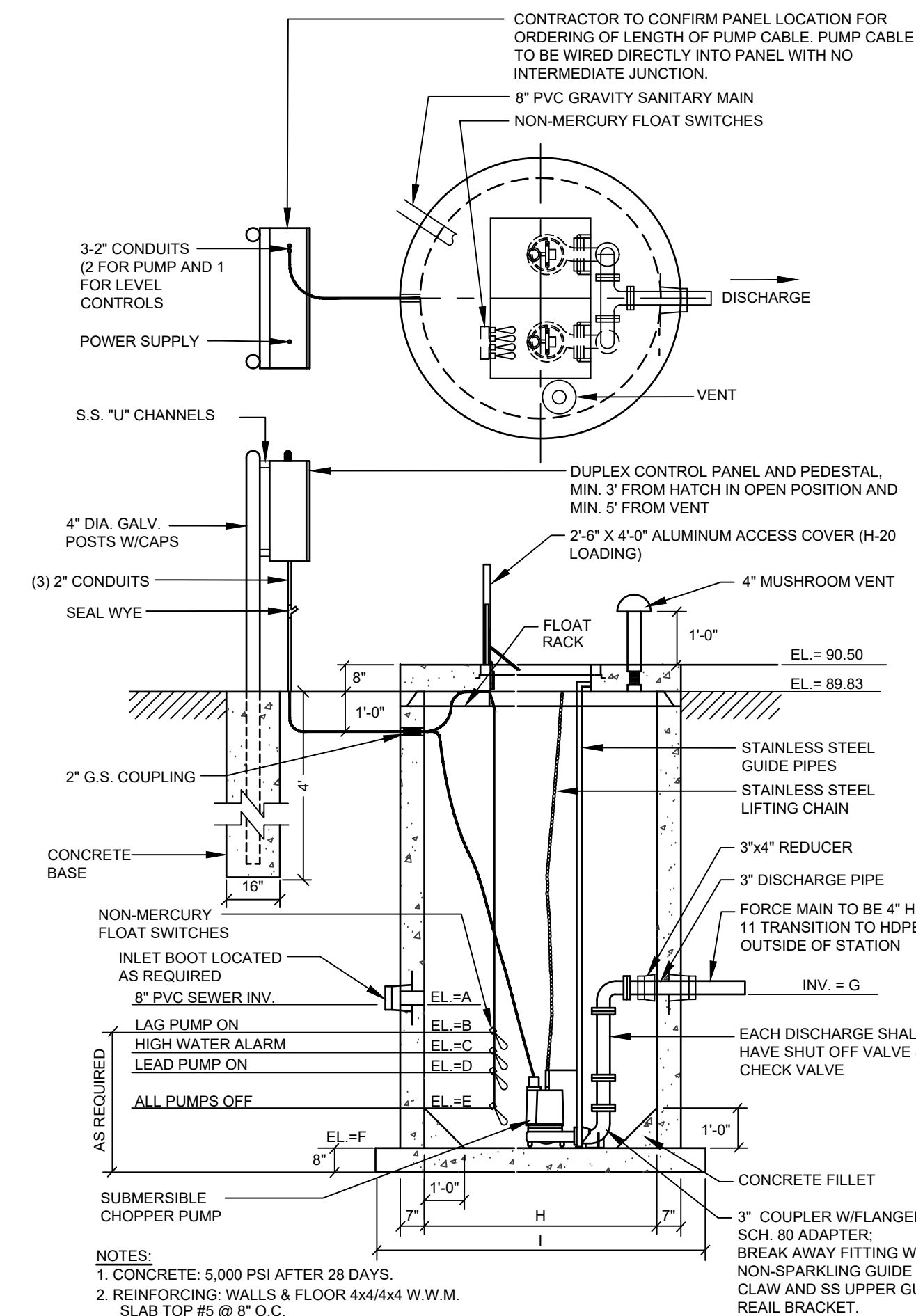


VESTRE CYCLE BIKE RACK DETAIL

NOT TO SCALE

LANDSCAPE FORMS SCARBORO BENCH W/ CENTER HANDRAIL

NOT TO SCALE



- NOTES:
1. CONCRETE: 5,000 PSI AFTER 28 DAYS.
 2. REINFORCING: WALLS & FLOOR 4X4/4X4 W.W.M. SLAB TOP #5 @ 8" O.C.

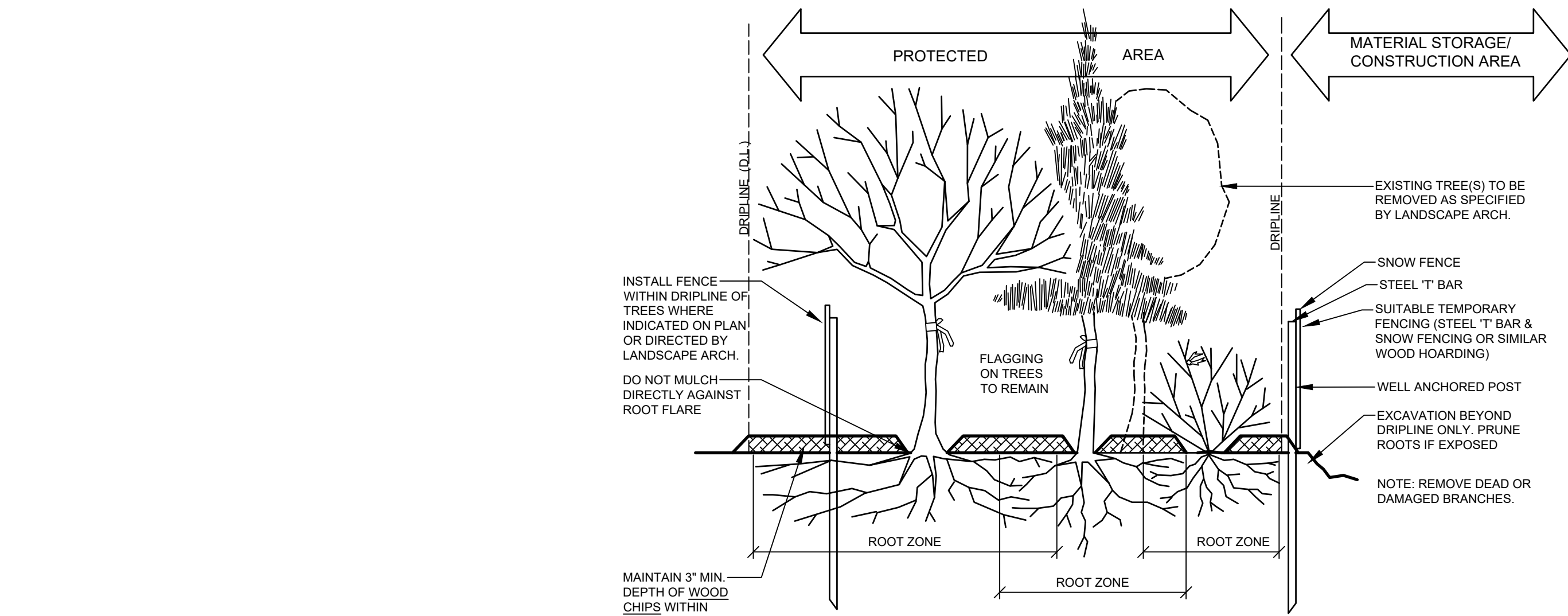
PUMP STATION	PUMP STATION SCHEDULE								
	MEASUREMENT (ft.)								
	A	B	C	D	E	F	G	H	I
1	82.0	81.5	81.0	80.5	78.5	77.0	85.0	6.0	9.17

PUMP STATION

NOT TO SCALE

NOTES

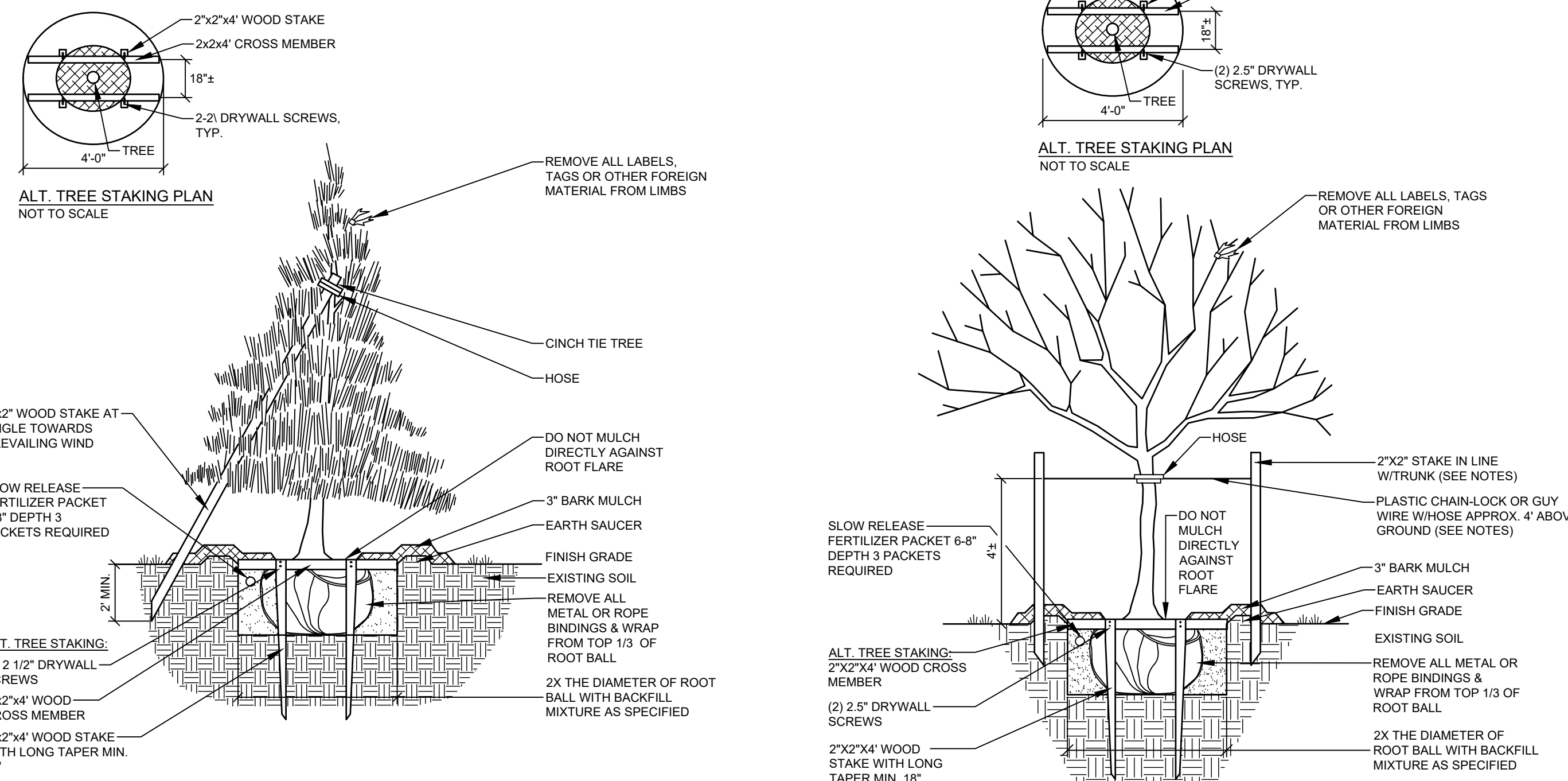
1. LIFT STATION SHALL BE DUPLEX LIFT STATION PANEL AND CONTROLS FOR THE OPERATIONS OF 5.0 HP BARNES SITHE CHOPPER PUMP OPERATING AT APPROXIMATELY 145 GPM AND 32.0 FT TD. THE PUMPS ARE MODEL 3SCOMP30M, 3-PHASE, 60 HZ, 230 VOLT, 1750 RPM AND 15.0 FLA WITH 185mm IMPELLER.
2. PUMPS SHALL HAVE BREAK AWAY FITTINGS. BREAK AWAY FITTINGS FOR PUMPS SHALL BE NON-SPARKING. PUMPS, HARD WIRE, WIRING, AND CONTROL PANEL TO BE EXPLOSION PROOF.
3. ALL UNDERGROUND ELECTRIC POWER LINES SHALL BE INSTALLED IN PVC CONDUIT. ABOVE GROUND SERVICES SHALL BE INSTALLED IN SCHEDULE 40 GALVANIZED CONDUIT. SIZES AS REQUIRED BY ELECTRIC COMPANY. ALL ELECTRICAL WIRING SHALL MEET ALL LOCAL ELECTRICAL CODE REQUIREMENTS.
4. THE PANEL SHALL BE EQUIPPED WITH AN INNER DOOR THAT HAS ELAPSED TIMED METERS, WARNING LIGHTS FOR TEMPERATURE SENSORS, CONTROL SWITCHES FOR THE INDIVIDUAL PUMPS (AUTO, OFF AND RUN) AND A CONTROL SWITCH FOR THE ALARM WITH TEST AND SILENCE. SEAL AND MOISTURE RELAY SHALL BE SUPPLIED FOR EACH PUMP CONNECTED TO LIGHTS ON INNER DOOR.
5. THE MAIN BREAKERS (CONTROL AND PUMPS) AND FUSES FOR BOTH THE ALARM AND CONTROLS SHALL BE ACCESSIBLE WITHOUT OPENING THE INNER DOOR.
6. THE PANEL SHALL HAVE BOTH AN AMBER VISIBLE ALARM LIGHT AND AN AUDIBLE PIEZO 80DB ALARM. THE ENCLOSURE SHALL BE A STAINLESS STEEL NEMA 4X RATED, UL98A COMPLIANT LISTED ENCLOSURE RATED FOR THE PUMPS WITH A WIRING SCHEMATIC PROVIDED ON THE INNER FACE OF THE PANEL DOOR. THE DOOR SHALL HAVE A WEATHER SEAL AND LOCKABLE LATCHES.
7. THE PANEL SHALL HAVE THE REQUIRED CIRCUITRY: CONTROLLERS, CIRCUIT BREAKERS, DELAYS, MOTOR STARTERS, RELAYS, TERMINAL BLOCK AND GROUNDING REQUIRED TO OPERATE THE PUMPS IN AN ALTERNATING SEQUENCE.
8. THE PANEL SHALL BE MANUFACTURED BY PRIMEX CONTROLS OR APPROVED EQUIVALENT.
9. THE PUMPS, CONTROLS, FLOATS AND FLOAT RACK SHALL BE SUPPLIED BY ONE DISTRIBUTOR OR MANUFACTURER. DISTRIBUTOR OR MANUFACTURER SUPPLYING EQUIPMENT SHALL CONFIRM ALL EQUIPMENT MEETS THE INTENT OF THIS SPECIFICATION, AND THAT ALL EQUIPMENT SUPPLIED IS COMPATIBLE FOR THIS SPECIFIC APPLICATION. ALL EQUIPMENT SUPPLIED REQUIRING FACTORY START-UP TO OBTAIN WARRANTY SHALL BE INCLUDED AND PERFORMED BY FACTORY AUTHORIZED PERSONNEL. ANY DEFICIENCIES SHALL BE ADDRESSED PRIOR TO FINAL ACCEPTANCE.
10. PUMP POWER/CONTROL CABLES AND FLOAT CABLES SHALL BE ROUTED IN WET WELL IN SEPARATE CONDUITS WITH THE PROPER EXPANSION JOINTS AND SEAL-OFFS. WHEN REQUIRED FOR REMOTELY MOUNTED CONTROL PANELS EXCEEDING SUPPLIED EQUIPMENT CABLE LENGTHS, APPROPRIATELY RATED JUNCTION BOXES SHALL BE INSTALLED OUTSIDE OF THE PUMP STATION CHAMBER AT A LOCATION ACCEPTABLE TO ENGINEER TO MEET ALL STATE AND LOCAL CODES. WIRE SIZING AND CONDUITS FEEDING AND LEAVING THE CONTROL PANEL SHALL BE PROPERLY SIZED, SHALL SUPPORT THE LOAD OF TWO PUMPS OPERATING AND MEET ALL APPLICABLE LOCAL & STATE ELECTRICAL CODES.
11. PUMPS SHALL BE PROVIDED WITH MOISTURE SENSORS MATCHED TO THE PUMPS.
12. FLOAT CONTROLS SHALL BE NON-MERCURY MECHANICAL FLOATS. FLOAT CONTROLS TO BE INSTALLED WITH KWIKSWITCH DISCONNECTS.
13. CONCRETE: 5,000 PSI AFTER 28 DAYS. REINFORCING STEEL MIN. YIELD STRESS OF 40,000 PSI.
14. REINFORCING: WALLS & FLOOR 4X4/4X4 W.W.M. SLAB TOP #5 @ 8" O.C.
15. ALL LIFT STATION PIPING & FITTING SHALL BE SCH 80 PVC PIPING.
16. COAT EXTERIOR OF STRUCTURES WITH KOPPERS BITUMASTICK 3000 M OR EQUAL.
17. WET WELL SHALL BE INSTALLED ON A MINIMUM 12" BED OF SCREENED GRAVEL WHICH SHALL BE WRAPPED WITH A 6 OZ. NON-WOVEN GEOTEXTILE FABRIC.
18. CONTRACTOR TO CONFIRM OPERATING ELEVATIONS WITH ENGINEER BEFORE ORDERING STATION.
19. CONTRACTOR TO SUBMIT SPECIFICATIONS FOR PUMPS, CONTROL PANELS, ALARM AND ALL APPURTENANCES FOR OWNER AND ENGINEERS APPROVAL.
20. ELECTRIC SERVICES SHALL BE VERIFIED BY CONTRACTOR AND COORDINATED WITH OWNER, ELECTRIC COMPANY AND PUMP STATION MANUFACTURER PRIOR TO INSTALLATION. CONTRACTOR SHALL PROVIDE AND INSTALL ALL ELECTRICAL COMPONENTS REQUIRED FOR PUMP STATION MEETING APPLICABLE STATE, FEDERAL AND LOCAL CODES.
21. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL MEET ON-SITE WITH OWNER AND ENGINEER TO REVIEW LOCATION AND ORIENTATION OF PUMP STATION. DEPENDING ON PHYSICAL SITE FEATURES, THE ENGINEER RESERVES THE RIGHT TO MODIFY LOCATION.
22. UPON INSTALLATION OF PUMP STATION, CONTRACTOR SHALL PROVIDE OWNER WITH THE FOLLOWING:
 - 22.1. OPERATION AND MAINTENANCE MANUALS.
 - 22.2. ONE-YEAR WARRANTY ON ALL STRUCTURES, PUMP STATION MECHANICS AND ELECTRIC COMPONENTS, ALL PIPING AND CONNECTIONS.
23. BECAUSE SITE IS SINGLE PHASE, VOLT. CONTROL PANEL SHALL BE CONFIGURED WITH VFD'S TO ACHIEVE 3-PHASE ELECTRIC REQUIRED FOR PUMPS. PANEL SHALL BE EQUIPPED WITH HEATER ELEMENT AS REQUIRED FOR VFD INSTALLATION.



- NOTE:
- AS THE MAJOR PORTIONS OF THE ROOT SYSTEMS OF THE PLANT(S) TO BE PROTECTED ARE WITHIN THE DRIPLINE ZONE, THIS ENTIRE AREA SHOULD BE FENCED OFF (TO A MINIMUM HEIGHT OF 4') PRIOR TO CONSTRUCTION AND REMOVED THEREAFTER. FOR MAXIMUM PROTECTION, NO VEHICLE TRESPASS, EXCAVATION, FILL, WASTE DISCHARGE OR MATERIAL STORAGE SHOULD BE ALLOWED IN THIS ZONE.

TREE PROTECTION DETAIL

NOT TO SCALE CROSS-SECTION OF TYPICAL PLANT GROUPING



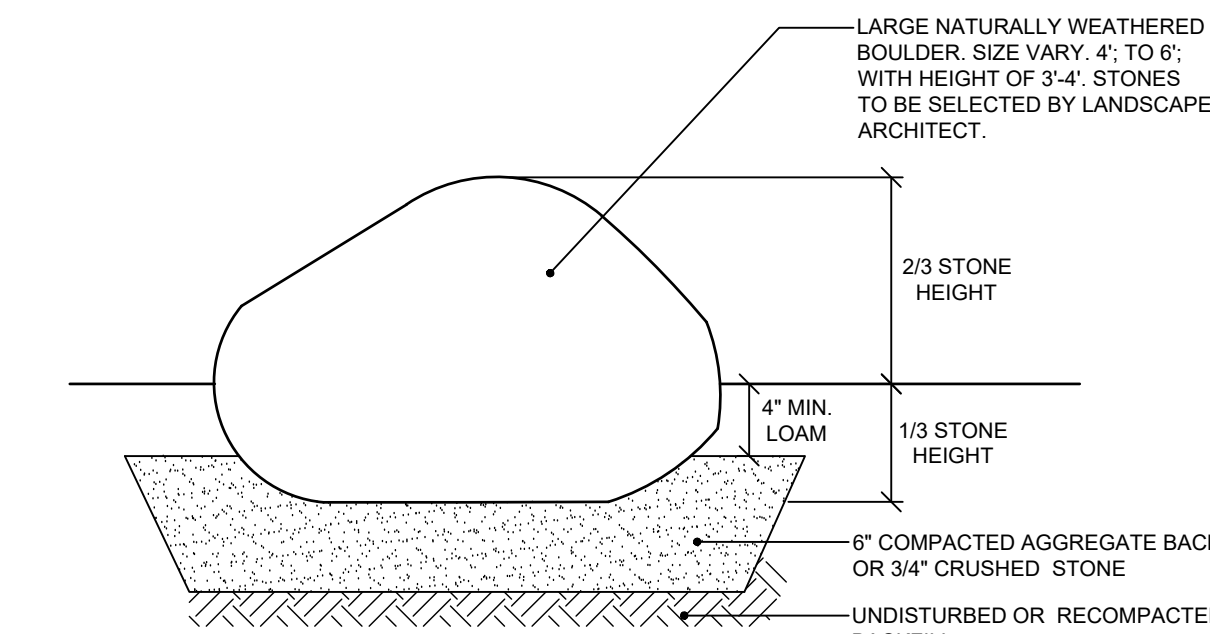
- NOTES:
- INSTALL STAKES AND GUYS TO TREES IF THE FOLLOWING APPLY:
1. THE TREE IS OF SUBSTANTIAL SIZE.
 2. THE PLANTING LOCATION IS EXTREMELY WINDY, AS ON OPEN UNDEVELOPED SITES.
 3. THE PLANTING LOCATION IS COMPRISED OF SAND OR OTHER LOOSE TEXTURED SOILS.
 4. IF STAKES AND GUYS ARE REQUIRED, REMOVE AFTER ONE YEAR TIME.

EVERGREEN TREES

NOT TO SCALE

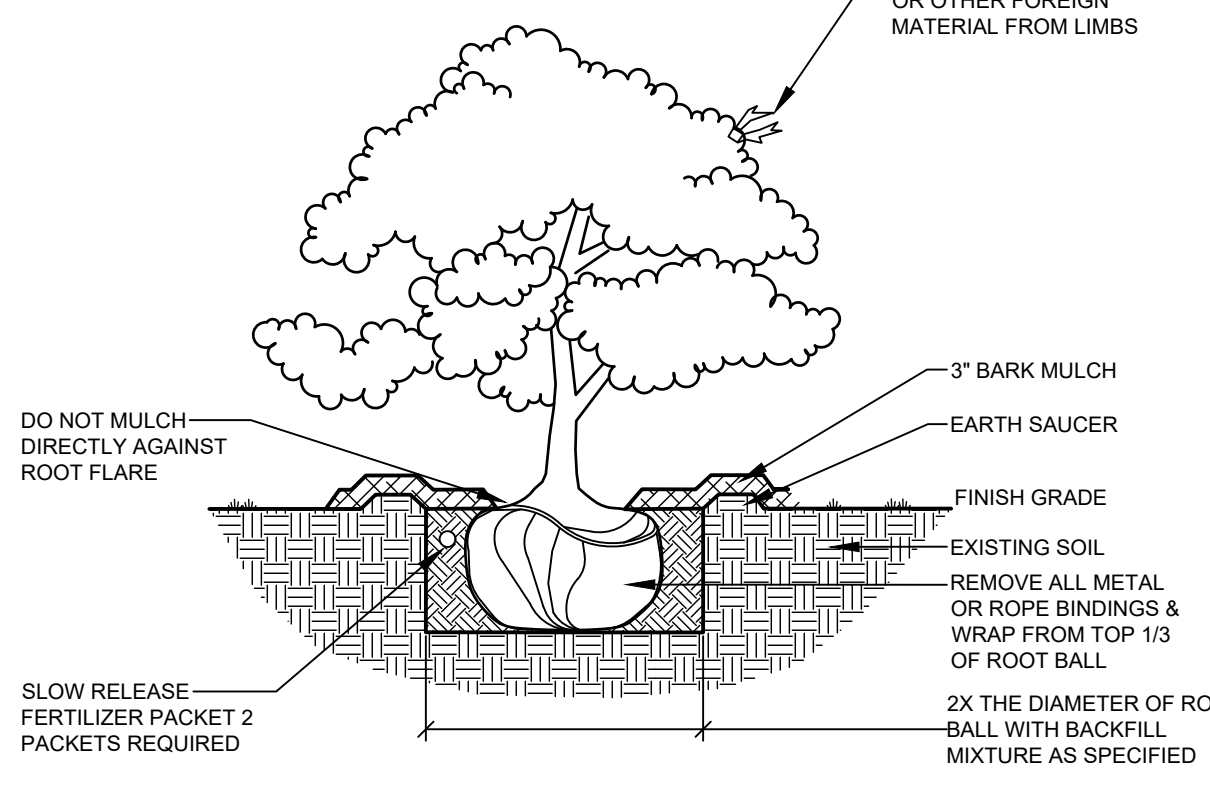
DECIDUOUS TREES

NOT TO SCALE



BOULDER INSTALLATION

NOT TO SCALE



DECIDUOUS & EVERGREEN SHRUB

NOT TO SCALE

DANIEL L. RILEY P.E. 6696
05/15/2020

DANIEL M. DANKERS R.L.A. 4815
05/15/2020

NOT FOR CONSTRUCTION

B	DMD 05-15-20	SUBMITTED FOR RESPONSE TO COMMENTS
A	DMD 12-18-19	SUBMIT TO CITY OF PORTLAND

REV: BY: DATE: STATUS:

THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM SEBAGO TECHNICS, INC. ANY ALTERATIONS, ADDITIONS OR DELETIONS SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO SEBAGO TECHNICS, INC.

SEBAGO TECHNICS
WWW.SEAGOTECHNICS.COM
75 JOHNSON AVENUE
SUITE 404
SOUTH PORTLAND, ME 04106
TEL: 207-205-2100

DETAILS 3
OF:
FALLBROOK COMMONS
RAY STREET
PORTLAND, MAINE
FOR:
FALLBROOK COMMONS DEVELOPMENT LLC.
217 COMMERCIAL STREET, SUITE 201
PORTLAND, MAINE 04112

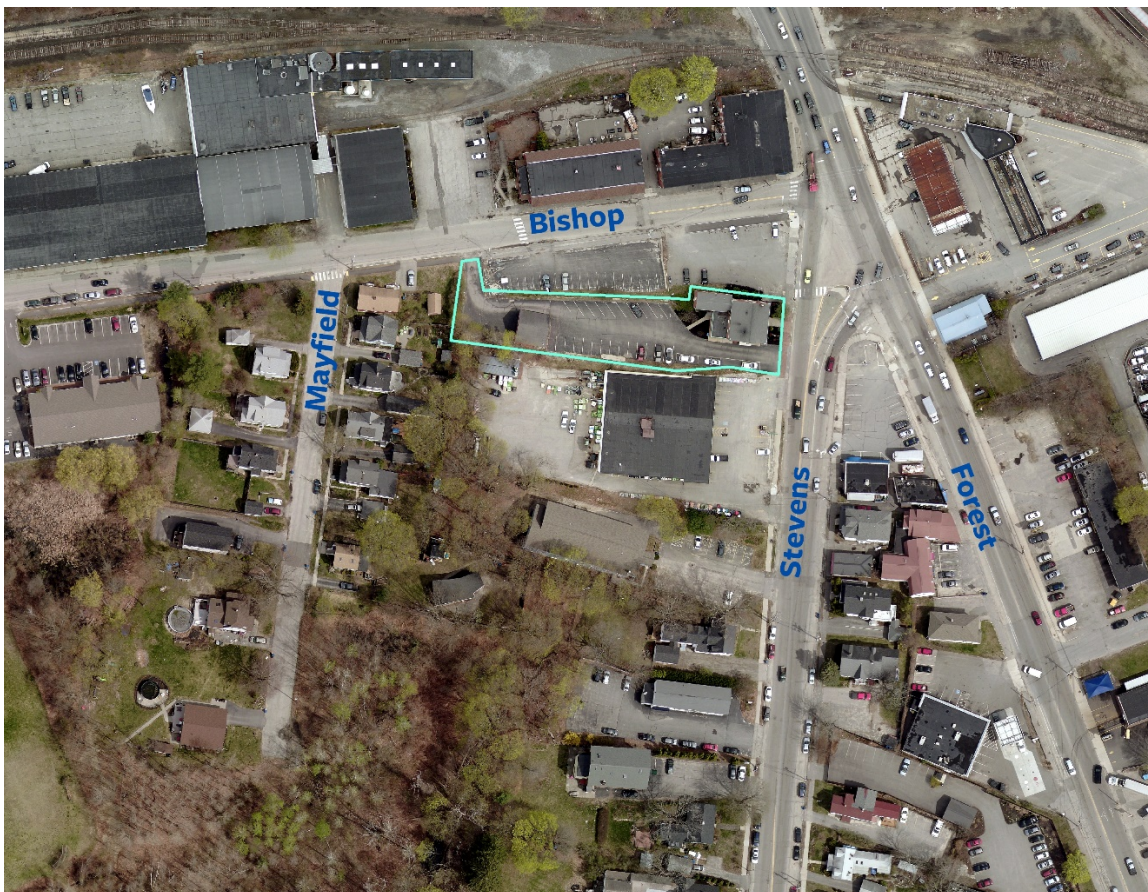
DESIGNED	DMD
DRAWN	SRC
CHECKED	DLR
DATE	05-15-20
SCALE	NTS
PROJECT	18347

SHEET 21 OF 23

Memorandum
Planning and Urban Development Department
Planning Division



To: Brandon Mazer, Chair, and Members of the Portland Planning Board
From: Christian Roadman, Planner
Date: June 5, 2020
Re: Mixed-Use Development, 844 Stevens Avenue, Stevens Avenue LLC
Project #: PL-000961-2020 CBL: 293 Do14001
Meeting Date: June 9, 2020



Context of proposed project at 844 Stevens Avenue (highlighted in teal)

I. INTRODUCTION / PROPOSED DEVELOPMENT

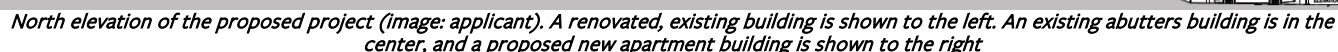
The applicant proposes to renovate an existing building at 844 Stevens Avenue into two offices (400 and 396 sf.) and four apartments (597; 680; 850; and 1,205 sf.) and to build a new 16-unit apartment building (with units ranging from 462 to 1,061 sf., and totaling 12,155 sf.) to the rear of the same property. (Please see the applicant's site plan, **attachment P2**). An existing garage will be demolished to make way for the proposed new building. The property in question is an L-shaped parcel with entrances off of Stevens Avenue and Bishop Avenue.

The property is previously developed, and located off peninsula in the Morills Corner area (the intersection of Stevens Avenue, Forest Avenue, and Bishop Street). The most recent uses, per the applicant, are "office space and a hair stylist studio."

The project, as currently conceived, relies on two interpretations that must be approved by the Planning Board. First, that it provides "active street frontage" (Land Use Code Section 14-188, **attachment 7**.) to the greatest extent practicable, and also that the project is located on an "irregularly shaped" lot, allowing it to exceed a 10 foot maximum setback.

June 9 is the project's first workshop. The Planning Department sent 94 notices for this workshop, to the owners of property within 500 feet of the proposed project parcel. Legal advertisements ran May 29 and May 30.

Consultants: Walsh Engineering Associates, Inc; Whipple-Callender Architects



Existing Zoning	B-2 Community Business Zone		
Existing Use	Office & Business Service, Storage Garage		
Proposed Use	Office & Residential		
Bedroom Mix	Two-Bedroom: 9 units Studio or One- Bedroom: 11 units		
Parcel Size	21,989 sf.		

	Existing	Proposed	Net Change
Building Footprint (sf.)	3,359	6,976	+3,617
Building Floor Area (sf.)	6,703	25,050	+18,347
Impervious Surface Area (sf.)	17,508	? (requires more information from applicant)	?
Parking Spaces	27	23	-4
Bicycle Parking Spaces	0	9	+9

IV. PUBLIC COMMENT AND NEIGHBORHOOD MEETING

The applicant reported holding a remote neighborhood meeting on May 28, but has not yet provided adequate certification. **Such certification is expected prior to a public hearing.**

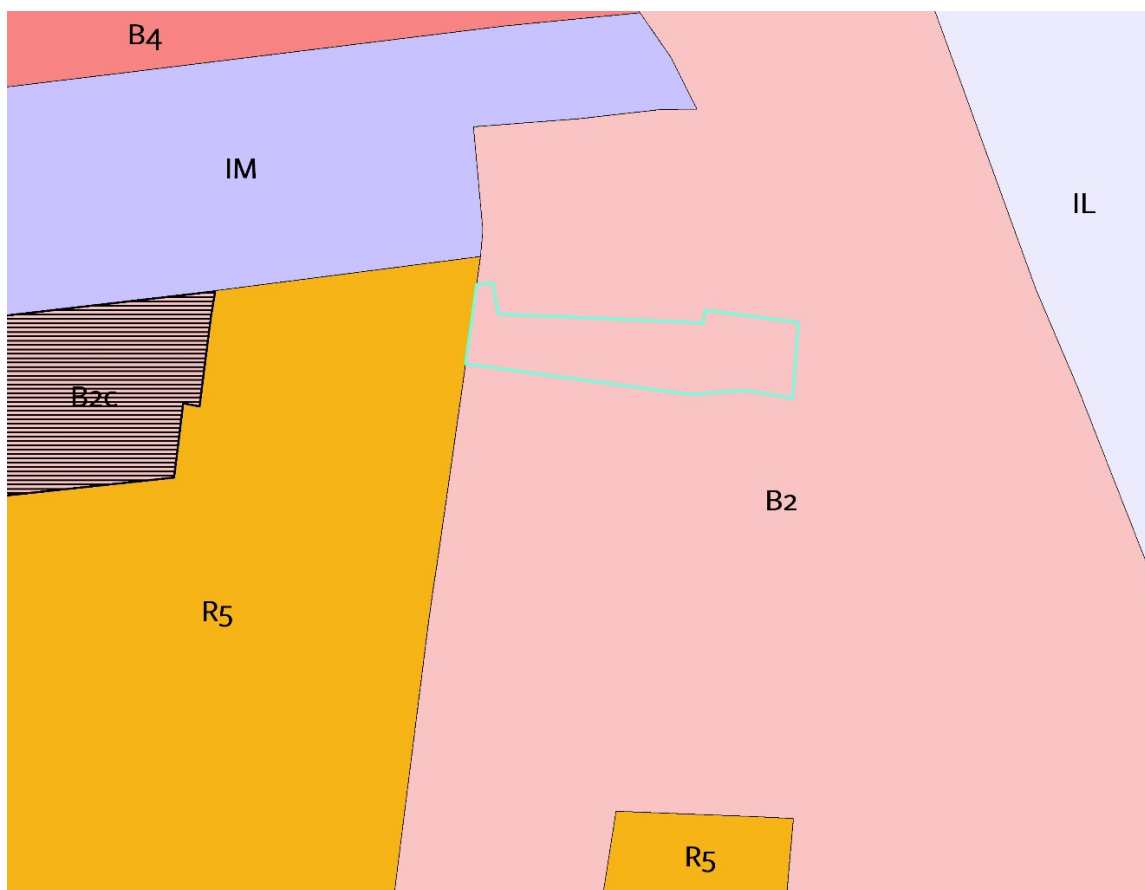
As of the writing of this report, the Planning Department received 3 public comments (**attachments PC1, PC2, and PC3**) expressing concern about the project, specifically relating to the size of the proposed building, its impacts on the residences along a nearby street, parking, and traffic.

V. RIGHT, TITLE, & INTEREST AND FINANCIAL & TECHNICAL CAPACITY

The applicant provided a warranty deed (**attachment H**) as evidence of right, title, and interest. The applicant also provided a letter (**attachment I**) from Saco & Biddeford Savings Institution. However, the financial capacity attested is that of an individual, not of the specific applicant LLC. **This should be corrected prior to a public hearing.**

The applicant cited consultant experience via qualifications sheets (**attachment T**) to evidence technical capacity.

VI. ZONING ANALYSIS



Zoning context of proposed project at 844 Stevens Avenue (highlighted in teal)

A. DIMENSIONAL AND USE REQUIREMENTS

The relevant property is within the B-2 Neighborhood Business Zone. Multi-family housing, general business and professional offices, and offices of trades are permitted uses of the zone.

	Required	Proposed
Lot Size (sf.)	None	21,989
Area Per Dwelling Unit (sf.)	435 with “active street frontage”	1,099
Minimum Street Frontage (ft.)	20	~76
Front Yard Minimum (ft.)	None	~26
Front Yard Maximum (ft.)	See section 14-185	~26
Rear Yard (ft.)	10	~59 for proposed building
Side Yard (ft.)	None	~5 for proposed building
Maximum Height (ft)	45	34.1 (average)
Maximum Impervious Surface (%)	80	? (Requires more info. from applicant)
Off-Street Parking	23	23

The City’s zoning administrator participated in the review of the proposed project (**attachment 1**) and the project meets most of the required zoning criteria. However, two relevant standards under the B-2 Community Business Zone may be modified based on specific criteria and Planning Board determination: maximum front yard setback (ten feet as per code) and lot area per dwelling unit / active street frontage.



Illustration of proposed street frontage along Stevens Avenue (image: applicant)

Per Land Use Code Section 14-185 (Dimensional Requirements), “the Planning Board may approve a different [maximum setback] amount for irregularly shaped lots,” “provided this standard is met to the maximum extent practicable.” A footnote states that “where setbacks exceed 10 feet, a continuous, attractive, and pedestrian-scaled edge treatment shall be constructed along the street, consisting of street trees spaced at no more than 15 feet on center, approved by City arborist, and a combination of landscaping no less than 4 feet deep, ornamental brick or stone walls or ornamental fencing.” The applicant proposes a landscaped area to the front of the existing building to remain, which is more than 20 feet away from the front property line. Planning staff **encourage the applicant to consider adding two additional street trees (15 feet on center) to the project’s Stevens Avenue frontage, or demonstrate that such an approach is not practicable.** Regardless, it is up to the Planning Board to determine whether the project is located on an “irregularly shaped” lot and that the standards quoted above are “met to the

maximum extent practicable.”

The front landscaped area is critical to the second zoning requirement in question: minimum lot area per dwelling unit and active street frontage. Per Land Use Code Section 14-185 (Dimensional Requirements), “projects with active street frontages as defined in section 14-188” may use a reduced minimum lot area per dwelling unit of 435 square feet. That section states:

“A building will be determined to have an active street frontage upon meeting the following guidelines to the greatest extent practicable as determined by the Planning board or Planning Authority: the primary building façade shall be within ten feet of the front street line; there shall be no parking on the lot within 35 feet of the front street line; no more than 25% of the first floor primary façade shall consist of access to garages, unutilized space, service entrances, storage or mechanicals, and the remaining minimum 75% shall have an average depth of a minimum of 20 feet for residential or commercial uses; all primary ground floor entries to multi-family buildings must orient to street, not to interior blocks or parking lots.”

The applicant provided a narrative and sketch (**attachment N**) outlining why they consider the project to meet active street frontage requirements (and therefore qualify them for the reduced lot area per dwelling unit). The Planning Board is asked to consider the project to adequately meet the above requirements “to the greatest extent practicable.”

A third zoning requirement, maximum impervious surface, is claimed as met by the applicant. However, **Planning staff require additional documentation to confirm that the 80% maximum impervious surface requirement is met.**

B. 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 may pay a fee-in-lieu for those units.

The City’s Housing Program Manager reviewed the application (**attachment 2**). Because they are proposing 20 residential units, the applicant must provide two inclusionary zoning units or a permissible alternative. The applicant proposes to pay a fee-in-lieu for both units: \$217,572 (2 x \$108,786, the applicable rate) into the City’s housing fund.

VII. DEVELOPMENT REVIEW

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

The applicant submitted a draft recording plat (**attachment P8**). The final plat will need to be revised to reflect any waivers and conditions of approval that relate to the subdivision plan. Any waivers granted must be recorded at the Registry of Deeds within two years of a Planning Board decision.

B. SUBDIVISION (Section 14-496)

Staff reviewed the proposed development for conformance with the relevant review standards of Portland’s Subdivision Ordinance and applicable regulations.

1. Will Not Result in Undue Water and Air Pollution (Section 14-497 (a) 1), and Will Not Result in Undue Soil Erosion (Section 14-497 (a) 4)

The City’s consulting civil engineer determined (**attachment 3**) that the project is providing appropriate erosion and sedimentation control measures. Because the project is previously developed, is proposed to add less than 1000 square feet of additional impervious surface, and will result in reduction in redeveloped non-roof impervious surface, the applicant need not comply with the general or urban impaired stream standard (it is located within the Capiisic Brook watershed), the redevelopment standard, or the flooding standard of the Maine Department of Environmental Protection’s Chapter 500, or the City of Portland’s Section 5 stormwater management regulations.

2. Sufficient Water Available (Section 14-497 (a) 2 and 3)

The Portland Water District confirmed (**attachment M**) their ability to serve the proposed project.

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

The City's consulting traffic engineer determined (**attachment 4**) that "the project is not expected to generate a significant amount of traffic and the project would not be expected to create mobility issues."

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

The Department of Public Works provided authorization of wastewater capacity for the proposed project (**attachment M**).

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 proposed project is located on a previously developed site.

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

[*Portland's Plan 2030*](#) includes housing policy goals to "increase, preserve, and modify the overall supply of housing city-wide to meet the needs, preferences, and financial capabilities of all Portland residents," and to "encourage additional contextually appropriate housing density in and proximate to neighborhood centers, concentrations of services, and transit nodes and corridors as a means of supporting complete neighborhoods."

7. Adequate financial and technical capacity (Section 14-497 (a) 10)

Please see section V, above.

8. Will not, adversely affect the quality or quantity of groundwater (Section 14-497 (a) 12)

Please see subdivision item 1, above.

9. Is or is not in a flood-prone area (Section 14-497 (a) 13)

Planning staff are not aware of flooding issues at the proposed site.

10. All potential wetlands are identified (Section 14-497 (a) 14)

The proposed project is located on a previously developed parcel.

11. Any river, stream or brook within or abutting the proposed subdivision are identified Section 14-497 (a) 15)

Not applicable.

B. SITE PLAN STANDARDS (Section 14-526)

Staff reviewed the proposed development for conformance with the relevant review standards of Portland's site plan ordinance and applicable regulations.

a) Transportation Standards

Impact on Surrounding Street Systems and Access and Circulation; Access and Circulation; Public Transit Access; Parking; Transportation Demand Management

Please see subdivision item **3**, above. The City's consulting traffic engineer reviewed and has no outstanding unaddressed comments (**attachment 4**).

Previously, the Department of Public Works' senior engineer expressed concerns (**attachment 5**) about garbage and recycling trucks' ability to maneuver within the site without backing out onto Stevens Avenue. As indicated in their response to comments (**attachment O**) the applicant intends for a private waste service to service the site's waste by wheeling waste receptacles to a truck on Stevens Avenue. The Department of Public Works may wish for garbage trucks to instead back into the site (preventing blockage of Stevens Avenue while allowing forward motion leaving the proposed project site). This item continues to be considered by the Department of Public Works, and maneuver specifications are expected to be included in the site's waste-hauling contract.

The site is served by Metro service on Forest Avenue and Stevens Avenue, and a transit shelter is located within 500 feet of the project site.

The proposed project is providing adequate parking (per division 20 of the City's zoning code) and a transportation demand management plan is not required. Based on City feedback, the applicant added striped pedestrian walkways from both Bishops Avenue and Stevens Avenue to the proposed new apartment building. Nine bicycle parking spaces are provided on site, across three locations.

b) Environmental Quality Standards

Preservation of Significant Natural Features; Landscaping & Landscape Preservation; Water Quality, Storm Water Management and Erosion Control

Please see subdivision sections **1**, **5**, and **10** above.

The applicant provided a landscape plan (**attachment P5**) reviewed by Planning staff. Comments from the City's arborist are forthcoming.

With 20 proposed residential units, the applicant is required to account for 20 street trees or acceptable alternatives. At present, the plan provides one street tree, and the applicant is expected to pay \$7,600 into the City's street tree fund (\$400 per additional required tree).

To meet the zoning requirements allowing a maximum front yard setback of greater than ten feet (section VI A above, **the applicant is encouraged to consider adding two additional street trees (15 feet on center) to the project's Stevens Avenue frontage, or demonstrate that such an approach is not practicable.**

c) Public Infrastructure and Community Safety Standards

Please see subdivision sections **2**, **4**, and **6** above.

A life safety plan reviewer participated in project reviews, and does not have site access concerns regarding fire apparatus.

d) Site Design Standards

1. Massing, Ventilation and Wind Impact; Shadows; Snow and Ice Loading; View Corridors; Historic Resources; Exterior Lighting; Noise and Vibration; Signage and Wayfinding

Planning staff reviewed the project's photometric plan (**attachment P9**) and lighting cutsheets (**attachment K**), and consider them acceptable.

The applicant notes in their response to comments (**attachment O**) that they do not intend to install mechanical equipment on the upper roof of the new building, and that the existing building may be equipped with heat pumps along the rear flat roof area of the existing building. **These decisions should be finalized and represented on relevant elevations and plans.**

While the project is not located within a historic district, and the existing building is not a designated landmark, the applicant is encouraged to work with the Historic Preservation department regarding a proposed change to the existing building. An existing, non-original vestibule is proposed for removal. **The replacement brick, mortar, and window should be specified to match the existing.**

Snow storage areas on the proposed site are limited (**attachment P2**), and many overlap landscape areas. The applicant noted in their response to comments (**attachment O**) that the proposed "plantings in general are expected to recover from snow coverage from plowed snow."

2. Zoning Related Design Standards

The City's urban designer reviewed the project (**attachment 6**), particularly expressing interest in a further emphasized entry to the proposed new apartment building. The applicant responded to this request, and the Planning Board is encouraged to consider whether or not the entry to this building is adequately emphasized.



East elevation of the proposed project's new apartment building (Image: applicant)

VIII. Next Steps

The applicant is expected to address the action items and requests detailed above. The Planning Board is asked to consider whether the project adequately meets the relevant dimensional and "active street frontage" requirements (**attachment 7**) to the greatest extent practicable. After the June 9 workshop, a Public Hearing must be held for the Planning Board to vote on the proposed project.

XIII. ATTACHMENTS

Report Attachments

1. Zoning Administrator Comments
2. Housing Programs Manager IZ Comments
3. Consulting Civil Engineer Comments
4. Consulting Traffic Engineer Comments
5. DPW Senior Engineer Comments
6. Urban Designer Review Memo
7. Highlighted B-7 Zoning Excerpt

Public Comment

- PC1. 6/5/2020
PC2. 6/5/2020
PC3. 6/5/2020

Applicant's Submittals

- A. Cover Letter
- B. Level III Site Plan Checklist
- C. Letter of Agent Authorization
- D. Site Plan Standards Narrative
- E. Active Street Frontage Narrative
- F. Architecture Narrative
- G. Zoning Analysis Table
- H. Deed
- I. Financial Capacity Letter
- J. Stormwater Report
- K. Lighting Cut Sheets
- L. Cumulative Floor Areas
- M. Ability to Serve Documents
- N. Active Street Frontage Narrative
- O. Applicant Responses to Comments
- P. E-911 Addressing Map
- Q. Entry Plaza Design Narrative
- R. Fire Code Narrative
- S. Light Fixtures Cutsheets
- T. Technical Capacity Documents

Plans

- P1. Title Sheet and General Notes
- P2. Site Plan and Details
- P3. Existing Conditions and Removals
- P4. Grading and Utility
- P5. Landscape
- P6. Erosion Control
- P7. Construction Management
- P8. Subdivision Plat Draft
- P9. Photometric Plan
- P10. Surveys
- P11. Elevations
- P12. Floor Plans
- P13. Renderings, Perspectives, Diagrams, and Sections

844 Stevens Ave .- PL-000961-2020

Ann Machado <amachado@portlandmaine.gov>

Wed, May 13, 2020 at 12:19 PM

To: Christian Roadman <croadman@portlandmaine.gov>

Christian -

Regarding the Active Street Frontage, it really comes down to the Planning Board deciding if all four guidelines are being met "to the greatest extent practicable". The primary building facade is not within 10 feet of the front street line, but they have presented an argument about why it should be considered "active street frontage". Obviously they need the Board to determine that they are meeting all the requirements of section 14-188 in order to have the density requirement be 435 sf of lot area per dwelling unit.

Regarding the maximum height for the new building, that is the first time that I have seen the average height done that way but it seems to work. The maximum height allowed is 45' and the average is 34'1", so it meets zoning.

Finally, since the use of the property is mixed use, they need to meet the 80% maximum impervious surface ratio.

Let me know if you need anything else.

Ann

Ann Machado
Zoning Administrator
Permitting and Inspections Department
City of Portland, Maine
(207) 874-8709
amachado@portlandmaine.gov

844 Stevens Ave

Ann Machado <amachado@portlandmaine.gov>

Wed, Mar 11, 2020 at 1:55 PM

To: Christian Roadman <croadman@portlandmaine.gov>

Sorry that you are sick. I hope that you feel better soon.

I had looked at the site plan for 844 Stevens Ave in preparation for the Dev Rev meeting this morning. Since you were out I told James that I would share my observations with you.

They have submitted a document addressing the front building having active street frontage. Under section 14-188 either the Planning Board or Planning Authority determine if the development is meeting the active street frontage if the guidelines are being met.

One of the criteria is that the building has to be within 10' of the front yard. The existing building is not within ten feet. Barbara and I determined that footnote 3 under section 14-185 states if the maximum setback of ten feet is not being met for existing structures as long as they are within 20 feet of the front yard and the rest of the lot has less than 40 feet no maximum setback is required. Footnote 3 is connected to the Front Yard Maximum requirement not the active street frontage. The question is - does the fact that the maximum street frontage requirement of ten feet may be waived mean that the building can be greater than ten feet from the front property line and still meet the requirements of active street frontage?

There is a second related issue. The front building might meet the active street frontage requirement. The rear building does not. Can the 435 sf land area per dwelling unit requirement be used for the rear building as well?

The Zoning Analysis gives the front yard maximum of 20.7 feet. This is more than the 20' allowed to waive the maximum 10' setback requirement.

Let me know if you want to talk about this when you're back in the office.

Ann

Ann Machado
Zoning Administrator
Permitting and Inspections Department
City of Portland, Maine
(207) 874-8709
amachado@portlandmaine.gov

Christian Roadman <croadman@portlandmaine.gov>

844 Stevens Avenue

Victoria Volent <vvolent@portlandmaine.gov>

Wed, Jun 3, 2020 at 9:14 AM

To: Christian Roadman <croadman@portlandmaine.gov>

Hi Christian,

The proposed 20 residential unit project at [844 Stevens Avenue](#) intends to comply with the Inclusionary Zoning Ordinance by paying a fee-in-lieu of \$217,572 (2 x \$108,786). As such, the project has met the requirements set forth in Section 14-487.

Thank you,

Victoria

Victoria Volent
Housing Program Manager
Housing and Community Development
Phone: 207-482-5028
Fax: 207-874-8949
www.portlandmaine.gov



Christian Roadman <croadman@portlandmaine.gov>

844 Stevens Avenue

Lauren Swett <lswett@woodardcurran.com>

Wed, Jun 3, 2020 at 9:19 AM

To: Christian Roadman <croadman@portlandmaine.gov>

Hi Christian,

The Applicant has adequately addressed my last comment on the roof drain location/visibility on the plan.

I have no other comments.

Thank you!

Lauren

All Woodard & Curran consulting employees are currently working from home. I do not have regular access to mail or other deliveries made to the office. You can still reach me via email or at my direct or cell phone numbers.

Lauren Swett, P.E.*

Technical Manager

Woodard & Curran

[41 Hutchins Drive](#)

[Portland, Maine 04102](#)

Phone: (207)558-3763 (direct)

(207)219-3591 (cell)

(800)426-4262 (office)

Email: lswett@woodardcurran.com

*Licensed in Maine and Wisconsin

Commitment & Integrity Drive Results

www.woodardcurran.com

M.ASCE

Chair, Leader Training Committee

American Society of Civil Engineers

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

844 Stevens Avenue

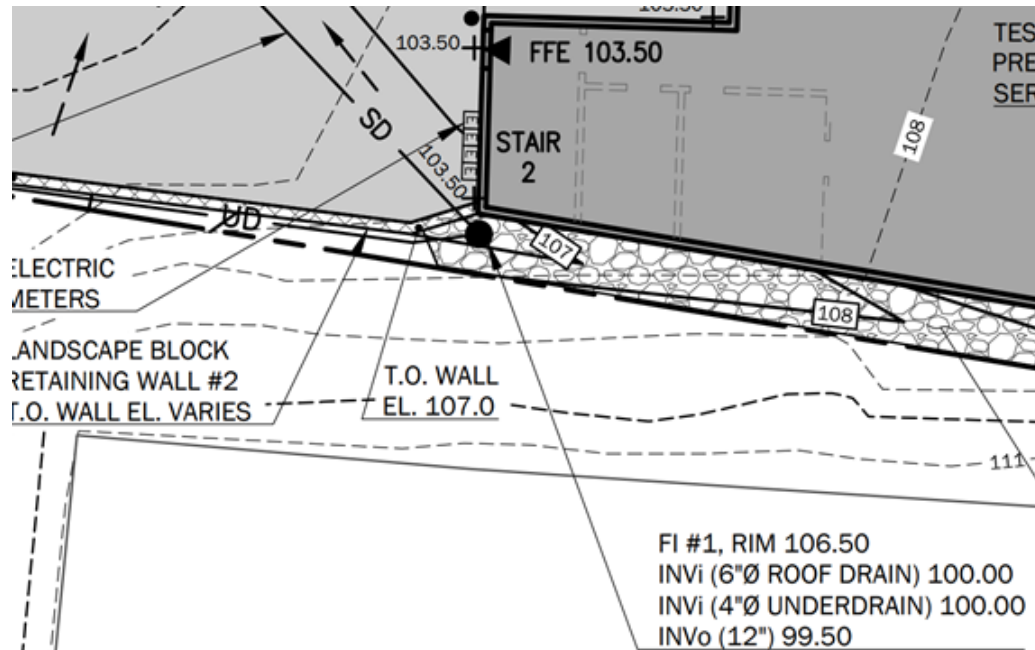
Lauren Swett <lswett@woodardcurran.com>

Fri, May 15, 2020 at 12:03 PM

To: Christian Roadman <croadman@portlandmaine.gov>

Hi Christian,

I only have one additional clarification. I had previously included a comment asking for more information on the roof drain tie-in to Field Inlet #1. They provided some additional information, but I don't think my previous comment was clear enough. My question is about the location of tie roof drain connection – I don't see the actual roof drain pipe shown into the field inlet:



If they just make sure that pipe is shown, I am all set and I have no other comments.

Thanks,

Lauren

All Woodard & Curran consulting employees are currently working from home. I do not have regular access to mail or other deliveries made to the office. You can still reach me via email or at my direct or cell phone numbers.

Lauren Swett, P.E.*

Technical Manager

Woodard & Curran

[41 Hutchins Drive](#)

[Portland, Maine 04102](#)

Phone: (207)558-3763 (direct)

(207)219-3591 (cell)

(800)426-4262 (office)

Email: lszett@woodardcurran.com

*Licensed in Maine and Wisconsin

Commitment & Integrity Drive Results

www.woodardcurran.com

M.ASCE

Chair, Leader Training Committee

American Society of Civil Engineers

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

844 Stevens Avenue

Lauren Swett <lswett@woodardcurran.com>

Fri, Mar 20, 2020 at 4:52 PM

To: Christian Roadman <croadman@portlandmaine.gov>

Hi Christian,

I have reviewed the site plan application for 844 Stevens Avenue. Brad's plan is attached, it is the same as the one you have. I have a few minor comments:

- The project is required to comply with Maine DEP Chapter 500 and City of Portland Section 5 stormwater management regulations.
 - Basic Standards – The project is providing erosion and sedimentation control measures in conformance with the Basic Standards. The erosion control plan includes reference to turf reinforcement matting. A detail, or further specification of this material should be provided.
 - General & Urban Impaired Stream Standards – The project will result in an increase in impervious surface of 623 square feet. The Applicant is not required to comply with the General Standard or the Urban Impaired Stream Standard (located in the Capisic Brook Watershed) as the increase is less than 1,000 SF. It is noted that a stormwater management agreement is included as part of the submission. It is our understanding that without a stormwater treatment system on site, this agreement will not be required.
 - Redevelopment Standards – The project will result in a reduction in redeveloped non-roof impervious surface, and the Redevelopment Standard does not apply.
 - Flooding Standard – As the project does not meet the above thresholds, the Flooding Standard does not apply. We agree that the proposed impact will not result in any significant change to stormwater flows from the site.
- Additional grading clarification should be provided at the Bishop Street entrance to show how the appropriate driveway entrance, curbing and sidewalk can be constructed.
- Field inlet #1 notes that roof drain will tie into this structure. It is not clear how this connection is being made.
- It is noted that the Casco Trap by Etheridge Foundry is no longer in production. Please specify an alternative (i.e. a Snout).
- Proposed snow storage areas generally overlap with proposed landscaping, including some trees. The snow storage refers to a note that snow removal should not damage landscaping, but in our experience this is very challenging, especially with new landscaping. The Applicant should consider alternatives, however snow removal may be necessary.
- The Applicant has indicated that some work will be required on abutting property. A construction access easement will be required for this work.
- Brad Roland has provided additional comments with regards to the way that the proposed stormdrain piping will be connected from the site. Please see his plan markups for additional information on pipe materials and pipe slopes.

Let me know if you have any questions!

Thanks,

Lauren

Lauren Swett, P.E.*

Technical Manager

Woodard & Curran

[41 Hutchins Drive](#)

[Portland, Maine 04102](#)

Phone: (207)558-3763 (direct)

(207)219-3591 (cell)

(800)426-4262 (office)

Email: lswett@woodardcurran.com

*Licensed in Maine and Wisconsin

Commitment & Integrity Drive Results

www.woodardcurran.com

M.ASCE

Chair, Leader Training Committee

American Society of Civil Engineers

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



C2.3 GRADING & UTILITY PLAN_V2- BR Comments.pdf

482K



Christian Roadman <croadman@portlandmaine.gov>

844 Stevens Avenue - Status Traffic Comments

Tom Errico <thomas.errico@tylin.com>

Thu, Jun 4, 2020 at 8:45 AM

To: Christian Roadman <croadman@portlandmaine.gov>

Cc: Mike Tremblay <mtremblay@portlandmaine.gov>, Jeremiah Bartlett <JBartlett@portlandmaine.gov>, Bruce Hyman <bhyman@portlandmaine.gov>

Hi Christian – The following is a status update on prior traffic comments. Other site related comments regarding parking layout, pedestrian movements and truck movements are being provided by DPW.

- The project is not expected to generate a significant amount of traffic and the project would not be expected to create mobility issues. A Traffic Movement Permit is not required.

Status: I have no further comment.

- The driveway on Stevens Avenue does not meet driveway separation standards. A formal request for a waiver shall be provided.

Status: The applicant has acknowledged the need for a waiver. Given that it is an existing driveway and traffic levels are expected to be low, I support a waiver from our technical standards.

- The applicant shall provide information on how parking will be managed given two separate lots. Unnecessary vehicle circulation between lots should be avoided.

Status: The applicant notes that the two lots will be independent and circulation between the two lots is not expected. I have no further comment.

If you have any questions, please contact me.

Thanks

Thomas A. Errico, PE
Senior Associate
Traffic Engineering Director

TYLIN INTERNATIONAL

12 Northbrook Drive

Falmouth, ME 04105

+1.207.781.4721 main

+1.207.347.4354 direct

+1.207.400.0719 mobile

thomas.errico@tylin.com

844 Stevens Avenue - Traffic Review Comments

Tom Errico <thomas.errico@tylin.com>

Thu, Mar 19, 2020 at 10:45 AM

To: Christian Roadman <croadman@portlandmaine.gov>

Cc: Michael Tremblay <mtremblay@portlandmaine.gov>, Bruce Hyman <bhyman@portlandmaine.gov>, Jeremiah Bartlett <JBartlett@portlandmaine.gov>

Hi Christian – I have reviewed the application materials and offer the following preliminary traffic comments.

- The project is not expected to generate a significant amount of traffic and the project would not be expected to create mobility issues. A Traffic Movement Permit is not required.
- The driveway on Stevens Avenue does not meet driveway separation standards. A formal request for a waiver shall be provided.
- The applicant shall provide information on how parking will be managed given two separate lots. Unnecessary vehicle circulation between lots should be avoided.

If you have any questions, please contact me.

Thanks

Thomas A. Errico, PE

Senior Associate

Traffic Engineering Director

TYLIN INTERNATIONAL

12 Northbrook Drive

Falmouth, ME 04105

+1.207.781.4721 main

+1.207.347.4354 direct

+1.207.400.0719 mobile

thomas.errico@tylin.com

Visit us online at www.tylin.com

Twitter | Facebook | LinkedIn | Instagram

844 Stevens Avenue - Status Traffic Comments

Mike Tremblay <mtremblay@portlandmaine.gov>

Thu, Jun 4, 2020 at 9:19 AM

To: Christian Roadman <croadman@portlandmaine.gov>

Cc: Jeremiah Bartlett <JBartlett@portlandmaine.gov>, Tom Errico <thomas.errico@tylin.com>, Bruce Hyman <bhyman@portlandmaine.gov>

Christian,

With regards to garbage, we need to see where a garbage truck would pull over on Stevens Avenue to load garbage. I don't see an obvious location. We have concerns that backing into the driveway will cause safety concerns for pedestrians and may disrupt traffic entering Stevens Avenue from Forest Avenue at speed. We discussed doing garbage pickups in the early morning, but I don't think we can require that and I'm not sure how we'd be able to enforce a deed restriction.

-Mike

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



[Quoted text hidden]

644 Stevens - DPW comments

2 messages

Mike Tremblay <mtremblay@portlandmaine.gov>
To: Christian Roadman <croadman@portlandmaine.gov>

Fri, May 8, 2020 at 11:35 AM

Christian,

I have the following comments on [844 Stevens Avenue](#) -

- The Applicant should reach out to Charles Wordell at DPW to initiate E911 addressing for the proposed building. The site plan application is the same address as the existing building on-site. In the future, this process should begin at the time of application, as reflected in the recently-updated [checklist](#) for Level II and Level III site plans.
- Per ADA, the site requires one ADA space. Because both parking lots can serve the proposed building, it is OK for the ADA space to be located in the eastern parking lot only. An ADA space is not required for the western parking lot.
- Similar to the path from Stevens Avenue, an accessible route should be provided from Bishop Street, as it is a separate site arrival point as the Stevens Street entrance.
- Accessible pedestrian routes from sidewalks need to be maintained to provide ADA-compliant cross-slopes in perpetuity. Painted walkways are acceptable, but need to be maintained to correct asphalt rutting and refresh paint. A flush concrete walkway would provide a more durable and visually distinct walkway while maintaining width for two vehicles to pass one another in the driveway. The applicant should consider paving accessible routes with concrete.
- There appears to be a pinch point between the back entrance to the building and the adjacent parking spaces. At least four feet of width should be provided between the parking space and any vertical obstruction. Additional width is recommended to facilitate residents carrying groceries, strollers, etc.
- The proposed dumpster location does not appear to be ideal. Garbage will need to be carried/wheeled through the parking lot to this dumpster location. Additionally, it appears that garbage trucks may need to pull into the site and back out of the site in order to access this dumpster. It is not acceptable for vehicles to exit the site in reverse. The applicant should provide turning movements for a garbage truck accessing the dumpster enclosure, and safely exiting the site facing forward.

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



To: Mike Tremblay <mtremblay@portlandmaine.gov>

Thanks Mike!

--

Christian Roadman
Planner
207.874.8984

Planning & Urban Development Department
389 Congress Street
Portland, Maine 04101

[Quoted text hidden]

844 Stevens Avenue - Traffic Review Comments

Mike Tremblay <mtremblay@portlandmaine.gov>

Thu, Mar 19, 2020 at 2:44 PM

To: Tom Errico <thomas.errico@tylin.com>

Cc: Christian Roadman <croadman@portlandmaine.gov>, Bruce Hyman <bhyman@portlandmaine.gov>, Jeremiah Bartlett <JBartlett@portlandmaine.gov>

Christian,

My comments on 844 Stevens Avenue --

- The two parking areas are associated with two separate uses; as such, each needs to provide one accessible parking space. Parking serving residential uses should be located as close to the entrance as possible.
- All ground floor residential units must be accessible per the Fair Housing Act.
- The rear driveway that provides access/egress to Bishop Street should be reconstructed for ADA compliance. The limits of driveway work will likely need to extend beyond the utility trench proposed.
- The Applicant should be aware that Bishop Street is planned to be converted to right-in, right-out as part of future (5+ years out) improvements to Morrill's Corner. This will affect access to and from the site. Alternate access to Bishop Street is available via Warren Avenue and other alternative access options are being explored as part of the Morrill's Corner reconstruction design.
- Parking provided on-site is insufficient per zoning. The site plan should be revised so that sufficient parking is provided.
- It does not appear that sufficient space is provided between the back entrance (FFE 103.5) and parking space 6, assuming a vehicle is parked along the hatched area. Five or more feet of horizontal clear space should be provided.
- The driveway apron layout provided in the details should be replaced with a detail that shows proper ADA compliance. I have attached two figures; Figure I-9A, where the sidewalk does not ramp down to street level, is is preferable. Note that the proper sidewalk material is concrete for Stevens Avenue and bituminous for Bishop Street, as correctly noted in the site plan.
- The applicant should verify the timeframe for sidewalk closure. Are sidewalks being closed for utility cuts and sidewalk reconstruction only?
- Temporary walkways must be ADA compliant; as such, cones may not be used unless they are lined up end-to-end to create a continuous, detectable barrier.
- The Applicant should confirm how the parking for the existing building will be accommodated during construction.

Thanks!
Mike

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



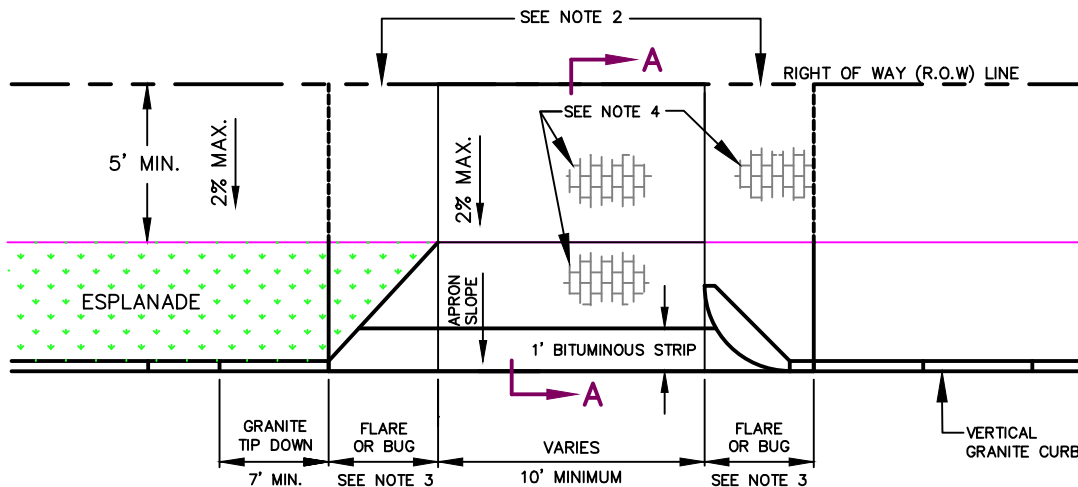
On Thu, Mar 19, 2020 at 10:45 AM Tom Errico <thomas.errico@tylin.com> wrote:

[Quoted text hidden]

2 attachments

 **Figure_I_9B_DrivewayApron_rev2019.pdf**
134K

 **Figure_I_9A_DrivewayApron_rev2019.pdf**
150K



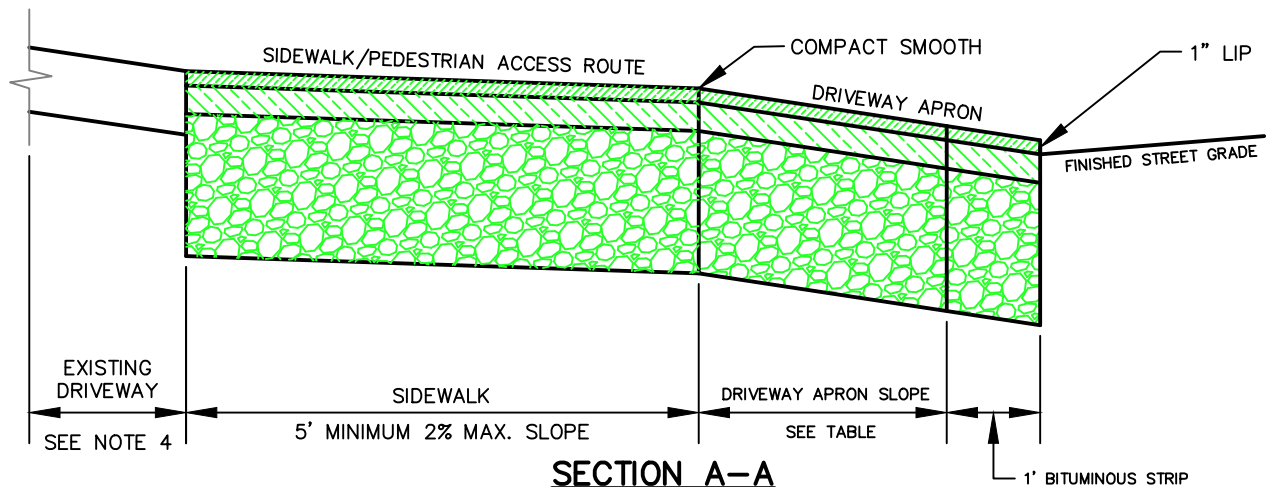
PLAN

APRON SLOPE TABLE

LAND USE	MAXIMUM RECOMMENDED GRADE CHANGE AT STREET(G)
RESIDENTIAL WITH <9 PARKING SPACES	14%
ALL OTHER DRIVEWAYS	10%

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 ("BUGS") 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.



SECTION A-A

DRIVEWAY APRON

NOT TO SCALE

DATE:
JUNE 2017
REVISED:
AUGUST 2019

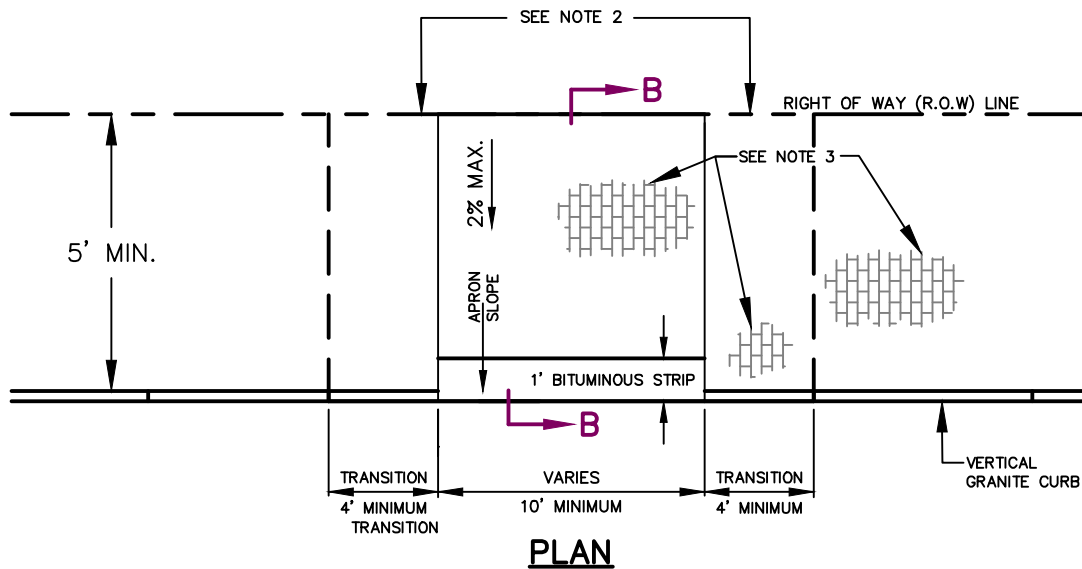
CITY OF PORTLAND, MAINE
TECHNICAL STANDARDS MANUAL

TRANSPORTATION SYSTEMS
AND STREET DESIGN
SECTION I

FIGURE:

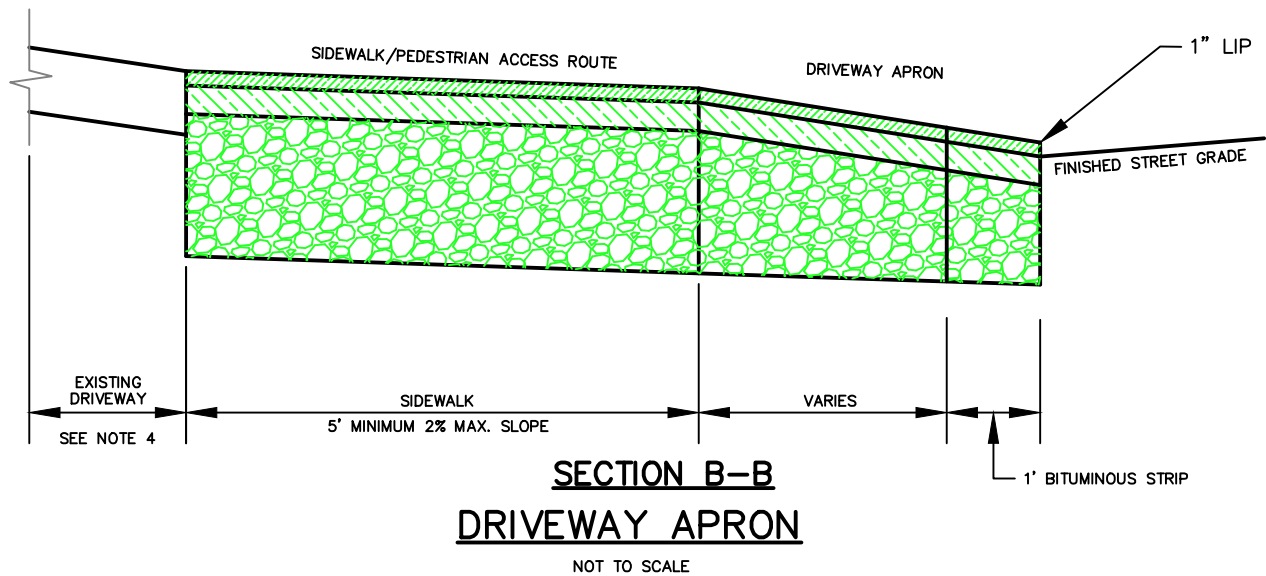
DRIVEWAY APRON W/PEDESTRIAN ACCESS ROUTE

I-9A



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. 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.



DATE:
JUNE 2017

REVISED:
AUGUST 2019

CITY OF PORTLAND, MAINE
TECHNICAL STANDARDS MANUAL

**TRANSPORTATION SYSTEMS
AND STREET DESIGN**
SECTION I

FIGURE:

**DRIVEWAY APRON W/PEDESTRIAN ACCESS ROUTE
(DEPRESSED DRIVEWAY W/CONSTRAINED SIDEWALK)**

I-9B

Planning and Urban Development Department Planning Division



Subject: B-2 Design Review – 844 Stevens Avenue
Written by: Caitlin Cameron, Urban Designer
Date of Review: Monday, May 4 2020

The projects at 844 Stevens Avenue were reviewed according to the *City of Portland Design Manual* standards by Caitlin Cameron, Urban Designer, Christian Roadman, Planner, and Matt Grooms, Senior Planner, against the *B2 Commercial Business Zones Standards* (Section (d) of the Design Manual) and *Multiple-Family Standards*.

Design Review Comments:

- In the future, please describe the revisions in the narrative and/or provide notes and revision bubbles in the drawings to clarify what changes have been made.

Review includes:

- Existing brick building and landscape at Stevens frontage (B-2)
- Proposed residential building and parking in rear of lot (B-2 and Multi-family)

(d) B-2 Commercial Business Zones

Existing Building

Standard (1) a. Urban Street Wall - Not applicable (B-2 excluded) – existing building placement will remain, setback from the street wall. Landscape design reinforces the street wall with an edge planting. Consider whether the benches will be used in this configuration and with this proximity to a busy street – [cluster the benches together to be more social? Give more surface over to pervious area?](#)

Standard (1) b. Mixed Uses – Not applicable (B-1b only)

Standard (1) c. Building Entrances – Not applicable (B-2 excluded) Existing building entrance oriented towards the street though building is set back from sidewalk – continues to meet the standard.

Standard (1) d. Windows – Existing windows oriented towards street, though building is set back from sidewalk – continues to meet the standard.

Standard (1) e. Façade Character – Existing character is maintained and meets the standard with regards to window/door orientation towards the street.

Standard (1) f. Building Design – Existing building character is simple material selection and placement (brick) which relates the commercial nature but corresponds with the limited existing fabric, especially the commercial corridor buildings. The pitched roof, window proportions, divided lights relate a more residential character. [What is the intention for the existing vestibule](#)

on the side of the building? Will that be an additional entrance? If not, does this create confusion for people about the entrance/use of the building?

Standard (1) g. Building Materials – Building will maintain existing brick material – simple selection and placement is characteristic of traditional buildings in Portland.

Standard (1) h. Building Scale – Not applicable – existing building with no modification to scale. Three and a half stories appropriate for the wide Forest Avenue commercial corridor.

Standard (1) i. Landscaping and Buffers – Parking located to rear of this building.

Proposed Multi-family Building

Standard (1) a. Urban Street Wall - Not applicable (B-2 excluded) – rear lot development.

Standard (1) b. Mixed Uses – Not applicable (B-1b only)

Standard (1) c. Building Entrances – Not applicable (B-2 excluded) – rear lot development, though main entrance is setback from street, oriented towards Stevens Avenue. Indication of the pedestrian path to the entrance provided through minimal striping – no dedicated path, special surface or landscape. [Given the entrance is far from the street and does not have a dedicated pedestrian path – make sure the entrance is adequately emphasized to provide legibility \(material emphasis, pronounced canopy or other detail, lighting, etc.\)](#)

Standard (1) d. Windows – Windows oriented towards street, though building is set back from sidewalk.

Standard (1) e. Façade Character – As a residential building, rear lot development, not highly active building use - window/door orientation towards the street, sufficient visual interest provided with massing variation, windows, balconies.

Standard (1) f. Building Design – Neighboring building character is somewhat mixed but neighboring residential buildings have traditional characteristics such as simple material selection and placement (brick, clapboard). There are not many multi-family buildings of this scale nearby to compare with – the form is anomalous with the traditional buildings of similar scale. With regards to compatibility with the residential fabric, the massing and scale is appropriate for a multi-family building and is not expected to replicate the surrounding single-family form, massing, or scale. The most appropriate way to meet this standard is regarding the façade composition, window type and proportion, and the materials.

[Roof access now proposed – what is the function of this small area? Are any mechanical or other rooftop appurtenances proposed on the roof – these must be integrated into the overall design.](#)

Standard (1) g. Building Materials – Simple selection and placement is characteristic of traditional buildings in Portland. Materials were simplified and give the building a consistent overall character similar to the material use in context residential buildings. Brick base used at front of building in more public area of building.

Standard (1) h. Building Scale – Four stories is appropriate for the wide Forest Avenue commercial corridor. Standard exempts B-2.

Standard (1) i. Landscaping and Buffers – Parking located to rear of this building adjacent to residential lots – [fence/screen should provide visual screening to the neighboring residential uses.](#)

(i) Two-Family, . . . Multiple-Family . . . :

Standard (1) . Exterior Design – Context currently does not include multi-family buildings of this scale. The project successfully relates to the scale/massing of the neighboring commercial buildings. The residential context is mostly small-scale single-family with simple forms, pitched roofs, and simple materials (clapboard). This context and the rear lot placement are appropriate for more contemporary design and more flexibility of forms, scale, and patterns. The project includes interesting forms and massing as well as articulation elements such as balconies to provide a visually interesting, contemporary design. Staff observe that though building type, scale, and placement vary throughout the neighborhood, there is a consistent use of simple materials, material, trim, roof overhangs, and other articulation elements to add texture, fine-grain scale, and visual interest to the buildings, even if in a vernacular way. Material palette simplified to better relate its residential use – predominantly clapboard.

Standard (2). Relationship to Street – The project is a rear lot development – standard is difficult to apply in this situation. [Staff recommend the entrance be further emphasized given the distance from the sidewalk and lack of dedicated pedestrian path.](#)

Standard (3). Open Space – Open space is provided through balconies. There is limited open space on the site; pocket park proposed in front of existing building at the street – [see comments above regarding the design and functionality of this space.](#)

Standard (4). Light and Air – Adequate light and air provided.

Standard (5). Parking – Parking area appropriately placed to rear of lot/building. [Fence should provide a visual screen between surface parking and adjacent residential properties.](#)

Standard (6). Not applicable

14-183 are prohibited unless the use may be permitted subject to meeting the following performance-based conditions and standards:

- (a) The proposed use is consistent with the purposes of this zone;
- (b) The proposed use is similar to a permitted use; and
- (c) The proposed development is designed and operated so that it will prevent undue adverse environmental impacts, substantial diminution of the value or utility of neighboring structures, or significant hazards to the health or safety of neighboring residents by controlling noise levels, emissions, traffic, lighting, odor, and any other potential negative impacts of the proposal.

The Planning Authority shall determine whether the uses not listed as permitted or conditional uses meet the above conditions and standards. The Planning Authority may impose reasonable conditions of approval on the proposed use to ensure that it is similar in character and impact to a use on the table.

If it is determined that the use does not meet the above criteria, it shall not be permitted. The determination of the Planning Authority may be appealed within 30 days of the written determination by the property owner, lessee of the space, or property owner within 100 feet of the proposed use. That appeal shall be heard by the Planning Board in a public hearing.

(Ord. No. 293-88, 4-4-88; Ord. 159-16/17, 3-20-2017)

Sec. 14-185. Dimensional requirements.

In addition to the provisions of division 25 (space and bulk regulations and exceptions) of this article, lots in the B-2, B-2b, and B-2c zones shall meet the following dimensional requirements:

Minimum Lot Size	None
Minimum Street Frontage	20 feet
Front Yard Setback Minimum	None
Rear Yard Setback Minimum	10 feet, except as provided for below: a. 5 feet for accessory structures

Side Yard Setback Minimum	None required, except as provided for below: a. 5 feet for accessory structures
Side Yard on Side Street Setback Minimum	None
Front Yard Maximum 1, 2	No more than 10 feet, except that the Planning Board or Planning Authority may approve a different amount for irregularly shaped lots or lots with frontage less than 40 feet provided this standard is met to the maximum extent practicable. 3
Structure Stepbacks	Portions of a structure above 35 feet shall be no closer than 5 feet from the side property line and no closer than 15 feet from the rear property line when such property line abuts a residential zone.
Height maximum	45 feet except as provided for below: a. 50 feet if first floor is partially or wholly occupied by a commercial use. b. 65 feet in B-2 and B-2c zones on lots >5 acres provided that all setbacks, except for front yard setbacks and side yard on side street setbacks, increase by 1 foot for each foot of height over 45 feet. c. 65 feet within 65 feet of Franklin St.
Maximum Impervious Surface Ratio	a. For residential uses: None b. For all other permitted uses: 80% in B-2 and B-2c c. For all other permitted uses: 90% in B-2b
Minimum Lot Area per Dwelling Unit	a. Off-peninsula locations, as defined in section 14-47: 1,500 square feet, except as provided for in (b) below. b. On-peninsula locations (as per 14-47) and projects with active street frontages, as defined in section 14-188, below: 435 square feet.

-
1. Building additions do not have to meet this section.
 2. The Planning Board or Planning Authority may waive the front yard maximum for utility substations and alternative energy installations.
 3. If lot has less than 40 feet of frontage and is more than 100 feet deep then no maximum setback is required. If existing structures are within 20 feet of the street or meet the front yard maximum, and remainder of lot has less than 40 feet of frontage, then no maximum setback is required. Where setbacks exceed 10 feet, a continuous, attractive, and pedestrian-scaled edge treatment shall be constructed along the street, consisting of street trees spaced at no more than 15 feet on center, approved by City arborist, and a combinations of landscaping no less than 4 feet deep, ornamental brick or stone walls or ornamental fencing.

(Ord. No. 293-88, 4-4-88; Ord. No. 52-96, § 2, 7-15-96; Ord. No. 94-99, 11-15-99; Ord. No. (Substitute)189-00, §3, 4-24-00; Ord. No. 151-03/04, 02/23/04; Ord. No. 244-09/10, 6-21-10; Ord. No. 41-12/13, 9-5-12; Ord. No. 163-13/14, 6-16-14; Ord. 90-14/15, 11-17-2014; Ord. 159-16/17, 3-20-2017)

Sec. 14-186. Other requirements.

All nonresidential uses in the B-2 and B-2b zone shall meet the requirements of division 25 (space and bulk regulations and exceptions) of this article in addition to the following requirements:

- (a) Landscaping and screening: The site shall be suitably landscaped for parking, surrounding uses and accessory site elements, including storage and solid waste receptacles where required by article IV (subdivisions) and article V (site plan).
- (b) Curbs and sidewalks: Curbs and sidewalks as specified in article VI of chapter 25.
- (c) Off-street parking and loading: Off-street parking and loading are required by division 20 and division 21 of this article;
- (d) Front yard parking:

There shall be no off-street parking in the front yard between the street line and the required minimum setback line in the B-2, B-2b and B-2c. Where existing buildings exceed the minimum front yard setback, a maximum of ten (10) percent of the total parking provided on the site

may be located between the principal structure and the street.

- (e) Signs: Signs shall be subject to the provisions of division 22 of this article.
- (f) Exterior storage: There shall be no exterior storage with the exception of fully enclosed containers or receptacles for solid waste disposal. Such containers or receptacles shall be shown on the approved site plan. Vehicles or truck trailers with or without wheels shall not be used for on-site storage (1) except where such storage is located in a designated loading zone identified on an approved site plan; or (2) such storage is not visible from the street or adjacent residences during winter months and such storage area is identified on an approved site plan. Truck load sales shall not be considered outside storage provided that such activity does not extend beyond three (3) consecutive days nor occurs more frequently than three (3) times a calendar year.
- (g) Storage of vehicles: Storage of vehicles is subject to the provisions of section 14-335.
- (h) Shoreland and flood plain management regulations: If the lot is located in a shoreland zone or in a flood hazard zone, then the requirements of division 26 and/or division 26.5 apply.

(Ord. No. 293-88, 4-4-88; Ord. No. 51-96, 7-15-96; Ord. No. 94-99, 11-15-99; Substitute Ord. No. 189-00, §4, 4-24-00; Ord. No. 151-03/04, 02/23/04; Ord. No. 263-13/14, 6-16-14)

Sec. 14-187. External effects.

Every use in a B-2, B-2b and B-2c zone shall be subject to the following requirements:

- (a) Enclosed structure: The use shall be operated within a completely enclosed structure except for those specific open air activities licensed by the City, including but not limited to outdoor seating, sidewalk sales, etc.
- (b) Noise: Except as provided in 14-183(1)(iii)(2) (relating to Drive-throughs), the volume of sound, measured by a sound level meter with frequency

weighting network (manufactured according to standards prescribed by the American Standards Association), generated shall not exceed sixty (60) decibels on the A scale between 7:00 a.m. and 9:00 p.m. and fifty-five (55) decibels on the A scale between 9:00 p.m. and 7:00 a.m., on impulse (less than one (1) second), at lot boundaries, excepting air raid sirens and similar warning devices.

- (c) Vibration and heat: Vibration inherently and recurrently generated and heat shall be imperceptible without instruments at lot boundaries.
- (d) Glare, radiation or fumes: Glare, radiation or fumes shall not be emitted to an obnoxious or dangerous degree beyond lot boundaries.
- (e) Smoke: Smoke shall not be emitted at a density in excess of twenty (20) percent opacity level as classified in Method 9 (Visible Emissions) of the Opacity Evaluation System of the U.S. Environmental Protection Agency.
- (f) Materials or wastes: No materials or wastes shall be deposited on any lot in such form or manner that they may be transferred beyond the lot boundaries by natural causes or forces. All material which might cause fumes or dust, or constitute a fire hazard if stored out-of-doors, shall be only in closed containers. Areas attracting large numbers of birds, rodents or insects are prohibited.

(Ord. No. 293-88, 4-4-88; Ord. No. 94-99, 11-15-99; Ord. No. 03/04, 02/23/04)

Sec. 14-188. Active street frontages

A building will be determined to have an active street frontage upon meeting the following guidelines to the greatest extent practicable as determined by the Planning Board or Planning Authority: the primary building façade shall be within ten feet of the front street line; there shall be no parking on the lot within 35 feet of the front street line; no more than 25% of the first floor primary façade shall consist of access to garages, unutilized space, service entrances, storage or mechanicals, and the remaining minimum 75% shall have an average depth of a minimum of 20 feet for residential or commercial uses; all primary ground floor entries to multi-family buildings must orient to street, not to interior blocks or parking lots.

(Ord. No. 263-13/14, 6-16-14)



File: 547

January 3, 2020

Ms. Christine Grimando
City of Portland, Planning
389 Congress Street
Portland, Maine 04101

RE: 844 Stevens Avenue Apartments, Stevens Avenue, LLC, Level III Site Plan Application

Dear Christine,

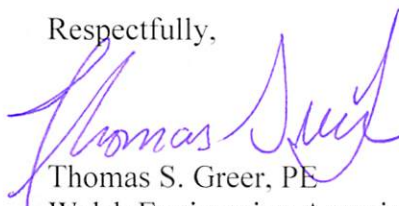
We are pleased to submit the attached plans and supporting information for the 844 Stevens Avenue Apartments. This project uses the existing majestic brick building at the Forest Avenue – Stevens Avenue intersection for office space and 5 residential units. In addition, a new 16 unit building will be constructed behind the existing building. This preserves the look and feel of Stevens Avenue and enhances the availability of housing in the area.

The new building will be very visible from Bishop Street. As such the landscaping and building design have considered this extensively. The building façade has a mix of colors, textures and windows that provide an attractive backdrop to the existing parking lot. Trees have been strategically placed to provide screening while being open to the building windows.

The residential units will be rentals, providing housing for workers in the area as well as being available for college students. This is enhanced with one parking space and immediate available bus transportation along Forest Avenue. This will serve an underdeveloped neighborhood in the City, meeting the City's goals of more housing.

Thank you for your consideration of our project.

Respectfully,



Thomas S. Greer, PE
Walsh Engineering Associates, Inc.

cc: Ed Benway-Electronic, Joe Delaney-Electronic, File
Enc.

CITY OF PORTLAND
Planning & Urban Development Department

LEVEL II and LEVEL III SITE PLAN
GENERAL DOCUMENT AND DRAWINGS CHECKLIST

Please submit each document as a separate PDF file
Please confirm by electronically checking the boxes to the left

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

GENERAL APPLICATION DOCUMENTS

Yes ☒	NA ☐	Project Description Cover Letter with detailed project description
Yes ☒	NA ☐	Completed Checklist – Level I: Site Alteration (this document)
Yes ☒	NA ☐	Right, Title and Interest Deeds, leases, or purchase and sales agreements
Yes ☐	NA ☒	Evidence of State or Federal Approvals Permits or letters of non-jurisdiction, if applicable
Yes ☒	NA ☐	Zoning Assessment Table listing required and proposed uses and dimensional standards Zoning Assessment Table
Yes ☐	NA ☒	Existing and/or Proposed Easements or Covenants, applicable. Evidence of existing easements and any proposed easements
Yes ☒	NA ☐	Waiver Requests Written request for waiver describing request and reason Waiver Table
Yes ☒	NA ☐	Financial Capability Letter or evidence from a financial institution or third party verifying financial capacity to undertake project
Yes ☒	NA ☐	Technical Capability Evidence of technical capability of applicant and consultants – resumes and/or examples of past projects

**LEVEL II AND LEVEL III SITE PLAN
STANDARDS AND SUBMISSION CHECKLIST**
Provide assessment of compliance with standards and include
supplemental documentation, as applicable
Please Submit each document as a separate PDF file

TRANSPORTATION

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

ENVIRONMENTAL AND LANDSCAPE FEATURES		
Yes ☐	NA ☒	Preservation of Significant Natural Features (14-526 (b) 1), if applicable - Trees, plants, habitats listed on State or Federal list of endangered or threatened - High and moderate value waterfowl and wading habitat - Aquifers on Casco Bay Islands - Waterbodies (including wetlands, watercourses, significant vernal pools and floodplains) - Proposed preservation areas and protection measures - Documentation from environmental consultants, determinations from applicable state agencies
Yes ☐	NA ☒	Landscaping and Landscape Preservation (14-526 (b) 2 a) - Preservation of trees and preservation within required zoning setbacks (Technical Manual, Section 4) - Protection measures of existing vegetation during construction - Protection measures within Shoreland Zone, if applicable
Yes ☒	NA ☐	Site Landscaping (14-526 (b) 2 b) - Screening and buffering of service areas and between non-residential and residential uses - Planting plans with plant schedule and sizes (Technical Manual, Section 4)
Yes ☒	NA ☐	Parking Lot Landscaping (14-526 (b) 2 b ii), if applicable Landscaped islands within parking areas (Technical Manual, Section 4)
Yes ☒	NA ☐	Street Trees (14-526 (b) 2 b iii) - Existing Heritage or Feature Trees on site and measures to preserve - Identify street trees on the plan meeting the site plan and Technical Manual standards (Section 4) or identify alternative measures, if applicable
ENVIRONMENTAL AND STORMWATER		
Yes ☒	NA ☐	Water Quality, Stormwater Management and Erosion Control (14-526 (b)3 a) - Stormwater report in compliance with Section 5 of Technical Manual and DEP Chapter 500 stormwater for basic, general and flooding standards, as applicable - Erosion control plan and measures - Evidence of compliance with Urban Impaired Stream Standards pursuant to DEP Chapter 500 stormwater, as applicable - Subsurface sanitary sewage disposal and groundwater protection

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

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

**LEVEL II AND LEVEL III SITE PLAN
DRAWINGS CHECKLIST**

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

RECENT BOUNDARY SURVEY (stamped by Maine Licensed Surveyor)

- ☒ Must be in compliance with Technical Manual, Section 13

SITE PLAN(s) (stamped by Maine Licensed Engineer) including:

Existing Conditions

- ☒ Approximate location of structures on abutting property
- ☒ Topography
- ☒ Locate water courses NONE
- ☒ Delineate wetlands NONE
- ☒ Zone lines

Proposed Site Plan

- ☒ Ground floor area, and grade elevations for all buildings

Access, Circulation, and Parking

- ☒ Streets and intersections adjacent to site, any proposed geometric modifications
- ☒ Location, dimensions and materials of all existing and proposed driveways, vehicle, bicycle, & pedestrian access ways with corresponding curb lines
- ☒ Engineered specifications/ cross-sections for proposed driveways, sidewalks & paved areas
- ☒ Location and dimensions of proposed loading areas NONE
- ☐ Existing and proposed transit infrastructure with dimensions/ engineering specifications
- ☒ Location of vehicle and bicycle parking with dimensions and engineering specifications

Site Considerations

- ☒ Identify snow storage areas
- ☒ Location of fire hydrants
- ☒ Location of solid waste management facilities

UTILITY PLAN including:

- ☒ Existing utilities on site and within public streets
- ☒ Location, sizing and directional flows of all existing and proposed utilities
- ☒ Location and dimensions of off-premises public or publicly accessible infrastructure adjacent to site
- ☒ Electric utility infrastructure

GRADING AND DRAINAGE PLAN including:

- ☒ Existing grades and drainage
- ☒ Proposed grades
- ☒ Proposed stormwater management meeting Technical Manual (Section 5), standards
- ☒ Location and proposed alteration of a water course NONE
- ☒ Preservation or alteration of wetlands NONE

EROSION CONTROL

- ☒ Must be in compliance with Technical Manual, Section 5

LANDSCAPE PLAN including:

- ☒ Existing vegetation to be preserved and preservation measures
- ☒ Proposed landscaping and buffers
- ☒ Planting schedule

RECORDING PLAT, if applicable
☒ If Subdivision, must be in compliance with requirements of Section 14-496 (b)
ARCHITECTURAL PLANS AND RENDERINGS including:
☒ Exterior building elevations, color renderings, illustrations of all sides
☒ Location and dimensions of all existing and proposed HVAC and mechanical equipment, all proposed screening
☒ Provide context drawings, if applicable (Design Manual, page 1)
☒ Floor plans



If Subdivision, must be in compliance with requirements of Section 14-496 (b)

ARCHITECTURAL PLANS AND RENDERINGS including:
☒ Exterior building elevations, color renderings, illustrations of all sides
☒ Location and dimensions of all existing and proposed HVAC and mechanical equipment, all proposed screening
☒ Provide context drawings, if applicable (Design Manual, page 1)
☒ Floor plans



Exterior building elevations, color renderings, illustrations of all sides



Location and dimensions of all existing and proposed HVAC and mechanical equipment, all proposed screening



Provide context drawings, if applicable (Design Manual, page 1)



Floor plans

To Whom It May Concern,

By this letter, the undersigned authorizes Walsh Engineering Associates, Inc. to act as the agent for the undersigned in the preparation and submission of all Federal, State, and Local City permit applications and relevant documents and correspondence for all necessary permits for the construction on the property at 844 Stevens Avenue in Portland to attend meetings and site visits; to appear before all boards, commissions, and committees, and to provide such other services as are necessary and appropriate in furtherance of the aforementioned project.

Sincerely,



Signature

Edward H. Benway

Printed Name and Title

12/19/2019

Date



844 Stevens Avenue
January 3, 2020

Site Plan Standards (14-526)

Level III Site Plans are subject to the review criteria outlined in Section 14-526 of the City of Portland Land Use Ordinance. Each of these review standards is discussed below:

Transportation Standards

This project consists of (21) residential units and (2) 400 square foot office spaces. The site currently has access from Bishop Street and Stevens Avenue. It is adjacent the Forest Avenue / Stevens Avenue intersection. The site has significant cut through traffic. The proposed site plan eliminates the cut through traffic. It provides the same two access locations, accessing two separate parking courts. This provides safe access from the Stevens Avenue court.

The City's Master Plan calls for the reconstruction of the Forest / Stevens Avenue intersection minimizing any safety concerns. It will provide pedestrian access throughout the area. This project is in conformance with that plan.

Small delivery vehicles such as USPS and UPS will access the Stevens Avenue court. Gang mailboxes provide convenient services.

The Stevens Avenue sidewalk will be reconstructed to City Standards. No sidewalk work will occur on Bishop Street as the full width of the street frontage is used for access.

Public Transit Access

This site has access to public transit at Forest Avenue approximately 500 feet from the site. The site does not accommodate a transit shelter. We request a waiver from this section.

Parking

The parking has been split into two courts. The Stevens Avenue court has 13 parking spaces including an ADA space. The Bishop Street court has 9 parking spaces. See the site plan for dimensions of the spaces. We request a waiver for one space.

Bicycle parking is provided at the front of both buildings, providing 10 total spaces. Occupants of the new building will have indoor storage for bicycles and other items.

A scooter parking space is provided by the electrical meters on the lower level.

Snow storage areas are limited on site. Snow removal from the site will be required for most years. See Site Plan for locations of snow storage.

Transportation Demand Management (TDM)

This project does not require a TDM Plan.

Preservation of Significant Features

The existing site is fully developed with buildings and parking. There are no significant natural features to be preserved.

Landscaping

The developed site will add landscaping to the site. The front of the site at Stevens Avenue will become a pocket park, making it an active area. It will have benches and gathering areas surrounded by landscape plantings. The northerly side of the site will have landscape plantings carefully placed around the windows of the buildings. This will soften the architecture and provide some screening.

In addition to the on site plantings the project will contribute to the City's Tree Fund.

Stormwater Quality and Erosion Control

A Stormwater Report is attached and the Erosion Control measures are shown on the plan. The project utilizes the developed site with a small increase in impervious area. Based on Redevelopment Standards of Chapter 500 of the DEP Stormwater Rules, no stormwater treatment is required.

The site is connected to the Bishop Street stormwater system.

Consistency with the City's Master Plan

This project enhances the streetscape of Stevens Avenue in accordance with the City's Plan to improve the intersection.

Public Safety and Fire Prevention

The existing building will be renovated to have 5 residential apartments and two office spaces. The building, built in the late 1800's will be upgraded with a sprinkler system. The new building will meet NFPA codes, including a sprinkler system.

Capacity of Utilities

We have requested letters from the Portland Water District and the City's Wastewater Department to confirm there is adequate capacity to service the project.

Dumpsters

Dumpsters are provided in the Stevens Avenue parking court. It is conveniently located between the two buildings. We anticipate using the small roller containers for waste and recycle items.

Snow and Ice Loading

The building design includes a flat roof minimizing the opportunity for ice and snow from falling on adjacent properties or public ways.

View Corridor

The new building is placed behind the existing building and out of any view corridor from Stevens Avenue. It is well off Bishop Street and will provide an attractive backdrop to the existing parking lot.

Historic Resources

This site is not in a Historic District. The project does preserve the existing building.

Lighting

The site will be lit from the two existing buildings with cut off fixtures and a pole mounted light adjacent the Stevens Avenue parking court. See architectural plans.

Noise and Vibration

There are no items that will create excess noise or vibration. HVAC units will be roof mounted, or above the parking under the building at the low end of the site. These locations will provide buffering of any noise that is generated.

Signs and Way Finding

The site will be identified by a Granite Post located off Stevens Avenue. It will have large block numbers of 844 and 3 small signs identifying tenants of the building.

Zoning Goals

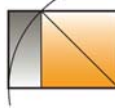
The B2 zone is intended to create a street wall with direct access to buildings. The existing building is a prominent feature in the intersection with a front door on the street meeting this requirement.



Active Street Frontage
844 Stevens Avenue Apartments
January 2, 2020

The project at 844 Stevens Avenue is considered to have active street frontage. The existing building fronts on the Stevens Avenue / Forest Avenue intersection. The building is positioned to provide a commanding view of the surrounding area. The following summarizes our analysis:

- The parking is located behind the front building.
- The front of the site has an active landscape area including benches and gathering space.
- The first floor office space is in the front of the building.
- The front door is prominent to the front of the building and the active landscape area. Access is highlighted by granite bollards as wayfinding.
- All entries to the buildings are oriented to Stevens Avenue.



Whipple | Callender Architects

The proposed apartment building for 844 Stevens Avenue will share the site with an existing Federal/ Colonial Revival brick building that fronts Stevens Ave. The existing three-story structure is a gabled form with double hung windows arranged individually and in groups. The street elevation has larger window arrangements and the ground floor was altered for business use in the 1930's.

The narrow and deep site necessitates the new building sit behind the existing building. The buildings are completely separate and together form a parking court and entry space from Stevens Avenue. The front of the new building will face southeast and fill the full width of the site as a background to the parking court. The sides of the building are close to sideline and the rear is a story taller due to grade. We are maintaining a maximum average height of 35'.

The proposed structure is flat roofed, partly to control stormwater and partly to meet zoning requirements. The flat roof will also blend with surrounding commercial structures and provide a counterpoint to the original buildings gable form. The windows are casement style to allow maximum ventilation, light and better thermal performance. Siding has been selected to provide texture and build upon the character of surrounding properties.

The upper two stories are townhouses and their exterior is finished with painted clapboard siding such as Boral and painted. The roof line will be detailed with a substantial cornice. Corner trim and vertical detailing will break up the mass of the top two stories. The design will provide a number of private deck spaces for the townhouses, activating the front and rear elevations.

The Stevens Avenue ground floor is designed with a recessed entry and paved areas for outdoor use and bike storage. The Community Room that is located off the front entry looks out to these spaces through large windows and its exterior is finished in brick veneer. Above the Community Room is an exterior Community Deck accessed from the floor two common corridor. We see this upper deck as an extension of the parking court landscape that creates variety and activity at the Stevens Avenue portion of the site. The deck will help conceal roof mounted mechanical components.

The building sides, at the ground floor and below, will be finished with exterior wall panels that will organize the windows that serve a variety of apartment layouts due to the unique site geometry.

Accessed from Bishop Street, the rear elevation will be finished more simply, contrasting the recessed parking with the upper recessed deck and providing areas for wall mounted mechanical and electrical utilities.

Our site is challenging. The building seeks to specifically respond to the site at 844 Stevens Avenue. We plan to; strengthen the Stevens Avenue presence of the proposed development, create orderly elevations at the tight side lot lines and locate utility connections and services to the Bishop Street entry. In scale and appearance the proposed multistory building will help to re-establish a more substantial commercial building scale and density at Morrill's Corner that has been diminished with more recent single story construction.

Portland, Maine



Yes. Life's good here.

Planning & Urban Development Department

ZONING ANALYSIS Relevant Zone(s) B2 - Community Business Zone

All Projects:

	Required	Proposed
Lot Size	None	21,989 sq. ft.
Area Per Dwelling Unit	435 sq. ft.	1,048 sq. ft.
Minimum Street Frontage	20 ft.	76.3 ft.
Front Yard Minimum	None	20.4 / 159 ft.
Front Yard Maximum	10 ft.	20.7 / 159 ft.
Rear Yard	10 ft.	5 / 59.6 ft.
Yard Right	None	2 ft.
Yard Left	None	5.3 ft.
Side Street Setback	-	-
Step Back	5 / 15	5.3 / 70 ft.
Maximum Lot Coverage	-	-
Minimum Lot Coverage	-	-
Maximum Height	45 ft.	40.3 ft.
Open Space	-	-
Maximum Impervious Area	None / 80%	82%
Pavement Setback	-	-
Floor Area Ratio	-	-
Off Street Parking Spaces	23	22
Loading Bays	-	-
Other 1		
Other 2		
Other 3		

Existing Building is 20 feet back from Right-of-Way

Planned Residential Unit Developments (PRUD) Requirements

	Required	Proposed
Minimum Lot Size	N/A	N/A
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	N/A	N/A	N/A
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):			

WARRANTY DEED

FOR CONSIDERATION PAID, the undersigned **844 STEVENS AVENUE, LLC**, a Maine limited liability company with its principal place of business in the City of Portland, County of Cumberland, and State of Maine, hereby conveys to **STEVENS AVENUE, LLC**, a Maine limited liability company with a mailing address of 303 Islington Street, Portsmouth, NH 03801, WITH WARRANTY COVENANTS, that certain lot or parcel of land, including all buildings, improvements, and appurtenances thereof, situated on the westerly sideline of Stevens Avenue, in the City of Portland, County of Cumberland and State of Maine, being more particularly bounded and described as follows:

BEGINNING at a found #5 steel rebar on said westerly sideline of Stevens Avenue at the most northeasterly corner of the lot herein described. Said rebar also being S 20°-47'-00" W seventy-seven and three hundredths (77.03) feet from a found drill hole marking the intersection of said westerly sideline of Stevens Avenue with the southerly sideline of Bishop Street as relocated by the City of Portland, July 8, 1913;

THENCE, S 200-47'-00" W along said westerly sideline of Stevens Avenue a distance of seventy-six and thirty hundredths (76.30) feet to a 1" iron pipe marking the most northeasterly corner of the land described in the deed of Humble Companies Foundation to Retailers Realty Trust, dated August 14, 1970 and recorded in the Cumberland County Registry of Deeds in Book 3142, Page 448;

THENCE, N 67°-00'-00" W along land of Retailers Realty Trust a distance of forty-nine and no hundredths (49.00) feet to a set #5 steel rebar with a survey cap;

THENCE, N 77°- 57'-00" W continuing along land of Retailers Realty Trust a distance of sixty-three and thirty-six hundredths (63.36) feet to a set #5 steel rebar with a survey cap;

THENCE, N 63°- 55'-00" W continuing along land of Retailers Realty Trust a distance of two hundred fifteen and thirty-seven hundredths (215.37) feet to a found 1" iron pipe;

THENCE, N 63°-55'-00" W continuing along land of Retailers Realty Trust a distance of forty hundredths (0.40) feet to a point on the easterly sideline of a ten (10) feet wide right-of-way as depicted on a plan entitled "Plan of lots made for Fred E. Briggs in May. 1913" by E.C. Jordan & Co. and recorded in the Cumberland County Registry of Deeds in Plan Book 12. Page 68;

MAINE REAL ESTATE TAX PAID

THENCE, N 23°- 43'-45" E along said easterly sideline of the ten (10) feet wide right-of-way a distance of seventy-six and seventeen hundredths (76.17) feet to a found iron on the westerly sideline of Bishop Street;

THENCE, S 80°-23'-15" E along said southerly sideline of Bishop Street a distance of nineteen and nine hundredths (19.09) feet to a found iron marking the most northwesterly corner of land described in the deed of Community Housing Investment Corporation to The Spurwink School, dated December 13, 1993 and recorded in the Cumberland County Registry of Deeds in Book 11161, Page 291;

THENCE, S 12°-12'-30" W along land of The Spurwink School a distance of thirty-four and eighty-two hundredths (34.82) feet to a found iron;

THENCE, S 71°-43'-30" E continuing along land of The Spurwink School a distance of one hundred eighty-six and forty-six hundredths (186.46) feet to a point marking the most southwesterly corner of land described in the deed of Fred M. Forsley to James L. Burgess, et al. dated October 7, 1985 and recorded in the Cumberland County Registry of Deeds in Book 6923, Page 271;

THENCE, S 71°-43'-30" E along land of Burgess, et al., a distance of fifteen and eighty hundredths (15.80) feet to a found drill hole;

THENCE, N 23°-20'-00" E continuing along land of Burgess, et al., a distance of thirteen and eighty-five hundredths (13.85) feet to a found 3/4" iron pipe;

THENCE, S 66°-53'-45" E continuing along land of Burgess, et al., a distance of ninety-five and ninety-nine hundredths (95.99) feet to the point of beginning.

The bearings used in this description are based on a "Plan of land in Portland, ME owned by Harriett True" by E.C. Jordan & Co.

Reference is made to the "Plan Showing a Standard Boundary Survey made for James Ascanio", dated October 31, 1994 by Nadeau and Lodge, Professional Land Surveyors.

The foregoing premises are conveyed subject to all encumbrances of record.

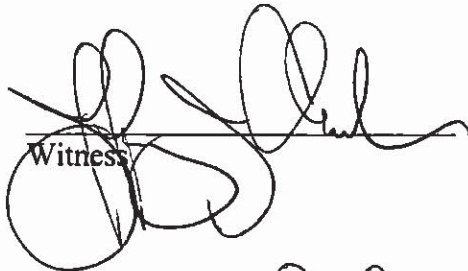
MEANING AND INTENDING to convey, and hereby conveying that certain premises described in a deed to Grantor dated January 10, 2018, and recorded in the Cumberland County Registry of Deeds in Book 34650, Page 156.

[No further text. Signature page follows.]

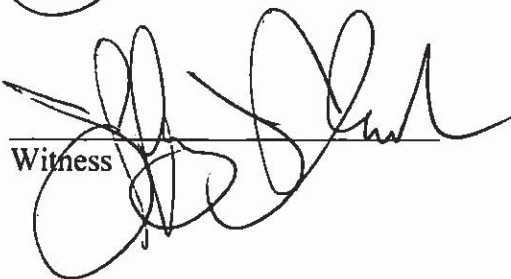
IN WITNESS WHEREOF, 844 Stevens Avenue, LLC has caused this Warranty Deed to be duly-executed as of this 26th day of February, 2019.

ATTEST:

844 STEVENS AVENUE, LLC:

Witness 

By: 
Name: Scott McLeod
Its: Member

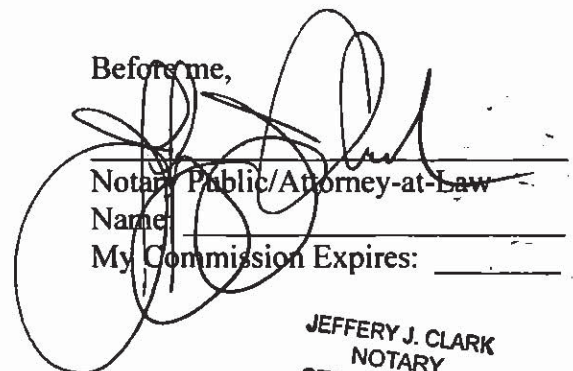
Witness 

By: 
Name: James Ascanio
Its: Member

STATE OF MAINE
YORK COUNTY, ss.

February 28, 2019

Personally appeared before me the above-named Scott McLeod and James Ascanio, the duly authorized Members of 844 Stevens Avenue, LLC, and acknowledged the foregoing instrument to be their free act and deed in their said capacity and the free act and deed of said 844 Stevens Avenue, LLC.

Before me, 
Notary Public/Attorney-at-Law
Name: _____
My Commission Expires: _____

SEAL

JEFFERY J. CLARK
NOTARY
STATE OF MAINE
COMMISSION EXPIRES 5-02-19

Received
Recorded Register of Deeds
Mar 08, 2019 09:08:41A
Cumberland County
Nancy A. Lane



Portland, Me- PHONE: (207) 602-7678 FAX: (207) 504-8117

136 Commercial St, Portland, ME 04101

Dec 12, 2019

Edward Benway
303 Islington Street
Portsmouth, NH 03801

RE: Construction Financing

Please be advised that Ed Benway has the financial capacity to construct a 20 unit apartment complex in Portland Maine, 04101. As always, I look forward to providing financing for this project.

Should you have any questions please feel free to contact me directly at (207)602-7678 or my E-mail: MJean@sbsavings.bank.

Sincerely,



Michael Jean
VP Business Loan Officer
136 Commercial Street
Portland, Maine 04101



STORMWATER MANAGEMENT REPORT

For

844 Stevens Avenue
Portland, Maine

January 3, 2020

Submitted by:

Walsh Engineering Associates, Inc.
One Karen Drive, Suite 2A
Westbrook, Maine 04092

SUPPORTING DATA AND CALCULATIONS

Cover Letter & Table of Contents

Appendix A: Stormwater Agreement

Appendix B: Inspection & Maintenance Report

Appendix C: Housekeeping Report



STORMWATER MANAGEMENT REPORT

**844 Stevens Avenue
Portland, Maine
January 3, 2020**

Introduction

844 Stevens Avenue has access to Stevens Avenue and Bishop Street. It is located immediately adjacent the Forest Avenue, Stevens Avenue intersection. There is a parking lot on one side of the site and Rosemont Market and Bakery Headquarters on the other side. There are currently two buildings on this site. The front building is an old brick building used for hairdressers and office space. The rear building is a garage used for storage. The remainder of the site is paved and used for parking.

The proposed project includes renovating the existing front building to have 5 residential units and two office spaces. The rear garage will be removed and replaced with a 3-story, 16 residential unit building. Access to the site will continue to be from Bishop Street and Steven Avenue. Cut through traffic will no longer be accommodated.

Pre-Development Conditions

The existing site has two buildings with footprints of 2,456 and 903 sq. ft. Currently the 21,989 sq. ft. site has 14,149 sq. ft. of paving, giving it a lot coverage of 17,508 sq. ft., or 80%. The runoff from the site splits in two directions. The rear portion drains towards Bishop Street where it is picked up in a catch basin. The front of the site drains to Stevens Avenue. This is an urban site.

Post-Development Conditions

The developed site will have two buildings with footprints of 2,456 and 5,420 sq. ft. and new paving of 11,115 sq. ft. providing a total impervious surface of 18,131 sq. ft. or 82%. This is an addition of 623 sq. ft. The project will continue to drain towards Bishop Street and Stevens Avenue. The Bishop Street connection will be upgraded with a new catch basin system and connection to the existing storm drain system. The Stevens Avenue system will continue to be surface flow.

Drainage Analysis

As there is a net increase in impervious surface of less than 1,000 sq. ft. and a reduction in paved surface the overall drainage will be approximately equal in flow and potential contaminants leaving the site. No drainage modeling is required.

Maintenance

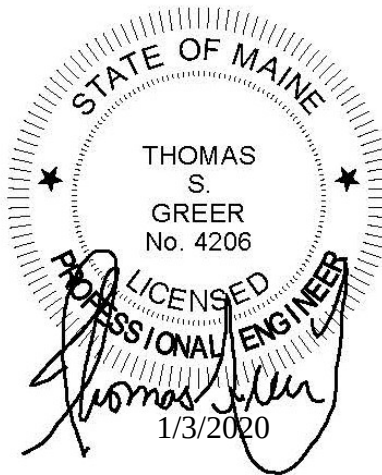
The long term maintenance required includes grit removal from the two on-site catch basins, sweeping of the parking areas and maintenance of the landscaped areas. This will be performed by the building owner and reported annually to the City of Portland under the Chapter 32 Standards. Attached are the Maintenance Plan and City Agreement for the stormwater system.

Conclusion

The replacement of the existing parking with a 16 unit residential building will add less than 1,000 sq. ft. of impervious area to the site. In accordance with the Chapter 500 Standards for redevelopment no stormwater treatment is required. This project will have no unreasonable impacts on downstream properties.

Respectfully,

Thomas S. Greer P.E.
Walsh Engineering Associates, Inc.



REDEVELOPMENT PROJECT STANDARDS - CHAPTER 500 pg 7

COVER	EX AREA	RATING	WEIGHTED EX.	DEV
BUILDINGS	3,361	(2)	$\frac{6,722}{3,361}$	7016 (2) 14032
LANDSCAPE	3,938	(1)	3,938	3347 (1) 3347
PAVING	14,704	(4)	$\frac{58,816}{14,704}$	11,640 (4) $\frac{16,566}{11,640}$
			69,476	63,939

$$\frac{69,476}{22,003} = 3.16$$

$$\frac{63,939}{22,003} = 2.91$$

$$2.91 - 3.16 = -0.25$$

From TABLE pg 8 $-0.25 < 0.0$ NO TREATMENT REQ.

Appendix A:
Stormwater Agreement

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 844 Stevens Avenue shown on the Subdivision Plat (Exhibit A) recorded in Cumberland Registry of Deeds in Plan Book____, Page_____submitted by Walsh Engineering Associates, Inc., and associated Grading & Utilities (Exhibit B) prepared by Walsh Engineering Associates, Inc., (WEA) of One Karen Drive, Suite 2A, Westbrook, ME 04092 dated January 3, 2020 and pursuant to a condition thereof, Measured Wealth Private Client Group, LLC, a Maine limited liability company with a principal place of business in Portland, Maine, and having a mailing address of 303 Islington Street, Portsmouth, NH 03801, 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 storm drain pipes and catch basins, hereinafter collectively referred to as the “stormwater system”, as shown on the Grading & Utilities Plan in Exhibit B and in strict compliance with the approved Inspection and Maintenance of Stormwater Management Facilities Plan prepared for the Owner by Walsh Engineering Associates 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 _____, 2020.

Stevens Avenue, LLC

Edward H. Benway, President

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 & Utilities Plan

Exhibit C: Approved Inspection and Maintenance of Stormwater Management Facilities Plan

Appendix B:
Inspection and Maintenance Report

**INSPECTION AND MAINTENANCE OF
STORMWATER MANAGEMENT FACILITIES PLAN**

**844 Stevens Avenue
Portland, Maine
January 3, 2020**

Stormwater Management Facilities include swales, paved surfaces, manholes and catch basins, drain pipe, riprapped aprons, level spreaders, wooded buffers, underdrained soil filters, detention ponds, wet ponds and subsurface sand filters. Periodic inspection and maintenance of these site features and devices is necessary to prevent erosion, protect roadways and other paved areas, and remove pollutants from stormwater runoff.

The Owner is responsible for the inspection and maintenance of all stormwater management facilities, the establishment of any contract services required to implement the program, and the keeping of records and maintenance log book as described herein. At a minimum, the appropriate and relevant activities for each of the stormwater management facilities should be performed on the prescribed schedule.

POST CONSTRUCTION MONITORING:

32-38. Post-construction stormwater management plan compliance.

Any person owning, operating, or otherwise having control over a BMP required by a post Construction stormwater management plan shall maintain the BMPs in accordance with the approved plan and shall demonstrate compliance with that plan as follows:

- (a) Inspections. The owner or operator of a BMP shall hire a qualified post-construction stormwater inspector to at least annually, inspect the BMPs, including but not limited to any parking areas, catch basins, drainage swales, detention basins and ponds, pipes and related structures, in accordance with all municipal and state inspection, cleaning and maintenance requirements of the approved post-construction stormwater management plan.
- (b) Maintenance and repair. If the BMP requires maintenance, repair or replacement to function as intended by the approved post-construction stormwater management plan, the owner or operator of the BMP shall take corrective action(s) to address the deficiency or deficiencies as soon as possible after the deficiency is discovered and shall provide a record of the deficiency and corrective action(s) to the department of public services ("DPW") in the annual report.
- (c) Annual report. The owner or operator of a BMP or a qualified post-construction stormwater inspector hired by that person, shall, on or by June 30 of each year, provide a completed and signed certification to DPW in a form provided by DPW, certifying that the person has inspected the BMP(s) and that they are adequately maintained and functioning as intended by the approved post-construction stormwater management plan, or that they require maintenance or repair, including the record of the deficiency and corrective action(s) taken.

Appendix B:

- (d) Filing fee. Any persons required to file and annual certification under this section shall include with the annual certification a filing fee established by DPW 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, DPW may enter upon property at reasonable hours with the consent of the owner, occupant or agent to inspect the BMPs.

SWALES, DITCHES, CURBS AND PAVED AREAS:

Swales, ditches, curbs and paved areas are easily inspected during a site walk or even a ride-by. Since visual inspection is easy, their condition should be assessed during and/or after significant rainfall events such as thunder showers and periods of heavy or extended rainfall and during periods of significant snowmelt. Any damage or unusual condition such as sedimentation of a ditch, erosion, damaged curb or dying vegetation should be recorded, dated and initialed by the inspector when observed. Even if there is no damage, the inspector should make record of these inspections at least twice annually.

Paved areas should be visually inspected monthly during the winter. The inspector should pay particular attention to the build up of sand around catch basin grates and remove accumulations that block the free flow of surface runoff to the catch basins. The date and initials of the inspector should be recorded on the forms provided as well as a notation of any cleanup effort that was made and the approximate volume of sand that was removed.

Open swales and ditches shall be inspected twice per year (in spring and fall) to assure that debris and/or sediments do not reduce the effectiveness of the system. Debris and sediments shall be removed at that time. Any sign of erosion or blockage shall be immediately repaired to assure a vigorous growth of vegetation for the stability of the ditches and slopes proper function. Maintenance shall include, but not be limited to, mowing, trimming and removal of vegetation in the ditches and slopes as required in order to prevent vegetation from blocking or diverting storm flows, replacement of riprap channel lining to prevent scour of the channel invert, removing vegetation and debris from the culverts.

Vegetated ditches should be mowed at least monthly during the growing season. Larger brush or trees must not be allowed to become established in the channel. Any areas where the vegetation fails will be subject to erosion and should be reseeded and mulched immediately.

CATCH BASINS, FIELD INLETS AND DRAIN MANHOLES:

Catch Basins and field inlets are precast concrete structures with sumps and cast iron grates used to collect stormwater and trap heavy sediments. Drain Manholes are similar structures constructed with a channel instead of a sump and a solid cast iron cover instead of a grate. Drain Manholes exist at changes in direction and/or size of storm drain pipe. Catch Basins, field inlets and drain manholes provide access to the closed storm drain system for inspection and maintenance.

Appendix B:

Throughout the winter / spring sanding period, inspect catch basins and field inlets monthly and after every significant rainfall event or period of heavy snowmelt. Clean catch basin and field inlet sumps when sediment level is within 12 inches of the outlet pipe invert. At a minimum, remove floating debris and hydrocarbons at the time of the inspection. The removed material must be disposed of in accordance with the Maine Solid Waste Disposal Rules. Confined space entry safety procedures shall be practiced should entry into these structures be required.

Record dates of inspections, observations and maintenance measures implemented (if any) on the forms provided and initial the entry.

DRAIN PIPES:

Drain pipes are road culverts and pipes connecting drain manholes. Inspect drain pipes when inspecting other stormwater maintenance facilities. At least annually make a visual inspection of the pipe. During the daylight you should be able to see light through most pipes as they have been laid to a straight line and grade. In some cases (e.g. pipe runs to a drain manhole, or is blocked) you will need a light to inspect pipes.

Remove any obstructions to flow; remove accumulated sediments and debris at the inlet, at the outlet, and within the conduit; and to repair any erosion damage at the pipe inlet and outlet. Sediment should be removed when its level exceeds 20% of the pipe diameter. This may be accomplished by hydraulic flushing or any mechanical means; however, care should be taken to contain the sediment at the pipe outlet, and not flush the sediments into the stormwater filter or wetland areas.

Riprap aprons where stone is displaced should be replaced and chinked to assure stability. With time, additional riprap may be added. Vegetation growing through riprap should be removed on an annual basis.

Record inspections on the forms provided noting condition of pipe and any maintenance procedures implemented.

Appendix B:

[illegible]

Appendix B:

[illegible]

Appendix B:

[illegible]

Appendix B:

STORMWATER MANAGEMENT SYSTEM MAINTENANCE PROGRAM SUMMARY CHECKLIST					
Item	Commentary	Frequency			
		Month	Semi-Annual	Annual	Long-Term
Open Swale, Ditches & Inlet Structures	Inspect for debris accumulation, erosion and excessive vegetation. Mow monthly, remove debris, repair and revegetate any area of erosion	X Mow		X	
Pavement	Review for damage and buildup of debris and sand.	X	X Sweep		
Catchbasin and Drain Manholes	Inspect grates to assure optimum water flows into the structures. Inspect sumps for blockage and sediment accumulation. Clean out sumps.	X Inspect		X Sediment removal	
Pipes	Inspect for sediment build-up in pipe. Flush and remove as required.			X	

Appendix C:
Housekeeping Report

HOUSEKEEPNG REPORT

844 Stevens Avenue
Portland, Maine
January 3, 2020

Housekeeping: The developer is responsible for notifying the contractor and owner of the housekeeping standards.

1. **Spill Prevention:** The contractor and owners need to take care with construction and waste materials such that contaminants do not enter the stormwater. The storage of materials such as paint, petroleum products, cleaning agents and the like are to be stored in watertight containers. The use of the products should be in accordance with manufacturer recommendations. When fueling equipment, including snowblowers and lawnmowers, have oil absorbent pads available below the fueling.

Staging areas are noted on the plans for the contractor's use. Refueling of small engines by the owner should occur in the garage or on a paved surface.

Any spill or release of toxic or hazardous substances must be reported to the Department. For oil spills, call 1-800-482-0777 which is available 24 hours a day. For spills of toxic or hazardous material, call 1-800-452-4664 which is available 24 hours a day. For more information, visit the Department's website at:
<http://www.maine.gov/dep/spills/emergspillresp/>

2. **Groundwater Protection:** Protection of the groundwater is required by the contractor and owner. Petroleum products should be stored in manufactured cans designed for the purpose. Spill preventions procedures should be followed.
3. **Fugitive Sediment and Dust:** The contractor is required to minimize dust from the construction operation. The road should be swept regularly (weekly) and prior to any rain event. The gravel areas are to be watered regularly to minimize dust. Any mud that is tracked off site should be cleaned up prior to it drying and becoming a dust issue.

Do not use oil to control dust.

Dewatering a stream without a permit from the Department may violate state water quality standards and the Natural Resources Protection Act.

4. **Debris and Other Materials:** Construction materials and construction debris should be covered to prevent rainwater from washing contaminants off the site. Any fertilizers, cleaning products, herbicides should be protected from the weather and used in accordance with manufacturers recommendations.

Note any contaminants that are washed off the site by rainwater is a violation of the Clean Waters Act.

Storage Handling and Disposal of Solid Waste items must comply with Maine's Solid Waste Management Rules. Lack of appropriate pollutant control may result in violations of the Groundwater Quality Standards.

This project has a written Erosion Control Plan and Inspection and Maintenance Plan. Modifications to the plan must be approved by the Town.

Maintenance of stormwater treatment and control systems must occur regularly. The Inspection and Maintenance Plan provides inspection details and time lines for doing the inspections and reporting to the Town and DEP

DESCRIPTION

The Galleon™ LED luminaire delivers exceptional performance in a highly scalable, low-profile design. Patented, high-efficiency AccuLED Optics™ system provides uniform and energy conscious illumination to walkways, parking lots, roadways, building areas and security lighting applications. IP66 rated and UL/cUL Listed for wet locations.

SPECIFICATION FEATURES

Construction

Extruded aluminum driver enclosure thermally isolated from Light Squares for optimal thermal performance. Heavy-wall, die-cast aluminum end caps enclose housing and die-cast aluminum heat sinks. A unique, patent pending interlocking housing and heat sink provides scalability with superior structural rigidity. 3G vibration tested and rated. Optional tool-less hardware available for ease of entry into electrical chamber. Housing is IP66 rated.

Optics

Patented, high-efficiency injection-molded AccuLED Optics technology. Optics are precisely designed to shape the distribution maximizing efficiency and application spacing. AccuLED Optics create consistent distributions with the scalability to meet customized application requirements. Offered standard in 4000K (+/- 275K) CCT 70 CRI. Optional 3000K, 5000K and 6000K CCT.

Electrical

LED drivers are mounted to removable tray assembly for ease of maintenance. 120-277V 50/60Hz, 347V 60Hz or 480V 60Hz operation. 480V is compatible for use with 480V Wye systems only. Standard with 0-10V dimming. Shipped standard with Eaton proprietary circuit module designed to withstand 10kV of transient line surge. The Galleon LED luminaire is suitable for operation in -40°C to 40°C ambient environments. For applications with ambient temperatures exceeding 40°C, specify the HA (High Ambient) option. Light Squares are IP66 rated. Greater than 90% lumen maintenance expected at 60,000 hours. Available in standard 1A drive current and optional 600mA, 800mA and 1200mA drive currents (nominal).

Mounting

STANDARD ARM MOUNT: Extruded aluminum arm includes internal bolt guides allowing for easy positioning of fixture during mounting. When mounting two or more luminaires at 90° and 120° apart, the EA extended arm may be required. Refer to the

arm mounting requirement table. Round pole adapter included. For wall mounting, specify wall mount bracket option. **QUICK MOUNT ARM:** Adapter is bolted directly to the pole. Quick mount arm slide into place on the adapter and is secured via two screws, facilitating quick and easy installation. The versatile, patent pending, quick mount arm accommodates multiple drill patterns ranging from 1-1/2" to 4-7/8". Removal of the door on the quick mount arm enables wiring of the fixture without having to access the driver compartment. A knock-out enables round pole mounting.

Finish

Housing finished in super durable TGIC polyester powder coat paint, 2.5 mil nominal thickness for superior protection against fade and wear. Heat sink is powder coated black. Standard housing colors include black, bronze, grey, white, dark platinum and graphite metallic. RAL and custom color matches available.

Warranty

Five-year warranty.



GLEON GALLEON LED

1-10 Light Squares

Solid State LED

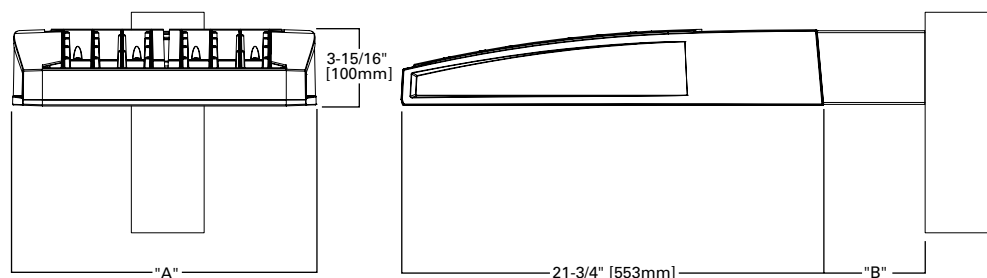
AREA/SITE LUMINAIRE



LumenSafe Technology
[CLICK HERE](#)

WaveLinx

DIMENSIONS



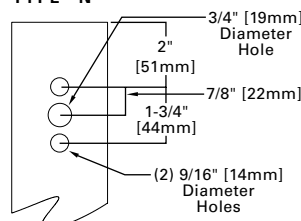
DIMENSION DATA

Number of Light Squares	"A" Width	"B" Standard Arm Length	"B" Optional Arm Length ¹	Weight with Arm (lbs.)	EPA with Arm ² (Sq. Ft.)
1-4	15-1/2" (394mm)	7" (178mm)	10" (254mm)	33 (15.0 kgs.)	0.96
5-6	21-5/8" (549mm)	7" (178mm)	10" (254mm)	44 (20.0 kgs.)	1.00
7-8	27-5/8" (702mm)	7" (178mm)	13" (330mm)	54 (24.5 kgs.)	1.07
9-10	33-3/4" (857mm)	7" (178mm)	16" (406mm)	63 (28.6 kgs.)	1.12

NOTES: 1. Optional arm length to be used when mounting two fixtures at 90° on a single pole. 2. EPA calculated with optional arm length.

DRILLING PATTERN

TYPE "N"



CERTIFICATION DATA

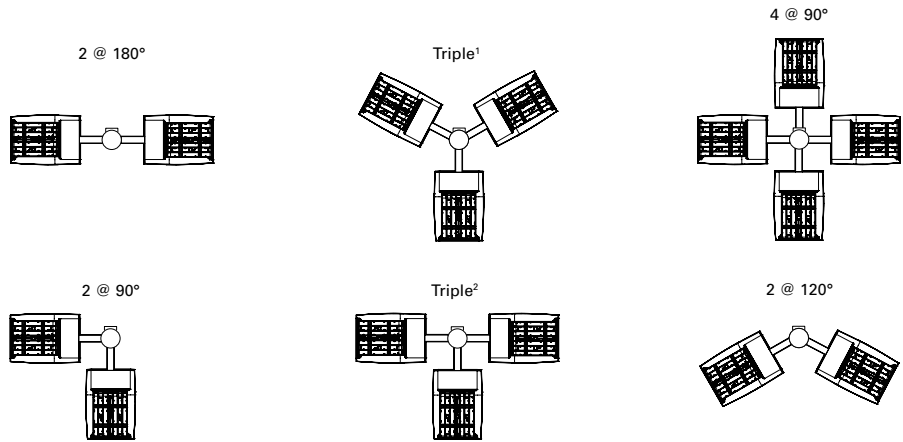
3G Vibration Rated
DesignLights Consortium® Qualified*
IP66 Rated
ISO 9001
LM79 / LM80 Compliant
UL/cUL Wet Location Listed

ENERGY DATA

Electronic LED Driver
>0.9 Power Factor
<20% Total Harmonic Distortion
120V-277V 50/60Hz
347V, 480V 60Hz
-40°C Min. Temperature
40°C Max. Temperature
50°C Max. Temperature (HA Option)

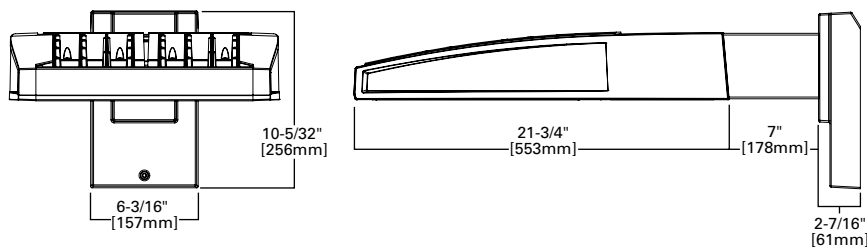
ARM MOUNTING REQUIREMENTS

Configuration	90° Apart	120° Apart
GLEON-AF-01	7" Arm (Standard)	7" Arm (Standard)
GLEON-AF-02	7" Arm (Standard)	7" Arm (Standard)
GLEON-AF-03	7" Arm (Standard)	7" Arm (Standard)
GLEON-AF-04	7" Arm (Standard)	7" Arm (Standard)
GLEON-AF-05	10" Extended Arm (Required)	7" Arm (Standard)
GLEON-AF-06	10" Extended Arm (Required)	7" Arm (Standard)
GLEON-AF-07	13" Extended Arm (Required)	13" Extended Arm (Required)
GLEON-AF-08	13" Extended Arm (Required)	13" Extended Arm (Required)
GLEON-AF-09	16" Extended Arm (Required)	16" Extended Arm (Required)
GLEON-AF-10	16" Extended Arm (Required)	16" Extended Arm (Required)

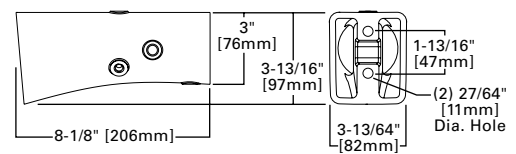


NOTES: 1 Round poles are 3 @ 120°. Square poles are 3 @ 90°. 2 Round poles are 3 @ 90°.

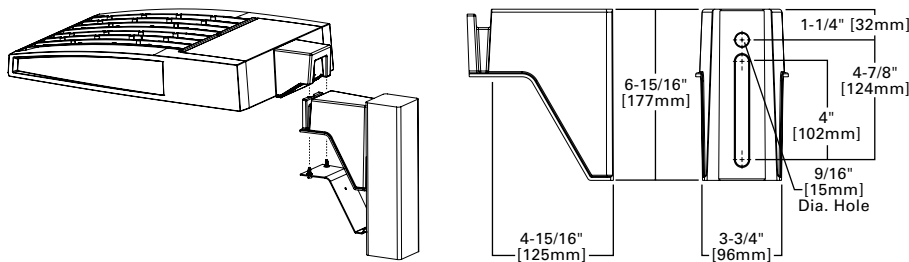
STANDARD WALL MOUNT



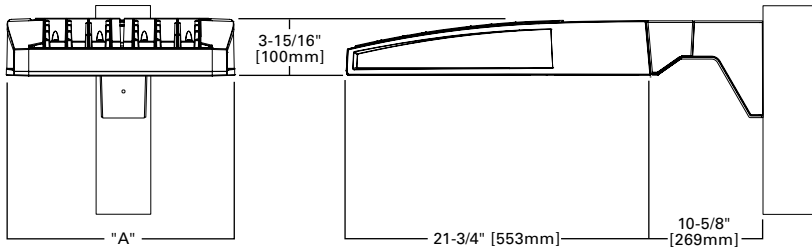
MAST ARM MOUNT



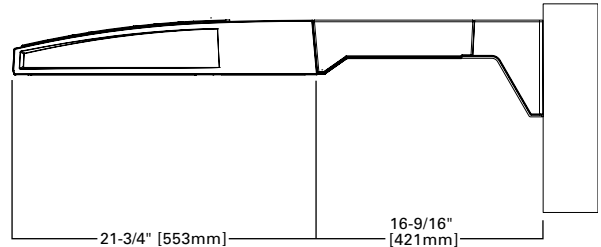
QUICK MOUNT ARM (INCLUDES FIXTURE ADAPTER)



QM Quick Mount Arm (Standard)



QMEA Quick Mount Arm (Extended)

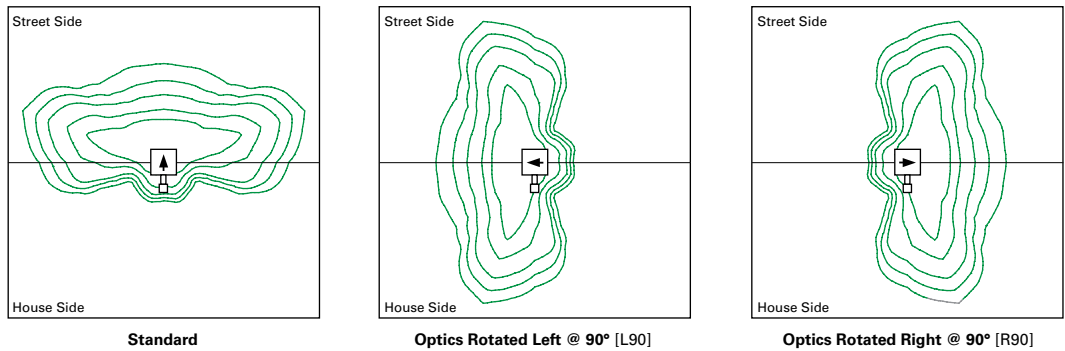


QUICK MOUNT ARM DATA

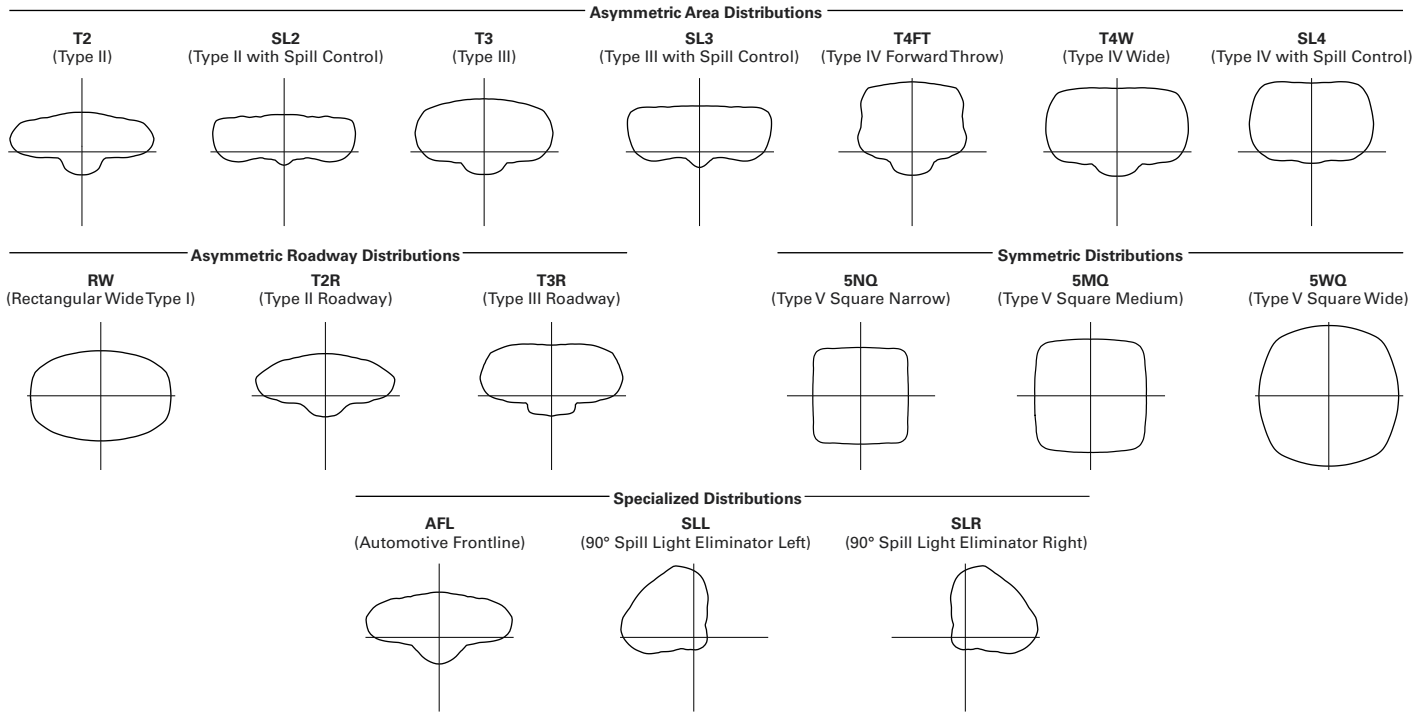
Number of Light Squares ^{1,2}	"A" Width	Weight with QM Arm (lbs.)	Weight with QMEA Arm (lbs.)	EPA (Sq. Ft.)
1-4	15-1/2" (394mm)	35 (15.91 kgs.)	38 (17.27 kgs.)	1.11
5-6 ³	21-5/8" (549mm)	46 (20.91 kgs.)	49 (22.27 kgs.)	
7-8	27-5/8" (702mm)	56 (25.45 kgs.)	N/A	

NOTES: 1 QM option available with 1-8 light square configurations. 2 QMEA option available with 1-6 light square configurations. 3 QMEA arm to be used when mounting two fixtures at 90° on a single pole.

OPTIC ORIENTATION



OPTICAL DISTRIBUTIONS

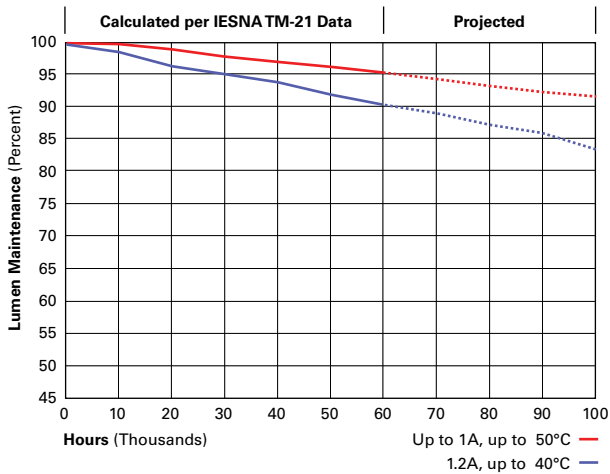


LUMEN MAINTENANCE

Drive Current	Ambient Temperature	TM-21 Lumen Maintenance (60,000 Hours)	Projected L70 (Hours)
Up to 1A	Up to 50°C	> 95%	416,000
1.2A	Up to 40°C	> 90%	205,000

LUMEN MULTIPLIER

Ambient Temperature	Lumen Multiplier
0°C	1.02
10°C	1.01
25°C	1.00
40°C	0.99
50°C	0.97



844 Stevens Avenue
Cumulative Floor Area Per Use

Existing Building Office Space..... 796 sq. ft.

Existing Building Residential Space..... 3,332 sq. ft.

Proposed Building Residential Space..... 12,155 sq. ft.

Areas obtained from Architectural Plans by Whipple Callender Architects dated 1/6/20.

From: [Rita Sawyer](#)
To: [Portland Water District \(MEANS@PWD.org\)](mailto:MEANS@PWD.org)
Cc: [Jody Cady \(jody@walsh-eng.com\)](mailto:jody@walsh-eng.com)
Subject: Request for Ability to Serve Letter (844 Stevens Avenue, Portland)
Date: Friday, January 03, 2020 3:34:00 PM
Attachments: [Peak Flow Based on Fixture Count 2019 Existing Building.xls](#)
[Peak Flow Based on Fixture Count 2019 Proposed Building.xls](#)
[C2.3 GRADING & UTILITY PLAN.pdf](#)
[C3.1 SITE DETAILS.pdf](#)
[C3.2 SITE DETAILS.pdf](#)
[C3.3 SITE DETAILS.pdf](#)

To Whom It May Concern

Attached are updated drawings and updated Fixture count sheets for our project at 844 Stevens Avenue.

The PWD # was 439488.

Please review and supply us with an Ability to Serve Letter.

Thank you.

Rita Sawyer
Administrative Assistant



One Karen Drive, Suite 2A
Westbrook, ME 04092
P: (207) 553-9898, Ext 110
www.walsh-eng.com

This transmission is intended only for the individual or entity to which it is addressed, and may contain information that is privileged, confidential and exempt from disclosure under applicable law. If the reader of this communication is not the intended recipient, or an employee or agent responsible for delivering the communication to the intended recipient, you are notified that any dissemination, distribution or copying of this communication is strictly prohibited. If you have received this communication in error please contact the sender at 207-553-9898.



Portland Water District

FROM SEBAGO LAKE TO CASCO BAY

March 5, 2020

Johanna D. Cady
Walsh Engineering Associates, Inc.
One Karen Drive, Suite 2A
Westbrook, ME 04092

Re: 844 Stevens Avenue, 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 January 15, 2019. Based on the information provided per plans dated March 5, 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 (parent) and 2-inch service with a 1.5-inch meter (child) may be installed from the water main in Stevens Avenue. The service(s) should enter through the properties frontage on Stevens Avenue at least 10-feet from any side property lines.
- Please note that PWD's Terms and Conditions require that a service to one parcel cannot serve another parcel. If in the future this parcel is subdivided, a separate fire service will be required.
- 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 prior to service activation. Please refer to the PWD website for more information on cross-connection control policies.
- Our records show that the property is currently served with a 1-inch domestic water service with a 5/8-inch meter. The existing service line at this site may be used to provide domestic water to the existing building. The meter will need to be upgraded to a ¾-inch meter to handle the flow demand.

Prior to construction, the owner or contractor will need to make an appointment to complete a service application form and pay all necessary fees. The appointment shall be requested through MEANS@pwd.org or by calling 207-774-5961 ext. 3199. Please allow (3) business days to process the service application paperwork. PWD will guide the applicant through the new development process during the appointment.



Existing Site Service

According to District records, the project site does currently have existing water service. A 1-inch diameter copper domestic service line provides water service to the site. Please refer to the “Conditions of Service” section of this letter for requirements related to the use of this service.

Water System Characteristics

According to District records, there is an 8-inch diameter cast iron water main in Stevens Avenue and a public fire hydrant located approximately 150 feet from the site. The most recent static pressure reading was 60 psi.

Public Fire Protection

The installation of new public hydrants to be accepted into the District water system will most likely not be required. It is your responsibility to contact the City of Portland Fire Department to ensure that this project is adequately served by existing and/or proposed hydrants.

Domestic Water Needs

The data noted above indicates there should be adequate pressure and volume of water to serve the domestic water needs of your proposed project.

Private Fire Protection Water Needs

You have indicated that this project will require water service to provide private fire protection to the site. Please note that the District does not guarantee any quantity of water or pressure through a fire protection service. Please share these results with your sprinkler system designer so that they can design the fire protection system to best fit the noted conditions. If the data is out of date or insufficient for their needs, please contact MEANS to request a hydrant flow test and we will work with you to get more complete data.

Should you disagree with this determination, you may request a review by the District’s Internal Review Team. Your request for review must be in writing and state the reason for your disagreement with the determination. The request must be sent to MEANS@PWD.org or mailed to 225 Douglass Street, Portland Maine, 04104 c/o MEANS. The Internal Review Team will undertake review as requested within 2 weeks of receipt of a request for review.

If the District can be of further assistance in this matter, please let us know.

Sincerely,
Portland Water District

A handwritten signature in black ink, appearing to read 'Robert A. Bartels', written in a cursive style.

Robert A. Bartels, P.E.
Senior Project Engineer

From: [Rita Sawyer](#)
To: [Brad Roland \(brad@portlandmaine.gov\)](mailto:brad@portlandmaine.gov)
Cc: [Jody Cady \(jody@walsh-eng.com\)](mailto:jody@walsh-eng.com)
Subject: Ability to Serve Request (844 Stevens Avenue)
Date: Friday, January 03, 2020 3:32:00 PM
Attachments: [Wastewater Capacity Application-City.pdf](#)
[C2.3 GRADING & UTILITY PLAN.pdf](#)

Bradley,

Attached is the Wastewater Application along with the plan(s).

Please review and supply us with a Ability to Serve Letter.

Thank you

Rita Sawyer
Administrative Assistant



One Karen Drive, Suite 2A
Westbrook, ME 04092
P: (207) 553-9898, Ext 110
www.walsh-eng.com

This transmission is intended only for the individual or entity to which it is addressed, and may contain information that is privileged, confidential and exempt from disclosure under applicable law. If the reader of this communication is not the intended recipient, or an employee or agent responsible for delivering the communication to the intended recipient, you are notified that any dissemination, distribution or copying of this communication is strictly prohibited. If you have received this communication in error please contact the sender at 207-553-9898.

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: January 3, 2020

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

Site Address: 844 Stevens Avenue

5 Residential & 2 Office Space in Existing Bldg Chart Block Lot Number: 293 D014

Proposed Use: 16 Residential in New Bldg

Previous Use: Office / Hair Dresser

Existing Sanitary Flows: 250 +/- GPD

Existing Process Flows: 0 GPD

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

New building connects to Bishop Street.

Existing building stays as is.

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

X

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

2. Please, Submit Contact Information.

City Planner's Name: Christine Grimando

Phone: 207-874-8608

Owner/Developer Name: Stevens Avenue, LLC

Owner/Developer Address: 303 Islington Street, Portsmouth, NH 03801

Phone: 603-421-1444

Fax: 603-431-1445

E-mail: ebenway@measuredwealth.net

Engineering Consultant Name: Walsh Engineering Associates, Inc. (Silas Canavan)

Engineering Consultant Address: One Karen Drive, Suite 2A, Westbrook, ME 04092

Phone: 207-553-9898

Fax: 207-692-2273

E-mail: silas@walsh-eng.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: See Below GPD

Peaking Factor/ Peak Times: 3 / am and pm peaks - standard tiimes.

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)

Existing Building 6 Bedrooms x 90 = 540 GPD
Existing Building 2 Office at 4 people x 15 = 60 GPD
Proposed Building 23 Bedrooms x 90 = 2,070 GPD
FOR A TOTAL OF 2,670 GPD

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: Do you currently hold Federal or State discharge permits? Is the process wastewater termed categorical under CFR 40? OSHA Standard Industrial Code (SIC): Peaking Factor/Peak Process Times:	n/a GPD Yes _____ No _____ Yes _____ No _____ <i>(http://www.osha.gov/oshstats/sicser.html)</i>
---	--

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.



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

Date: March 12, 2020

Re: Wastewater Capacity Authorization

Address: 844 Stevens Avenue
Applicant: Stevens Avenue, LLC

Planner: Christian Roadman

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				
Employees at place of employment with no showers	# Employees	2	12 GPD/Employee	(24)
Beauty Salon	# Chairs	2	100 GPD/Chair	(200)
Proposed Flow – Existing Building				
Employees at place of employment with no showers	# Employees	4	12 GPD/Employee	48
Multiple Family Dwelling Units	1-Bedroom	1	120	120
Multiple Family Dwelling Units	2-Bedroom	2	180	360
Proposed flow – New Building				
Multiple Family Dwelling Units	1-Bedroom	9	120	1080
Multiple Family Dwelling Units	2-Bedroom	7	180	1260
Net Change				+ 2644
*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,

A handwritten signature in dark ink, reading "Bradley A. Roland". The signature is written in a cursive style with a large, stylized 'B' and 'R'.

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

844 Stevens Avenue
April 29, 2020
Active Street Frontage (14-188)

844 Stevens Avenue is located immediately adjacent the intersection of Stevens Avenue and Forest Avenue. The site is accessed off Stevens Avenue, very close to the traffic light. The existing front building has a long history of being the prominent building facing the intersection. The most recent uses in the building consist of office space and a hair stylist studio. The current project will renovate the building to include two small office studios and 5 residential units. The project will also include a new structure in the rear of the site that will have 16 residential apartments.

In compliance with Section 14-188, Active Street Frontage, the site design has carefully considered the area between the front of the existing building and Stevens Avenue. The site has no immediately adjacent structures that relate to this site as you might have at another location such as Congress Street. This creates the opportunity to create a separate space that welcomes pedestrians and insulates them from the high volume of traffic on Stevens Avenue. The site will benefit from the removal of the cut through traffic headed for Bishop Street. This is a frequent occurrence, despite signage prohibiting it.

We believe we have created an active street frontage, and are asking the planning board to agree. Below are considerations that we have taken based on the criteria from Section 14-188:

1. *The primary façade shall be within 10 feet of the front street line.*

The existing brick building is setback 20 from the street line. As noted above there are no adjacent buildings to relate to the space. This provides the opportunity to create an active pedestrian area adjacent to the sidewalk. A small respite from the traffic. This area will include plantings, stone benches, and a plaza gathering area for pedestrians. Attached is an artist concept plan of what the area may look like. Keeping this area in scale of the building and surrounding area is a key component of the design.

2. *There will be no parking within 35 feet of the front street line.*

All of the parking for this project is located behind the front building, well beyond the 35 foot suggestion.

3. *No more than 25% of the primary façade shall consist of accesses to garages, unutilized space, service entrances, storage or mechanicals.*

This project complies with this standard. There are no garage, service or mechanical spaces facing the street front line. All service spaces and mechanicals are located to the rear or on the roof of the proposed building far from the Frontage area.

4. *All primary ground floor entries to multifamily buildings must orient to the street.*

The main entrance to the existing building is in the middle of the front façade facing Stevens Avenue, meeting this requirement.

This project utilizes the front space along Stevens Avenue to facilitate high pedestrian usage and creates an active gathering space anticipated by the code. We believe this is exactly what was anticipated by this section of the code and represents good design concepts. The Planning Board can easily support this project with Active Street Frontage.



Artist Rendering of the Active Street Frontage

Artist: A.L. Muench

File: 547

May 21, 2020

Mr. Christian Roadman
City of Portland, Planning Division
389 Congress Street 4th Floor
Portland, ME 04101

**RE: 844 Stevens Avenue Apartments
Portland, Maine**

**Response to Second Comments, dated 5/15/2020
City Project # PL-000961-2020**

Dear Christian,

We have reviewed the comments and updated the Submittal. This letter responds to the Staff review comments that we received May 15, 2020.

Department of Public Works

1. Please contact Charles Wordell (cww@portlandmaine.gov) to initiate E911 addressing for the proposed building. The site plan application is the same address as the existing building on-site. In the future, this process should begin at the time of application, as reflected in the recently-updated [checklist](#) for level II and level III site plans.

Mr. Wordell has assigned E911 number 842 Stevens Avenue to the proposed building. The existing building will remain 844 Stevens Avenue. A note is added to the General Notes on the Subdivision Plan C1.1 listing these addresses and the E-911 Addressing Map is included in this resubmittal.

2. Similar to the path from Stevens Avenue, an accessible route should be provided from Bishop Street, as it is a separate site arrival point from the Stevens Avenue entrance.

A painted walking path is added to sheets C1.1 and C2.1.

3. Accessible pedestrian routes from sidewalks must be maintained to provide ADA-compliant cross-slopes in perpetuity. Painted walkways are acceptable, but need to be maintained to correct asphalt rutting and refresh paint. A flush concrete walkway would provide a more durable and visually distinct walkway while maintaining width for two vehicles to pass one another in the driveway. Please consider paving accessible routes with concrete.

In our experience concrete paths do not settle to match movement of the surrounding bituminous pavement. This makes them vulnerable to snowplow blades and a tripping hazard. We have

reconfigured most of the access route to the main entrance to be on a sidewalk. The portion through the parking area will remain painted. A note is added to the plans for the walkways to be repainted and checked for ADA compliance on a regular basis, see sheet C2.1.

4. *There appears to be a pinch point between the back entrance to the building and the adjacent parking spaces. At least four feet of width should be provided between the parking space and any vertical obstruction. Additional width is recommended to facilitate residents carrying groceries, strollers, etc.* **A dimension is added to the corner adjacent to space #6, there is over 4 feet from the end of the space to the narrowest point of the no parking area. There is over 4' of space in front of the entry door. See sheet C2.1.**

5. *The proposed dumpster location does not appear ideal. Garbage will need to be carried / wheeled through the parking lot to this dumpster location. Additionally, it appears that garbage trucks may need to pull into the site and back out of the site in order to access this dumpster. It is not acceptable for vehicles to exit the site in reverse. Please provide turning movements for a garbage truck accessing the dumpster enclosure and safely exiting the site facing forward.*

The collection bins will be either 64- or 96-gallon wheeled units. Trash removal will be by private hauler, not City vehicles. A contract will be executed with the hauler to retrieve and roll the bins to the Stevens Avenue sidewalk and return the rolling bins to the enclosure. The truck will not enter the site or back out onto Stevens Avenue.

Subdivision Plat

The three comments immediately below are supplemented by a marked-up subdivision plat, attached.

1. *There appears to be conflicting information across sheets. In some places, the owner is listed as 844 Stevens Avenue LLC, in another Stevens Avenue LLC and in the survey notes as 844 Stevens Avenue LLC again. These should all be the same, or a note should be added to explain the difference. Also, the deed book and page number labeled on the lot itself does not match the book and page in Note 1.*

The Owner's name is updated. The Plan and Surveyor General Notes reference the previous owner. The ownership has changed since the parcel was surveyed. The reference is updated on the Subdivision Plan and the Existing Conditions Survey. The street number of the project is 844.

2. *Please label state plane coordinates on the lot corner indicated. A good separation between the two corners that are labeled facilitates an accurate rotation when the plan is entered into the City's GIS. (The two corners now labeled are too close together for an accurate rotation).*

An additional coordinate is added to C1.1, Subdivision Recording Plat, Sheet 1 of 2.

3. *The final version of this plan must have a PLS stamp, signature, and date.*
The surveyor will stamp the plans after the final approval.

Civil Engineering

1. (Please see image immediately below). In response to previous comments, additional information is provided on the roof drain tie-in to Field Inlet #1. However, the actual location of the roof drain connection is not obvious (the actual roof drain pipe doesn't appear to be shown into the field inlet). Please ensure that pipe is shown.

The pipe is added to the plan, a reference to the Field Inlet detail is added and the Field Inlet Detail is updated to clarify the pipe arrangement.

Zoning

1. *The use of the property is mixed use (not purely residential) so the proposed property must meet the 80% maximum impervious surface ratio mandated in the B-2 zone's dimensional requirements.*

The paved areas have been revised to further reduce the impervious area. The impervious area has been reduced to 79.9%.

2. *Please be advised that the Planning Board will need to decide if the active street frontage explanation is sufficient and that all four guidelines are being met "to the greatest extent practicable."*

The Active Street Frontage Narrative was submitted with the April 29, 2020 response.

Site Plan & Technical Manual Standards

1. *Please edit "portions of abutter's pavement to be removed" note on existing conditions plan to make it clear that work will not occur on abutter's property.*

The additional wording is added to the notes on sheet C2.2, Existing Conditions & Removals Plan.

2. *The photometric plan does not appear to meet Technical Manual standards for parking lots (see site lighting section 12.3, general standards). Additionally, several unlit areas are unacceptable from a CPTED (crime prevention through environmental design) perspective.*

The Photometric Plan has been revised to more clearly indicate the wall light unit locations and to add two additional lightpoles in the parking areas. The calculation summary on the Photometric Plan is for the entire parcel, not just the parking areas. The foot candle requirements for the 2 parking areas fall within the requirements. The existing streetlight at the end of the driveway on Bishop Street will provide additional illumination at the driveway entrance.

3. *Will any rooftop materials be placed on either building?*

We do not intend to install mechanical equipment on the upper roof of the new building. We do provide access to the roof via a hatch for maintenance & inspection.

Also, please specify HVAC approach for the existing brick building.

The existing building will likely be equipped with heat pumps as well and they will be located on the rear flat roof area, in line with the floor 2 level.

4. Please ensure that landscaping elements are able to survive and withstand proposed snow loading.

Response from the Landscape Architect:

The shrub planting hedge is a salt tolerant species. The magnolia tends to be tolerant and it is out of the pedestrian traffic area that would be salted. Not all of the perennials are listed on this narrative but most of the planting is located at a ‘high point’ on the ground plane thus avoiding the drainage flow. The plantings in general will recover from snow coverage from plowed snow.

5. Proposed chain link fence (around dumpster and along property line) should be replaced with wood or other material. See Technical Manual landscape section 4.5.7, walls and fences.

The material selection has eliminated chainlink and been changed to wood or vinyl.

6. If underground electrical service is not feasible, a waiver must be requested and adequately supported.
A waiver is added to the Submittal. The waiver is requested to continue the use of overhead utilities to the existing building at 844 Stevens Avenue. The existing utilities come off Bishop Street over the abutting property. There appears to be no recorded easement for this service so putting it underground across the property is not possible. The utility services on Stevens Avenue stop short of this property making it difficult to extend them down Stevens to service this property. We are requesting the Board to grant a waiver for the overhead utilities that have existed for decades.

7. Has removal of the former drive-up service window been considered? Such a change might facilitate greater flexibility for other site elements.

We intend to remove the side entrance of the existing building in order to meet Planning recommendations. A concrete sidewalk the length of the existing building will be installed.

8. Follow-up design review comments are attached. Please review and respond as appropriate.

See Responses.

Planning and Urban Development Department

Planning Division

Subject: B-2 Design Review – 844 Stevens Avenue

Written by: Caitlin Cameron, Urban Designer

Date of Review : Monday, May 4 2020

The projects at 844 Stevens Avenue were reviewed according to the City of Portland Design Manual standards by Caitlin Cameron, Urban Designer, Christian Roadman, Planner, and Matt Grooms, Senior Planner, against the B2 Commercial Business Zones Standards (Section (d) of the Design Manual) and Multiple-Family Standards.

Design Review Comments:

1. *In the future, please describe the revisions in the narrative and/or provide notes and revision bubbles in the drawings to clarify what changes have been made.*

Revisions have been described in the Responses.

Review includes:

1. *Existing brick building and landscape at Stevens frontage (B-2)*
2. *Proposed residential building and parking in rear of lot (B-2 and Multi-family)*

(d) B-2 Commercial Business Zones

Existing Building

Standard (1) a. Urban Street Wall - Not applicable (B-2 excluded) – existing building placement will remain, setback from the street wall. Landscape design reinforces the street wall with an edge planting. Consider whether the benches will be used in this configuration and with this proximity to a busy street – cluster the benches together to be more social? Give more surface over to pervious area?

A statement from the Landscape Architect describing the intent and anticipated use of the plaza area is included in the resubmittal.

Standard (1) b. Mixed Uses – Not applicable (B-1b only)

Standard (1) c. Building Entrances – Not applicable (B-2 excluded) Existing building entrance oriented towards the street though building is set back from sidewalk – continues to meet the standard.

Standard (1) d. Windows – Existing windows oriented towards street, though building is set back from sidewalk – continues to meet the standard.

Standard (1) e. Façade Character – Existing character is maintained and meets the standard with regards to window/door orientation towards the street.

Standard (1) f. Building Design – Existing building character is simple material selection and placement (brick) which relates the commercial nature but corresponds with the limited existing fabric, especially the commercial corridor buildings. The pitched roof, window proportions, divided lights relate a more residential character. What is the intention for the existing vestibule on the side of the building? Will that be an additional entrance? If not, does this create confusion for people about the entrance/use of the building?

The vestibule will be removed.

Standard (1) g. Building Materials – Building will maintain existing brick material – simple selection and placement is characteristic of traditional buildings in Portland.

Standard (1) h. Building Scale – Not applicable – existing building with no modification to scale. Three and a half stories appropriate for the wide Forest Avenue commercial corridor.

Standard (1) i. Landscaping and Buffers – Parking located to rear of this building.

Proposed Multi-family Building

Standard (1) a. Urban Street Wall - Not applicable (B-2 excluded) – rear lot development.

Standard (1) b. Mixed Uses – Not applicable (B-1b only)

*Standard (1) c. Building Entrances – Not applicable (B-2 excluded) – rear lot development, though main entrance is setback from street, oriented towards Stevens Avenue. Indication of the pedestrian path to the entrance provided through minimal striping – no dedicated path, special surface or landscape. *Given the entrance is far from the street and does not have a dedicated pedestrian path – make sure the entrance is adequately emphasized to provide legibility (material emphasis, pronounced canopy or other detail, lighting, etc.)**

We will emphasize the entry with a well-lit recessed entry. We will detail ceiling finishes and the entry door to reinforce the central emphasis of the entry within the front elevation.

Standard (1) d. Windows – Windows oriented towards street, though building is set back from sidewalk.

Standard (1) e. Façade Character – As a residential building, rear lot development, not highly active building use - window/door orientation towards the street, sufficient visual interest provided with massing variation, windows, balconies.

Standard (1) f. Building Design – Neighboring building character is somewhat mixed but neighboring residential buildings have traditional characteristics such as simple material selection and placement (brick, clapboard). There are not many multi-family buildings of this scale nearby to compare with – the form is anomalous with the traditional buildings of similar scale. With regards to compatibility with the residential fabric, the massing and scale is appropriate for a multi-family building and is not expected to replicate the surrounding single family form, massing, or scale. The most appropriate way to meet this standard is regarding the façade composition, window type and proportion, and the materials.

Roof access now proposed – what is the function of this small area? Are any mechanical or other rooftop appurtenances proposed on the roof – these must be integrated into the overall design.

We do not intend to install mechanical equipment on the upper roof of the new building. We do provide access to the roof via a hatch for maintenance & inspection.

Standard (1) g. Building Materials – Simple selection and placement is characteristic of traditional buildings in Portland. Materials were simplified and give the building a consistent overall character similar to the material use in context residential buildings. Brick base used at front of building in more public area of building.

Standard (1) h. Building Scale – Four stories is appropriate for the wide Forest Avenue commercial corridor. Standard exempts B-2.

Standard (1) i. Landscaping and Buffers – Parking located to rear of this building adjacent to residential lots – [fence/screen should provide visual screening to the neighboring residential uses.](#)

A 6-foot tall fence is provided. See sheet C2.2. and details on Sheet C3.3.

(i) Two-Family, . . . Multiple-Family . . . :

Standard (1) . Exterior Design – Context currently does not include multi-family buildings of this scale. The project successfully relates to the scale/massing of the neighboring commercial buildings. The residential context is mostly small-scale single-family with simple forms, pitched roofs, and simple materials (clapboard). This context and the rear lot placement are appropriate for more contemporary design and more flexibility of forms, scale, and patterns. The project includes interesting forms and massing as well as articulation elements such as balconies to provide a visually interesting, contemporary design. Staff observe that though building type, scale, and placement vary throughout the neighborhood, there is a consistent use of simple materials, material, trim, roof overhangs, and other articulation elements to add texture, finegrain scale, and visual interest to the buildings, even if in a vernacular way. Material palette simplified to better relate its residential use – predominantly clapboard.

Standard (2). Relationship to Street – The project is a rear lot development – standard is difficult to apply in this situation. [Staff recommend the entrance be further emphasized given the distance from the sidewalk and lack of dedicated pedestrian path.](#)

We will further emphasize this entry with a 5' wide x 3' deep canopy and make sure the ceiling finish and lighting matches the entry from Stevens. The door will be 1/2 light as well for visibility.

Standard (3). Open Space – Open space is provided through balconies. There is limited open space on the site; pocket park proposed in front of existing building at the street – [see comments above regarding the design and functionality of this space.](#)

A statement from the Landscape Architect describing the intent and anticipated use of the plaza area is included in this Resubmittal.

Standard (4). Light and Air – Adequate light and air provided.



Standard (5). Parking – Parking area appropriately placed to rear of lot/building. Fence should provide a visual screen between surface parking and adjacent residential properties.
A 6 foot tall fence is provided. See sheet C2.2. and details on Sheet C3.3.

Standard (6). Not applicable

Thank you for your help with the review.

Respectfully,

TSG – signed electronically

Thomas S. Greer, PE
Walsh Engineering Associates, Inc.

cc: File, Owner, Whipple Callendar Architects



File: 547

April 29, 2020

Mr. Christian Roadman
City of Portland, Planning Division
389 Congress Street 4th Floor
Portland, ME 04101

**RE: 844 Stevens Avenue Apartments
Portland, Maine**

**Response to Preliminary Comments, dated 3/20/2020
City Project # PL-000961-2020**

Dear Christian,

Thank you for your help with this project. This letter responds to the Staff review comments that we received March 20, 2020.

TRANSPORTATION Associated Comments

1. The driveway on Stevens Avenue does not meet driveway separation standards. A formal request for a waiver shall be provided.

A waiver request for the existing driveway has been added.

2. The applicant shall provide information on how parking will be managed given two separate lots. Unnecessary vehicle circulation between lots should be avoided.

Each Unit will be assigned to one of the two lots. The spaces will not be assigned to a particular Unit.

3. The two parking areas are associated with two separate uses; as such, each must provide one accessible parking space. Parking serving residential uses should be located as close to the entrance as possible.

The ADA accessible Unit is on the upper floor adjacent to the ADA space. The lots do not serve different uses, this is one development.

4. The rear driveway providing access / egress to Bishop Street should be reconstructed for ADA compliance. The limits of driveway work will likely need to extend beyond the utility trench proposed. The intent is to rebuild the sidewalk the full width of the driveway including the adjacent sidewalk ramps.

5. Please be advised: Bishop Street is planned to be converted to right-in, right-out as part of future (5+ years out) improvements to Morrill's Corner. This will affect access to and from the site. Alternate access to Bishop Street is available via Warren Avenue. Other alternative access options are being explored as part of the planned reconstruction.

So advised.

6. Insufficient parking is provided per zoning requirements – the site plan should be revised so that sufficient parking is provided, as a waiver is not an option.

An Additional space has been added to the upper lot. The dumpster enclosure has been revised.

7. It does not appear that sufficient space is provided between the back entrance (FFE 103.5) and parking space 6, assuming a vehicle is parked along the hatched area. Five or more feet of horizontal clear space should be provided.

The two-wheeled space has been relocated to the upper lot. There is over 4 feet of clearance between the door and space #6.

8. The driveway apron layout provided in the details should be replaced with a detail showing proper ADA compliance. See attached figures; I-9A, in which the sidewalk does not ramp down to street level, is preferable. Note that the proper sidewalk material is concrete for Stevens Avenue and bituminous for Bishop Street (as correctly noted on the site plan).

The driveway aprons have been adjusted to comply with City Detail I-9A. Detail 3 on Sheet C3.2 (Detail I-9) has been replaced with I-9A.

9. Please verify the timeframe for sidewalk closure. Are sidewalks being closed for utility cuts and sidewalk reconstruction only?

The sidewalks will be maintained throughout the project with the exception of utility installations and reconstruction.

10. Temporary walkways must be ADA compliant. As such, cones may not be used unless they are lined up end-to-end to create a continuous, detectable barrier.

Solid barriers will be used for temporary sidewalk relocations.

11. Please confirm how parking for the existing building will be accommodated during construction.

The existing building will be vacated and rehabilitated into residential apartments and updated office space. Parking for the existing building will not be required during renovation. If the building is completed and occupied prior to the proposed building being complete parking onsite will be provided.

12. The project is not expected to generate a significant amount of traffic and the project would not be expected to create mobility issues. A Traffic Movement Permit is not required.

So noted.

13. Please provide a bike hitch at the proposed new building's entrance accessed via Bishop Street. **One of the bike racks has been relocated to the Bishop Street parking area.**

WATER QUALITY, STORMWATER, INFRASTRUCTURE & EROSION CONTROL
Associated Comments

1. Please see attached plan markup from Water Resources department on pipe materials and pipe slopes.

The pipe material & size has been revised. See Sheet C2.3.

2. Electric lines to the existing building appear to be maintained above ground, but should be undergrounded.

The existing electrical service to the existing building is to remain overhead. There is no existing electrical service on Stevens Avenue that would be able to accommodate the building.

3. The project is required to comply with Maine DEP Chapter 500 and City of Portland Section 5 stormwater management regulations:

Basic Standards – The project is providing erosion and sedimentation control measures in conformance with the Basic Standards. The erosion control plan includes reference to turf reinforcement matting. A detail, or further specification of this material should be provided.

Turf Reinforcing Mat product and instructions are added the Erosion Control Plan & Details, C2.4.

General & Urban Impaired Stream Standards – The project will result in an increase in impervious surface of 623 square feet. The Applicant is not required to comply with the General Standard or the Urban Impaired Stream Standard (located in the Capisic Brook Watershed) as the increase is less than 1,000 SF. It is noted that a stormwater management agreement is included as part of the submission. It is unclear if, without a stormwater treatment system on site, this agreement will be required.

If the Agreement is not required please void it.

Redevelopment Standards – The project will result in a reduction in redeveloped non-roof impervious surface, and the Redevelopment Standard does not apply.

So noted.

Flooding Standard – As the project does not meet the above thresholds, the Flooding Standard does not apply. The proposed impact is not anticipated to result in significant change to stormwater flows from the site.

So noted.

4. Additional grading clarification should be provided at the Bishop Street entrance to show how the appropriate driveway entrance, curbing, and sidewalk can be constructed.

Per Transportation Associated Comment #8 The driveway aprons have been adjusted to comply with City Detail I-9A. Detail 3 on Sheet C3.2 (Detail I-9) has been replaced with I-9A. Additional detail is added to the plan.

5. Field inlet #1 notes that a roof drain will tie into this structure. It is not clear how this connection is being made.

It will be made through the side of the structure underground with a flexible watertight boot. See detail 7 on Sheet C3.1.

6. It is noted that the Casco Trap by Etheridge Foundry is no longer in production. Please specify an alternative (i.e. a Snout).

The City typical detail requires the Etheridge product. We have revised the detail to include a similar product and removed the Casco Trap detail.

ENVIRONMENTAL QUALITY Associated Comments

1. It appears that some trees are proposed for removal. Please clarify on appropriate plan.

Two trees on the property are to be removed. Existing landscaping and shrubs are also to be removed. See Sheet C2.2.

2. Site plan should specify type and location of dumpster / recyclables screening. (A concrete pad is noted on site plan but does not provide this additional information).

The dumpster pad and screening is shown in Detail 1 on Sheet C3.3.

3. Please specify if residents / occupants will be placing trash and recyclables in the designated trash area, or if they will first be stored inside buildings.

All trash and recyclables are to be placed by the residents in bins that will be located in the dumpster enclosure. Trash removal will be by private hauler on a regular schedule.

4. The westerly parking lot should be screened from the neighboring residences and residential zone.

A fence has been added along the western property line. See Detail 8 on Sheet C3.3.

5. 21 residential units are proposed, and approximately 1 street tree (per Technical Manual guidelines) is provided on the landscaping plan. Additional street trees or acceptable alternatives should be appropriately accounted for (see Technical Manual Landscaping section 4.6).

The applicant will pay into the tree fund as required.

6. Snow storage area appear to encroach on proposed landscaping, which should not be the case.

Snow storage is limited on this site. As with nearly all other sites in the City the landscape areas will be used for storage. Snow removal will occur from this site in accordance with the Snow Clearance Notes on Sheet C1.2

SITE DESIGN Associated Comments

1. *"Portions of abutter's pavement to be removed" is noted on existing conditions plan. Please provide evidence of a construction access easement and / or any existing or necessary easements.*

The pavement being removed is on the subject parcel not the abutters land. No easements are required.

2. *Continuous internal walkways between sidewalks and primary entrances must be provided and reflected on site plan.*

A painted walkway has been added on the plan. It is located at the edge of the drive aisle. This is similar to many stores one visits walking from a parking lot to the store entrance but with less traffic and no cut through traffic.

3. *Applicant materials indicate that maximum impervious area (zoning requirement) is exceeded. Please revise plans to comply with the maximum.*

This is a residential project no maximum impervious area is specified in the zoning. The current plan meets the ordinance.

4. *Please provide a photometric plan to ensure appropriate light levels across the site and at property boundaries.*

A Photometric Plan and Light Fixtures specifications are added to the Submittal.

5. *HVAC and other similar equipment should be screened from adjacent residences and the street, but appear to be without screening on proposed elevations / in current submittal.*

The condensers serving each apartment are located in two areas. There are 8 condensers located at the covered parking area and the remaining 8 are located next to the common deck area.

The intention is to screen those at the recessed parking area with a combination of a fence at the rear boundary with the residences as well as using the recess, shadow and parked vehicles to also make the mechanicals less apparent.

At the common floor two deck we are using the deck guards of 42" to screen the condensers. Since there are two "layers" of guards to view thru we think there will be adequate screening.

6. *Please note that any necessary sign permit must be obtained for proposed signage along Stevens Avenue.*

So noted.

7. *Please confirm that no exterior changes are proposed to the existing brick building, including windows. If new windows or any exterior changes are proposed, please consult with Historic Preservation staff and reference available (1924 tax) photographs of the building.*

There are no changes to the exterior of the existing building that will be part of this Scope of Work. Should exterior work be considered we will consult with Historic Staff.

8. Please provide a figure and / or narrative for the Planning Board's benefit demonstrating site compliance with 14-188 of the Land Use Code regarding "active street frontage."

An Active Street Frontage Narrative has been added to the project Documents folder.

9. Please provide average grade & building height lines on elevations, provide average grade calculations, clarify spot grades for building corners, and provide evidence of compliance with stepback requirements.

Please refer to updated A2.1 Elevation sheet.

10. Please explain submittal of "preliminary" survey and intentions for a non-preliminary one.

The Survey has been finalized by the Project Surveyor.

11. One building section is provided – please submit the other if that was your intention.

Please review A3.1 Sections sheet, there are 2 sections.

12. Design review comments are provided as an attachment.

Planning and Urban Development Department

Planning Division

Existing Building

Standard (1) a. Urban Street Wall - Not applicable (B-2 excluded) – existing building placement will remain, setback from the street wall.

Standard (1) b. Mixed Uses – Not applicable (B-1b only)

Standard (1) c. Building Entrances – Not applicable (B-2 excluded) Existing building entrance oriented towards the street though building is set back from sidewalk – continues to meet the standard.

Standard (1) d. Windows – Existing windows oriented towards street, though building is set back from sidewalk – continues to meet the standard.

Standard (1) e. Façade Character – Existing character is maintained and meets the standard with regards to window/door orientation towards the street.

Standard (1) f. Building Design – Existing building character is simple material selection and placement (brick) which relates the commercial nature but corresponds with the limited existing fabric, especially the commercial corridor buildings. The pitched roof, window proportions, divided lights relate a more residential character.

Standard (1) g. Building Materials – Building will maintain existing brick material – simple selection and placement is characteristic of traditional buildings in Portland.

Standard (1) h. Building Scale – Not applicable – existing building with no modification to scale. Three and a half stories appropriate for the wide Forest Avenue commercial corridor.

Standard (1) i. Landscaping and Buffers – Parking located to rear of this building.

Proposed Multi-family Building

Standard (1) a. Urban Street Wall - Not applicable (B-2 excluded) – rear lot development.

Standard (1) b. Mixed Uses – Not applicable (B-1b only)

Standard (1) c. Building Entrances – Not applicable (B-2 excluded) – rear lot development, though main entrance is setback from street, oriented towards Stevens Avenue.

Provide some wayfinding/pedestrian path from sidewalk to this entrance.

A painted walkway has been added on the plan.

Standard (1) d. Windows – Windows oriented towards street, though building is set back from sidewalk.

Standard (1) e. Façade Character – As a residential building, rear lot development, not highly active building use - window/door orientation towards the street, sufficient visual interest provided with massing variation, windows, balconies.

Standard (1) f. Building Design – Neighboring building character is somewhat mixed but neighboring residential buildings have traditional characteristics such as simple material selection and placement (brick, clapboard). There are not many multi-family buildings of this scale nearby to compare with – the form is anomalous with the traditional buildings of similar scale. With regards to compatibility with the residential fabric, the massing and scale is appropriate for a multi-family building and is not expected to replicate the surrounding single family form, massing, or scale. The most appropriate way to meet this standard is regarding the façade composition, window type and proportion, and the materials. Staff review found that the number of materials proposed causes the building to

Standard (1) g. Building Materials – Simple selection and placement is characteristic of traditional buildings in Portland.

In order to be compatible with the surrounding residential structures, material selection should be simplified and relate to the materials found nearby – proposal currently includes clapboard, brick, panel, and metal trim.

Please refer to the revised elevations for material selection more like the nearby residential structures.

Standard (1) h. Building Scale – Four stories is appropriate for the wide Forest Avenue commercial corridor. Standard exempts B-2.

Standard (1) i. Landscaping and Buffers – Parking located to rear of this building adjacent to residential lots –

provide landscape or fence buffer to abutting properties.

A fence has been added along the western property line. See Detail 8 on Sheet C3.3.

(i) Two-Family, . . . Multiple-Family . . . :

Standard (1) . Exterior Design – Context currently does not include multi-family buildings of this scale. The project successfully relates to the scale/massing of the neighboring commercial buildings. The residential context is mostly small-scale single-family with simple forms, pitched roofs, and simple materials (clapboard). This context and the rear lot placement are appropriate for more contemporary design and more flexibility of forms, scale, and patterns. The project

includes interesting forms and massing as well as articulation elements such as balconies to provide a visually interesting, contemporary design. Staff observe that though building type, scale, and placement vary throughout the neighborhood, there is a consistent use of simple materials, material, trim, roof overhangs, and other articulation elements to add texture, finegrain scale, and visual interest to the buildings, even if in a vernacular way.

Staff recommend to meet the standard of complementing and enhancing the nearest residential neighborhood should include a simplification of the material palette and potentially incorporating details/articulation elements that relate a residential character.

Please refer to the revised elevations for material selection more like the nearby residential structures.

Standard (2). Relationship to Street – The project is a rear lot development – standard is difficult to apply in this situation.

Standard (3). Open Space – Open space is provided through balconies. There is limited open space on the site; pocket park proposed in front of existing building at the street – unclear whether this is intended to provide open space amenity to residents.

Standard (4). Light and Air – Adequate light and air provided.

Standard (5). Parking – Parking area appropriately placed to rear of lot/building.

Screening must be provided between surface parking and adjacent residential properties.

A fence has been added along the western property line. See Detail 8 on Sheet C3.3.

Standard (6). Not applicable

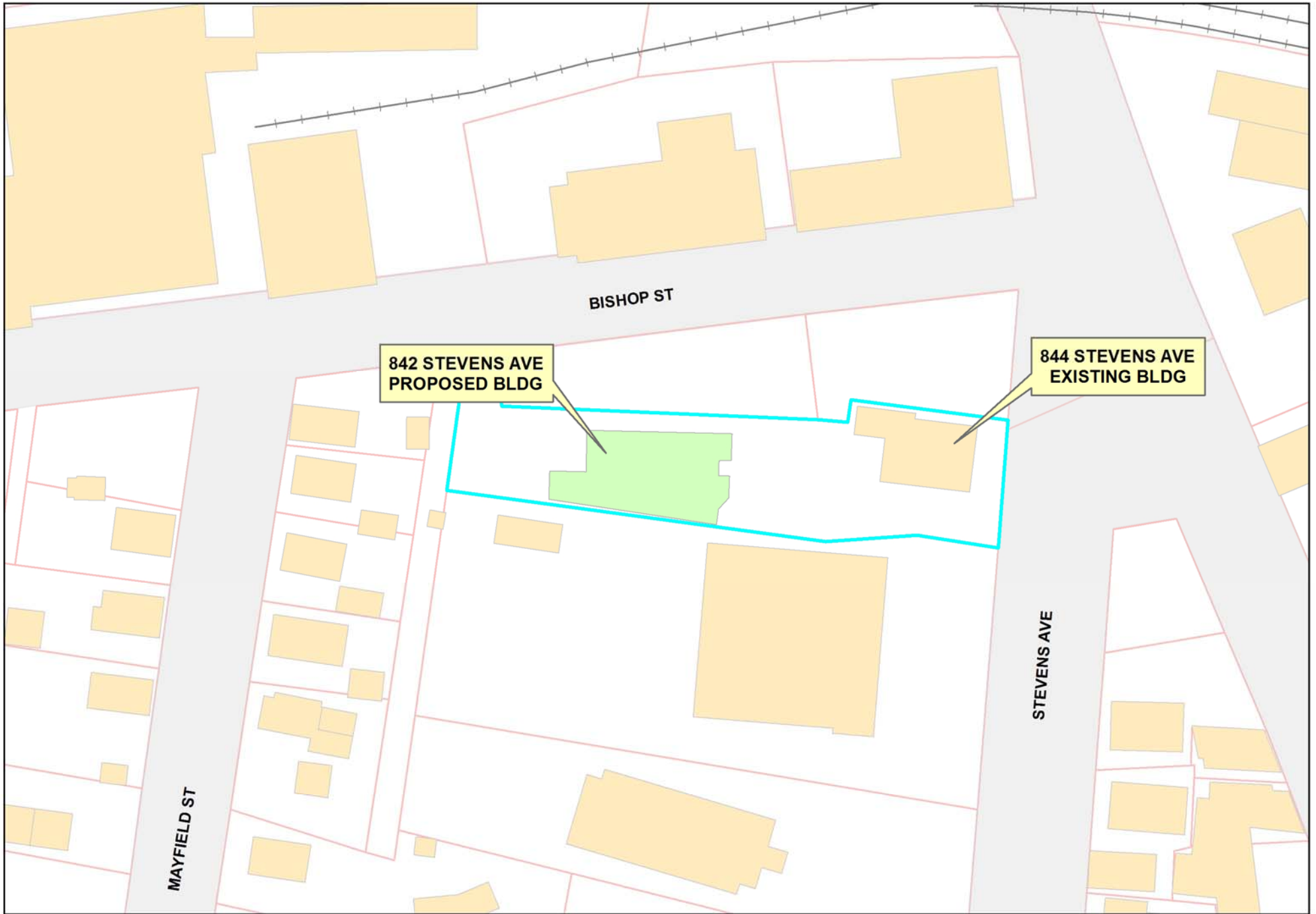
Respectfully,

TSG – signed electronically

Thomas S. Greer, PE

Walsh Engineering Associates, Inc.

cc: File
Whipple Callendar Architects



Map showing the E-911 street addressing assignment for proposed building at 842 Stevens Avenue

Portland, ME 04103

May 20, 2020



844 STEVENS AVENUE APARTMENTS

DESIGN PROGRAM DISCUSSION FOR BUILDING ENTRY SPACE

The existing condition in front of the existing building is 21' x 45' not including the sidewalk that goes along the southern edge. This original entry court is heavily planted and unmaintained. The front façade of the building and its signage are completely obscured by the plant material. There is nothing inviting about the space. The plan is to remove these obstructions.

There are two arrival walkways to the building entrance and plaza area; one from the South and a larger one from the East. There is access from the north side which is not needed and has grading issues. There are no pedestrian amenities such as benches or bike racks. The existing plaza is not ADA compliant.

The proposed conditions layout opens up this space to create an active area. The land on the North side has created a passive quiet space. A garden space between the street and the building has softened the building façade. The plan removes the existing panel sign and are replacing it with a vertical box sign [36"x36"x8'] that affects much less space on the ground plane than the old sign. This also provides a "leaning" place for pedestrians.

The plan provides for a more organized arrival to the building. It now has a garden rest area to the North with a more active area to the South. There is a bike rack close by and both areas have wood clad stone benches. This layout creates a space that is ADA compliant.

Anthony L. Muench

Maine Licensed Landscape Architect



WHIPPLE-CALLENDER ARCHITECTS

12.31.19 – 844 STEVENS AVENUE CODE REVIEW SUMMARY FOR RENOVATED OF EXISTING BUILDING AS MIXED USE B & R-2- INCLUDES REFERENCE TO PORTLAND ZONING REGS., IBC 2015, IECC 2009, FIRE DEPARTMENT INFORMATION, NFPA 2009

Portland Zoning- 2009- Relevant sections:

14-250 Dimensional Req.:

B-2 Business zone- permitted uses, new Apartment/ multifamily (4 units) and Existing Commercial spaces (2) for business use at existing structure's ground floor.

No minimum lot size

Setback requirements

Street frontage 20' min. We are in excess of 20'

Front setback- EXISTING TO REMAIN

Side setback- EXISTING TO REMAIN

Rear yard- EXISTING TO REMAIN

Max. permitted imperv. surface – 90%

Max. permitted bldg. height is 35' - EXISTING TO REMAIN

Parking- 6 total spaces (ONE PER APARTMENT AND 1 PER 400 S.F. BUSINESS SPACE)

IBC- 2015- Relevant sections:

The existing building use is defined as Business for the Existing ground floor commercial space and R-2 Apartments above

Per table 504.4 the Type V Protected - R/A structure can have 3 stories while remaining un-sprinkled. THE EXISTING STRUCTURE WILL BE SPRINKLED, WE WILL PROTECT AND DRAFTSTOP THE WOOD FRAME, AND DO NOT EXCEED THE STORY LIMITS

Per table 506.2 the Type V Protected - R/A structure can have 12,000 S.F. PER FLOOR. WE COMPLY AT 2,500 S.F. PER FLOOR AT THE EXISTING BRICK BUILDING.

Table 508.4 indicates 1 hr. separation between Business and Residential uses in sprinkled facilities. WE WILL PROVIDE SEPARATION AT THE EXISTING BRICK BUILDING BETWEEN GROUND FLOOR BUSINESS AND APARTMENTS ABOVE.

Table 601 - The existing building will be sprinkled, Type V-B protected. Protected elements including framing, all bearing walls, floor construction and roof construction.

Section 709 - The walls are fire partitions and the floors horizontal assemblies.

709.3 Fire resistance rating- Fire partitions shall be rated one hour. WE WILL COMPLY

709.4 Continuity- Fire assemblies shall be rated one hour. WE WILL COMPLY

709.4 Fire-blocking- All walls separating dwelling units and stairs shall be fire-blocked at the top of the demising partition typical. WE WILL COMPLY

712.4 Continuity (horizontal)- Assemblies between apartments, storage and ground floor commercial shall be rated one hour. WE WILL COMPLY.



WHIPPLE-CALLENDER ARCHITECTS

713 Penetrations at Walls and Assemblies- Seal to maintain rating of Fire Partition and Assemblies.
WE WILL COMPLY

Chapter 10 Means of Egress-

1006.2.1 Egress based upon occupant load and common path of travel egress travel distance. Two exists 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 (R2- 10 OCCUPANTS PER SPACE). WE WILL HAVE LESS THAN 10 OCCUPANTS PER SPACE USING 200 GROSS S.F. PER OCCUPANT. WE WILL PROVIDE A SINGLE EXIT.

1006.3.2 Single Exits. Single exit or access to a single exit shall be permitted from any story or occupied roof where one of the following conditions exists: #2. Rooms, areas and spaces complying with 1006.2.1 with exits that discharge directly to the exterior at the level of exit discharge are permitted to have one exit or access to a single exit. WE WILL PROVIDE A SINGLE MEANS OF EGRESS

Table 1006.3.2 (1) INDICATES THAT SINGLE EXIT SPRINKLED R-2 OCCUPANCIES ARE ALLOWED UP TO THREE STORIES, 12 DWELLING UNITS PER FLOOR AND 200 COMMON PATH OF TRAVEL. WE COMPLY.

Chapter 11 Accessibility-

1103.1 Where required-Sites, buildings, structures, facilities, elements and spaces, temporary or permanent shall be accessible to individuals with disabilities. WE WILL COMPLY WITH REQUIREMENTS

1104.1 Site arrival points. At least one accessible route within the site shall be provided from public transportation stops, accessible parking, accessible passenger loading zones and public street or sidewalks to the accessible building entrance served. WE WILL PROVIDE AN ACCESSIBLE, DESIGNATED PARKING SPACE/ PASSENGER LOADING AREA (COMPLIANT WITH SECTION 1106) ADJACENT TO OUR ADA COMPLIANT ENTRANCE (COMPLIANT WITH SECTION 1105).

Table 1006.1- Accessible Parking Spaces. AS REQUIRED WHERE PARKING SPACES ARE BETWEEN 1 AND 25, WE WILL PROVIDE ONE ACCESSIBLE PARKING SPACE.

1107.2 Design. Dwelling units and sleeping units that are required to be Accessible units, Type A and Type B units shall comply with the applicable portions of Chapter 10 of ICC A117.1. Units required to be type A units are permitted to be designed and constructed as Accessible units. Units required to be Type B units are permitted to be designed and constructed as Accessible units or Type A units. WE WILL COMPLY WITH REQUIREMENTS AS MODIFIED BY 1107.4 AND 1107.5.

1107.3 Accessible Spaces. Rooms and spaces available to the general public or available to use by residents and serving Accessible units, Type A units or Type B units shall be accessible. Accessible spaces shall include toilet and bathing rooms, kitchen, living and dining reas and any exterior spaces including patios, terraces and balconies. Exception: # 1. Stories and mezzanines exempted by Section 1107.4. SEE 1107.4.

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 or Type B unit within the building or facility and with those exterior and interior spaces and facilities that serve the units. Exception #3 – In Group R-2 facilities with Type A units complying with Section 1107.6.2.3.1, an accessible rout is not required to connect stories or mezzanines where Type A units, All common areas serving Type A units and all public areas are on an accessible route. WE HAVE A TYPE A UNIT AT GRADE WITH ACCESSIBLE COMMON AREA AND DO NOT HAVE AN ACCESSIBLE ROUTE CONNECTING STORIES.



WHIPPLE-CALLENDER ARCHITECTS

Table 1107.6.1.1- Accessible Dwelling Units and Sleeping Units. AS REQUIRED WHERE THE UNIT COUNT IS BETWEEN 1 AND 25, WE WILL PROVIDE ONE ACCESSIBLE UNIT WITH A TRANSFER TYPE SHOWER.

1107.7 General Exceptions. Where specifically permitted by Section 1107.5 or 1107.6, the required number of Type A or Type B units is permitted to be reduced in accordance with Sections 1107.7.1.1 and 1107.7.1.5 .

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 and Type B units respectively. The number of Type A units shall be determined in accordance with Section 1107.6.2.2.1. PER REFERENCED SECTIONS, WE HAVE A TYPE A GROUND FLOOR UNIT AND NO TYPE A OR TYPE B UNITS ON THE UPPER STORIES.

IECC- 2009- Relevant sections: COMMERCIAL MIN.

ATTIC- R 38

WALLS- R 13 + 7.5

FLOORS- R 30

Fire Department checklist- please refer to plan for travel distance, smoke detectors, CO2 detectors, alarm panel

KNOX BOX SHALL BE PROVIDED

1. Architect/ Applicant- **Whipple Callender Architects, PO Box 1276 Portland, Maine 04101 (775-2696)**
2. Proposed use- **R-2 Apartments at upper stories and ground floor existing Business/ Commercial to remain**
3. Gross square footage of structure- **Floor 1 (2,369), Floor 2 (1,964), Floor 3 (1,404), Total (5,737)**
4. Elevation of all structures **Proposed Apartment structure is 3 stories existing**
5. Proposed fire protection of all structures- **fully sprinkled- 13 Commercial with rated construction**
6. Hydrant Locations- **Stevens Ave./ Bishop St.**
7. Water main sizes and locations- **unknown**
8. Access to any Fire Department Connections-**Connection will be provided at Stevens side**
9. Access to all structures (2 sides Min.)- **Clear access to 4 sides**
10. A code summary shall be included referencing NFPA and all fire department technical standards- **Attached**
11. Owner- **STEVENS AVENUE LLC**

NFPA 101-2009 – Chapter 30: New Apartment Buildings (In this case, three stories, 4 total apartments and existing separate ground floor Commercial space to remain).

Table 6.1.14.4.1 (b) Required Separation of Occupancies

The Table indicates a separation between Business and Apartment uses of 1 hr. when the building is protected throughout by an approved sprinkler system. WE WILL PROVIDE 1 HR. MIN. SEPARATION

30.1 General Requirements

30.1.1.1 The requirements of this chapter shall apply to new apartment occupancies.

30.1.2 Multiple Occupancies



WHIPPLE-CALLENDER ARCHITECTS

30.1.2.2.1 In buildings protected by an automatic sprinkler system in accordance with 9.0, dwelling units of an apartment building shall be permitted to have their sole means of egress pass through a non residential occupancy in the same building provided the following criteria are met:

1. The dwelling unit of the apartment building shall comply with Chapter 30
2. The sole means of egress shall not pass through a high hazard contents area.

WE MEET THE CRITERIA.

30.1.2.3 Multiple dwelling units shall be permitted to be located above a nonresidential occupancy only where one of the following conditions are met.

1. Where the dwelling units of the residential occupancy and exits therefrom are separated from the non-residential occupancy by construction having a 1 hour fire rating.
2. Where the nonresidential occupancy is protected throughout by an approved supervised automatic fire alarm system per 9.7

WE WILL COMPLY WITH RATED SEPARATION AS REQUIRED.

30.2 Means of Egress Requirements

30.2.1.1 Means of escape from a dwelling unit to the outside of the building shall be in accordance with Chapter 7 and this chapter. WE COMPLY WITH CHAPTER 7- REFER TO STAIR DETAILS

30.2.1.2 Means of escape within a dwelling unit shall comply with the provisions of Section 24.2 for one and two family dwellings. WE MEET EGRESS REQUIREMENT WITH TRAVEL DISTANCE. PRIMARY EGRESS STAIR AND SECONDARY WINDOW AS MEANS OF EGRESS.

30.2.2.3.1 Stairs complying with 7.2.2 shall be permitted. MIN. 3'8" WIDE WITH 11" FIN. TREAD, 7" RISER AND COMPLIANT HANDRAIL BOTH SIDES.

30.2.4 Number of Exits

30.2.4.3 A single exit shall be permitted in buildings where the total number of stories does not exceed four, provided all the following conditions are met:

1. The building is protected throughout by an approved, supervised automatic sprinkler system in accordance with 31.3.5
2. The exit stairway does not serve more than ½ of a story below the level of exit discharge.
3. The travel distance from the entrance door to any dwelling unit to an exit does not exceed 35 feet.
4. The exit stairway is completely enclosed or separated from the rest of the building by barriers having a minimum 1 hour fire resistance rating.
5. All openings between the exit stairway enclosure and the rest of the building are protected by self closing doors having a minimum 1 hr. fire resistance rating.
6. All corridors serving as access to the exits have a min. ½ hr. fire resistance rating.
7. Horizontal and vertical separation having a min. ½ hr. fire resistance rating is provided between dwelling units. WE WILL PROVIDE A SINGLE EXIT.

7.3 Capacity of Means of Egress

7.3.4.1 In existing buildings, the width of exit access shall be permitted to be not less than 36" EXIT ACCESS WILL TYPICALLY BE 36".

30.2.9 Emergency lights shall be provided in buildings 4 or more stories in height or with more than 12 dwelling units, unless each unit has a direct exit to the outside of the building at grade level- WE WILL HAVE EMERGENCY LIGHTS.

30.2 Means of Egress Components

30.2.2.1.2 In buildings protected throughout with an approved, supervised automatic sprinkler system in accordance with 30.3.5 , exit enclosures shall have a minimum 1 hr. fir resistance rating



WHIPPLE-CALLENDER ARCHITECTS

and doors shall have a minimum 1 hr. fire resistance rating . WE WILL PROVIDE SEPARATIONS & DOORS AS REQUIRED

30.2.2.2 Doors

30.2.2.2.1 No door in any means of egress shall be locked against egress when the building is occupied. EGRESS DOORS WILL ALWAYS BE OPERABLE FROM INSIDE THE APARTMENT & GROUND FLOOR VESTIBULE.

30.2.2.3 Stairs

30.2.2.3.1 Stairs complying with 7.2.2 shall be permitted. WE WILL COMPLY WITH THE REQUIREMENTS OF 7.2.2 – EXISTING STAIRS.

30.2.5 Arrangement of Means of Egress

30.2.5.1 Access to all required means of egress shall be in accordance with Section 7.5

30.2.5.3.2 No common path of travel shall exceed 50' in buildings protected throughout by an approved, supervised automatic sprinkler system installed in accordance with 30.3.5. Travel within a dwelling unit shall not be included when calculating common path of travel. OK- NO COMMON PATH

31.2.6.2 Travel distance, from areas other than those within a living units, to the exit, shall not exceed to a corridor door shall not exceed 200 feet in buildings protected throughout by an approved, supervised automatic sprinkler system installed in accordance with 30.3.5. WE WILL COMPLY

30.2.6.4 Travel distance within a dwelling unit to a corridor door shall not exceed 250 feet in buildings protected throughout by an approved, supervised automatic sprinkler system installed in accordance with 30.3.5. OUR MAXIMUM TRAVEL DISTANCE WITHIN AN APARTMENT IS APPROXIMATELY 30'.

30.2.9 Emergency lights shall be provided in buildings 4 or more stories in height or with more than 12 dwelling units, unless each unit has a direct exit to the outside of the building at grade level- WE WILL PROVIDE EMERGENCY LIGHTS.

30.3.2.1.1 Boiler rooms, Laundry and storage areas require 1 hr. rated separation.- WE WILL PROVIDE 1 HR. SEPARATION AT BOILER ROOM, LAUNDRY AND STORAGE AREAS.

30.3.3.2 Interior wall and ceiling finish- WE WILL APPLY CLASS A INTERIOR PAINTS AND FINISHES TYPICALLY.

30.3.4.1 Detection, Alarm and Communication Systems

30.3.4.1.1 Emergency lights shall be provided in buildings 4 or more stories in height or with more than 11 dwelling units shall be provided with a fire alarm system in accordance with Section 9.6 WE WILL PROVIDE EMERGENCY LIGHTS.

30.3.4.2 Initiation

30.3.4.2.2 Initiation of the required fire alarm system by manual means shall not be required in buildings 4 or fewer stories in height, containing not more than 16 dwelling units and protected throughout by an approved, supervised sprinkler system installed in accordance with 30.4.2.2. THE ALARM SYSTEM SHALL HAVE MANUAL PULL STATIONS

30.3.4.3 Notification



WHIPPLE-CALLENDER ARCHITECTS

30.3.4.2.1 Occupant Notification shall be provided automatically in accordance with Section 9.6.2 and the following shall also apply:

1. Visible signals shall be installed in units for the visually impaired. HORNS AND STROBES WILL BE INSTALLED AT BEDROOMS AND LIVING AREAS TYPICALLY
2. Positive alarm system in accordance with 9.6.3.4 shall be permitted.

30.3.4.3.4 Annunciation and annunciation zoning shall not be required in buildings 4 or fewer stories in height containing not more than 16 units and protected throughout by an approved, supervised automatic alarm system in accordance with 30.3.5. AN ANNUNCIATOR PANEL WILL NOT BE INSTALLED

30.3.4.3.5 Fire Department notification shall be accomplished in accordance with 9.6.4. WE WILL PROVIDE NOTIFICATION PER OPTIONS LISTED IN 9.6.4

31.3.4.4.2 Automatic smoke detection shall be installed as follows:

1. Smoke detectors shall be installed in all common areas and work spaces outside the living unit such as exit stairs, egress corridors, lobbies, storage rooms, equipment rooms, and other tenantless spaces in environments that are suitable for proper smoke detector operation.
 2. Heat detectors shall be located within each room of the living unit.
- WE PLAN ON INSTALLING HARD WIRED SMOKE DETECTORS AND CO2 DETECTORS AS REQUIRED.

30.3.4.5 Smoke Alarms

30.3.4.5.2 Smoke alarms shall be required outside every bedroom per 9.6.2.10 and 31.3.5.4 . SMOKE DETECTORS WILL BE LOCATED OUTSIDE BEDROOMS AND ALL LEVELS INCLUDING THE PARKING LEVEL

30.3.2.1.1 Hazardous Area Protection

Boiler and fuel fired heating rooms serving more than a single dwelling unit. 1 hour or sprinklers. THE BOILER ROOM & MECHANICAL SPACES WILL BE PROTECTED WITH 1 HR. RATED WALLS AND CEILING AND SPRINKLER COVERAGE.

NFPA 101-2009 – Chapter 38: New Business Occupancies- LIMITED GROUND FLOOR SPACE WITH 2 MEANS OF EGRESS

38.1 General Requirements

38.1.1.1- The requirements of this chapter shall apply to existing buildings or portions thereof currently occupied as business occupancies.

38.2- Means of Egress Requirements

38.1.2.1.1- All means of egress shall comply with Chapter 7 and this chapter. WE COMPLY

38.2.2 Means of Egress Requirements- . WE COMPLY WITH SINGLE MEANS IN A SPRINKLED BUILDING.

38.2.4 Number of Exits- WE COMPLY WITH SINGLE MEANS IN A SPRINKLED BUILDING.

38.2.4.1 Exits shall comply with the following, except as otherwise permitted by 38.2.4.2 through 37.2.4.5. WE WILL PROVIDE ONE MEANS OF EGRESS FROM THE BUSINESS SPACES.

38.2.5 Arrangement of Means of Egress- refer to 38.2.4.1 above

38.3.4 Detection, Alarm and Communication Systems



WHIPPLE-CALLENDER ARCHITECTS

38.3.4.1 General. A fire alarm system in accordance with Section 9.6. shall be provided in all business occupancies where any one of the following conditions exist.

- 1. The building is 3 or more stories in height**
- 2. The occupancy is subject to occupancy by 50 or more occupants above or below the level of exit discharge.**

- 3. The occupancy is subject to 300 or more total occupants.**

THE BUILDING IS THREE STORIES IN HEIGHT, THE FIRE ALARM IN THE BUSINESS SPACES WILL BE ACTIVATED BY THE SPRINKLER SYSTEM.

38.3.4.2 Initiation. Initiation of the fire alarm system shall be by one of the following means: (2) Approved automatic sprinkler system that complies with 9.6.2.1(3) and provides protection throughout the building , plus a minimum of one manual fire alarm box in accordance with 9.6.2.6. **THE FIRE ALARM WILL BE ACITIVATED BY THE SPRINKLER SYSTEM.**

38.3.4.3- Occupant Notification- During all times that the business occupancy is occupied, the required fire alarm system, once initiated, shall activate an alarm in accordance with 9.6.3 throughout the building , and positive alarm sequence in accordance with 9.6.3.4 shall be permitted. **FINAL NOTIFICATION PER FIRE ALARM PERMIT TO BE FILED WITH THE CITY OF PORTLAND**

Statement of Special Inspections IBC 2015:- NOT ANTICIPATED GIVEN WE WILL BE RETAINING ALL STRUCTURAL COMPONENTS OF THE EXISTING BUILDING.

Section 17 Special Inspections and Tests:

Table 1705.3 Required Special Inspections and Tests of Concrete Construction-

Welded rebar- test of welded rebar
Inspect anchor bolts
Verify concrete mix
Perform slump and prepare conc. test samples
Verify curing process
Inspect formwork

Table 1705.6 Required Special Inspections and Tests of Soils-

Verify fill lifts
Verify subgrade materials
Verify proper depth and bearing materials
Perform classification and testing of compacted fill
Prior to fill, inspect subgrade and verify site has been prepared properly

Table 1705.7 Required Special Inspections and Tests of Driven Foundation Elements-

NA-No driven elements



WHIPPLE-CALLENDER ARCHITECTS

12.31.19 – 844 STEVENS AVENUE CODE REVIEW SUMMARY FOR PROPOSED NEW APARTMENT BUILDING- INCLUDES REFERENCE TO PORTLAND ZONING REGS., IBC 2015, IECC 2009, FIRE DEPARTMENT INFORMATION, NFPA 2009

Portland Zoning- 2009- Relevant sections:

14-250 Dimensional Req.:

B-2 Business zone- permitted uses, new Apartment/ multifamily (16 units in proposed new building)

No minimum lot size

Setback requirements

Street frontage 20' min. EXISTING TO REMAIN

Front setback- 150'

Side setback- 5'

Rear yard- 55'

Max. permitted imperv. surface – 90%

Max. permitted bldg. height is 35' – WE COMPLY

Parking- 16 total spaces

IBC- 2015- Relevant sections:

The proposed structure is entirely R-2 APARTMENT.

Per table 504.4 the Type V Protected - R/A structure can have 3 stories while remaining un-sprinkled. THE PROPOSED STRUCTURE WILL BE SPRINKLED, WE WILL PROTECT AND DRAFTSTOP THE WOOD FRAME, AND DO NOT EXCEED THE STORY LIMITS

Per table 506.2 the Type V Protected - R/A structure can have 12,000 S.F. PER FLOOR. WE COMPLY AT 5,100 S.F. PER FLOOR AT THE NEW STRUCTURE

Table 508.4 indicates 1 hr. separation between Business and Residential uses in sprinkled facilities. N.A. RESIDENTIAL ONLY.

Table 601 - The new structure is sprinkled, Type V-B protected. Protected elements including framing, all bearing walls, floor construction and roof construction.

Section 709 - The walls are fire partitions and the floors horizontal assemblies.

709.3 Fire resistance rating- Fire partitions shall be rated one hour. WE WILL COMPLY

709.4 Continuity- Fire assemblies shall be rated one hour. WE WILL COMPLY

709.4 Fire-blocking- All walls separating dwelling units and stairs shall be fire-blocked at the top of the demising partition typical. WE WILL COMPLY

712.4 Continuity (horizontal)- Assemblies between apartments, storage and ground floor commercial shall be rated one hour. WE WILL COMPLY.



WHIPPLE-CALLENDER ARCHITECTS

713 Penetrations at Walls and Assemblies- Seal to maintain rating of Fire Partition and Assemblies. WE WILL COMPLY

Chapter 10 Means of Egress-

1006.2.1 Egress based upon occupant load and common path of travel egress travel distance. Two exists 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 (R2- 10 OCCUPANTS PER SPACE). WE WILL HAVE LESS THAN 10 OCCUPANTS PER SPACE USING 200 GROSS S.F. PER OCCUPANT. SINGLE DOOR TO APARTMENTS TYPICAL.

1006.3.2 Single Exits. Single exit or access to a single exit shall be permitted from any story or occupied roof where one of the following conditions exists: #2. Rooms, areas and spaces complying with 1006.2.1 with exits that discharge directly to the exterior at the level of exit discharge are permitted to have one exit or access to a single exit. WE WILL PROVIDE 2 MEANS OF EGRESS

Table 1006.3.2 (1) INDICATES THAT SINGLE EXIT SPRINKLED R-2 OCCUPANCIES ARE ALLOWED UP TO THREE STORIES, 12 DWELLING UNITS PER FLOOR AND 200 COMMON PATH OF TRAVEL. WE COMPLY.

Chapter 11 Accessibility-

1103.1 Where required-Sites, buildings, structures, facilities, elements and spaces, temporary or permanent shall be accessible to individuals with disabilities. WE WILL COMPLY WITH REQUIREMENTS

1104.1 Site arrival points. At least one accessible route within the site shall be provided from public transportation stops, accessible parking, accessible passenger loading zones and public street or sidewalks to the accessible building entrance served. WE WILL PROVIDE AN ACCESSIBLE, DESIGNATED PARKING SPACE/ PASSENGER LOADING AREA (COMPLIANT WITH SECTION 1106) ADJACENT TO OUR ADA COMPLIANT ENTRANCE (COMPLIANT WITH SECTION 1105).

Table 1006.1- Accessible Parking Spaces. AS REQUIRED WHERE PARKING SPACES ARE BETWEEN 1 AND 25, WE WILL PROVIDE ONE ACCESSIBLE PARKING SPACE.

1107.2 Design. Dwelling units and sleeping units that are required to be Accessible units, Type A and Type B units shall comply with the applicable portions of Chapter 10 of ICC A117.1. Units required to be type A units are permitted to be designed and constructed as Accessible units. Units required to be Type B units are permitted to be designed and constructed as Accessible units or Type A units. WE WILL COMPLY WITH REQUIREMENTS AS MODIFIED BY 1107.4 AND 1107.5.

1107.3 Accessible Spaces. Rooms and spaces available to the general public or available to use by residents and serving Accessible units, Type A units or Type B units shall be accessible. Accessible spaces shall include toilet and bathing rooms, kitchen, living and dining areas and any exterior spaces including patios, terraces and balconies. Exception: # 1. Stories and mezzanines exempted by Section 1107.4. SEE 1107.4.

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 or Type B unit within the building or facility and with those exterior and interior spaces and facilities that serve the units. Exception #3 – In Group R-2 facilities with Type A units complying with Section 1107.6.2.3.1, an accessible route is not required to connect stories or mezzanines where Type A units, All common areas serving Type A units and all public areas are on an accessible route. WE HAVE A TYPE A UNIT AT GRADE WITH ACCESSIBLE COMMON AREA AND DO NOT HAVE AN ACCESSIBLE ROUTE CONNECTING STORIES.



WHIPPLE-CALLENDER ARCHITECTS

Table 1107.6.1.1- Accessible Dwelling Units and Sleeping Units. AS REQUIRED WHERE THE UNIT COUNT IS BETWEEN 1 AND 25, WE WILL PROVIDE ONE ACCESSIBLE UNIT WITH A TRANSFER TYPE SHOWER.

1107.7 General Exceptions. Where specifically permitted by Section 1107.5 or 1107.6, the required number of Type A or Type B units is permitted to be reduced in accordance with Sections 1107.7.1.1 and 1107.7.1.5 .

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 and Type B units respectively. The number of Type A units shall be determined in accordance with Section 1107.6.2.2.1. PER REFERENCED SECTIONS, WE HAVE A TYPE A GROUND FLOOR UNIT AND NO TYPE A OR TYPE B UNITS ON THE UPPER STORIES.

IECC- 2009- Relevant sections; COMMERCIAL

INSUL. ENTIRELY ABOVE DECK- R 20ci

WALLS- R 13 + 7.5

FLOORS- R 30

WALLS BELOW GRADE- R 7.5 c.i.

UNHEATED SLABS- R 15 FOR 24" BELOW SLAB

Fire Department checklist- please refer to plan for travel distance, smoke detectors, CO2 detectors, alarm panel

1. Architect/ Applicant- **Whipple Callender Architects, PO Box 1276 Portland, Maine 04101 (775-2696)**
2. Proposed use- **R-2 Apartments**
3. Gross square footage of structure- **Lower level (4,504), Ground (5,043), Floor 2 (5,043), Floor 3 (4,495), Total (19,085)**
4. Elevation of all structures **Proposed Apartment structure is 3 stories existing**
5. Proposed fire protection of all structures- **fully sprinkled- 13 Commercial with rated construction**
6. Hydrant Locations- **Stevens Ave./ Bishop St.**
7. Water main sizes and locations- **unknown**
8. Access to any Fire Department Connections-**Connection will be provided at Stevens side**
9. Access to all structures (2 sides Min.)- **Clear access to 4 sides**
10. A code summary shall be included referencing NFPA and all fire department technical standards- **Attached**
11. Owner- **STEVENS AVENUE LLC**

NFPA 101-2009 – Chapter 30: New Apartment Buildings (In this case, four total stories, 16 total apartments).

Table 6.1.14.4.1 (b) Required Separation of Occupancies

The Table indicates a separation between Business and Apartment uses of 1 hr. when the building is protected throughout by an approved sprinkler system. N.A. NO MIXED USE

30.1 General Requirements

30.1.1.1 The requirements of this chapter shall apply to new apartment occupancies.



WHIPPLE-CALLENDER ARCHITECTS

30.1.2 Multiple Occupancies

30.1.2.2.1 In buildings protected by an automatic sprinkler system in accordance with 9.0, dwelling units of an apartment building shall be permitted to have their sole means of egress pass through a non residential occupancy in the same building provided the following criteria are met:

1. The dwelling unit of the apartment building shall comply with Chapter 30
2. The sole means of egress shall not pass through a high hazard contents area.

WE MEET THE CRITERIA.

30.1.2.3 Multiple dwelling units shall be permitted to be located above a nonresidential occupancy only where one of the following conditions are met.

1. Where the dwelling units of the residential occupancy and exits therefrom are separated from the non-residential occupancy by construction having a 1 hour fire rating.
2. Where the nonresidential occupancy is protected throughout by an approved supervised automatic fire alarm system per 9.7

N.A. – RESIDENTIAL USES ONLY

30.2 Means of Egress Requirements

30.2.1.1 Means of escape from a dwelling unit to the outside of the building shall be in accordance with Chapter 7 and this chapter. WE COMPLY WITH CHAPTER 7 FOR NEW STAIRS- REFER TO STAIR DETAILS

30.2.1.2 Means of escape within a dwelling unit shall comply with the provisions of Section 24.2 for one and two family dwellings. WE MEET EGRESS REQUIREMENT WITH TRAVEL DISTANCE, PRIMARY EGRESS STAIR AND SECONDARY WINDOW AS MEANS OF EGRESS.

30.2.2.3.1 Stairs complying with 7.2.2 shall be permitted. MIN. 3'8" WIDE WITH 11" FIN. TREAD, 7" RISER AND COMPLIANT HANDRAIL BOTH SIDES.

30.2.4 Number of Exits

30.2.4.3 A single exit shall be permitted in buildings where the total number of stories does not exceed four, provided all the following conditions are met:

1. The building is protected throughout by an approved, supervised automatic sprinkler system in accordance with 31.3.5
2. The exit stairway does not serve more than ½ of a story below the level of exit discharge.
3. The travel distance from the entrance door to any dwelling unit to an exit does not exceed 35 feet.
4. The exit stairway is completely enclosed or separated from the rest of the building by barriers having a minimum 1 hour fire resistance rating.
5. All openings between the exit stairway enclosure and the rest of the building are protected by self closing doors having a minimum 1 hr. fire resistance rating.
6. All corridors serving as access to the exits have a min. ½ hr. fire resistance rating.
7. Horizontal and vertical separation having a min. ½ hr. fire resistance rating is provided between dwelling units. WE WILL PROVIDE 2 EXITS.

7.3 Capacity of Means of Egress

7.3.4.1 In existing buildings, the width of exit access shall be permitted to be not less than 36" EXIT ACCESS WILL TYPICALLY BE 36".

30.2.9 Emergency lights shall be provided in buildings 4 or more stories in height or with more than 12 dwelling units, unless each unit has a direct exit to the outside of the building at grade level- WE WILL HAVE EMERGENCY LIGHTS AS WE ARE 3 STORIES, MORE THAN 12 DWELLING UNITS.

30.2 Means of Egress Components



WHIPPLE-CALLENDER ARCHITECTS

30.2.2.1.2 In buildings protected throughout with an approved, supervised automatic sprinkler system in accordance with 30.3.5, exit enclosures shall have a minimum 1 hr. fire resistance rating and doors shall have a minimum 1 hr. fire resistance rating. WE WILL PROVIDE SEPARATIONS & DOORS AS REQUIRED

30.2.2.2 Doors

30.2.2.2.1 No door in any means of egress shall be locked against egress when the building is occupied. EGRESS DOORS WILL ALWAYS BE OPERABLE FROM INSIDE THE APARTMENT & GROUND FLOOR VESTIBULE.

30.2.2.3 Stairs

30.2.2.3.1 Stairs complying with 7.2.2 shall be permitted. WE WILL COMPLY WITH THE REQUIREMENTS OF 7.2.2 – 7" MAX. RISER, 11" FIN. TREAD AND 3'8" MIN. FIN. EGRESS WIDTH.

30.2.5 Arrangement of Means of Egress

30.2.5.1 Access to all required means of egress shall be in accordance with Section 7.5

30.2.5.3.2 No common path of travel shall exceed 50' in buildings protected throughout by an approved, supervised automatic sprinkler system installed in accordance with 30.3.5. Travel within a dwelling unit shall not be included when calculating common path of travel. OK- NO COMMON PATH

31.2.6.2 Travel distance, from areas other than those within a living unit, to the exit, shall not exceed to a corridor door shall not exceed 200 feet in buildings protected throughout by an approved, supervised automatic sprinkler system installed in accordance with 30.3.5. WE WILL COMPLY

30.2.6.4 Travel distance within a dwelling unit to a corridor door shall not exceed 250 feet in buildings protected throughout by an approved, supervised automatic sprinkler system installed in accordance with 30.3.5. OUR MAXIMUM TRAVEL DISTANCE WITHIN AN APARTMENT IS APPROXIMATELY 30'.

30.2.9 Emergency lights shall be provided in buildings 4 or more stories in height or with more than 12 dwelling units, unless each unit has a direct exit to the outside of the building at grade level- WE WILL PROVIDE EMERGENCY LIGHTS AS WE ARE 3 STORIES, MORE THAN 12 DWELLING UNITS.

30.3.2.1.1 Boiler rooms, Laundry and storage areas require 1 hr. rated separation.- WE WILL PROVIDE 1 HR. SEPARATION AT BOILER ROOM, LAUNDRY AND STORAGE AREAS.

30.3.3.2 Interior wall and ceiling finish- WE WILL APPLY CLASS A INTERIOR PAINTS AND FINISHES TYPICALLY.

30.3.4.1 Detection, Alarm and Communication Systems

30.3.4.1.1 Emergency lights shall be provided in buildings 4 or more stories in height or with more than 11 dwelling units shall be provided with a fire alarm system in accordance with Section 9.6 WE WILL PROVIDE EMERGENCY LIGHTS AS WE ARE 3 STORIES, MORE THAN 12 DWELLING UNITS.

30.3.4.2 Initiation

30.3.4.2.2 Initiation of the required fire alarm system by manual means shall not be required in buildings 4 or fewer stories in height, containing not more than 16 dwelling units and protected throughout by an approved, supervised sprinkler system installed in accordance with 30.4.2.2. THE ALARM SYSTEM SHALL HAVE MANUAL PULL STATIONS



WHIPPLE-CALLENDER ARCHITECTS

30.3.4.3 Notification

30.3.4.2.1 Occupant Notification shall be provided automatically in accordance with Section 9.6.2 and the following shall also apply:

- 1. Visible signals shall be installed in units for the visually impaired. HORNS AND STROBES WILL BE INSTALLED AT BEDROOMS AND LIVING AREAS TYPICALLY**
- 2. Positive alarm system in accordance with 9.6.3.4 shall be permitted.**

30.3.4.3.4 Annunciation and annunciation zoning shall not be required in buildings 4 or fewer stories in height containing not more than 16 units and protected throughout by an approved, supervised automatic alarm system in accordance with 30.3.5. AN ANNUNCIATOR PANEL WILL BE INSTALLED

30.3.4.3.5 Fire Department notification shall be accomplished in accordance with 9.6.4. WE WILL PROVIDE NOTIFICATION PER OPTIONS LISTED IN 9.6.4

31.3.4.4.2 Automatic smoke detection shall be installed as follows:

- 1. Smoke detectors shall be installed in all common areas and work spaces outside the living unit such as exit stairs, egress corridors, lobbies, storage rooms, equipment rooms, and other tenantless spaces in environments that are suitable for proper smoke detector operation.**
 - 2. Heat detectors shall be located within each room of the living unit.**
- WE PLAN ON INSTALLING HARD WIRED SMOKE DETECTORS AND CO2 DETECTORS AS REQUIRED.**

30.3.4.5 Smoke Alarms

30.3.4.5.2 Smoke alarms shall be required outside every bedroom per 9.6.2.10 and 31.3.5.4 . SMOKE DETECTORS WILL BE LOCATED OUTSIDE BEDROOMS AND ALL LEVELS INCLUDING THE PARKING LEVEL

30.3.2.1.1 Hazardous Area Protection

Boiler and fuel fired heating rooms serving more than a single dwelling unit. 1 hour or sprinklers. THE BOILER ROOM & MECHANICAL SPACES WILL BE PROTECTED WITH 1 HR. RATED WALLS AND CEILING AND SPRINKLER COVERAGE.

Statement of Special Inspections IBC 2015:

Section 17 Special Inspections and Tests:

Table 1705.3 Required Special Inspections and Tests of Concrete Construction-

**Welded rebar- test of welded rebar
Inspect anchor bolts
Verify concrete mix
Perform slump and prepare conc. test samples
Verify curing process
Inspect formwork**

Table 1705.6 Required Special Inspections and Tests of Soils-

**Verify fill lifts
Verify subgrade materials
Verify proper depth and bearing materials
Perform classification and testing of compacted fill
Prior to fill, inspect subgrade and verify site has been prepared properly**



WHIPPLE-CALLENDER ARCHITECTS

Table 1705.7 Required Special Inspections and Tests of Driven Foundation Elements-

NA-No driven elements anticipated



DATE:	LOCATION:
TYPE:	PROJECT:
CATALOG #:	

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



*3000K and warmer CCTs only

CONTROL TECHNOLOGY



SPECIFICATIONS

CONSTRUCTION

- Manufactured with die cast aluminum
- Coated with a polyester finish that meets ASTM B117 corrosion test requirements and ASTM D522 cracking and loss of adhesion test requirements
- IFS polyester powder-coat electrostatically applied and thermocured. IFS finish consists of a five stage pretreatment regimen with a polymer primer sealer and top coated with a thermoset super TGIC polyester powder coat finish
- The finish meets the AAMA 2604 performance specification which includes passing a 3,000-hour salt spray test for corrosion resistance and resists cracking or loss of adhesion per ASTM D522 and resists surface impacts of up to 160 inch-pounds
- 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)
- Power factor is $\geq .90$ at full load
- Dimming drivers are standard, but CD must be selected in options to obtain external wiring leads for dimming controls
- 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
- Ambient operating temperature -40°C to 25°C
- 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

OPTICS
STRIKE



RELATED PRODUCTS

[Viper Large](#)

CONTROLS (CONTINUED)

- Available with [Energent](#) for optional set dimming, timed dimming with simple delay, or timed dimming based on time of night
- In addition, Viper can be specified with [SiteSync™ wireless control system](#) for reduction in energy and maintenance costs while optimizing light quality 24/7

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
- **IDA approved**
- This product is approved by the Florida Fish and Wildlife Conservation Commission. [Separate spec available online](#)

WARRANTY

- 5 year warranty
- See [HLI Commercial and Industrial Outdoor Lighting Warranty](#) for additional information

KEY DATA	
Lumen Range	5400–16,216
Wattage Range	55–136
Efficacy Range (LPW)	100–124
Reported Life (Hours)	L70>60,000
Input Current Range (Amps)	0.1–1.1

VIPER S

SMALL VIPER LUMINAIRE

DATE:	LOCATION:
TYPE:	PROJECT:
CATALOG #:	

ORDERING GUIDE

Example: VPS-24L-55-4K7-4W-UNV-A-DB-TL-GENI-04-BC

CATALOG #

VPS	LED Engine	CCT/CRI ⁷	Distribution	Rotation	Voltage
Series					
VPS Viper Small	24L-55 55W, LED array 36L-65 65W, LED array 36L-80 80W, LED array 48L-110 110W, LED array 60L-136 136W, LED array	3K7 3000K, 70 CRI 4K7 4000K, 70 CRI 5K7 5000K, 70 CRI	FR Type 1/Front Row 2 Type 2 3 Type 3 4F (formerly 4) Type 4 4W Type 4 Wide 5QM Type 5QM 5R Type 5R (rectangular) 5W Type 5W (round wide) TC Tennis Court	Blank No rotation L Optic rotation left ⁵ R Optic rotation right ⁵	UNV 120–277V 347 347V 480 480V

Mounting	Color	Control Options	Options
A Rectangular Arm (formerly RA) for square or round pole MAF Mast Arm Fitter (formerly SF2) for 2½" OD horizontal arm K Knuckle (formerly PK2) limit to 30° tilt or 2½" OD horizontal arm or vertical tenon WB Wall Bracket AD Universal Arm for square pole AD3 Adapter for 2.4"–4.1" round pole AD4 Adapter for 4.2"–5.3" round pole AD5 Adapter for 5.5"–5.9" round pole AD6 Adapter for 6.0"–6.5" round pole	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	7PR 7-Pin Receptacle only (shorting cap, photo control, or wireless control provided by others) 7PR-SC 7-Pin Receptacle w/Shorting Cap 7PR-TL 7-Pin Receptacle w/Twist-Lock® photo control SCP/_F Programmable Occupancy Sensor w/ daylight control ^{1,2,6} GENI-XX ENERGENI ³ SWP SiteSync Pre-Commission ^{1,4} SWPM_F SiteSync Pre-Commission w/ Sensor ^{1,2,4}	BC Backshield (available for FR, 2, 3, 4, 4W Optics) CD Continuous Dimming F Fusing TB Terminal Block

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 = 9' to 40'
- 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.hubbellighting.com/sitesync for further details. Order at least one SiteSync interface accessory SWUSB or SWTAB. Each option contains SiteSync License, GUI, and Bridge Node
- Only available with FR, 2, 3, 4, 4W and 5R distributions
- Order at least one SCP-REMOTE per project location to program and control the occupancy sensor

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 HubbNET 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.

VIPER S

SMALL VIPER LUMINAIRE

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/
VP-L/80L-235/4K7/3/UNV/A/DB/SWPM-40F/

SiteSync only
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, 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

DELIVERED LUMENS

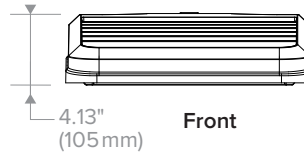
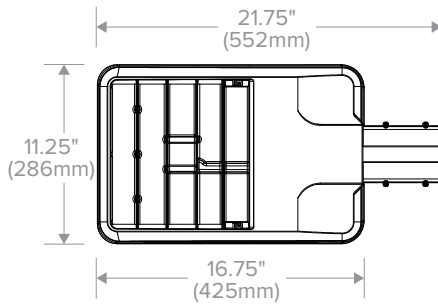
# of LEDs	DRIVE CURRENT (mA)	SYSTEM WATTS	DISTRIBUTION TYPE	5K (5000K nominal, 70 CRI)					4K (4000K nominal, 70 CRI)					3K (3000K nominal, 70 CRI)				
				LUMENS	LPW	B	U	G	LUMENS	LPW	B	U	G	LUMENS	LPW	B	U	G
24	700 mA	55W	FR	6357	118	1	0	1	6486	120	1	0	1	5804	107	1	0	1
			2	6132	114	1	0	1	6257	116	1	0	2	5599	104	1	0	1
			3	6015	111	1	0	2	6137	114	1	0	2	5492	102	1	0	2
			4	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
36	560 mA	65W	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
			3	7441	114	1	0	2	7609	117	1	0	2	6802	105	1	0	2
			4	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	7864	121	1	0	1	8041	124	1	0	1	7189	111	1	0	1
36	700 mA	80W	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
			4	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
48	700 mA	110W	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	11275	114	2	0	2	10984	102	1	0	2
			4	11828	110	1	0	3	12069	112	1	0	3	10800	100	1	0	2
			4W	14484	108	2	0	4	14774	111	2	0	4	13180	98	2	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
			TC	12366	115	1	0	2	12619	118	1	0	2	11290	105	1	0	2
60	700 mA	136W	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
			4	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
			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

VIPER S

SMALL VIPER LUMINAIRE

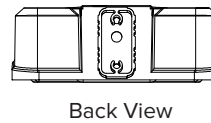
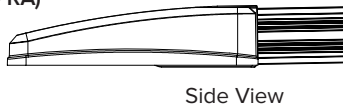
DATE:	LOCATION:
TYPE:	PROJECT:
CATALOG #:	

DIMENSIONS

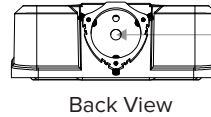
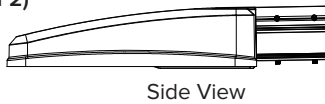


Weight	15.0 lbs (6.8 kg)
EPA	.67 ft ²

A Arm (formerly RA)

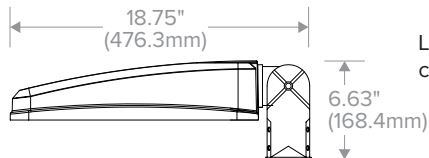


MAF (formerly SF2)



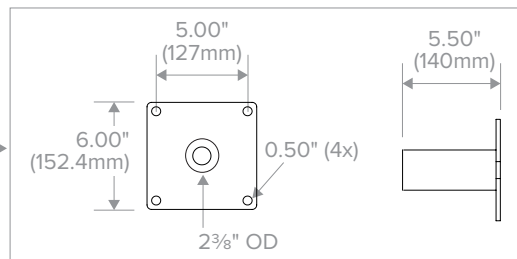
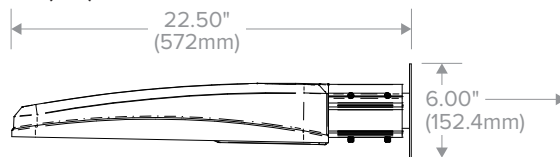
Accepts 2 3/8" OD tenon, min 5" long.

2 3/8" Adjustable Knuckle (K) (formerly PK2)

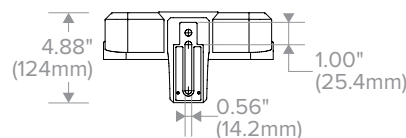
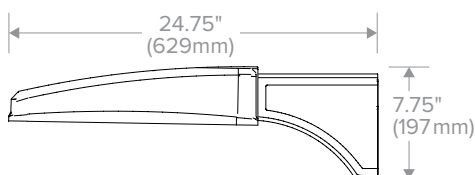


Limit to 30° tilt. Sensor, photocell and wireless controls should not be tilted above horizontal.

Wall Bracket (WB)



AD Decorative Arm



See [page 9](#) for mounting details.

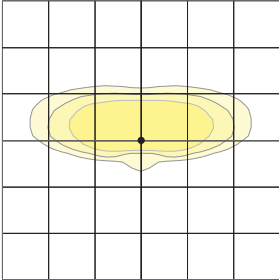
VIPER S

SMALL VIPER LUMINAIRE

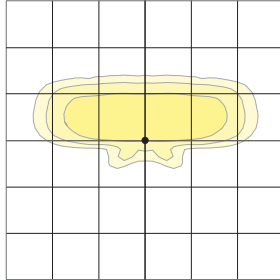
PHOTOMETRY

The following diagrams represent the general distribution options offered for this product. For detailed information on specific product configurations, see [website photometric test reports](#).

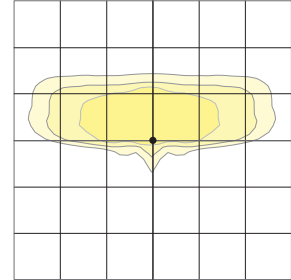
Type FR – Front Row/Auto Optic



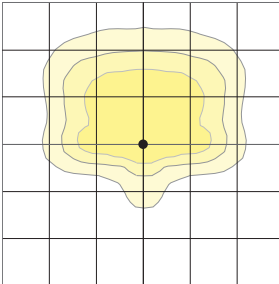
Type 2



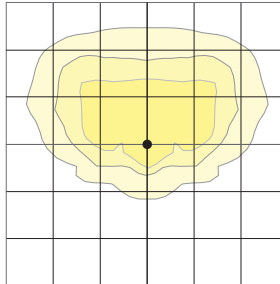
Type 3



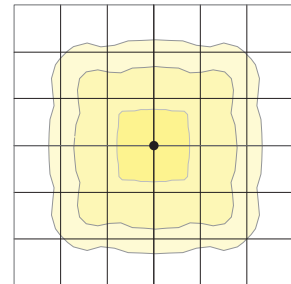
Type 4



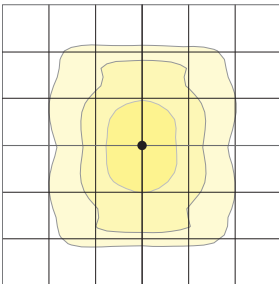
Type 4 Wide



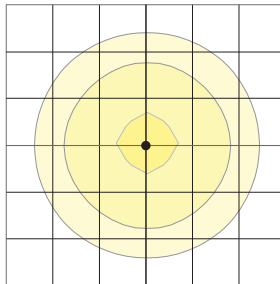
Type 5QM



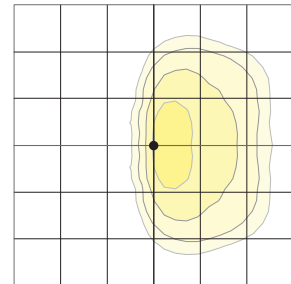
Type 5R (rectangular)



Type 5W (round wide)



Type TC



VIPER S

SMALL VIPER LUMINAIRE

ELECTRICAL DATA

# OF LEDS	NUMBER OF DRIVERS	DRIVE CURRENT (mA)	INPUT VOLTAGE (V)	SYSTEM POWER (w)	CURRENT (Amps)
24	1	700 mA	120	55	0.5
			277		0.2
			347		0.2
			480		0.1
36	1	525 mA	120	65	0.65
			277		0.28
			347		0.22
			480		0.16
	1	700 mA	120	80	0.7
			277		0.3
			347		0.2
			480		0.2
48	1	700 mA	120	110	0.9
			277		0.4
			347		0.3
			480		0.2
60	1	700 mA	120	136	1.1
			277		0.5
			347		0.4
			480		0.3

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

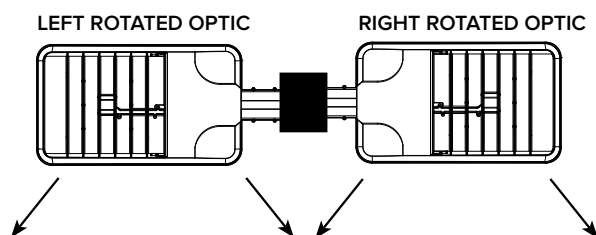
¹ Projected per IESNA TM-21-11.
Data references the extrapolated performance projections for the 60 LED base model in a 25°C ambient, based on 10,000 hours of LED testing per IESNA LM-80-08.

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

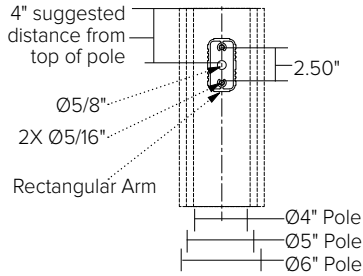
DATE:	LOCATION:
TYPE:	PROJECT:
CATALOG #:	

ADDITIONAL INFORMATION (CONTINUED)

DRILL PATTERN

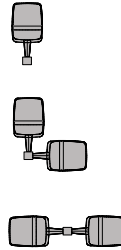
RECTANGULAR ARM (A)

Compatible with Pole drill pattern B3

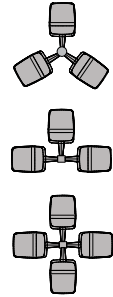


EPA

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



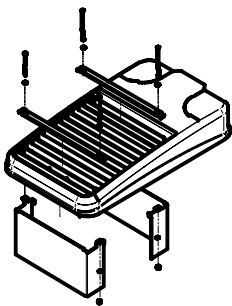
TENON TOP POLE BRACKET ACCESSORIES (ORDER SEPARATELY)

(2 3/8" OD tenon)

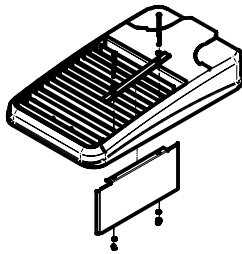
TENON TOP POLE BRACKET ACCESSORIES (Order Separately)

- ☐ 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

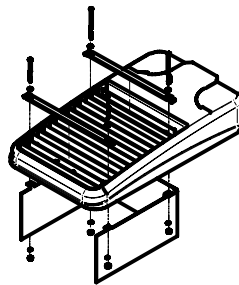
HOUSE SIDE SHIELD FIELD INSTALL ACCESSORIES



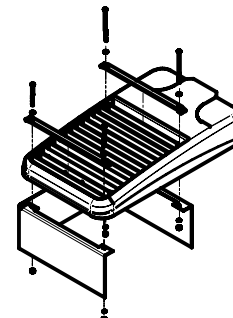
HSS/VP-S/90-FB/XXX
90° shield front or back
(2 shields shown)



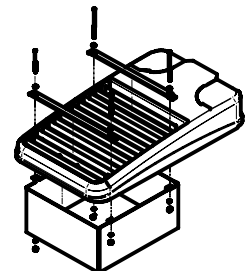
HSS/VP-S/90-LR/XXX
90° shield left or right
(1 shield shown in left orientation)



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)

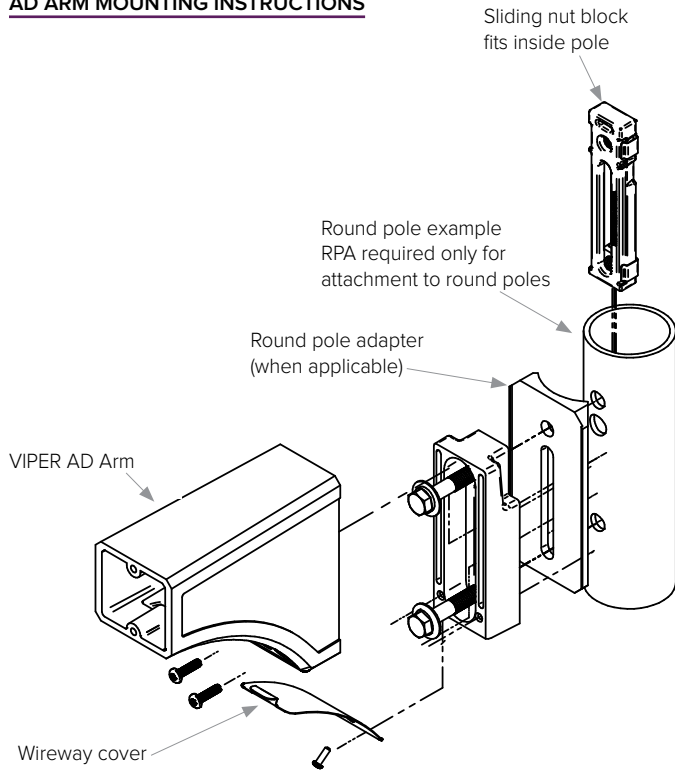
VIPER S

SMALL VIPER LUMINAIRE

DATE:	LOCATION:
TYPE:	PROJECT:
CATALOG #:	

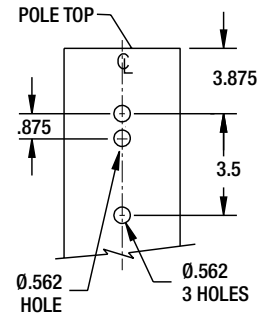
ADDITIONAL INFORMATION (CONTINUED)

AD ARM MOUNTING INSTRUCTIONS



DECORATIVE ARM (AD)

Compatible with pole drill pattern S2



FEATURES

- Integral Battery Backup Option
- 360° Light Distribution
- RGBW or Static White Luminous Front Option
- IES Type I, II, III & IV Distributions
- Wall Graze, Spot and Pencil Distributions
- Multiple Fascia Options and Finishes
- 0-10V dimming
- IP-66 Housing & Optical System
- 120-277V
- 3000K, 4000K & 5000K CCT
- 10kA Surge Protection
- Fascia Forms F, E and T are ADA compliant for use in low mounting height applications (80 inches or less)
- **IDA approved, downlight only, 3000K and warmer CCTs**



Downlight only, 3000K and warmer CCTs



ORDERING CODE

1	2	3	4	5	6	7	8	9	10	11	12
Series-Output	CCT/CRI	Model	Main Distribution	Secondary Distribution	Voltage	Housing Finish	Fascia Form	Luminous Front	Fascia Panel	Control Options	Options

SERIES-OUTPUT (Base)

CY1-15	15w, 1500 nominal lumens
CY1-25	25w, 2500 nominal lumens

CCT-CRI

27K8	2700K, 80CRI
3K7	3000K, 70CRI
3K8	3000K, 80CRI
4K7	4000K, 70CRI
4K8	4000K, 80CRI
5K7	5000K, 70CRI

MODEL (Light Engine)

1	DownLight Only
2	50/50 Down/Up, Down/Up distributions must match
3	90/10 Down/Up
4	25/25/25/25 Split, Down/Up/Side distributions must match
5	70/10/10/10 Split, Top/Side distributions must match

Contact factory for custom distributions,
See Distribution Matrix on page 2 for restrictions.

MAIN DISTRIBUTION (Down)

1	IES Type I
2	IES Type II
3	IES Type III
4	IES Type IV
SP	15° Spot/Column
WG	60° Wall Graze
1D	Type 1 Diffused
2D	Type 2 Diffused
3D	Type 3 Diffused
4D	Type 4 Diffused

SECONDARY DISTRIBUTION (Up, Sides)

1	IES Type I
2	IES Type II
3	IES Type III
4	IES Type IV
SP	15° Spot/Column
WG	60° Wall Graze
PB*	Pencil Beam
1D	Type 1 Diffused
2D	Type 2 Diffused
3D	Type 3 Diffused
4D	Type 4 Diffused

* PB distribution is available for 90/10 and 70/10/10/10 models only. Not all combinations are recommended.
See Distribution Matrix on page 2 for restrictions.

VOLTAGE

UNV	120-277V
-----	----------

BASE HOUSING FINISH

Standard Colors

AGN	Antique Green
BL	Black
BLT	Matte Black
CRT	Corten
DB	Dark Bronze
DGN	Dark Green
GT	Graphite
LG	Light Grey
MAL	Matte Aluminum
MDB	Metallic Bronze
MG	Medium Grey
TT	Titanium
VBU	Verde Blue
WDB	Weathered Bronze
WH	Arctic White

Premium Colors

SFM	Seafoam
SHK	Shamrock
SPP	Salt and Pepper
WCP	Weathered Copper
RAL	Provide a RAL 4 digit color number
CUSTOM COLOR	Please provide color chip for matching

FASCIA FORM

F	Flat
R	Radius/Curved
T	Triangle/Wedge
E	Rounded Edge
C	Circle/Curved
CB	Cylinder Balanced
CT	Cylinder Tall
CBM	Custom Building Material Mount Ghost Fascia

LUMINOUS FRONT

BLANK	Standard None
RGBW	RGBW Luminous Front
LFSW	Static White Luminous Front

RGBW and LFSW luminous fronts are only available with open, four square and perforated fascia panels

FASCIA PANEL

FPP	Full Panel Painted
FPS	Full Panel Stainless Steel
FPC	Full Panel Copper
OPP	Open Panel Painted
OPS	Open Panel Stainless Steel
OPC	Open Panel Copper
4PP	4-Square Panel Painted
4PS	4-Square Panel Stainless Steel
4PC	4-Square Panel Copper
PPP	Perforated Panel Painted
PPS	Perforated Panel Stainless Steel
PPC	Perforated Panel Copper

Flat and Radius Fascia forms only. Painted panels by default match base housing finish/color. Consult factory for custom panel finishes.

CONTROL OPTIONS

PCU	Universal Button Photocell (120-277V)
-----	---------------------------------------

OPTIONS

EM	Battery Backup Unit -20°C
SF	Single Fuse (120, 277)
DF	Double Fuse (208, 240)

Battery Backup not available with Triangle and Rounded Edge Fascia Forms.



ARCHITECTURAL AREA LIGHTING
17760 Rowland Street | City of Industry | CA 91748
P 626.968.5666 | F 626.369.2695 | www.aal.net
Copyright © 2017 | September 7, 2018 11:56 AM

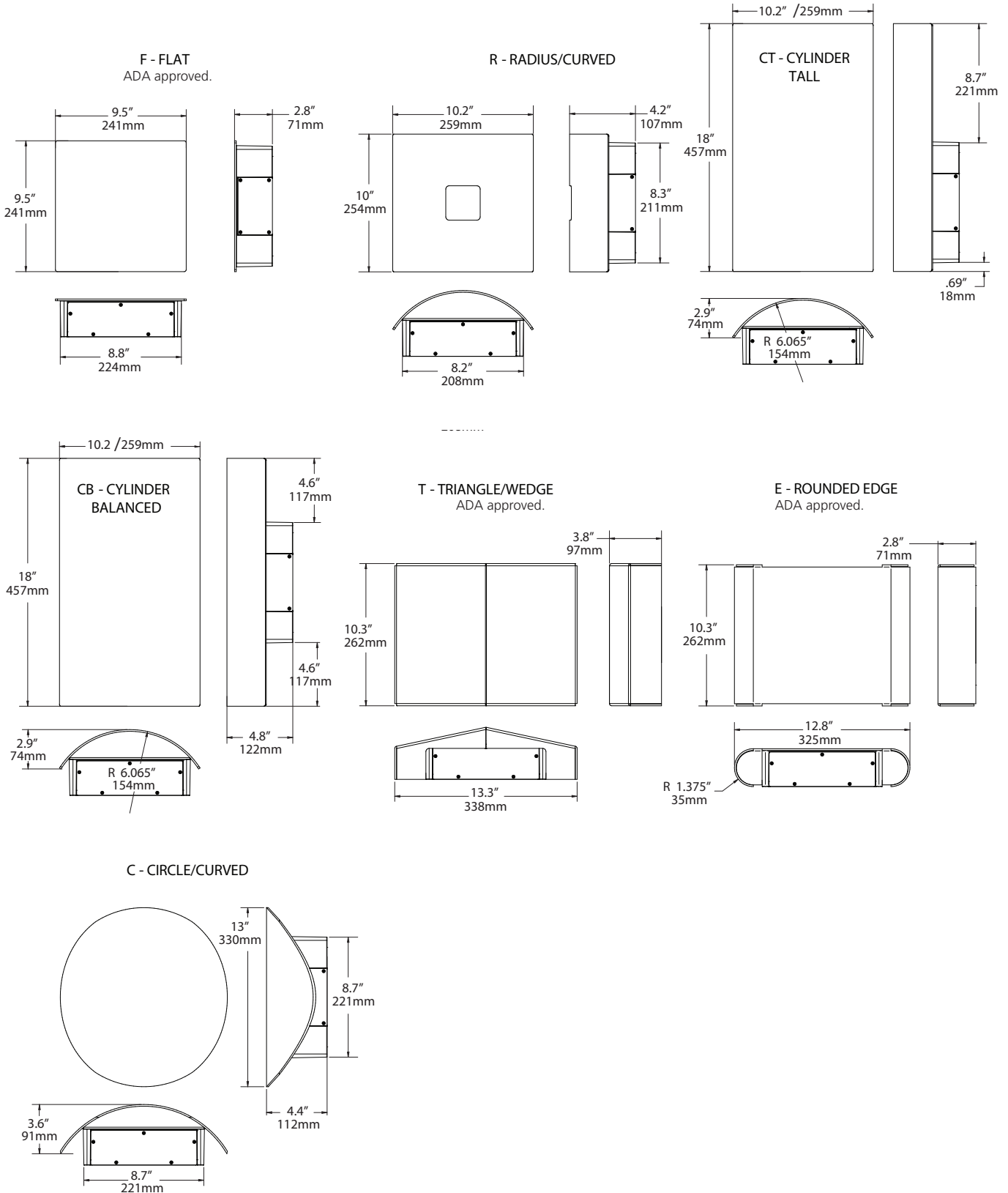
JOB _____
TYPE _____
NOTES _____

Distribution Matrix

FASCIA	DISTRIBUTION				
	1 Down Only	2 50 Down/50 Up	3 90 Down/10 Up	4 25/25/25/25 Split	5 70 Down 10/10/10 Split
Window/Options Flat* F	I, II, III, IV, SP, WG	I, II, III, IV, SP, WG	I, II, III, IV, SP, WG	SP/WG SP/WG	SP/WG/PB SP/WG/PB
Window/Options Radius R	SP/WG	SP/WG	SP/WG/PB SP/WG	SP/WG SP/WG	SP/WG/PB SP/WG/PB
Cylinder Balanced CB	SP/WG	SP/WG	SP/WG/PB SP/WG	SP/WG SP/WG	SP/WG/PB SP/WG/PB
Cylinder Tall CT	I, II, III, IV, SP, WG	SP/WG	SP/WG/PB I, II, III, IV, SP, WG	SP/WG SP/WG	SP/WG/PB I, II, III, IV, SP, WG
Triangle Wedge* T	I, II, III, IV, SP, WG	I, II, III, IV, SP, WG	SP/WG/PB I, II, III, IV, SP, WG		
Rounded Edge* E	I, II, III, IV, SP, WG	I, II, III, IV, SP, WG	SP/WG/PB I, II, III, IV, SP, WG		
Circle/ Curved C	SP, WG	SP, WG	SP/WG/PB SP, WG		
Ghost	I, II, III, IV, SP, WG	I, II, III, IV, SP, WG	SP/WG/PB I, II, III, IV, SP, WG	SP/WG SP/WG	SP/WG/PB SP/WG/PB

* ADA compliant for use in low mounting height applications (80 inches or less)
 2 Down/Up distributions must match
 4 Down/Up/Side distributions must match
 5 Top/Side distributions must match
 Contact factory for custom distributions

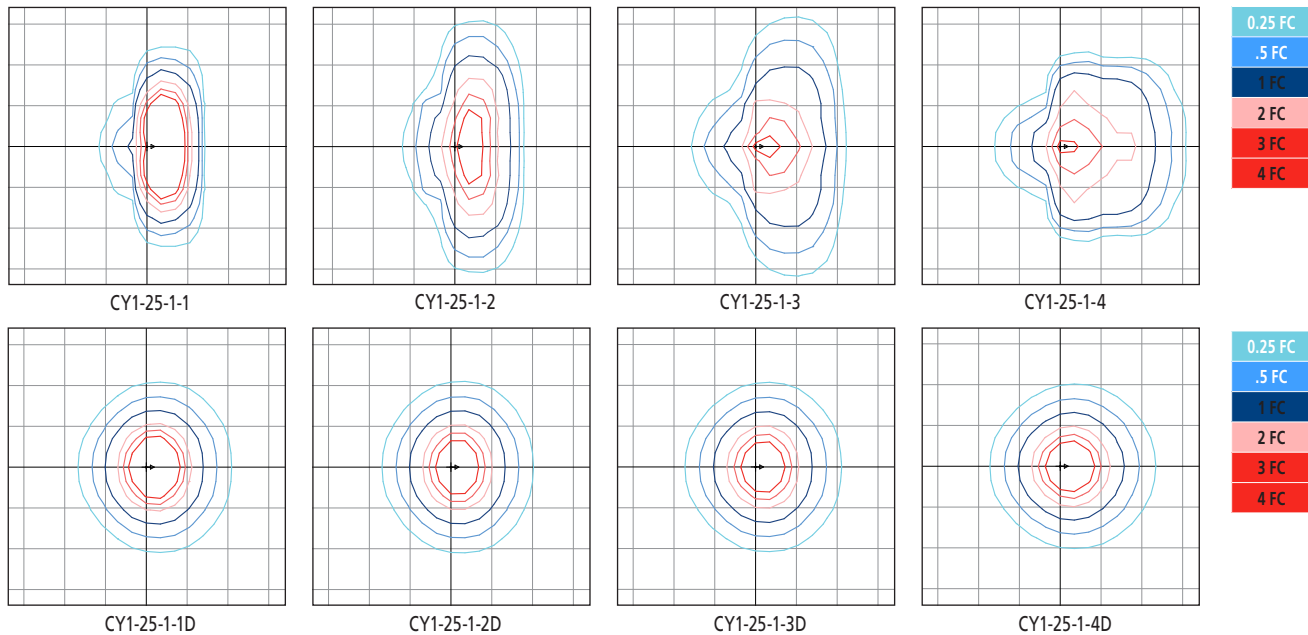
Drawings



LUMINAIRE PERFORMANCE

Downlight only			Configuration														
Nominal Output (Lm)	Average System Wattage	Distribution	Bright White (5000K)				Neutral White (4000K)				Warm White (3000K)						
			Delivered Lumens	Efficacy (Lm/W)	BUG Rating			Delivered Lumens	Efficacy (Lm/W)	BUG Rating			Delivered Lumens	Efficacy (Lm/W)	BUG Rating		
B	U	G			B	U	G			B	U	G					
1,500	17	Type 1	1923	113	0	0	0	1928	113	0	0	0	1825	107	0	0	0
		Type 2	1726	102	0	0	0	1730	102	0	0	0	1638	96	0	0	0
		Type 3	1750	100	0	0	1	1755	103	0	0	1	1661	98	0	0	1
		Type 4	1757	103	0	0	0	1762	104	0	0	0	1668	98	0	0	0
		Wall Graze	1971	114	1	0	0	1976	116	1	0	0	1871	110	1	0	0
		Spot/Column	1792	103	2	0	0	1797	106	2	0	0	1701	100	2	0	0
		Type 1 Diffused	1629	96	1	0	0	1634	96	1	0	0	1547	91	1	0	0
		Type 2 Diffused	1573	93	1	0	1	1577	93	1	0	0	1493	88	1	0	0
		Type 3 Diffused	1425	84	1	0	0	1429	84	1	0	0	1353	80	1	0	0
		Type 4 Diffused	1602	94	1	0	1	1607	95	1	0	0	1521	89	1	0	0
			5000K 70 CRI				4000K 70 CRI				3000K 70 CRI						
2,500	26	Type 1	2517	96	0	0	0	2524	97	0	0	0	2390	92	0	0	0
		Type 2	2233	85	1	0	1	2239	86	1	0	1	2120	82	1	0	1
		Type 3	2229	85	1	0	1	2236	85	1	0	1	2117	80	1	0	1
		Type 4	2319	88	1	0	1	2325	89	1	0	1	2201	85	1	0	1
		Wall Graze	2744	104	2	0	0	2752	106	2	0	0	2605	100	2	0	0
		Spot/Column	2471	94	2	0	0	2478	95	2	0	0	2346	90	2	0	0
		Type 1 Diffused	2344	89	1	0	1	2350	90	1	0	1	2225	86	1	0	1
		Type 2 Diffused	2062	79	1	0	1	2068	80	1	0	1	1958	75	1	0	1
		Type 3 Diffused	2050	78	1	0	1	2056	79	1	0	1	1946	75	1	0	1
		Type 4 Diffused	2123	80	1	0	1	2129	82	1	0	1	2016	78	1	0	1

ISOLINE TEMPLATES 10' Mounting Height, 10' Grid Spacing



ELECTRICAL CHARACTERISTICS

Lumen Pack- age	System Wattage (W)	Line Voltage		Input				Min. Power Factor	Max THD (%)	Dimming Range	Source/Sink Current (mA)		Absolute voltage range on 0-10v (+) Purple	
		VAC	Hz	120	277	347	480				Min.	Max.	Min.	Max.
1,500	17	120	50/60	0.1	0.1	0.0	0.0	>0.9	20	10% to 100%	0 mA	1 mA	0V	10V
2,500	26			0.2	0.1	0.1	0.1							

TM-21 LIFETIME CALCULATION (500mA)

Lumen Package	Ambient Environment °C	Projected Lumen Maintenance (Khrs)					Reported L70
		15	25	50	60 (TM-21)	100	
2,500	25	98%	97%	94%	92%	87%	>60Khrs.
	40	95%	93%	89%	87%	80%	



JOB _____

TYPE _____

NOTES _____

SPECIFICATIONS

HOUSING

- Main housing shroud shall be of fabricated 5052-H32 aluminum alloy
- Housing mounting interface shall have a stamped silicone gasket.
- Luminaire housing shall be free of any visible heat fins, hardware or fasteners.
- Bracketry and hardware shall be stainless steel.

OPTICAL ARRAY

- LEDs shall be mounted to a metal printed circuit board assembly (MCPCB) with a uniform conformal coating over the panel surface and electrical features.
- Optical lenses shall be clear injection molded PMMA acrylic.
- Optical array shall be recessed in order to shield each LED optic across the length of the aperture.
- Optical array shall be sealed for IP66 rating.
- Secondary lens is impact resistant 5/32" tempered glass.

ELECTRICAL

- Drivers shall be in direct contact with the die-cast aluminum housing across the entire surface area of the widest face for maximum thermal transfer.
- "Thermal Shield", primary side, thermister provides protection for the sustainable life of LED module and electronic components.
- Drivers shall have greater than a 0.9 power factor, less than 20% harmonic distortion, and be suitable for operation in -40°C to 40°C ambient environments
- Luminaires shall have integral surge protection that shall be U.L. recognized and have a surge current rating of 10,000 Amps using the industry standard 8/20uSec wave and surge rating of 372J. Surge protection device shall be wired in series.
- Drivers shall be U.L. recognized.
- Drivers shall not be compatible with current sourcing dimmers, consult factory for current list of known compatible dimming systems approved dimmers include Lutron Diva AVTV, Lutron Nova NFTV and NTFTV.
- Integral battery backup provides emergency path of egress lighting for the required 90 minutes for -20°C ambient environments.

SPECIFICATIONS

- Luminaire shall be capable of operating at 100% brightness in a 40°C environment. Both driver and optical array shall have integral thermal protection that will dim the luminaire upon detection of temperatures in excess of 85°C.
- Luminaires not configured with a control system shall be provided with 0-10 purple and gray dimming leads.



CONTROLS

- Button photocontrol for dusk to dawn energy savings
- PC12 for 120V, PC20 for 208V, PC24 for 240V, PC27 for 277V
- Photocell is factory installed inside the housing with a fully gasketed sensor on the side wall. For multiple fixture mountings, one fixture is supplied with a photocell to operate the others.

BLUETOOTH®

- RGBW option includes integral Bluetooth module, built into driver, that permits the adjustment of luminous front color when paired with Hubbell Remote App via cellular/tablet device.
- Bluetooth Low Energy (BLE) or Bluetooth Smart compatible for both iOS (iOS8 and forward) and Android (Gingerbread and forward) handheld software applications. Compatible with phones and tablets.
- Free Bluetooth Apps are available for Apple iOS and Google Android mobile devices and are downloadable via the internet at Apple App Store or Google Play.

MOUNTING AND INSTALLATION

- JUNCTION BOX: Standard with zinc-plated, quick-mount junction box plate that mounts directly to 4" J-Box
- Mounting plate features a one-piece EPDM gasket on back side of plate to firmly seal fixture to wall surface, forbidding entry of moisture and particulates.
- Fixture attaches by two Allen-head hidden fasteners for tamper resistance.
- Optional mounting arrangements utilize a die-cast mounting adaptor to allow for surface conduit and through branch wiring.

SERVICING

- Housing shall be able to hang freely in an open service position for inspection of internal wire connections. Once in service position, the housing shall be able to be removed for service by lifting the assembly up off the rear mounting plate and disconnecting the wiring plugs.
- Driver assembly shall be mounted to a prewired internal tray with quick disconnects for removal.

FINISH

- Luminaire finish shall consist of a five stage pretreatment regimen with a polymer primer sealer, oven dry off, and top coated with a thermoset super TGIC polyester powder coat finish.
- Luminaire finish shall meet the AAMA 605.2 performance specification which includes passing a 3000 hour salt spray test for corrosion resistance.

CERTIFICATION

- Luminaire shall be listed with UL for outdoor, wet location use, UL1598, UL 8750 and Canadian CSA Std. C22.2 no.250.
- IP66 rated assembly
- IDA approved, 3000K and warmer CCTs only.
- DesignLights Consortium® (DLC) qualified. Please refer to the DLC website for specific product qualifications at www.designlights.org.
- ANSI C136.31-2010 4G Vibration tested and compliant.
- Complies with "Americans with Disabilities Act" or "ADA" on select versions for low mounting height applications (fixtures extend maximum of 4 inches from wall for mounting heights of 80 inches or less).

WARRANTY / TERMS AND CONDITIONS OF SALE

Download:

Five year limited warranty (for more information visit: [http:// www.hubbellighting.com/resources/warranty/](http://www.hubbellighting.com/resources/warranty/)

The Bluetooth® word mark and logos are registered trademarks owned by Bluetooth SIG, Inc. and any use of such marks by AAL is under license. Other trademarks and trade names are those of their respective owners. Apple, the Apple logo, iPad, iPhone, and iPod Touch are trademarks of Apple Inc., registered in the U.S. and other countries. App Store is a service mark of Apple Inc. Google Play is a trademark of Google Inc.

Att. T

The following companies have been retained by the client.

Civil Engineering:
Walsh Engineering Associates, Inc.
One Karen Drive, Suite 2A
Westbrook, ME 04092

Architecture:
Whipple-Callender Architects (WCA)
136 Pleasant Avenue
Portland, ME 04103

Surveyor:
Stephen W. Everett
73 Pheasant Run Rd
East Waterboro, ME 04030

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

Stephen W. Everett PLS

Experience

2014-2020 **Self-employed as a Land Surveyor**

2006-2014 TRC Scarborough, ME

Senior Project Manager/ Senior Wetland Scientist

- Responsible for all surveys requiring a Professional Land Surveyors Certification. Boundary, Easement, Linear, Topographic. Drafting deed descriptions for real property and restrictive covenant easements for CMP and Bangor Hydro.
- Field Wetland Crew Lead for Delineations and Vernal Pool Studies for Spectra Pipelines.
- Wetland Mitigation Design, Design-builds and Inspections.

1996-2006 NDT/HDR Portland, ME

Professional Land Surveyor/ Senior Ecological Scientist

- Lead Surveyor on all related projects, mostly Engineering Support including Boundary, Topographic, Bathometric and Easements. Managed all Survey related activities associated with Maine Independent Station in Veaze, ME for Duke Energy.
- Responsible for the Wetland and RTE species section of the Lake of the Ozarks Hydro Relicensing.
- AutoCad Wetland Mitigation Designs, and Inspections for MEDOT for the rebuilding of Rt. 9.

1994-1996 Enterprise Engineering/Owen Haskell Yarmouth, ME

Cad Designer/Professional Land Surveyor

- GPS Dept. Supervisor doing Aerial Control Surveys for Municipal GIS at Owen Haskell
- Field Tank Inspections
- Cad Designer for underground fuel storage for the U.S. Government
-

Education

1971-1972 Paul Smith's College Paul Smith's NY

- Associates Degree in Liberal Arts

1974-1977 Weber State University Ogden, UT

- B.S. Degree in Zoology

ABOUT THE FIRM

Whipple | Callender Architects links innovation, sustainability, and wellness in all our building designs. We are dedicated to creating inspired environments by collaborating with our clients to clarify to their needs, transform how they work, and redefine their future. Our mission is to make your business more successful, increase staff satisfaction, and look to save costs over a building's life space through sustainable building approaches.

The uniqueness of each of our projects requires us to make proactive design decisions to create healthy environments, while meeting budget and schedule goals. We work with our clients to determine what sustainable and green architectural design considerations would be most beneficial. That fundamental commitment to the environment and the building occupants, informs intelligent design and guides the transformation of how people work in a more healthy and productive work space.

While specializing in Medical Office spaces, our diverse commercial building portfolio ranges from offices to restaurants, and beauty salon suites to assisted living facilities. Our Medical Office portfolio has focused on the patient experience while enhancing the staff productivity through thoughtful design to streamline their work processes.

Based in Portland since 1991, Whipple | Callender Architects is comprised of collegial, collaborative and experienced design professionals. Our staff is a combination of licensed architects, intern architects, and LEED accredited Building Design and Construction (BD+C) professionals.

John W. Whipple, Partner

M.A., Architecture, Yale School of Architecture, 1973
B.A., English, Lawrence University, 1967
Officer Commission, Army O.C.S., Fort Benning, GA 1970
Maine #889, issued 1977

Anne E. Callender, Partner

B.A., Architecture, Rhode Island School of Design, 1984
B.F.A., Architecture, Rhode Island School of Design, 1983
Maine #1861, issued 1991; LEED AP BD+C, 2009

Joseph A. Delaney, Licensed Architect

B.A., Architecture, Rhode Island School of Design, 1985
B.F.A., Architecture, Rhode Island School of Design, 1982
Maine #1722, issued 1989; LEED AP BD+C, 2009

Nicholas P. Canedy, Intern Architect

B.A., Biochemistry, Bowdoin College, 2001
M.A., Architecture, Virginia Tech, 2008

Catherine Callender, Architectural Designer

Carnegie Mellon University, 1986
Boston Architectural College, 2008

Jack C. Riley, Intern Architect

B.A., Architecture, Wentworth Institute of Technology, 2017
M.A., Architecture, Wentworth Institute of Technology, 2018

844 Stevens Avenue

Parker, Janet <janet.parker@maine.gov>

Fri, Jun 5, 2020 at 10:49 AM

To: "kcook@portlandmaine.gov" <kcook@portlandmaine.gov>

Cc: "planningboard@portlandmaine.gov" <planningboard@portlandmaine.gov>, "croadman@portlandmaine.gov" <croadman@portlandmaine.gov>

June 5, 2020

Kimberly Cook

Portland City Councilor, District 5

Dear Ms Cook,

I am writing to you as our City Council representative for District 5. I have been a resident of Mayfield Street for over 20 years. Many neighbors are long-term residents as well. This is a quiet, stable, residential area, a very pleasant and isolated neighborhood.

I have two concerns that have arisen due to the proposed development at [844 Stevens Avenue](#). One set of concerns is about the development itself. The second is about Morrill's Corner traffic. I would like to share my concerns with you, and as our representative to the City ask that you consider the needs, wants, and opinions of us who are closest to both the proposed development and Morrill's Corner.

I will be participating in the planning process and request that you attend as well. The next meeting is a virtual planning workshop on June 9th.

First I will discuss my concerns with the proposed development. The plans we were shown look nice enough from Stevens Avenue, but none of the drawings showed Mayfield Street, nor the perspective of the development from Mayfield Street or Bishop Street. (There was one drawing of the development from across Bishop Street, but not from further down Bishop Street.) It is as if we do not exist, the developer has erased us from the picture, we are not included in their review, we are ignored. I would like the developer to include Mayfield Street and our homes in the drawings.

This brings me to my second concern. The development is too big and too close. The proposed building is planned to be 4 stories high. That is twice the height of our homes and will tower over us. Only the existing building is close to that height at 3 stories and is located on Stevens Avenue. The new building will be almost twice as large in the footprint as well as height and will be off Bishop Street and adjacent to the homes on Mayfield Street. This large building is out of scale with the existing buildings. The apartments proposed for this building will have a direct view into our homes and yards, invading our privacy like a peeping Tom. The developer did say they will use directed lighting that will not shine in our yards and homes. That is very important in our family-friendly neighborhood. I would like to see the development plan include the scale differences between the proposed development and the existing neighborhood, and to show the proximity of the new building to the existing homes. I feel the new building should not exceed 3 stories and should be moved closer to Stevens Avenue.

The next concern is the traffic and parking. The proposed development includes 21 housing units, some of which will be 2 bedroom units. With at least one vehicle per unit, that would mean they would need 21 parking places for residents. They also plan business uses which will require parking. The plan shows only 23 on-site parking places. That is not sufficient parking for the planned uses. This indicates that residents and businesses will likely park on Bishop Street and possibly Mayfield Street. There is not enough parking available for the planned uses.

Another concern is the traffic at Morrill's Corner. The developer indicated that the City intends to make Bishop Street one-way. The City has not included us, those closest and who probably use the intersection more than anyone else, asking us what we think. Again, we are being ignored. I have many suggestions for improving traffic at Morrill's Corner.

The green arrow directing traffic onto Stevens Avenue is not appropriate. Many drivers do not stop for it, using it like a 'right on red' and swiftly proceed up the road. Stevens Avenue has several traffic calming raised crosswalks. If the City is trying to calm traffic, then why are they speeding it just before? This light should be removed.

There should be a designated left turn from both Stevens Avenue and Forest Avenue. This will require stopping inbound traffic at the intersection, which will also calm traffic, and allow us to turn down Bishop Street safely.

The green light at Bishop Street is too short, about 3 cars can get through if Forest Avenue is clear. Coming from the gas station across the street and trying to go down Bishop Street, using the green light to proceed, is nearly impossible. Traffic outbound on Forest Avenue does not stop for the red light there and runs through the green light we have. I have almost had several accidents at this location for exactly that reason – running the red light on Forest Avenue.

I understand that this is a difficult situation. But it seems as though the City is making plans without considering what the residents need. I did attend a planning meeting quite a while ago concerning the Forest Avenue corridor. It looked like the plan is to speed traffic through this intersection which is not compatible with the residential areas that need to safely access the road. Again, the City is ignoring the residents and their needs.

In closing, I request that you attend the planning meetings for this development. I invite you to visit our neighborhood and envision yourself living here and consider the effect of this development if you lived here. I welcome an opportunity to discuss this further with you. I can be reached at 797-7165, or jpparker2011@gmail.com.

Thank you very much,

Janet Parker

[9 Mayfield Street](#)

[Portland, Maine 04103](#)

Cc: Christian Roadman, Planner, Portland Planning Department

844 Stevens Ave PL-000961-2020

Jessica Van Dyke <jlvandyke@gmail.com>

Fri, Jun 5, 2020 at 11:27 AM

To: planningboard@portlandmaine.gov, croadman@portlandmaine.gov

Cc: kcook@portlandmaine.gov

Dear Members of the Planning Board of the City of Portland,

I would like to take this opportunity to express concerns regarding proposed development at [844 Stevens Avenue](#). Of note, I would wish to be clear that I do not oppose conversion of this property to residential use. The property is currently unattended and poorly monitored and as such has been used recently and over the past few years for illegal dumping of trash and bulky items and as a private space to inject illicit substances, consume alcohol, publicly defecate and camp overnight. A well maintained and safely monitored residential building should deter those activities.

My primary concern relates to the scale of the proposed new 16 unit building.

1. There are no comparable existing 4 story buildings in the area. The proposed building is vastly out of scale with existing abutting residential zone as well as existing businesses anywhere nearby. While consideration is noted to the visual impact from Bishop Street and Stevens Ave, none is given to the residential neighborhood that abuts the property. The new building would be located at the rear of the property and therefore does not contribute to the desired street wall.
2. The height of the building will impact properties in the adjacent residential zone on Mayfield Street including loss of sunlight to neighboring properties, increased light and noise pollution (see plans to locate HVAC to residential boarder of the property to remediate noise impact?) and great loss of privacy via the recessed rear deck (existing 6 foot privacy fence at 6 Mayfield will provide no privacy from deck elevation) as well as 3rd and 4th story windows.
3. Parking is a huge concern for our existing neighborhood residents. The plan for 7 two bedroom units and 9 one bedroom market rate apartments in the new structure as well as the apartments (5?) and businesses in the existing structure. It is reasonable to expect that residents of many of the proposed units will require parking for multiple vehicles. The site plans for 22 parking spots for both residents and business owners/customers. This is simply not adequate. One can presume as demand cannot be met onsite, overflow will creep onto Bishop street (which is not currently signed for parking and even now presents a hazard to pull onto from Mayfield Street) and onto Mayfield Street. As a dead-end street with 100 year old homes, we rely heavily on on-street parking availability in front of our homes. This concern has been addressed in the past by UNE development and UNE created campus parking shuttle solutions. Unlike students, residents would be presumably be able to apply and receive parking permits for neighborhood parking on Mayfield Street. Persons seeking parking on Mayfield who do not live here will increase traffic to our dead end neighborhood that is more than half comprised of young families and homes with children and this presents and increased risk for the safety of children at play and awaiting school buses.
4. Traffic on Bishop Street from Warren, Forest and Stevens Avenues is already a safety concern. The intersection at Morrill's Corner is dicey at best as the red lights are often run drivers, intersections are frequently blocked and traffic barrels down Bishop toward the intersection to try to catch a green light. The proposed new building will add to that burden. Please also consider the frequency with which Emergency Services/First Responders need to access Bishop street to service Huston Commons and Pine Tree Rehab. Their response time and safety cannot be allowed to be compromised as they serve these sites on a nearly daily basis.

I feel that it would be a mistake to negatively impact existing neighborhood communities, even a small one such as ours. We look out for each other, respect our neighbors and local businesses and keep well-maintained family homes that add value to the City of Portland. The fact that our street is a dead end in a beautiful city has made it a wonderful and safe place to raise our families and we ask that preserve the safety and peacefulness of our community.

Thank you so much for your time and consideration. Please feel free to contact me directly with any questions or concerns.

Sincerely,

Jessica Van Dyke
6 Mayfield Street
Portland, ME 04103
207.712.0235
jlvandyke@gmail.com



Christian Roadman <croadman@portlandmaine.gov>

844 Stevens Ave PL-000961-2020

Elena Lippolis <elippolis@une.edu>

Fri, Jun 5, 2020 at 12:03 PM

To: "planningboard@portlandmaine.gov" <planningboard@portlandmaine.gov>, "croadman@portlandmaine.gov" <croadman@portlandmaine.gov>
Cc: "kcook@portlandmaine.gov" <kcook@portlandmaine.gov>, Jessica Van Dyke <jlvandyke@gmail.com>, "Parker, Janet" <janet.parker@maine.gov>

This message was sent securely using Zix®

Dear Members of the Planning Board of the City of Portland,

As a resident of Mayfield Street, I concur with my fellow neighbors, Janet Parker (attached), and Jessica Van Dyke's (below) concerns for the proposed development at [844 Stevens Avenue](#). In addition to our existing challenges with Huston Commons residents loitering, littering, and abusing substances on our properties, I do not see our small and peaceful community being able to adjust to the parking, noise, light, and traffic challenges presented by this new development at 844 Stevens. One of the benefits to a small community like ours, is that you know everyone. They are not just neighbors but family. We want to keep our family safe.

Thank you for your time and consideration,

Elena Lippolis

10 Mayfield Street

Portland, ME 04103

207.415.3685

[Quoted text hidden]

This message was secured by Zix®¹⁷⁴.

----- Forwarded message -----

From: "Parker, Janet" <janet.parker@maine.gov>

To: "Jessica Van Dyke" <jlvandyke@gmail.com>, "ssmall2@maine.rr.com" <ssmall2@maine.rr.com>, Matt Reba <mattreba@gmail.com>, Matt Hutton <mhutton@meca.edu>, Elena Lippolis <elippolis@une.edu>, "Caruso, Jessica" <jcaruso@allagash.com>

Cc:

Bcc:

Date: Fri, 5 Jun 2020 14:55:01 +0000

Subject: RE: FYI

Hi Neighbors,

Thanks Jess – like Elena just said “Go Mayfield”!

I too just sent a letter to Ms. Cook, the planner, and the planning board. The letter is copied below.

I would hope that if we all pull together the city might listen to us.

Janet

June 5, 2020

Kimberly Cook

Portland City Councilor, District 5

Dear Ms Cook,

I am writing to you as our City Council representative for District 5. I have been a resident of Mayfield Street for over 20 years. Many neighbors are long-term residents as well. This is a quiet, stable, residential area, a very pleasant and isolated neighborhood.

I have two concerns that have arisen due to the proposed development at [844 Stevens Avenue](#). One set of concerns is about the development itself. The second is about Morrill's Corner traffic. I would like to share my concerns with you, and as our representative to the City ask that you consider the needs, wants, and opinions of us who are closest to both the proposed development and Morrill's Corner.

I will be participating in the planning process and request that you attend as well. The next meeting is a virtual planning workshop on June 9th.

First I will discuss my concerns with the proposed development. The plans we were shown look nice enough from Stevens Avenue, but none of the drawings showed Mayfield Street, nor the perspective of the development from Mayfield Street or Bishop Street. (There was one drawing of the development from across Bishop Street, but not from further down Bishop Street.) It is as if we do not exist, the developer has erased us from the picture, we are not included in their review, we are ignored. I would like the developer to include Mayfield Street and our homes in the drawings.

This brings me to my second concern. The development is too big and too close. The proposed building is planned to be 4 stories high. That is twice the height of our homes and will tower over us. Only the existing building is close to that height at 3 stories and is located on Stevens Avenue. The new building will be almost twice as large in the footprint as well as height and will be off Bishop Street and adjacent to the homes on Mayfield Street. This large building is out of scale with the existing buildings. The apartments proposed for this building will have a direct view into our homes and yards, invading our privacy like a peeping Tom. The developer did say they will use directed lighting that will not shine in our yards and homes. That is very important in our family-friendly neighborhood. I would like to see the development plan include the scale differences between the proposed development and the existing neighborhood, and to show the proximity of the new building to the existing homes. I feel the new building should not exceed 3 stories and should be moved closer to Stevens Avenue.

The next concern is the traffic and parking. The proposed development includes 21 housing units, some of which will be 2 bedroom units. With at least one vehicle per unit, that would mean they would need 21 parking places for residents. They also plan business uses which will require parking. The plan shows only 23 on-site parking places. That is not sufficient parking for the planned uses. This indicates that residents and businesses will likely park on Bishop Street and possibly Mayfield Street. There is not enough parking available for the planned uses.

Another concern is the traffic at Morrill's Corner. The developer indicated that the City intends to make Bishop Street one-way. The City has not included us, those closest and who probably use the intersection more than anyone else, asking us what we think. Again, we are being ignored. I have many suggestions for improving traffic at Morrill's Corner.

The green arrow directing traffic onto Stevens Avenue is not appropriate. Many drivers do not stop for it, using it like a 'right on red' and swiftly proceed up the road. Stevens Avenue has several traffic calming raised crosswalks. If the City is trying to calm traffic, then why are they speeding it just before? This light should be removed.

There should be a designated left turn from both Stevens Avenue and Forest Avenue. This will require stopping inbound traffic at the intersection, which will also calm traffic, and allow us to turn down Bishop Street safely.

The green light at Bishop Street is too short, about 3 cars can get through if Forest Avenue is clear. Coming from the gas station across the street and trying to go down Bishop Street, using the green light to proceed, is nearly impossible. Traffic outbound on Forest Avenue does not stop for the red light there and runs through the green light we have. I have almost had several accidents at this location for exactly that reason – running the red light on Forest Avenue.

I understand that this is a difficult situation. But it seems as though the City is making plans without considering what the residents need. I did attend a planning meeting quite a while ago concerning the Forest Avenue corridor. It looked like the plan is to speed traffic through this intersection which is not compatible with the residential areas that need to safely access the road. Again, the City is ignoring the residents and their needs.

In closing, I request that you attend the planning meetings for this development. I invite you to visit our neighborhood and envision yourself living here and consider the effect of this development if you lived here. I welcome an opportunity to discuss this further with you. I can be reached at 797-7165, or jpparker2011@gmail.com.

Thank you very much,

Janet Parker

[9 Mayfield Street](#)

[Portland, Maine 04103](#)

Cc: Christian Roadman, Planner, Portland Planning Department

From: Jessica Van Dyke <jlvandyke@gmail.com>

Sent: Friday, June 05, 2020 10:39 AM

To: Parker, Janet <janet.parker@maine.gov>; ssmall2@maine.rr.com; Matt Reba <mattreba@gmail.com>; Matt Hutton <mhutton@meca.edu>; Elena Lippolis <ELippolis@une.edu>;

Caruso, Jessica <jcaruso@allagash.com>

Subject: FYI

EXTERNAL: This email originated from outside of the State of Maine Mail System. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hello All-

Awaiting email addresses from several neighbors but I wanted to paste below what I sent to Kimberly Cook at City Council (kcook@portlandmaine.gov) regarding 844 Stevens Ave. I'll BCC you on correspondence I send to Planning Board later today and from here forward. Feel free to sign and forward, modify as you see fit, etc.

The city does note that written correspondence to the planning board should be submitted the Friday before the meeting. The email addresses for the planning board are planningboard@portlandmaine.gov and the planner involved is Christian Roadman croadman@portlandmaine.gov

Sent today:

"Dear Ms. Cook,

I am writing to you today to inform you of concerns that I have and share with my neighbors regarding the proposed development at [844 Stevens Avenue](#). Of greatest concern is the proposed new construction of a 16 unit apartment building that will dramatically impact our existing neighborhood community on Mayfield Street.

I plan to attend the Portland Planning Division meeting on Tuesday, June 9 at 4:30pm to discuss this via the remote workshop. I am asking for your help and support for our neighborhood residents on this issue and for your presence at the workshop if at all possible.

I will CC you on forthcoming email communication to the Planning Board.

Thank you very much for your time and consideration.

Sincerely,

Jessica Van Dyke

[6 Mayfield St, Portland, ME 04103](#)

jlvandyke@gmail.com

207.712.0235"

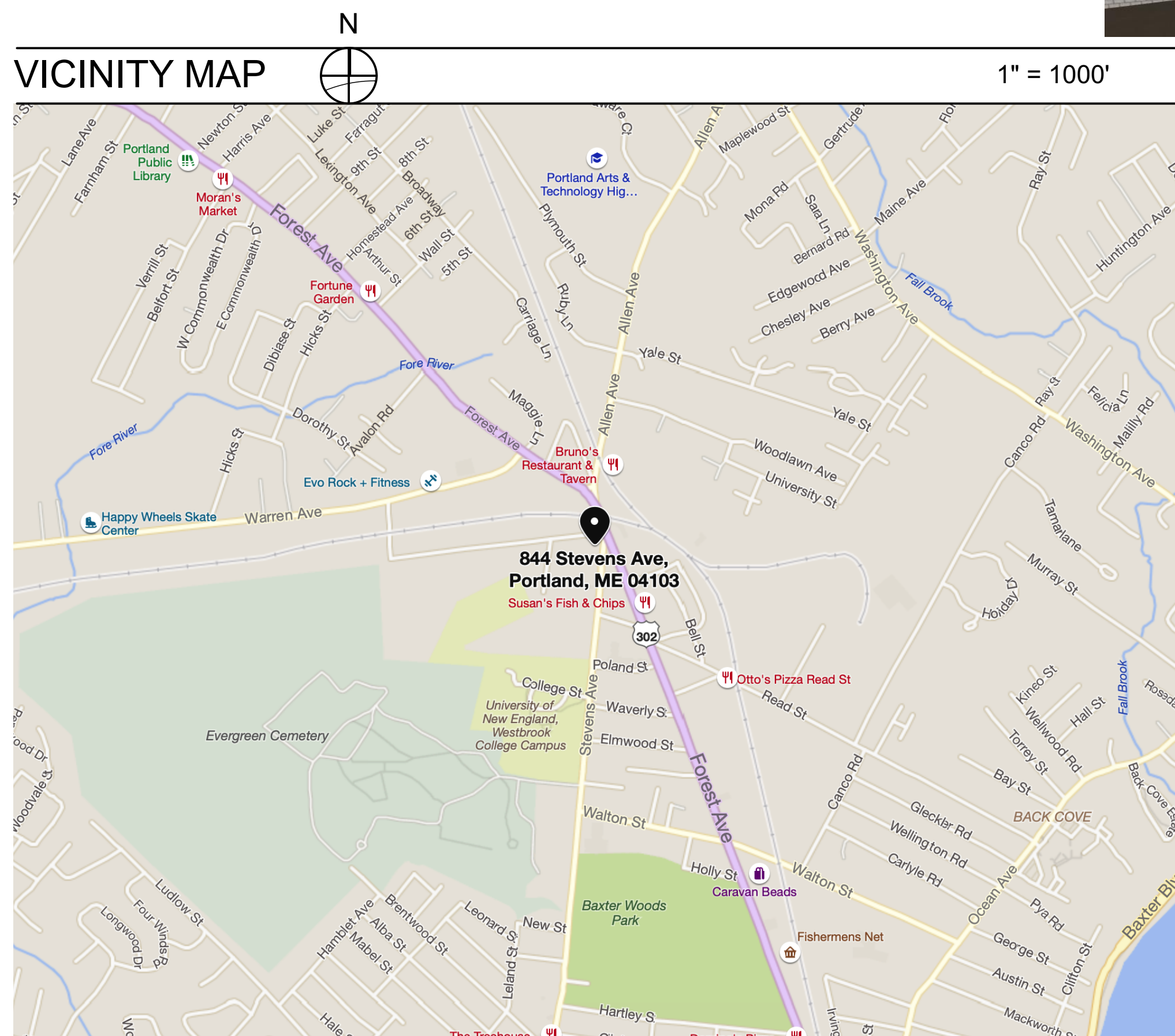
Thanks to all of you for your help and support.

Jess



RE: FYI.eml
41K

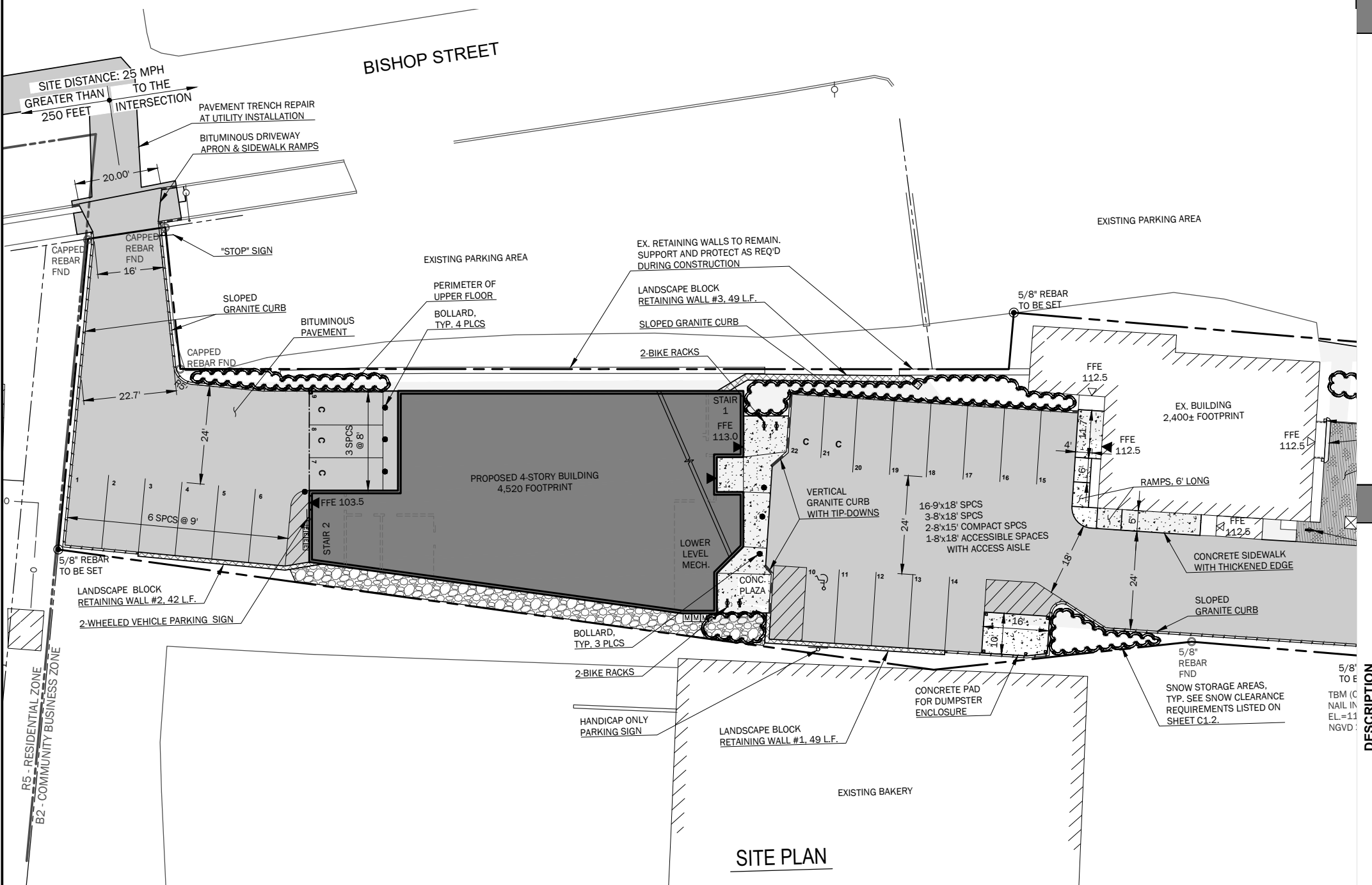
PORTLAND, ME



SITE SKETCH

 $1'' = 30'$

- | | | |
|------------------|--------------------|-------------------------|
| ZONING: | B2 | FRONT YARD SET BACK 10' |
| | | SIDE YARD SET BACK 0' |
| | | REAR YARD SET BACK 10' |
| | | MAX. BLDG. HT. 45' |
| SITE AREA: | 22,199 SF | |
| BLDG USE: | RESIDENTIAL | |
| OCC. GROUP: | RESIDENTIAL | |
| CONST. TYPE: | TYPE V PROTECTED | |
| CLIMATE ZONE: | 6 | |
| BLDG. CODE: | IBC 2015 | |
| FIRE SPRINKLERS: | YES- 13 COMMERCIAL | |



SHEET INDEX

RENOVATION OF EXISTING BUILDING

CONSTRUCTION OF NEW APARTMENT BUILDING

SITE WORK

SIDEWALK IMPROVEMENTS

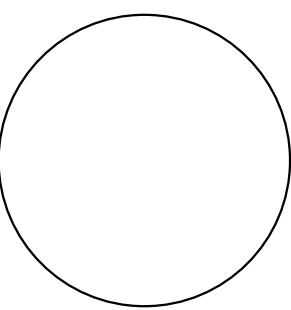
BISHOP STREET ACCESS

SHEET INDEX	
ID	Name
A0.1	TITLE SHEET
A0.2	GENERAL NOTES
A1.1	FIRST FLOOR PLAN
A1.2	SECOND FLOOR PLAN
A1.3	THIRD FLOOR PLAN
A1.4	PARKING LEVEL
A1.5	EXISTING BLDG/ FLOOR PLAN
A1.6	EXISTING SECOND FLR.
A1.7	EXISTING THIRD FLR.
A2.1	ELEVATIONS
A3.1	SECTIONS
A4.1	FIRST FLOOR PLAN
A5.1	WALL TYPES
A5.2	WINDOW DETAILS

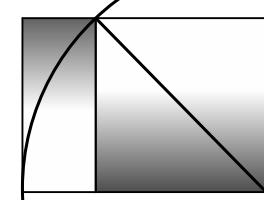
THIS DRAWING IS AN INSTRUMENT OF SERVICE AND SHALL REMAIN THE PROPERTY OF WHIPPLE CALLENDER ARCHITECTS
IT SHALL NOT BE USED FOR ANY OTHER PURPOSE THAT FOR WHICH IT IS SPECIFICALLY FURNISHED

844 STEVENS AVENUE APARTMENTS

PORTLAND, ME



WHIPPLE
CALLENDER
ARCHITECTS



136 PLEASANT AVE.
PORTLAND, ME 04103
P 207.775.2696
F 207.775.3631
www.whipplecallender.com

[illegible]

DATE: 1/6/20

HECKED BY:

JAD

DRAWN BY: JCB

JB:

1

SHEET TITLE:

TITLE CUR

TITLE SHEET

40

AU.

ABBREVIATIONS

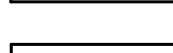
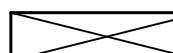
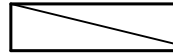
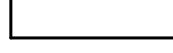
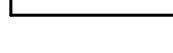
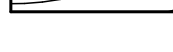
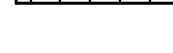
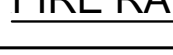
AB	ANCHOR BOLT
AB	AIR BARRIER
AC	AIR CONDITIONING
ADDL	ADDITIONAL
ADJ	ADJUSTABLE
AFF	ABOVE FINISHED FLOOR
AH	AIR HANDLER
AIB	AIR INFILTRATION BARRIER
ALT	ALTERNATE
ALUM	ALUMINUM
AOR	AREA OF REFUGE
APPROX	APPROXIMATE
ARCH	ARCHITECT(URAL)
ARND	AROUND
AWP	ACOUSTICAL WALL PANEL

BD	BOARD
BF	BARRIER FREE
BIT	BITUMINOUS
BLDG	BUILDING
BLKG	BLOCKING
BM	BENCHMARK
BOT	BOTTOM
BO	BOTTOM OF
BRK	BRICK
BRG	BEARING
B/S	BRICK SHELF
BSMT	BASEMENT

LAB	LABORATORY
LAM	LAMINATE(D)
LAV	LAVATORY
LAV	LB
LCC	LEAD COATED COPPER
LF	LINEAR FOOT
LH	LEFT HAND
LOC'N	LOCATION
LW	LIGHTWEIGHT (CMU)
MS	MASONRY
MATL	MATERIAL
MAX	MAXIMUM
MC	MEDICINE CABINET
MCWF	MULTICOLOR WALL FINISH
MDO	MEDIUM DENSITY OVERLAY
MECH	MEDICAL
MED	MEDIUM
MF	MEMBRANE FLASHING
MFR	MANUFACTURER
MH	MANHOLE
MIN	MINIMUM
MISC	MISCELLANEOUS
MLDG	MOULDING
MO	MASONRY OPENING
MR	MOISTURE RESISTANT
MRGB	MOISTURE RESISTANT GYPSUM BOARD
MS	MOIST
MSF	METAL STUD FRAMING
MTL	METAL

LEGEND

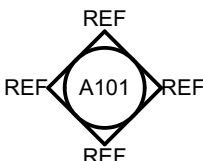
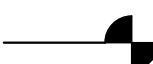
MATERIALS

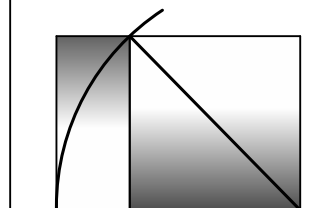
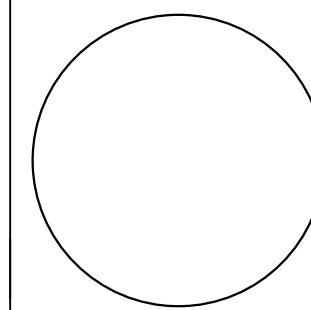
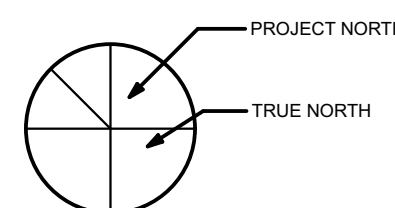
	GRAVEL
	CONCRETE MASONRY UNIT
	BRICK
	CONCRETE
	SOIL
	STEEL
	WOOD FRAMING
	WOOD BLOCKING
	PLYWOOD
	GYPSUM BOARD
	BATT INSULATION
	RIGID INSULATION
	EXPANSION MATERIAL
	FINISH WOOD

FIRE RATING

 2 HOUR RATED FIRE SEPARATION
 1 HOUR RATED FIRE SEPARATION
 SMOKE PARTITION

SYMBOLS

	PLUMBING FIXTURE
	BARRIER FREE FIXTURE
Room Name	ROOM NUMBER
	
101	DOOR NUMBER
	WINDOW TYPE; LETTER DESIGNATES EXTERIOR
	BORROWED LITE TYPES; DESIGNATED BY NUMBER
	FLOOR LEVEL CHANGE
	BUILDING SECTION
	WALL SECTION
	DETAIL REFERENCE
	WALL OR ROOF TYPE
	ELEVATION REFERENCE
	VERTICAL ELEVATION
	COLUMN CENTERLINE

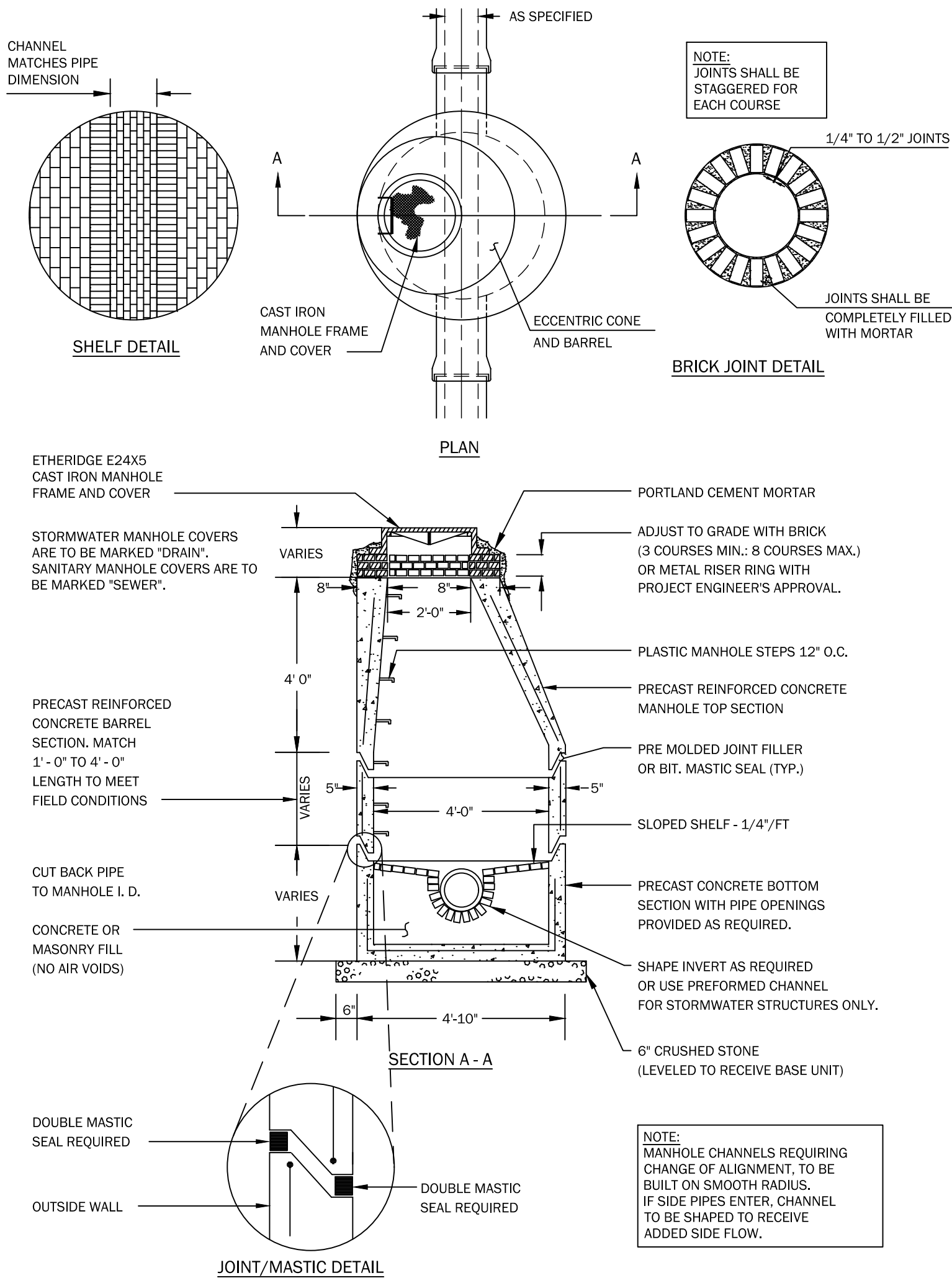


136 PLEASANT AVE.
PORTLAND, ME 04103
P 207.775.2696
F 207.775.3631
www.whipplecallender.com

[illegible]

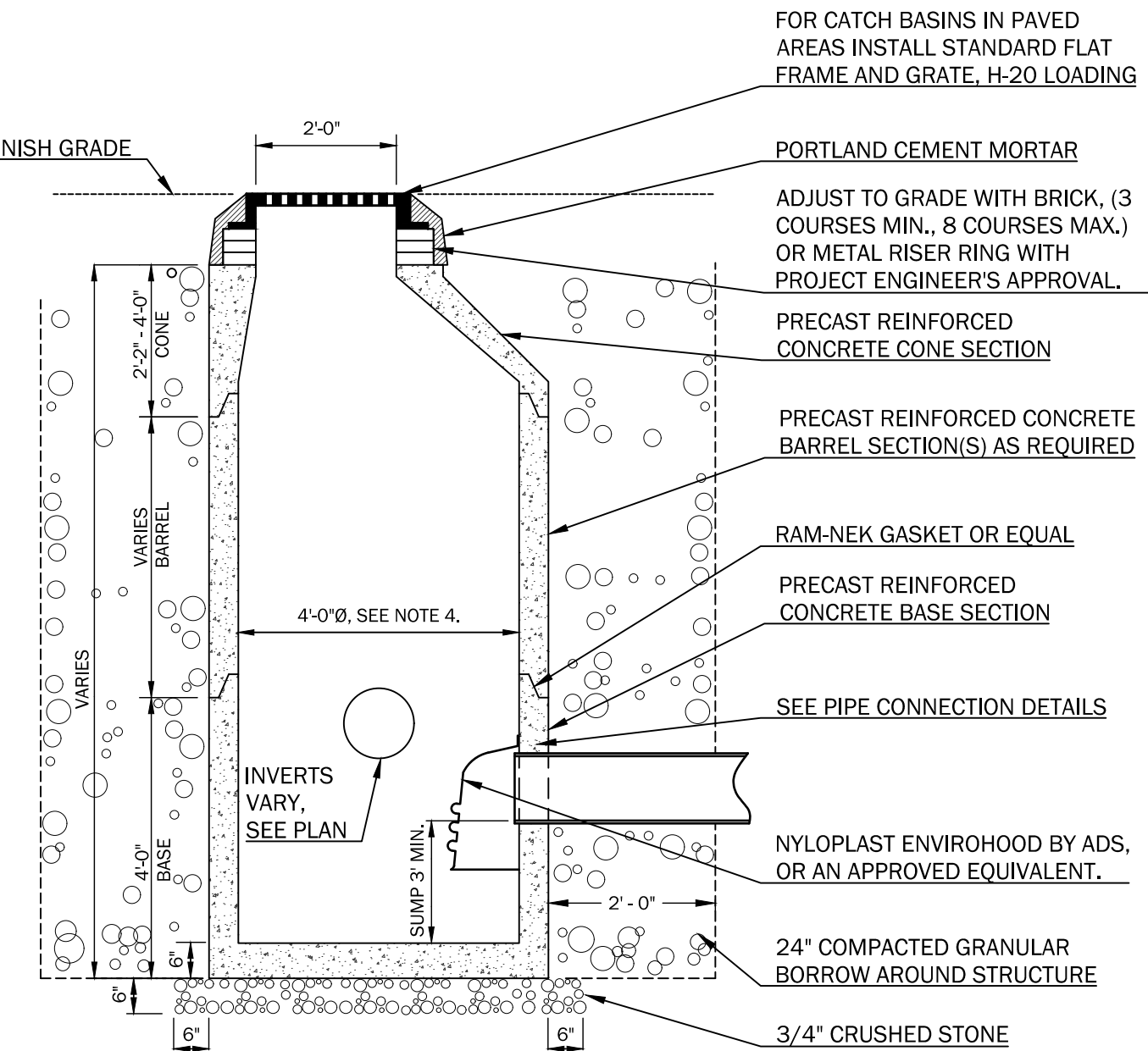
DATE:	1/6/20
CHECKED BY:	JAD
DRAWN BY:	JCR
JOB:	1
SHEET TITLE:	

GENERAL NOTES



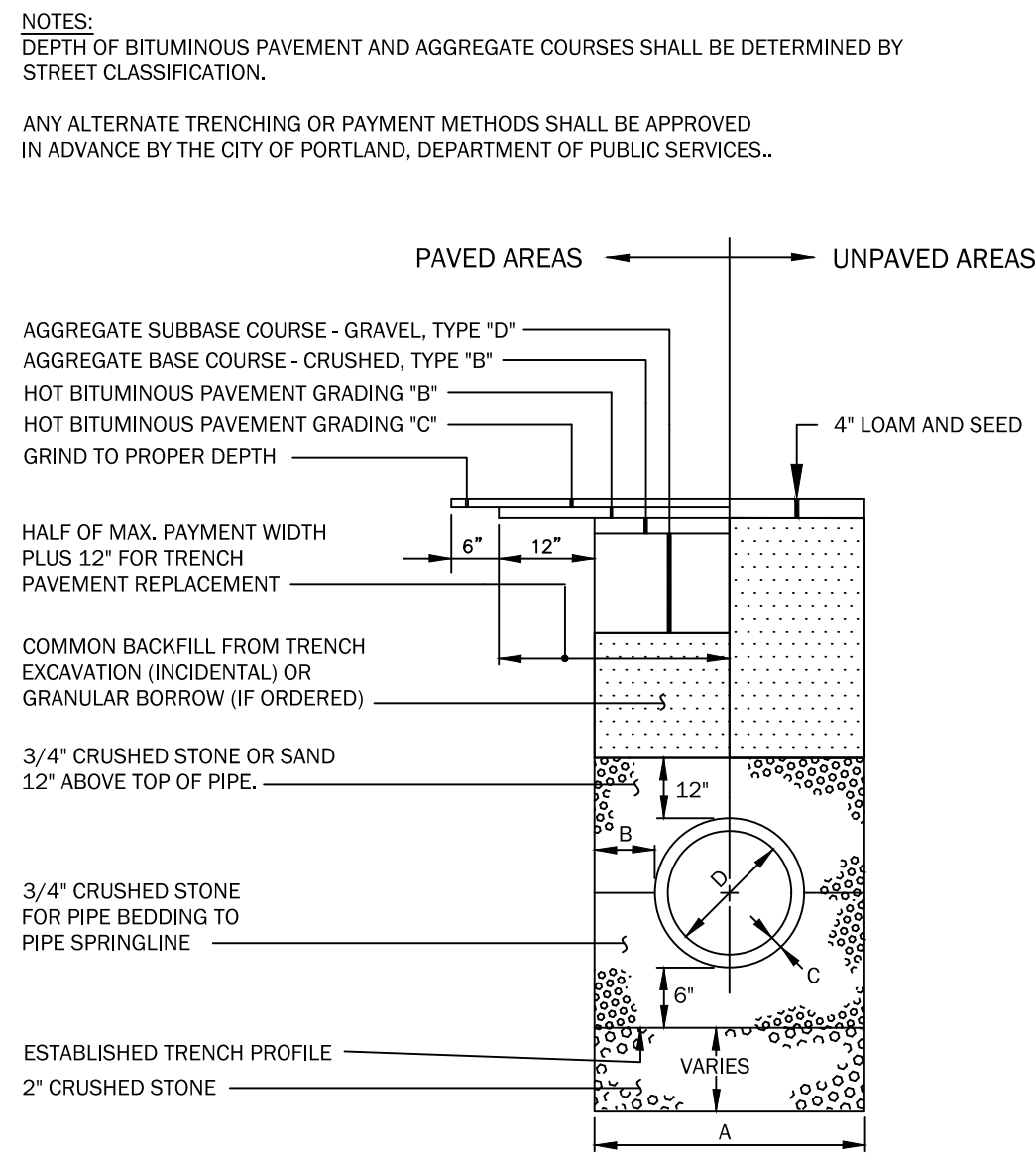
1 PRECAST CONCRETE MANHOLE DETAIL - FIGURE II-1

NOT TO SCALE



6 PRECAST CONCRETE CATCH BASIN - SIMILAR TO FIGURE II-2

NOT TO SCALE



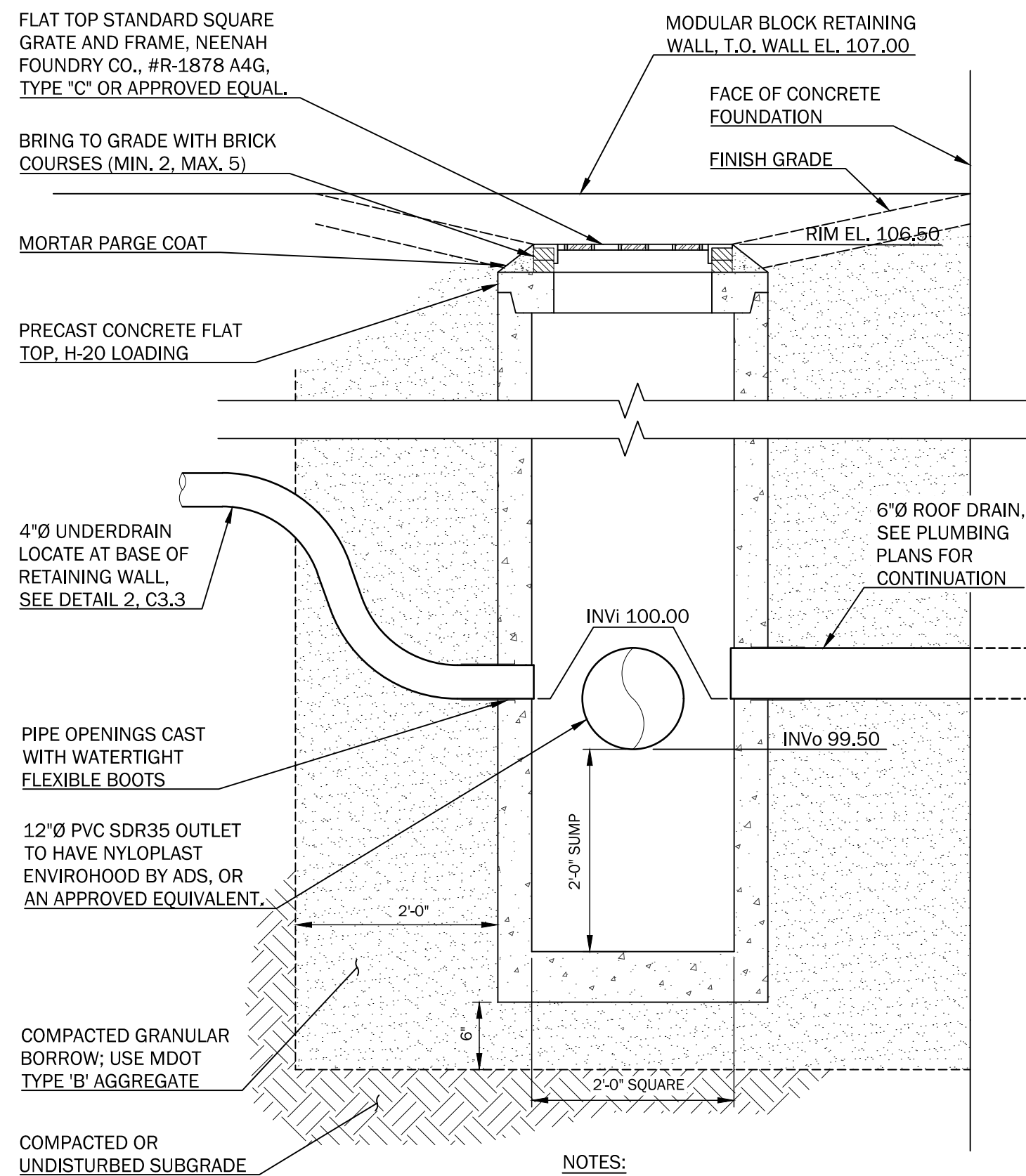
2 TYPICAL PIPE TRENCH INSTALLATION & INSTALLATION NOTES - FIGURE II-12

NOT TO SCALE

1. ALL CONCRETE SHALL HAVE A MINIMUM ULTIMATE COMPRESSIVE STRENGTH OF 4000 LBS. PER SQ. INCH AT THE END OF 28 DAYS, UNLESS OTHERWISE NOTED.
2. MANHOLES MAY BE CONSTRUCTED OF PRECAST REINFORCED CONCRETE, OR CAST IN PLACE.
3. PRECAST REINFORCED CONE BARREL MANUFACTURED PER ASTM SPEC. C-478.
4. ALL STORM AND SEWER MANHOLE COVERS SHALL BE SOLID AND SHALL HAVE ONE 7/8\"/>

3 GENERAL NOTES FOR MANHOLES AND CATCH BASINS - FIGURE II-4

NOT TO SCALE

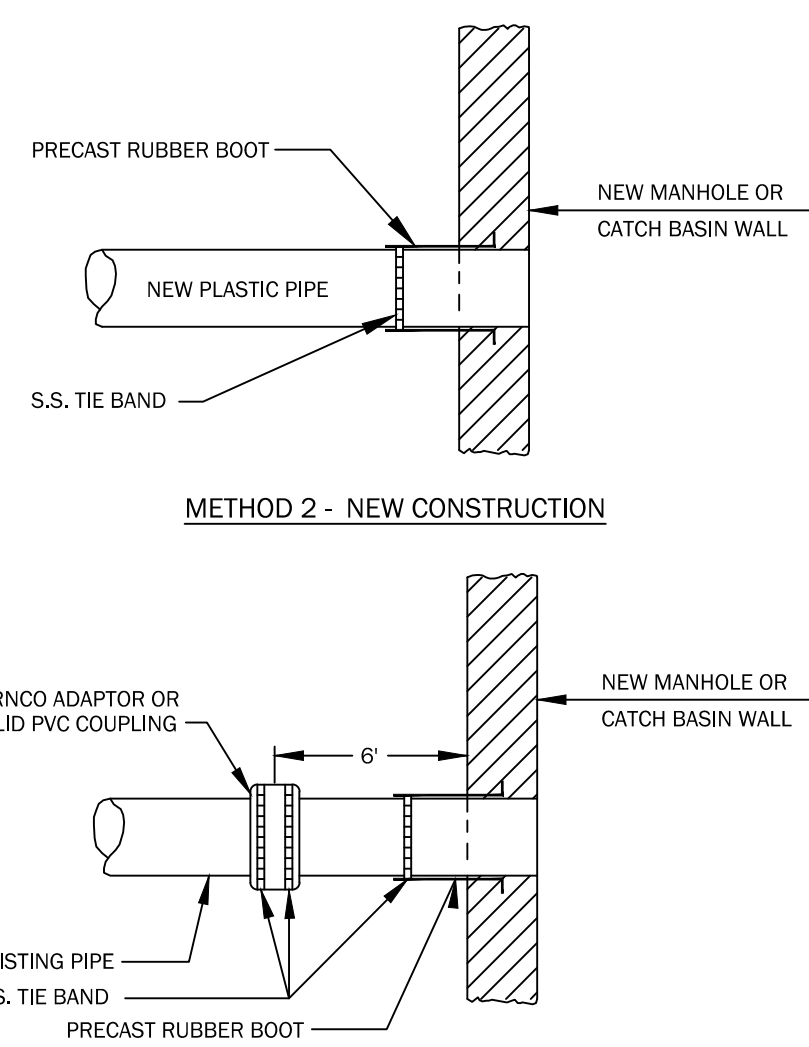


7 FIELD INLET #1 DETAIL

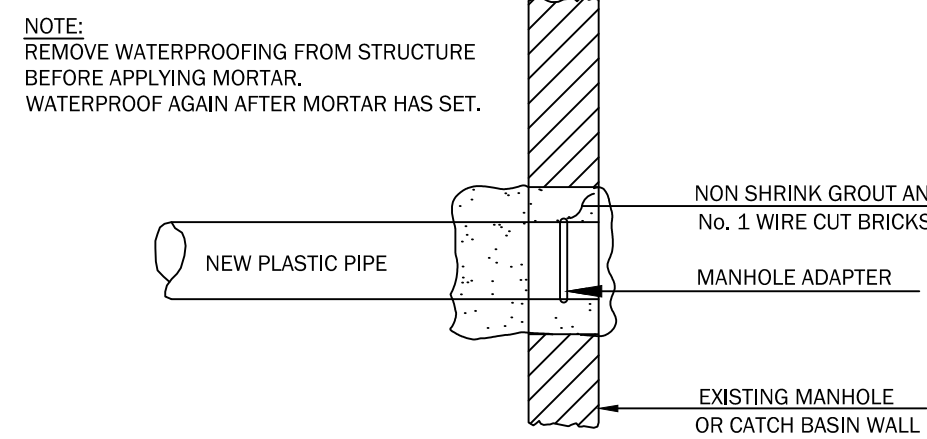
NOT TO SCALE

- NOTES:
1. DEPTH OF BITUMINOUS PAVEMENT AND AGGREGATE COURSES SHALL BE DETERMINED BY STREET CLASSIFICATION.
 2. ANY ALTERNATE TRENCHING OR PAYMENT METHODS SHALL BE APPROVED IN ADVANCE BY THE CITY OF PORTLAND, DEPARTMENT OF PUBLIC SERVICES.
- AGGREGATE SUBBASE COURSE - GRAVEL, TYPE \"D\"
AGGREGATE BASE COURSE - CRUSHED, TYPE \"B\"
HOT BITUMINOUS PAVEMENT GRADING \"B\"
HOT BITUMINOUS PAVEMENT GRADING \"C\"
GRIND TO PROPER DEPTH
- HALF OF MAX. PAYMENT WIDTH PLUS 12\"/>

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



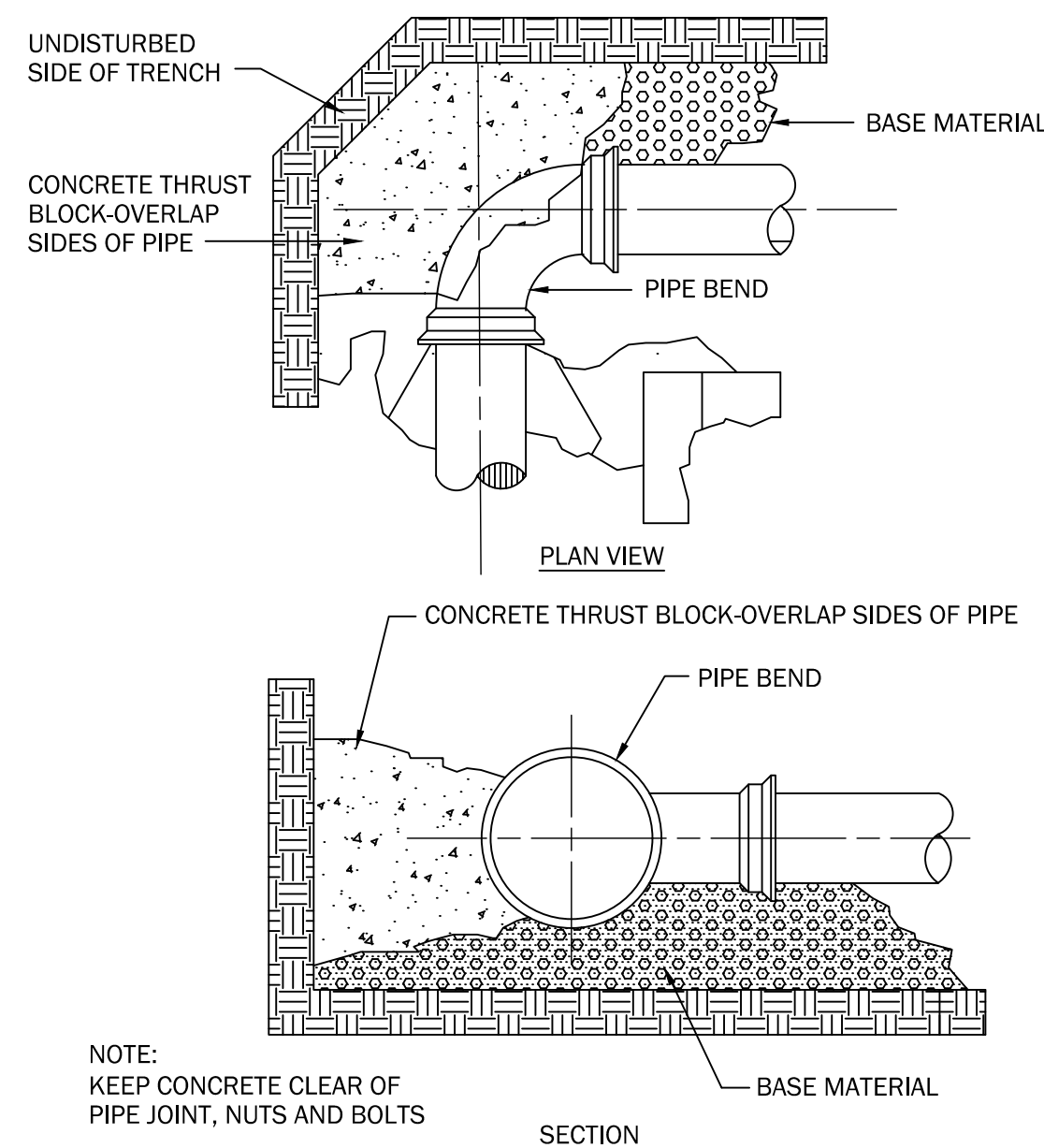
NOTE: EXISTING MANHOLE OR CATCH BASIN SHALL BE CORE DRILLED FOR PIPE INSTALLATION, IF PIPE DIAMETER IS SO LARGE THAT CORE DRILLING IS PROHIBITED, THE CONTRACTOR MAY SAW CUT THE STRUCTURE TO CREATE PIPE OPENING. THE NEW OPENING MUST THEN BE SEALED AND WATERTIGHT BOTH INSIDE AND OUTSIDE THE STRUCTURE.



METHOD 3 - NEW PIPE INTO EXISTING STRUCTURE

4 PLASTIC PIPE CONNECTIONS - FIGURES II-13 & 14

NOT TO SCALE

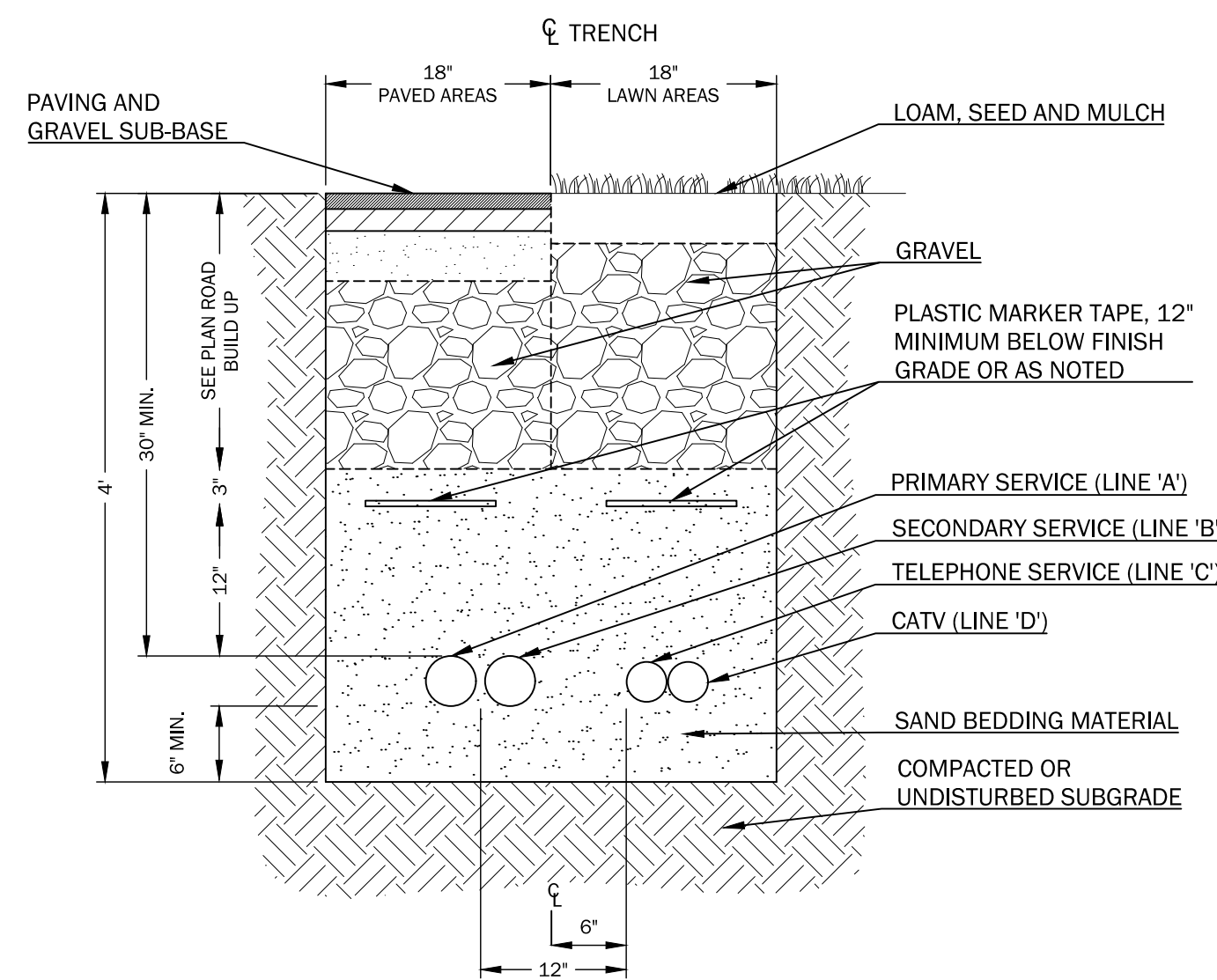


NOTE: KEEP CONCRETE CLEAR OF PIPE JOINT, NUTS AND BOLTS

THRUST/RETAINER SCHEDULE	
1/4 BEND (90°)	USE POURED-IN-PLACE THRUST BLOCK w/ RETAINERS
1/8 BEND (45°)	THRUST BLOCK w/ RETAINERS
1/16 BEND (22 1/2°)	THRUST BLOCK
1/32 BEND (11 1/4°)	THRUST BLOCK

8 CONCRETE THRUST BLOCK PLACEMENT ON VERTICAL & HORIZONTAL BENDS - FIGURE II-18

NOT TO SCALE



SERVICE	CONDUIT SIZE	CONDUIT TYPE	UTILITY
'A'	4"	SCHEDULE 40 P.V.C. ELECTRICAL GRADE	PRIMARY POWER
'B'	4"	SCHEDULE 40 P.V.C. ELECTRICAL GRADE	SECONDARY POWER
'C'	3"	SCHEDULE 40 P.V.C. ELECTRICAL GRADE	TELEPHONE
'D'	3"	SCHEDULE 40 P.V.C. ELECTRICAL GRADE	CATV

- NOTES:
1. CONDUIT SIZES TO BE AS LISTED ABOVE UNLESS OTHERWISE NOTED ON PLANS.
 2. ALL WORK SHALL COMPLY WITH THE RESPECTIVE UTILITY COMPANY STANDARDS.
 3. SEE UTILITIES PLANS FOR CONDUIT LOCATIONS.
 4. CONTRACTOR TO PROVIDE 1/4\"/>

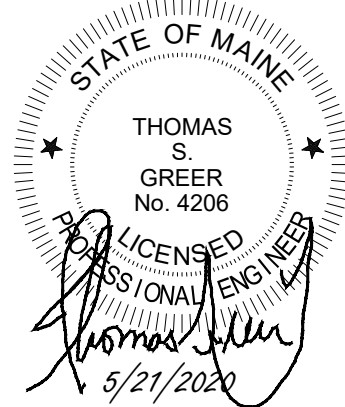
9 UNDERGROUND UTILITY TRENCH (MULTIPLE CONDUIT)

NOT TO SCALE

WALSH
ENGINEERING ASSOCIATES, INC.

One Karen Dr., Suite 2A | Westbrook, Maine 04092
ph: 207.553.9898 | www.walsh-eng.com

Copyright © 2019



844 STEVENS AVENUE APARTMENTS

844 STEVENS AVENUE
PORTLAND, MAINE

PREPARED FOR:
STEVENS AVENUE, LLC
303 ISLINGTON STREET
PORTSMOUTH, NEW HAMPSHIRE 03801

Rev.	Date	Description	Drawn	Check
1	4/27/2020	REV'D PER CITY REVIEW	JDC	TSG
2	8/21/2020	REV'D PER 5-15-2020 CITY REVIEW	JDC	TSG

Sheet Title:

SITE DETAILS

Job No.: 547

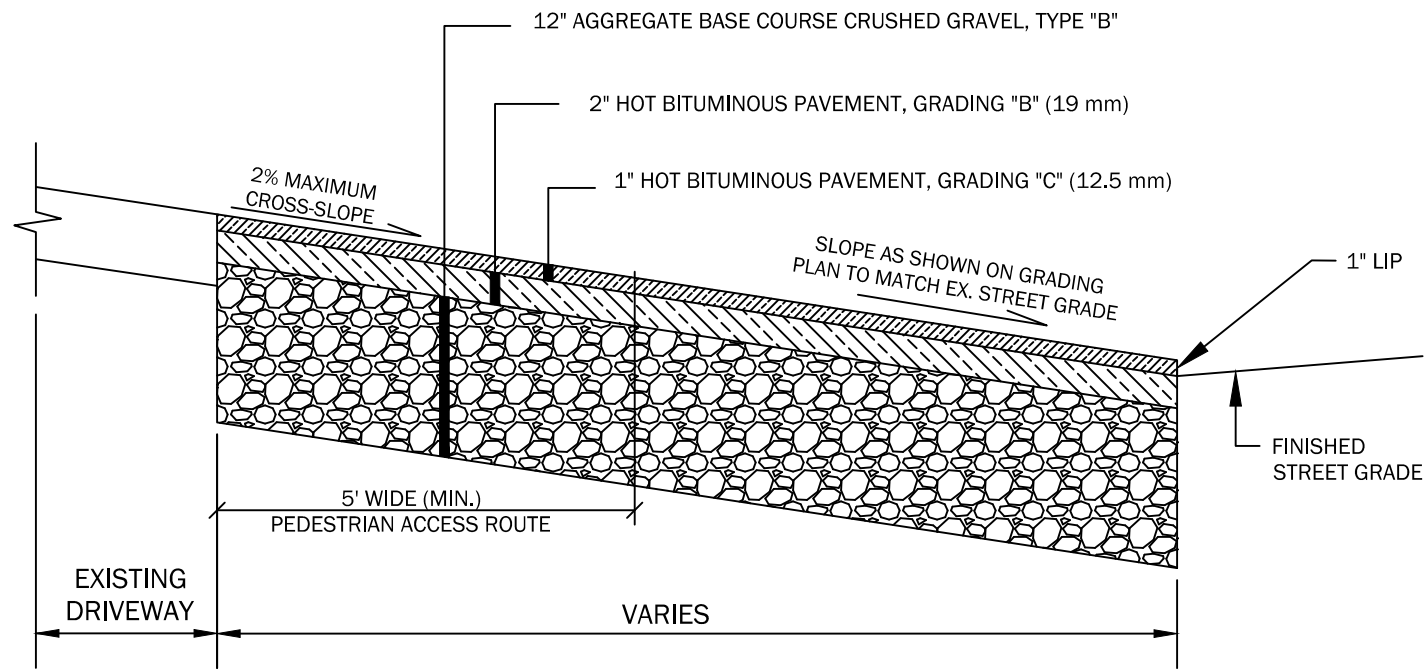
Date: JAN. 3, 2020

Scale: AS SHOWN

Drawn: JDC

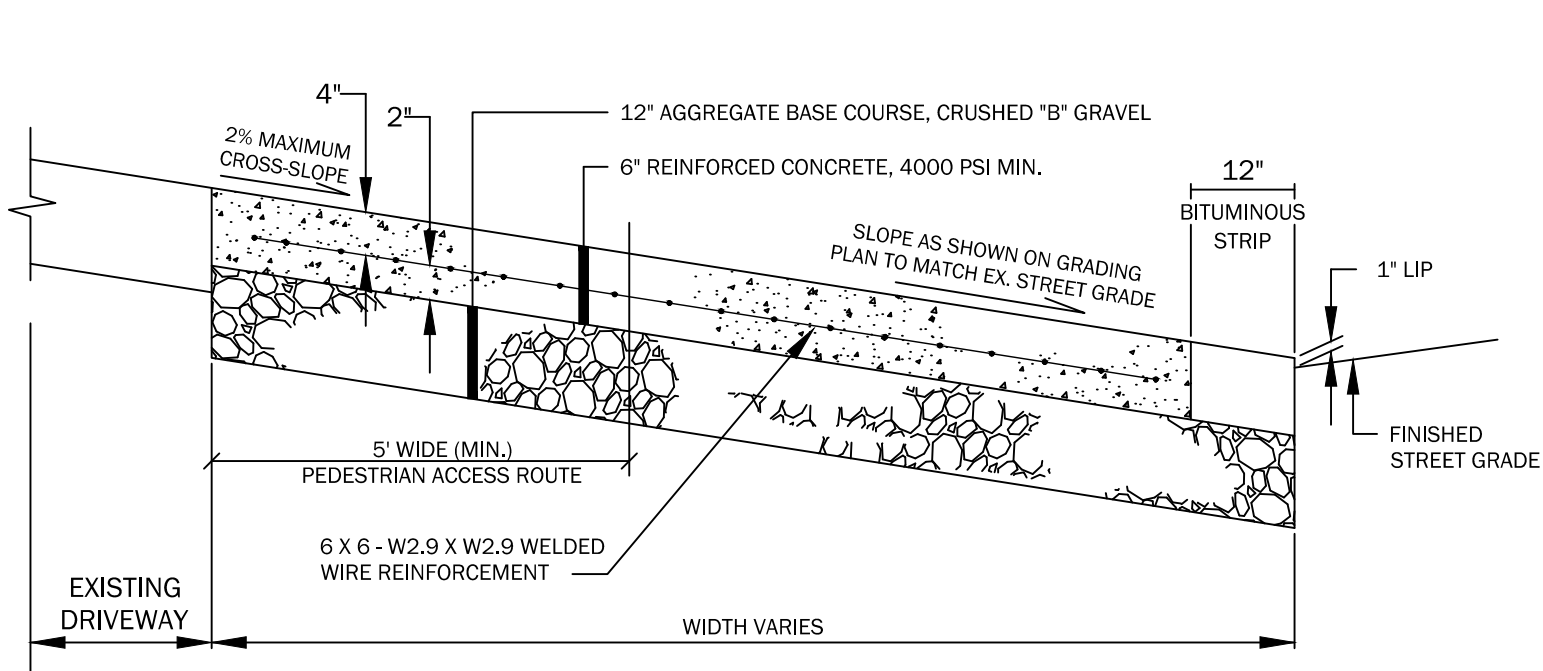
Checked: TSG

Sheet No.: **C3.1**



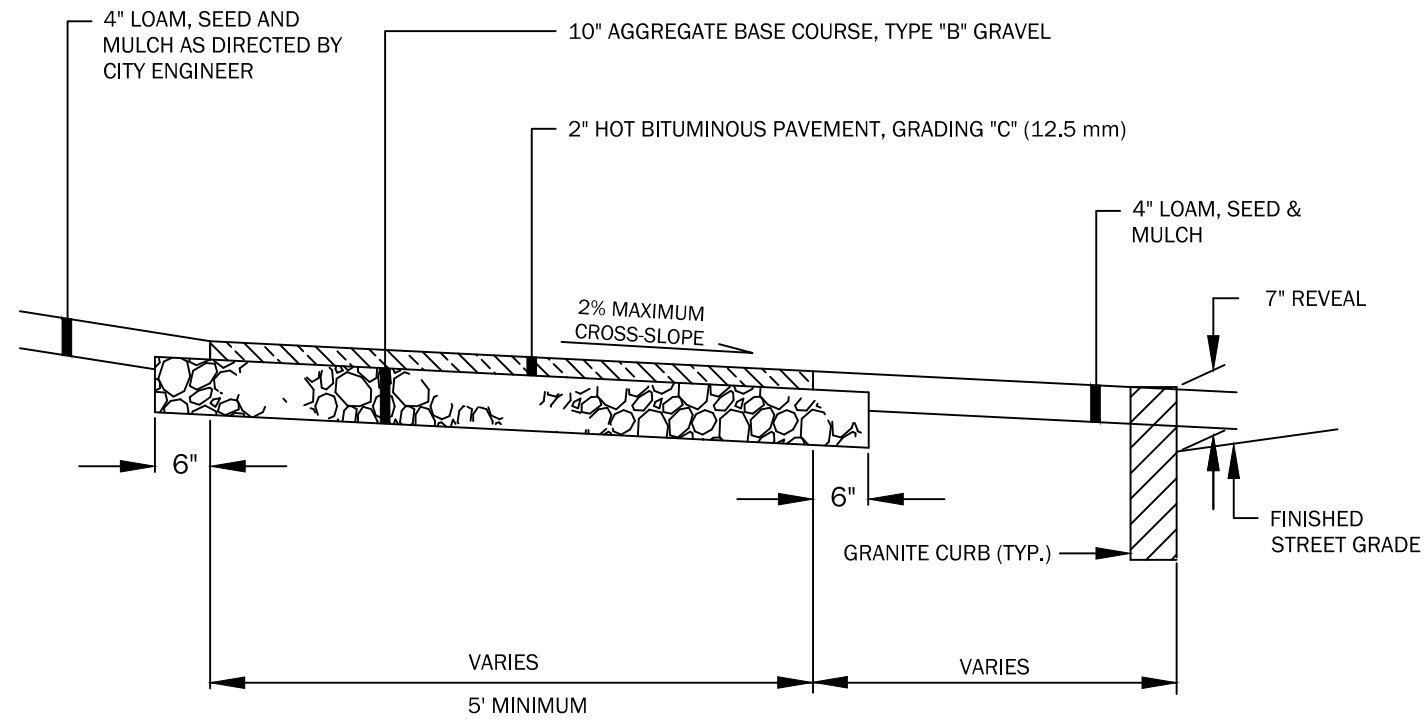
1 BITUMINOUS DRIVEWAY APRON - FIGURE I-13

NOT TO SCALE



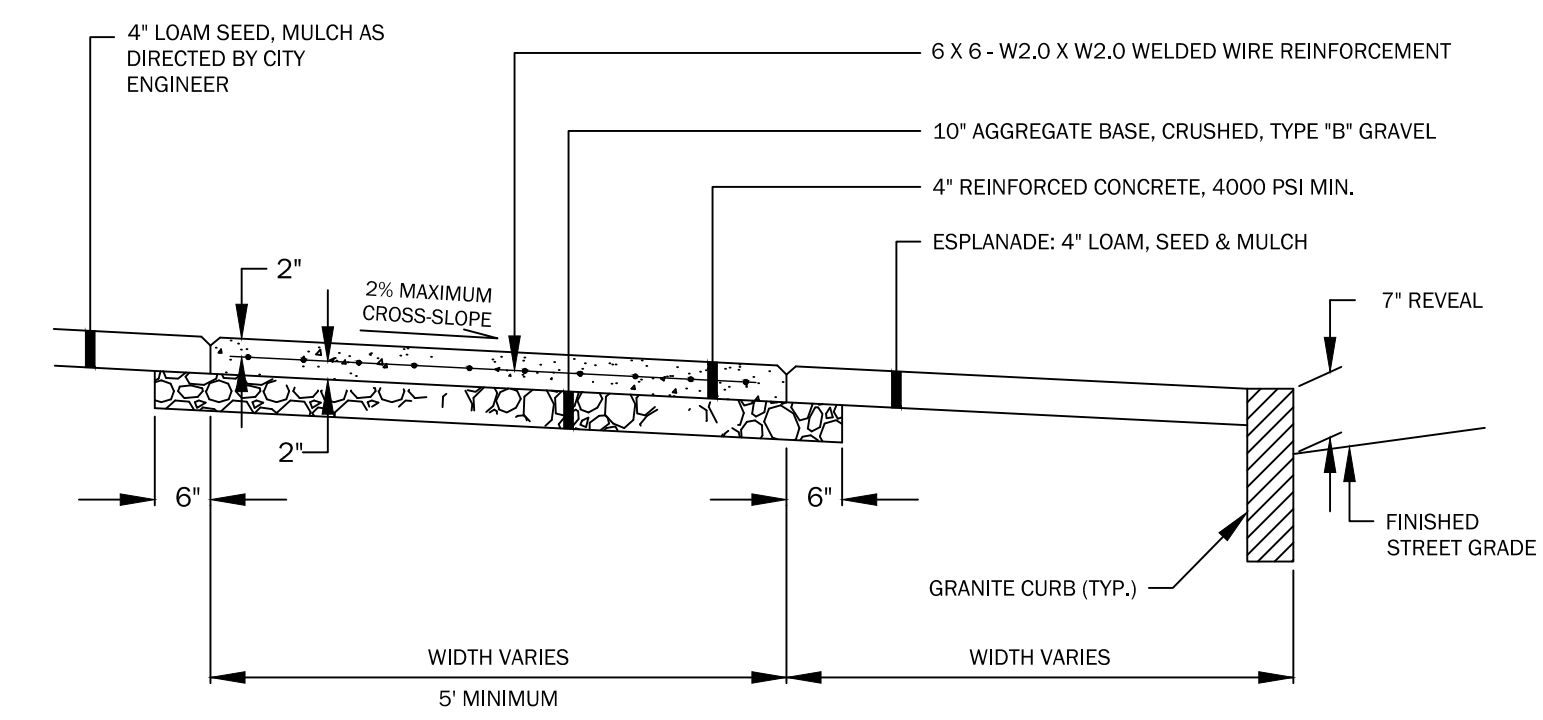
2 REINFORCED CONCRETE DRIVEWAY APRON - FIGURE I-15

NOT TO SCALE



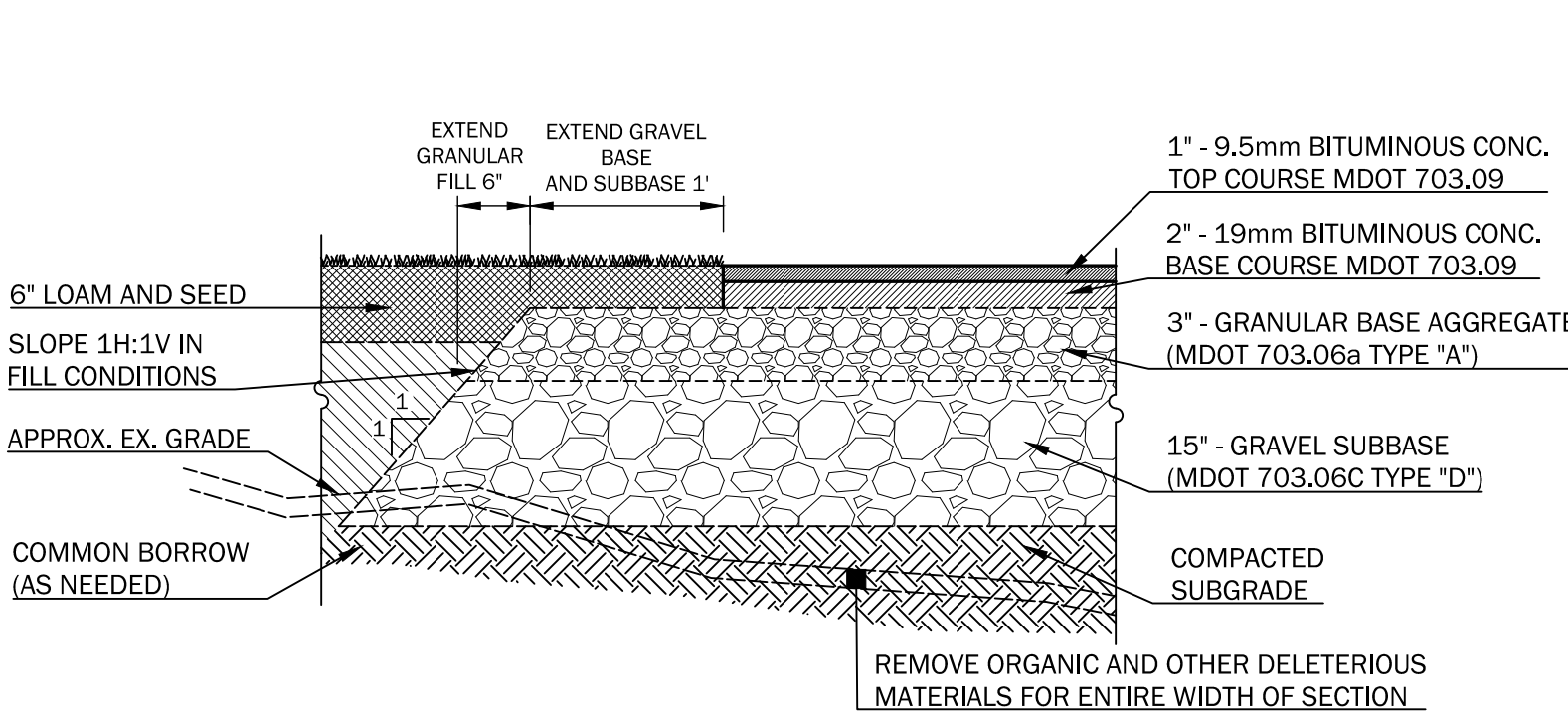
4 BITUMINOUS SIDEWALK - FIGURE I-12

NOT TO SCALE



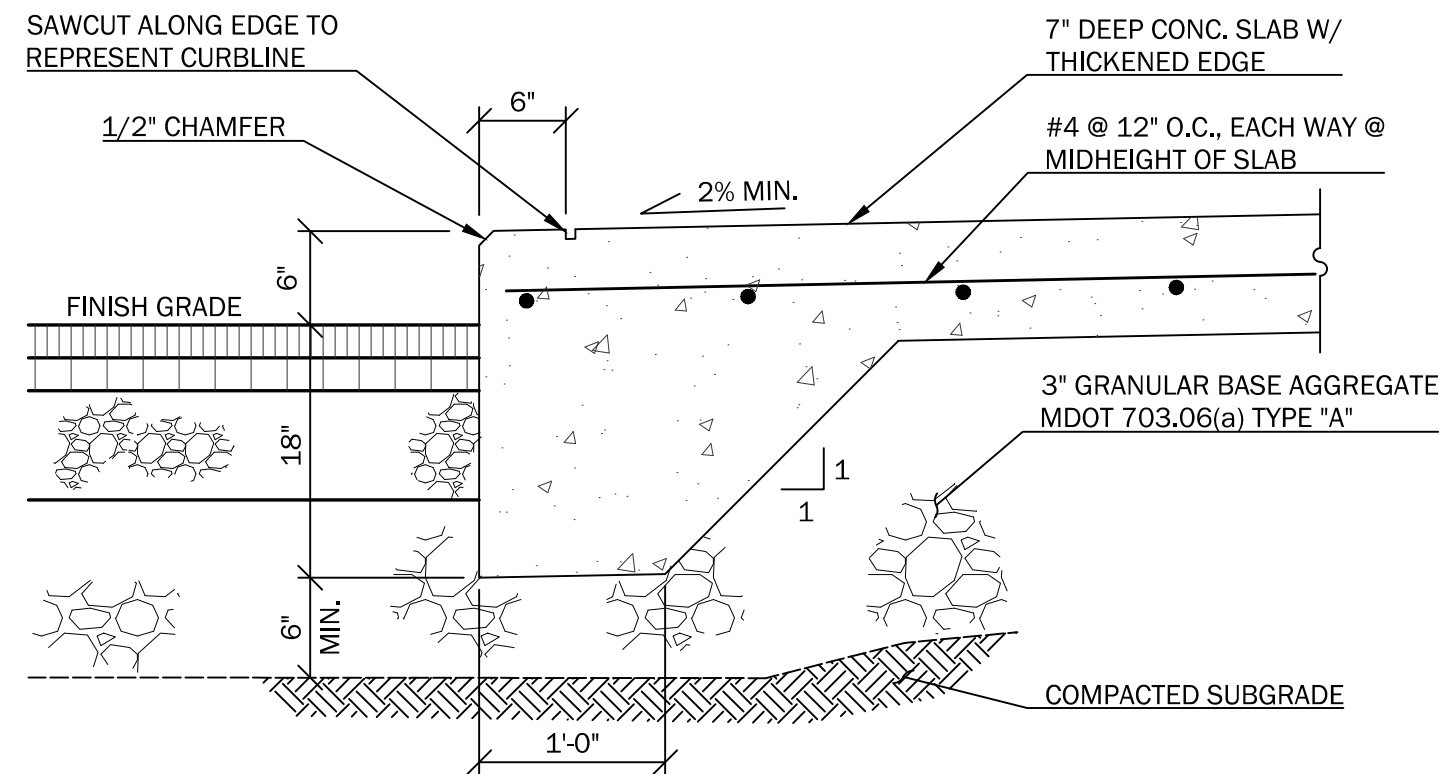
5 REINFORCED CONCRETE SIDEWALK - FIGURE I-14

NOT TO SCALE



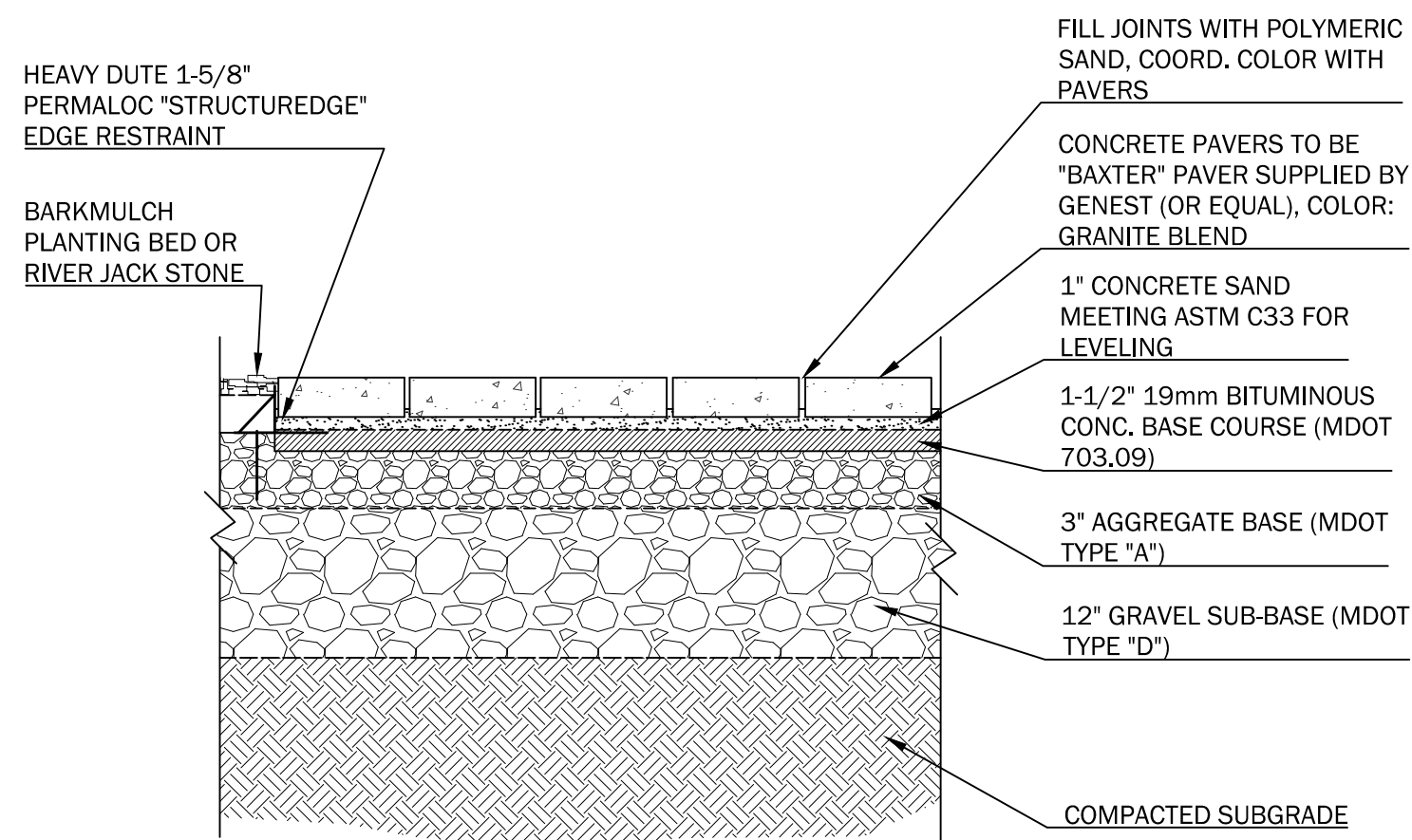
7 DRIVEWAY AND PARKING LOT PAVEMENT SECTION

NOT TO SCALE



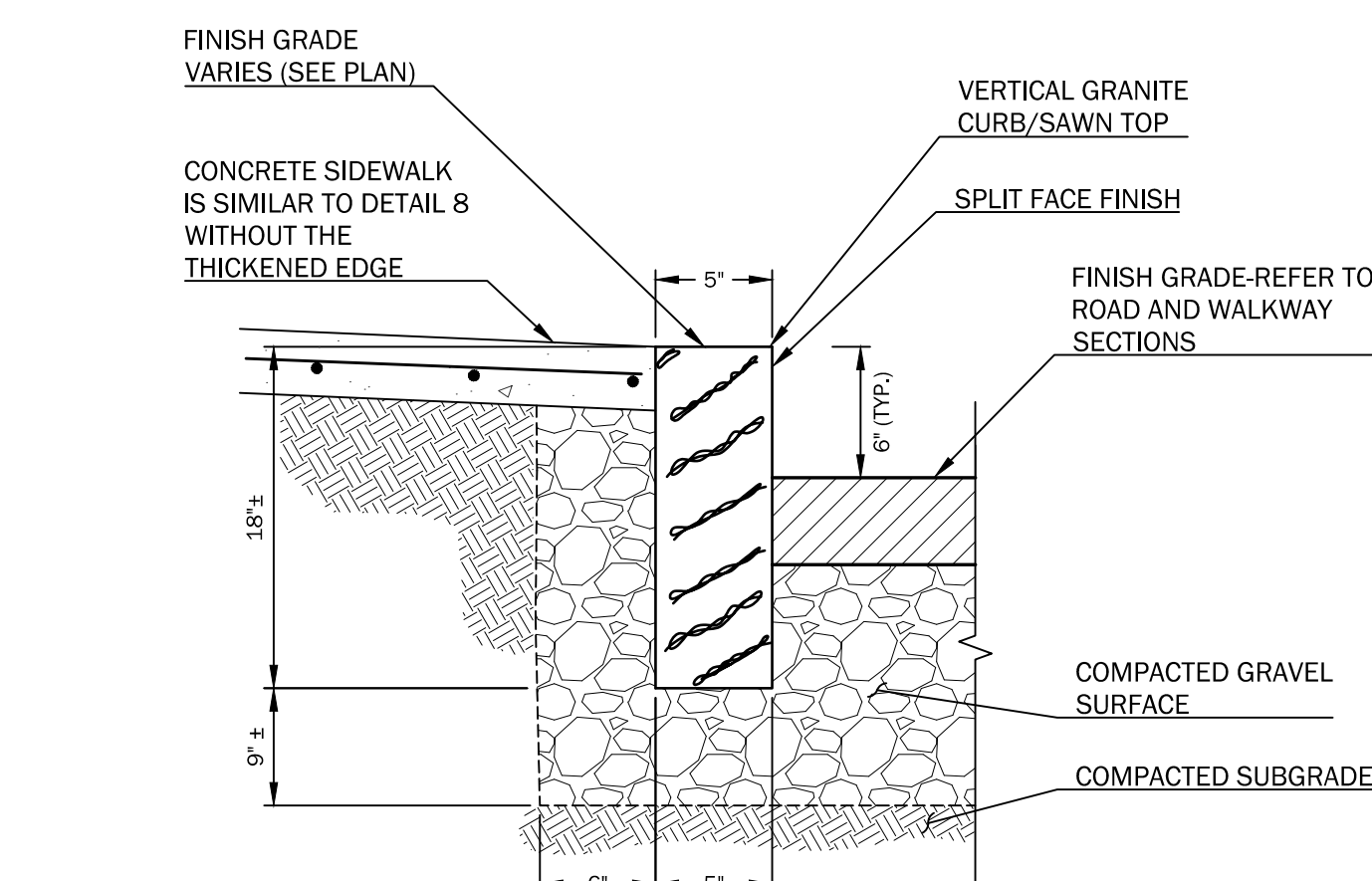
8 CAST-IN-PLACE CONCRETE WALK & CURB DETAIL

NOT TO SCALE



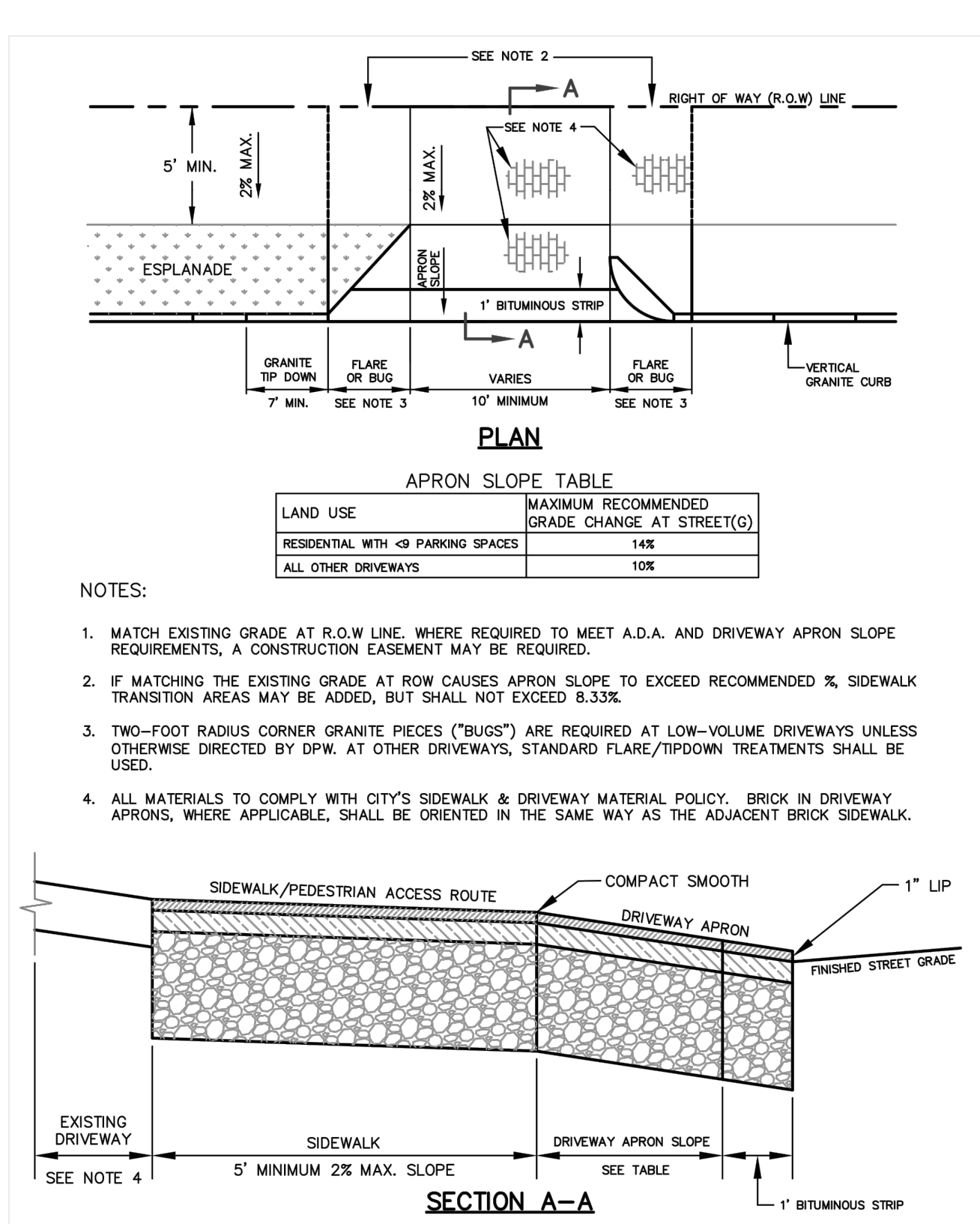
10 PRECAST CONCRETE PAVERS

NOT TO SCALE



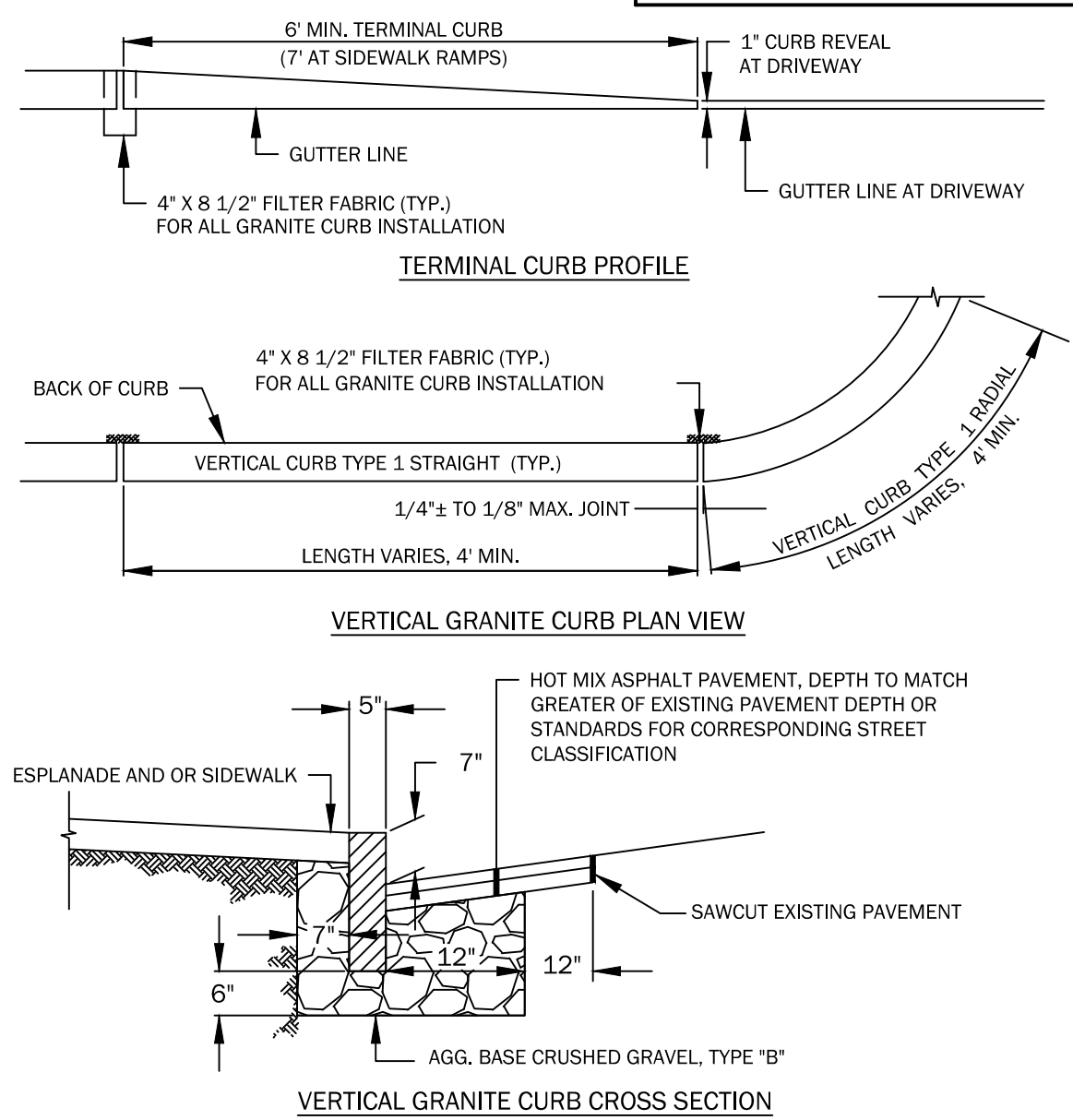
11 VERTICAL GRANITE CURB INSTALLATION DETAIL

NOT TO SCALE



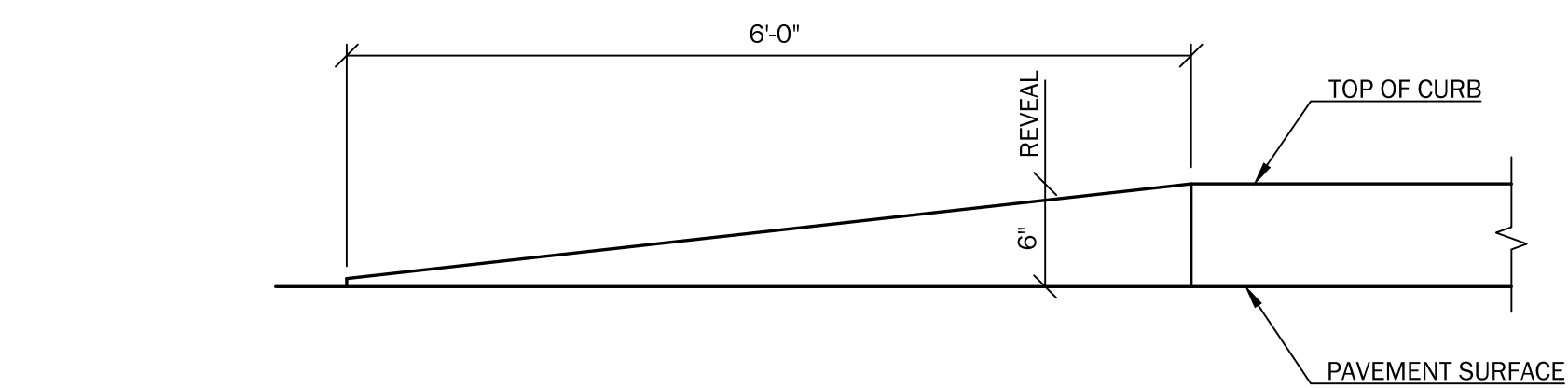
3 DRIVEWAY APRON WITH PEDESTRIAN ACCESS ROUTE - FIGURE I-9A

NOT TO SCALE



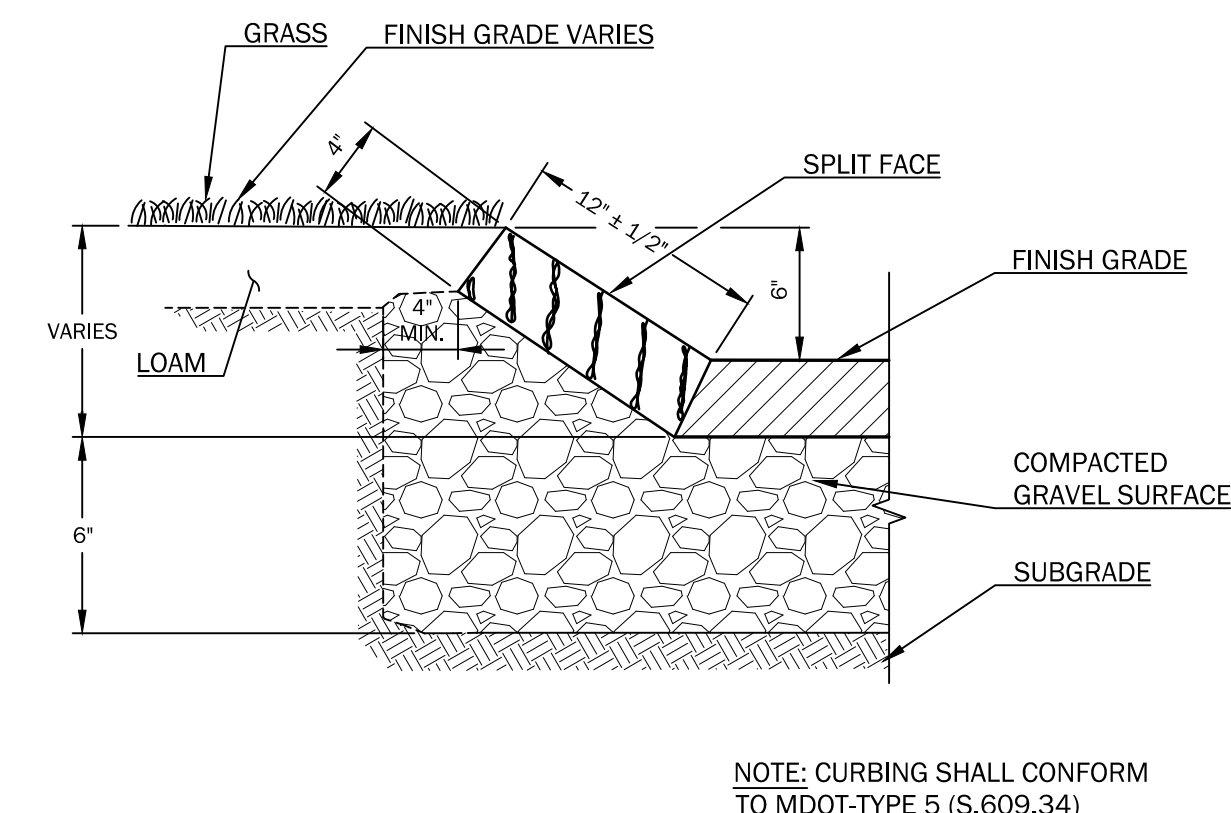
6 VERTICAL GRANITE CURB INSTALLATION IN EXISTING STREETS - FIGURE I-17

NOT TO SCALE



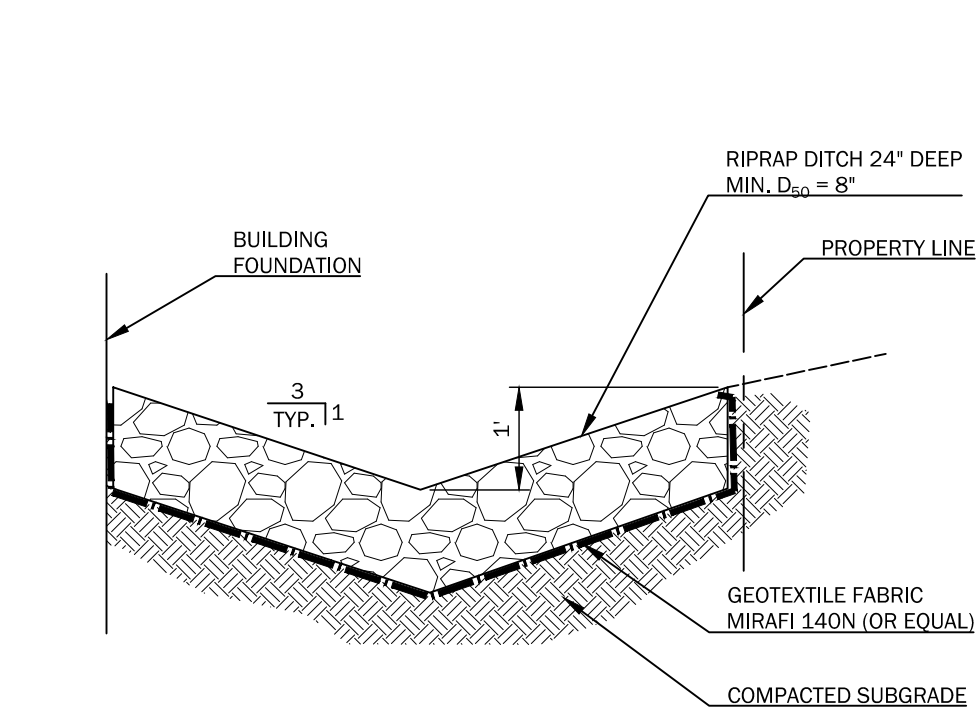
9 ON-SITE CURB TIP-DOWN OR TERMINATION SECTION

NOT TO SCALE



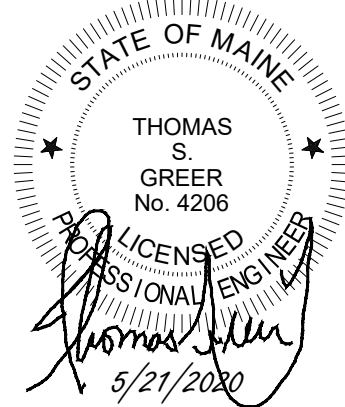
12 SLOPED GRANITE CURB DETAIL

NOT TO SCALE



13 RIPRAP SWALE SECTION

NOT TO SCALE



Rev.	Date	Description	Drawn	Check
1	4/27/2020	REV'D PER CITY REVIEW	JDC	TSG
2	5/21/2020	REV'D PER 5-15-2020 CITY REVIEW	JDC	TSG

Sheet Title:

SITE DETAILS

Job No.: 547

Date: JAN. 3, 2020

Scale: AS SHOWN

Drawn: JDC

Checked: TSG

C3.2

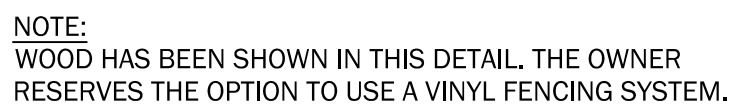
PORTLAND, MAINE

PREPARED FOR:

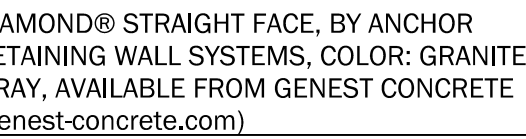
STEVENS AVENUE, LLC

303 ISLINGTON STREET
PORTSMOUTH, NEW HAMPSHIRE 03801

C3.3



NOT TO SCALE



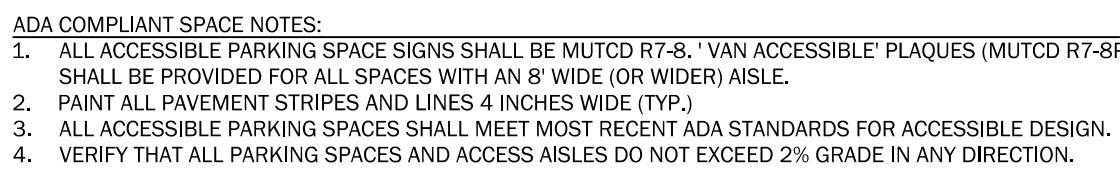
NOT TO SCALE



5



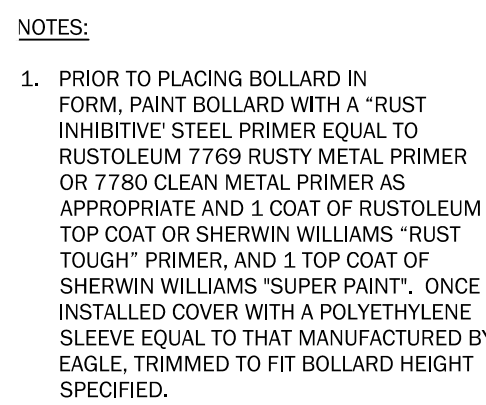
NOT TO SCALE



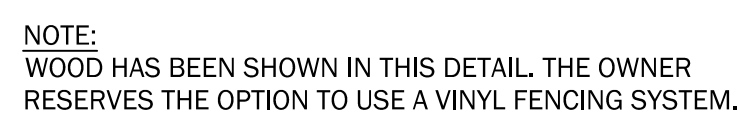
NOT TO SCALE



NOT TO SCALE



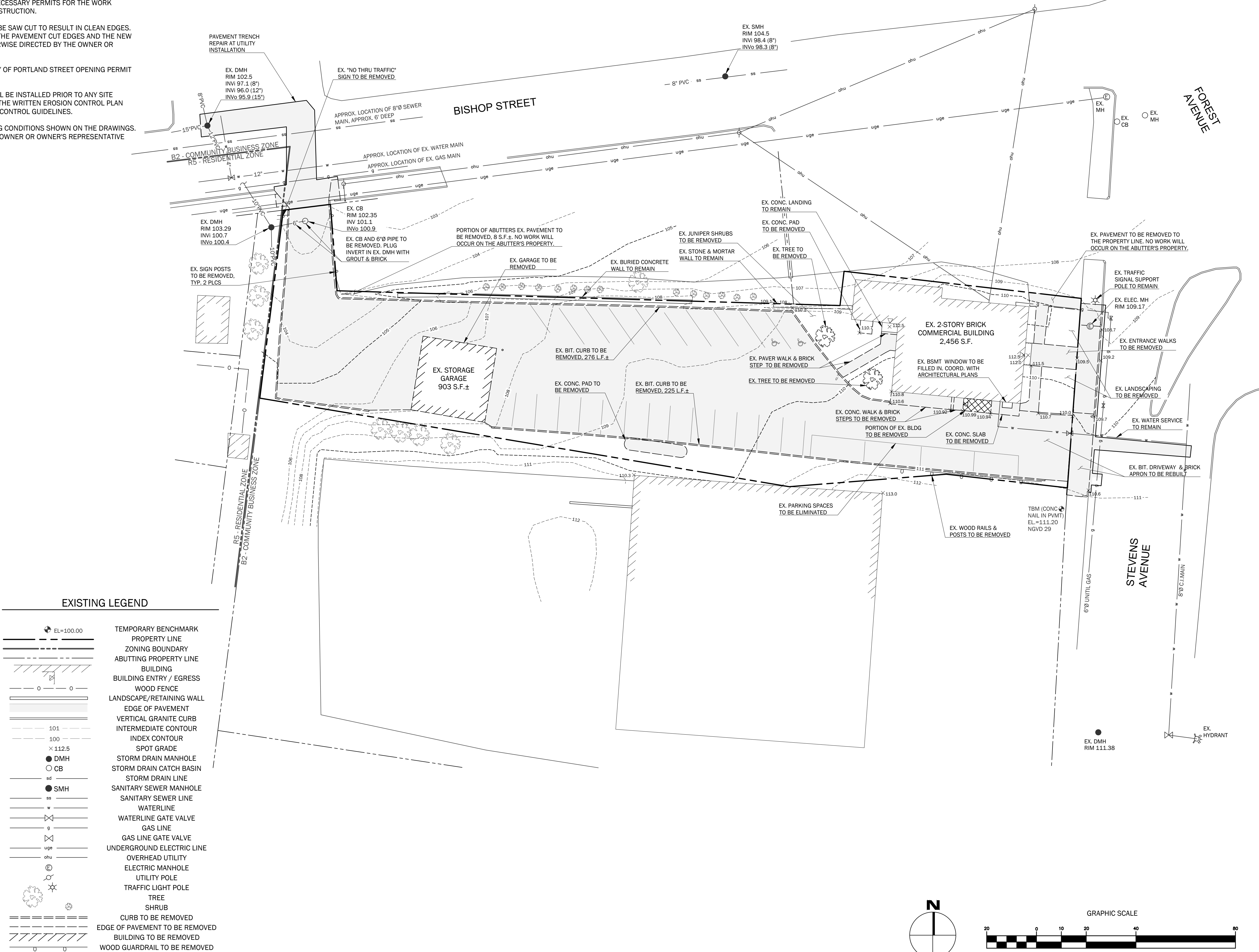
NOT TO SCALE



NOT TO SCALE

GENERAL NOTES:

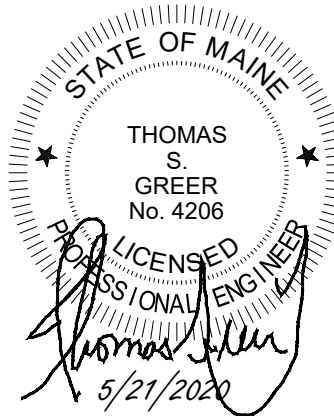
1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING "DIG SAFE" AND LOCAL UTILITY COMPANIES AT LEAST THREE (3) BUSINESS DAYS, BUT NOT MORE THAN 30 CALENDAR DAYS, PRIOR TO THE COMMENCEMENT OF ANY EXCAVATION, IN ACCORDANCE WITH MAINE STATE LAW. "DIG SAFE" TELEPHONE NUMBER IS 1-888-344-7233.
2. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL AND ANY MEANS, METHODS, AND TECHNIQUES EMPLOYED TO PERFORM THE WORK SHOWN ON THE PLANS.
3. ALL WORK SHALL COMPLY WITH ALL LOCAL, STATE, AND FEDERAL REGULATIONS INCLUDING ALL SAFETY REGULATIONS (OSHA).
4. ALL WORK SHALL BE IN CONFORMANCE ALL UTILITY COMPANIES STANDARDS.
5. THE CONTRACTOR SHALL SECURE ALL NECESSARY PERMITS FOR THE WORK SHOWN ON THESE PLANS PRIOR TO CONSTRUCTION.
6. ALL PAVEMENT/CONCRETE CUTS SHALL BE SAW CUT TO RESULT IN CLEAN EDGES. A TACK COAT SHALL BE APPLIED ALONG THE PAVEMENT CUT EDGES AND THE NEW PAVEMENT BUTTED TO IT, UNLESS OTHERWISE DIRECTED BY THE OWNER OR OWNER'S REPRESENTATIVE.
7. ALL WORK SHALL COMPLY WITH THE CITY OF PORTLAND STREET OPENING PERMIT REQUIREMENTS.
8. ALL EROSION CONTROL MEASURES SHALL BE INSTALLED PRIOR TO ANY SITE EXCAVATION OR REGRADING. REFER TO THE WRITTEN EROSION CONTROL PLAN AND DRAWINGS FOR FURTHER EROSION CONTROL GUIDELINES.
9. CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS SHOWN ON THE DRAWINGS. IF ANY DISCREPANCIES ARE FOUND, THE OWNER OR OWNER'S REPRESENTATIVE SHALL BE NOTIFIED IMMEDIATELY.



WALSH
ENGINEERING ASSOCIATES, INC.

One Karen Dr., Suite 2A | Westbrook, Maine 04092
ph: 207.553.9898 | www.walsh-eng.com

Copyright © 2019



844 STEVENS AVENUE APARTMENTS

844 STEVENS AVENUE
PORTLAND, MAINE

PREPARED FOR:
STEVENS AVENUE, LLC

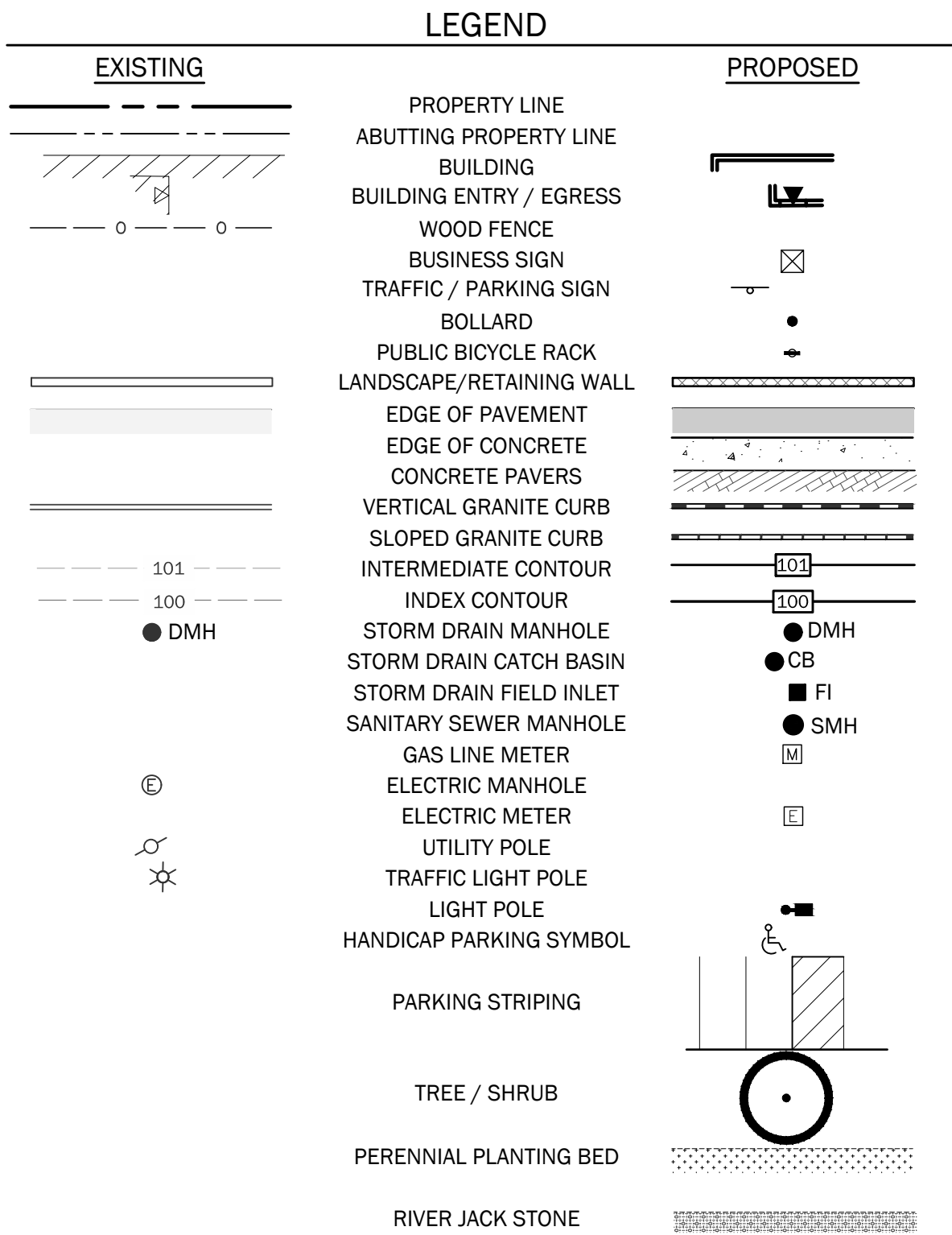
303 ISLINGTON STREET
PORTSMOUTH, NEW HAMPSHIRE 03801

Rev.	Date	Description	Drawn	Check
1	4/27/2020	REV'D PER CITY REVIEW	JDC	TSG
2	5/21/2020	REV'D PER 5-15-2020 CITY REVIEW	JDC	TSG

EXISTING
CONDITIONS AND
REMOVALS PLAN

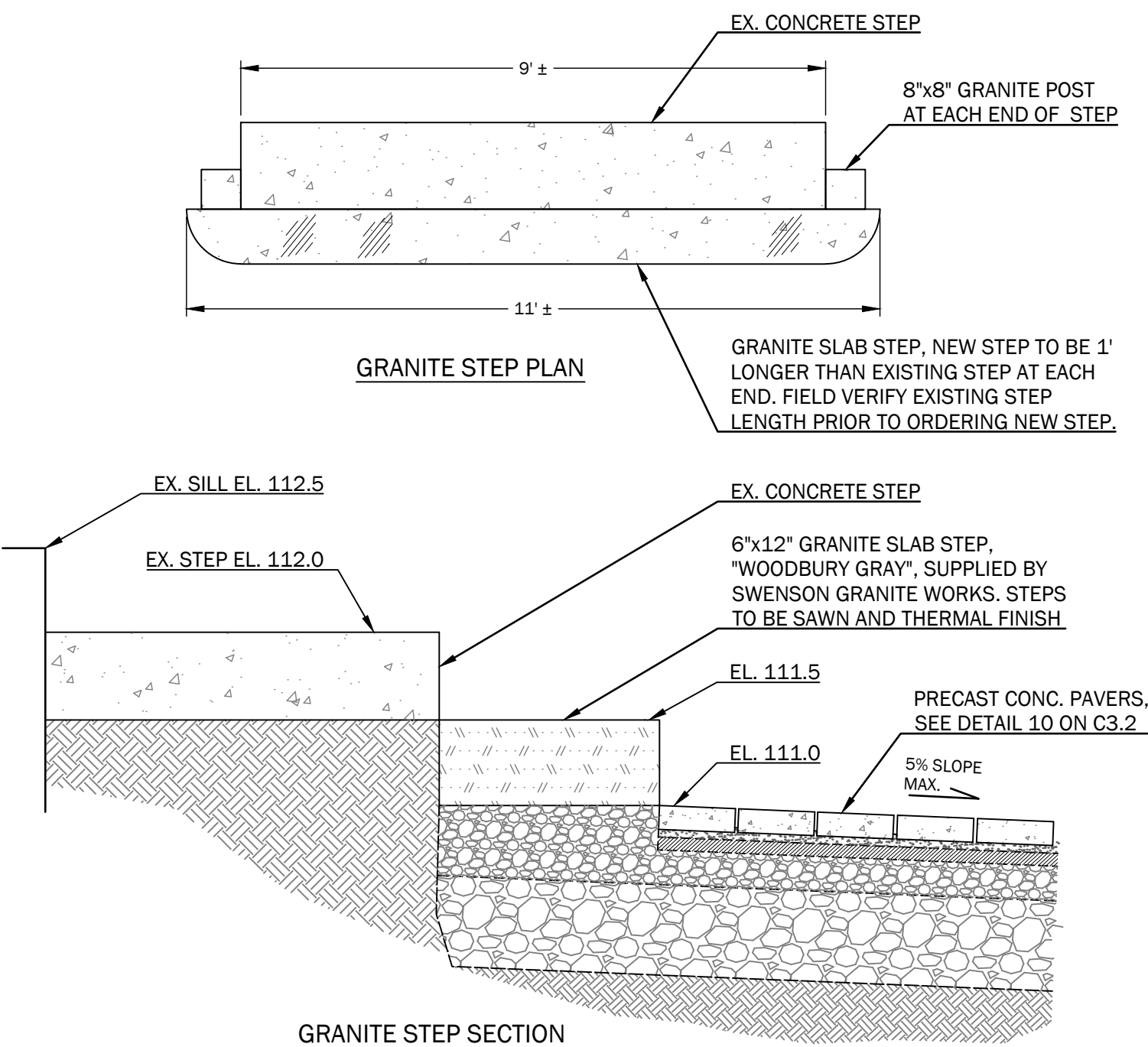
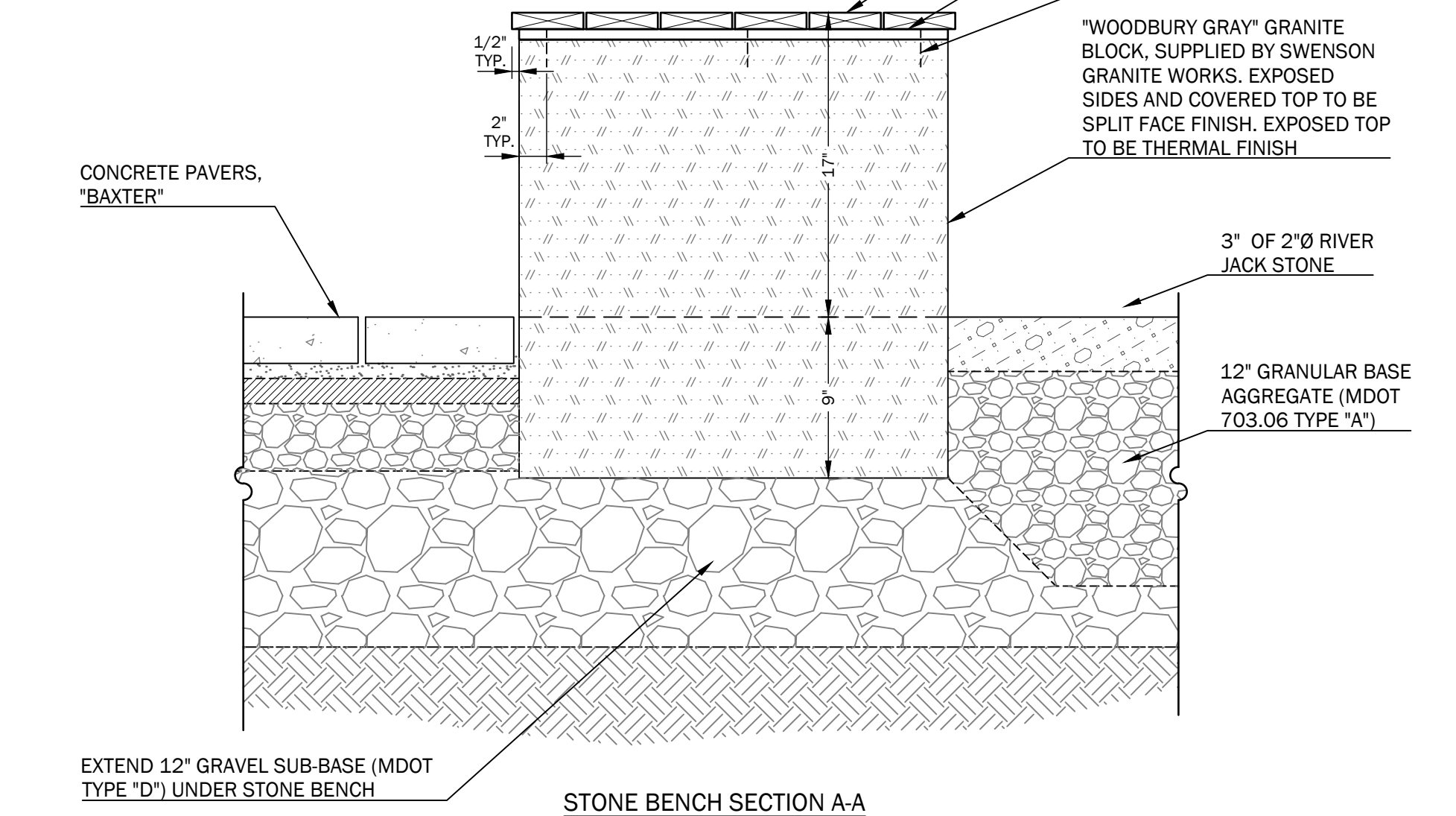
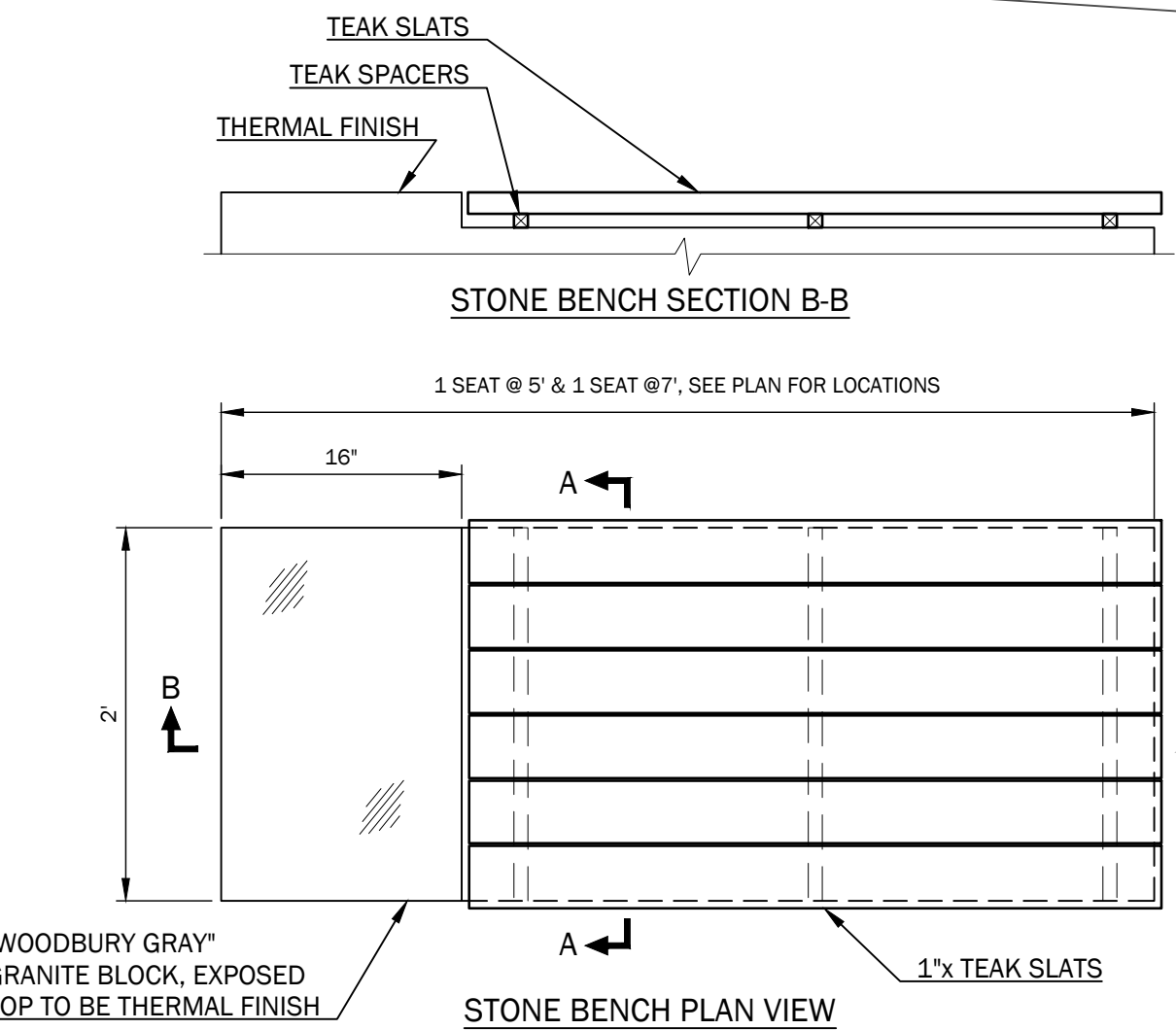
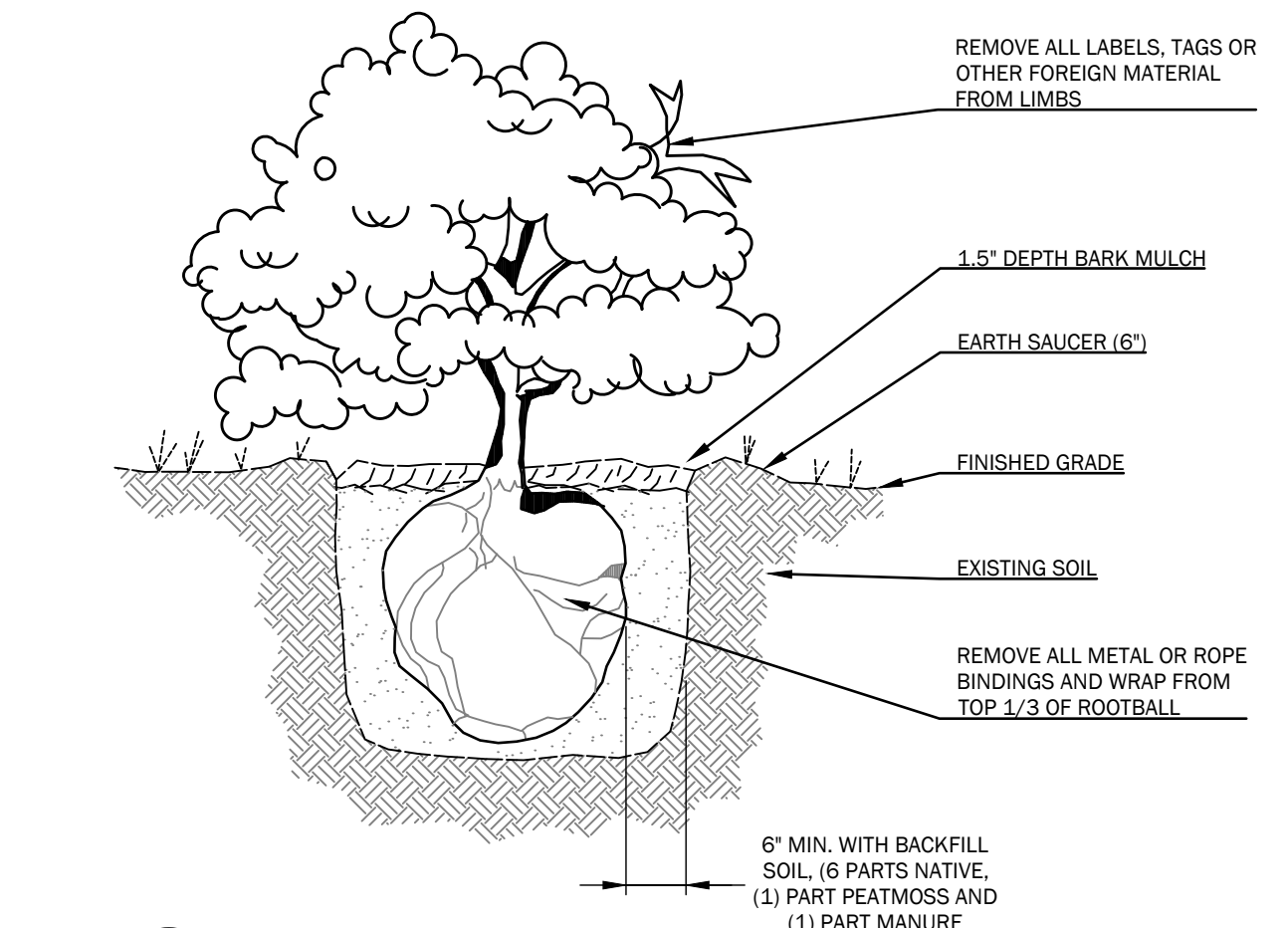
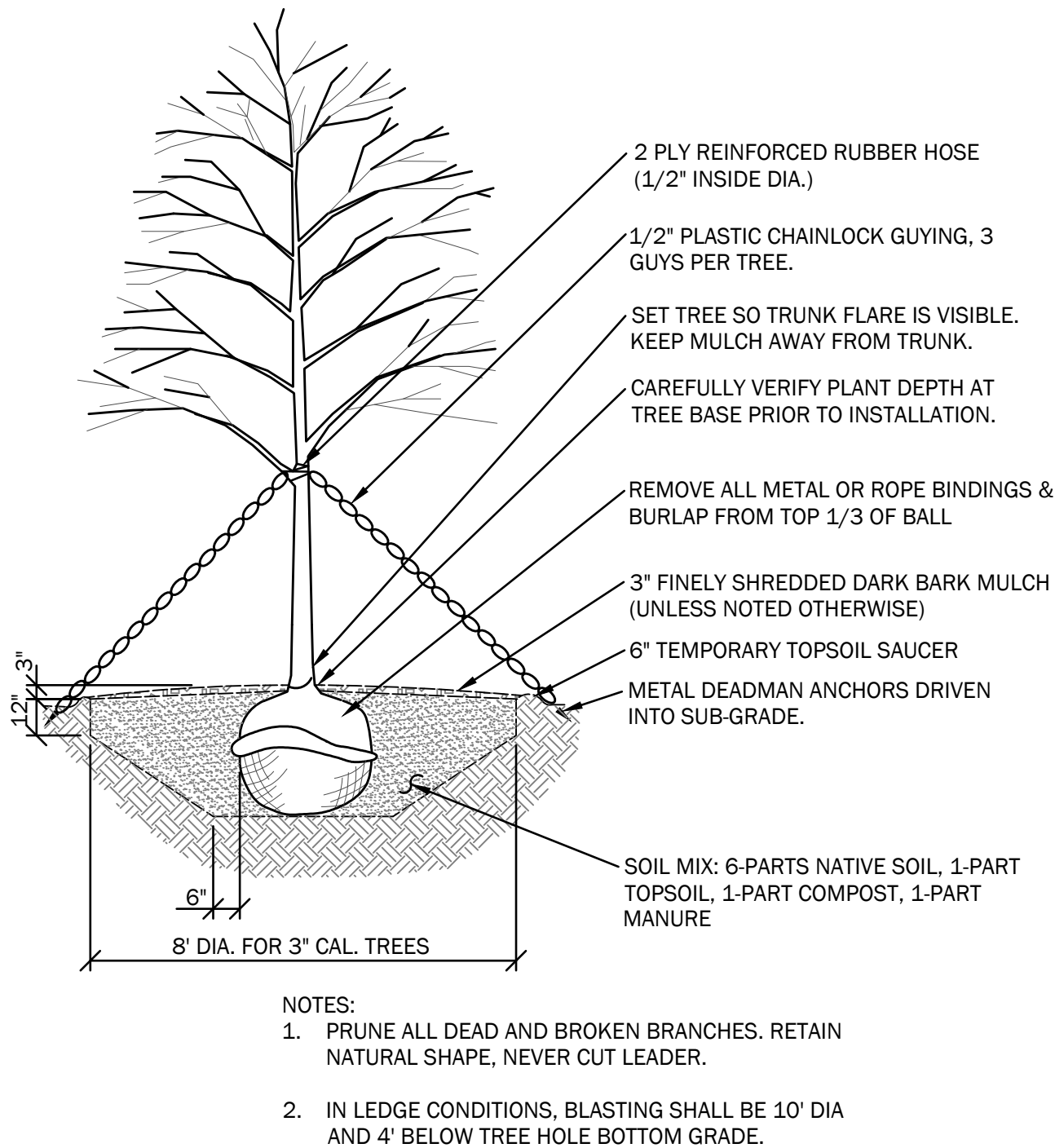
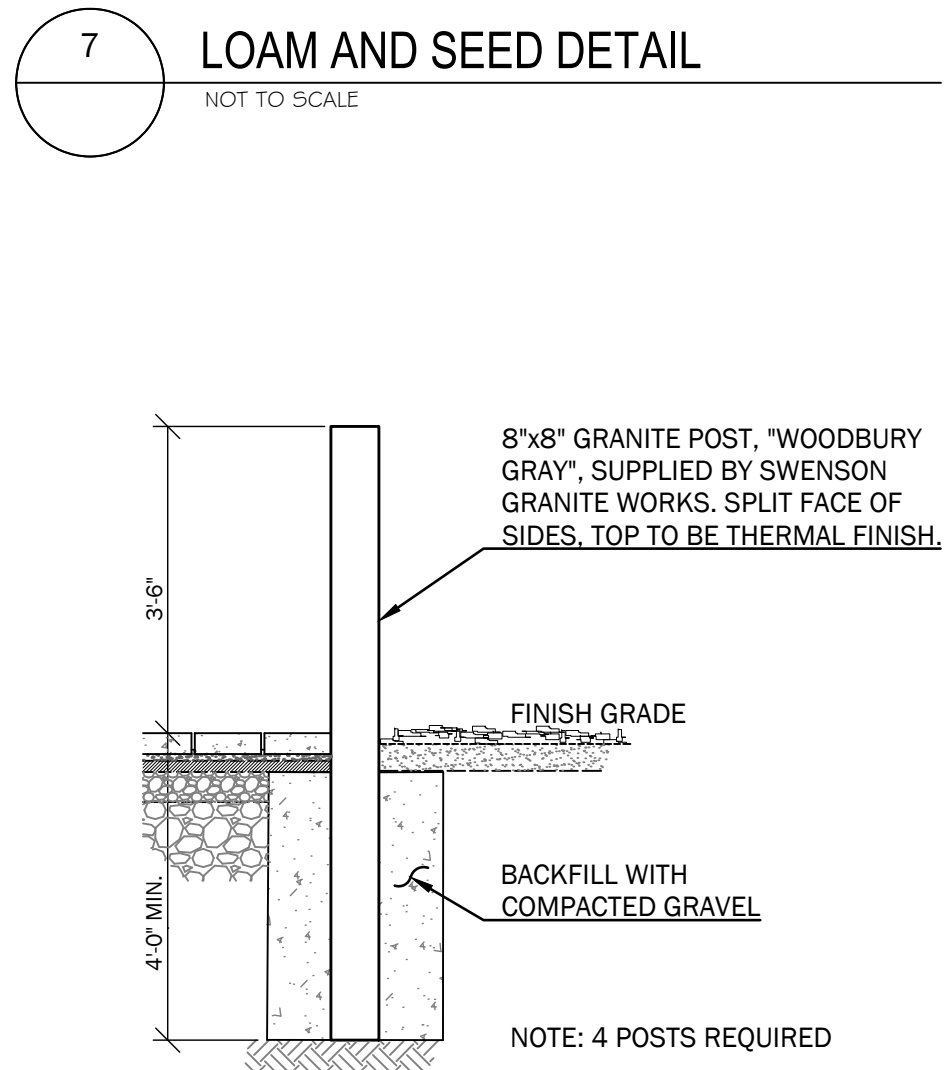
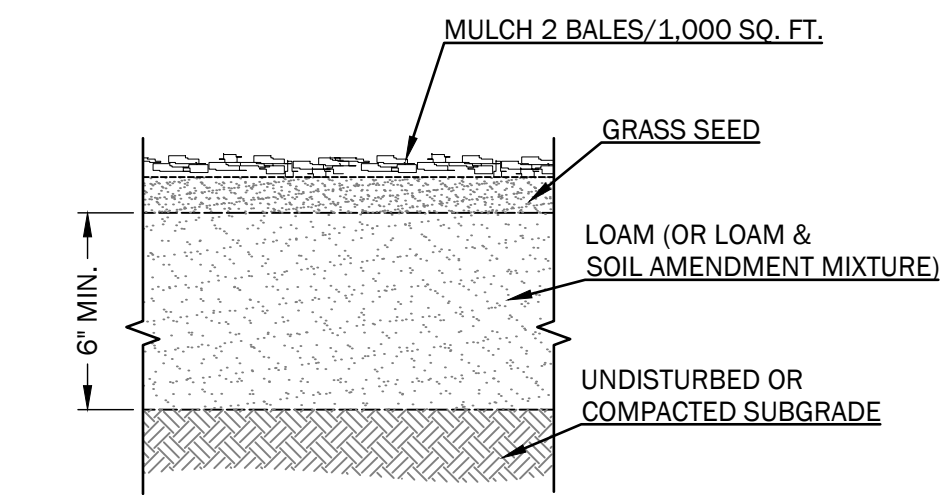
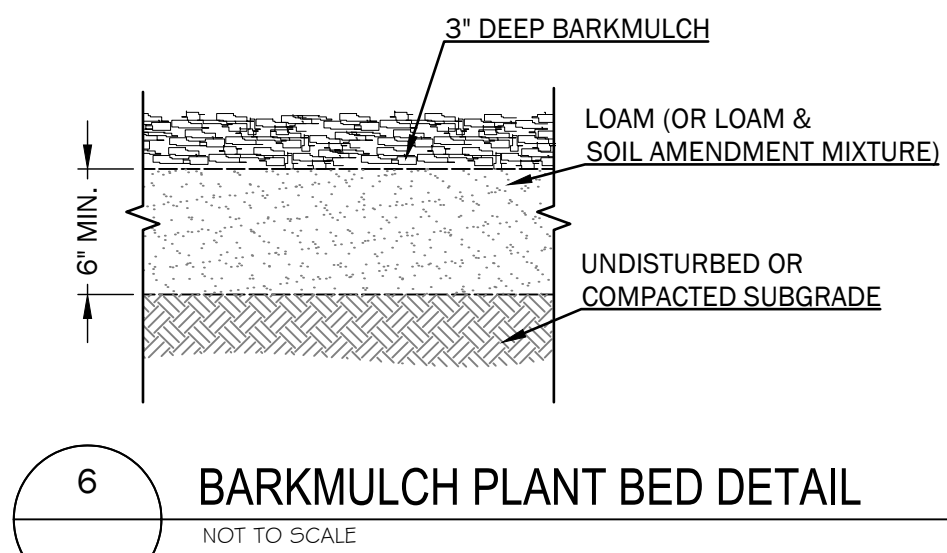
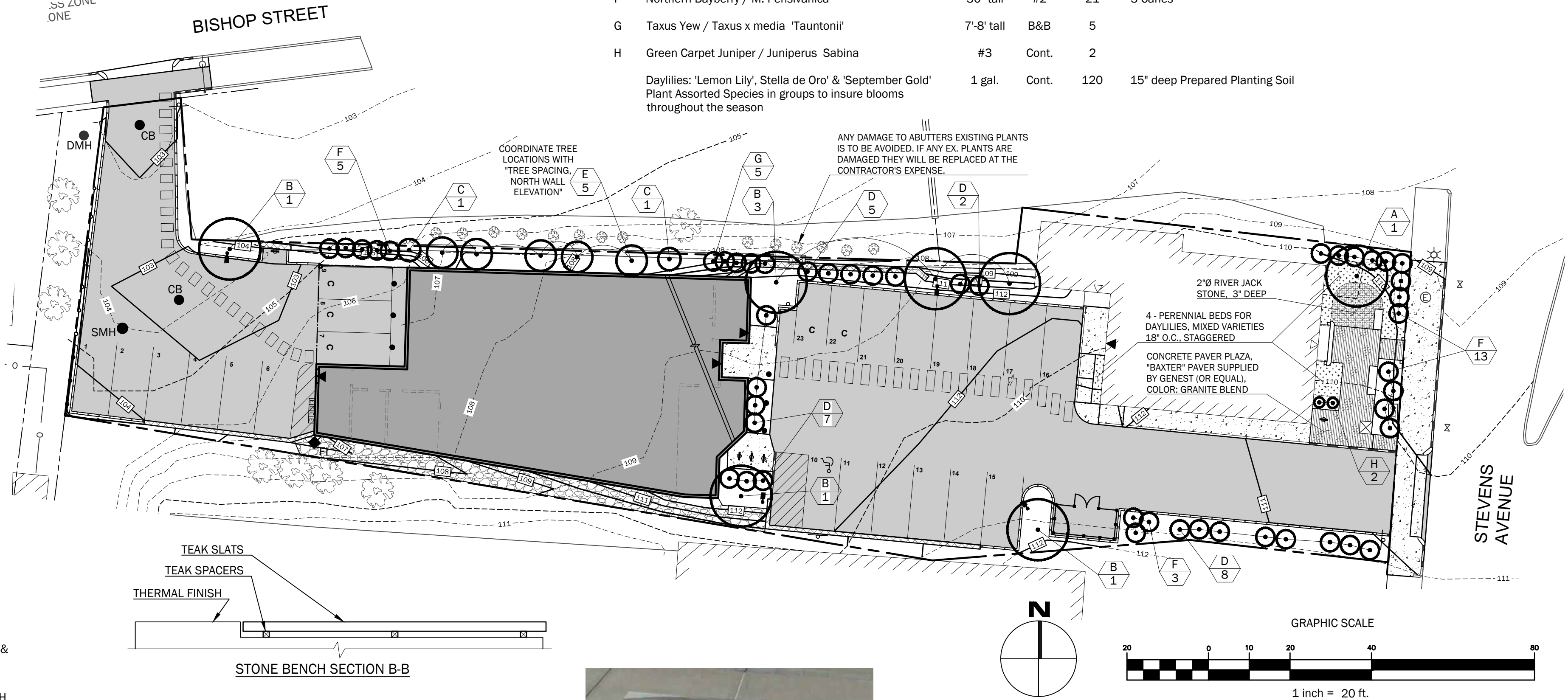
Job No.:	547	Sheet No.:	C2.2
Date:	REV'D 5/20/20	Scale:	AS SHOWN
Drawn:	JDC	Checked:	TSG

\\p01\apps\lsc\lsc\844 Stevens Avenue Apartments.dwg, 5/21/2020 9:54 AM, JDC



PLANT LIST

Key	Common & Botanical Name	Size	Root	Quantity	Notes:
A	Leonard Messel Magnolia / Magnolia x l. 'Leonard Messel'	8' tall	B&B	1	
B	Street Keeper Honey Locust / Gleditsia Triacanthos var. inermis 'Street Keeper'	2 1/2" cal.	B&B	6	Single Trunk, 7 1/2' Understory
C	Shasta Viburnum / V. Plicatum var. tomentosum 'shasta'	3'-4' tall	B&B	2	
D	Grey Owl Juniper / J. Virginiana 'Grey Owl'		B&B	22	
E	Nannyberry Viburnum / V. Lentago	4'-5' tall	B&B	5	
F	Northern Bayberry / M. Penslvanica	30" tall	#2	21	3 Canes
G	Taxus Yew / Taxus x media 'Tauntonii'	7'-8' tall	B&B	5	
H	Green Carpet Juniper / Juniperus Sabina	#3	Cont.	2	
	Daylilies: 'Lemon Lily', 'Stella de Oro' & 'September Gold'	1 gal.	Cont.	120	15" deep Prepared Planting Soil
	Plant Assorted Species in groups to insure blooms throughout the season				



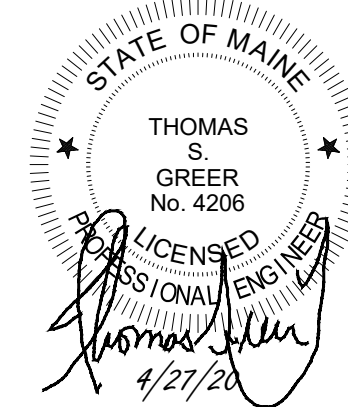
Rev.	Date	Description	Drawn	Check
1	4/27/2020	REV'D PER CITY REVIEW	JDC	TSG
2	5/21/2020	REV'D PER 5-15-2020 CITY REVIEW	JDC	TSG

Sheet Title:
LANDSCAPE PLAN, NOTES & DETAILS

Job No.:	547	Sheet No.:
Date:	JAN. 3, 2020	
Scale:	AS SHOWN	
Drawn:	JDC	
Checked:	TSG	

C2.5

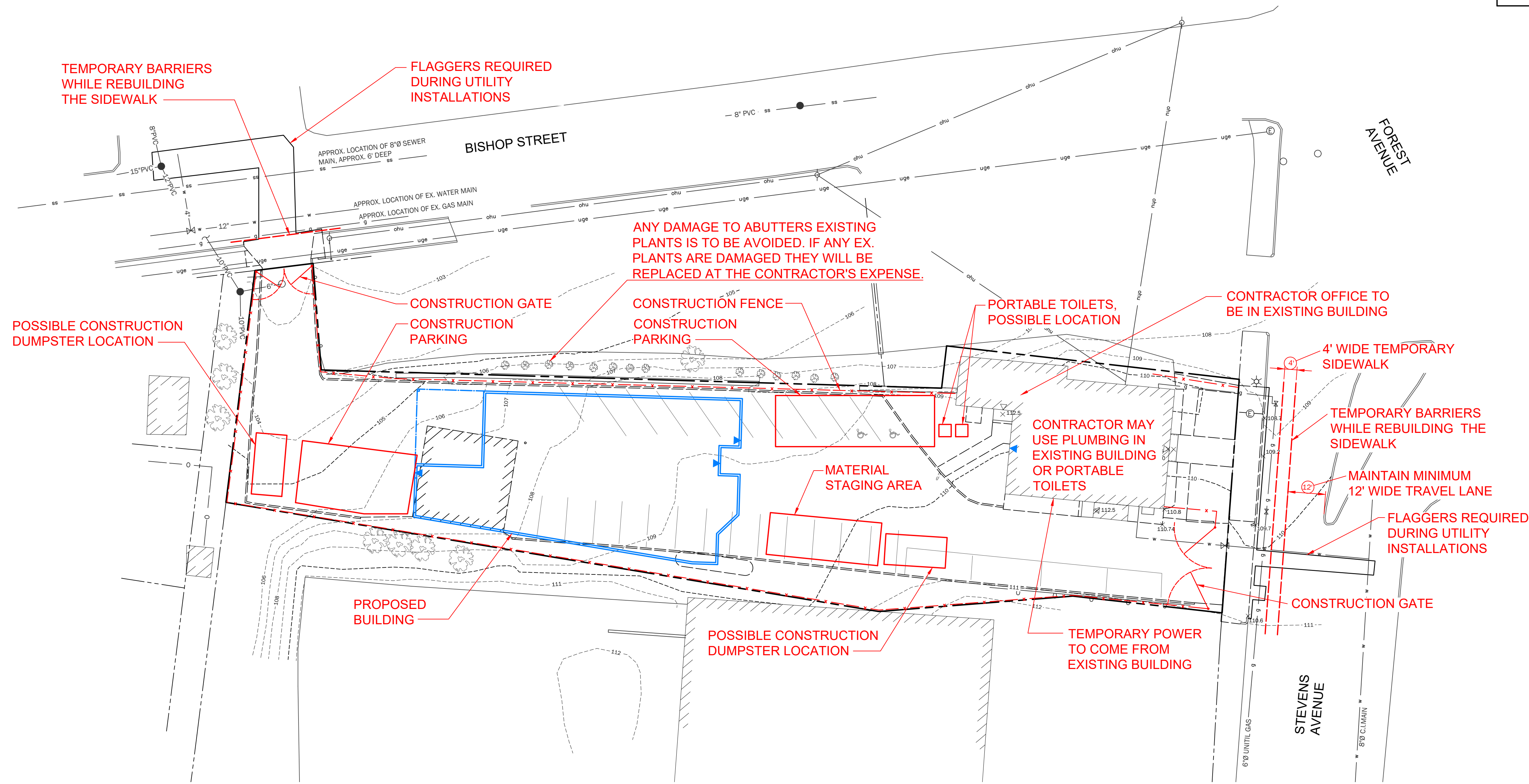
Plot: All Erosion Sedimentation Plans, 1/2" = 1' (Horizontal), 1/4" = 1' (Vertical), 1/8" = 1' (Vertical), 1/16" = 1' (Vertical), 1/32" = 1' (Vertical), 1/64" = 1' (Vertical), 1/128" = 1' (Vertical), 1/256" = 1' (Vertical), 1/512" = 1' (Vertical), 1/1024" = 1' (Vertical), 1/2048" = 1' (Vertical), 1/4096" = 1' (Vertical), 1/8192" = 1' (Vertical), 1/16384" = 1' (Vertical), 1/32768" = 1' (Vertical), 1/65536" = 1' (Vertical), 1/131072" = 1' (Vertical), 1/262144" = 1' (Vertical), 1/524288" = 1' (Vertical), 1/1048576" = 1' (Vertical), 1/2097152" = 1' (Vertical), 1/4194304" = 1' (Vertical), 1/8388608" = 1' (Vertical), 1/16777216" = 1' (Vertical), 1/33554432" = 1' (Vertical), 1/67108864" = 1' (Vertical), 1/134217728" = 1' (Vertical), 1/268435456" = 1' (Vertical), 1/536870912" = 1' (Vertical), 1/1073741824" = 1' (Vertical), 1/2147483648" = 1' (Vertical), 1/4294967296" = 1' (Vertical), 1/8589934592" = 1' (Vertical), 1/17179869184" = 1' (Vertical), 1/34359738368" = 1' (Vertical), 1/68719476736" = 1' (Vertical), 1/137438953472" = 1' (Vertical), 1/274877906944" = 1' (Vertical), 1/549755813888" = 1' (Vertical), 1/1099511627776" = 1' (Vertical), 1/2199023255552" = 1' (Vertical), 1/4398046511104" = 1' (Vertical), 1/8796093022208" = 1' (Vertical), 1/17592186044416" = 1' (Vertical), 1/35184372088832" = 1' (Vertical), 1/70368744177664" = 1' (Vertical), 1/140737488355328" = 1' (Vertical), 1/281474976710656" = 1' (Vertical), 1/562949953421312" = 1' (Vertical), 1/1125899906842624" = 1' (Vertical), 1/2251799813685248" = 1' (Vertical), 1/4503599627370496" = 1' (Vertical), 1/9007199254740992" = 1' (Vertical), 1/18014398509481984" = 1' (Vertical), 1/36028797018963968" = 1' (Vertical), 1/72057594037927936" = 1' (Vertical), 1/144115188075855872" = 1' (Vertical), 1/288230376151711744" = 1' (Vertical), 1/576460752303423488" = 1' (Vertical), 1/1152921504606846976" = 1' (Vertical), 1/2305843009213693952" = 1' (Vertical), 1/4611686018427387904" = 1' (Vertical), 1/9223372036854775808" = 1' (Vertical), 1/18446744073709551616" = 1' (Vertical), 1/36893488147419103232" = 1' (Vertical), 1/73786976294838206464" = 1' (Vertical), 1/147573952589676412928" = 1' (Vertical), 1/295147905179352825856" = 1' (Vertical), 1/590295810358705651712" = 1' (Vertical), 1/1180591620717411303424" = 1' (Vertical), 1/2361183241434822606848" = 1' (Vertical), 1/4722366482869645213696" = 1' (Vertical), 1/9444732965739290427392" = 1' (Vertical), 1/18889465931478580854784" = 1' (Vertical), 1/37778931862957161709568" = 1' (Vertical), 1/75557863725914323419136" = 1' (Vertical), 1/151115727451828646838272" = 1' (Vertical), 1/302231454903657293676544" = 1' (Vertical), 1/604462909807314587353088" = 1' (Vertical), 1/1208925819614629174706176" = 1' (Vertical), 1/2417851639229258349412352" = 1' (Vertical), 1/4835703278458516698824704" = 1' (Vertical), 1/9671406556917033397649408" = 1' (Vertical), 1/19342813113834066795298816" = 1' (Vertical), 1/38685626227668133590597632" = 1' (Vertical), 1/77371252455336267181195264" = 1' (Vertical), 1/154742504910672534362390528" = 1' (Vertical), 1/309485009821345068724781056" = 1' (Vertical), 1/618970019642690137449562112" = 1' (Vertical), 1/1237940039285380274899124224" = 1' (Vertical), 1/2475880078570760549798248448" = 1' (Vertical), 1/4951760157141521099596496896" = 1' (Vertical), 1/9903520314283042199192993792" = 1' (Vertical), 1/19807040628566084398385987584" = 1' (Vertical), 1/39614081257132168796771975168" = 1' (Vertical), 1/79228162514264337593543950336" = 1' (Vertical), 1/158456325028528675187087900672" = 1' (Vertical), 1/316912650057057350374175801344" = 1' (Vertical), 1/633825300114114700748351602688" = 1' (Vertical), 1/1267650600228229401496703205376" = 1' (Vertical), 1/2535301200456458802993406410752" = 1' (Vertical), 1/5070602400912917605986812821504" = 1' (Vertical), 1/10141204801825835211973625643008" = 1' (Vertical), 1/20282409603651670423947251286016" = 1' (Vertical), 1/40564819207303340847894502572032" = 1' (Vertical), 1/81129638414606681695789005144064" = 1' (Vertical), 1/162259276829213363391578010288128" = 1' (Vertical), 1/324518553658426726783156020576256" = 1' (Vertical), 1/649037107316853453566312041152512" = 1' (Vertical), 1/1298074214633706907132624082305024" = 1' (Vertical), 1/2596148429267413814265248164610048" = 1' (Vertical), 1/5192296858534827628530496329220096" = 1' (Vertical), 1/10384593717069655257060992658440192" = 1' (Vertical), 1/20769187434139310514121985316880384" = 1' (Vertical), 1/41538374868278621028243970633760768" = 1' (Vertical), 1/83076749736557242056487941267521536" = 1' (Vertical), 1/166153499473114484112975882535043072" = 1' (Vertical), 1/332306998946228968225951765070086144" = 1' (Vertical), 1/664613997892457936451903530140172288" = 1' (Vertical), 1/1329227995784915872903807060280344576" = 1' (Vertical), 1/2658455991569831745807614120560689152" = 1' (Vertical), 1/5316911983139663491615228241121378304" = 1' (Vertical), 1/10633823966279326983230456482242756608" = 1' (Vertical), 1/21267647932558653966460912964485513216" = 1' (Vertical), 1/42535295865117307932921825928971026432" = 1' (Vertical), 1/85070591730234615865843651857942052864" = 1' (Vertical), 1/170141183460469231731687303715884105728" = 1' (Vertical), 1/340282366920938463463374607431768211456" = 1' (Vertical), 1/680564733841876926926749214863536422912" = 1' (Vertical), 1/1361129467683753853853498429727072845824" = 1' (Vertical), 1/2722258935367507707706996859454145691648" = 1' (Vertical), 1/5444517870735015415413993718908291383296" = 1' (Vertical), 1/10889035741470030830827987437816582766592" = 1' (Vertical), 1/21778071482940061661655974875633165533184" = 1' (Vertical), 1/43556142965880123323311949751266331066368" = 1' (Vertical), 1/87112285931760246646623899502532662132736" = 1' (Vertical), 1/174224571863520493293247799005065244265472" = 1' (Vertical), 1/348449143727040986586495598010130488530944" = 1' (Vertical), 1/696898287454081973172991196020260977061888" = 1' (Vertical), 1/1393796574908163946345982392040521954123776" = 1' (Vertical), 1/2787593149816327892691964784081043908247552" = 1' (Vertical), 1/5575186299632655785383929568162087816495104" = 1' (Vertical), 1/11150372599265311570767859136324175632990208" = 1' (Vertical), 1/22300745198530623141535718272648351265980416" = 1' (Vertical), 1/44601490397061246283071436545296702531960832" = 1' (Vertical), 1/89202980794122492566142873090593405063921664" = 1' (Vertical), 1/178405961588244985132285746181186810127843328" = 1' (Vertical), 1/356811923176489970264571492362373620255686656" = 1' (Vertical), 1/713623846352979940529142984724747240511373312" = 1' (Vertical), 1/1427247692705959881058285969449494481022746624" = 1' (Vertical), 1/2854495385411919762116571938898988962045493248" = 1' (Vertical), 1/5708990770823839524233143877797977924090986496" = 1' (Vertical), 1/11417981541647679048466287755595955848181972992" = 1' (Vertical), 1/22835963083295358096932575511191911696363945984" = 1' (Vertical), 1/45671926166590716193865151022383823392727891968" = 1' (Vertical), 1/91343852333181432387730302044767646785455783936" = 1' (Vertical), 1/182687704666362864775460604089535293570911567872" = 1' (Vertical), 1/365375409332725729550921208179070587141823135744" = 1' (Vertical), 1/730750818665451459101842416358141174283646271488" = 1' (Vertical), 1/1461501637330902918203684832716282348567292542976" = 1' (Vertical), 1/2923003274661805836407369665432564697134585085952" = 1' (Vertical), 1/5846006549323611672814739330865129394269170171904" = 1' (Vertical), 1/11692013098647223345629478661730258788538340343808" = 1' (Vertical), 1/23384026197294446691258957323460517577076680687616" = 1' (Vertical), 1/46768052394588893382517914646921035154153361375232" = 1' (Vertical), 1/93536104789177786765035829293842070308306722750464" = 1' (Vertical), 1/187072209578355573530071658587684140616613445500928" = 1' (Vertical), 1/374144419156711147060143317175368281233226891001856" = 1' (Vertical), 1/748288838313422294120286634350736562466453782003712" = 1' (Vertical), 1/1496577676626844588240573268701473124932907564007424" = 1' (Vertical), 1/2993155353253689176481146537402946249865815128014848" = 1' (Vertical), 1/5986310706507378352962293074805892499731630256029696" = 1' (Vertical), 1/11972621413014756705924586149611784999463260512059392" = 1' (Vertical), 1/23945242826029513411849172299223569998926521024118784" = 1' (Vertical), 1/47890485652059026823698344598447139997853042048237568" = 1' (Vertical), 1/95780971304118053647396689196894279995706084096475136" = 1' (Vertical), 1/191561942608236107294793378393788559991412168192950272" = 1' (Vertical), 1/383123885216472214589586756787577119982824336385900544" = 1' (Vertical), 1/766247770432944429179173513575154239965648672771801088" = 1' (Vertical), 1/1532495540865888858358347027150308479931297345543602176" = 1' (Vertical), 1/3064991081731777716716694054300616959862594691087204352" = 1' (Vertical), 1/6129982163463555433433388108601233919725189382174408704" = 1' (Vertical), 1/1225996432692711086686677621720246783945037876434881728" = 1' (Vertical), 1/2451992865385422173373355243440493567890075752869763456" = 1' (Vertical), 1/4903985730770844346746710486880987135780151505739526912" = 1' (Vertical), 1/9807971461541688693493420973761974271560303011479053824" = 1' (Vertical), 1/1961594292288337738698684194752394854312060602295806752" = 1' (Vertical), 1/3923188584576675477397368389504789708624121204591613504" = 1' (Vertical), 1/7846377169153350954794736779009579417248242409183227008" = 1' (Vertical), 1/15692754338306701909589473558019158834496484818366454016" = 1' (Vertical), 1/31385508676613403819178947116038317668992969636732908032" = 1' (Vertical), 1/62771017353226807638357894232076635337985939273465816064" = 1' (Vertical), 1/125542034706453615276715788464153270675971878546931632128" = 1' (Vertical), 1/251084069412907230553431576928306541351943757093863264256" = 1' (Vertical), 1/502168138825814461106863153856613082703887514187726528512" = 1' (Vertical), 1/1004336277651628922213726317713226165407775028375453056" = 1' (Vertical), 1/2008672555303257844427452635426452330815550056750906112" = 1' (Vertical), 1/4017345110606515688854905270852904661631100113501812224" = 1' (Vertical), 1/8034690221213031377709810541705809323262200227003624448" = 1' (Vertical), 1/1606938044242606275541962108341161864652440045400724896" = 1' (Vertical), 1/3213876088485212551083924216682323729304880090801449792" = 1' (Vertical), 1/6427752176970425102167848433364647458609760181602899584" = 1' (Vertical), 1/12855504353940850204335696866729294917219520363205799168" = 1' (Vertical), 1/25711008707881700408671393733458589834439040726411598336" = 1' (Vertical), 1/51422017415763400817342787466917179668878081452823196672" = 1' (Vertical), 1/102844034831526801634685574933834359337756162905646393344" = 1' (Vertical), 1/205688069663053603269371149867668718675512325811292786688" = 1' (Vertical), 1/411376139326107206538742299735337437351024651622585573376" = 1' (Vertical), 1/822752278652214413077484599470674874702049303245171146752" = 1' (Vertical), 1/1645504557304428826154969198941349749404098606490342293504" = 1' (Vertical), 1/3291009114608857652309938397882699498808197212980684587008" = 1' (Vertical), 1/6582018229217715304619876795765398997616394425961369174016" = 1' (Vertical), 1/13164036458435430609239753591530797995232788851922738368032" = 1' (Vertical), 1/26328072916870861218479507183061595990465577703845476736064" = 1' (Vertical), 1/52656145833741722436959014366123191980931155407690953472128" = 1' (Vertical), 1/105312291667483444873918028732246383961862310815381906944256" = 1' (Vertical), 1/210624583334966889747836057464492767923724621630763813888512" = 1' (Vertical), 1/421249166669933779495672114928985535847449243261527627777024" = 1' (Vertical), 1/842498333339867558991344229857971071694898486523055255554048" = 1' (Vertical), 1/1684996666679735117982688459715942143389796973046110511108096" = 1' (Vertical), 1/3369993333359470235965376919431884286779593946092221022216192" = 1' (Vertical), 1/6739986666718940471930753838863768573559187892184442044432384" = 1' (Vertical), 1/13479973333437880943861507677727537147118375784368884088864768" = 1' (Vertical), 1/26959946666875761887723015355455074294236751568737768177729536" = 1' (Vertical), 1/53919893333751523775446030710910148588473503137475536355459072" = 1' (Vertical), 1/107839786667503047550892061421820297176947006274951072710918144" = 1' (Vertical), 1/215679573335006095101784122843640594353894012549902145221836288" = 1' (Vertical), 1/431359146670012190203568245687281188707788025099804290443672576" = 1' (Vertical), 1/862718293340024380407136491374562377415576050199608580887345152" = 1' (Vertical), 1/1725436586680048760814272982749124754831152100399217161774690304" = 1' (Vertical), 1/3450873173360097521628545965498249509662304200798434323549380608" = 1' (Vertical), 1/6901746346720195043257091930996499019324608401596868647098761216" = 1' (Vertical), 1/13803492693440390086514183861992998038649216803193737294197522432" = 1' (Vertical), 1/27606985386880780173028367723955996077298433606387474588395044864" = 1' (Vertical), 1/55213970773761560346056735447911992154596867212774949176790089728" = 1' (Vertical), 1/110427941547523120692113470895823943189193734425549898353580179456" = 1' (Vertical), 1/220855883095046241384226941791647886378387468851099796707160358912" = 1' (Vertical), 1/441711766190092482768453883583295772756774937702199593414320717824" = 1' (Vertical), 1/883423532380184965536907767166591545513549875404399186828641435648" = 1' (Vertical), 1/1766847064760369931073815534333183091027099750808798373657282871296" = 1' (Vertical), 1/3533694129520739862147631068666366182054199501617596747314565742592" = 1' (Vertical), 1/7067388259041479724295262137332732364108399003235193494629131485184" = 1' (Vertical), 1/14134776518082959448590524274665464728216798006470386989258262970368" = 1' (Vertical), 1/28269553036165918897181048549330929456433596012940773978516525940736" = 1' (Vertical), 1/56539106072331837794362097098661858912867192025881547957033051881472" = 1' (Vertical), 1/113078212144663675588724194197323717825734384051763095914066103762944" = 1' (Vertical), 1/226156424289327351177448388394647435651468768103526191828132207525888" = 1' (Vertical), 1/452312848578654702354896776789294871302937536207052383656264415051776" = 1' (Vertical), 1/904625697157309404709793553578589742605875072414104767312528830103552" = 1' (Vertical), 1/1809251394314618809419587107157179485211750144828209534625057660207104" = 1' (Vertical), 1/3618502788629237618839174214314358970423500289656419069250115320414208" = 1' (Vertical), 1/7237005577258475237678348428628717940847000579312838138500230640828416" = 1' (Vertical), 1/14474011154516950475356696857257435881694001158625676277004612801656832" = 1' (Vertical), 1/28948022309033900950713393714514871763388002317251352554009225603313664" = 1' (Vertical), 1/578960446180678019014267874290297435267760046



844 STEVENS AVENUE APARTMENTS

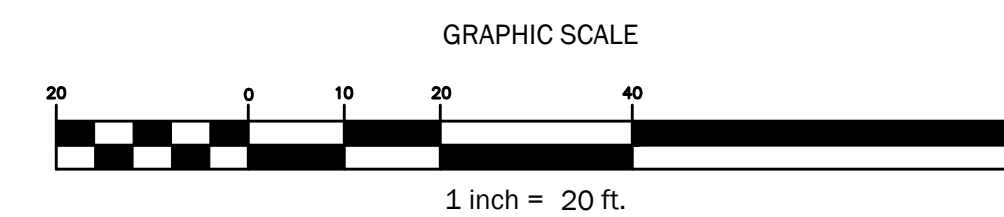
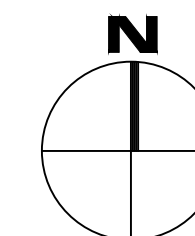
844 STEVENS AVENUE
PORTLAND, MAINE

PREPARED FOR:
STEVENS AVENUE, LLC
303 ISLINGTON STREET
PORTSMOUTH, NEW HAMPSHIRE 03801



CONSTRUCTION MANAGEMENT NOTES:

1. PROVIDE FENCING, SAFETY CONES, BARRELS, AND/OR WARNING TAPE AS REQUIRED TO RESTRICT ACCESS TO THE SITE AND PROVIDE FOR PEDESTRIAN SAFETY.
2. REMOVE EXISTING GARAGE USING THE EXISTING PARKING AREA AS STAGING AREA.
3. PROVIDE DUMPSTERS ON SITE THROUGHOUT THE CONSTRUCTION PROCESS.
4. TEMPORARY TRAILERS OR BUILDING ACCESS AND EMPLOYEE CONVENIENCE FACILITIES TO BE MAINTAINED ON SITE THROUGHOUT THE PROJECT.
5. CONSTRUCTION EMPLOYEE PARKING TO BE MAINTAINED ON SITE.
6. ANY PARKING ON STEVENS AVENUE OR BISHOP STREET FOR LOADING OR MATERIAL DELIVERY MUST LEAVE ROOM FOR TWO WAY TRAFFIC.



Rev.	Date	Description	Drawn	Check
1	4/27/2020	REV'D PER CITY REVIEW	JDC	TSG

Sheet Title:
**CONSTRUCTION
MANAGEMENT
PLAN**

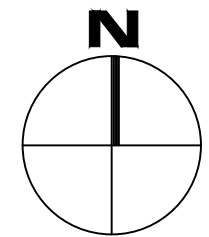
Job No.:	547	Sheet No.:	
Date:	JAN. 3. 2020		
Scale:	AS SHOWN		
Drawn:	JDC		
Checked:	TSG		

CM-1



LEGEND

1. OWNER/DEVELOPER: STEVENS AVENUE, LLC, 403 ISLINGTON STREET, PORTSMOUTH, NH 03801
CUMBERLAND COUNTY REGISTRY OF DEEDS, BOOK 35503, PAGE 131, RECORDED DATE 3/8/19
2. ENGINEER: WALSH ENGINEERING ASSOCIATES, INC., ONE KAREN DRIVE, SUITE 2A, WESTBROOK,
MAINE 04092
3. ARCHITECT: WHIPPLE - CALLENDER ARCHITECTS, P.O. BOX 1276, PORTLAND, MAINE 04104.
4. BOUNDARY AND TOPOGRAPHIC INFORMATION: STEPHEN W. EVERETT, PLS 2162, 73 PHEASANT RUN
ROAD, EAST WATERBORO, MAINE 04030
5. ZONE: B2 - COMMUNITY BUSINESS: MULTIFAMILY HOUSING & GENERAL BUSINESS & PROFESSIONAL
OFFICES
6. TAX MAP REFERENCE: MAP 293 / BLOCK D / LOT 14
7. TOTAL PARCEL = 21,989 SQUARE FEET
8. WAIVERS: SEE SUBDIVISION RECORDING PLAT, SHEET 2 OF 2 FOR LIST OF WAIVERS.
9. CALL DIG-SAFE PRIOR TO COMMENCING WORK, 811 OR 1-888-DIG-SAFE.
10. UNITS TO BE SERVICED BY EXISTING PUBLIC WATER AND GAS FROM STEVENS AVENUE AND SEWER
FROM BISHOP STREET. THESE SERVICES, INCLUDING HYDRANTS, ARE AS SHOWN ON SHEET C2.3,
GRADING AND UTILITIES PLAN.
11. POWER, TELEPHONE AND CABLE SERVICES ARE TO BE UNDERGROUND FROM BISHOP STREET. THESE
SERVICES ARE SHOWN ON SHEET C2.3, GRADING AND UTILITIES PLAN.
12. ALL WORK WITHIN THE PUBLIC RIGHT OF WAY SHALL MEET CITY OF PORTLAND TECHNICAL MANUAL
STANDARDS.
13. THE SUBJECT PARCEL KNOWN AS 844 STEVENS AVENUE IS SUBJECT TO A CITY OF PORTLAND LEVEL III
SITE PLAN AND SUBDIVISION PERMIT.
14. DETAILS OF STREET TREES ARE INCLUDED ON THE LANDSCAPE PLAN AS PART OF THE APPROVAL FOR
844 STEVENS AVENUE APARTMENTS SITE PLAN.
15. FLOODPLAIN: THIS PROPERTY IS IN ZONE X OF THE FLOOD INSURANCE RATE MAP, COMMUNITY PANEL
2300051 0007C, MAP REVISED DECEMBER 8, 1998. IT IS NOT IN A SPECIAL FLOOD HAZARD ZONE.
16. SNOW CLEARANCE REQUIREMENTS ARE AS NOTED ON SHEET C1.2 UNDER SNOW CLEARANCE NOTES.
17. PROPERTY PINS TO BE SET AT THE EXPENSE OF THE DEVELOPER AT THE END OF CONSTRUCTION. ANY
MONUMENTATION DAMAGED BY CONSTRUCTION IS TO BE REPLACED.
18. 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 2016.
19. E-911 ADDRESSES, AS ASSIGNED BY PORTLAND PUBLIC WORKS ARE TO BE
EXISTING BUILDING: 844 STEVENS AVENUE
PROPOSED BUILDING: 842 STEVENS AVENUE



Register

Rev.	Date	Description	Drawn	Check
1	4/27/2020	REV'D PER CITY REVIEW	JDC	TSG
2	5/21/2020	REV'D PER 5-15-2020 CITY REVIEW	JDC	TSG

Sheet Title:

SUBDIVISION
RECORDING PLAT
SHEET 1 OF 2

C1.1

3. LANDSCAPING SHALL MEET THE "ARBORICULTURAL SPECIFICATIONS AND STANDARDS OF PRACTICE AND LANDSCAPE GUIDELINES" OF THE CITY OF PORTLAND TECHNICAL AND DESIGN STANDARDS AND GUIDELINES.
2. THE ENTIRE SITE SHALL BE DEVELOPED AND/OR MAINTAINED AS DEPICTED 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, SITE, LOCATION, AND SURFACING OF PARKING AREAS AND LOCATION AND SIZE OF BUILDINGS.
3. ALL POWERLINE UTILITIES SHALL BE UNDERGROUND, UNLESS OTHERWISE NOTED.
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 LOT NOT COVERED BY BUILDINGS OR PAVED AREAS SHALL BE STABILIZED WITH SEED AND SOIL 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.
10. SUBDIVISION AT THE TIME OF APPROVAL IS DEFINED AS "SUBDIVISION SHALL MEAN THE DIVISION OF A LOT, TRACT OR PARCEL OF LAND INTO THREE (3) OR MORE LOTS, INCLUDING LOTS OF FORTY (40) ACRES OR MORE, WITHIN ANY FIVE-YEAR PERIOD WHETHER ACCOMPLISHED BY SALE, LEASE, DEVELOPMENT, BUILDINGS OR OTHERWISE AND AS FURTHER DEFINED IN 30-A M.R.S.A. SECTION 4401. THE TERM SUBDIVISION SHALL ALSO INCLUDE THE DIVISION OF A NEW STRUCTURE OR STRUCTURES ON A TRACT OR PARCEL OF LAND INTO THREE (3) OR MORE DWELLING UNITS WITHIN A FIVE-YEAR PERIOD AND THE DIVISION OF AN EXISTING STRUCTURE OR STRUCTURES PREVIOUSLY USED FOR COMMERCIAL OR INDUSTRIAL USE INTO THREE (3) OR MORE DWELLING UNITS WITHIN A FIVE-YEAR PERIOD. THE AREA INCLUDED IN THE DIVISION OF AN EXISTING STRUCTURE IS DEEMED TO BE A NEW STRUCTURE FOR THE PURPOSE OF THIS PARAGRAPH. A DWELLING UNIT SHALL INCLUDE ANY PART OF A STRUCTURE WHICH, THROUGH SALE OR LEASE, IS INTENDED FOR HUMAN HABITATION, INCLUDING SINGLE-FAMILY AND MULTIFAMILY HOUSING CONDOMINIUMS, TIME-SHARE UNITS AND APARTMENTS."

1. RECORD OWNER OF THE PROPERTY IS STEVENS AVENUE LLC HAVING A MAILING ADDRESS OF 303 ISLINGTON STREET, PORTSMOUTH, NH 03801.
2. THE SUBJECT PROPERTY IS LOCATED WITHIN THE BUSINESS COMMUNITY, INDUSTRIAL LOW IMPACT ZONE.
3. TRAFFIC PRODUCED BY THIS DEVELOPMENT WILL NOT AFFECT TRAFFIC PATTERNS ON STEVENS AVENUE AND BISHOP STREET.
4. TOPOGRAPHIC INFORMATION OBTAINED BY GROUND SURVEY CONDUCTED SEPT. 15, 2018, CONTROLLED BY SURVEY GRADE GPS (TRIMBLE 5800) STATIC OBSERVATION CORRECTED BY OPUS SOLUTIONS.
5. ELEVATIONS SHOWN ON THIS PLAN ARE NGVD 1929 DATUM.
6. PLAN COORDINATES DERIVED BY SURVEY GRADE GPS PROJECTED TO MAINE STATE GRID, NAD 1983, WEST ZONE.
7. UNDERGROUND UTILITIES ON BISHOP STREET WERE OBTAINED FROM SURFACE OBSERVATIONS AND TAKEN FROM PLAN PREPARED FOR WHIPPLE CALLENDER ARCHITECTS BY OWEN HASKELL INC. DATED AUGUST 2, 2017.
8. CONTOURS OUTSIDE THE PROPERTY WERE INTERPOLATED FROM 2' CONTOUR MODEL PROVIDED BY THE STATE OF MAINE.

PLAN SHOWING A "STANDARD BOUNDARY SURVEY", PREPARED BY NADEAU & LODGE, DATED OCTOBER 31, 1994, FOR JAMES ASCANIO, RECORDED IN CUMBERLAND COUNTY REGISTER OF DEEDS IN PLAN BK 194, PG 462.

PLAN PREPARED FOR WHIPPLE-CALLENDER ARCHITECTS BY OWEN HASKELL INC. DATED AUGUST 2, 2017.

EXISTING VEHICLE SPACES:	27
REQUIRED VEHICLE SPACES:	
RESIDENTIAL UNITS: 1 PER UNIT:	21
OFFICES: 1 PER 400 S.F. OF FLOOR AREA	2
TOTAL VEHICLE SPACES REQUIRED:	23
VEHICLE SPACES PROVIDED:	
9'x18' STANDARD SPACES:	17
8'x18' SPACES:	3
8'x15' COMPACT SPACES:	2
8'x18' HANDICAP ACCESSIBLE SPACES:	1
TOTAL VEHICLE SPACES PROVIDED:	23
BICYCLE SPACES REQUIRED:	
2 BICYCLE SPACES PER	
5 DWELLING UNITS (21/2.5):	9
PROVIDED:	
4 - EXTERIOR RACKS FOR 2 BICYCLE EACH	8
1 - EXTERIOR RACK FOR 1 BICYCLE	1
TOTAL BICYCLE SPACES PROVIDED:	9
2-WHEELED VEHICLE SPACE 4'x8':	1

1. SNOW IS TO BE STORED WITHIN THE SNOW STORAGE AREAS.
2. SNOW MAY BE PHYSICALLY REMOVED AND TRANSPORTED OFFSITE IF NECESSARY.
3. SNOW TRANSPORTED OFFSITE SHALL BE BROUGHT TO A MAINE DEP APPROVED "SNOW DUMP" OR MEET THE EXEMPTION REQUIREMENTS SPECIFIED WITHIN CHAPTER 573 WHEN THE ABOVE REQUIREMENTS CANNOT BE MET DUE TO AN ABUNDANCE OF SNOW.
4. THE SNOW CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO VEGETATION, LANDSCAPING, CURBING, LIGHTING, FENCING ETC. RESULTING FROM THEIR ACTIVITIES.
5. THE SNOW CONTRACTOR SHALL USE SALT OR CHLORIDE SUBSTITUTE TO DEICE THE PARKING LOT.
6. THE OWNER IS RESPONSIBLE FOR SNOW REMOVAL BEING UNDERTAKEN IN A TIMELY FASHION.

1. CLASSIFICATION:	B2 - COMMUNITY BUSINESS ZONE
2. PERMITTED USES:	MULTI-FAMILY HOUSING GENERAL BUSINESS & PROFESSIONAL OFFICES
3. MINIMUM LOT SIZE: PROVIDED:	NONE 21,989 S.F
4. MINIMUM STREET FRONTAGE: PROVIDED:	20 FEET 76.3 FEET
5. FRONT YARD SETBACK MINIMUM: PROVIDED:	NONE EX. BLDG: 20.7 FEET / PROP. BLDG: 159 FEET
6. REAR YARD SETBACK MINIMUM: PROVIDED:	10 FEET EX. BLDG: 5 & 230 FEET / PROP. BLDG: 59.6 FEET
7. SIDE YARD SETBACK MINIMUM: PROVIDED:	NONE EX. BLDG: 2 & 26.2 FEET / PROP. BLDG: 5.3 FEET
8. FRONT YARD MAXIMUM: PROVIDED:	NO MORE THAN 10 FEET NOTE ①
9. STRUCTURE STEPBACKS: PROVIDED:	NOTE ② EX. BLDG: EXISTING / PROP. BLDG: 5.3 SIDE & 70 REAR FEET
10. HEIGHT MAXIMUM: PROVIDED:	45 FEET EX. BLDG: EXISTING, 30 FEET± / PROP. BLDG: 40.3 FEET
11. MAX. IMPERVIOUS SURFACE RATIO: PROVIDED:	RESIDENTIAL: NONE / BUSINESS: 80% 80%
12. MIN. LOT AREA PER DWELLING UNIT: PROVIDED:	435 S.F. PER UNIT 1,047 S.F. PER UNIT

① EXISTING BUILDING AND "NO MORE THAN 10 FEET, EXCEPT THAT THE PLANNING BOARD OR PLANNING AUTHORITY MAY APPROVE A DIFFERENT AMOUNT FOR IRREGULARLY SHAPED LOTS."

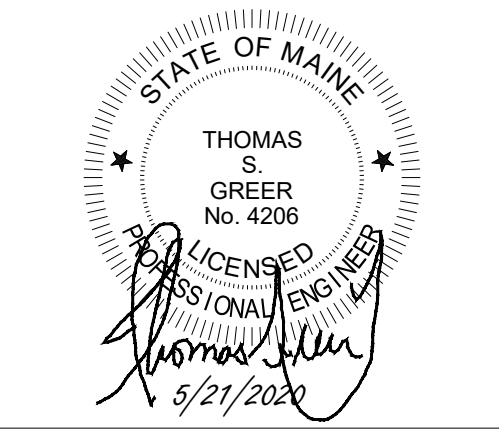
② PORTIONS OF A STRUCTURE ABOVE 35 FEET SHALL BE NO CLOSER THAN 5 FEET FROM THE SIDE PROPERTY LINE AND NO CLOSER THAN 15 FEET FROM THE REAR PROPERTY LINE WHEN SUCH PROPERTY LINE ABUTS A RESIDENTIAL ZONE.

EXISTING IMPERVIOUS	17,508 SQ. FT. (79.6%)
PROPOSED IMPERVIOUS	17,580 SQ. FT. (79.9%)
NET IMPERVIOUS	+72 SQ. FT. (0.3%)

1. WAIVER REQUEST OF THE TECHNICAL STANDARDS SECTION 1.14 OF THE CITY'S TECHNICAL MANUAL STANDARD THAT PARKING LOTS WITH GREATER THAN 10 SPACES MAY BE COMPRISED OF UP TO 20% COMPACT PARKING SPACES, TO ALLOW 5 COMPACT SPACES WHICH IS 23% OF THE TOTAL NUMBER.
2. WAIVER REQUEST OF LAND USE CODE CHAPTER 14, ARTICLE V, SITE PLAN SECTION 14-526 (a) 3a CONSTRUCTION OF TRANSIT FACILITY, BUS SHELTER. AN EXISTING BUS STOP IS APPROXIMATELY 500 FEET FROM THE SITE.
3. WAIVER REQUEST OF THE TECHNICAL STANDARDS SECTION 1.7.2.7 OF THE CITY'S TECHNICAL MANUAL STANDARD FOR DRIVEWAY SEPARATION TO ALLOW THE EXISTING DRIVEWAY THAT HAS BEEN IN OPERATION FOR YEARS TO REMAIN IN ITS PRESENT LOCATION. THE EXISTING DRIVEWAY IS AS FAR FROM THE INTERSECTION AS POSSIBLE AND A SHARED DRIVEWAY IS NOT POSSIBLE.
4. WAIVER REQUEST OF LAND USE CODE CHAPTER 14, ARTICLE IV, SUBDIVISIONS SECTION 14-499 (h) REQUIRED IMPROVEMENTS, TO CONTINUE OVERHEAD POWER TO THE EXISTING BUILDING AT 844 STEVENS AVENUE.

BY _____ DATE _____

APPROVED BY: _____ DATE: _____



844 STEVENS AVENUE
PORTLAND, MAINE

PREPARED FOR:

STEVENS AVENUE, LLC

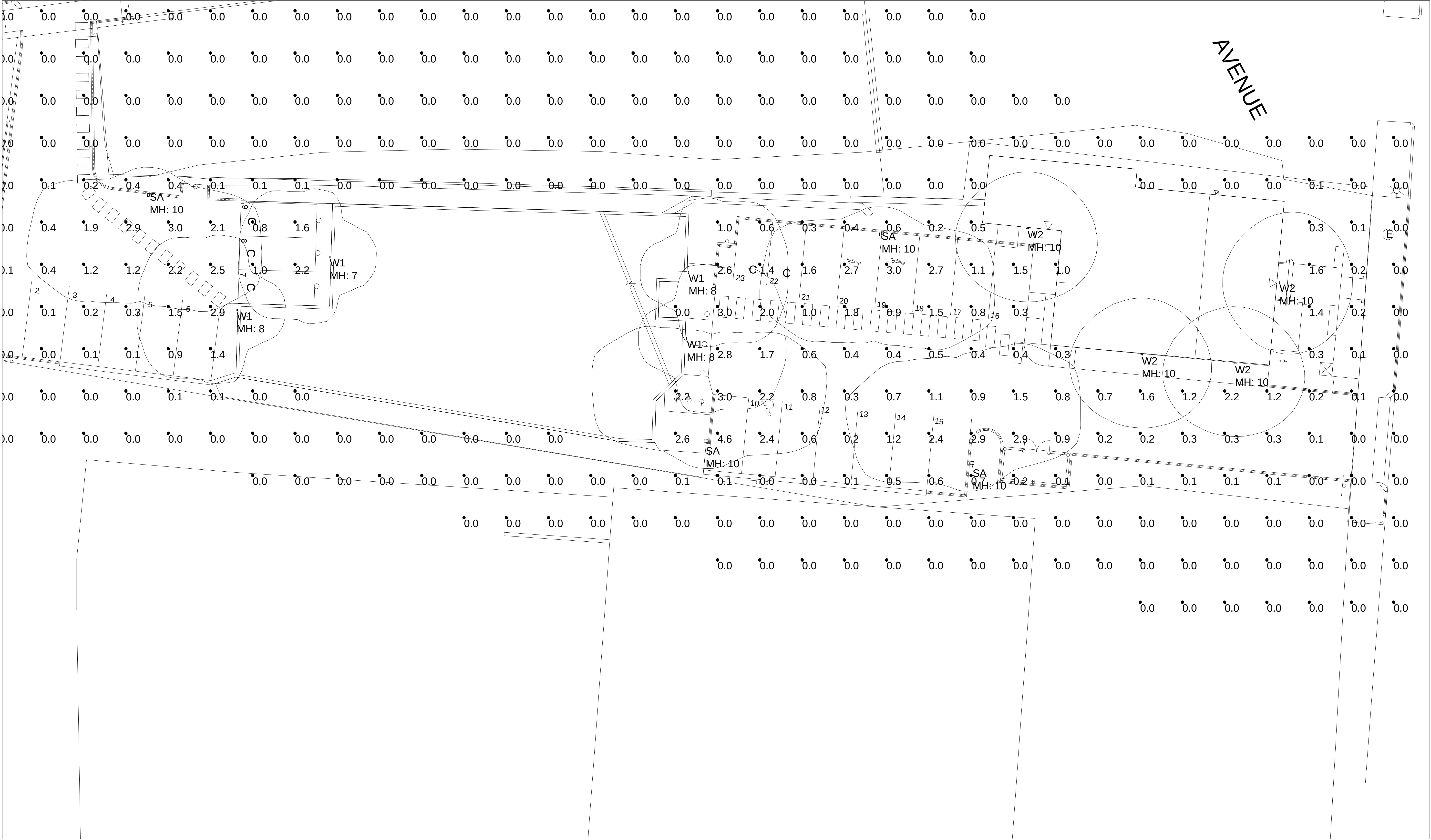
303 ISLINGTON STREET
PORTSMOUTH, NEW HAMPSHIRE 03801

Sheet Title:	
SUBDIVISION RECORDING PLAT SHEET 2 OF 2	
Job No.:	547
Date:	JAN. 3, 2020
Scale:	AS SHOWN
Drawn:	JDC
Checked:	TSG
Sheet No.:	C1.2

Luminaire Schedule (note fixture catalogue numbers are not complete)					
Type	Qty	Lum. Lumens	LLF	Lum. Watts	Description
SA	4	2289	0.900	28	VP-S-24L-27-4K7-4W-BC
W1	4	1247	0.900	17.3	CY1-15-3K7-1-4-R
W2	4	1102	0.900	17.3	CY1-15-3K7-1-3D-R

Calculation Summary					
Label	Avg	Max	Min	Avg/Min	Max/Min
site	0.27	4.6	0.0	N.A.	N.A.

- NOTES:
- 1) EXACT MOUNTING DETAILS TO BE DETERMINED AT JOBSITE BY OTHERS.
 - 2) CALCULATIONS MAY or MAY NOT SHOW THE EFFECT OF SHADOWING CAUSED BY BUILDINGS AND OBJECTS WITHIN THE CALCULATED SPACE OR IN THE SITE AREA.
 - 3) READINGS SHOWN ARE INITIAL HORIZONTAL FOOTCANDLES ON A FLAT SITE WITHOUT REFLECTIONS OR OBSTRUCTIONS UNLESS OTHERWISE INDICATED.
 - 4) THIS CALCULATION IS BASED ON LIMITED INFORMATION SUPPLIED BY OTHERS TO SWANEY LIGHTING ASSOCIATES AND STANDARD ASSUMPTIONS OF THE SPACE AND/OR SITE.
 - 5) CONFORMANCE TO CODES AND OTHER LOCAL REQUIREMENTS AS DETERMINED BY THE AHJ ARE THE RESPONSIBILITY OF THE OWNER AND/OR THE OWNER'S REPRESENTATIVE.
 - 6) THIS LAYOUT DRAWING MUST BE COORDINATED WITH THE SITE LOCATION FOR CORRECT FIXTURE ORIENTATION.
 - 7) DOCUMENTS PRINTED OR PLOTTED FROM ELECTRONIC FILES MAY APPEAR AT OTHER THAN THE DESIRED OR ASSUMED GRAPHIC SCALES. IT IS THE RESPONSIBILITY OF THE RECIPIENT TO VERIFY THAT THE PRINTED OR PLOTTED-TO-SCALE DRAWING IS PRINTED TO SCALE.



PLAN VIEW

844 STEVENS AVE
PORTLAND, ME
SITE LIGHTING LAYOUT

WHIPPLE/CALENDER
ARCHITECTS

SCALE NOT TO SCALE

SWANEY LIGHTING ASSOCIATES, INC.

NOTICE: THIS DRAWING IS THE EXCLUSIVE PROPERTY OF SWANEY LIGHTING ASSOCIATES. IT IS NOT TO BE REPRODUCED, COPIED, OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM, WITHOUT THE WRITTEN PERMISSION OF SWANEY LIGHTING ASSOCIATES. THIS DRAWING IS TO BE USED FOR NO PURPOSE OTHER THAN AS DETAILED HEREIN. ANY REUSE OR MODIFICATION OF THIS DRAWING WITHOUT THE WRITTEN PERMISSION OF SWANEY LIGHTING ASSOCIATES IS EXPRESSLY PROHIBITED. SWANEY LIGHTING ASSOCIATES, INC. IS NOT RESPONSIBLE FOR ANY ERRORS OR OMISSIONS IN THIS DRAWING. THE INTENT OF THIS LIGHTING LAYOUT IS TO SUGGEST THE BEST UTILIZATION OF LIGHTING FIXTURES TO ACHIEVE THE DESIRED ILLUMINATION LEVELS. PERFORMANCE SHOWN IN THIS FILE IS NOT THE RESPONSIBILITY OF THE MANUFACTURER. IT'S USE FOR ANY OTHER PURPOSE IS NOT AUTHORIZED BY SWANEY LIGHTING ASSOCIATES.

GENERATED FOR:

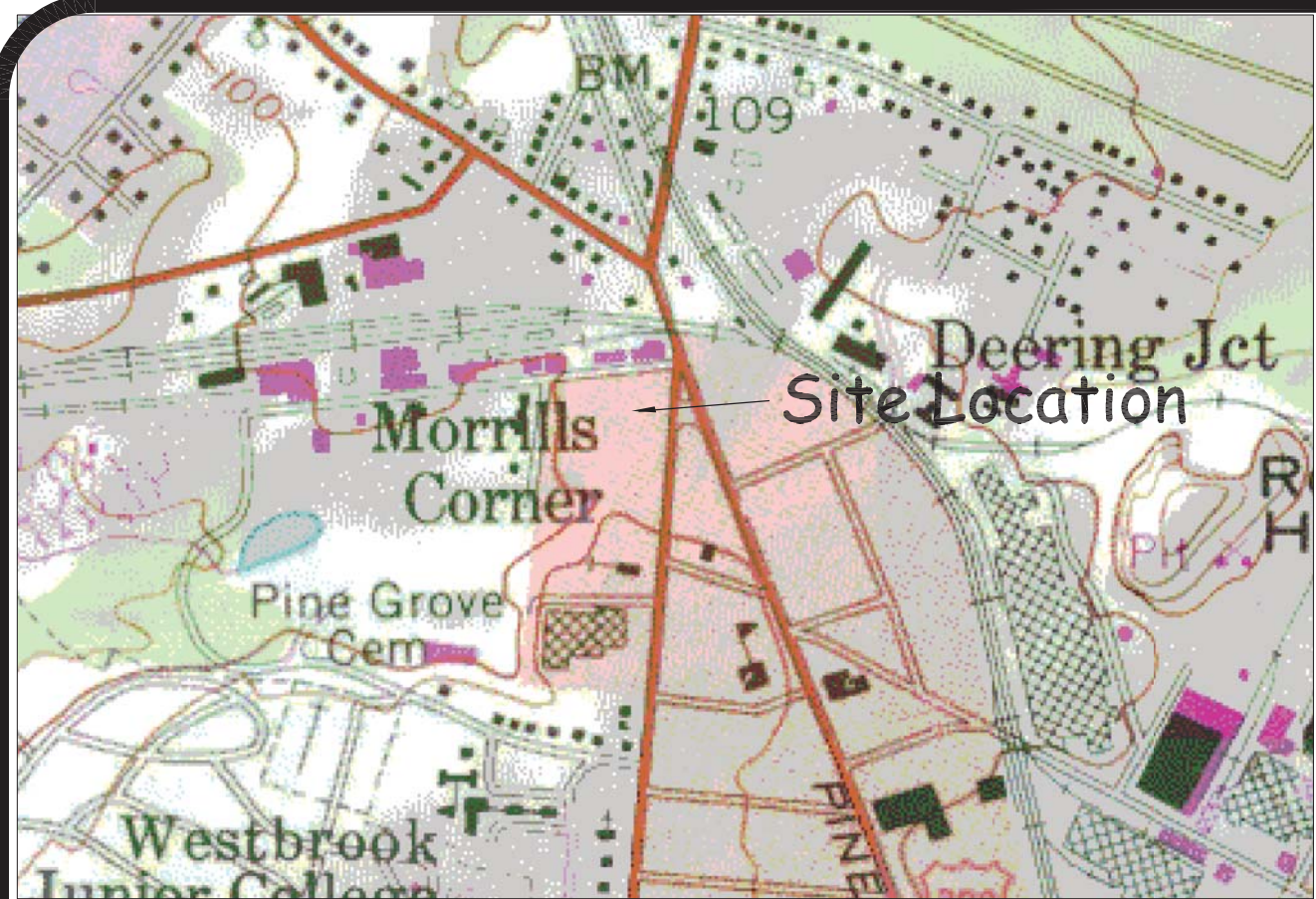
DATE: 5/20/2020

PAGE 1 OF 1

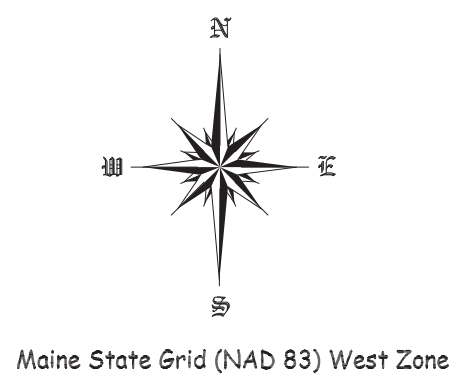
TITLE

DATE: 5-20-20 AGI

GENERATED BY SWANEY LIGHTING, SCARBOROUGH ME - 207-883-7100 - swaneylighting.com



LOCATION MAP



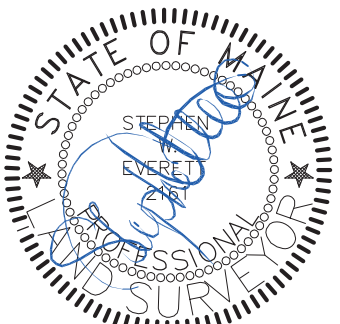
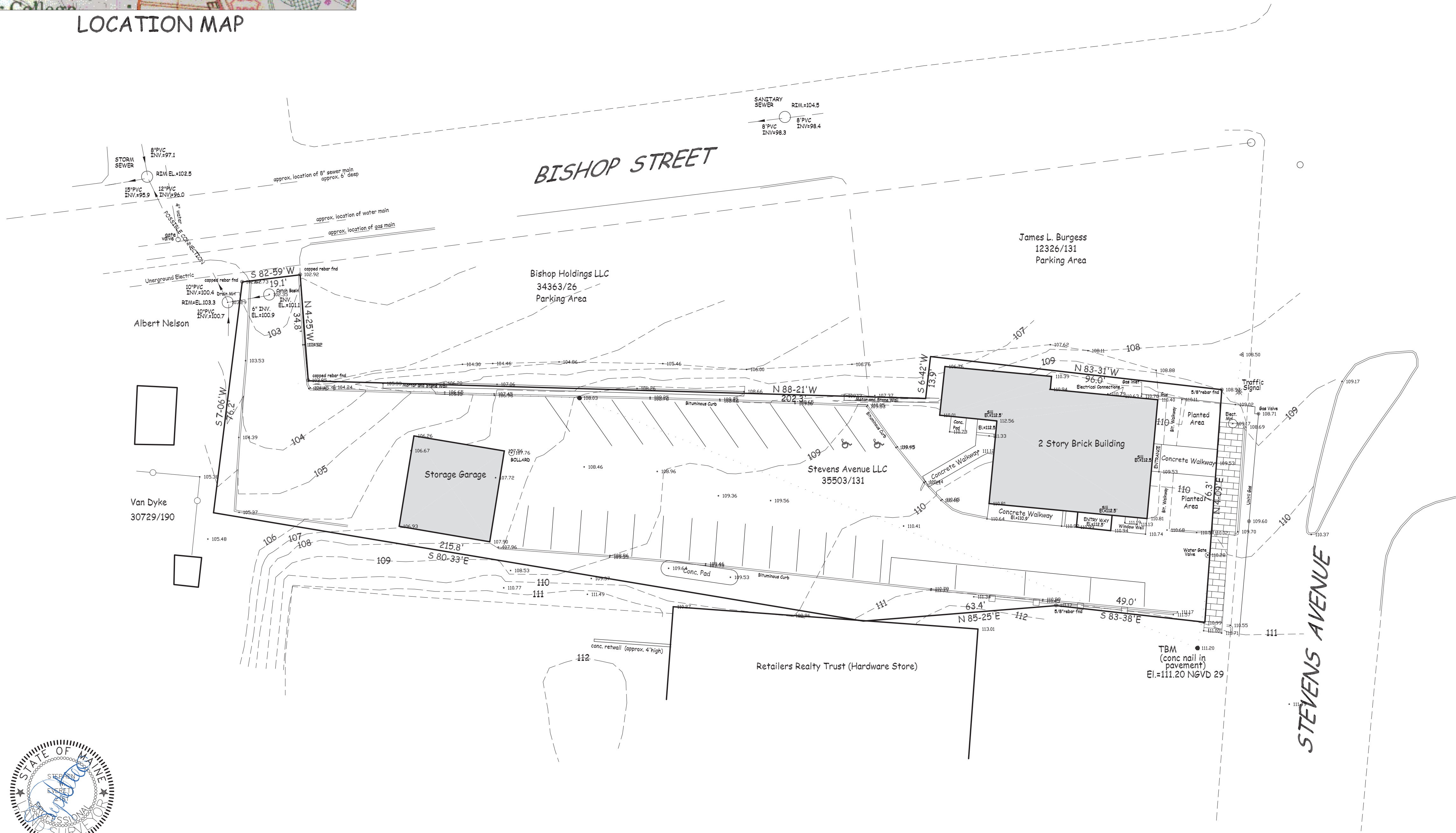
- LEGEND
- Iron survey marker found
 - △ Survey Control Point
 - Deed Line
 - Lot Lines
 - Spot Elevation

- GENERAL NOTES:
1. RECORD OWNER OF THE PROPERTY IS STEVENS AVENUE LLC HAVING A MAILING ADDRESS OF 303 ISLINGTON ST., PORTSMOUTH, NH 03801.
 2. THE SUBJECT PROPERTY IS LOCATED WITHIN THE BUSINESS COMMUNITY, INDUSTRIAL LOW IMPACT ZONE:
 3. TRAFFIC PRODUCED BY THIS DEVELOPMNET WILL NOT AFFECT TRAFFIC PATTERNS ON STEVENS AVENUE AND BISHOP STREET.
 4. TOPOGRAPHIC INFORMATION OBTAINED BY GROUND SURVEY CONDUCTED SEPT. 15, 2018, CONTROLLED BY SURVEY GRADE GPS (TRIMBLE 5800) STATIC OBSERVATION CORRECTED BY OPUS SOLUTIONS.
 5. ELEVATIONS SHOWN ON THIS PLAN ARE NGVD 1929 DATUM.
 6. PLAN COORDINATES DERIVED BY SURVEY GRADE GPS PROJECTED TO MAINE STATE GRID, NAD 1983, WEST ZONE.
 7. UNDERGROUND UTILITIES ON BISHOP STREET WERE OBTAINED FROM SURFACE OBSERVATIONS AND TAKEN FROM PLAN PREPARED FOR WHIPPLE-CALLENDER ARCHITECTS BY OWEN HASKELL INC. DATED AUGUST 2, 2017.
 8. CONTOURS OUTSIDE THE PROPERTY WERE INTERPOLATED FROM 2' CONTOUR MODEL PROVIDED BY THE STATE OF MAINE.

PLAN REFERENCE:

PLAN SHOWING A "STANDARD BOUNDARY SURVEY", PREPARED BY NADEAU & LODGE, DATED OCTOBER 31, 1994, FOR JAMES ASCANIO, RECORDED IN CUMBERLAND COUNTY REGISTRY OF DEEDS IN PLAN BK 194, PG 462.

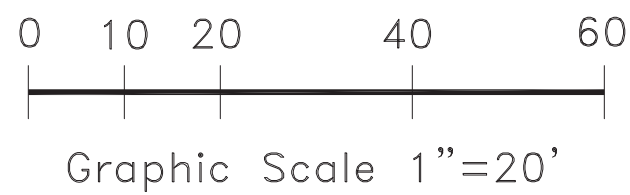
PLAN PREPARED FOR WHIPPLE-CALLENDER ARCHITECTS BY OWEN HASKELL INC. DATED AUGUST 2, 2017,



CERTIFICATION

I hereby certify to Edward Benway that this survey meets the minimum standards of the Board of Licensure of Land Surveyors of the State of Maine, for it's expressed purpose, to the best my knowledge and belief.

CUMBERLAND COUNTY REGISTRY OF DEEDS



Existing Conditions Survey
844 Stevens Avenue LLC

844 Stevens Avenue
in
Portland, Maine
for
Edward Benway
303 Islington St., Portsmouth, NH 03801

Prepared by Stephen W. Everett P.L.S. - East Waterboro, Maine

May 19, 2020

Scale 1"= 20'

NOTES:

1. TOTAL AREA OF PARCEL EQUALS 21,989 SF ±.
2. PARCEL IS SHOWN ON CITY OF PORTLAND TAX ASSESSORS MAPS AS LOT 14 OF BLOCK D ON MAP 293.

PLAN REFERENCES:

1. "PLAN OF LAND IN PORTLAND, ME OWNED BY HARRIETT TRUE", BY E.C. JORDAN & CO., CIVIL ENGINEERS, DATED MAY, 1927.
2. "PLAN OF LOTS MADE BY FRED E. BRIGGS IN MAY, 1913", BY E.C. JORDAN & CO., RECORDED AT THE CUMBERLAND COUNTY REGISTRY OF DEEDS IN PLAN BOOK 12, PAGE 68.
3. "MAINE TURNPIKE AUTHORITY, MAINE TURNPIKE, SECTION 2 - PORTLAND TO AUGUSTA, PROPERTY PLAN", BY HOWARD, NEEDLES, TAMMEN & BERGENDOFF, DATED NOV, 1983, RECORDED AT THE CUMBERLAND COUNTY REGISTRY OF DEEDS IN PLAN BOOK 140, P. 42.
4. "PLAN OF LAND ON BISHOP STREET, PORTLAND, ME FOR THE PLASMINE CORP.", BY OWEN HASKELL, INC., DATED AUG 20, 1986.
5. "SITE PLAN ON PROPERTY ON BISHOP STREET, PORTLAND, ME MADE FOR PLASMINE TECHNOLOGY, INC.", BY OWEN HASKELL, INC., DATED OCT 1, 1991.

LOCAL DEED REFERENCES:

1. EXCHANGE CORPORATION
TO
CASCO BANK & TRUST COMPANY
RECORDED AT THE CUMBERLAND COUNTY REGISTRY OF DEEDS IN BOOK 3217, PAGE 193.
2. MAINE TURNPIKE AUTHORITY
TO
CASCO BANK & TRUST COMPANY
RECORDED AT THE CUMBERLAND COUNTY REGISTRY OF DEEDS IN BOOK 3824, P. 124.

State of Maine, Cumberland ss.
Registry of Deeds
Received November 19 1994
at 12:28 P.M. and recorded in
Plan Book 194 Page 462
Attest:
John B. O'Brien Registrar

LEGEND:

- XXXXX STOCKADE FENCE
- ③ LOT NUMBER PER PLAN REFERENCE #2
- EXISTING BUILDING FACE
- CHAIN LINK FENCE
- RAIL FENCE
- EDGE OF PAVEMENT (CURBING NOT SHOWN)
- SET #S STEEL REBAR W/CAP
- EXISTING CATCH BASIN
- OVERHEAD ELECTRIC/UTILITY LINE
- APPROXIMATE LOCATION OF UNDERGROUND DRAIN.

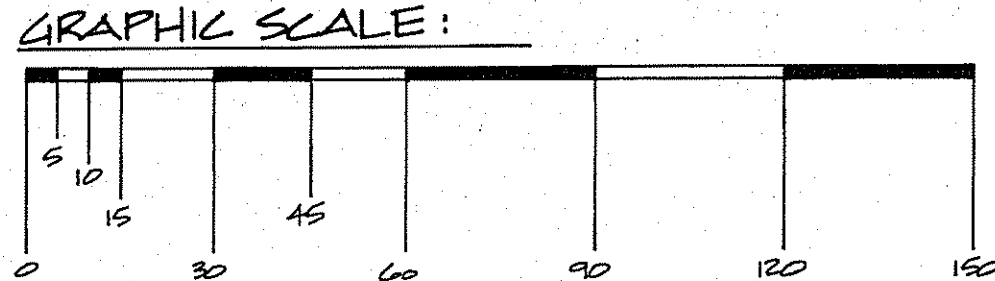
SURVEYOR'S CERTIFICATION:

I HEREBY CERTIFY THAT THIS SURVEY AND PLAN CONFORMS TO THE MAINE BOARD OF LICENSURE FOR PROFESSIONAL LAND SURVEYORS STANDARDS FOR CATEGORY I, CONDITION III SURVEYS, WITH EXCEPTION.

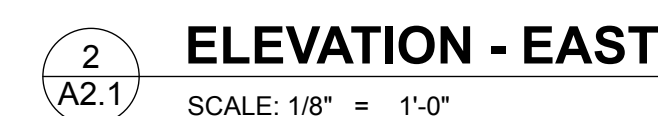
EXCEPTIONS:

1. NO WRITTEN REPORT
2. NO WRITTEN DESCRIPTION

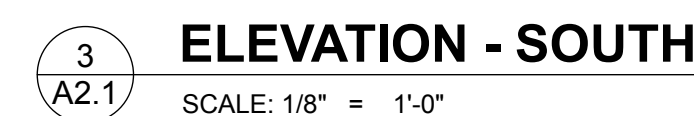
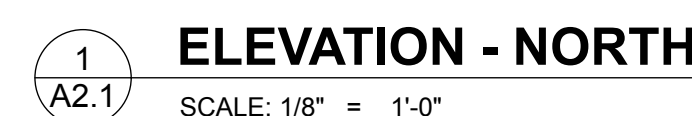
James D. O'Brien
10-31-94
SEAL



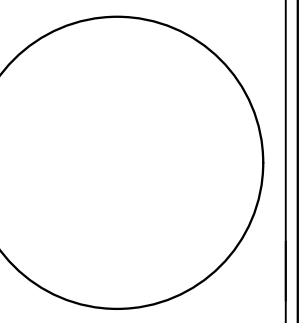
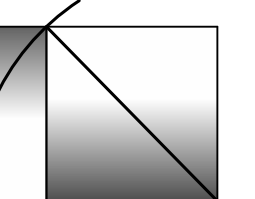
REVISIONS: CORRECTED DRAFTING ERROR TO 202.26' & PLOTTED APPROX LOC. OF UNDERGROUND DRAIN - 11-28-94.		
PLAN SHOWING A STANDARD BOUNDARY SURVEY MADE FOR JAMES ASCANIO LOCATED ON THE WESTERLY SIDELINE OF STEVENS AVENUE, PORTLAND, ME		
BY: NADEAU & LODGE PROFESSIONAL LAND SURVEYORS 85 RACKLEFF STREET, PORTLAND, ME (207) 780-6613		
CLIENT: JAMES ASCANIO 306 WARREN AVE PORTLAND, ME 04103	DRAWN BY: JDN	DATE: 10/31/94
	CHECKED BY: BR/JDN	SCALE: 1"=30'
BOOK NO. 19	JOB NO. 4054	SHEET NO: 1 OF 1



ELEVATION - NORTH



A2.1 ELEVATIONS : Plotted on 5/21/20 at 5:03 PM by Jack Riley. File Path: /Users/aecallender/Desktop/Benway/STE Model 4.8.20.plt

WHIPPLE
CALLENDER
ARCHITECTS

36 PLEASANT AVE.
PORTLAND, ME 04103
207.775.2696
207.775.3631
www.whipplecallender.com

[illegible]

A2.1



UNIT SF			UNIT SF		
Zone Category	Zone Name	SQUARE FOOTAGE	Zone Category	Zone Name	SQUARE FOOTAGE
CIRCULATION	CORRIDOR 1	913	SINGLE UNIT	UNIT 3	500
CIRCULATION	CORRIDOR 2	431	SINGLE UNIT	UNIT 4 - ADA	645
EX. BUILDING APARTMENT	UNIT 17-ADA	597	SINGLE UNIT	UNIT 5	548
EX. BUILDING APARTMENT	UNIT 18	680	SINGLE UNIT	UNIT 6	645
EX. BUILDING APARTMENT	UNIT 19	850	SINGLE UNIT	UNIT 7	474
EX. BUILDING APARTMENT	UNIT 20	1,205	SINGLE UNIT	UNIT 8	645
EX. BUILDING OFFICE	OFFICE 1	396	SINGLE UNIT	UNIT 9	462
EX. BUILDING OFFICE	OFFICE 2	400	STAIR	STAIR 1	381
EX. BUILDING SHARED SPACE	STORAGE	252	STAIR	STAIR 2	370
PARKING	ELEC.	97	TOWNHOUSE UNIT	UNIT 10	1,107
PARKING	MAINTENANCE	147	TOWNHOUSE UNIT	UNIT 11	1,081
PARKING	MECH	362	TOWNHOUSE UNIT	UNIT 12	1,005
PARKING	STORAGE	1,281	TOWNHOUSE UNIT	UNIT 13	1,057
SHARED SPACE	COMMON AREA	520	TOWNHOUSE UNIT	UNIT 14	996
SINGLE UNIT	UNIT 1	485	TOWNHOUSE UNIT	UNIT 15	972
SINGLE UNIT	UNIT 2	472	TOWNHOUSE UNIT	UNIT 16	1,061

1 FIRST FLOOR PLAN
SCALE: 1/8" = 1'-0"
0 4 8 16'

844 STEVENS AVENUE
APARTMENTS

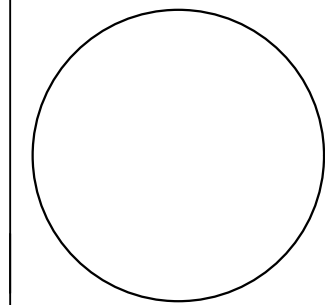
844 STEVENS AVE
PORTLAND, ME

WHIPPLE
CALLENDER
ARCHITECTS

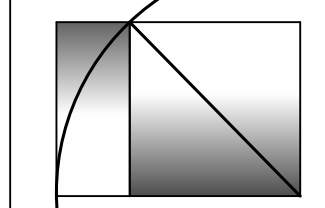
136 PLEASANT AVE.
PORTLAND, ME 04103
P 207.775.3696
F 207.775.3631
www.whipplecallender.com

DATE	DESCRIPTION
1/6/20	CHECKED BY: JAD
	DRAWN BY: JCR
	JOB: 1
	SHEET TITLE: FIRST FLOOR PLAN

A1.1



WHIPPLE
CALLENDER
ARCHITECTS



136 PLEASANT AVE.
PORTLAND, ME 04103
P 207.775.3696
F 207.775.3631
www.whipplecallender.com

DESCRIPTION

DATE

MARK

DATE:

1/6/20

CHECKED BY:

JAD

DRAWN BY:

JCR

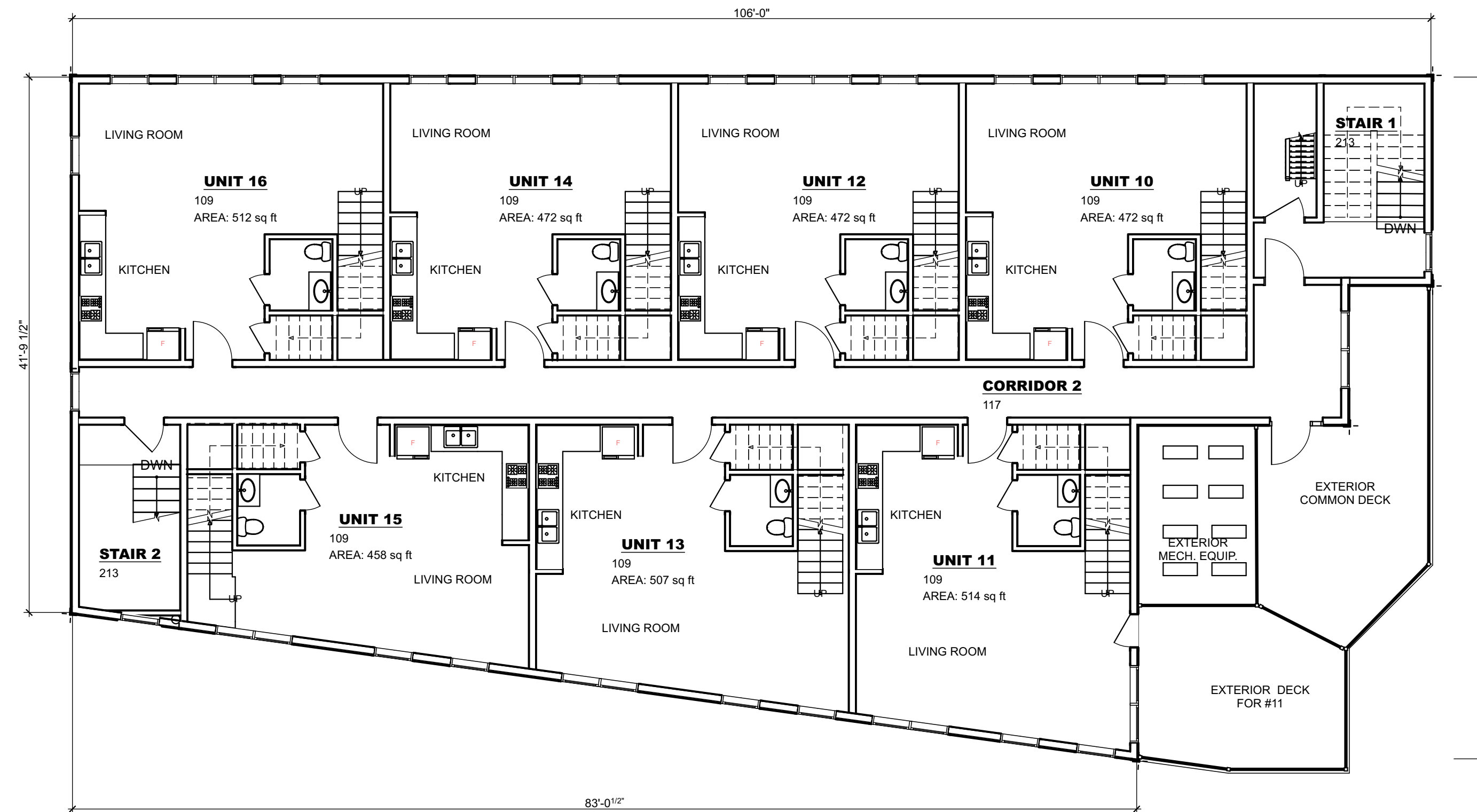
JOB:

1

SHEET TITLE:

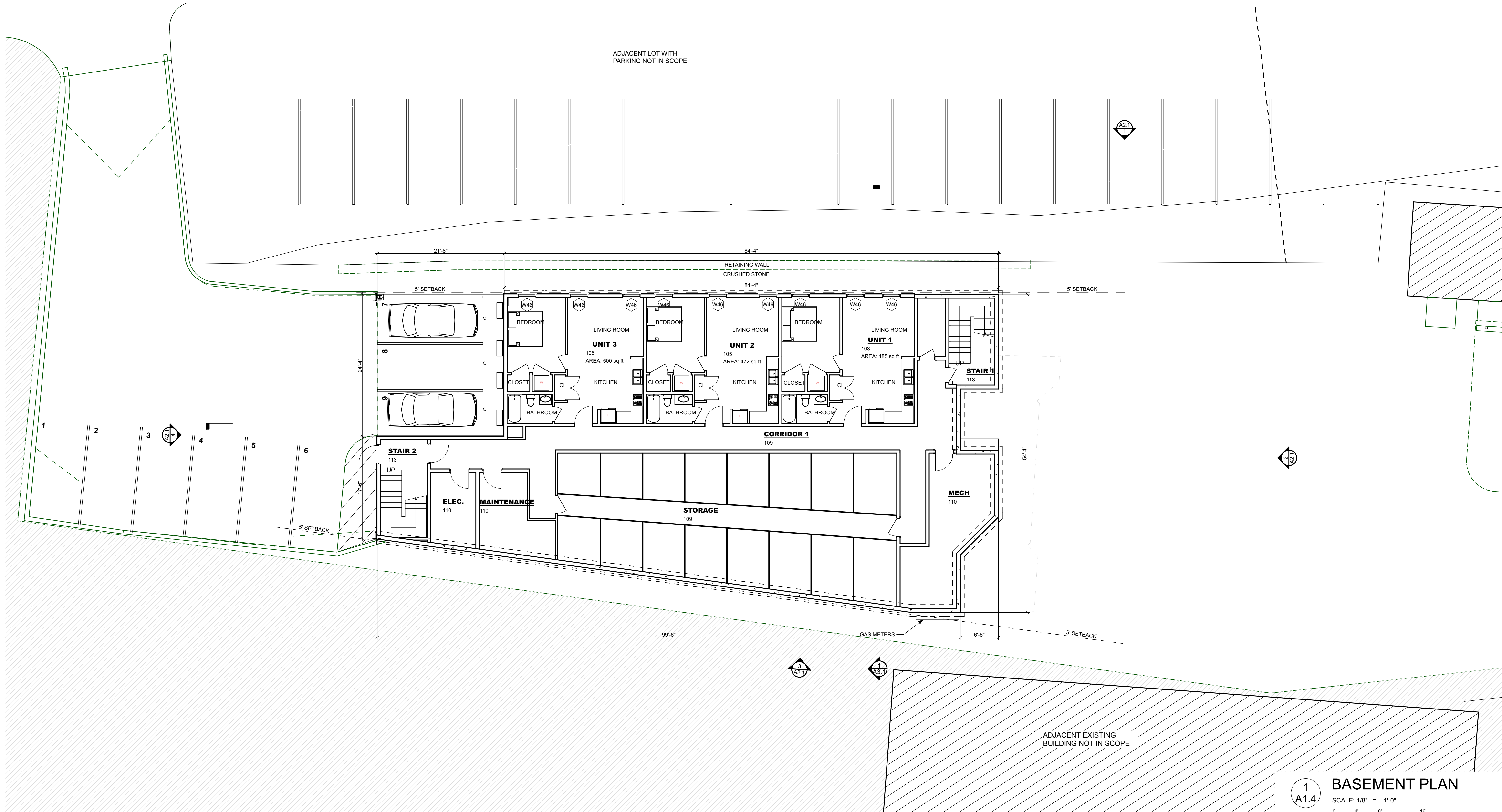
SECOND FLOOR PLAN

A1.2



1
A1.2
SECOND FLOOR PLAN
SCALE: 1/8" = 1'-0"
0 4' 8' 16'

UNIT SF			UNIT SF		
Zone Category	Zone Name	SQUARE FOOTAGE	Zone Category	Zone Name	SQUARE FOOTAGE
CIRCULATION	CORRIDOR 1	913	SINGLE UNIT	UNIT 3	500
CIRCULATION	CORRIDOR 2	431	SINGLE UNIT	UNIT 4 - ADA	645
EX. BUILDING APARTMENT	UNIT 17- ADA	597	SINGLE UNIT	UNIT 5	548
EX. BUILDING APARTMENT	UNIT 18	680	SINGLE UNIT	UNIT 6	645
EX. BUILDING APARTMENT	UNIT 19	850	SINGLE UNIT	UNIT 7	474
EX. BUILDING APARTMENT	UNIT 20	1,205	SINGLE UNIT	UNIT 8	645
EX. BUILDING OFFICE	OFFICE 1	396	SINGLE UNIT	UNIT 9	462
EX. BUILDING OFFICE	OFFICE 2	400	STAIR	STAIR 1	381
EX. BUILDING SHARED SPACE	STORAGE	252	STAIR	STAIR 2	370
PARKING	ELEC.	97	TOWNHOUSE UNIT	UNIT 10	1,107
PARKING	MAINTENANCE	147	TOWNHOUSE UNIT	UNIT 11	1,081
PARKING	MECH	362	TOWNHOUSE UNIT	UNIT 12	1,005
PARKING	STORAGE	1,281	TOWNHOUSE UNIT	UNIT 13	1,057
SHARED SPACE	COMMON AREA	520	TOWNHOUSE UNIT	UNIT 14	996
SINGLE UNIT	UNIT 1	485	TOWNHOUSE UNIT	UNIT 15	972
SINGLE UNIT	UNIT 2	472	TOWNHOUSE UNIT	UNIT 16	1,061



UNIT SF			UNIT SF		
Zone Category	Zone Name	SQUARE FOOTAGE	Zone Category	Zone Name	SQUARE FOOTAGE
CIRCULATION	CORRIDOR 1	913	SINGLE UNIT	UNIT 3	500
CIRCULATION	CORRIDOR 2	431	SINGLE UNIT	UNIT 4 - ADA	645
EX. BUILDING APARTMENT	UNIT 17-ADA	597	SINGLE UNIT	UNIT 5	548
EX. BUILDING APARTMENT	UNIT 18	680	SINGLE UNIT	UNIT 6	645
EX. BUILDING APARTMENT	UNIT 19	850	SINGLE UNIT	UNIT 7	474
EX. BUILDING APARTMENT	UNIT 20	1,205	SINGLE UNIT	UNIT 8	645
EX. BUILDING OFFICE	OFFICE 1	396	SINGLE UNIT	UNIT 9	462
EX. BUILDING OFFICE	OFFICE 2	400	STAIR	STAIR 1	381
EX. BUILDING SHARED SPACE	STORAGE	252	STAIR	STAIR 2	370
PARKING	ELEC.	97	TOWNHOUSE UNIT	UNIT 10	1,107
PARKING	MAINTENANCE	147	TOWNHOUSE UNIT	UNIT 11	1,081
PARKING	MECH	362	TOWNHOUSE UNIT	UNIT 12	1,005
PARKING	STORAGE	1,281	TOWNHOUSE UNIT	UNIT 13	1,057
SHARED SPACE	COMMON AREA	520	TOWNHOUSE UNIT	UNIT 14	996
SINGLE UNIT	UNIT 1	485	TOWNHOUSE UNIT	UNIT 15	972
SINGLE UNIT	UNIT 2	472	TOWNHOUSE UNIT	UNIT 16	1,061

1
A1.4
BASEMENT PLAN
SCALE: 1/8" = 1'-0"
0 4' 8' 16'

844 STEVENS AVENUE
APARTMENTS

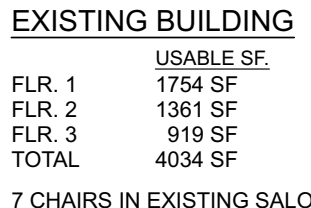
844 STEVENS AVE
PORTLAND, ME

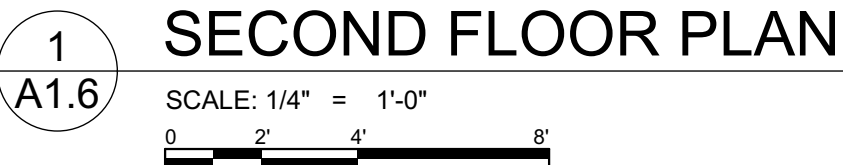
WHIPPLE
CALLENDER
ARCHITECTS

136 PLEASANT AVE.
PORTLAND, ME 04103
P 207.775.3696
F 207.775.3631
www.whipplecallender.com

DESCRIPTION	
DATE	
MARK	
DATE:	1/6/20
CHECKED BY:	JAD
DRAWN BY:	JCR
JOB:	1
SHEET TITLE:	PARKING LEVEL

A1.4





A1.6

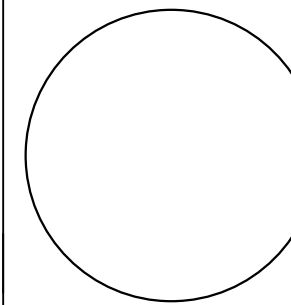


1
A1.7

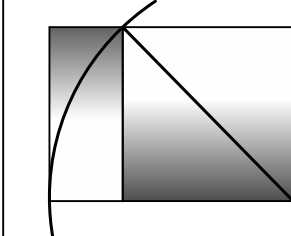
THIRD FLOOR PLAN

SCALE: 1/4" = 1'-0"

0 2' 4' 8'



WHIPPLE
CALLENDER
ARCHITECTS



136 PLEASANT AVE.
PORTLAND, ME 04103
P 207.775.3696
F 207.775.3631
www.whipplecallender.com

DESCRIPTION	DATE	MARK

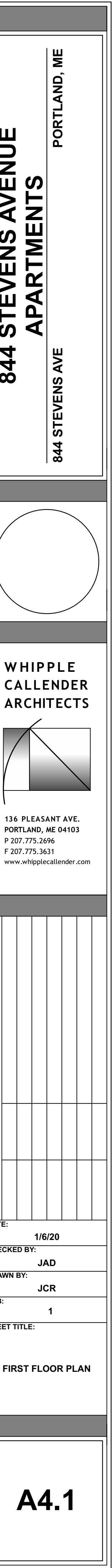
DATE: 1/6/20

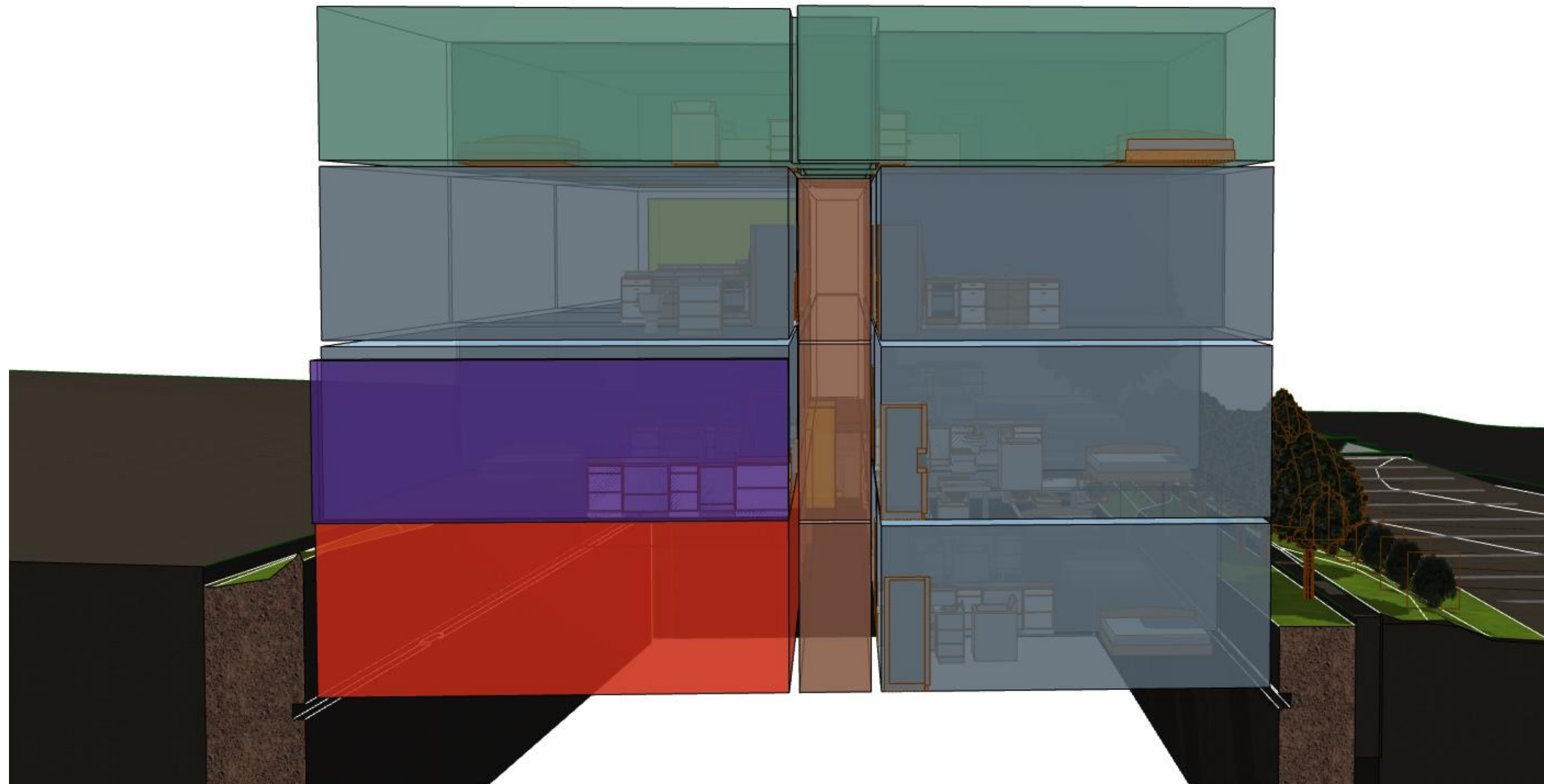
CHECKED BY: JAD

DRAWN BY: JCR

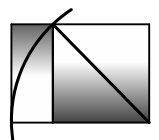
JOB: 1

SHEET TITLE: EXISTING THIRD FLR.





SECTION PERSPECTIVE



WHIPPLE | CALLENDER ARCHITECTS
136 PLEASANT AVE.
PORTLAND, ME 04103
207.775.2696

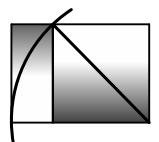
844 STEVENS AVE
844 STEVENS AVE, PORTLAND ME

1/6/20

SK1



STEVENS AVE PERSEPCTIVE



WHIPPLE | CALLENDER ARCHITECTS
136 PLEASANT AVE.
PORTLAND, ME 04103
207.775.2696

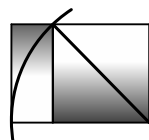
844 STEVENS AVE
844 STEVENS AVE, PORTLAND ME

1/6/20

SK2



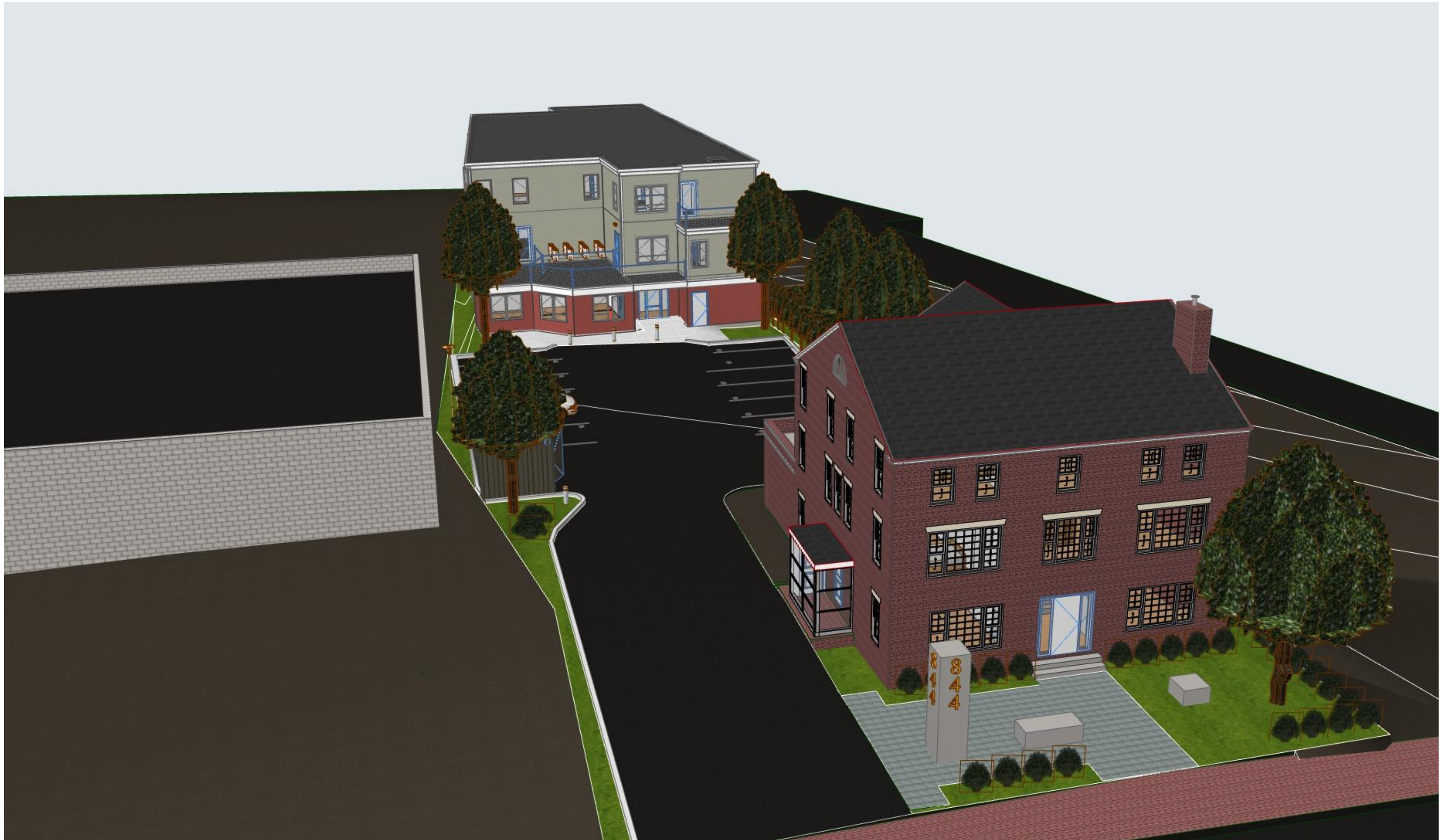
BISHOP STREET PERSPECTIVE



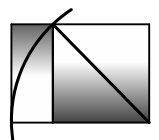
WHIPPLE | CALLENDER ARCHITECTS
136 PLEASANT AVE.
PORTLAND, ME 04103
207.775.2696

844 STEVENS AVE
844 STEVENS AVE, PORTLAND ME

1/6/20
SK3



STEVENS AVE AERIAL



WHIPPLE | CALLENDER ARCHITECTS
136 PLEASANT AVE.
PORTLAND, ME 04103
207.775.2696

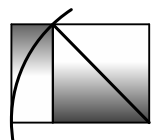
844 STEVENS AVE
844 STEVENS AVE, PORTLAND ME

1/6/20

SK4



BISHOP STREET AERIAL



WHIPPLE | CALLENDER ARCHITECTS
136 PLEASANT AVE.
PORTLAND, ME 04103
207.775.2696

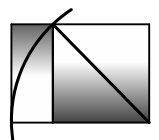
844 STEVENS AVE
844 STEVENS AVE, PORTLAND ME

1/6/20

SK5



STEVENS AVE DIAGRAM



WHIPPLE | CALLENDER ARCHITECTS
 136 PLEASANT AVE.
 PORTLAND, ME 04103
 207.775.2696

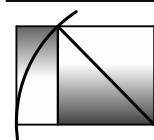
844 STEVENS AVE
 844 STEVENS AVE, PORTLAND ME

1/6/20

SK6



BISHOP STREET DIAGRAM



WHIPPLE | CALLENDER ARCHITECTS
136 PLEASANT AVE.
PORTLAND, ME 04103
207.775.2696

844 STEVENS AVE
844 STEVENS AVE, PORTLAND ME

1/6/20

SK7

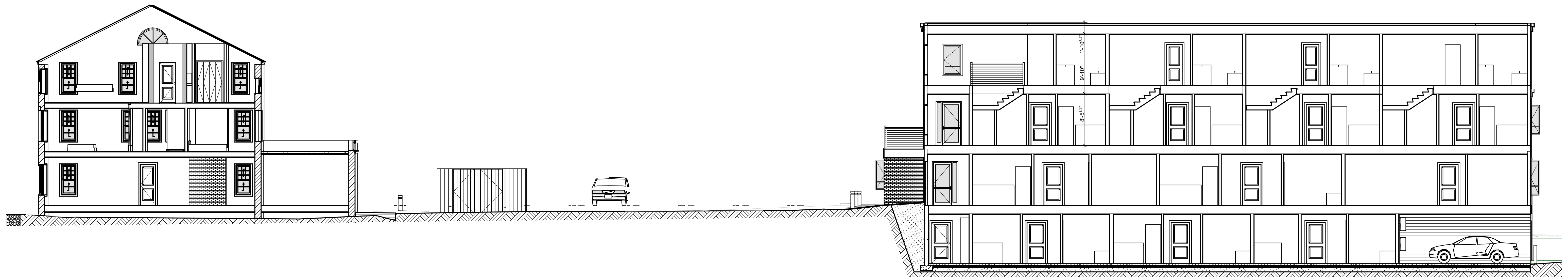


1
A3.1

N/S BUILDING SECTION

SCALE: 1/4" = 1'-0"

0 2' 4' 8'

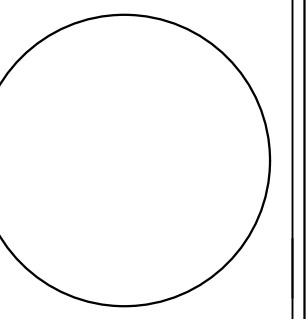


E/W BUILDING SECTION

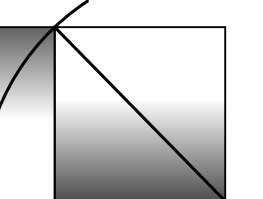
SCALE: 1/8" = 1'-0"

0 2' 4' 8'

THIS DRAWING IS AN INSTRUMENT OF SERVICE AND SHALL REMAIN THE PROPERTY OF WHIPPLE CALLENDER ARCHITECTS.
IT SHALL NOT BE USED FOR ANY OTHER PURPOSE THAT FOR WHICH IT IS SPECIFICALLY FURNISHED



WHIPPLE
CALLENDER
ARCHITECTS



36 PLEASANT AVE.
PORTLAND, ME 04103
207.775.2696
207.775.3631
www.whipplecallender.com

[illegible]

SECTIONS

A3.1

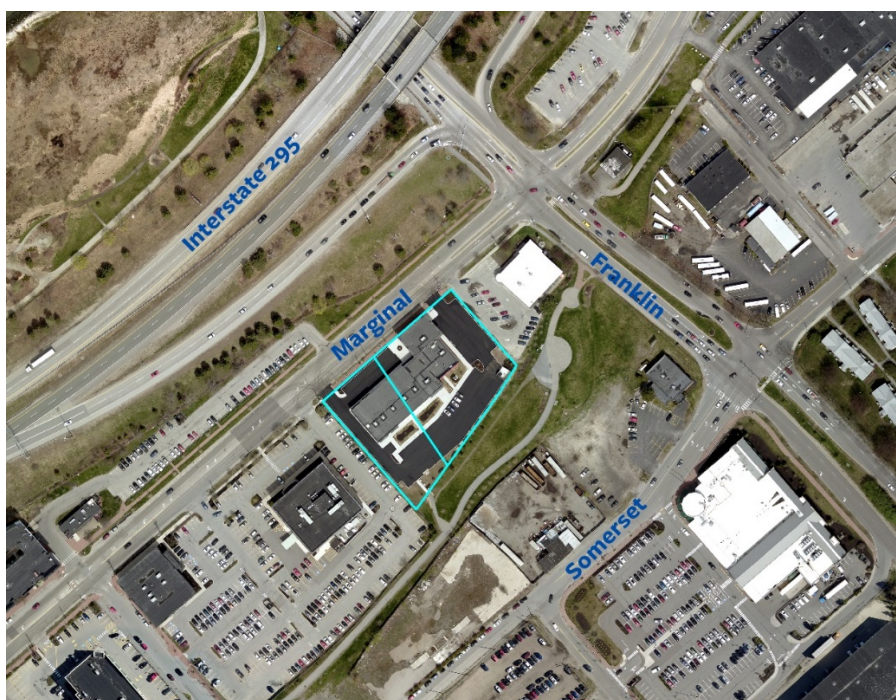
PLANNING BOARD REPORT PORTLAND, MAINE



Zoning Text Amendment
191 Marginal Way
ZN-001085-2020
Earle W. Noyes and Son, Inc., Applicant

Submitted to: Portland Planning Board
Public Hearing Date: 6/9/2020

Prepared by: Christian Roadman, Planner
Date Prepared: 6/5/2020



The surrounding context of 191 Marginal Way, highlighted in teal

I. Introduction & Proposal Overview

Earle W. Noyes and Son, Inc. seeks a zoning text amendment to facilitate usage of a commercial property at 191 Marginal Way, which is zoned B-7 Mixed Development District. The proposed text amendment (**Attachment F**) would amend Division 17, Section 14-295 of the City's Land Use Code to add veterinary hospitals and clinics (provided there is no outdoor kennel) as permitted uses to the B-7 Mixed Development District Zone.

The review of this proposed text amendment does not include site plan considerations. It is intended to determine if the Planning Board finds the addition of veterinary facilities consistent with the purpose statement of the B-7 zone, consistent with the comprehensive plan, and worthy of recommendation to the City Council. The proposed additional permitted use would allow a prospective tenant of the applicant to

use existing commercial space at 191 Marginal Way for a “veterinary clinic that provides after-hour, weekend and holiday veterinary services” (**Attachment C**).

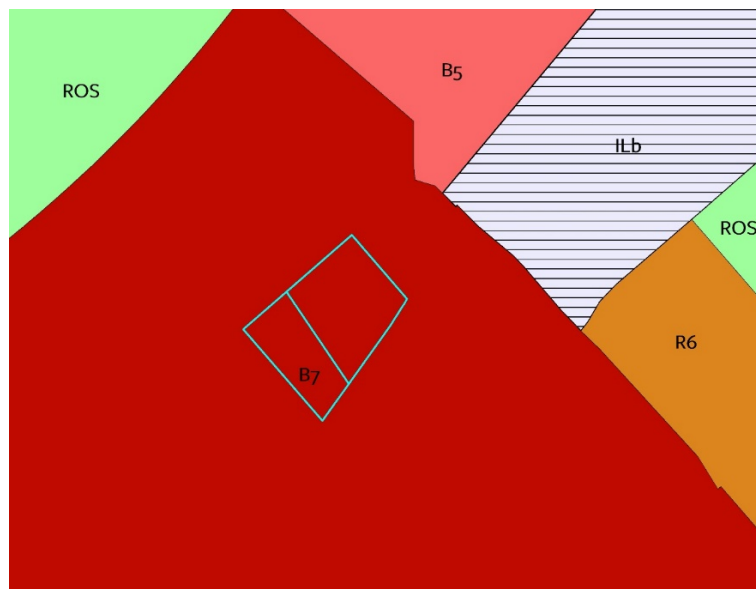
II. Zoning Analysis

Neither veterinary hospitals nor clinics are defined in the zoning code, though the B-2, B-2b, and B-2c community business zones include them as permitted uses “provided there is no outdoor kennel.” Veterinary hospitals are permitted in the B-4 Commercial Corridor Zone.

The following is included in the B-7 zone’s purpose statement:

“The purpose of the B-7, mixed development district zone is to establish a zoning district for urban areas in which the city has adopted master plans for redevelopment. Certain districts, including but not limited to bayside, lie at the perimeter of the established downtown and contain significant redevelopment opportunities. The B-7 zone encourages these districts to acquire a distinctly urban form through dense development featuring a mix of uses such as housing, retail, offices, research and development, and artisan studios and that emphasizes a quality pedestrian experience, promotes public transit, and demonstrates exemplary urban design. Utilization of transportation, other than the automobile is strongly encouraged and is advanced by the installation of bicycle amenities, such as bicycle racks and storage areas. The zone promotes a wide range of uses in high quality structures and public open spaces to achieve twenty-four (24) hour urban vitality and shared parking infrastructure.”

“Twenty four hour urban vitality” and “dense development featuring a mix of uses” could be cited as supporting the consistency of emergency veterinary clinics with the purpose statement for the B-7 mixed development zone. It is worth noting that “medical and mental health clinics” are already permitted uses in the zone. An urgent care clinic is located within a different unit of the same commercial property which the applicant hopes to make available to a veterinary clinic. In the applicant’s cover letter, the proposed veterinary clinic is explicitly linked to the “urgent care model.”



Zoning context of 191 Marginal Way, highlighted in teal

III. Comprehensive Plan

[Portland's Plan 2030](#) identifies vision statements, policy goals, and future land use policies for the City. Several of these are relevant to the proposed text amendment's proposal to allow emergency veterinary services in the Bayside neighborhood area.

Vision statements:

Equitable:

"We will incorporate the needs of our residents in planning for our future."

Dynamic:

"Portland will plan for a built environment that encourages an active citizenry."

Connected:

"We will foster accessible linkages between where we live, work, shop, and play."

Policy goals:

Environment: *"Adopt sustainable land use and transportation policies that support connectivity, walkable neighborhoods, and multi-modal transportation."*

Transportation: *"Support sustainability by reducing energy consumption, greenhouse gas emissions, and stormwater impacts."*

"Support economic vitality by ensuring the efficient movement of goods, services, and people."

Economy: *"Create economic prosperity by growing Portland's tax and employment base."*

Future Land Use:

Reinforce the Center: *"Though Portland's commercial and entrepreneurial activity takes place throughout the city, downtown Portland remains at the center of the region's arts and cultural, economic, and civic health, and Portland's Plan embraces the principle that downtown should continue to be a predominant locus of activity for the broader region."*

The applicant provided additional analysis of consistency with the comprehensive plan (**attachment B**).



Context of the B-7 zone. 191 Marginal Way is highlighted in teal

IV. Requisite Council Action

Any proposed zoning text amendment must be approved by City Council vote in order to take effect.

V. Proposed Motion

On the basis of materials submitted by the applicant, the City of Portland Land Use Code, Portland's Comprehensive Plan, public comment, and the information provided in public hearing on June 9, 2020 for the application ZN-001085-2020, the Planning Board finds that the proposed text amendment to Division 17 Section 14-295 of the City's Land Use Code (adding veterinary hospitals and clinics without outdoor kennels as permitted uses within the B-7 zone) **[is / is not]** consistent with the Comprehensive Plan for the City of Portland.

Therefore, the Planning Board **[recommends / does not recommend]** to the City Council adoption of the zoning text amendment.

Attachments: Applicant Submittals

- A. Application Checklist
- B. Comprehensive Plan Analysis
- C. Cover Letter
- D. Deed
- E. Right, Title, & Interest Letter
- F. Proposed Text Amendment
- G. Vicinity Map

CITY OF PORTLAND
Planning & Urban Development Department

TEXT AMENDMENT SUBMISSION CHECKLIST	
* Please upload each document <u>and</u> drawing as a separate PDF file * Please confirm each item by electronically checking the boxes to the left for each document/drawing	
GENERAL APPLICATION DOCUMENTS	
☒	Project Description Cover Letter with detailed project description
☒	Proposed Text Amendment Provide proposed language for text amendment(s) and cite the relevant sections to be revised in the Land Use code.
☒	Consistency with Comprehensive Plan Analysis of the consistency of the zone change request with the goals, policies and land use plan of Portland's Comprehensive Plan.
☒	Completed Checklist – Text Amendment Application (this document)
☒	Right, Title and Interest Deeds, leases, or purchase and sales agreements

COMPREHENSIVE PLAN ANALYSIS

PROPOSED AMENDMENTS TO THE B-7 MIXED DEVELOPMENT DISTRICT ZONE

The B-7 zone currently encompasses most of the West Bayside neighborhood. The purpose of the Zone is to establish a zoning district for urban areas in which the city has adopted master plans for redevelopment and encourage those districts to acquire a distinctly urban form through dense development featuring a mix of uses such as housing, retail, offices, research and development, and artisan studios and that emphasizes a quality pedestrian experience, promotes public transit, and demonstrates exemplary urban design. There is a long list of permitted uses in the B-7, including offices, restaurants, retail, theaters, banking, breweries, laboratories, health clubs, multi-family housing, medical clinics, etc. Missing from this list is veterinary hospitals and clinics. A review of the permitted uses list and the City's Comprehensive Plan does not reveal any reason as to why veterinary uses would or should be excluded. Rather, as demonstrated below, permitting veterinary hospitals and clinics in the B-7 zone is consistent with the City's Comprehensive Plan and therefore the Land Use Code should be amended accordingly.

Relevant, Consistent City Goals and Strategies

Economy

- Create economic prosperity by growing Portland's tax and employment base.
- Value innovation and creativity as cornerstones of the local economy and as central to Portland's uniqueness and diversity.
- Support sustainable growth in our educational, medical, and cultural institutions.

Permitting veterinary hospitals and clinics in the B-7 helps to grow Portland's tax and employment base. Such facilities are currently limited to only two zones in the City – the B-2 and B-4, but there is high demand for after-hours veterinary services that are provided by hospitals and clinics. West Bayside is a rapidly growing area of the City and is an attractive place to work, easily drawing potential employees.

Veterinary hospitals and clinics provide a service that is not widely available for pet owners. Permitting after-hours pet clinics shows that the City values creativity in fulfilling an underserved need of its residents. It also demonstrates support for Portland's expanding and innovative animal health industry.

Permitting veterinary hospitals and clinics in the B-7 also supports sustainable growth of medical institutions by allowing the location of veterinary facilities in more locations in the City, including the peninsula.

Transportation

- Promote multi-modal accessibility, enabling residents and visitors of all ages and abilities to participate fully in the social and economic life of the community.
- Support livability by improving the quality of life in neighborhoods and improving the public health of residents.
- Support sustainability by reducing energy consumption, greenhouse gas emissions, and stormwater impacts.

There are currently very limited locations offering after-hours veterinary services and they typically require a vehicle trip off peninsula. A veterinary clinic offering after-hours pet services for residents on peninsula in a location that is served by multiple modes of public transportation supports the transportation goals of the Plan.

Future Land Use

The Plan identifies West Bayside as a priority node to be enhanced. According to the Plan, priority nodes and corridors indicate areas that would be appropriate for new development to provide needed housing, businesses, and services proximate to transit, or areas that otherwise warrant some examination of potential for positive change in form and/or function. Veterinary hospitals and clinics represent a business that is needed and the B-7 has been identified in the Plan as an area appropriate for new business.

Based on the above analysis, the proposed amendment to add Veterinary Hospitals and Clinics as permitted uses in the B-7 zone is pursuant to and consistent with Portland's Plan 2030.



**Bernstein, Shur,
Sawyer & Nelson, P.A.**
100 Middle Street
PO Box 9729
Portland, ME 04104-5029

T (207) 774 - 1200

F (207) 774 - 1127

Mary E. Costigan
(207) 228-7147 direct
mcostigan@bernsteinshur.com

April 10, 2020

James Rather
Development Review Services Manager
City of Portland
389 Congress Street
Portland, ME 04101

RE: Application for B-7 Text Amendment

Dear James:

I am writing on behalf of my client, Earle W. Noyes & Son, Inc., to apply for a text amendment to the B-7 Mixed Development District Zone. As explained in more detail below, we are seeking to amend the B-7 zone by adding Veterinary Hospitals and Clinics as a permitted use.

My client owns the commercial property located at 191 Marginal Way. The property contains five commercial units, one of which is occupied by ConvenientMD. They have an interested tenant for one of the available spaces. The prospective tenant is a veterinary clinic that provides after-hour, weekend and holiday veterinary services. They provide a much-needed service of veterinary care in the urgent care model, which provides an after-hours care option that is more cost effective and convenient for non-emergency treatment compared to an emergency hospital visit. Although the B-7 zone is a mixed-use zone with a wide variety of uses, veterinary hospitals and clinics are not listed as permitted uses, and therefore would be prohibited in the zone.

The proposed veterinary clinic is consistent with other permitted uses in the zone and is also consistent with the Comprehensive Plan. As set forth in more detail in the attached Comprehensive Plan Analysis, permitting veterinary clinics in the B-7 aligns directly with many of the Plan's goals; notably, the economic and transportation goals. It provides a much-needed service to pet owners in Portland, particularly those who live on the peninsula.

April 10, 2020
Page 2

Enclosed with this letter are the above-referenced Comprehensive Plan Analysis, evidence of Right, Title and Interest and the Proposed Text Amendment. Thank you for your consideration. Please contact me directly if you have any questions.

Sincerely,

A handwritten signature in blue ink, appearing to read "ME Costigan", enclosed within a faint, light blue oval border.

Mary E. Costigan

cc: Peter Noyes
Brent Noyes

BK 7569 PG 0299

073915

ANDREW J. W. REDMOND, of North Anson, Maine, Trustee of Redmond Land Trust (which trust was dated February 2, 1973, and recorded in the Cumberland County Registry of Deeds in Book 3358, Page 11, and amended by an Amendment of Declaration of Trust dated February 2, 1973, said amendment recorded in the Cumberland County Registry of Deeds in Book 3372, Page 251), by the power conferred by law, and every other power, in consideration of One (\$1.00) Dollar and other good and valuable consideration, paid by EARL W. NOYES & SON, a Maine corporation, of Portland, Maine, the receipt whereof I do hereby acknowledge, do hereby grant, remise, release, bargain, sell and convey, and forever quit-claim unto the said EARLE W. NOYES & SON, its successors and assigns forever, a certain lot or parcel of land together with any and all improvements, structures or buildings now or hereafter located thereon, situated generally on the southeasterly side of Marginal Way, so-called, in said City of Portland, and being more particularly bounded and described as follows:

Beginning at a point marked by an iron in the southeasterly sideline of Marginal Way, two hundred twenty and five hundredths feet (220.05') southwesterly from an iron marking the intersection of the southeasterly line of Marginal Way with the southwesterly line of Franklin Street (as said southwesterly line of Franklin Street existed in 1945), which point of beginning also marks the most westerly corner of land conveyed by the Clement Realty Co. to Mobil Oil Corporation by deed dated June 23, 1966, and recorded in the Cumberland County Registry of Deeds, Book 2962, Page 552; thence southwesterly along the southeasterly sideline of Marginal Way three hundred sixteen and eighty-seven hundredths feet (316.87'), more or less, to land now or formerly of Haverty Development Corporation; thence southeasterly along the division line between land now or formerly of said Haverty Development Corporation and the land herein described by an included angle of ninety degrees (90°) with the southeasterly sideline of Marginal Way, for a distance of two

BK 7569PG 0300

hundred sixty-five and four tenths feet (265.4'), more or less, to an iron and land now or formerly of Portland Terminal Company; thence northeasterly by said Portland Terminal Company land on a course of North Thirty-five degrees Thirty-seven Minutes East (N 35° 37' E) for a distance of Two Hundred Fifty-five and Thirty Hundredths Feet (255.30') to an iron set in the ground; thence on a course of North Thirty-two degrees Forty-four Minutes East (N 32° 44' E) for a distance of Sixty-one and Eighty Hundredths feet (61.80') to an iron set in the ground; thence on a course of North twenty-eight degrees thirty minutes East (N 28° 30' E) by said Portland Terminal Company land, eight and fifty-four hundredths feet (8.54'), more or less, to land of said Mobil Oil Corporation; thence northwesterly along the line of land of said Mobil Oil Corporation for a distance of One Hundred Eighty-five and Twenty-seven Hundredths feet (185.27'), more or less, to Marginal Way and the point of beginning.

The aforescribed premises are conveyed subject to a certain easement in a fifteen foot (15') strip of land lying next adjacent to said land now or formerly of Haverty Development Corporation, which easement was granted to the City of Portland by deed of Clement Realty Co., dated January 17, 1963, and recorded in the Cumberland County Registry of Deeds in Book 2803, Page 477.

The aforescribed premises are also conveyed subject to another certain easement of the Portland Terminal Company given by H. Walker Noyes, Jr. dated May 19, 1972 and recorded in the Cumberland County Registry of Deeds, Book 3270, Page 375 relating to right to pass by foot and by vehicle on and along a portion of the above described premises.

The aforescribed premises are also conveyed subject to an Indenture of Lease between Redmond Realty Co. and Noyes Tire Co. dated January 15, 1973, and an Assignment of Lease from Noyes Tire Co. to Goodyear Tire & Rubber Company dated February 28, 1985.

The above described premises being the same as those conveyed to Redmond Realty Co. by deed of H. Walker Noyes, Jr. to Redmond Realty Co. dated February 1, 1973, and recorded in the Cumberland County Registry of Deeds in Book 3356, Page 329.

The above described premises being the same as those conveyed to Andrew Redmond, as Trustee of The Redmond Land Trust, by deed of Redmond Realty Co. dated February 2, 1973, and recorded in Cumberland County Registry of Deeds in Book 3358, Page 17.

TO HAVE AND TO HOLD the same, together with all the privileges and appurtenances thereunto belonging, to the said EARLE W.

C.R. NOYES & SON, as aforesaid.

BK7569PG0301

IN WITNESS WHEREOF, said ANDREW REDMOND, as Trustee afore-
said, has executed this instrument, this 22^d day of December,
1986.

Signed, Sealed and Delivered
in the Presence of:

REDMOND LAND TRUST

By: Andrew Redmond
Andrew Redmond, Trustee

STATE OF MAINE
CUMBERLAND, ss.

December 22, 1986

Personally appeared ANDREW REDMOND, Trustee of the Redmond
Land Trust, and acknowledged the execution of the foregoing in-
strument to be the free act and deed of said Trust and his free
act and deed in said capacity.

Before me,

Robert E. Pratt
Notary Public ROBERT E. PRATT

CERTIFICATE

I, ANDREW J. W. REDMOND (a/k/a Andrew Redmond), individually
and as Trustee of the Redmond Land Trust, do hereby certify and
affirm that the Redmond Land Trust is in existence; that the terms
thereof as reflected in the Amendment of the Declaration of Trust
dated February 2, 1973, are still in full force and effect; that I
am the sole Trustee of said trust; and that I have full power and
authority, as Trustee thereof, to execute the foregoing deed and
to sell and dispose of the property therein described in my capacity
as aforesaid.

DATED this 22^d day of December, 1986.

Andrew J. W. Redmond
Andrew J. W. Redmond

STATE OF MAINE
CUMBERLAND, ss.

December 22, 1986

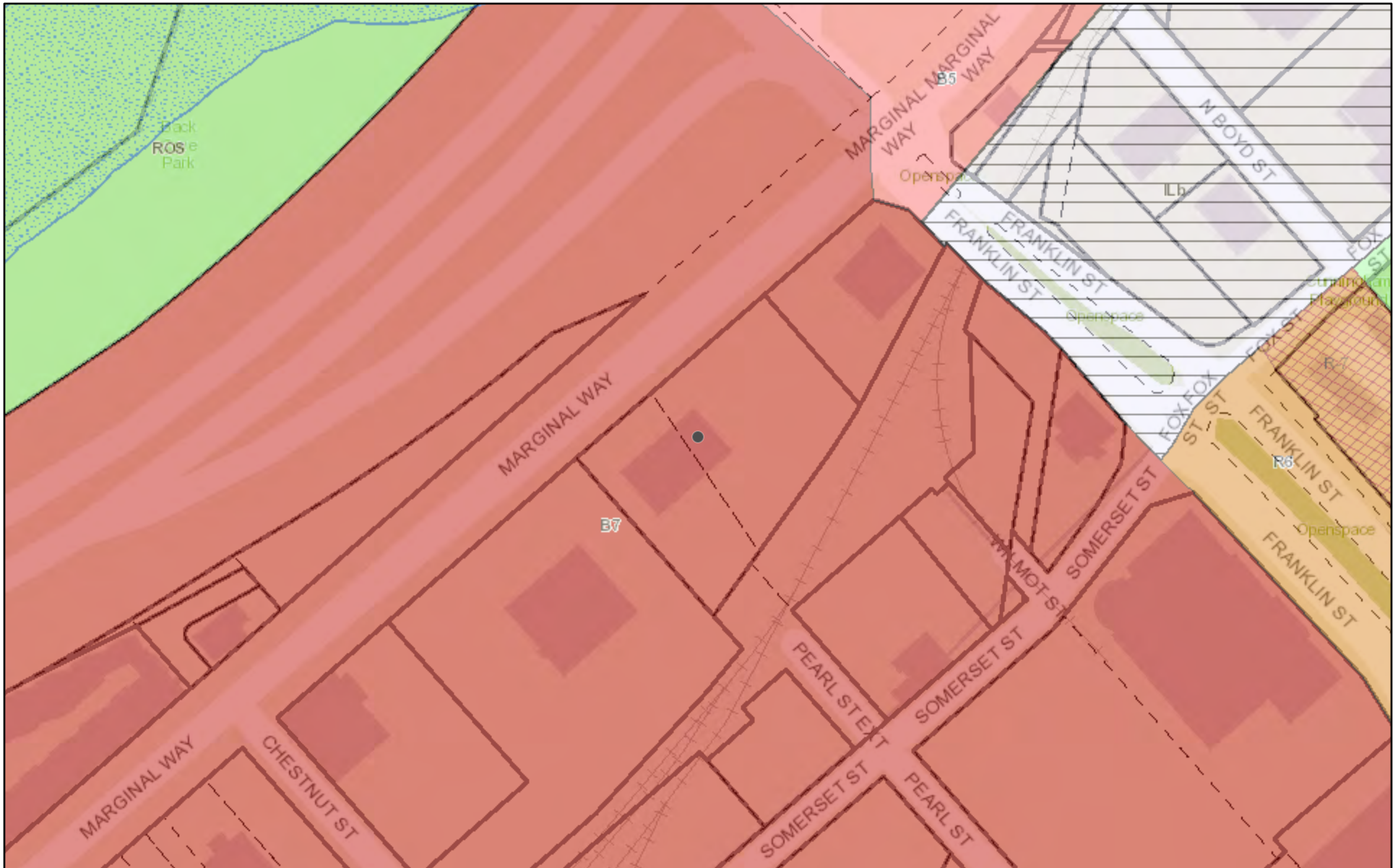
Personally appeared, the above-named ANDREW J. W. REDMOND and
made oath that the foregoing statements by him are true and correct.

Before me,

Robert E. Pratt
Notary Public ROBERT E. PRATT
-3- ATTORNEY AT LAW

RECEIVED
RECORDS & DEEDS
1986 DEC 31 AM 11:33
CUMBERLAND COUNTY
James S. Walsh

ArcGIS Web Map

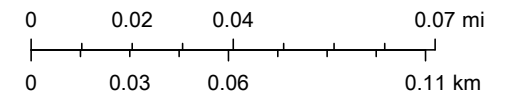


4/10/2020, 12:19:53 PM

Zoning

IR-1 Island Residential	IR-3 Island Residential	R1 Residential	R4 Residential	R6 Residential
IR-2 Island Residential	I-B Island Business	R2 Residential	R5 Residential	R-6A Residential
I-TS Island Transfer Station	R3 Residential	R-5A Residential		

1:2,109



City of Portland, DPS

Sec. 14-295. Permitted uses.

The following uses are permitted in the B-7 zone:

(a) *Commercial*:

1. Professional, business, and general offices;
2. Restaurants and other eating and drinking establishments;
3. Hotels, inns, and bed and breakfasts;
4. Craft and specialty shops, including the on-premises production of handcrafted goods;
5. Retail and retail service establishments, excluding those with fuel pumps;
6. Theaters, concert halls, dance halls, meeting facilities, and exhibition halls;
7. Banking services, excluding vehicular drive-up services (see also conditional use section, [c][3];
8. Cabinetry and carpentry and mill working shops;
9. Indoor amusement and recreation centers;
10. Personal services;
11. Business services;
12. Billiard parlors;
13. Offices of business trades-people;
14. Miscellaneous repair services, excluding all types of automotive repair.
15. Telecommunication and broadcast and receiving facilities, except as prohibited in section 14-297 (prohibited uses);

In addition, building mounted telecommunications antennae, discs, transmitting and receiving equipment

and the like shall adhere to the following criteria.
Such roof-mounted equipment shall be:

- a. No taller than fifteen (15) feet above the highest structural steel of the building roof; and
 - b. Set back no less than fifteen (15) feet from the building perimeter; and
 - c. Integrated into the architecture of the building as described in the City of Portland Design Manual;
16. Brew pubs and microbreweries without associated bottling facilities, and brewpubs and microbreweries with associated bottling facilities limited to five-thousand (5,000) bottles per year output;
17. Studios for performance or training in dance, music, or similar pursuits;
18. Electronic data storage;
19. Research and development including laboratories;
20. Studios for artists, photographers and craftspeople including but not limited to, painters, sculptors, cabinet makers, dancers, graphic artists, and silk screeners and musicians;
21. Health clubs, martial arts personal health and wellness facilities;
22. Registered dispensary;
23. Hostels, provided the applicant submits a site plan and operations plan demonstrating compliance with the following conditions:
 - a. All applicable provisions of Article V of this chapter shall be met;
 - b. Parking shall be provided in compliance with

Division 20 of this Article;

- c. No unaccompanied minors under the age of eighteen (18) shall be permitted in the facility;
 - d. The length of stay for transient guests shall not exceed fifteen (15) days out of any sixty-day period; and
 - e. The building shall meet the applicable occupant load requirements as defined by the International Building Code and the NFPA Life Safety Code, as such codes are amended or adopted by the city;
24. Surface parking existing as of March 9, 2005 and in continuous existence thereafter, including the reorganization of parking spaces and maneuvering aisles. This section shall apply to surface parking accessory to a principle use and a parking lot as a principal use. Existing surface parking that does not comply with the standards of Sec. 14-299(f) may continue, provided that any modifications to the site layout, development constituting a site plan, or building renovations exceeding a value of thirty (30) percent of the assessed value of the building on file at the City of Portland Assessor's Office, shall require the parking to be upgraded to meet the standards of Sec. 14-299(f) to the extent practicable;
25. Surface parking created after March 9, 2005, provided that the spaces (and newly created maneuvering aisles) are thirty-five (35) feet or greater from a street and further that the standards below (a to c) are also met. This section shall apply to surface parking accessory to a principal use or a parking lot as principle use. The thirty-five (35) foot setback need not apply in the case of a property in which eighty percent (80%) of the property frontage has a building within ten (10) feet of the property frontage and or a driveway located perpendicular to the site. The parking area shall meet the standards of Sec. 14-299 (f):

- a. No surface parking shall be encumbered by lease or other use commitment to an off-site use exceeding a twenty-four month term;
 - b. For surface parking areas of twenty-thousand (20,000) square feet or greater in area, lease or other use agreements for surface parking shall not preclude the relocation of such parking for more than twenty-four (24) month terms; and
 - c. Any such parking shall in its lease stipulate that developer/owner reserves the right to relocate said parking or convert surface parking to structured parking as long as the replacement parking is located a reasonable distance from the associated use;
26. Notwithstanding Sections 14-295(a)(24) and (25) above, surface parking that does not meet the 35-foot parking setback, provided that:
- a. All or a portion of the 35-foot setback area had a gravel surface on September 29, 2015;
 - b. The total gravel surface area on the lot and any contiguous lots did not exceed 15,000 square feet on September 29, 2015;
 - c. The parking spaces provide parking to a principle building on the same lot and or a principle building on a contiguous lot;
 - d. One of the buildings described in paragraph c above meets the minimum height requirements of the Bayside Height Overlay Map and/or a building on the site has a floor area of 25,000 square feet or greater;
 - e. The total number of spaces within 35-foot setback in combination with other spaces on the lot does not exceed the minimum parking spaces required in Sec. 14-526(a)(4)(a)(1);

- f. The proposed parking spaces meet the landscape and buffer requirements of 14-299(f); and
- g. Parking spaces within the 35-foot setback shall provide stormwater quality treatment if required by the City of Portland Stormwater Management Standards and the Maine DEP Chapter 500 Stormwater Management Standards. If not required, an alternative low impact development treatment system approved by the Planning Board shall be provided;

27. Bakeries, coffee roasters and commercial kitchens provided such uses include retail sales or a tasting room within the principle building;

28. Marijuana retail store; ~~and~~

29. Small-scale marijuana caregiver-~~r~~; and

30. Veterinary hospitals and clinics provided there is no outdoor kennel.

(b) *Residential:*

- 1. Attached housing including row houses, condominiums, two-family and multifamily dwellings but not planned residential unit developments;
- 2. Handicapped family units;
- 3. Lodging houses;
- 4. Combined living/working spaces, including but not limited to artist residences with studio space;

(c) *Public:*

- 1. Utility substations, including wastewater collection and pumping stations, transformer stations, telephone electronic equipment enclosures, electric transmission and distribution substations and other similar

structures, provided such facilities occupies up to one-hundred (100) square feet (see also conditional use section);

2. Museums, art galleries, and educational exhibition space;
3. Landscaped pedestrian parks, plazas and other similar outdoor pedestrian spaces;
4. Pedestrian and multi-use trails;
5. Emergency or safety facilities;
6. Municipal offices;
7. Active recreation parks and facilities, including but not limited to ball fields, skateboard parks, and basketball courts.

(d) *Institutional:*

1. Public or private schools;
2. Medical and mental health clinics but not methadone or other controlled substance addiction treatment centers;
3. Places of assembly;
4. Colleges, universities, or trade schools;
5. Governmental buildings and uses;
6. Nursery and pre-schools, kindergartens, and child day care facilities or home babysitting services;
7. Educational, research, and laboratory facilities;
8. Adult day care center.

(e) *Other:*

1. Accessory uses customarily incidental and subordinate to the location, function and operation of permitted uses. All drive-up

services for all retail or drive-up repair facilities are prohibited except that bank drive-up services, where permitted, area conditional use.

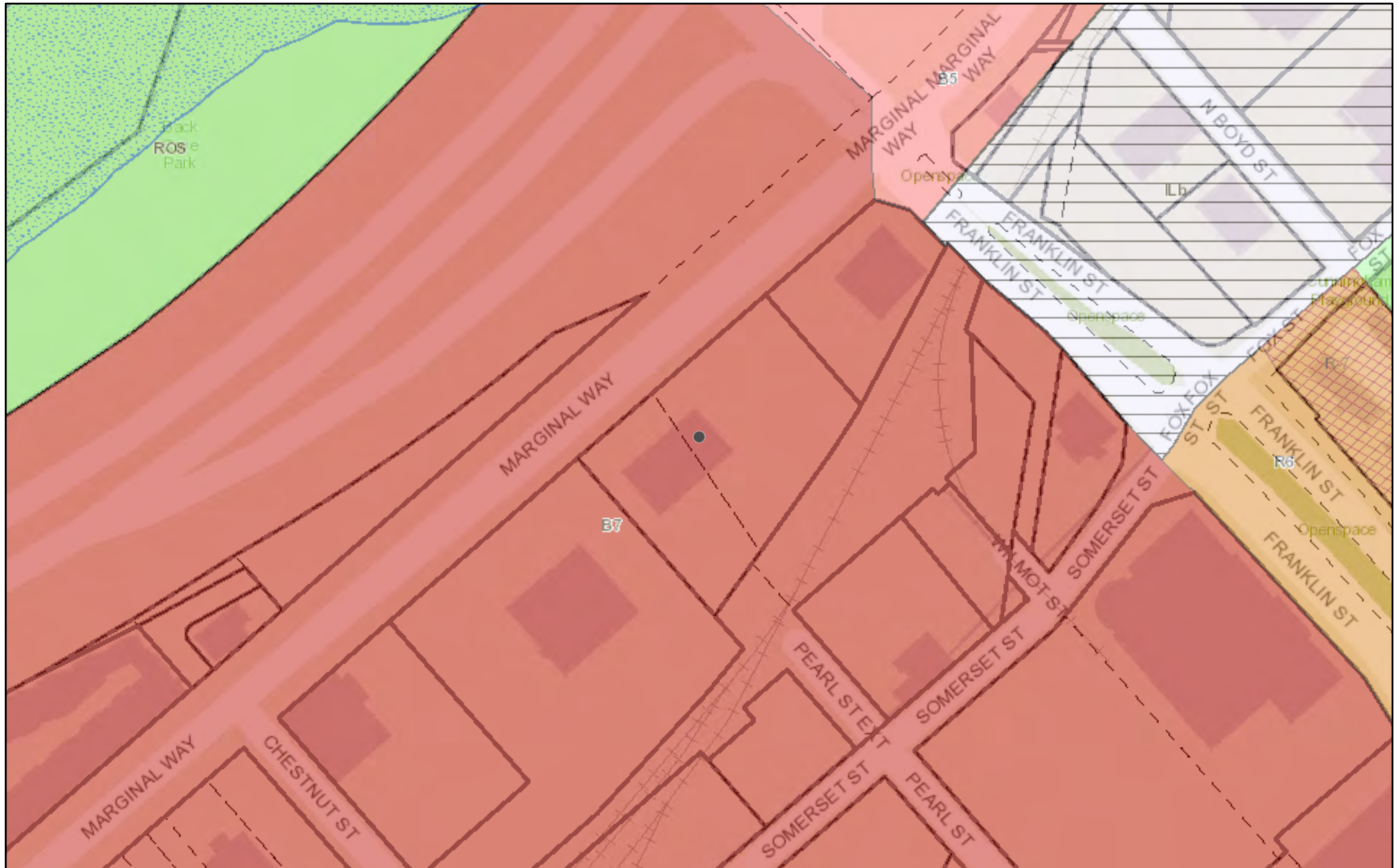
2. Intermodal transportation facilities.

3. Wind energy systems, as defined and allowed in Article X, Alternative Energy.

(Ord. No. 201-05/06, 4-19-06; Ord. No. 283-09/10, 7-19-10 emergency passage; Ord. No. 278-09/10, 7-19-10; Ord. No. 149-10/11, 3-7-11; Ord. No. 240-10/11, 6-6-11; Ord. No. 279-09/10, 6-6-11; Ord. No. 33-11/12, 1-18-12; Ord. No. 113-11/12, 2-22-12; Ord. 100-15/16, 11/16/2015; 140-18/19, 2-20-2019)

ArcGIS Web Map

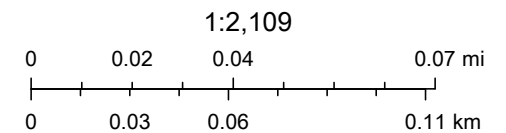
Att. G



4/10/2020, 12:19:53 PM

Zoning

IR-3 Island Residential	R1 Residential	R4 Residential	R6 Residential
IR-1 Island Residential	I-B Island Business	R2 Residential	R5 Residential
IR-2 Island Residential	I-TS Island Transfer Station	R3 Residential	R-5A Residential
			R-6A Residential



City of Portland, DPS