

M E M O R A N D U M

ADMINISTRATION DEPARTMENT
TOWN OF CUMBERLAND, MAINE

Date: July 15, 2021
To: Cumberland Planning Board
From: Carla Nixon, Town Planner
Subject: **Broad Cove Ridge Condominiums**

While this is the first substantive review for compliance with ordinance provisions for major subdivision approval, the project has been in the design and review process for several months and this will be the second public hearing. As such, this project could be considered for both preliminary and final approval at this meeting. I have prepared proposed conditions of approval that cover the outstanding issues should the Board wish to proceed this way.

Date July 15, 2021
To Town of Cumberland Planning Board
From Carla Nixon, Town Planner
Subject **Major Subdivision Review: Broad Cove Ridge Condominiums**

1. REQUEST/PROJECT DESCRIPTION:

The applicant is Jon Snell, c/o Snell Construction, LLC and 100 Route 1, LLC of 97 Ledge Brook Crossing, Brunswick, ME 04011.

The applicant is requesting Major Subdivision Review for a five story, 12,800 sf building containing 50 condominium units and above and below grade parking.

The 3.16 acre parcel, owned by David Spellman, is located at 102 U.S. Route 1, Cumberland, Maine as shown on Tax Assessor's Map R01, Lot 13B in the Office Commercial South (OC-South) and OC-S Mixed Use Overlay Zone zoning districts.

Dan Diffin, P.E. of Sevee Maher Engineers prepared the subdivision application and will represent the Applicant at the Planning Board meeting.

This project is subject to review under the provisions of Chapter 250 – Subdivision of Land and the Route 1 Design Standards.

2. PROJECT HISTORY:

- Informational Presentation to Planning Board: May 18, 2021.
- Sketch Plan Review and Public Hearing for Major Subdivision: June 17, 2021

3. DESCRIPTION:

Proposed Use:	50 Multiplex Dwelling Units (a mix of 1, 2, and 3 bedroom units)
Access:	24' wide paved entrance, 40' in length from Route 1.
Parking:	96 parking spaces with 9 identified visitor spaces and 4 ADA accessible spaces. 22 will be in the lower level of the building as covered parking.
Water:	Public
Sewer:	Public
Floodplain:	Map # 230162 0018C - Designation: Zone C: minimal flooding
Natural Features:	Wetlands, stream and stone wall.
Fire Protection:	A sprinkler system and alarm system are proposed.
Solid Waste Disposal:	On-site dumpster
Signs:	TBD
Open Space:	None
Outside Agency Approvals:	
	<u>MDEP Stormwater Permit:</u> Permit by Rule required.
	<u>MDEP NRPA:</u> Permit by Rule required.
	<u>MDOT Entrance Permit:</u> Outstanding.
	<u>Portland Water District:</u> Outstanding.
	<u>Maine Historic Preservation Commission:</u> Letter on file dated 4/26/21.
	<u>Maine Dept. of Inland Fisheries & Wildlife:</u> Letter on file dated 5/11/21
	<u>Maine Dept. of Agriculture, Conservation and Forestry:</u> Letter on file dated 4/15/21

4. WAIVER REQUESTS:

1. High Intensity Soils Survey
2. Hydrogeologic Evaluation
3. Market Study
4. Showing trees greater than 10 inches in caliper

5. TOWN PLANNER'S COMMENTS: None

6. PEER REVIEW ENGINEER'S COMMENTS (Al Palmer, P.E. Gorrill Palmer, Town Engineer, with responses from Sevee Maher Engineers (Design Engineer), below):

Subdivision and Site Plan Application:

1. Please provide a completed Subdivision application checklist for review.

SME Response: The complete Subdivision application checklist is in Attachment 1.

2. The Applicant indicates that a copy of the Maine Department of Environmental Protection Natural Resource Protection Act Applications will be provided by the Town.

SME Response: The Maine Department of Environmental Protection Natural Resource Protection Act Application is provided in Attachment 2.

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4. Evidence of ability to serve from the Portland Water District should be provided for domestic and fire service.

SME Response: The final agreement to serve the project is still pending from PWD. We request that this be made a Condition of Approval to the permit.

5. Evidence of ability to serve from the Town of Cumberland should be provided for sanitary waste disposal.

SME Response: The letter for sanitary waste disposal ability to serve from Town of Cumberland is provided in Attachment 4.

6. The project results in increases in peak flow from predevelopment conditions. The Applicant states that the increases are insignificant and that the drainage area at AP-2 has been reduced to minimize flows.

- i. **The drainage area to AP-2 has been reduced, but the impervious area has been increased which results in an increase in peak flow. The increase is approximately 7%-13% which is not considered an insignificant increase.**

- ii. **The increase in 2-year storm at AP-1 is approximately 6% greater than the predeveloped peak flow.**

- iii. **Additional provisions for peak flow control should be provided such as a level-lip spreader to distribute flow in a sheet flow manner.**

SME Response: A level lip spreader was added to the plans to decrease the proposed AP-2 peak flow in 2-year storm from 2.79 cfs to 2.61 cfs, in 10-year storm from 5.08 cfs to 4.82 cfs, and in 25-year storm from 6.99 cfs to 6.69 cfs. The model has been updated with the level spreader and the flows to the outfall of the pipe will be spread across the 25-foot level lip which will minimize any impact to the downstream drainage. The updated stormwater management report is provided in Attachment 5.

7. The project as proposed contains 43,450 sf of impervious surface, which is 110 sf below the threshold at which water quality treatment would be required by the MaineDEP and the Town ordinances. The Applicant should confirm that all impervious surfaces have been included in the calculations, including curbing.

SME Response: The 43,450 sf of impervious surfaces includes all of the curbing and all of the impervious area within the property boundary.

8. The Applicant should provide information relative to compliance with Section 229-10. C. Stormwater Management and Erosion Control regarding “adequate provisions must be made for the collection and disposal of all stormwater which must not have an adverse impacts on abutting and downstream properties” as it pertains to stormwater quality.

SME Response: The project impacts require that the project submit a MEDEP Stormwater Permit By Rule application and associated erosion control details to protect water quality. This permit was filed with the MEDEP, and a copy provided to the Town. The erosion control details are within the revised plan set submitted to the Town.

9. The Applicant has asked for waivers from the following requirements.

- a. **Depiction of trees 10” or greater on the site plans.**
- b. **Submission of a high intensity soil survey.**
- c. **Submission of a market study.**
- d. **Submission of a hydrogeological evaluation.**

We have no objections to the granting of these waivers from an engineering perspective based on the scale and details of the project.

SME Response: No response necessary.

Subdivision & Site Plans

10. No pedestrian connection is provided to Route 1.

SME Response: There is no pedestrian connection proposed to Route One for this project. There is no existing pedestrian network along this portion of Route One to connect into and the project was designed to minimize impacts to the streams and wetlands that are along Route One. Widening the access, or providing an additional cleared path for a sidewalk would result in increased impacts to these natural resources.

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SME Response: The detail for the detention pond, berm and spillway are provided in the Sheet C-306 included with this response.

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SME Response: A shallow drainage swale and field inlet have been added to account for drainage from the lawn area to the parking lot to minimize runoff and icing on parking area.

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15. The slope between 108 and 106 contours in the parking lot adjacent to the southerly end of the building is steep at 13%. Can this slope be reduced?

SME Response: The slope between 108 and 106 contours in the parking lot adjacent to the southerly end of building is reduced to have maximum slope of 11.5%. The slope in the direction of travel has been designed at 10%.

16. Provide a stormwater maintenance plan for post construction maintenance at the site. Include maintenance provisions in the Homeowners Association Documents for development.

SME Response: The post-construction stormwater management plan is provided in Attachment 6. A copy of the draft Homeowners Association Documents is also included for review that references a provision for maintenance at the development.

17. Provide a temporary seed mix in the erosion control notes. Remove references to solar arrays at the permanent seeding.

SME Response: The temporary seed mix is added to the erosion control notes and references to solar arrays was removed from Sheet C-300.

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SME Response: A 4-foot-tall fence is added on top of the retaining wall shown on sheet C-103.

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SME Response: If the Portland Water District requires a meter pit for the proposed water service, it will be provided within the driveway to avoid an increase in impervious area.

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SME Response: The note about the snow removal is added to Sheet C-103.

21. Provide a trench drain detail.

SME Response: The trench drain detail has been provided on Sheet C-305.

22. Add a note to the plans requiring the Contractor to provide a blasting plan to the Town prior to beginning construction.

SME Response: A note was added to Sheet C-100 stating a blasting plan shall be provided to the Town prior to beginning of construction.

23. Provide architectural elevations of the proposed building with height dimensions noted from the average finished grade around the perimeter of the building.

SME Response: The architectural elevations of proposed building with height dimensions noted from the average finished grade around the perimeter of the building is provided in Attachment 7.

Comments from Bill Longley, Code Enforcement Officer

1. Can we also designate two spaces near the front door at grade level for “Emergency Vehicle Parking Only.”

SME Response: There is a 9-foot-wide striped “loading” area for the accessible parking in the front parking lot that would be designated as no parking and could be used for Emergency Vehicle Parking. Additionally, these spaces would be identified as visitor parking, and are not anticipated to be fully used during normal operations. If the striping and signage of an additional space are still requested by the Fire Chief, we can amend the plan as a condition of approval.

Chapter 250: Subdivision Review:

PROPOSED FINDINGS OF FACT - Subdivision Ordinance, Section 1.1:

The purpose of these standards shall be to assure the comfort, convenience, safety, health and welfare of the people, to protect the environment and to promote the development of an economically sound and stable community. To this end, in approving subdivisions within the Town of Cumberland, Maine, the Board shall consider the following criteria and before granting approval shall determine that the proposed subdivision:

- A. Pollution. The proposed subdivision will not result in undue water or air pollution. In making this determination, it shall at least consider:
- A. The elevation of the land above sea level and its relation to the flood plains;
 - B. The nature of soils and subsoil and their ability to adequately support waste disposal;
 - C. The slope of the land and its effect on effluents;
 - D. The availability of streams for disposal of effluents; and
 - E. The applicable state and local health and water resource rules and regulations;

Parcel is above sea level and not within a flood plain. The project will use public water and sewer. The Maine Natural Areas program identified no rare, threatened, or endangered plant species within the project area. Maine Department of Fisheries and

Wildlife has not mapped designated essential or significant wildlife habitats in the project area.

The Board finds the standards of this section have been met.

- B. Sufficient Water. The proposed subdivision has sufficient water available for the reasonable foreseeable needs of the subdivision;

The subdivision will be served by public water. The applicant has requested a capacity to serve letter from the PWD which will be provided for final approval or as a final condition of approval.

The Board finds the standards of this section have been met.

- C. Municipal Water Supply. The proposed subdivision will not cause an unreasonable burden on an existing water supply, if one is to be used;

The subdivision will be served by public water. The applicant has requested a capacity to serve letter from the PWD which will be provided for final approval or as a final condition of approval.

With the proposed condition of approval, the Board finds the standards of this section have been met.

- D. Erosion. The proposed subdivision will not cause unreasonable soil erosion or a reduction in the land's capacity to hold water so that a dangerous or unhealthy condition results;

The erosion and sedimentation control plan has been reviewed and approved by the Town Engineer.

The Board finds the standards of this section have been met.

- E. Traffic. The proposed subdivision will not cause unreasonable highway or public road congestion or unsafe conditions with respect to the use of the highways or public roads existing or proposed;

Traffic generation data was provided that showed 22 trips will be generated in the weekday a.m. peak hour and 27 trips in the weekday p.m. peak hour. This is below the 100 peak hour trips that would require further review by MDOT. There are no high crash locations within the area or other issues identified for access onto US Route 1.

The Board finds the standards of this section have been met for preliminary approval.

- F. Sewage disposal. The proposed subdivision will provide for adequate sewage waste disposal and will not cause an unreasonable burden on municipal services, if they are utilized;

The parcel will be serviced by a 160' extension of the Town's 2 inch force main along US 1 which will convey the approximately 8,220 GPD of anticipated waste water. A capacity to serve letter has been sent to PWD.

With the proposed condition of approval, the Board finds the standards of this section have been met.

- G. Municipal solid waste disposal. The proposed subdivision will not cause an unreasonable burden on the municipality's ability to dispose of solid waste, if municipal services are to be utilized;

The multiplex units will have a dumpster that will be emptied by a private waste hauler.

The Board finds the standards of this section have been met.

- H. Aesthetic, cultural and natural values. The proposed subdivision will not have an undue adverse effect on the scenic or natural beauty of the area, aesthetics, historic sites, significant wildlife habitat identified by the Department of inland Fisheries and Wildlife or the municipality, or rare and irreplaceable natural areas or any public rights for physical or visual access to the shoreline;

A letter is on file from Maine Historic Preservation Commission stating that there are no evident historic features on the site. There is a letter from the Department of Inland Fisheries and Wildlife stating there is no evidence of rare or endangered species.

The Board finds the standards of this section have been met.

- I. Conformity with local ordinances and plans. The proposed subdivision conforms to a duly adopted subdivision regulation or ordinance, comprehensive plan, development plan or land use plan, if any. In making this determination, the municipal reviewing authority may interpret these ordinances and plans;

The plans have been reviewed and approved by the Town's peer review engineer and town staff. Any outstanding issues raised by the Town Engineer will be addressed as a condition of approval.

With the proposed condition of approval, the Board finds the standards of this section have been met.

- J. Financial and technical capacity. The subdivider has adequate financial and technical capacity to meet the standards of this section;

Technical Capacity: Technical capacity is evidenced by the applicant's use of a professional civil engineer, landscape architect, and building architect.

Financial Capacity: The applicant has provided a letter dated May 17, 2021 from Katahdin Trust Company stating that the applicant has an established commercial banking relationship with the lender and that subject to normal and routine conditions, the lender would finance the project.

The Board finds the standards of this section have been met.

- K. Surface waters; outstanding river segments. Whenever situated entirely or partially within the watershed of any pond or lake or within 250 feet of any wetland, great pond or river as defined in Title 38 chapter 3, subchapter I, article 2-B, the proposed subdivision will not adversely affect the quality of that body of water or unreasonably affect the shoreline of the body of water;

The proposed project will not adversely affect the quality or quantity of groundwater. There is no septic system on site.

The Board finds the standards of this section have been met.

- L. Ground water. The proposed subdivision will not, alone or in conjunction with existing activities, adversely affect the quality or quantity of ground water.

The project will be served by public sewer. There will be no septic system on site.

The Board finds the standards of this section have been met.

- M. Flood areas. Based on the Federal Emergency Management Agency's Flood Boundary and Floodway Maps and Flood Insurance Rate Maps, and information presented by the applicant whether the subdivision is in a flood-prone area. If the subdivision, or any part of it, is in such an area, the subdivider shall determine the 100-year flood elevation and flood hazard boundaries within the subdivision. The proposed subdivision plan must include a condition of plan approval requiring that principal structures in the subdivision will be constructed with their lowest floor, including the basement, at least one foot above the 100-year flood elevation;

Based on a review of the Federal Insurance Rate Maps, the parcel is located in Zone C-Areas of Minimal Flooding.

The Board finds the standards of this section have been met.

- N. Storm water. The proposed subdivision will provide for adequate storm water management;

A stormwater management report was submitted and reviewed and approved by the Town's peer review engineer. A stormwater permit by rule application has been submitted to MEDEP.

The Board finds the standards of this section have been met.

- O. Freshwater wetlands. All potential freshwater wetlands, as defined in 30-A M.R.S.A. §4401 (2-A), within the proposed subdivision have been identified on any maps submitted as part of the application, regardless of the size of these wetlands. Any mapping of freshwater wetlands may be done with the help of the local soil and water conservation district.

All wetlands within the proposed multiplex are outlined in the project plan set. There are minimal impacts to the wetlands to accommodate the stream crossing for the proposed access drive.

The Board finds the standards of this section have been met.

- P. River, stream or brook: Any river, stream, or brook within or abutting the proposed subdivision has been identified on any map submitted as a part of the application. For purposes of this section, "river, stream or brook" has the same meaning as in Title 38, Section 480-B, Subsection 9. [Amended; Effective. 11/27/89]

An unnamed tributary to Chenery Brook is located within the proposed multiplex and outlined in the project plan set.

The Board finds the standards of this section have been met.

SECTION 300 - AQUIFER PROTECTION (if applicable)

The parcel is not located in the Aquifer Protection District.

The Board finds the standards of this section have been met.

Route 1 Design and Performance Standards

Attachment K of the application packet provides evidence that the standards have been met.

Limitation of Approval: Construction of the improvements covered by any site plan approval must be substantially commenced within twelve (12) months of the date upon which the approval was granted. If construction has not been substantially commenced and substantially completed within the specified period, the approval shall be null and void. The applicant may request an extension of the approval deadline prior to expiration of the period. Such request must be in writing and must be made to the Planning Board. The Planning Board may grant up to two (2), six (6) month extensions to the periods if the approved plan conforms to the ordinances in effect at the time the extension is granted and any and all federal and state approvals and permits are current.

Standard Condition of Approval: This approval is dependent upon and limited to the proposals and plans contained in the application and supporting documents submitted by the applicant. Any variation from the plans, proposals and supporting documents, except minor changes as so determined by the Town Planner which do not affect approval standards, is subject to review and approval of the Planning Board prior to implementation.

Proposed Conditions of Approval:

1. A preconstruction conference shall be held prior to the start of construction.
2. All outstanding fees shall be paid prior the preconstruction conference.
3. A performance guarantee in an amount acceptable to the Town Manager and Town Engineer shall be provided prior to the preconstruction conference. In addition, a check for 2% of the cost of public improvements shall be provided prior to the preconstruction conference.
4. All clearing limits shall be clearly flagged by the applicant and inspected and approved by the town engineer prior to the preconstruction conference.
5. There shall be no indoor or outdoor storage of any hazardous materials.
6. The applicant shall obtain a sign permit from the Town of Cumberland that shows consistency with the Route 1 Design Standards.
7. The applicant shall comply with all state and local fire regulations.
8. A blasting permit, if needed, shall be obtained from the Town Code Enforcement Officer prior to blasting.
9. The Town Attorney shall review and approve the draft HOA documents prior to the preconstruction conference.
10. Any outstanding issues raised by the Town Engineer shall be addressed prior to the preconstruction conference.

July 15, 2021

Carla Nixon, Town Planner
Cumberland Town Hall
290 Tuttle Road
Cumberland, Maine 04021

Subject: Broad Cove Ridge Condominiums
Town of Cumberland Site Plan Review Application
Response to Peer Review Comment dated 6/18/2021.

Dear Ms. Nixon,

On behalf of the Town of Cumberland (Town), Sevee & Maher Engineers, Inc. (SME) has prepared the following response to peer review comments by Gorrill Palmer for the Broad Cove Ridge Condominium project. The comments were received in a memo sent via email on June 18, 2021.

The comment headings correspond to the peer review sections included in the memo. The plans and application materials were revised in response as indicated below:

ENGINEER PEER REVIEW COMMENTS

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If you have any questions or comments, please do not hesitate to contact me. We look forward to reviewing the comments with the Planning Board at the meeting on July 20, 2020.

Sincerely,

SEVEE & MAHER ENGINEERS, INC.

Daniel P. Diffin, P.E., LEED AP BD+C
Vice President

Attachments

Attachment 1 – Subdivision application checklist
Attachment 2 – MEDEP NRPA Permit by Rule Application
Attachment 3 – Maine DOT Entrance Permit
Attachment 4 – Sanitary Waste Disposal Ability to Serve Letter
Attachment 5 – Stormwater Management Report
Attachment 6 – Post-Construction Stormwater Management Plan
Attachment 7 – Architectural Elevations Plan

ATTACHMENT 1

SUBDIVISION APPLICATION CHECKLIST

ATTACHMENT 2

MEDEP NRPA PERMIT BY RULE APPLICATION

ATTACHMENT 3

MAINE DOT ENTRANCE PERMIT

ATTACHMENT 4

SANITARY WASTE DISPOSAL ABILITY TO SERVE LETTER

ATTACHMENT 5

STORMWATER MANAGEMENT REPORT

ATTACHMENT 6

POST-CONSTRUCTION STORMWATER MANAGEMENT PLAN

ATTACHMENT 7

ARCHITECTURAL ELEVATIONS PLAN

SNELL CONSTRUCTION LLC

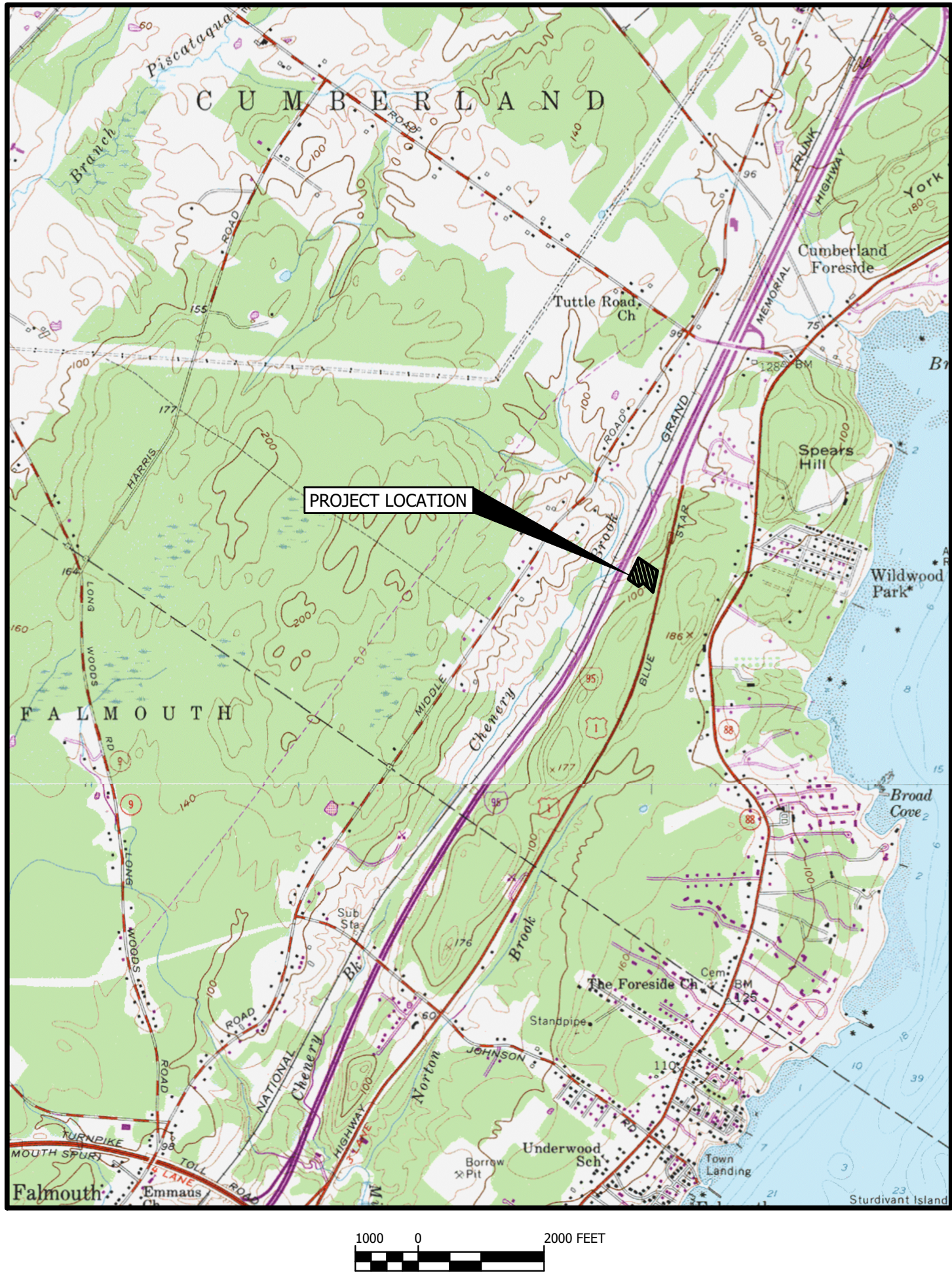
BROAD COVE RIDGE CONDOMINIUMS

100 US ROUTE 1

CUMBERLAND, MAINE

TITLE	DWG NO
COVER SHEET	
GENERAL NOTES, LEGEND, AND ABBREVIATIONS	C-100
EXISTING CONDITIONS AND CLEARING PLAN	C-101
SITE OVERVIEW PLAN	C-102
SITE LAYOUT PLAN	C-103
SITE UTILITY PLAN	C-104
SITE GRADING AND DRAINAGE PLAN	C-105
EROSION CONTROL PLAN	C-106
EROSION CONTROL NOTES AND DETAILS	C-300
SECTIONS AND DETAILS	C-301
SECTIONS AND DETAILS	C-302
SECTIONS AND DETAILS	C-303
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STORMWATER MANAGEMENT PLAN - PRE-DEVELOPMENT CONDITIONS	D-100
STORMWATER MANAGEMENT PLAN - POST-DEVELOPMENT CONDITIONS	D-101
LANDSCAPE PLAN	L-1
BOUNDARY / EXISTING CONDITIONS SURVEY	

LOCATION MAP

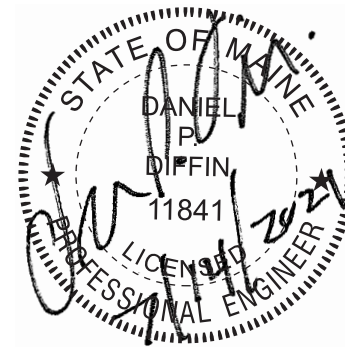


ISSUED FOR PERMITTING - NOT FOR CONSTRUCTION



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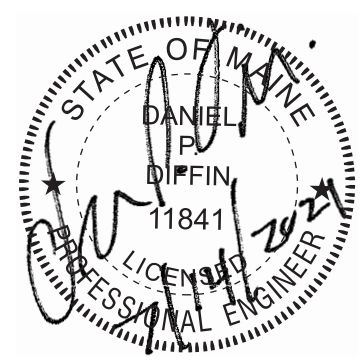


1. PROJECT INFORMATION:
ADDRESS: 100 U.S. ROUTE 1
CUMBERLAND, MAINE
OWNER: DAVID SPELLMAN - 100 U.S. ROUTE 1, LLC
APPLICANT: SNELL CONSTRUCTION LLC
PROJECT: BROAD COVE CONDOMINIUMS
2. ZONING DISTRICT: OFFICE COMMERCIAL SOUTH (OC-S)/OC-S MIXED USE OVERLAY DISTRICT
3. PROPOSED USE: RESIDENTIAL MULTIPLEX (50 UNITS)
4. DIMENSIONAL STANDARDS:

	REQUIRED	PROVIDED
MIN LOT SIZE	1 ACRE	3.2 ACRES
MIN ROAD FRONTAGE	150 FT	348 FT
SETBACKS		
FRONT	25 FT	>25 FT
SIDE	10 FT	>15 FT
REAR	15 FT	100 FT
BUILDING HEIGHT	50 FT	<50 FT
MINIMUM DWELLING UNIT SIZE	600 SF	>600 SF
OPEN SPACE	10%	65.8%
5. PARCEL ID: MAP R3/LOT 54
MAP U10A/LOT 13
6. PROPOSED IMPERVIOUS AREA: 43,450 SF (0.99 ACRES)
7. PROJECT LOCATION IS OUTSIDE OF THE 100-YEAR FLOODPLAIN.
8. PARKING SUMMARY: 1.5 SPACES PER UNIT PER ORDINANCE

	REQUIRED	PROVIDED
	75 SPACES	96 SPACES
9. THERE ARE WETLANDS WITHIN THE PROJECT LIMITS IDENTIFIED FOR THE PROJECT SITE. PROPOSED IMPACTS TOTAL 451 SF FOR THE STREAM CROSSING.
10. OUTSIDE AGENCY APPROVALS:
MEDEP NATURAL RESOURCE PROTECTION ACT PERMIT BY RULE
MEDEP STORMWATER PERMIT BY RULE
MEDOT DRIVEWAY ENTRANCE PERMIT
11. UTILITIES PROVIDED:
WATER: PORTLAND WATER DISTRICT
SEWER: PUBLIC (TOWN OF CUMBERLAND)
POWER: CENTRAL MAINE POWER
NATURAL GAS: SUMMIT NATURAL GAS

- NOTES:
1. SEE DWG C-100 FOR PLAN REFERENCES AND ORIGINS OF TOPOGRAPHIC INFORMATION.
2. AERIAL IMAGE FROM GOOGLE EARTH, DATED 5/4/2018.



SNELL CONSTRUCTION LLC
BROAD COVE RIDGE CONDOMINIUMS
100 US ROUTE 1
CUMBERLAND, MAINE

SITE OVERVIEW PLAN



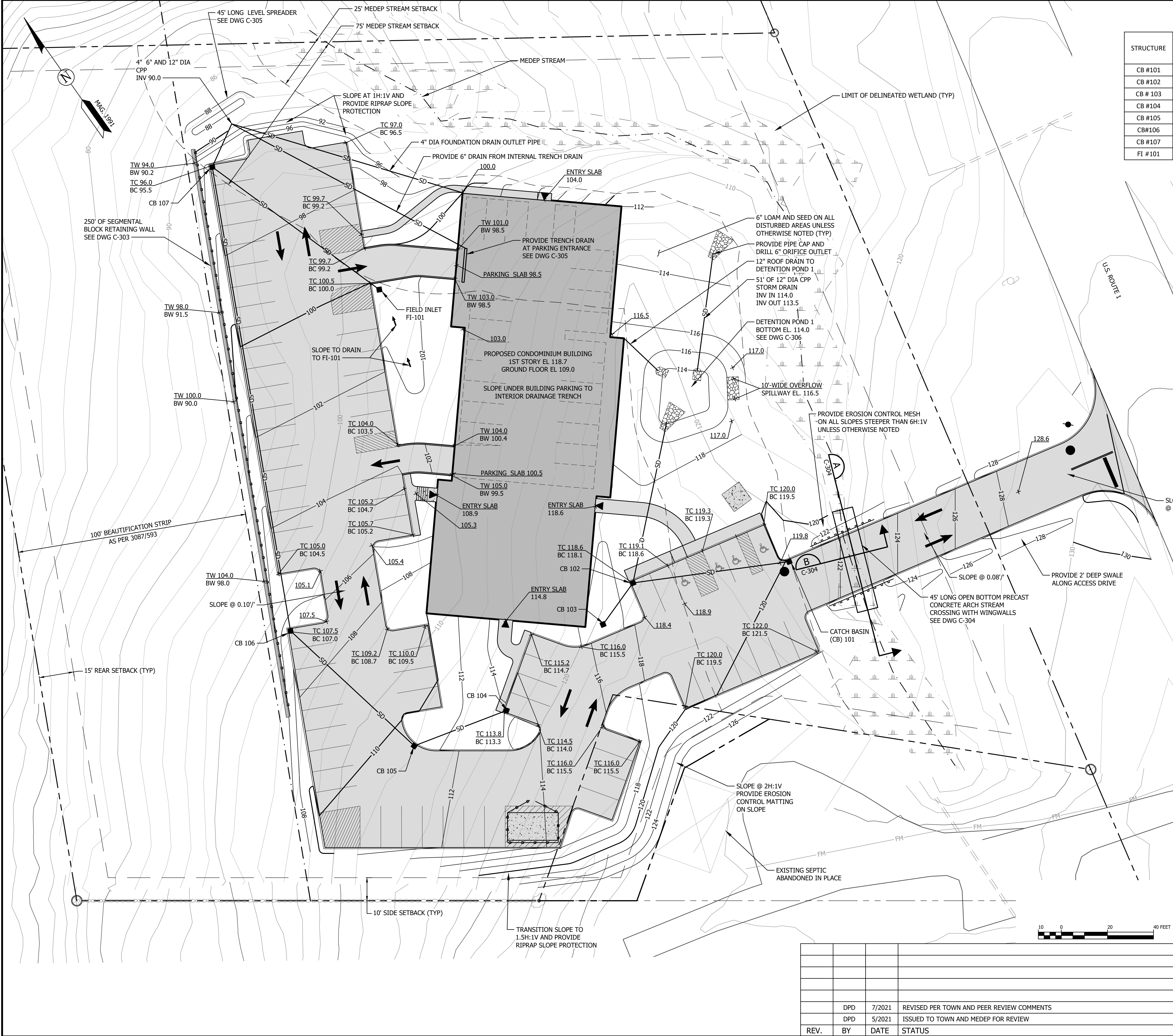
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DESIGN BY: AML
DRAWN BY: SJM
DATE: 5/2021
CHECKED BY: DPD
LMN: SITE
CTB: SME-STD

JOB NO. 21241.01 DWG FILE BASE

C-102

	DPD	7/2021	REVISED PER TOWN AND PEER REVIEW COMMENTS	
	DPD	5/2021	ISSUED TO TOWN AND MEDEP FOR REVIEW	
REV.	BY	DATE	STATUS	



PROPOSED STORM DRAIN SCHEDULE

STRUCTURE	DIA	RIM EL	INV IN	FROM STRUCTURE	INV OUT	TO STRUCTURE	PIPE
CB #101	4'	120.1	-	-	117.1	CB#102	64 LF OF 12" DIA PIPE
CB #102	4'	118.1	114.5	CB #101/CB #103	114.4	DP 1	70 LF OF 12" DIA PIPE
CB #103	4'	117.0	-	-	114.8	CB #102	18 LF OF 12" DIA PIPE
CB #104	4'	113.3	-	-	109.3	CB #105	39 LF OF 12" DIA PIPE
CB #105	4'	110.7	106.7	CB #104	106.6	CB #106	69 LF OF 12" DIA PIPE
CB#106	4'	107.0	103.0	CB #105	102.9	CB #107	200 LF OF 12" DIA PIPE
CB #107	4'	95.5	91.0	CB #106/FI #101	90.9	OUTFALL	21 LF OF 12" DIA PIPE
FI #101	4'	101.0	-	-	97.4	CB #107	90 LF OF 12" DIA PIPE

NOTES:
1. SEE DWG C-100 FOR PLAN REFERENCES AND ORIGINS OF TOPOGRAPHIC INFORMATION.



SNELL CONSTRUCTION LLC
BROAD COVE RIDGE CONDOMINIUMS
100 US ROUTE 1
CUMBERLAND, MAINE

GRADING AND DRAINAGE PLAN



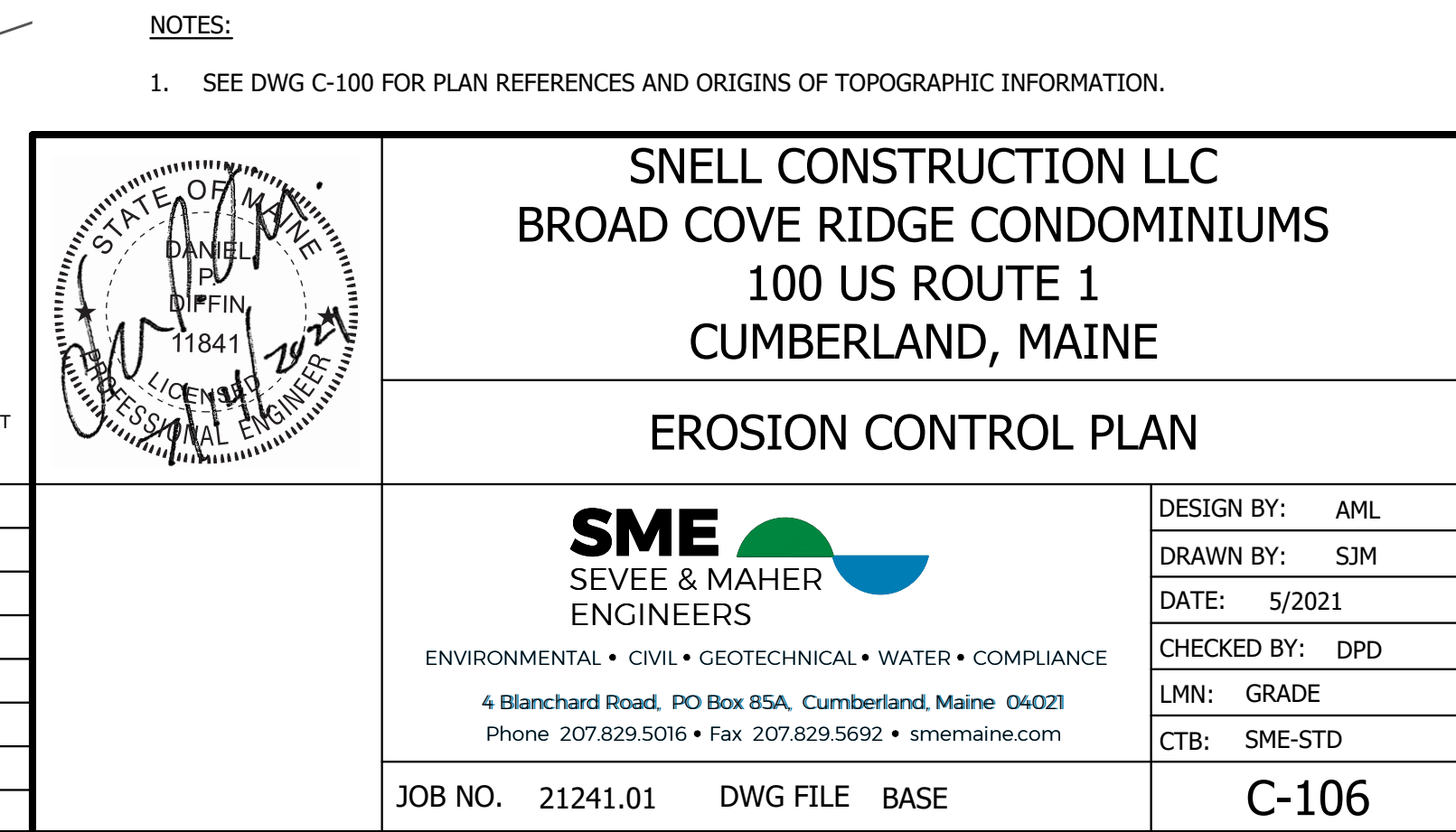
SME
SEVEE & MAHER
ENGINEERS

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DESIGN BY: AML
DRAWN BY: SJM
DATE: 5/2021
CHECKED BY: DPD
LMN: GRADE
CTB: SME-STD

JOB NO. 21241.01 DWG FILE BASE **C-105**

REV.	BY	DATE	STATUS
	DPD	7/2021	REVISED PER TOWN AND PEER REVIEW COMMENTS
	DPD	5/2021	ISSUED TO TOWN AND MEDEP FOR REVIEW



	DPD	7/2021	REVISED PER TOWN AND PEER REVIEW COMMENTS
	DPD	5/2021	ISSUED TO TOWN AND MEDEP FOR REVIEW
REV.	BY	DATE	STATUS

EROSION CONTROL NOTES:

A. GENERAL

1. All soil erosion and sediment control will be done in accordance with: (1) the Maine Erosion and Sediment Control Handbook: Best Management Practices, Maine Department of Environmental Protection (MEDEP), October 2016.
2. The site Contractor (to be determined) will be responsible for the inspection and repair/replacement/maintenance of all erosion control measures, disturbed areas, material storage areas, and vehicle access points until all disturbed areas are stabilized.
3. Disturbed areas will be permanently stabilized within 7 days of final grading. Disturbed areas not to be worked upon within 14 days of disturbance will be temporarily stabilized within 7 days of the disturbance.
4. In all areas, removal of trees, bushes and other vegetation, as well as disturbance of topsoil will be kept to a minimum while allowing proper site operations.
5. Any suitable topsoil will be stripped and stockpiled for reuse as directed by the Owner. Topsoil will be stockpiled in a manner such that natural drainage is not obstructed and no off-site sediment damage will result. In any event, stockpiles will not be located within 100 feet of wetlands and will be at least 50 feet upgradient of the stockpile's perimeter silt fence. The sideslopes of the topsoil stockpile will not exceed 2:1. Silt fence will be installed around the perimeter of all topsoil stockpiles. Topsoil stockpiles will be surrounded with siltation fencing and will be temporarily seeded with Aroostook rye, annual or perennial ryegrass within 7 days of formation, or temporarily mulched.
6. Winter excavation and earthwork will be completed so as to minimize exposed areas while satisfactorily completing the project. Limit exposed areas to those areas in which work is to occur during the following 15 days and that can be mulched in one day. All areas will be considered denuded until the subbase gravel is installed in roadway areas or the areas of future loam and seed have been loamed, seeded, and mulched.

Install any added measures necessary to control erosion/sedimentation. The particular measure used will be dependent upon site conditions, the size of the area to be protected, and weather conditions.

To minimize areas without erosion control protection, continuation of earthwork operations on additional areas will not begin until the exposed soil surface on the area being worked has been stabilized.

B. TEMPORARY MEASURES

1. STABILIZED CONSTRUCTION ENTRANCE/EXIT

A crushed stone stabilized construction entrance/exit will be placed at any point of vehicular access to the site, in accordance with the detail shown on this sheet.

2. SILT FENCE

- a. Silt fence will be installed prior to all construction activity, where soil disturbance may result in erosion. Silt fence will be erected at locations shown on the plans and/or downgradient of all construction activity.
- b. Silt fences will be removed when they have served their useful purpose, but not before the upgradient areas have been permanently stabilized.
- c. Silt fences will be inspected immediately after each rainfall and at least daily during prolonged rainfall. They will be inspected if there are any signs of erosion or sedimentation below them. Any required repairs will be made immediately. If there are signs of undercutting at the center or the edges, or impounding of large volumes of water behind them, they will be replaced with a temporary crushed stone check dam.
- d. Sediment deposits will be removed after each storm event if significant build-up has occurred or if deposits exceed half the height of the barrier.

3. STONE CHECK DAMS

Stone check dams should be installed before runoff is directed to the swale. Stone check dams will be installed in grass-lined swales and ditches during construction. Remove stone check dams when they have served their useful purpose, but not before upgradient areas have been permanently stabilized.

4. EROSION CONTROL MIX SEDIMENT BARRIER

- a. It may be necessary to cut, pack down, or remove tall grasses, brush, or woody vegetation to avoid voids and bridges that allow the washing away of fine soil particles.
- b. Where approved, erosion control mix sediment barriers may be used as a substitute for silt fence. See the details in this drawing set for specifications.
- b. Rock Filter Berms: To provide more filtering capacity or to act as a velocity check dam, a berm's center can be composed of clean crushed rock ranging in size from the french drain stone to riprap.

5. TEMPORARY SEEDING

Stabilize disturbed areas that will not be brought to final grade and reduce problems associated with mud and dust production from exposed soil surface during construction with temporary vegetation.

TEMPORARY SEEDING SPECIFICATIONS

Mixture:	Application Rate (lbs/acre)
Winter Rye	112
Oats	80
Annual Ryegrass	40
Perennial Ryegrass	40
Perennial Ryegrass	40

6. TEMPORARY MULCHING

Use temporary mulch in the following locations and/or circumstances:

- In sensitive areas (within 100 feet of streams, wetlands and in lake watersheds) temporary mulch will be applied within 7 days of exposing spill or prior to any storm event.
- Apply temporary mulch within 14 days of disturbance or prior to any storm event in all other areas.
- Areas which have been temporarily or permanently seeded will be mulched immediately following seeding.
- Areas which cannot be seeded within the growing season will be mulched for over-winter protection and the area will be seeded at the beginning of the growing season.
- Mulch can be used in conjunction with tree, shrub, vine, and ground cover plantings.
- Mulch anchoring will be used on slopes greater than 5 percent in late fall (past October 15), and over-winter (October 15 - April 15).

The following materials may be used for temporary mulch:

- a. Hay or Straw material shall be air-dried, free of seeds and coarse material. Apply 2 bales/1,000 sf or 1.5 to 2 tons/acre to cover 90% of ground surface.
- b. Erosion Control Mix: It can be used as a stand-alone reinforcement:
- 2-inches thick for slopes flatter than 3H:1V;
 - 4-inches thick for slopes greater than 3H:1V;
 - on slopes 2 horizontal to 1 vertical or less;
 - on frozen ground or forested areas; and

- at the edge of gravel parking areas and areas under construction.
- c. Erosion control mix alone is not suitable:
- on slopes with groundwater seepage;
 - at low points with concentrated flows and in gullies;
 - at the bottom of steep perimeter slopes exceeding 100 feet in length;
 - below culvert outlet aprons; and around catch basins and closed storm systems.
- d. Chemical Mulches and Soil Binders: Wide ranges of synthetic spray-on materials are marketed to protect the soil surface. These are emulsions that are mixed with water and applied to the soil. They may be used alone, but most often are used to hold wood fiber, hydro-mulches or straw to the soil surface.
- e. Erosion Control Blankets and Mats: Mats are manufactured combinations of mulch and netting designed to retain soil moisture and modify soil temperature. During the growing season (April 15th to November 1st) use mats indicated on drawings or North American Green (NAG) S75 (or mulch and netting) on:
- the base of grassed waterways;
 - steep slopes (15 percent or greater); and
 - any disturbed soil within 100 feet of lakes, streams, or wetlands.

During the late fall and winter (November 1st to April 15th) use heavy grade mats indicated on drawings for NAG SC250 on all areas noted above plus use lighter grade mats NAG S75 (or mulch and netting) on:

- sideslopes of grassed waterways; and moderate slopes (between 8 and 15 percent).

C. TEMPORARY DUST CONTROL

To prevent the blowing and movement of dust from exposed soil surfaces, and reduce the presence of dust, use water or calcium chloride to control dusting by preserving the moisture level in the road surface materials.

D. CONSTRUCTION DE-WATERING

1. Water from construction de-watering operations shall be cleaned of sediment before reaching wetlands, water bodies, streams or site boundaries. Utilize temporary sediment basins, erosion control soil filter berms backed by staked hay bales, A Dirt Bag 55" sediment filter bag by ACF Environmental, or other approved Best Management Practices (BMPs).
2. In sensitive areas near streams or ponds, discharge the water from the de-watering operation into a temporary sediment basin created by a surrounding filter berm of uncompacted erosion control mix immediately backed by staked hay bales (see the site details). Locate the temporary sediment basin at least 100 feet from the nearest water body, such that the filtered water will flow through undisturbed vegetated soil areas prior to reaching the water body or property line.

E. PERMANENT MEASURES

1. Riprapped Aprons: All storm drain pipe outlets and the inlet and outlet of culverts will have riprap aprons to protect against scour and deterioration.
2. Topsoil, Seed, and Mulch: All areas disturbed during construction, but not subject to other restoration (paving, riprap, etc.) will be loamed, limed, fertilized, seeded, and mulched.

Seeded Preparation: Use stockpiled materials spread to the depths shown on the plans, if available. Approved topsoil substitutes may be used. Grade the site as needed.

- a. Seeding will be completed by August 15 of each year. Late season seeding may be done between August 15 and October 15. Areas not seeded or which do not obtain satisfactory growth by October 15, will be seeded with Aroostook Rye or mulched. After November 1, or the first killing frost, disturbed areas will be seeded at double the specified application rates, mulched, and anchored.

PERMANENT SEEDING SPECIFICATIONS		
Mixture:	Roadside (lbs/acre)	Lawn (lbs/acre)
Kentucky Bluegrass	20	55
White Clover	5	0
Creeping Red Fescue	20	55
Perennial Ryegrass	5	15

- b. Mulch in accordance with specifications for temporary mulching.

- c. If permanent vegetated stabilization cannot be established due to the season of the year, all exposed and disturbed areas not to undergo further disturbance are to have dormant seeding applied and be temporarily mulched to protect the site.
3. Ditches and Channels: All ditches on-site will be lined with North American Green S75 erosion control mesh (or an approved equal) upon installation of loam and seed.

F. WINTER CONSTRUCTION AND STABILIZATION

1. Natural Resource Protection: During winter construction, a double-row of sediment barriers (i.e., silt fence backed with hay bales or erosion control mix) will be placed between a natural resource and the disturbed area. Projects crossing the natural resource will be protected a minimum distance of 100 feet on either side from the resource.
2. Sediment Barriers: During frozen conditions, sediment barriers may consist of erosion control mix berms or any other recognized sediment barriers as frozen soil prevents the proper installation of hay bales or silt fences.
3. Mulching:
- All areas will be considered to be denuded until seeded and mulched. Hay and straw mulch will be applied at a rate of twice the normal accepted rate.
 - Mulch will not be spread on top of snow.
 - After each day of final grading, the area will be properly stabilized with anchored hay or straw or erosion control matting.
 - Between the dates of November 1 and April 15, all mulch will be anchored by either mulch netting, emulsion chemical, tracking or wood cellulose fiber.
5. Soil Stockpiling: Stockpiles of soil or subsoil will be mulched for over-winter protection with hay or straw at twice the normal rate or with a 4-inch layer of erosion control mix. This will be done within 24 hours of stocking and re-established prior to any rainfall or snowfall. Any soil stockpiles shall not be placed (even covered with mulch) within 100 feet from any natural resources. Sediment barriers should be installed downgradient of stockpiles. Stormwater shall be directed away from stockpiles.
6. Seeding: Dormant seeding may be placed prior to the placement of mulch or erosion control blankets. If dormant seeding is used for the site, all disturbed areas will receive 4 inches of loam and seed at an application rate of three times the rate for permanent seeding. All areas seeded during the winter will be inspected in the spring for adequate catch. All areas insufficiently vegetated (less than 75 percent catch) will be revegetated by replacing loam, seed, and mulch.

If dormant seeding is not used for the site, all disturbed areas will be revegetated in the spring.

7. Maintenance: Maintenance measures will be applied as needed during the entire construction season. After each rainfall, snow storm, or period of thawing and runoff, and at least once a week, the site Contractor will perform a visual inspection of all installed erosion control measures and perform repairs as needed to ensure their continuous function.

8. Identified repairs will be started no later than the end of the net work day and be completed within seven (7) calendar days.

Following the temporary and/or final seeding and mulching, the Contractor will, in the spring, inspect and repair any damages and/or bare spots. An established vegetative cover means a minimum of 85 to 90 percent of areas vegetated with vigorous growth.

G. OVER-WINTER CONSTRUCTION EROSION CONTROL MEASURES

1. Stabilization of Disturbed Soil: By October 15, all disturbed soils on areas having a slope less than 15 percent will be seeded and mulched. If the Contractor fails to stabilize these soils by this date, then the Contractor shall stabilize the soil for late fall and winter, by using either temporary seeding or mulching.
2. Stabilization of Disturbed Slopes: All slopes to be vegetated will be completed by October 15. The Owner will consider any area having a grade greater than 15 percent (6.5H:1V) to be a slope. Slopes not vegetated by October 15 will receive one of the following actions to stabilize the slope for late fall and winter:
- Stabilize the soil with temporary vegetation and erosion control mesh.
 - Stabilize the slope with erosion control mix.
 - Stabilize the slope with stone riprap.
 - Slopes steeper than 1.5:1 are prohibited.
3. Stabilization of Ditches and Channels: All stone-lined ditches and channels to be used to convey runoff through the winter will be constructed and stabilized by November 15. Grass-lined ditches and channels will be complete by September 15. Grass-lined ditches not stabilized by September 15 shall be lined with either sod or riprap.

H. MAINTENANCE PLAN

1. Routine Maintenance: Inspection will be performed as outlined in the project's Erosion Control Plan. Inspection will be by a qualified person during wet weather to ensure that the facility performs as intended. Inspection priorities will include checking erosion controls for accumulation of sediments.

I. Housekeeping

1. 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.
2. 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, bumps, 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.
3. 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. If off-site tracking occurs roadways should be swept immediately and no loss once a week and prior to significant storm events.
4. Debris and other materials. Litter, construction debris, and chemicals exposed to stormwater must be prevented from becoming a pollutant source.
5. Trench or foundation de-watering. Trench de-watering is the removal of water from trenches, foundations, coffer dams, 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 by the department.
6. Authorized Non-stormwater discharges. Identify and prevent contamination by non-stormwater discharges. Where allowed non-stormwater discharges exist, they must be identified and steps should be taken to ensure the implementation of appropriate pollution prevention measures for the non-stormwater component(s) of the discharge. Authorized non-stormwater discharges are:

- (a) Discharges from firefighting activity;
- (b) Fire hydrant flushings;
- (c) Vehicle washwater if detergents are not used and washing is limited to the exterior of vehicles (engine, undercarriage and transmission washing is prohibited);
- (d) Dust control runoff in accordance with permit conditions and section 13;
- (e) Routine external building washdown, not including surface paint removal, that does not involve detergents;
- (f) Pavement washwater (where spills/leaks of toxic or hazardous materials have not occurred, unless all spilled material had been removed) if detergents are not used;
- (g) Uncontaminated air conditioning or compressor condensate;
- (h) Uncontaminated groundwater or spring water;
- (i) Foundation or footer drain-water where flows are not contaminated;
- (j) Uncontaminated excavation dewatering (see requirements in section 15);
- (k) Potable water sources including waterline flushings; and
- (l) Landscape irrigation.

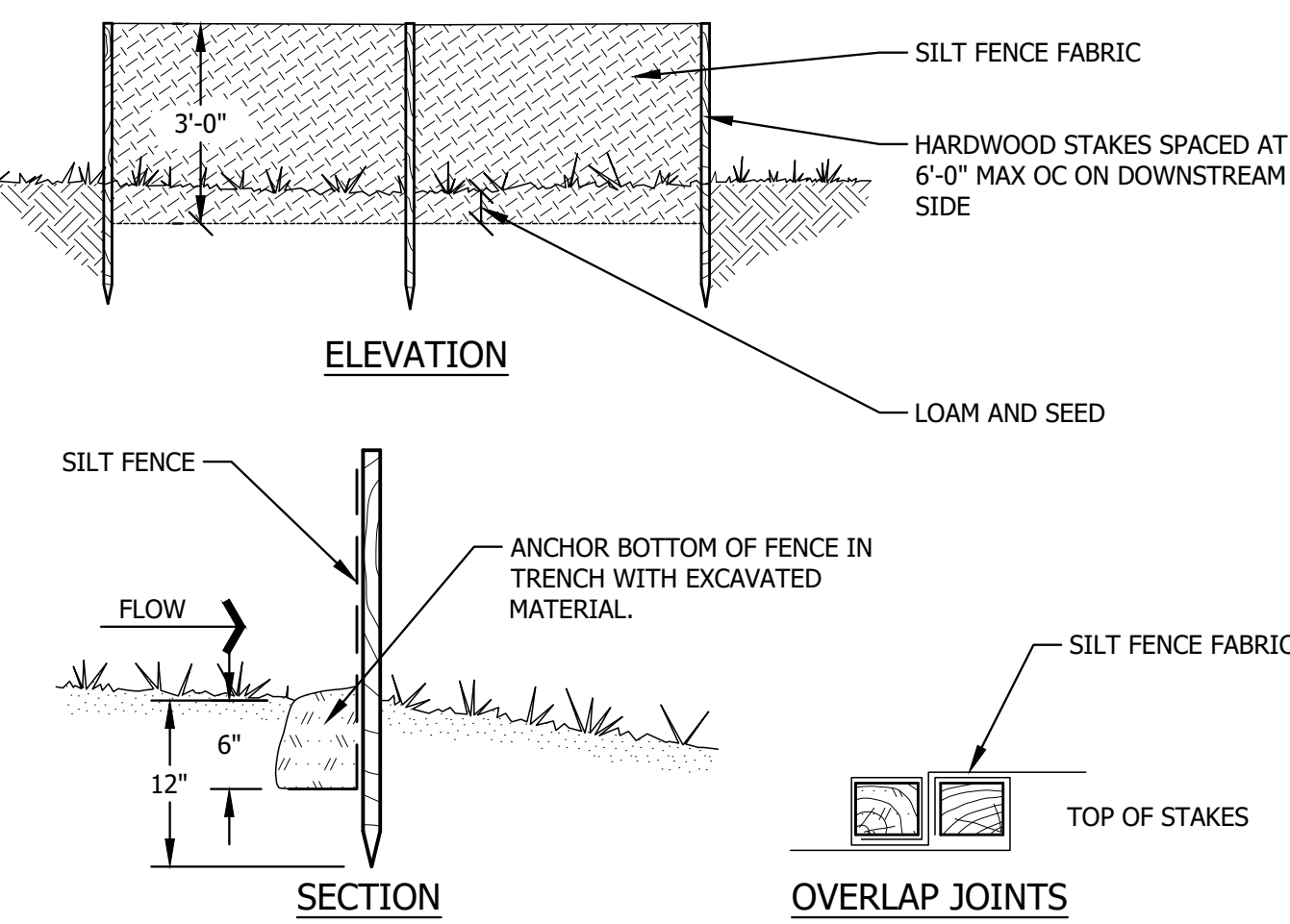
7. Unauthorized non-stormwater discharges. The Department's approval under this Chapter does not authorize a discharge that is mixed with a source of non stormwater, other than those discharges in compliance with section 16. Specifically, the Department's approval does not authorize discharges of the following:

- (a) Wastewater from the washout or cleanout of concrete, stucco, paint, form release oils, curing compounds or other construction materials;
- (b) Fuels, oils or other pollutants used in vehicle and equipment operation and maintenance;
- (c) Soaps, solvents, or detergents used in vehicle and equipment washing; and
- (d) Toxic or hazardous substances from a spill or other release.

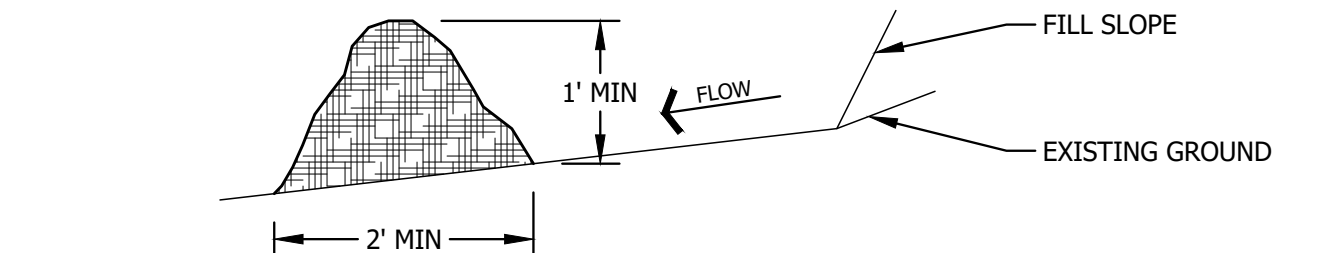
3. CONSTRUCTION SEQUENCE

In general, the expected sequence of construction for each phase is provided below. Construction is proposed to start in Summer 2021 and end in 2022.

- Mobilization
- Install temporary erosion control measures
- Clearing and grubbing
- Site Grading
- Construct building
- Site stabilization, pavement, loam and seed, landscaping
- Construct detention pond and level spreader
- Remove temporary erosion control measures

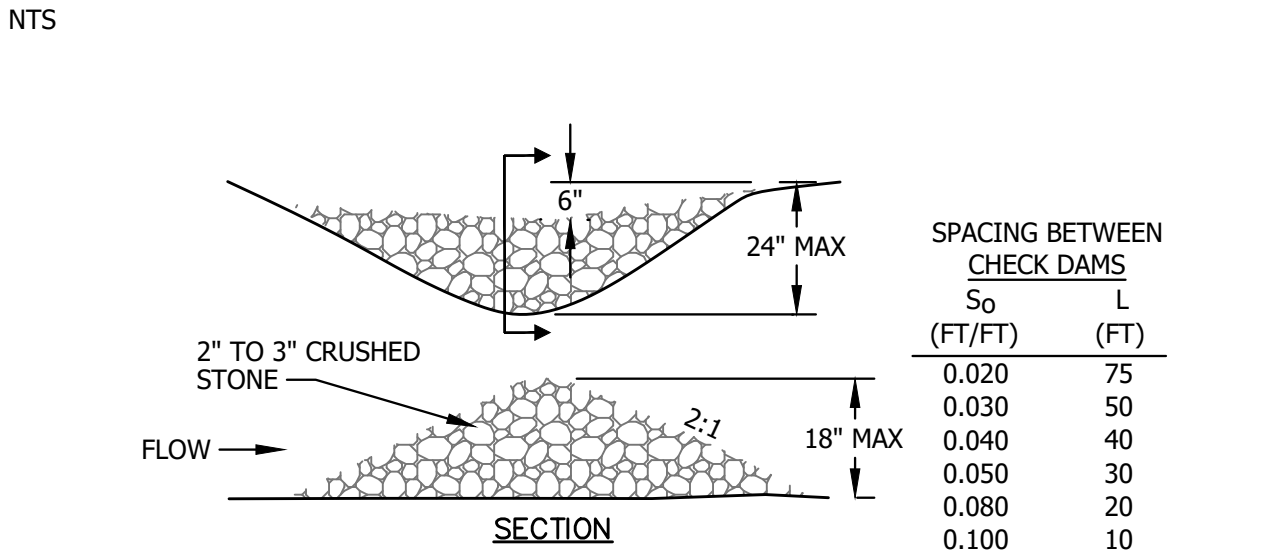


NOTE: CONTRACTORS OPTION TO USE SEDIMENT BARRIER OR SILT FENCE FOR SLOPE PROTECTION.



- NOTES:
1. EROSION CONTROL MIX CAN BE MANUFACTURED ON OR OFF THE SITE. IT MUST CONSIST PRIMARILY OF ORGANIC MATERIAL SEPARATED AT THE POINT OF GENERATION, AND MAY INCLUDE: SHREDDED BARK, STUMP GRINDINGS, COMPOSTED BARK, OR FLUME GRIT AND FRAGMENTED WOOD GENERATED FROM WATER-FLUME LOG HANDLING SYSTEMS. WOOD CHIPS, GROUND CONSTRUCTION DEBRIS, REPROCESSED WOOD PRODUCTS OR BARK CHIPS WILL NOT BE ACCEPTABLE AS THE ORGANIC COMPONENT OF THE MIX. EROSION CONTROL MIX SHALL CONTAIN A WELL-GRADED MIXTURE OF PARTICLE SIZES AND MAY CONTAIN ROCKS LESS THAN 4" IN DIAMETER. EROSION CONTROL MIX MUST BE FREE OF REFUSE, PHYSICAL CONTAMINANTS, AND MATERIAL TOXIC TO PLANT GROWTH. THE MIX COMPOSITION SHALL MEET THE FOLLOWING STANDARDS:
- ORGANIC MATERIAL: BETWEEN 20% - 100% (DRY WEIGHT BASIS)
 - PARTICLE SIZE: BY WEIGHT, 100% PASSING 6" SCREEN, 70-85% PASSING 0.75" SCREEN
 - THE ORGANIC PORTION NEEDS TO BE FIBROUS AND ELONGATED.
 - LARGE PORTIONS OF SILTS, CLAYS OR FINE SANDS ARE NOT ACCEPTABLE IN THE MIX.
 - SOLUBLE SALTS CONTENT SHALL BE LESS THAN 4.0 MMHOS/CM.
 - PH: 5.0 - 8.0
2. ON SLOPES LESS THAN 5% OR AT THE BOTTOM OF SLOPES 2:1 OR LESS UP TO 20 FEET LONG, THE BARRIER MUST CONFORM TO THE ABOVE DIMENSIONS. ON THE LONGER OR STEEPER SLOPES, THE BARRIER SHOULD BE WIDER TO ACCOMMODATE THE ADDITIONAL FLOW.
3. THE BARRIER MUST BE PLACED ALONG A RELATIVELY LEVEL ELEVATION. IT MAY BE NECESSARY TO CUT TALL GRASSES OR WOODY VEGETATION TO AVOID CREATING VOIDS AND BRIDGES THAT WOULD ENABLE FINES TO WASH UNDER THE BARRIER THROUGH THE GRASS BLADES OR PLANT STEMS.
4. LOCATIONS WHERE OTHER BMP'S SHOULD BE USED:
- AT LOW POINTS OF CONCENTRATED FLOW
 - BELOW CULVERT OUTLET APRONS
 - WHERE A PREVIOUS STAND-ALONE EROSION CONTROL MIX APPLICATION HAS FAILED
 - AT THE BOTTOM OF STEEP PERIMETER SLOPES THAT ARE MORE THAN 50 FEET FROM TOP TO BOTTOM (LARGE UPGRADEMENT WATERSHED)
 - AROUND CATCH BASINS AND CLOSED STORM DRAIN SYSTEMS.
5. THE EROSION CONTROL MIX BARRIERS SHOULD BE INSPECTED REGULARLY AND AFTER EACH LARGE RAINFALL. REPAIR ALL DAMAGED SECTIONS OF BERM IMMEDIATELY BY REPLACING OR ADDING ADDITIONAL MATERIAL PLACED ON THE BERM TO THE DESIRED HEIGHT AND WIDTH.
6. IT MAY BE NECESSARY TO REINFORCE THE BARRIER WITH SILT FENCE OR STONE CHECK DAMS IF THERE ARE SIGNS OF UNDERCUTTING OR THE IMPOUNDMENT OF LARGE VOLUMES OF WATER.
7. SEDIMENT DEPOSITS SHOULD BE REMOVED WHEN THEY REACH APPROXIMATELY ONE-HALF THE HEIGHT OF THE BARRIER.
8. REPLACE SECTIONS OF BERM THAT DECOMPOSE, BECOME CLOGGED WITH SEDIMENT OR OTHERWISE BECOME INEFFECTIVE. THE BARRIER SHOULD BE RESHAPED AS NEEDED.
9. EROSION CONTROL MIX BARRIERS CAN BE LEFT IN PLACE AFTER CONSTRUCTION. ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER BARRIER IS NO LONGER REQUIRED SHOULD BE SPREAD TO CONFORM TO THE EXISTING GRADE AND BE SEEDED AND MULCHED. WOODY VEGETATION CAN BE PLANTED INTO THE BARRIERS, OR THEY CAN BE OVER-SEEDED WITH LEGUMES. IF THE BARRIER NEEDS TO BE REMOVED, IT CAN BE SPREAD OUT INTO THE LANDSCAPE.

SURFACE DRAINAGE SEDIMENT CONTROL



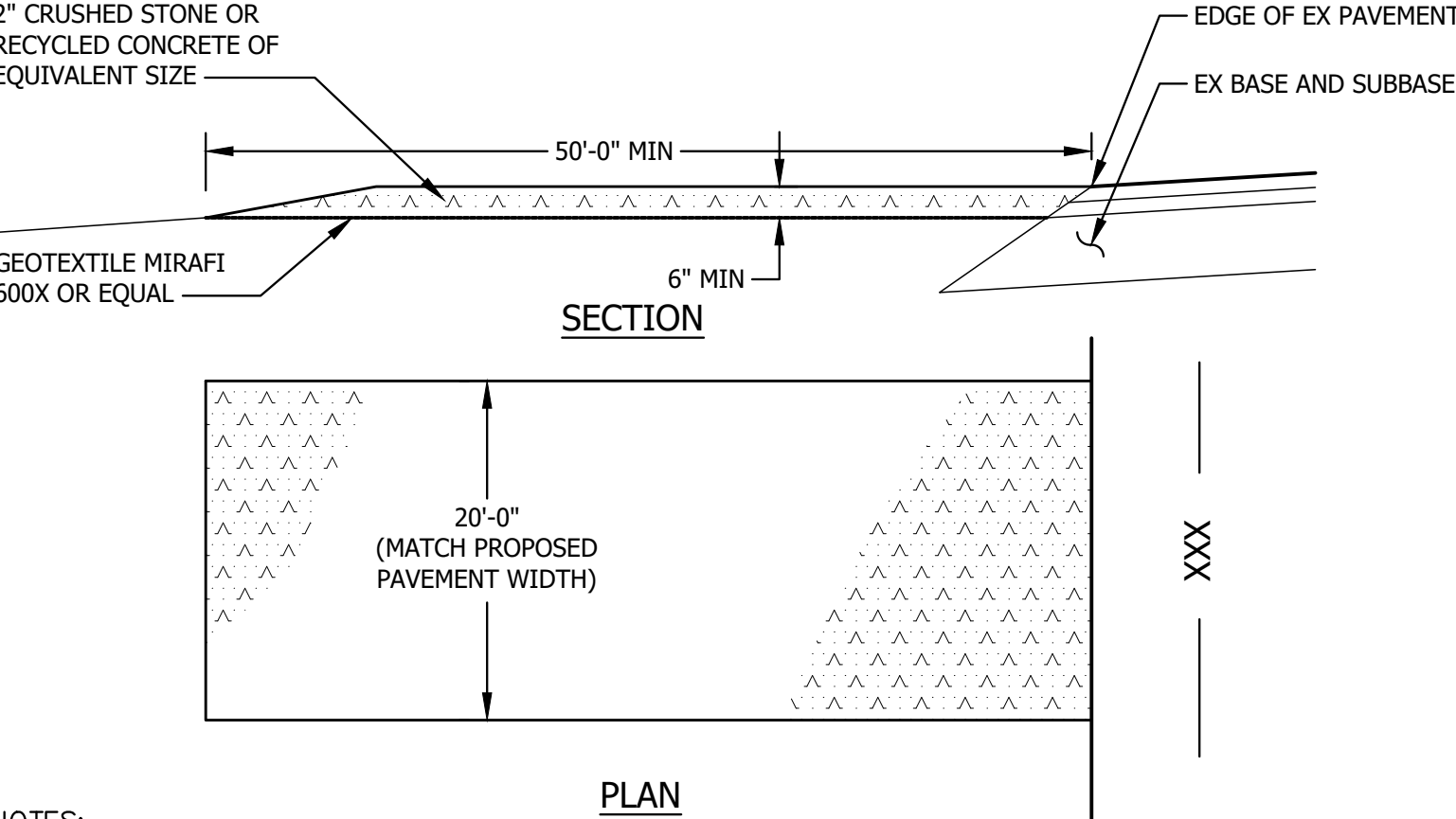
- (a) Wastewater from the washout or cleanout of concrete, stucco, paint, form release oils, curing compounds or other construction materials;
- (b) Fuels, oils or other pollutants used in vehicle and equipment operation and maintenance;
- (c) Soaps, solvents, or detergents used in vehicle and equipment washing; and
- (d) Toxic or hazardous substances from a spill or other release.
8. Additional requirements. Additional requirements may be applied on a site-specific basis.

3. CONSTRUCTION SEQUENCE

In general, the expected sequence of construction for each phase is provided below. Construction is proposed to start in Summer 2021 and end in 2022.

- Mobilization
- Install temporary erosion control measures
- Clearing and grubbing
- Site Grading
- Construct building
- Site stabilization, pavement, loam and seed, landscaping
- Construct detention pond and level spreader
- Remove temporary erosion control measures

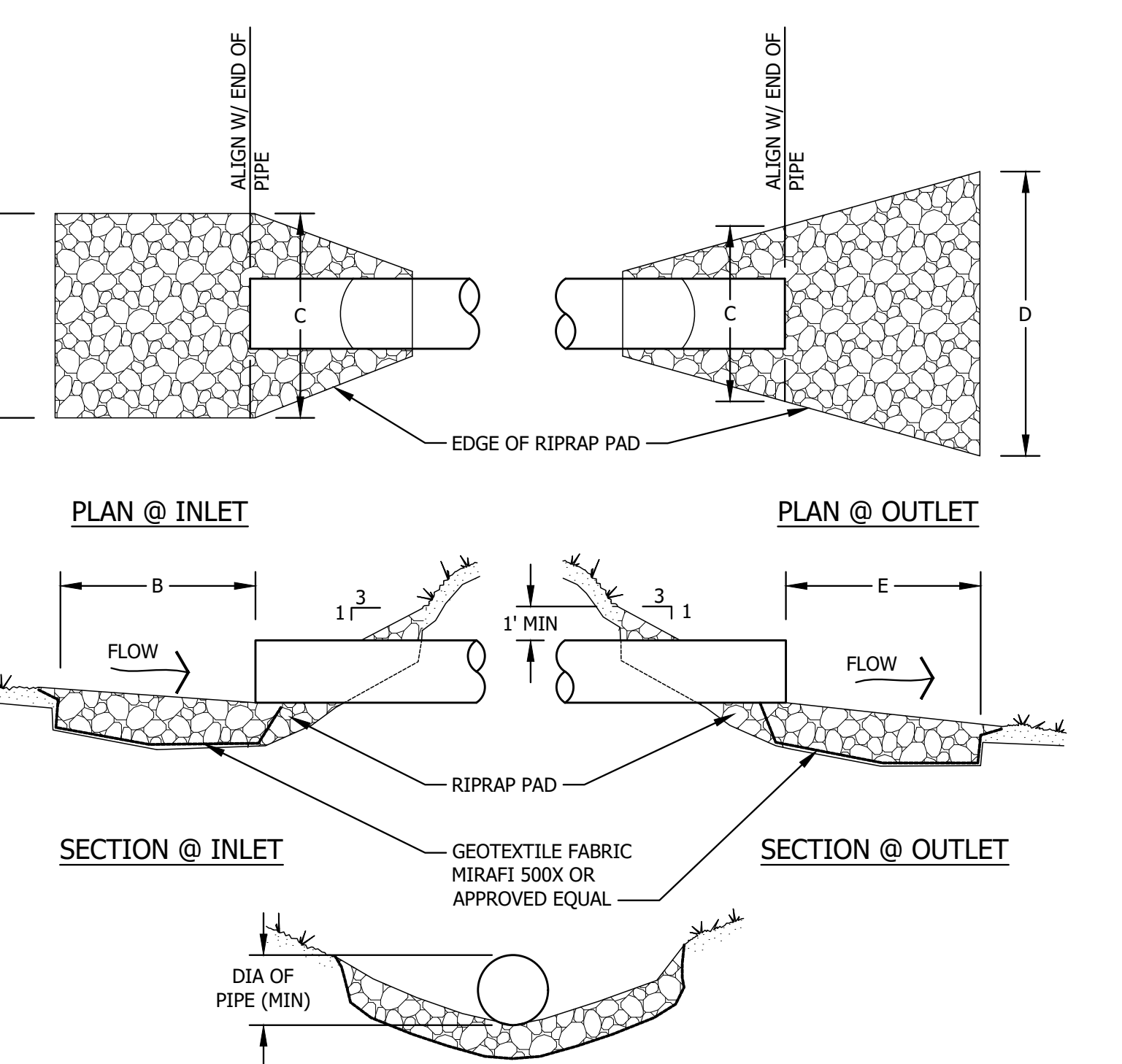
REV.	BY	DATE	STATUS
	DPD	7/2021	REVISED PER TOWN AND PEER REVIEW COMMENTS
	DPD	5/2021	ISSUED TO TOWN AND MEDEP FOR REVIEW



NOTES:

1. MAINTAIN ENTRANCE IN A CONDITION THAT WILL PREVENT TRACKING OF SEDIMENT ONTO PUBLIC RIGHT-OF-WAY. IF WASHING IS REQUIRED PREVENT SEDIMENT FROM ENTERING WATERWAYS, DITCHES OR STORM DRAINS.
2. REMOVE STABILIZED CONSTRUCTION ENTRANCE TO FINISH ROAD CONSTRUCTION & PAVEMENT.

STABILIZED CONSTRUCTION ENTRANCE DETAIL



CROSS SECTION

RIPPRAP PAD MUST BE INSTALLED WITHIN 48 HOURS OF INSTALLING NEW PIPE OR CULVERT.

PIPE	A	B	C	D	E	PAD DEPTH	D ₅₀
12"~	3 FT.	2 FT.	3 FT.	9 FT.	8 FT.	6"	3"
15"~	3.75 FT.	2.5 FT.	3.75 FT.	11.5 FT.	10 FT.	6"	6"
18"~	4.5 FT.	3 FT.	4.5 FT.	11.5 FT.	10 FT.	9"	6"

PIPE INLET/OUTLET DETAILS

STATE OF MAINE
DANIEL P. BIFFIN
11841
PROFESSIONAL ENGINEER

SNELL CONSTRUCTION LLC
BROAD COVE RIDGE CONDOMINIUMS
100 US ROUTE 1
CUMBERLAND, MAINE

EROSION CONTROL NOTES AND DETAILS

SME
SEVEE & MAHER
ENGINEERS

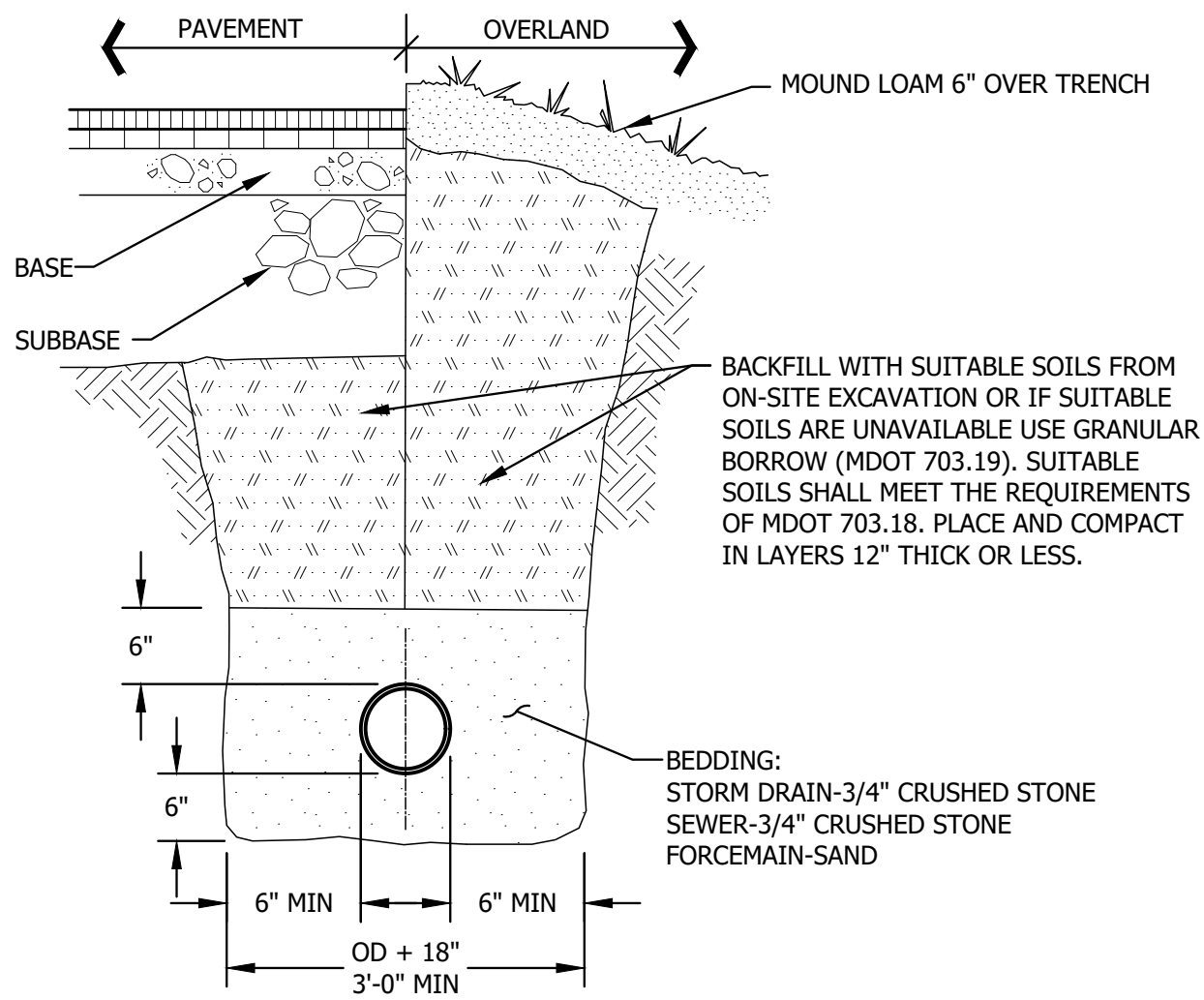
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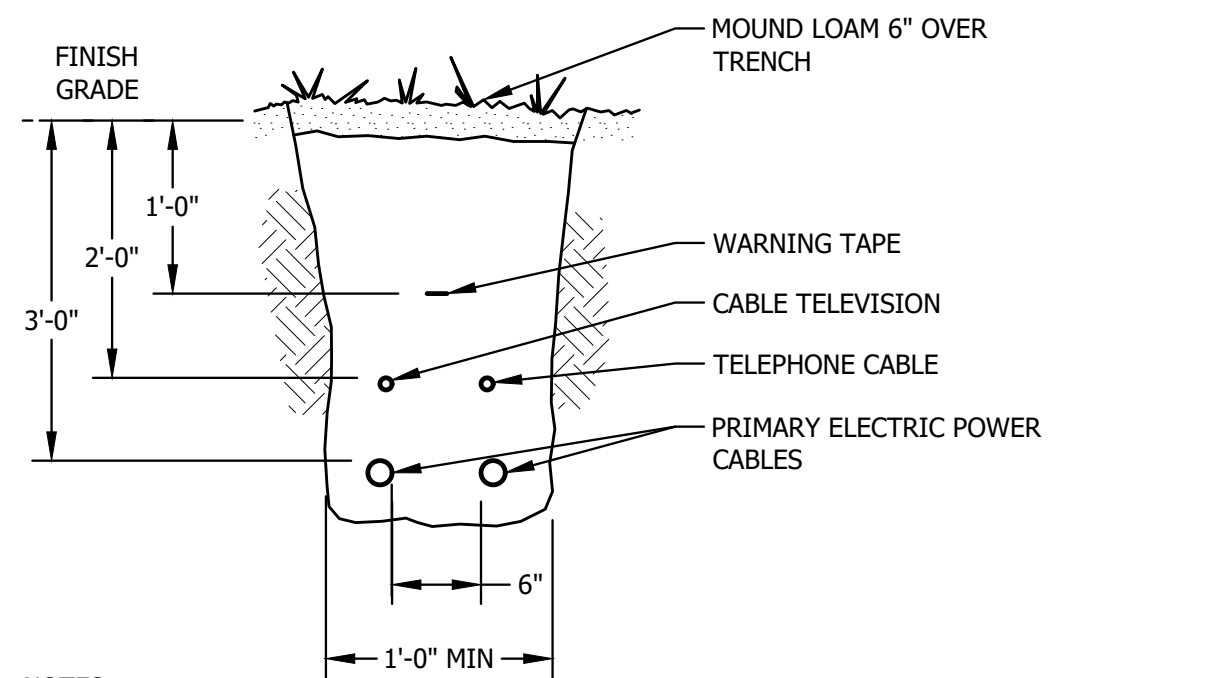
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DESIGN BY: AML
DRAWN BY: SJM
DATE: 5/2021
CHECKED BY: DPD
LMN: SITE
CTB: SME-STD

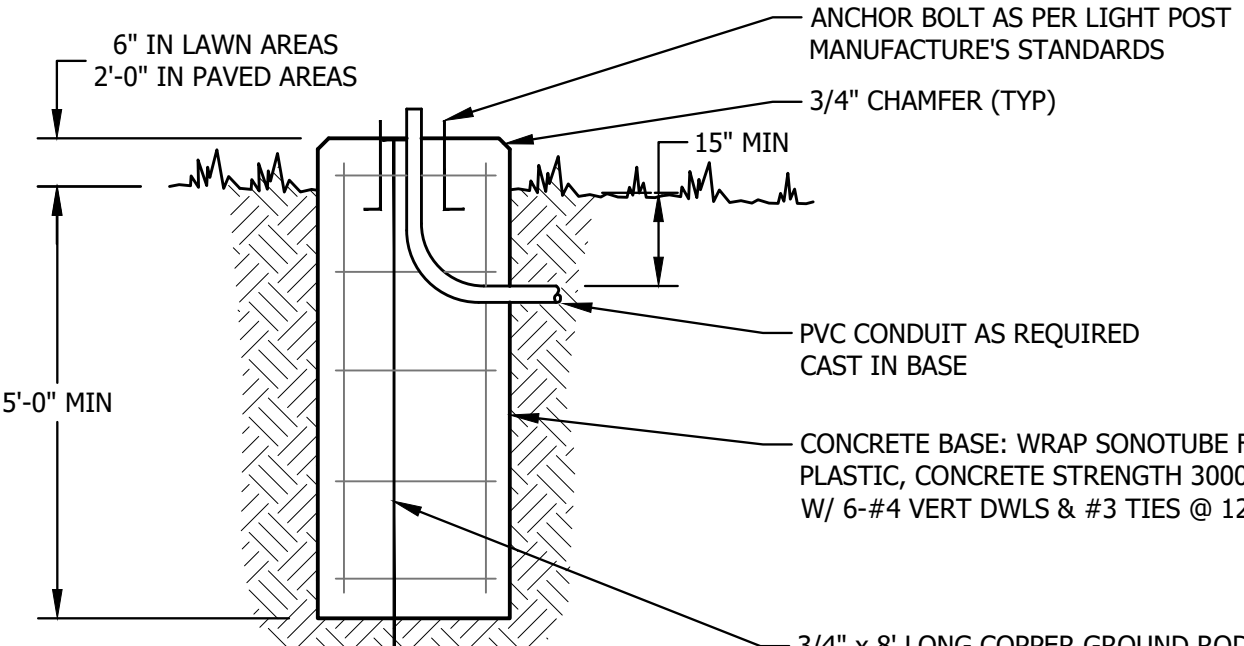
C-300



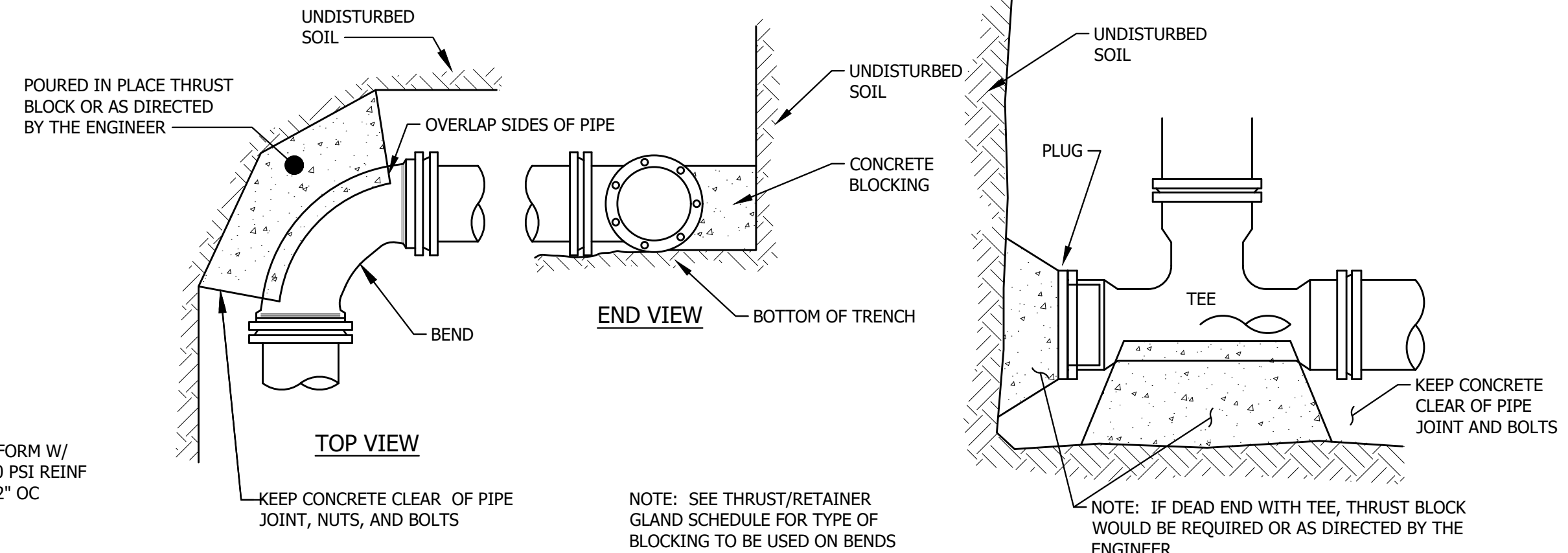
TYPICAL TRENCH SECTION
NTS



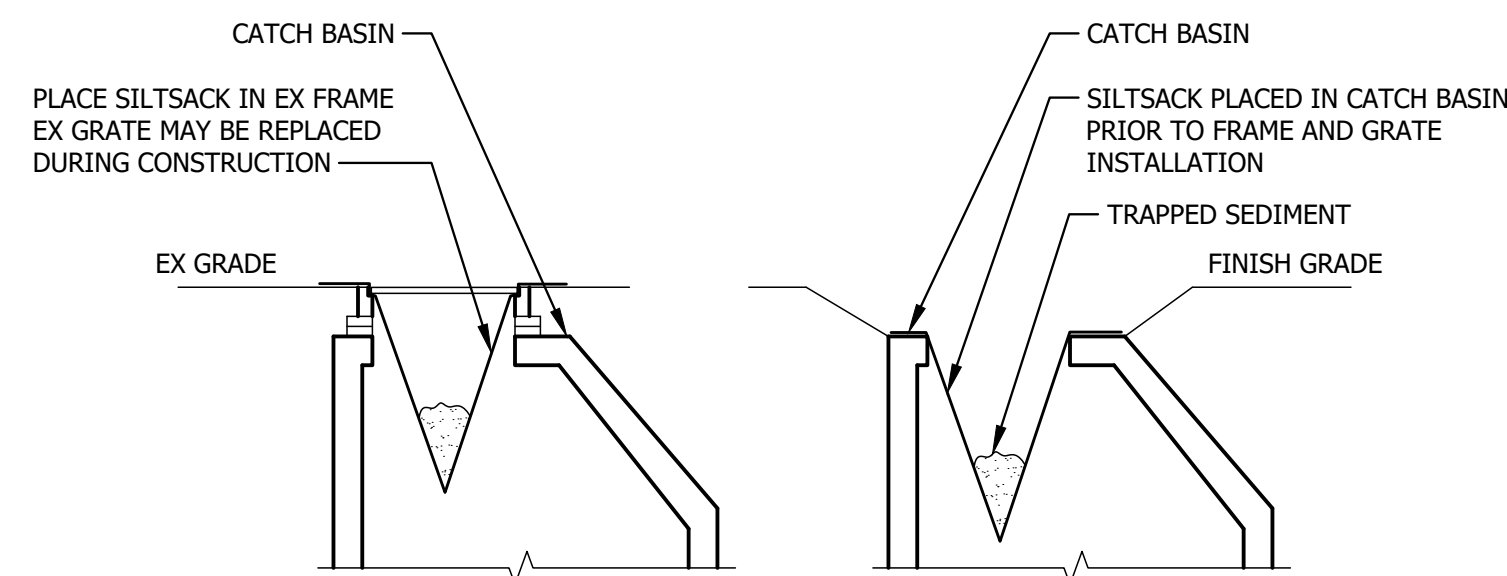
UNDERGROUND UTILITY TRENCH SECTION
NTS



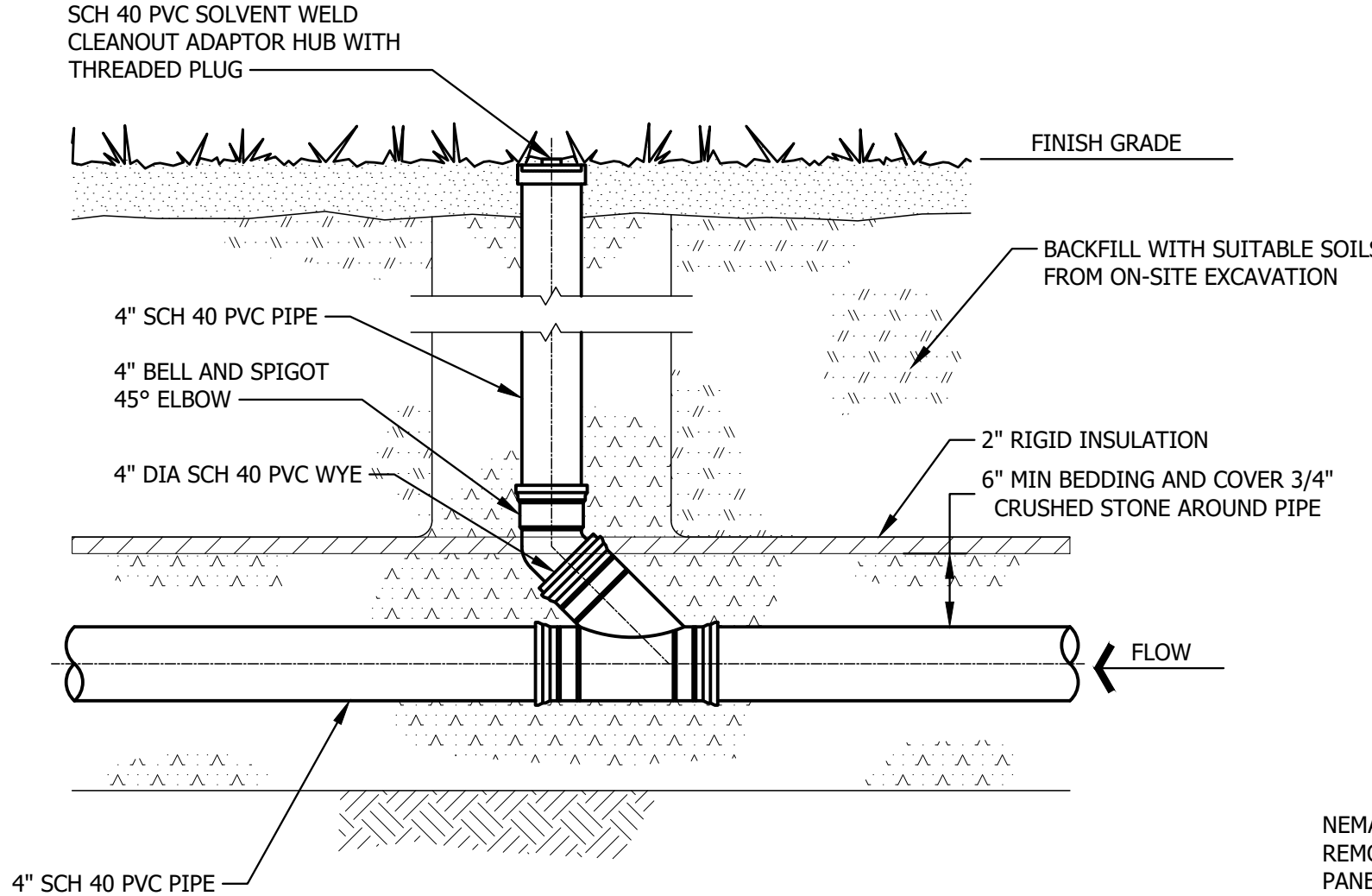
LIGHT POLE BASE DETAIL
NTS



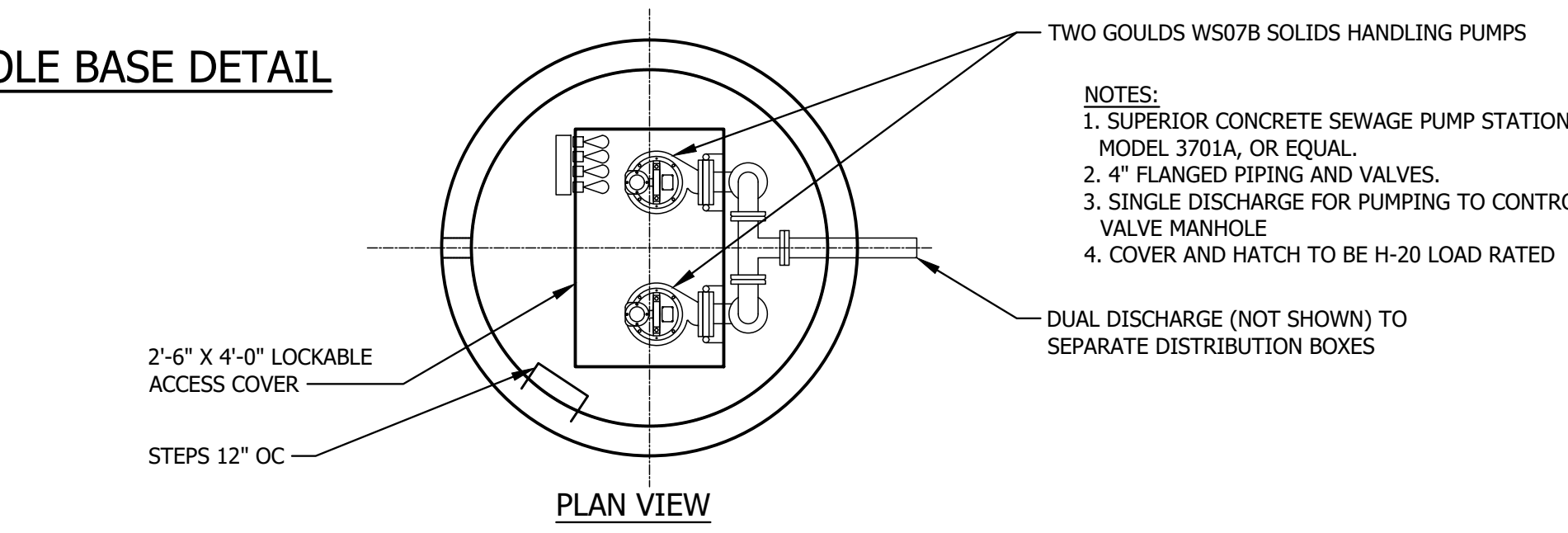
STANDARD BEND BLOCKING
NTS



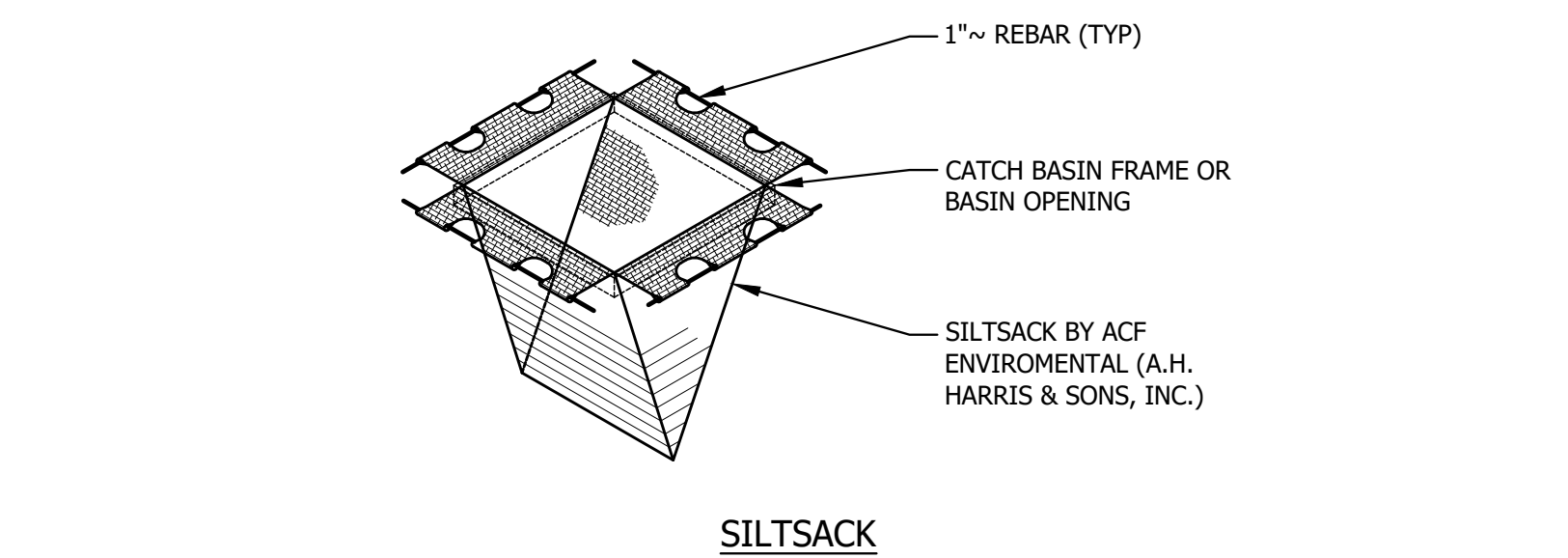
CATCH BASIN PROTECTION
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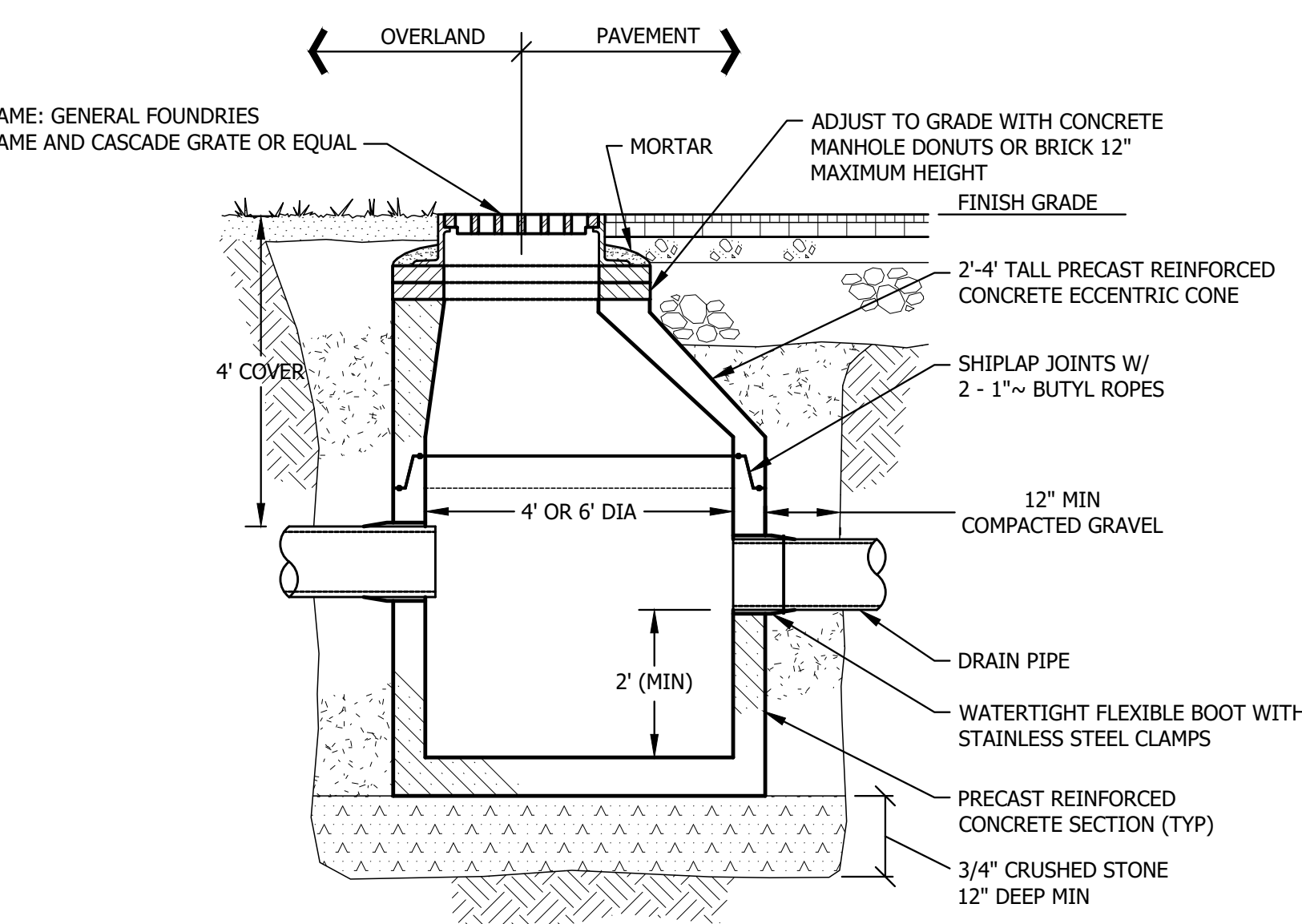
TYPICAL CLEANOUT
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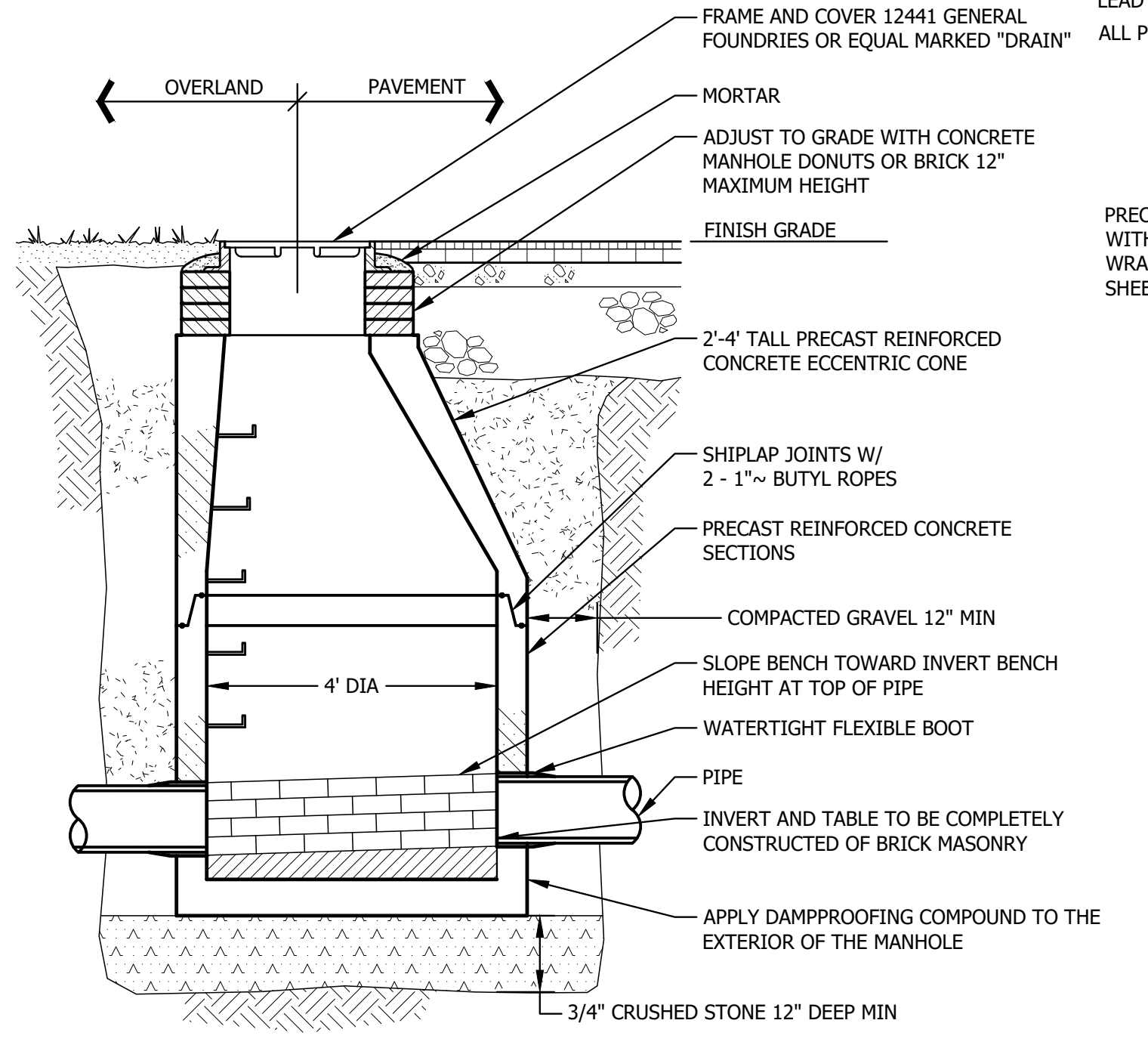
SERVICE SADDLE
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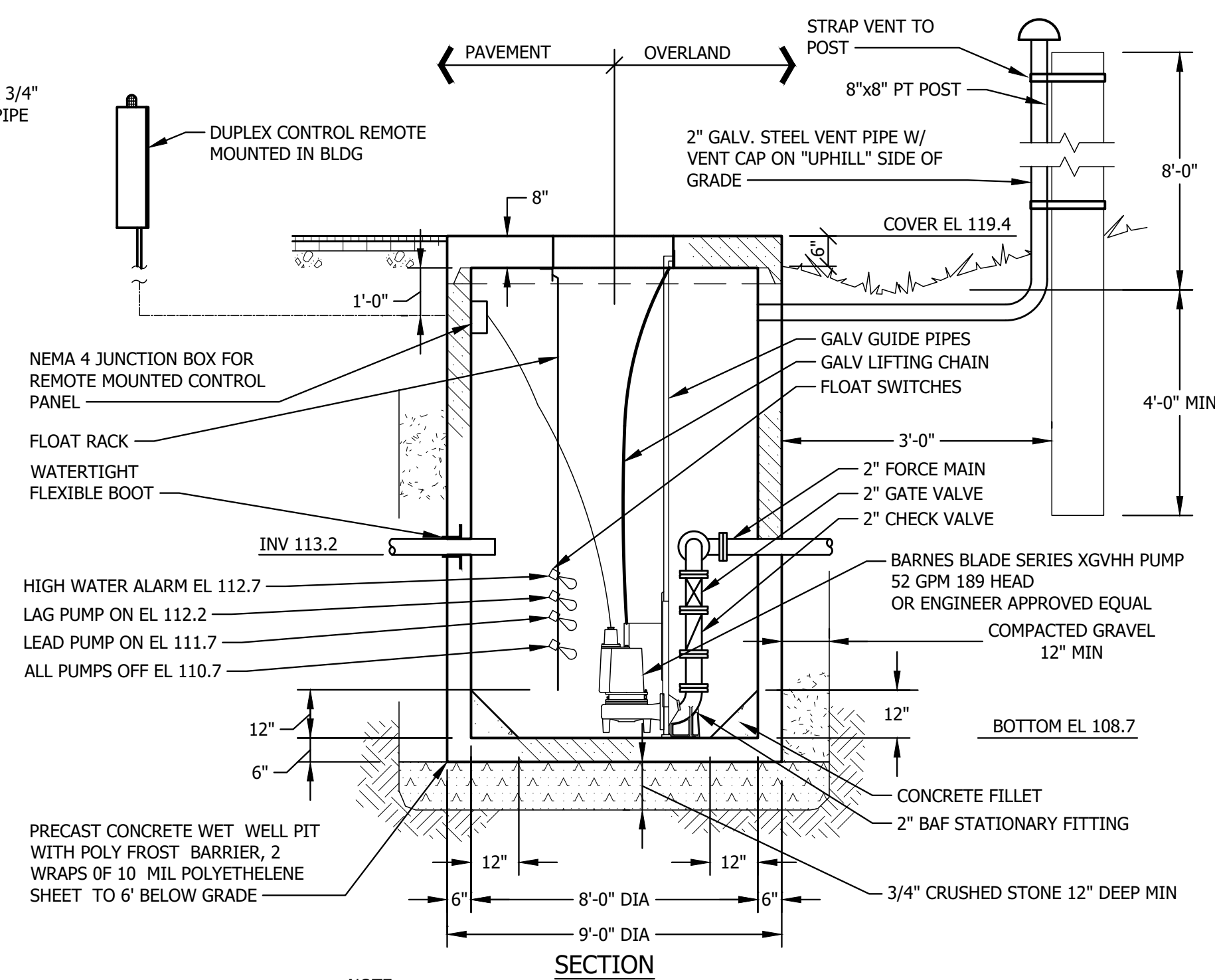
CATCH BASIN PROTECTION
NTS



CATCH BASIN
NTS



CONCRETE MANHOLE SECTION
NTS



LIFT STATION
NTS

CATCH BASIN, MANHOLE, AND LIFT STATION NOTES:

THE CONTRACTOR SHALL PROVIDE SUBMITTALS TO THE ENGINEER FOR APPROVAL. SUBMITTALS SHALL INCLUDE BUT NOT LIMITED TO THE FOLLOWING:

PRODUCT DATA: SUBMIT PRODUCT DATA FOR ALL MATERIALS USED ON THE JOB FOR REVIEW FOR LIMITED PURPOSE OF CHECKING FOR CONFORMANCE WITH INFORMATION GIVEN AND DESIGN CONCEPT EXPRESSED IN CONTRACT DOCUMENTS.

SHOP DRAWINGS: SUBMIT FOR REVIEW SHOP DRAWINGS OF ALL PRECAST UNITS. MANUFACTURER'S INFORMATION SHALL BE SUBMITTED FOR JOINT SEALANTS AND WATERPROOFING. MANUFACTURE SHALL PROVIDE ANTI-FLOTATION DESIGN SHOP DRAWINGS AND CALCULATIONS, INCLUDING ANY EXTENDED BASE SLABS AS NECESSARY, FOR PROPOSED MANHOLES. MANUFACTURER SHALL ASSUME GROUNDWATER LEVELS EQUAL TOP OF GROUND ELEVATIONS AND PROVIDE FOR A 1.2 FACTOR OF SAFETY AGAINST FLOTATION.

REV.	BY	DATE	STATUS
	DPD	7/2021	REVISED PER TOWN AND PEER REVIEW COMMENTS
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SNELL CONSTRUCTION LLC
BROAD COVE RIDGE CONDOMINIUMS
100 US ROUTE 1
CUMBERLAND, MAINE

SECTIONS AND DETAILS

SME
SEVEE & MAHER
ENGINEERS

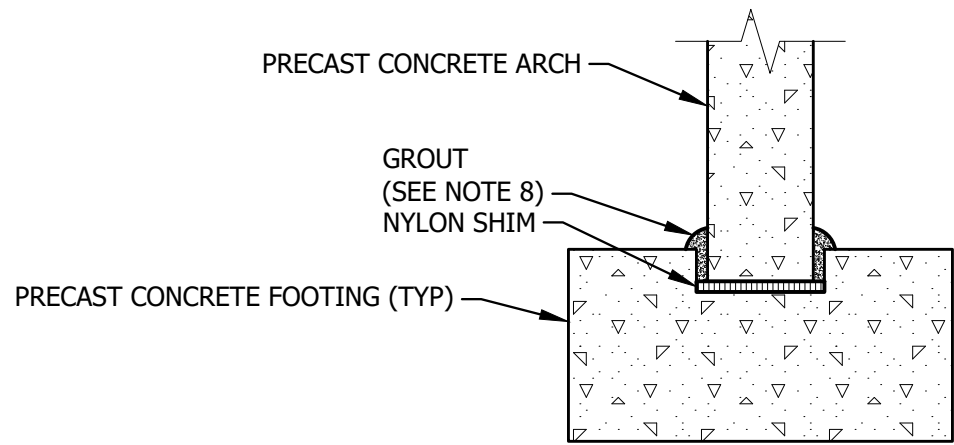
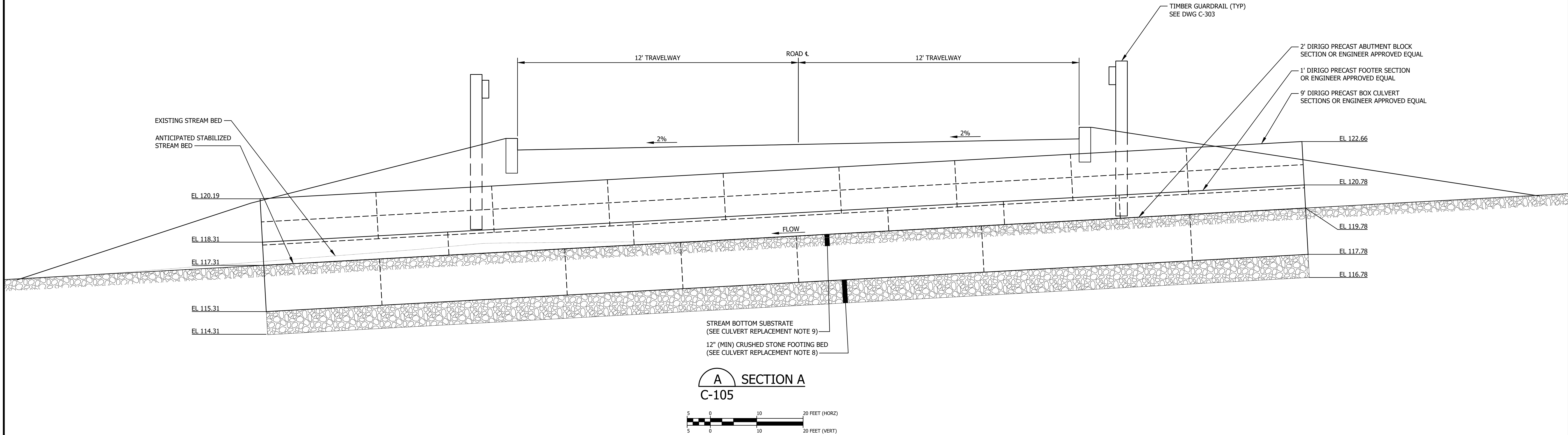
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CTB: SME-STD

JOB NO. 21241.01

DWG FILE DETAILS

C-301



ARCH TO FOOTING CONNECTION
NTS

CULVERT CONSTRUCTION NOTES:

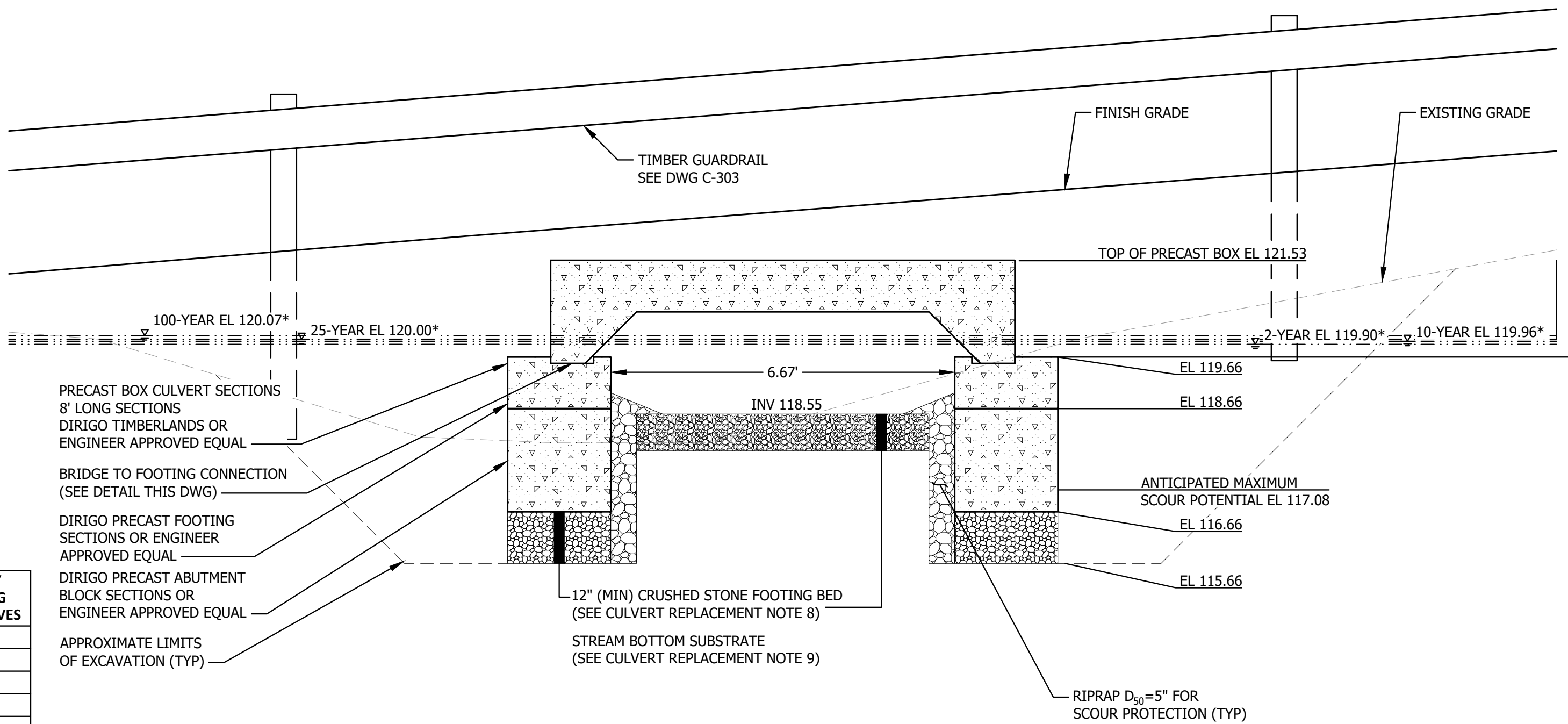
- ALL WORK SHALL BE SCHEDULED TO START AFTER JULY 15, 2021 AND BE CONCLUDED BEFORE OCTOBER 1, 2021.
- ALL WORK SHALL BE IN ACCORDANCE WITH THE STREAM CROSSING STANDARDS CONTAINED IN THE STATE OF MAINE, DEPARTMENT OF ENVIRONMENTAL PROTECTION, NATURAL RESOURCE PROTECTION ACT, PERMIT BY RULE STANDARDS, CHAPTER 305, AS CURRENTLY REVISED. ADDITIONALLY ALL WORK SHALL MEET OR EXCEED THE EXPECTATIONS OF THE MAINE AUDUBON "STREAM SMART" GUIDELINE FOR FISH FRIENDLY STREAM CROSSINGS.
- EROSION AND SEDIMENT CONTROLS SHALL COMPLY WITH THE MAINE EROSION AND SEDIMENT CONTROL BMPs, DATED OCTOBER 2016, OR AS CURRENTLY REVISED.
- LOCATION, ORIENTATION AND INVERT OF PRECAST CONCRETE ARCH AND FOOTING BLOCKS MAY BE ADJUSTED TO MEET FIELD CONDITIONS FOUND AT THE TIME OF CONSTRUCTION.
- PRECAST CONCRETE ARCH AND FOOTING BLOCKS SHALL BE MANUFACTURED BY DIRIGO BRIDGE CO. OF NORTH ANSON, MAINE.
- MINIMIZE DISTURBANCE TO EXISTING SUBSURFACE STREAM BED MATERIAL TO THE GREATEST EXTENT POSSIBLE.
- GROUT SHALL BE NON-SHRINK SIKAGROUT 328 BY SIKA CORPORATION OR ENGINEER APPROVED EQUAL.
- 3/4-INCH CRUSHED STONE SHALL MEET THE FOLLOWING GRADATION:

SIEVE DESIGNATION	PERCENTAGE BY WEIGHT PASSING SQUARE MESH SIEVES
1 INCH	100.00
3/4 INCH	90-100
1/2 INCH	20-55
3/8 INCH	0-15
No. 40	0-5

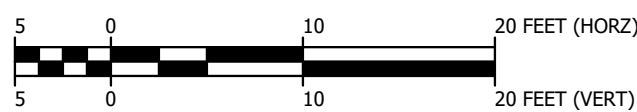
- EXISTING STREAM SUBSTRATE TO REMAIN INTACT TO THE GREATEST EXTENT PRACTICABLE. ANY REQUIRED SUPPLEMENTAL GRAVEL SHALL MEET THE REQUIREMENTS OF MEDOT TYPE D GRAVEL (703.06C). MATERIAL SHALL NOT CONTAIN PARTICLES OF ROCK WHICH WILL NOT PASS THE 6-INCH SQUARE MESH SIEVE. THE GRADATION OF THE MATERIAL THAT PASSES THE 3-INCH SIEVE SHALL MEET THE FOLLOWING REQUIREMENTS:

SIEVE DESIGNATION	PERCENTAGE BY WEIGHT PASSING SQUARE MESH SIEVES
1/2 INCH	35-80
1/4 INCH	25-65
No. 40	0-30
No. 200	0-7.0

- PRECAST CONCRETE ARCH AND FOOTINGS SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURERS REQUIREMENTS.
- FINAL FOOTING DIMENSIONS TO BE DETERMINED BASED ON OBSERVATION OF SUBGRADE MATERIAL BY ENGINEER AT TIME OF CONSTRUCTION.



SECTION B
C-105



REV.	BY	DATE	STATUS
	DPD	7/2021	REVISED PER TOWN AND PEER REVIEW COMMENTS
	DPD	5/2021	ISSUED TO TOWN AND MEDEP FOR REVIEW

SNELL CONSTRUCTION LLC
BROAD COVE RIDGE CONDOMINIUMS
100 US ROUTE 1
CUMBERLAND, MAINE

SECTIONS AND DETAILS

SME
SEVEE & MAHER
ENGINEERS
ENVIRONMENTAL • CIVIL • GEOTECHNICAL • WATER • COMPLIANCE
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JOB NO. 21241.01 DWG FILE DETAILS **C-304**



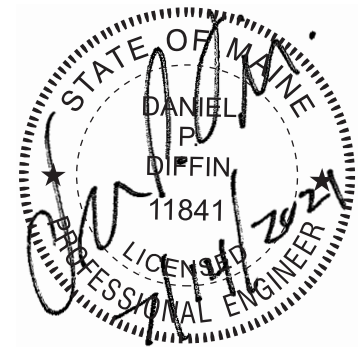
STORMWATER MANAGEMENT LEGEND

- SC-1 SUBCATCHMENT DESIGNATION
- SUBCATCHMENT BOUNDARY
- A --- B --- C TIME OF CONCENTRATION SEGMENT DESIGNATION
TIME OF CONCENTRATION PATH
- Sht
L=50'
S=0.005 TIME OF CONCENTRATION TYPE, LENGTH
AND SLOPE. (75% TEXT HT)
- Sht SHEET FLOW
- Shc SHALLOW CONCENTRATED FLOW
- Cf CHANNEL FLOW
- DRAINAGE REACH
- R4 REACH DESIGNATION (HYDROCAD)
- △ POND/STRUCTURE DESIGNATION (HYDROCAD)
- tc ① TIME OF CONCENTRATION WITH SUBCATCHMENT DESIGNATION
- SOIL TYPE BOUNDARY
- Su SOIL TYPE DESIGNATION

SOILS LEGEND

- HfC HARTLAND - HSG B
- HrC LYMAN/TUNBRIDGE - HSG D
- HsC LYMAN/ABRAMS - HSG D
- Su SUFFIELD - HSG C

NOTES:
1. SEE DWG C-100 FOR PLAN REFERENCES AND ORIGINS OF TOPOGRAPHIC INFORMATION.



SNELL CONSTRUCTION LLC
BROAD COVE RIDGE CONDOMINIUMS
100 US ROUTE 1
CUMBERLAND, MAINE

STORMWATER MANAGEMENT PLAN
PRE-DEVELOPMENT CONDITIONS


SEVEE & MAHER
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LMN: SMP-E
CTB: SME-STD

JOB NO. 21241.01 DWG FILE BASE D-100

	DPD	7/2021	REVISED PER TOWN AND PEER REVIEW COMMENTS
	DPD	5/2021	ISSUED TO TOWN AND MEDEP FOR REVIEW
REV.	BY	DATE	STATUS



STORMWATER MANAGEMENT LEGEND

- SC-1C SUBCATCHMENT DESIGNATION
- SUBCATCHMENT BOUNDARY
- A---B---C TIME OF CONCENTRATION SEGMENT DESIGNATION
TIME OF CONCENTRATION PATH
- Sht L=100'
S=0.035 TIME OF CONCENTRATION TYPE, LENGTH
AND SLOPE. (75% TEXT HT)
- Sht SHEET FLOW
- Shc SHALLOW CONCENTRATED FLOW
- Cf CHANNEL FLOW
- DRAINAGE REACH
- R4 REACH DESIGNATION (HYDROCAD)
- △ POND/STRUCTURE DESIGNATION (HYDROCAD)
- tc ② TIME OF CONCENTRATION WITH SUBCATCHMENT DESIGNATION
- SOIL TYPE BOUNDARY
- Su SOIL TYPE DESIGNATION

SOILS LEGEND

- HfC HARTLAND - HSG B
- HrC LYMAN/TUNBRIDGE - HSG D
- HsC LYMAN/ABRAMS - HSG D
- Su SUFFIELD - HSG C

NOTES:
1. SEE DWG C-100 FOR PLAN REFERENCES AND ORIGINS OF TOPOGRAPHIC INFORMATION.

STATE OF MAINE
DANIEL P. SEVEE
P.E.
11841
LICENSED PROFESSIONAL ENGINEER

SNELL CONSTRUCTION LLC
BROAD COVE RIDGE CONDOMINIUMS
100 US ROUTE 1
CUMBERLAND, MAINE

STORMWATER MANAGEMENT PLAN
POST-DEVELOPMENT CONDITIONS

SME
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ENGINEERS

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Phone 207.829.5016 • Fax 207.829.5692 • smemaine.com

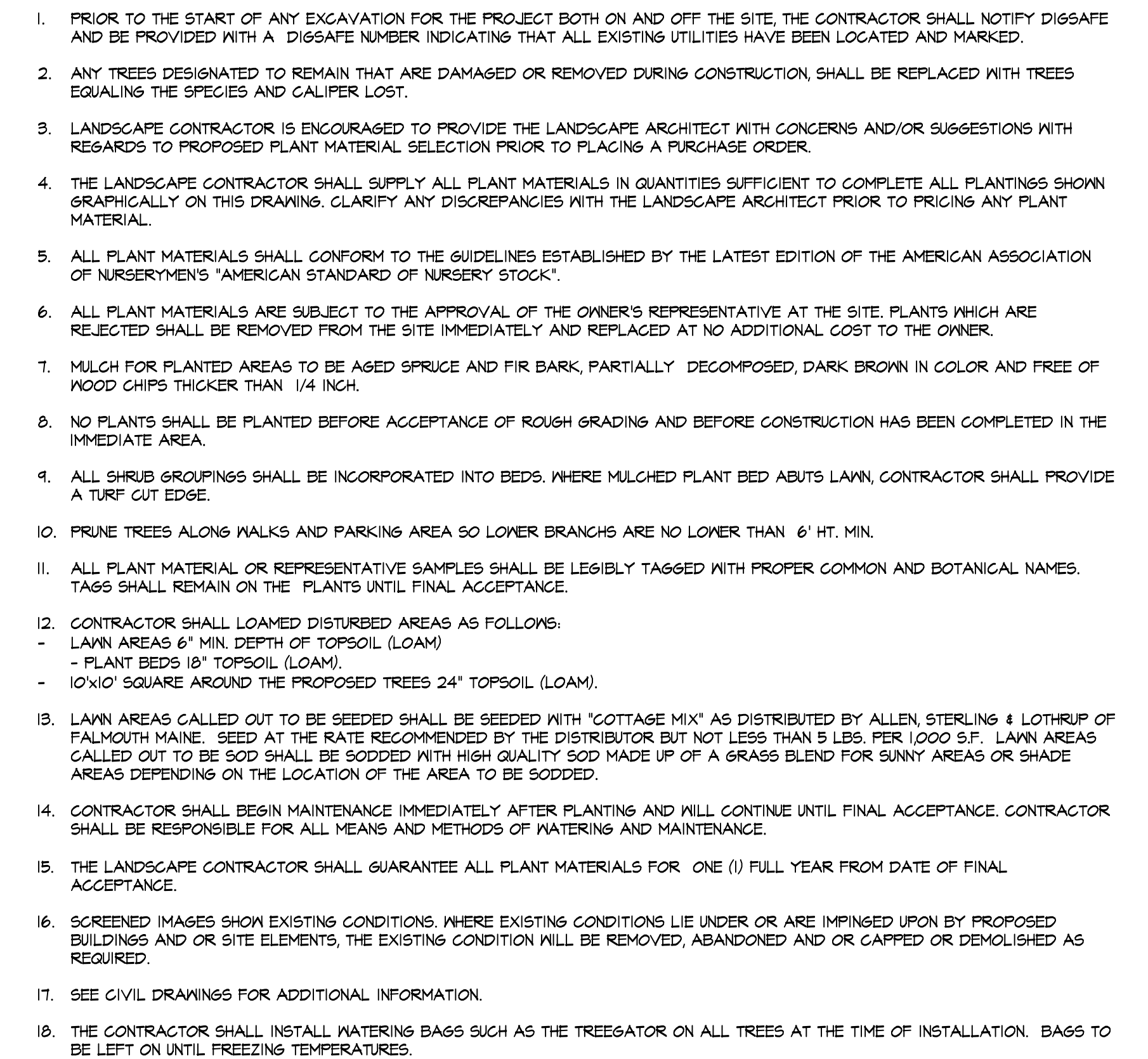
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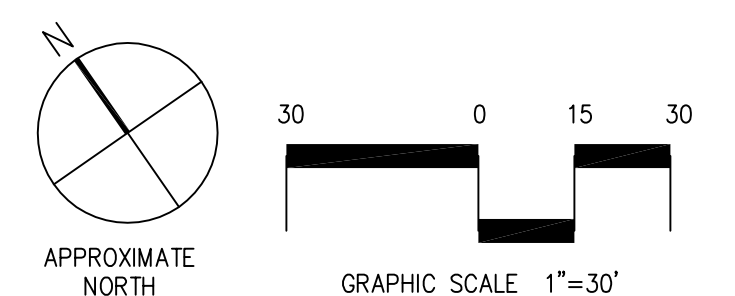
D-101

REV.	BY	DATE	STATUS
	DPD	7/2021	REVISED PER TOWN AND PEER REVIEW COMMENTS
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\\nas01\p02\apps\assessors\B04\1 - Cumberland\Construction\Permit\B04C.dwg, 11/15/2021 10:45:58 AM, xax



SYMBOL	BOTANICAL NAME	COMMON NAME	QTY	SIZE	COMMENTS
DECIDUOUS TREES					
AXG	ACER X FREEMANI 'CELEBRATION'	CELZAM MAPLE	2	2" CAL.	SINGLE LEADER, B&B
BNH	BETULA NIGRA 'HERITAGE'	HERITAGE RIVER BIRCH	2	12"-14' HT.	CLUMP, B&B
MA	MALUS 'ADIRONDACK'	ADIRONDACK CRABAPPLE	2	1 1/2" CAL.	SINGLE LEADER, B&B
PA	PRUNUS X ACCOLADE	ACCOLADE CHERRY	2	1 1/2" CAL.	SINGLE LEADER, B&B
SRI	SYRINGA RETICULATA 'IVORY SILK'	IVORY SILK JAPANESE TREE LILAC	5	1 1/2" CAL.	SINGLE LEADER, B&B
SHRUBS, GROUNDCOVERS & HERBACEOUS MATERIALS					
BX	BUXUS X GREEN VELVET	GREEN VELVET BOXWOOD	6	5 GAL.	FULL # BUSHY
HA	HOSTA AUGUST MOON	AUGUST MOON HOSTA	4	1 GAL.	-
H5	HEMEROCALLIS 'STELLA D' ORO'	STELLA D' ORO DAYLILY	28	1 GAL.	-
JC6	JUNIPERUS CHINENSIS 'CASINO GOLD'	CASINO GOLD JUNIPER	6	24" SPD.	FULL # BUSHY
PJM	RHODODENDRON P.J.M 'COMPACTA'	COMPACT P.J.M RHODODENDROM	6	24" HT.	FULL # BUSHY
PO	PHYSCARPUS OPULIFOLIUS 'LITTLE DEVIL'	LITTLE DEVIL NINEBARK	1	3'-4' HT.	FULL # BUSHY
TO	THUIA O. 'MR. BOWLING BALL'	MR. BOWLING BALL ARBORVITAE	17	24" HT.	FULL # BUSHY

[illegible]

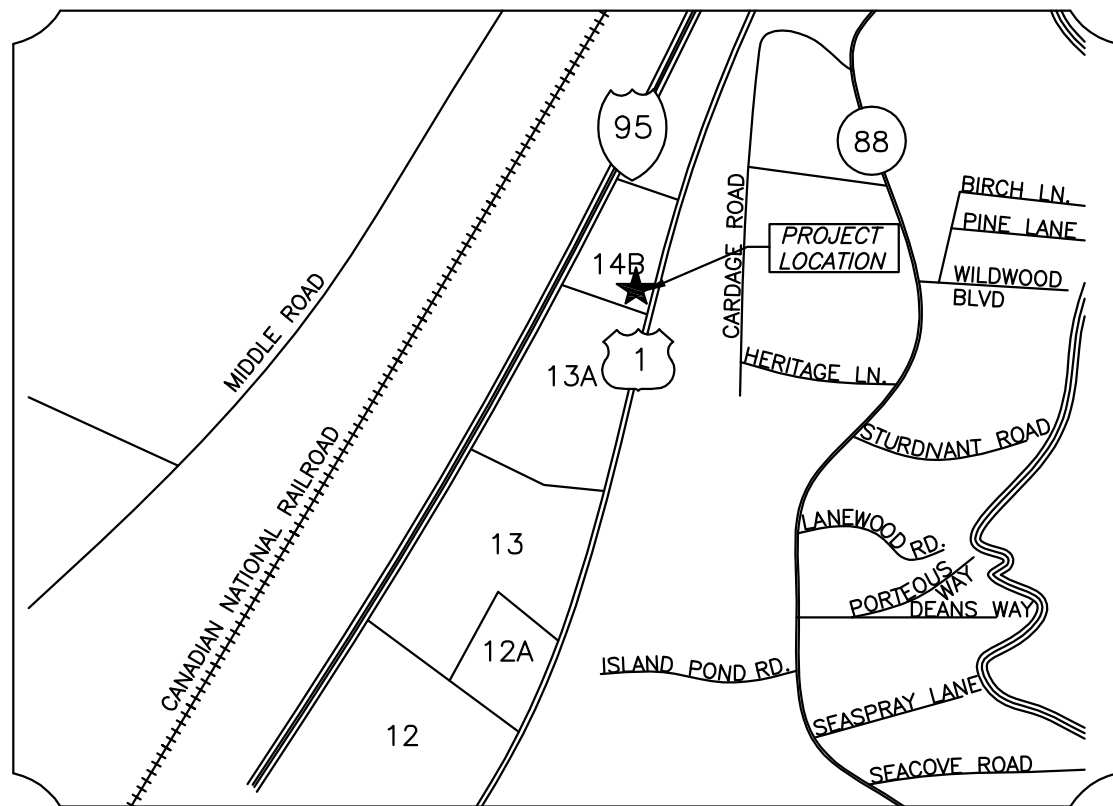
INTERSTATE I-95

N/F
GLENN S. PORTER
TM R01, PARCEL 14B
BOOK 10526, PAGE 233

N/F
100 US ROUTE 1 LLC
TM R01, P/O PARCEL 13B
BOOK 31838, PAGE 3
137,816 S.F.

N/F
LEDGEVIEW PROPERTIES,
LLC
TM R01, PARCEL 13A
BOOK 17591, PAGE 242

U.S. ROUTE 1



LOCATION MAP
(NOT TO SCALE)

- NOTES:
- (1) OWNER OF RECORD: 100 US ROUTE 1 LLC PER DEED BOOK 31838, PAGE 3 RECORDED IN CUMBERLAND COUNTY REGISTRY OF DEEDS.
 - (2) TAX MAP R01, P/O PACEL 13B
 - (3) SURVEY REFERENCES:
 - (A) "PLAN OF PROPERTY IN CUMBERLAND, MAINE FOR WM. RANDALL, ELEANOR A. RANDALL & FRED JENSEN" BY: SURVEY, INC. JANUARY 1988
 - (B) "STANDARD BOUNDARY SURVEY, PLAN SHOWING A DIVISION OF LAND" FOR TWIN TOWN TRUST, BY LAND USE CONSULTANTS DATED OCTOBER 16, 1992.
 - (C) "SITE PLAN LEDGEVIEW PROPERTIES, LLC." FOR DAVID & KAREN LANDA, BY SURVEY INCORPORATED DATED DECEMBER 2001 AND REVISED THROUGH NOVEMBER 2002.
 - (4) TOPOGRAPHIC DATA AND EXISTING CONDITIONS ARE BASED UPON A GROUND SURVEY CONDUCTED WITH ASSUMED ELEVATIONS BY SURVEY, INC. JANUARY 15 & 16, 2015
 - (5) PROPERTY IS LOCATED IN THE "OC-S" OFFICE COMMERCIAL-SOUTH DENSITY RESIDENTIAL REQUIREMENTS:
MINIMUM LOT SIZE- 1 ACRE
MINIMUM LOT FRONTAGE- 150 FEET
SETBACK REQUIREMENTS:
FRONT: 25 FEET
REAR: 65 FEET
SIDE: 20 FEET

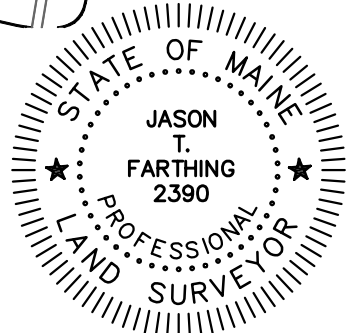
LEGEND:

- #5 REBAR WITH PLASTIC CAP STAMPED "SURVEY, INC. PLS 2390" SET ON
- FOUND IRON PIPE (SIZE & TYPE AS NOTED)
- FOUND DRILL HOLE
- FOUND IRON ROD
- UTILITY POLE (NUMBER AS NOTED)
- GUY WIRE ANCHOR

- STONEWALL
- BOUNDARY LINE
- EASEMENT LINE
- EDGE OF GRAVEL
- EDGE OF PAVEMENT
- RIGHT-OF-WAY LINE
- ABUTTER LINE
- OVERHEAD UTILITY
- NOW OR FORMERLY OWNED BY DEED BOOK AND PAGE (CCRD)
- TAX MAP-LOT
- PARENTHESES DENOTE RECORD DATA

N/F
1234/567
12-45
(123.45)

30 0 15 30 60
GRAPHIC SCALE
1"=30'



I CERTIFY THAT THIS SURVEY CONFORMS TO THE STANDARDS OF THE MAINE BOARD OF LICENSURE FOR PROFESSIONAL LAND SURVEYORS AND IS CORRECT TO THE BEST OF MY KNOWLEDGE, BELIEF AND PROFESSIONAL OPINION.

JASON T. FARTHING P.L.S. 2390

BOUNDARY / EXISTING
CONDITIONS SURVEY

US ROUTE 1
CUMBERLAND, ME

FOR: **DAVID SPELLMAN**
127 FORESIDE ROAD
FALMOUTH, MAINE 04110
(CLIENT)

SURVEY BY: **SURVEY, INC.**
P.O. BOX 210
WINDHAM, ME 04062
(207) 892-2556 (207) 892-2557 FAX
INFO@SURVEYINCORPORATED.COM

PLAN BY: AWH @ SURVEY, INC.
DATE: FEBRUARY 3, 2015 JOB NO. 15_005



4 Blanchard Road, P.O. Box 85A
Cumberland, ME 04021
Tel: 207.829.5016 • Fax: 207.829.5692
info@smemaine.com
smemaine.com

May 25, 2021

Ms. Carla Nixon, Town Planner
Town of Cumberland
290 Tuttle Road
Cumberland, Maine 04021

Subject: Broad Cove Ridge Condominiums
Planning Board Site Plan Review Application

Dear Ms. Nixon:

On behalf of the Snell Construction, LLC (Snell), Sevee & Maher Engineers, Inc. (SME) is pleased to submit the attached Planning Board Site Plan Review Application for the proposed 50 condo multiplex on Route 1 in Cumberland.

We have enclosed two copies and a USB with a digital copy of the application package and drawings.

We look forward to reviewing the project in more detail with the Planning Board on June 15, 2021 and appreciate your consideration of our application. Please feel free to contact me at 207.829.5016 or dpd@smemaine.com if you have any questions or need additional information.

Very truly yours,

SEVEE & MAHER ENGINEERS, INC.

A handwritten signature in blue ink, appearing to read "Daniel Diffin". The signature is fluid and cursive, written over a light blue horizontal line.

Daniel Diffin, P.E., LEED AP BD+C
Vice President/Senior Civil Engineer

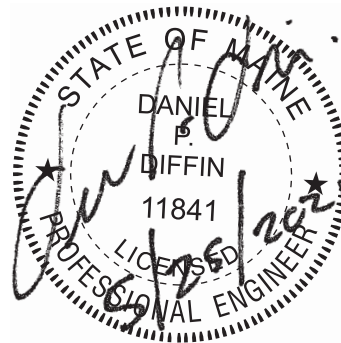
Attachments

TOWN OF CUMBERLAND PLANNING BOARD SUBDIVISION AND SITE PLAN REVIEW APPLICATION BROAD COVE RIDGE CONDOMINIUMS

Prepared for

SNELL CONSTRUCTION, LLC
100 US Route 1
Cumberland, Maine

May 2021



4 Blanchard Road
P.O. Box 85A
Cumberland, Maine 04021
Phone: 207.829.5016 smemaine.com

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SME 
SEVEE & MAHER
ENGINEERS

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**SITE PLAN REVIEW
Town of Cumberland**

**Appendix C
Planning Board Site Plan Review Application**

Applicant's name Jon Snell c/o Snell Construction, LLC & 100 US Route 1, LLC
Applicant's address 97 Ledge Brook Crossing, Brunswick, ME 04011
Cell phone N/A Home phone N/A Office phone 207-751-9627
Email Address jon@jaidenlandscaping.com
Project address 102 US Route 1, Cumberland, ME 04021
Project name Broad Cove Ridge Condominiums
Describe project See Project Description Section
Number of employees None
Days and hours of operation N/A
Project review and notice fee \$2,150
Name of representative Daniel Diffin, P.E., Sevee & Maher Engineers, Inc.
Contact information: Cell: 207-240-3315 Office: 207-829-5016

What is the applicant's interest in the property?

Own _____ Lease _____ Purchase and sale agreement ☒ _____ (provide copy of document)
If you are not the owner, list owner's name, address and phone number Dave Spellman
20 Independence Drive, Suite 1A, Freeport, Maine 04032, 207-329-8306

If you are not the owner, list owner's name, address and phone number _____

Boundary Survey

Submitted? Yes ☒ No _____

Are there any deed restrictions or easements? Yes ☒ No _____ If yes, provide information and show easement location on site plan.

Building Information

Are there existing buildings on the site? Yes _____ No ☒ Number: _____
Will they be removed? Yes _____ No _____ (Note: A demolition permit is required 10 days prior to demolition.)

Will a new structure(s) be built on the site? Yes ☒ No _____
Describe: 50-Unit Condominium Building with below grade parking.
Number of new buildings 1
Square footage 12,800 SF
Number of floor levels including basement 5

ParkingNumber of existing parking spaces 0Number of new parking spaces 98Number of handicapped spaces 4Will parking area be paved? X Yes No**Entrance**Location: One (1) off US Route 1Width 24 ft Length 40 ftIs it paved? X Yes X No If not, do you plan to pave it?

Where will snow storage for entrance and parking be located? Show on site plan.

Utilities**Water:** Public water X Well (Show location on site plan.)**Sewer/septic:** Public sewer X Private septic Show location on site plan and submit HHE-200 septic design or location of passing test pit locations if new system is proposed. Also show any wells on abutting properties within 200 feet of the site.**Electric:** On site? Yes X No

Show location of existing and proposed utilities on the site plan and indicate if they are above or below ground.

SignsNumber: Size: Material:

Submit sign design and completed sign application.

Will the sign be lighted? Submit information on type and wattage of lights.

Show location of sign(s) on the site plan.

Natural Features

Show location of any of the following on the site plan:

River Stream X Wetland X Pond Lake Stone walls XAre there any other historic or natural features? No features identified by MHPC.**Lighting**Will there be any exterior lights? Yes X No Show location on site plan (e.g., pole fixtures, wall packs on building) and provide fixture and lumen information.**Trees**

Show location of existing trees on the site plan and indicate if any are to be removed.

LandscapingIs there existing landscaping on the site? Yes No X Show type and location on site plan.

Is new landscaping proposed? (Note: if property has frontage on Route 100, a twenty-five-foot landscape easement to the Town is required.)

Buffering

Show any existing or proposed buffering measures for adjacent properties, e.g., plantings, fences.

Erosion Control

Has an erosion and sedimentation control plan been submitted? Yes ☒ No ☐

Stormwater Management Plan

Provide stormwater information for both pre and post development of the site. Show location of any detention areas and/or culverts on the site plan.

Fire Protection

Location of nearest hydrant ^{1 proposed} Sprinklers? Yes ☒ No ☐

Do you plan to have an alarm system? Yes ☒ No ☐ Please contact the Fire/EMS Department at 829-4573 to discuss any Town or state requirements.

Trash

Will trash be stored inside ☐ outside ☒. If outside, will a dumpster be used? Yes ☒ No ☐. Show location on site plan and show type of screening proposed (e.g., fencing, plantings).

Technical Capacity

List and provide contact information for all consultants who worked on the project, for example: licensed land surveyor, licensed soils evaluator, professional engineer, attorney, etc.
See Attachment C

Financial Capacity

Please indicate how project will be financed. If obtaining a bank loan, provide a letter from the bank See Attachment B

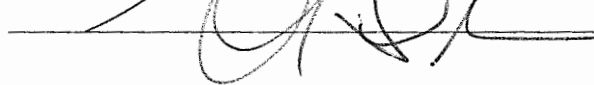
- Zoning district: OC-S Mixed Use Overlay
- Minimum lot size: 1 Acre
- Classification of proposed use: Residential
- Parcel size: 3.16 Acres
- Frontage: 318 feet
- Setbacks: Front 25 feet Side 10 feet Rear 15 feet
- Board of Appeals Required? No
- Tax Map R1 Lot 13B Deed book 31838 Deed page 3
- Floodplain map number 230162 0018 C Designation Zone C
- Vernal pool identified? No
- Is parcel in a subdivision? No
- Outside agency permits required:
MDEP Tier 1 N/A MDEP Tier 2 N/A Army Corps of Engineers N/A
MDEP general construction (stormwater) permit (for disturbance of 1 acre or more)
- MDOT entrance permit Yes
- MDOT traffic movement permit N/A
- Traffic study required N/A
- Hydrogeologic evaluation N/A
- Market study N/A
- Route 1 Design Guidelines? Yes
- Route 100, VMU or TCD Design Standards? N/A

Applicant's signature



Jonathan Snell, Snell Construction
LLC

Submission date:



David Spellman 100 US
Rt 1 LLC

PLANNING BOARD SITE PLAN REVIEW **SUBMISSION CHECKLIST**

FOR ALL PROJECTS:

Submission Requirement	Provide Location in Application Packet (e.g., plan sheet number, binder section, narrative	If requesting a waiver, indicate below:
<i>Example: Erosion Control</i>	<i>Plan Sheet E-1</i>	
General Information:		
Completed Site Plan Application Form	This Document	
Names and addresses of all consultants	Appendix C	
Narrative describing existing conditions and the proposed project	Narrative	
Evidence of right, title or interest (deed, option, etc.)	Appendix B	
Names and Addresses of all property owners within 200 feet	Appendix J	
Boundaries of all contiguous property under control of owner	Drawing C-101	
Tax map and lot numbers	Drawing C-101	
Area of the parcel	Narrative	
FEMA Floodplain designation & map #	This Document	
Zoning classification	Narrative	
Evidence of technical and financial capability to carry out the project	Appendix B and C	
Boundary survey	Drawing C-101	
List of waiver requests on separate sheet with reason for request.	Narrative	
Proposed solid waste disposal plan	Narrative	
Existing Conditions Plan showing:		
Name, registration number and seal of person who prepared plan	Drawing C-101	
North arrow, date, scale, legend	Drawing C-101	
Area of the parcel	Drawing C-101	
Setbacks and building envelope	Drawing C-101	
Utilities, including sewer & water, culverts & drains, on-site sewage	Drawing C-101	
Location of any septic systems	Drawing C-101	
Location, names, widths of existing public or private streets ROW's	Drawing C-101	

Location, dimension of ground floor elevation of all existing buildings	Drawing C-101	
Location, dimension of existing driveways, parking, loading, walkways	Drawing C-101	
Location of intersecting roads & driveways within 200 feet of the site	Drawing C-101	
Wetland areas	Drawing C-101	
Natural and historic features such as water bodies, stands of trees, streams, graveyards, stonewalls, floodplains	Drawing C-101	
Direction of existing surface water drainage across the site & off site	Drawing C-101	
Location, front view, dimensions and lighting of existing signs	Drawing C-101	
Location and dimensions of existing easements & copies of documents	Drawing C-101	
Location of nearest fire hydrant or water supply for fire protection	Drawing C-101	
Proposed Development Site Plan showing:		
Name of development	Drawing C-102	
Date	Drawing C-102	
North arrow	Drawing C-102	
Scale	Drawing C-102	
Legend	Drawing C-100	
Landscape plan	Drawing L-1	
Stormwater management	Drawing D-100 and D-101	
Wetland delineation	Drawing C-103	
Current & proposed stands of trees	Drawing C-103	
Erosion control plan	Drawing C-106	
Landscape plan		
Lighting/photometric plan		
Location and dimensions of all proposed buildings	Drawing C-103	
Location and size of utilities, including sewer, water, culverts and drains	Drawing C-104	
Location and dimension of proposed on-site septic system; test pit locations and nitrate plumes	N/A	
Location of wells on subject property and within 200' of the site	N/A	
Location, names and widths of existing and proposed streets and ROW's	Drawing C-103	

Location and dimensions of all accessways and loading and unloading facilities	Drawing C-103	
Location and dimension of all existing and proposed pedestrian ways	Drawing C-103	
Location, dimension and # of spaces of proposed parking areas, including handicapped spaces	Drawing C-103	
Total floor area and ground coverage of each proposed building and structure	Drawing C-103	
Proposed sign location and sign lighting		
Proposed lighting location and details	Drawing C-104	
Covenants and deed restrictions proposed	Drawing C-101	
Snow storage location	Drawing C-103	
Solid waste storage location and fencing/buffering	Drawing C-103	
Location of all fire protection	Drawing C-104	
Location of all temporary & permanent monuments	Drawing C-101	
Street plans and profiles	N/A	

ADDITIONAL REQUIREMENTS FOR MAJOR SITE PLAN PROJECTS:

Submission Requirement	Provide Location in Application Packet (e.g., plan sheet number, binder section, narrative)	If requesting a waiver, indicate below:
High intensity soils survey	N/A	☒
Hydro geologic evaluation	N/A	☒
Traffic Study	Narrative	
Market Study	N/A	☒
Location of proposed recreation areas (parks, playgrounds, other public areas)	N/A	
Location and type of outdoor furniture and features such as benches, fountains.	N/A	

**TOWN OF CUMBERLAND
PLANNING BOARD SUBDIVISION AND SITE PLAN REVIEW APPLICATION
BROAD COVE RIDGE CONDOMINIUMS
CUMBERLAND, MAINE**

1.0 PROJECT DESCRIPTION

The Snell Construction, LLC (Applicant) proposes to develop a new 50-unit condominium building called the Broad Cove Ridge project at 100 US Route One in Cumberland, Maine. The existing property is currently owned by Dave Spellman OF 100 US Route One, LLC. The location of the project is shown in Figure 1, Site Location Map. The project is subject to Subdivision and Site Plan Review by the Town of Cumberland Planning Board. This application provides detailed project information and outlines compliance with the applicable sections of the Town Ordinance.

The 3.16-acre property is bounded by Interstate 295 (I-295) to the west, US Route One (US 1) to the east, the Ledgeview Assisted Living facility to the south, and a residential property to the north. The parcel is identified as Lot 13B on Cumberland Tax Map R1 and is located within the Office Commercial-South (OC-S) and OC-S Mixed Use Overlay Zone on the Official Zoning Map. A copy of the deed documents and the purchase & sales documents are provided in Appendix A. The property is primarily undeveloped forested land with a stream that generally parallels US 1 before turning west on the north portion of the property. There is an existing 100-foot Beautification Setback along the western boundary line parallel to the I-295 Right of Way.

The project will include a property transfer between Ledgeview Properties, LLC and 100 US Route 1, LLC for a 0.1-acre (ac) triangular portion of the Ledgeview Properties, LLC property to the 100 US Route 1, LLC parcel. This transfer will expand the property to 3.26 acres and permit the full build-out of the proposed development.

The Broad Cove Ridge condominium project will include a five story, 12,800-square-foot building that will include a mix of one-bedroom, two-bedroom, and three-bedroom condo units to be offered for sale. The site construction will include area for 96 parking spaces with 9 identified as visitor parking and 4 as ADA accessible parking spaces. Of these parking spaces, twenty-two will be within the lower level of the building as covered parking. The project will have site access from a new 24-foot access drive from US Route 1. Additional site improvements include public water and sewer, underground utilities, stormwater management, site lighting, and landscaping.

The development will feature a closed stormwater management system, including catch basins and underground storm drain piping for the roadway and parking lots. A detention pond will be provided east of the proposed building to control peak flows from the developed property.

Construction of the project is expected to result in approximately 76,101 square feet (1.75 acres) of developed area and approximately 43,450 square feet of new impervious surface. Based on review of the Maine Department of Environmental Protection (MEDEP) requirements, this project will require a MEDEP Stormwater Permit by Rule (PBR) permit prior to the start of construction. The Stormwater PBR permit will be submitted, and a copy provided to the Town prior to the Planning Board meeting.

The site is encumbered with a stream and associated wetlands that include 25-foot and 75-foot setbacks along the stream in the north and east portions of property. Portions of the building, parking, stormwater management areas, and site grading are within the 75-foot buffer of the stream, but outside of the 25-foot buffer. This work will require a MEDEP NRPA Permit-by-Rule notification for activities adjacent to a natural resource as well as the stream crossing proposed for the access road into the site. The stream crossing has been designed to comply with the MEDEP PBR and Army Corps of Engineers standards, including providing a clear opening of greater than 1.2 the bank-full width of the stream. The NRPA permit will be submitted to MEDEP separate from this application prior to the Planning Board meeting. A copy of the application will be provided to the Town.

This project will require a Driveway Entrance Permit from the Maine Department of Transportation (MEDOT) at the intersection with and US Route 1. SME met with Tony Fontaine of the MEDOT to review the project and the Entrance Permit is the only requirement of the MEDOT. The MEDOT Driveway Entrance Permit will be submitted, and a copy provided to the Town prior to the Planning Board meeting.

The remaining details for the project are described in the following Section which defines how the project complies with the applicable Chapters of the Town of Cumberland Zoning and Site Plan Review Ordinances.

2.0 CHAPTER 229 – SITE PLAN REVIEW

2.1 §229-4 Waivers and modifications

As part of this application, the Applicant requests the following waivers from the Site Plan Review ordinance:

- A waiver from performing a high intensity soil survey for the project. A medium density soil survey from a Custom Soil Resource Report by the U.S. Natural Resources Conservation Service (NRCS) and a series of test pits on the property were used to evaluate suitability for construction on the property.
- A waiver from performing a hydrogeological evaluation for the project. The site is served by public water and sewer, therefore there will be no subsurface wastewater disposal or other anticipated groundwater impacts associated with this project. The site is not within the watershed of a significant sand and gravel aquifer.
- A waiver from performing a market study. The proposed use of the site is consistent with existing developments along Route One. Based on the proposed use and function of this property, a market study does not apply to this project.
- A waiver from marking all trees greater than 10-inches in caliper.

2.2 §229-8 Financial and Technical Capacity

The Applicant has provided a letter in Appendix B to prove financial capacity to complete the project.

Technical capacity and contact information for Sevee & Maher Engineers, Inc. (SME) is provided in Appendix C.

2.3 229-10 Approval Standards and Criteria

A. Utilization of the Site

The project has been designed within the site constraints to provide the appropriate building area and minimize impact to adjacent properties and natural resources. The parcel is not currently located in an environmentally sensitive area or a significantly mapped sand and gravel aquifer.

The Maine Natural Areas Program (MNAP) identified no rare, threatened, or endangered plant species within the project area. The Maine Department of Inland Fisheries and Wildlife (MDIFW) Service has not mapped designated essential or significant wildlife habitats in the project area. Tree clearing is necessary

for this project and will not affect Maine's endangered species of bats. Request letters and responses from the MNAP and MDIFW are included in Appendix D for reference.

The stream and associated wetlands on the property are being protected as much as possible through avoidance of impacts within 25-feet of the stream and providing appropriate

B. Traffic, Circulation and Parking

The project site will be accessed from US 1 with a 24-foot-wide access drive sized to accommodate the Town of Cumberland Fire Department's 46-foot-long ladder truck. The entrance location will provide much greater than 500-feet of sight distance to the north and south as US 1 is straight with minimal change in grade at this location. The proposed multiplex will not cause unreasonable highway or public road congestion or unsafe conditions with respect to the use of the highways or public roads, existing or proposed. The anticipated number of daily vehicle trips generated will be 5.86 per dwelling unit (for a residential condominium), as established by the Trip Generation Manual, published by the Institute of Transportation Engineers. At full build out, the total anticipated weekday trips from the multiplex will be 293 trips. The peak hour trips were analyzed as well, and it is estimated that the development will result in 22 trips in the weekday a.m. peak hour and 27 trips in the weekday p.m. peak hour. This is well below the 100 peak hour trips that would trigger further review by the MEDOT. During a project review meeting with Tony Fontaine of MEDOT, there were no high-crash locations within the area or other issues identified for the access onto US 1.

The project will provide 96 parking spaces for the 50 condo units proposed. The ordinance requires 1.5 parking spaces per condominium which totals up to 75 parking spaces. The proposed parking area and drive aisles were designed to meet the requirements for ninety-degree off-street parking outlined in this Ordinance. The Site Layout Plan, Drawing C-103, outlines design and construction dimensions for the proposed parking area. The 98 parking spaces include 22 resident parking spaces in the lower level of the building, 9 visitor parking spaces, 4 ADA accessible parking spaces and the remaining 63 will serve as exterior resident parking.

Site circulation has been designed to provide two-way access within the parking areas as well as a one-way in and one-way out of the below-building parking spaces. The circulation has also been designed to accommodate access by the Town of Cumberland 46-foot ladder truck. The truck will be able to access the rear of the building and turn around using the two striped areas adjacent to the below-building parking entrance.

Pedestrian access at the site will be limited to the four building entrances. The various changes in grade and the constraints imposed by the 100-foot beautification strip and stream setbacks limited what could be accomplished with pedestrian connectivity and internal circulation. There will be a grassed area east of the building in and around the proposed detention basin that can be used for outdoor gatherings.

C. Stormwater Management and Erosion Control

Stormwater management of the site is described in detail in the Stormwater Management Report included as Appendix E.

All grading, filling, and associated site construction will be conducted in accordance with the Maine Erosion and Sediment Control Best Management Practices (BMPs), latest edition dated October 2016. This will be the minimum standard for erosion and sedimentation control for the project, as adopted by the Town of Cumberland from the Maine Department of Environmental Protection (DEP) standards. Erosion and sedimentation control notes and details are included on Drawing C-106, Drawing C-300, and Drawing C-301.

D. Water, Sewer and Fire Protection

Public water for Broad Cove Ridge Condominium will be supplied by the Portland Water District (PWD). The proposed Condominium multiplex will have 13 one-bedroom condos and 37 two-bedroom. Design flow for the proposed condominium is estimated of 180 gallons per day for two bedroom per condo unit and 120 gallons per day for one bedroom per condo for a total of 8,220 gallons per day.

SME has requested a capacity to serve letter from the Portland Water District (PWD) to verify adequate water supply for the proposed project and will provide a final authorization letter once received from PWD. A copy of the capacity request letter is provided in Appendix F. Separate water entrances for domestic water and sprinkler services have been coordinated with PWD and are shown into the building at the site.

The parcel will be serviced by the Town sewer system along US 1 that was constructed as a low-pressure gravity system several years ago. The existing system was designed with an extra 2-inch force main pipe connection at the manhole immediately north of the Ledgeview Assisted Living's northerly driveway. This project will extend the force main to a proposed manhole at the access drive entrance and provide a 2-inch stub for connections that may occur from the north. The lift station design was completed for the 50-unit condominium building and is included within the submitted drawing set.

The proposed building will be sprinklered for fire protection. The water entrance into the Broad Cove Ridge Condominium property will be separated into a domestic water entrance and sprinkler entrance at the request of PWD, providing more reliable sprinkler access.

Existing utilities are shown on the Existing Conditions Plan, Drawing C-101. Proposed water and sewer utilities are shown on the Site Utilities Plan, Drawing C-104.

E. Water Protection

There will be no groundwater used or hazardous materials discharged as a result of this project. The property is not located within an area designated as a source protection area or a sand and gravel aquifer.

No effects to groundwater are anticipated from this project. Pavement will be graded to drain away to minimize runoff or snow melt impact to infrastructure.

F. Floodplain Management

The Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) for the project area is included in Appendix H. The project is located in Zone C and is indicated as an area of minimal flood hazard.

G. Historic and Archaeological resources.

A site review has been requested from the Maine Historic Preservation Commission (MHPC). A copy of the request for review and the written response from the MHPC is provided in Appendix I. There are no known National Register eligible properties or areas considered sensitive for archaeological resources.

H. Exterior Lighting

Exterior lighting proposed for the site will provide adequate lighting to provide lighting for residents as they enter the building. The lighting at the property has been minimized to the areas of the site where use is expected during nighttime or early morning hours. The sight lights will be full cut-off LED lights that are located around the outside of the building and parking lot. A Site Photometric Plan showing the light distribution at the property is provided as Appendix M.

I. Buffering and Landscaping

Buffering of the site from adjacent properties will be accomplished through preservation of existing vegetation and the addition of proposed plantings shown on the Landscape Plan, L-1. The views from I-295 to the west will be well buffered through the 100-foot beautification setback parallel to the property line. The residential property to the north will be buffered by a minimum of 35-feet of existing vegetation at the northern most point of the parking lot. This protected vegetative buffer expands to 65-feet at the closest point to the building. Additionally, there is approximately 80-feet of wooded area on the abutter's property prior to the clearing for the house. The views from US 1 will be buffered with the existing vegetation remaining along the stream.

The views from Ledgeview Assisted Living will be buffered by a change in site grade as the parking area will be approximately 10-feet below the elevation at the property corner and to the south and 4 to 6-feet below at the visitor parking area. The view of the building will be buffered by the grade and by the proposed landscaping.

Landscape design was completed by Peter Beigel, ASLA of Land Design Solutions in Cumberland. A landscape plan outlining planting location and species is included in the project plan set. The landscaping will have variety of plants to provide seasonal colors and variety of heights.

J. Noise

The noise levels of the proposed Condominium multiplex are expected to be under 65 dB between 7:00 am and 10:00 pm and under 55 dB between 10:01 pm and 6:59 am.

Construction of the project will generally occur between the hours of 7:00 am and 7:00 pm on Mondays through Fridays unless otherwise approved by the Town. The project will require ledge removal for the building construction and site grading. A Blasting Plan will be prepared and reviewed with Town Staff prior to start of construction.

K. Storage of Materials

There will be no storage of hazardous materials on site. A dumpster pad is proposed on site and will be enclosed with a gated fence. The location of the dumpster receptacle is outlined on the Site Layout Plan.

L. Capacity of the Applicant

Financial and technical capacity of The Applicant are outlined in Appendices B and C of this application.

M. Design and Performance Standards

Proposed Condominium project is consistent with the performance standards of Route 1 Design Guidelines. New buildings, proposed lighting, drainage design, parking standards, and landscaping are in conformance with §315-Zoning Route 1 Design Guidelines. A narrative describing conformance with these guidelines is provided in Appendix K.

3.0 CHAPTER 250 – SUBDIVISION OF LAND

3.1 250-4 Subdivision Approval Criteria

This section addresses each of the provisions presented in Article I – General Provisions of Chapter 250: Subdivision of Land.

A Pollution

The proposed multiplex will not result in undue water or air pollution.

1. The property is not within a 100-year floodplain as shown in the FEMA Firmette maps included in Appendix H.
2. The proposed building will be connected to the public sewer system. The soils will not be impacted.
3. The impact of pollution from surface runoff will be minimized through erosion control best management practices during and after construction.

4. The project will include a 25 ft stream setback per MEDEP standards to protect the existing waterway on the north and east portions of the property. The setback is shown on the drawing set and building windows have been adjusted to reflect the setback.
5. State and local health and water resource rules and regulations will be adhered to in the design of stormwater management system.

B. Sufficient water

Public water for Broad Cove Ridge Condominium will be supplied by the Portland Water District (PWD). The proposed Condominium multiplex will have 13 one-bedroom condos and 37 two-bedroom. Design flow for the proposed condominium is estimated of 180 gallons per day for two bedroom per condo unit and 120 gallons per day for one bedroom per condo for a total of 8,220 gallons per day.

C. Municipal water supply

The proposed condominium will be served by municipal water.

SME has requested a capacity to serve letter from the Portland Water District (PWD) to verify adequate water supply for the proposed project and will provide a final authorization letter once received from PWD. A copy of the capacity request letter is provided in Appendix F. Separate water entrances for domestic water and sprinkler services have been coordinated with PWD and are shown into the two buildings at the site.

D. Erosion.

See the Erosion and Sedimentation Control Plan located on Drawing C-106.

E. Traffic

The proposed multiplex will not cause unreasonable highway or public road congestion or unsafe conditions with respect to the use of the highways or public roads, existing or proposed as described in Section 2.3.A of this application>

F. Sewage disposal.

The parcel will be serviced by a 160-foot extension of the Town's 2-inch force main along US 1 which will convey the approximately 8,220 GPD of anticipated wastewater. A capacity request letter was sent to the Town and the response will be forwarded once received.

G. Municipal solid waste disposal.

The project will be serviced by private waste haulers from the on-site dumpster provided on the plans.

H. Aesthetic, cultural, and natural values

The proposed subdivision will not have an undue adverse effect on the scenic or natural beauty of the area. Aesthetics, historic sites, significant wildlife habitat, or rare and irreplaceable natural areas have not been identified on the property. Letters from the Maine Department of Inland Fisheries and Wildlife (MDIFW) and the Maine historic Preservation Commission (MHPC) are included in Appendix D and I.

I. Conformity with local ordinances and plans.

The proposed multiplex conforms to Cumberland Ordinance Section 229- Site Plan Review, Section 250- Subdivision of Land, Section 315- Zoning, and the Route 1 Design Guidelines.

J. Financial and technical capacity.

Evidence of financial and technical capacity is included in Appendix B and C.

K. Surface waters; outstanding river segments.

The proposed project will not adversely affect the quality of the mapped wetland or unreasonably affect the shoreline of the stream on the parcel. Plans include a MEDEP 25-foot stream setback to protect the resource.

L. Groundwater

The proposed project will not, alone or in conjunction with existing activities, adversely affect the quality or quantity of groundwater. There is no septic system on site.

M. Flood areas

Based on the Federal Emergency Management Agency's Flood Boundary and Floodway Maps and Flood Insurance Rate Maps, the project is not in a flood-prone area. FEMA Firmette maps are included in Appendix H.

N. Stormwater

The proposed multiplex will provide for adequate stormwater management. A Stormwater Permit-By-Rule application has been submitted to MEDEP. A copy of the stormwater management report supporting the application is included in Appendix E.

O. Freshwater wetlands.

All wetlands within the proposed multiplex are outlined in the project plan set. There are minimal impacts to the wetlands to accommodate the stream crossing for the proposed access drive.

P. River, stream, or brook

An unnamed tributary to Chenery Brook is located within the proposed multiplex and outlined in the project plan set.

3.2 250-29 - Review and approval by other agencies.

A Stormwater Permit by Rule and Natural Resources Protection Act (NRPA) Permit by Rule are required from the Maine Department of Environmental Protection (MEDEP). The Stormwater Permit by Rule and NRPA Permit by Rule will be submitted, and a copy provided to the Town prior to the Planning Board meeting.

3.3 250-30 - Conformity with other state and local regulations.

The proposed multiplex is in conformance with the comprehensive plan for the Town of Cumberland and with the provisions of all pertinent state and local codes and ordinances.

3.4 250-31 – Common open spaces.

There are no proposed public sites or dedicated open spaces associated with the proposed development.

3.5 250-23 - Preservation of natural features

There are no significant historic features associated with the existing property as described in the MHPC letter included in Appendix D. The existing stream will be preserved and protected from the proposed development using a 25-foot stream setback.

3.6 250-27 - Utilities.

Proposed underground utilities include public water, public sewer with a pump station, natural gas through Summit, electric and communications services, as well as a closed stormwater management system.

Existing utilities are shown on the Existing Conditions Plan, Drawing C-101. Proposed utilities are shown on the Site Utilities Plan, Drawing C-104.

3.7 250-28 - Water supply.

Public water for Broad Cove Ridge Condominium will be supplied by the Portland Water District (PWD). The proposed Condominium multiplex will have 13 one-bedroom condos and 37 two-bedroom. Design flow for the proposed condominium is estimated of 180 gallons per day for two bedroom per condo unit and 120 gallons per day for one bedroom per condo for a total of 8,220 gallons per day.

SME has requested a capacity to serve letter from the Portland Water District (PWD) to verify adequate water supply for the proposed project and will provide a final authorization letter once received from PWD. A copy of the capacity request letter is provided in Appendix F. Separate water entrances for domestic water and sprinkler services have been coordinated with PWD and are shown into the building at the site.

The proposed building will be sprinklered for fire protection. The single water entrance into the Broad Cove Ridge Condominium will be separated into a domestic water entrance and sprinkler entrance at the request of PWD, providing more reliable sprinkler access.

APPENDIX A

TITLE, RIGHT, OR INTEREST

2

SHORT FORM WARRANTY DEED

Frederick B. Jensen and Darleen E. Jensen of 10 Brookfield Road, Falmouth, ME, 04105, FOR CONSIDERATION PAID, grant to **100 US Route 1 LLC**, a Maine limited liability company, with a mailing address of c/o David Spellman, 127 Foreside Road, Cumberland, ME, 04110, with WARRANTY COVENANTS, the following described real property located in the Town of Cumberland, County of Cumberland and State of Maine:

A certain lot or parcel of land located on the westerly side of US Route One in the Town of Cumberland, County of Cumberland and State of Maine, described as follows:

BEGINNING at a 5/8" rebar located on the westerly sideline of U.S. Route One marking the southeasterly corner of land now or formerly Glenn S. Porter as described in an instrument recorded in the Cumberland County Registry of Deeds in Book 10526, Page 233; thence

SOUTH 12°-04'-36" WEST along the westerly sideline of U.S. Route One, a distance of three hundred forty-eight and 00/100 (348.00) feet to a 5/8" rebar at land now or formerly Ledgeview Properties, LLC as described in an instrument recorded in said Registry of Deeds in Book 17591, Page 242; thence

NORTH 45°-48'-00" WEST along land of said Ledgeview Properties, LLC, a distance of two hundred nine and 98/100 (209.98) feet to a 5/8" rebar; thence

SOUTH 54°-59'-52" WEST continuing along land of said Ledgeview Properties, LLC, a distance of ninety-five and 03/100 (95.03) feet to a 5/8" rebar; thence

NORTH 54°-42'-05" WEST continuing along land of said Ledgeview Properties, LLC, a distance of two hundred and 62/100 (200.62) feet to a 5/8" rebar located on the easterly sideline of Interstate I-95; thence

NORTH 25°-46'-38" EAST along the easterly sideline of Interstate I-95, a distance of three hundred seventy-four and 57/100 (374.57) feet to a 5/8" rebar at land of Porter as previously described; thence

SOUTH 55°-51'-33" EAST along land of said Porter, a distance of three hundred sixty-four and 93/100 (364.93) feet to the POINT OF BEGINNING.

The parcel herein described is the remaining portion of land described in an instrument recorded in the Cumberland County Registry of Deeds in Book 10386, Page 175

Bearings herein are referenced to magnetic meridian of the year 1991.

MAINE REAL ESTATE TAX PAID

This conveyance is made subject to any easements and/or right-of-ways of record, including a one hundred foot wide beautification easement adjoining the easterly sideline of Interstate I-95 to the State of Maine, dated May 28, 1969 recorded in Cumberland County Registry of Deeds in Book 3087, Page 593 and an easement granted by the Grantors herein to Ledgeview Properties, LLC in an instrument recorded in said Registry of Deeds in Book 17951, Page 242.

This conveyance is subject to an easement for the location and maintenance of a leach bed drainage plume associated with the nursing home leach bed located on the property and bounded and described as follows:

Commencing at a No. 5 rebar located on the westerly sideline of Route One, said rebar marking the northeasterly corner of land now or formerly of Jensen as described in a deed recorded in the Cumberland County Registry of Deeds in Book 8492, Page 89; thence

NORTH 54° 42' 05" WEST along land now or formerly of Jensen, as described in a deed recorded in the Cumberland County Registry of Deeds in Book 8492, Page 89, a distance of two hundred sixty-three and 93/100 (263.93) feet to the point of beginning; thence

NORTH 54° 42' 05" WEST along land now or formerly of Jensen, as described in a deed recorded in said Registry of Deeds in Book 8492, Page 89, a distance of two hundred and 62/100 (200.62) feet to a No. 5 rebar located on the easterly sideline of Interstate I-95; thence

NORTH 25° 46' 38" EAST along the easterly sideline of Interstate I-95, a distance of one hundred thirty-one and 11/100 (131.11) feet to a point; thence

SOUTH 45° 48' 00" EAST crossing over other land now or formerly of Jensen, as described in a deed recorded in said Registry of Deeds in Book 10386, Page 175, a distance of two hundred fifty-seven and 44/100 (257.44) feet to a point; thence

SOUTH 54° 59' 52" WEST crossing over other land now or formerly of Jensen, as described in a deed recorded in said Registry of Deeds in Book 10386, Page 175, a distance of ninety-five and 03/100 (95.03) feet to the point of beginning. Bearings are magnetic of the 1991.

The premises are conveyed together with and subject to any and all easements or appurtenances of record, insofar as the same are in force and applicable.

Meaning and intending to convey and hereby conveying a portion of the same premises conveyed to the Grantors herein by deed of the Trustees of Twin Town Trust, dated November 2, 1992 and recorded in the Cumberland County Registry of Deeds in Book 10386, Page 175.

WITNESS our hands this 9th day of October, 2014.

WITNESS

[Signature]

[Signature]
Frederick P. Jensen

to both

[Signature]
Darleen E. Jensen

STATE OF MAINE
Cumberland, ss.

October 9, 2014

Personally appeared the above named Frederick P. Jensen and Darleen E. Jensen and acknowledged the foregoing instrument to be their free act and deed.

Before me,

[Signature]
Notary Public/Attorney at Law

SUSAN GAGE KNEDLER
Notary Public, Maine
My Commission Expires November 22 2018

print name

S:\CStoddard\DOCUMENT\CRS\Closings\2014\Jensen 5518-14\deed.wpd

Received
Recorded Register of Deeds
Oct 09, 2014 03:29:37P
Cumberland County
Pamela E. Lovley

PURCHASE AND SALE AGREEMENT - LAND ONLY

("days" means business days unless otherwise noted, see paragraph 20)

February 27, 2021
Offer Date

March 2, 2021, _____ Effective Date
Effective Date is defined in Paragraph 20 of this Agreement.

1. PARTIES: This Agreement is made between Snell Construction LLC (Jon Snell) ("Buyer") and 100 US Route 1 LLC (David S. Spellman) ("Seller").
2. DESCRIPTION: Subject to the terms and conditions hereinafter set forth, Seller agrees to sell and Buyer agrees to buy ☒ all ☐ part of (if "part of" see para. 22 for explanation) the property situated in municipality of Cumberland, County of Cumberland, State of Maine, located at 102 US Route 1 and described in deed(s) recorded at said County's Registry of Deeds Book(s) 31838, Page(s) 003.
3. PURCHASE PRICE/EARNEST MONEY: For such Deed and conveyance Buyer agrees to pay the total purchase price of \$350,000.00. Buyer ☐ has delivered; or ☒ will deliver to the Agency within 5 days of the Effective Date, a deposit of earnest money in the amount \$5,000.00. Buyer agrees that an additional deposit of earnest money in the amount of \$n/a will be delivered n/a. If Buyer fails to deliver the initial or additional deposit in compliance with the above terms Seller may terminate this Agreement. This right to terminate ends once Buyer has delivered said deposit (s). The remainder of the purchase price shall be paid by wire, certified, cashier's or trust account check upon delivery of the Deed.

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

4. ESCROW AGENT/ACCEPTANCE: Keller Williams Realty ("Agency") shall hold said earnest money and act as escrow agent until closing; this offer shall be valid until March 1, 2021 (date) 5:00 ☐ AM ☒ PM; and, in the event of non-acceptance, this earnest money shall be returned promptly to Buyer.
5. TITLE AND CLOSING: A deed, conveying good and merchantable title in accordance with the Standards of Title adopted by the Maine Bar Association shall be delivered to Buyer and this transaction shall be closed and Buyer shall pay the balance due and execute all necessary papers on See #26 (closing date) or before, if agreed in writing by both parties. If Seller is unable to convey in accordance with the provisions of this paragraph, then Seller shall have a reasonable time period, not to exceed 30 calendar days, from the time Seller is notified of the defect, unless otherwise agreed to in writing by both Buyer and Seller, to remedy the title. Seller hereby agrees to make a good-faith effort to cure any title defect during such period. If, at the later of the closing date set forth above or the expiration of such reasonable time period, Seller is unable to remedy the title, Buyer may close and accept the deed with the title defect or may terminate this Agreement in which case the parties shall be relieved of any further obligations hereunder and any earnest money shall be returned to the Buyer.
6. DEED: The property shall be conveyed by a Warranty deed, and shall be free and clear of all encumbrances except covenants, conditions, easements and restrictions of record which do not materially and adversely affect the continued current use of the property.
7. POSSESSION: Possession of premises shall be given to Buyer immediately at closing unless otherwise agreed in writing.
8. RISK OF LOSS: Until the closing, the risk of loss or damage to said premises by fire or otherwise, is assumed by Seller. Buyer shall have the right to view the property within 24 hours prior to closing for the purpose of determining that the premises are in substantially the same condition as on the date of this Agreement.
9. PRORATIONS: The following items, where applicable, shall be prorated as of the date of closing: rent, association fees, (other) none. Real estate taxes shall be prorated as of the date of closing (based on municipality's fiscal year). Seller is responsible for any unpaid taxes for prior years. If the amount of said taxes is not known at the time of closing, they shall be apportioned on the basis of the taxes assessed for the preceding year with a reapportionment as soon as the new tax rate and valuation can be ascertained, which latter provision shall survive closing. Buyer and Seller will each pay their transfer tax as required by State of Maine.
10. DUE DILIGENCE: Buyer is encouraged to seek information from professionals regarding any specific issue or concern. Neither Seller nor Licensee makes any warranties regarding the condition, permitted use or value of Sellers' real property. This Agreement is subject to the following contingencies, with results being satisfactory to Buyer:

Page 1 of 5

Buyer(s) Initials

DS
AS

Seller(s) Initials

DS
DS

CONTINGENCY	YES	NO	FULL RESOLUTION	OBTAINED BY	TO BE PAID FOR BY
1. SURVEY Purpose: Survey work completed by Sevee & Maher Engineers Cumberland Center, ME	☒	☐	within Done days	Seller	Seller
2. SOILS TEST Purpose: _____	☐	☒	within _____ days	_____	_____
3. SEPTIC SYSTEM DESIGN Purpose: To confirm costs associated with hook up to town sewer on Route 1	☒	☐	within 30 days	Buyer	Buyer
4. LOCAL PERMITS Purpose: To go before Cumberland Planning Board w/building design provided by buyers architect for approval	☒	☐	within 6 Months +/- days	Buyer & Seller	Buyer
5. HAZARDOUS WASTE REPORTS Purpose: Seller to provide any/all reports on any type of waste on property	☒	☐	within 10 days	Seller	Seller
6. UTILITIES Purpose: Buyer to obtain estimates for all utilities needed for building project	☒	☐	within 30 days	Buyer	Buyer
7. WATER Purpose: Confirm town water hook up and estimate from water department	☒	☐	within 30 days	Buyer	Buyer
8. SUB-DIVISION APPROVAL Purpose: _____	☐	☒	within _____ days	_____	_____
9. DEP/LUPC/ACOE APPROVALS Purpose: To obtain any needed permits for Buyers proposed building	☒	☐	within 6 month +/- days	Buyer & Seller	Buyer
10. ZONING VARIANCE Purpose: _____	☐	☒	within _____ days	_____	_____
11. HABITAT REVIEW/WATERFOWL Purpose: _____	☐	☒	within _____ days	_____	_____
12. REGISTERED FARMLAND Purpose: _____	☐	☒	within _____ days	_____	_____
13. MDOT DRIVEWAY/ENTRANCE PERMIT Purpose: Buyer to obtain driveway permit from MDOT	☒	☐	within 60 days	Buyer	Buyer
14. DEED RESTRICTION Purpose: _____	☐	☒	within _____ days	_____	_____
15. TAX STATUS* Purpose: _____	☐	☒	within _____ days	_____	_____
16. BUILD PACKAGE Purpose: Buyer to have architect design building(s) for property and obtain approval/permits from Cumberland Town	☒	☐	within 6 Months +/- days	Buyer	Buyer
17. OTHER Purpose: _____	☐	☒	within _____ days	_____	_____

* If the land is enrolled in the Maine Tree Growth Tax program, Seller agrees to provide Buyer with the current Forest Management and Harvest Plan within n/a days. ☐ Yes ☒ No

Further specifications regarding any of the above: **Buyer requests Seller to assist and or take lead on working with Cumberland Planning Board and or other boards to obtain necessary permits for construction of apartment and or condo building(s). Permitting may include blasting for parking and 4 floors to 50' max height of structures.**

Unless otherwise specified above, all of the above will be obtained and paid for by Buyer. Seller agrees to cooperate with Buyer and shall give Buyer and Buyer's agents and consultants reasonable access to the property in order to undertake the above investigations. Buyer agrees to take reasonable steps to return the property to its pre-inspection condition. If the result of any investigation or other condition specified herein is unsatisfactory to Buyer in Buyer's sole discretion, Buyer will declare the Agreement null and void by notifying Seller in writing within the specified number of days, and any earnest money shall be returned to Buyer. If the result of any investigation or other condition specified herein is unsatisfactory to Buyer, and Buyer wishes to pursue remedies other than voiding the Agreement, Buyer must do so to full resolution within the time period set forth above; otherwise this contingency is waived. If Buyer does not notify Seller that an investigation is unsatisfactory within the time period set forth above, or if any investigation under this paragraph is not performed or completed during the period specified in this paragraph, this contingency and the right to conduct an investigation are waived by Buyer. In the absence of inspection(s) mentioned above, Buyer is relying completely upon Buyer's own opinion as to the condition of the property.

Page 2 of 5 Buyer(s) Initials AS Seller(s) Initials DS

11. FINANCING: Buyer's obligation to close:

Not Subject to Financing

- ☐ is not subject to a financing contingency. Buyer has provided Seller with acceptable proof of the funds.
- ☐ is not subject to a financing contingency. Buyer shall provide proof of the funds acceptable to Seller within n/a days. If such proof is unacceptable to Seller, Seller may terminate this Agreement no later than n/a days from receipt. If proof of funds is not provided within such time period, Seller may terminate this Agreement which right shall end once such proof is received, however Seller retains the agreed upon time period to terminate if such proof is unacceptable. If Seller terminates in either case, the earnest money shall be returned to Buyer.
- ☐ Buyer's ability to purchase ☐ is ☒ is not subject to the sale of another property. See addendum ☐ Yes ☒ No.

Subject to Financing

☒ Buyer's obligation to close is subject to financing as follows:

- a. Buyer's obligation to close is subject to Buyer obtaining a Land Loan loan of 80.000 % of the purchase price, at an interest rate not to exceed Prevailing % and amortized over a period of 10 years. Buyer is under a good faith obligation to seek and obtain financing on these terms. If such financing is not available to Buyer as of the closing date, Buyer is not obligated to close and may terminate this Agreement in which case the earnest money shall be returned to Buyer.
- b. Buyer to provide Seller with letter from lender showing that Buyer has made application for loan specified in (a) and, subject to verification of information, is qualified for the loan requested within 5 days from the Effective Date of the Agreement. If Buyer fails to provide Seller with such letter within said time period, Seller may terminate this Agreement and the earnest money shall be returned to Buyer. This right to terminate ends once Buyer's letter is received.
- c. Buyer hereby authorizes, instructs and directs its lender to communicate the status of the Buyer's loan application to Seller, Seller's licensee and Buyer's licensee.
- d. After (b) is met, if the lender notifies Buyer that it is unable or unwilling to provide said financing, Buyer is obligated to provide Seller with written documentation of the loan denial within two days of receipt. After notifying Seller, Buyer shall have 3 days to provide Seller with a letter from another lender showing that Buyer has made application for loan specified in (a) and, subject to verification of information, is qualified for the loan requested. If Buyer fails to provide Seller with such letter within said time period, Seller may terminate this Agreement and the earnest money shall be returned to Buyer. This right to terminate ends once Buyer's letter is received.
- e. Buyer agrees to pay no more than 0 points. Seller agrees to pay up to \$Zero toward Buyer's actual pre-pays, points and/or closing costs, but no more than allowable by Buyer's lender.
- f. Buyer's ability to obtain financing ☐ is ☒ is not subject to the sale of another property. See addendum ☐ Yes ☒ No.
- g. Buyer may choose to pay cash instead of obtaining financing. If so, Buyer shall notify Seller in writing including providing proof of funds and the Agreement shall no longer be subject to financing, and Seller's right to terminate pursuant to the provisions of this paragraph shall be void and Seller's obligations pursuant to 11e shall remain in full force and effect.

12. BROKERAGE DISCLOSURE: Buyer and Seller acknowledge they have been advised of the following relationships:

Matt Cartmell (011648) of Keller Williams Realty (3005)
 Licensee MLS ID Agency MLS ID
 is a ☐ Seller Agent ☐ Buyer Agent ☒ Disc Dual Agent ☐ Transaction Broker

Matt Cartmell (011648) of Keller Williams Realty (3005)
 Licensee MLS ID Agency MLS ID
 is a ☐ Seller Agent ☐ Buyer Agent ☒ Disc Dual Agent ☐ Transaction Broker

If this transaction involves Disclosed Dual Agency, the Buyer and Seller acknowledge the limited fiduciary duties of the agents and hereby consent to this arrangement. In addition, the Buyer and Seller acknowledge prior receipt and signing of a Disclosed Dual Agency Consent Agreement.

13. PROPERTY DISCLOSURE FORM: Buyer acknowledges receipt of Property Disclosure Form.

14. DEFAULT/RETURN OF EARNEST MONEY: Buyer's failure to fulfill any of Buyer's obligations hereunder shall constitute a default and Seller may employ all legal and equitable remedies, including without limitation, termination of this Agreement and forfeiture by Buyer of the earnest money. Seller's failure to fulfill any of Seller's obligations hereunder shall constitute a default and Buyer may employ all legal and equitable remedies, including without limitation, termination of this Agreement and return to Buyer of the earnest money. Agency acting as escrow agent has the option to require written releases from both parties prior to disbursing the earnest money to either Buyer or Seller. In the event that the Agency is made a party to any lawsuit by virtue of acting as escrow agent, Agency shall be entitled to recover reasonable attorney's fees and costs which shall be assessed as court costs in favor of the prevailing party.

15. MEDIATION: Earnest money or other disputes within the jurisdictional limit of small claims court will be handled in that forum. All other disputes or claims arising out of or relating to this Agreement or the property addressed in this Agreement (other than requests for injunctive relief) shall be submitted to mediation in accordance with generally accepted mediation practices. Buyer and Seller are bound to mediate in good faith and to each pay half of the mediation fees. If a party fails to submit a dispute or claim to mediation prior to initiating litigation (other than requests for injunctive relief), then that party will be liable for the other party's legal fees in any subsequent litigation regarding that same matter in which the party who failed to first submit the dispute or claim to mediation loses in that subsequent litigation. This clause shall survive the closing of the transaction.

16. PRIOR STATEMENTS: Any representations, statements and agreements are not valid unless contained herein. This Agreement completely expresses the obligations of the parties and may only be amended in writing, signed by both parties.

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17. HEIRS/ASSIGNS: This Agreement shall extend to and be obligatory upon heirs, personal representatives, successors, and assigns of the Seller and the assigns of the Buyer.

18. COUNTERPARTS: This Agreement may be signed on any number of identical counterparts, such as a faxed copy, with the same binding effect as if the signatures were on one instrument. Original, faxed or other electronically transmitted signatures are binding.

19. NOTICE: Any notice, communication or document delivery requirements hereunder may be satisfied by providing the required notice, communication or documentation to or from the parties or their Licensee. Only withdrawals of offers and counteroffers will be effective upon communication, verbally or in writing.

20. EFFECTIVE DATE/BUSINESS DAYS: This Agreement is a binding contract when the last party signing has caused a paper or electronic copy of the fully executed agreement to be delivered to the other party which shall be the Effective Date. Licensee is authorized to fill in the Effective Date on Page 1 hereof. Except as expressly set forth to the contrary, the use of the term "days" in this Agreement, including all addenda made a part hereof, shall mean business days defined as excluding Saturdays, Sundays and any observed Maine State/Federal holidays. Deadlines in this Agreement, including all addenda, expressed as "within x days" shall be counted from the Effective Date, unless another starting date is expressly set forth, beginning with the first day after the Effective Date, or such other established starting date, and ending at 5:00 p.m. Eastern Time on the last day counted. Unless expressly stated to the contrary, deadlines in this Agreement, including all addenda, expressed as a specific date shall end at 5:00 p.m. Eastern Time on such date.

21. CONFIDENTIALITY: Buyer and Seller authorize the disclosure of the information herein to the real estate licensees, attorneys, lenders, appraisers, inspectors, investigators and others involved in the transaction necessary for the purpose of closing this transaction. Buyer and Seller authorize the lender and/or closing agent preparing the entire closing disclosure and/or settlement statement to release a copy of the closing disclosure and/or settlement statement to the parties and their licensees prior to, at and after the closing.

22. OTHER CONDITIONS: **Lender will be Katahdin Trust: (lot is Tax Map R01 Lot 13B); Buyer agrees to close within 10 business days of obtaining any/all permits from Town of Cumberland and or ME DEP/US Army Corp. Engineers. Per email Thursday 2/11/2021 Seller has authorized Sevee & Maher to release all documents associated with property to Buyer and or associates working on behalf of Buyer at no charge to Buyer.**

23. GENERAL PROVISIONS:

- a. A copy of this Agreement is to be received by all parties and, by signature, receipt of a copy is hereby acknowledged. If not fully understood, contact an attorney. This is a Maine contract and shall be construed according to the laws of Maine.
- b. Seller acknowledges that State of Maine law requires buyers of property owned by non-resident sellers to withhold a prepayment of capital gains tax unless a waiver has been obtained by Seller from the State of Maine Revenue Services.
- c. Buyer and Seller acknowledge that under Maine law payment of property taxes is the legal responsibility of the person who owns the property on April 1, even if the property is sold before payment is due. If any part of the taxes is not paid when due, the lien will be filed in the name of the owner as of April 1 which could have a negative impact on their credit rating. Buyer and Seller shall agree at closing on their respective obligations regarding actual payment of taxes after closing. Buyer and Seller should make sure they understand their obligations agreed to at closing and what may happen if taxes are not paid as agreed.
- d. Buyer acknowledges that Maine law requires continuing interest in the property and any back up offers to be communicated by the listing agent to the Seller.
- e. Whenever this Agreement provides for earnest money to be returned or released, agency acting as escrow agent must comply with Maine Real Estate Commission rules which may require written notices or obtaining written releases from both parties.

24. ADDENDA: ☒ Yes ☐ No Explain: Preliminary design by Sevee & Maher showing building envelope, parking and other possible development options.

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25. ELECTRONIC SIGNATURES: Pursuant to the Maine Uniform Electronic Transactions Act and Digital Signature Act, the parties authorize and agree to the use of electronic signatures as a method of signing/initialing this Agreement, including all addenda. The parties hereby agree that either party may sign electronically by utilizing an electronic signature service.

Buyer's Mailing address is _____.

BUYER Snell Construction LLC (Jon Snell)	DATE	BUYER	DATE
	3/2/21		

BUYER	DATE	BUYER	DATE
-------	------	-------	------

Seller accepts the offer and agrees to deliver the above-described property at the price and upon the terms and conditions set forth and agrees to pay agency a commission for services as specified in the listing agreement.

Seller's Mailing address is _____.

SELLER 100 US Route 1 LLC (David S. Spellman)	DATE	SELLER	DATE
	2/28/21		

SELLER	DATE	SELLER	DATE
--------	------	--------	------

DocuSigned by:
162179EE581E47B...

COUNTER-OFFER

Seller agrees to sell on the terms and conditions as detailed herein with the following changes and/or conditions:

The parties acknowledge that until signed by Buyer, Seller's signature constitutes only an offer to sell on the above terms and the offer will expire unless accepted by Buyer's signature with communication of such signature to Seller by (date) _____ (time) _____ ☐ AM ☐ PM.

SELLER	DATE	SELLER	DATE
--------	------	--------	------

SELLER	DATE	SELLER	DATE
--------	------	--------	------

The Buyer hereby accepts the counter offer set forth above.

BUYER	DATE	BUYER	DATE
-------	------	-------	------

BUYER	DATE	BUYER	DATE
-------	------	-------	------

EXTENSION

The closing date of this Agreement is extended until _____ DATE.

SELLER	DATE	SELLER	DATE
--------	------	--------	------

SELLER	DATE	SELLER	DATE
--------	------	--------	------

BUYER	DATE	BUYER	DATE
-------	------	-------	------

BUYER	DATE	BUYER	DATE
-------	------	-------	------





Dept. of Professional & Financial Regulation
Office of Professional & Occupational Regulation
MAINE REAL ESTATE COMMISSION

35 State House Station Augusta ME 04333-0035



REAL ESTATE BROKERAGE RELATIONSHIPS FORM

Right Now You Are A Customer

Are you interested in buying or selling residential real estate in Maine? Before you begin working with a real estate licensee it is important for you to understand that Maine Law provides for different levels of brokerage service to buyers and sellers. You should decide whether you want to be represented in

a transaction (as a client) or not (as a customer). To assist you in deciding which option is in your best interest, please review the following information about real estate brokerage relationships:

Maine law requires all real estate brokerage companies and their affiliated licensees ("licensee") to perform certain basic duties when dealing with a buyer or seller. You can expect a real estate licensee you deal with to provide the following **customer-level services**:

- # To disclose all material defects pertaining to the physical condition of the real estate that are known by the licensee;
- # To treat both the buyer and seller honestly and not knowingly give false information;
- # To account for all money and property received from or on behalf of the buyer or seller; and
- # To comply with all state and federal laws related to real estate brokerage activity.

Until you enter into a written brokerage agreement with the licensee for client-level representation you are considered a "customer" and the licensee is not your agent. **As a customer, you should not expect the licensee to promote your best interest, or to keep any information you give to the licensee confidential, including your bargaining position.**

You May Become A Client

If you want a licensee to represent you, you will need to enter into a written listing agreement or a written buyer representation agreement. These agreements **create a client-agent relationship** between you and the licensee. As a client you can expect the licensee to provide the following services, **in addition to** the basic services required of all licensees listed above:

- # To perform the terms of the written agreement with skill and care;
- # To promote your best interests;
 - For seller clients this means the agent will put the seller's interests first and negotiate the best price and terms for the seller;
 - For buyer clients this means the agent will put the buyer's interests first and negotiate for the best prices and terms for the buyer; and
- # To maintain the confidentiality of specific client information, including bargaining information.

COMPANY POLICY ON CLIENT-LEVEL SERVICES - WHAT YOU NEED TO KNOW

The real estate brokerage company's policy on client-level services determines which of the three types of agent-client relationships permitted in Maine may be offered to you. The agent-client relationships permitted in Maine are as follows:

- # The company and all of its affiliated licensees represent you as a client (called "**single agency**");
- # The company appoints, with your written consent, one or more of the affiliated licensees to represent you as an agent(s) (called "**appointed agency**");
- # The company may offer limited agent level services as a **disclosed dual agent**.

WHAT IS A DISCLOSED DUAL AGENT?

In certain situations a licensee may act as an agent for and represent both the buyer and the seller in the same transaction. This is called **disclosed dual agency**. *Both the buyer and the seller must consent to this type of representation in writing.*

Working with a dual agent is not the same as having your own exclusive agent as a single or appointed agent. For instance, when representing both a buyer and a seller, the dual agent must not disclose to one party any confidential information obtained from the other party.

Remember!
*Unless you enter into a written agreement
for agency representation, you are
a customer—not a client.*

THIS IS NOT A CONTRACT

It is important for you to know that this form is not a contract. The licensee's completion of the statement below acknowledges that you have been given the information required by Maine law regarding brokerage relationships so that you may make an informed decision as to the relationship you wish to establish with the licensee/company.

To Be Completed By Licensee

This form was presented on (date) April 24, 2021
To David A. Landa
Name of Buyer(s) or Seller(s)
by Matt Cartmell (207) 522-8084
Licensee's Name
on behalf of Cartmell & Associates of Keller Williams Realty
Company/Agency

MREC Form#3 Revised 07/2006
Office Title Changed 09/2011

To check on the license status of the real estate brokerage company or affiliated licensee go to www.maine.gov/professionallicensing.
Inactive licensees may not practice real estate brokerage.

PURCHASE AND SALE AGREEMENT - LAND ONLY

("days" means business days unless otherwise noted, see paragraph 20)

April 24, 2021
Offer Date

_____, _____ Effective Date
Effective Date is defined in Paragraph 20 of this Agreement.

1. PARTIES: This Agreement is made between 100 US Route 1 LLC/David Spellman ("Buyer") and Ledgeview Properties, LLC/David A. Landa ("Seller").

2. DESCRIPTION: Subject to the terms and conditions hereinafter set forth, Seller agrees to sell and Buyer agrees to buy ☐ all ☒ part of (if "part of" see para. 22 for explanation) the property situated in municipality of Cumberland, County of Cumberland, State of Maine, located at 92 US Route 1 and described in deed(s) recorded at said County's Registry of Deeds Book(s) 17591, Page(s) 242.

3. PURCHASE PRICE/EARNEST MONEY: For such Deed and conveyance Buyer agrees to pay the total purchase price of \$10,000.00. Buyer ☐ has delivered; or ☐ will deliver to the Agency within n/a days of the Effective Date, a deposit of earnest money in the amount \$n/a. Buyer agrees that an additional deposit of earnest money in the amount of \$n/a will be delivered n/a. If Buyer fails to deliver the initial or additional deposit in compliance with the above terms Seller may terminate this Agreement. This right to terminate ends once Buyer has delivered said deposit (s). The remainder of the purchase price shall be paid by wire, certified, cashier's or trust account check upon delivery of the Deed.

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

4. ESCROW AGENT/ACCEPTANCE: _____ n/a ("Agency") shall hold said earnest money and act as escrow agent until closing; this offer shall be valid until April 30, 2021 (date) 5:00 ☐ AM ☒ PM; and, in the event of non-acceptance, this earnest money shall be returned promptly to Buyer.

5. TITLE AND CLOSING: A deed, conveying good and merchantable title in accordance with the Standards of Title adopted by the Maine Bar Association shall be delivered to Buyer and this transaction shall be closed and Buyer shall pay the balance due and execute all necessary papers on See #22 (closing date) or before, if agreed in writing by both parties. If Seller is unable to convey in accordance with the provisions of this paragraph, then Seller shall have a reasonable time period, not to exceed 30 calendar days, from the time Seller is notified of the defect, unless otherwise agreed to in writing by both Buyer and Seller, to remedy the title. Seller hereby agrees to make a good-faith effort to cure any title defect during such period. If, at the later of the closing date set forth above or the expiration of such reasonable time period, Seller is unable to remedy the title, Buyer may close and accept the deed with the title defect or may terminate this Agreement in which case the parties shall be relieved of any further obligations hereunder and any earnest money shall be returned to the Buyer.

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

7. POSSESSION: Possession of premises shall be given to Buyer immediately at closing unless otherwise agreed in writing.

8. RISK OF LOSS: Until the closing, the risk of loss or damage to said premises by fire or otherwise, is assumed by Seller. Buyer shall have the right to view the property within 24 hours prior to closing for the purpose of determining that the premises are in substantially the same condition as on the date of this Agreement.

9. PRORATIONS: The following items, where applicable, shall be prorated as of the date of closing: rent, association fees, (other) none. Real estate taxes shall be prorated as of the date of closing (based on municipality's fiscal year). Seller is responsible for any unpaid taxes for prior years. If the amount of said taxes is not known at the time of closing, they shall be apportioned on the basis of the taxes assessed for the preceding year with a reapportionment as soon as the new tax rate and valuation can be ascertained, which latter provision shall survive closing. Buyer and Seller will each pay their transfer tax as required by State of Maine.

10. DUE DILIGENCE: Buyer is encouraged to seek information from professionals regarding any specific issue or concern. Neither Seller nor Licensee makes any warranties regarding the condition, permitted use or value of Sellers' real property. This Agreement is subject to the following contingencies, with results being satisfactory to Buyer:

DS
DS

DS
DL

CONTINGENCY	YES	NO	FULL RESOLUTION	OBTAINED BY	TO BE PAID FOR BY
1. SURVEY Purpose: _____	☒	☐	within <u>Done</u> days	_____	_____
2. SOILS TEST Purpose: _____	☐	☒	within _____ days	_____	_____
3. SEPTIC SYSTEM DESIGN Purpose: _____	☐	☒	within _____ days	_____	_____
4. LOCAL PERMITS Purpose: _____	☐	☒	within _____ days	_____	_____
5. HAZARDOUS WASTE REPORTS Purpose: _____	☐	☒	within _____ days	_____	_____
6. UTILITIES Purpose: _____	☐	☒	within _____ days	_____	_____
7. WATER Purpose: _____	☐	☒	within _____ days	_____	_____
8. SUB-DIVISION APPROVAL Purpose: _____	☐	☒	within _____ days	_____	_____
9. DEP/LUPC/ACOE APPROVALS Purpose: <u>Release any/all easements on the parcel of land & obtain any/all ME DEP/Army Corp permits</u>	☒	☐	within <u>120</u> days	<u>Buyer</u>	<u>Buyer</u>
10. ZONING VARIANCE Purpose: _____	☐	☒	within _____ days	_____	_____
11. HABITAT REVIEW/ WATERFOWL Purpose: _____	☐	☒	within _____ days	_____	_____
12. REGISTERED FARMLAND Purpose: _____	☐	☒	within _____ days	_____	_____
13. MDOT DRIVEWAY/ ENTRANCE PERMIT Purpose: _____	☐	☒	within _____ days	_____	_____
14. DEED RESTRICTION Purpose: _____	☐	☒	within _____ days	_____	_____
15. TAX STATUS* Purpose: _____	☐	☒	within _____ days	_____	_____
16. BUILD PACKAGE Purpose: _____	☐	☒	within _____ days	_____	_____
17. OTHER Purpose: _____	☐	☒	within _____ days	_____	_____

* If the land is enrolled in the Maine Tree Growth Tax program, Seller agrees to provide Buyer with the current Forest Management and Harvest Plan within n/a days. ☐ Yes ☒ No

Further specifications regarding any of the above: **None**

Unless otherwise specified above, all of the above will be obtained and paid for by Buyer. Seller agrees to cooperate with Buyer and shall give Buyer and Buyer's agents and consultants reasonable access to the property in order to undertake the above investigations. Buyer agrees to take reasonable steps to return the property to its pre-inspection condition. If the result of any investigation or other condition specified herein is unsatisfactory to Buyer in Buyer's sole discretion, Buyer will declare the Agreement null and void by notifying Seller in writing within the specified number of days, and any earnest money shall be returned to Buyer. If the result of any investigation or other condition specified herein is unsatisfactory to Buyer, and Buyer wishes to pursue remedies other than voiding the Agreement, Buyer must do so to full resolution within the time period set forth above; otherwise this contingency is waived. If Buyer does not notify Seller that an investigation is unsatisfactory within the time period set forth above, or if any investigation under this paragraph is not performed or completed during the period specified in this paragraph, this contingency and the right to conduct an investigation are waived by Buyer. In the absence of inspection(s) mentioned above, Buyer is relying completely upon Buyer's own opinion as to the condition of the property.

Page 2 of 5 Buyer(s) Initials _____ Seller(s) Initials _____

11. FINANCING: Buyer's obligation to close:

Not Subject to Financing

- ☐ is not subject to a financing contingency. Buyer has provided Seller with acceptable proof of the funds.
- ☒ is not subject to a financing contingency. Buyer shall provide proof of the funds acceptable to Seller within n/a days. If such proof is unacceptable to Seller, Seller may terminate this Agreement no later than n/a days from receipt. If proof of funds is not provided within such time period, Seller may terminate this Agreement which right shall end once such proof is received, however Seller retains the agreed upon time period to terminate if such proof is unacceptable. If Seller terminates in either case, the earnest money shall be returned to Buyer.

☐ Buyer's ability to purchase ☐ is ☒ is not subject to the sale of another property. See addendum ☐ Yes ☒ No.

Subject to Financing

☐ Buyer's obligation to close is subject to financing as follows:

- Buyer's obligation to close is subject to Buyer obtaining a n/a loan of n/a % of the purchase price, at an interest rate not to exceed n/a % and amortized over a period of n/a years. Buyer is under a good faith obligation to seek and obtain financing on these terms. If such financing is not available to Buyer as of the closing date, Buyer is not obligated to close and may terminate this Agreement in which case the earnest money shall be returned to Buyer.
- Buyer to provide Seller with letter from lender showing that Buyer has made application for loan specified in (a) and, subject to verification of information, is qualified for the loan requested within n/a days from the Effective Date of the Agreement. If Buyer fails to provide Seller with such letter within said time period, Seller may terminate this Agreement and the earnest money shall be returned to Buyer. This right to terminate ends once Buyer's letter is received.
- Buyer hereby authorizes, instructs and directs its lender to communicate the status of the Buyer's loan application to Seller, Seller's licensee and Buyer's licensee.
- After (b) is met, if the lender notifies Buyer that it is unable or unwilling to provide said financing, Buyer is obligated to provide Seller with written documentation of the loan denial within two days of receipt. After notifying Seller, Buyer shall have n/a days to provide Seller with a letter from another lender showing that Buyer has made application for loan specified in (a) and, subject to verification of information, is qualified for the loan requested. If Buyer fails to provide Seller with such letter within said time period, Seller may terminate this Agreement and the earnest money shall be returned to Buyer. This right to terminate ends once Buyer's letter is received.
- Buyer agrees to pay no more than 0 points. Seller agrees to pay up to \$Zero toward Buyer's actual pre-pays, points and/or closing costs, but no more than allowable by Buyer's lender.
- Buyer's ability to obtain financing ☐ is ☒ is not subject to the sale of another property. See addendum ☐ Yes ☒ No.
- Buyer may choose to pay cash instead of obtaining financing. If so, Buyer shall notify Seller in writing including providing proof of funds and the Agreement shall no longer be subject to financing, and Seller's right to terminate pursuant to the provisions of this paragraph shall be void and Seller's obligations pursuant to 11e shall remain in full force and effect.

12. BROKERAGE DISCLOSURE: Buyer and Seller acknowledge they have been advised of the following relationships:

Matt Cartmell (011648) of Keller Williams Realty (3005)
 Licensee MLS ID Agency MLS ID

is a ☐ Seller Agent ☒ Buyer Agent ☐ Disc Dual Agent ☐ Transaction Broker

Matt Cartmell (011648) of Keller Williams Realty (3005)
 Licensee MLS ID Agency MLS ID

is a ☐ Seller Agent ☒ Buyer Agent ☐ Disc Dual Agent ☐ Transaction Broker

If this transaction involves Disclosed Dual Agency, the Buyer and Seller acknowledge the limited fiduciary duties of the agents and hereby consent to this arrangement. In addition, the Buyer and Seller acknowledge prior receipt and signing of a Disclosed Dual Agency Consent Agreement.

13. PROPERTY DISCLOSURE FORM: Buyer acknowledges receipt of Property Disclosure Form.

14. DEFAULT/RETURN OF EARNEST MONEY: Buyer's failure to fulfill any of Buyer's obligations hereunder shall constitute a default and Seller may employ all legal and equitable remedies, including without limitation, termination of this Agreement and forfeiture by Buyer of the earnest money. Seller's failure to fulfill any of Seller's obligations hereunder shall constitute a default and Buyer may employ all legal and equitable remedies, including without limitation, termination of this Agreement and return to Buyer of the earnest money. Agency acting as escrow agent has the option to require written releases from both parties prior to disbursing the earnest money to either Buyer or Seller. In the event that the Agency is made a party to any lawsuit by virtue of acting as escrow agent, Agency shall be entitled to recover reasonable attorney's fees and costs which shall be assessed as court costs in favor of the prevailing party.

15. MEDIATION: Earnest money or other disputes within the jurisdictional limit of small claims court will be handled in that forum. All other disputes or claims arising out of or relating to this Agreement or the property addressed in this Agreement (other than requests for injunctive relief) shall be submitted to mediation in accordance with generally accepted mediation practices. Buyer and Seller are bound to mediate in good faith and to each pay half of the mediation fees. If a party fails to submit a dispute or claim to mediation prior to initiating litigation (other than requests for injunctive relief), then that party will be liable for the other party's legal fees in any subsequent litigation regarding that same matter in which the party who failed to first submit the dispute or claim to mediation loses in that subsequent litigation. This clause shall survive the closing of the transaction.

16. PRIOR STATEMENTS: Any representations, statements and agreements are not valid unless contained herein. This Agreement completely expresses the obligations of the parties and may only be amended in writing, signed by both parties.




17. HEIRS/ASSIGNS: This Agreement shall extend to and be obligatory upon heirs, personal representatives, successors, and assigns of the Seller and the assigns of the Buyer.

18. COUNTERPARTS: This Agreement may be signed on any number of identical counterparts, such as a faxed copy, with the same binding effect as if the signatures were on one instrument. Original, faxed or other electronically transmitted signatures are binding.

19. NOTICE: Any notice, communication or document delivery requirements hereunder may be satisfied by providing the required notice, communication or documentation to or from the parties or their Licensee. Only withdrawals of offers and counteroffers will be effective upon communication, verbally or in writing.

20. EFFECTIVE DATE/BUSINESS DAYS: This Agreement is a binding contract when the last party signing has caused a paper or electronic copy of the fully executed agreement to be delivered to the other party which shall be the Effective Date. Licensee is authorized to fill in the Effective Date on Page 1 hereof. Except as expressly set forth to the contrary, the use of the term "days" in this Agreement, including all addenda made a part hereof, shall mean business days defined as excluding Saturdays, Sundays and any observed Maine State/Federal holidays. Deadlines in this Agreement, including all addenda, expressed as "within x days" shall be counted from the Effective Date, unless another starting date is expressly set forth, beginning with the first day after the Effective Date, or such other established starting date, and ending at 5:00 p.m. Eastern Time on the last day counted. Unless expressly stated to the contrary, deadlines in this Agreement, including all addenda, expressed as a specific date shall end at 5:00 p.m. Eastern Time on such date.

21. CONFIDENTIALITY: Buyer and Seller authorize the disclosure of the information herein to the real estate licensees, attorneys, lenders, appraisers, inspectors, investigators and others involved in the transaction necessary for the purpose of closing this transaction. Buyer and Seller authorize the lender and/or closing agent preparing the entire closing disclosure and/or settlement statement to release a copy of the closing disclosure and/or settlement statement to the parties and their licensees prior to, at and after the closing.

22. OTHER CONDITIONS: **Closing on this parcel will occur w/in 5 days of Buyer obtaining all needed permits and approval from Town of Cumberland for the project.**

23. GENERAL PROVISIONS:

- a. A copy of this Agreement is to be received by all parties and, by signature, receipt of a copy is hereby acknowledged. If not fully understood, contact an attorney. This is a Maine contract and shall be construed according to the laws of Maine.
- b. Seller acknowledges that State of Maine law requires buyers of property owned by non-resident sellers to withhold a prepayment of capital gains tax unless a waiver has been obtained by Seller from the State of Maine Revenue Services.
- c. Buyer and Seller acknowledge that under Maine law payment of property taxes is the legal responsibility of the person who owns the property on April 1, even if the property is sold before payment is due. If any part of the taxes is not paid when due, the lien will be filed in the name of the owner as of April 1 which could have a negative impact on their credit rating. Buyer and Seller shall agree at closing on their respective obligations regarding actual payment of taxes after closing. Buyer and Seller should make sure they understand their obligations agreed to at closing and what may happen if taxes are not paid as agreed.
- d. Buyer acknowledges that Maine law requires continuing interest in the property and any back up offers to be communicated by the listing agent to the Seller.
- e. Whenever this Agreement provides for earnest money to be returned or released, agency acting as escrow agent must comply with Maine Real Estate Commission rules which may require written notices or obtaining written releases from both parties.

24. ADDENDA: ☒ Yes ☐ No Explain: Survey & Deed w/easements

25. ELECTRONIC SIGNATURES: Pursuant to the Maine Uniform Electronic Transactions Act and Digital Signature Act, the parties authorize and agree to the use of electronic signatures as a method of signing/initialing this Agreement, including all addenda. The parties hereby agree that either party may sign electronically by utilizing an electronic signature service.

DocuSigned by:
Buyer's Mailing address is DAVID SPELLMAN 4/25/2021
162179EE581E47B
BUYER 100 US Route 1 LLC/David Spellman DATE BUYER DATE

BUYER DATE BUYER DATE

Seller accepts the offer and agrees to deliver the above-described property at the price and upon the terms and conditions set forth and agrees to pay agency a commission for services as specified in the listing agreement.

DocuSigned by:
Seller's Mailing address is David Landa 4/24/2021
0178BEADF1AE45F...
SELLER Ledgeview Properties, LLC/David A. Landa DATE SELLER DATE

SELLER DATE SELLER DATE

COUNTER-OFFER

Seller agrees to sell on the terms and conditions as detailed herein with the following changes and/or conditions:

The parties acknowledge that until signed by Buyer, Seller's signature constitutes only an offer to sell on the above terms and the offer will expire unless accepted by Buyer's signature with communication of such signature to Seller by (date) _____ (time) _____ ☐ AM ☐ PM.

SELLER DATE SELLER DATE

SELLER DATE SELLER DATE

The Buyer hereby accepts the counter offer set forth above.

BUYER DATE BUYER DATE

BUYER DATE BUYER DATE

EXTENSION

The closing date of this Agreement is extended until _____ DATE

SELLER DATE SELLER DATE

SELLER DATE SELLER DATE

BUYER DATE BUYER DATE

BUYER DATE BUYER DATE



PROPERTY LOCATED AT: 92 US Route 1, Cumberland, ME 04110**PROPERTY DISCLOSURE – LAND ONLY**

Under Maine Law, certain information must be made available to buyers prior to or during preparation of an offer. This statement has been prepared to assist prospective buyers in evaluating this property. This disclosure is not a warranty of the condition of the property and is not part of any contract between Seller and any Buyer. Seller authorizes the disclosure of the information in this statement to real estate licensees and to prospective buyers of this property. The Seller agrees to provide prompt notice of any changes in the information and this form will be appropriately changed with an amendment date. Inspections are highly recommended.

DO NOT LEAVE ANY QUESTIONS BLANK. STRIKE, WRITE N/A OR UNKNOWN IF NEEDED.**SECTION I – HAZARDOUS MATERIAL**

The licensee is disclosing that the Seller is making representations contained herein.

A. UNDERGROUND STORAGE TANKS - Are there now, or have there ever been, any underground storage tanks on your property? ☐ Yes ☐ No ☒ Unknown

If Yes: Are tanks in current use?..... ☐ Yes ☐ No ☐ Unknown

If no longer in use, how long have they been out of service? n/a

If tanks are no longer in use, have tanks been abandoned according to DEP?..... ☐ Yes ☐ No ☐ Unknown

Are tanks registered with DEP?..... ☐ Yes ☐ No ☐ Unknown

Age of tank(s): n/a Size of tank(s): n/a

Location: n/a

What materials are, or were, stored in the tank(s): n/a

Have you experienced any problems such as leakage: ☐ Yes ☐ No ☐ Unknown

Comments: **Seller has no knowledge of underground tanks ever being on this section of property (see survey for small area of land)**

Source of information: **Seller**

B. OTHER HAZARDOUS MATERIALS - Current or previously existing:

TOXIC MATERIAL: ☐ Yes ☐ No ☒ Unknown

LAND FILL:..... ☐ Yes ☐ No ☒ Unknown

RADIOACTIVE MATERIAL:..... ☐ Yes ☐ No ☒ Unknown

METHAMPHETAMINE:..... ☐ Yes ☒ No ☐ Unknown

Comments: **Seller has no knowledge of any hazardous materials on site now or in past**

Source of information: **Seller**

Buyers are encouraged to seek information from professionals regarding any specific issue or concern.

Buyer Initials DS

Page 1 of 3

Seller Initials DS

PROPERTY LOCATED AT: 92 US Route 1, Cumberland, ME 04110**SECTION II — GENERAL INFORMATION**

Is the property subject to or have the benefit of any encroachments, easements, rights-of-way, leases, rights of first refusal, life estates, private ways, trails, homeowner associations (including condominiums and PUD's) or restrictive covenants? ☒ Yes ☐ No ☐ Unknown

If Yes, explain: Leach bed drainage plume easement:

Source of information: Deed

Is access by means of a way owned and maintained by the State, a county, or a municipality over which the public has a right to pass?..... ☒ Yes ☐ No ☐ Unknown

If No, who is responsible for maintenance? n/a

Road Association Name (if known): n/a

Are there any shoreland zoning, resource protection or other overlay zone requirements on the property?..... ☐ Yes ☐ No ☒ Unknown

If Yes, explain: n/a

Source of information: Seller

Is the property the result of a division within the last 5 years (i.e. subdivision)? ☐ Yes ☒ No ☐ Unknown

If Yes, explain: n/a

Source of information: Seller

Are there any tax exemptions or reductions for this property for any reason including but not limited to:

Tree Growth, Open Space and Farmland, Blind, Working Waterfront?..... ☐ Yes ☒ No ☐ Unknown

If Yes, explain: n/a

Is a Forest Management and Harvest Plan available?..... ☐ Yes ☒ No ☐ Unknown

Has all or a portion of the property been surveyed?..... ☒ Yes ☐ No ☐ Unknown

If Yes, is the survey available?..... ☒ Yes ☐ No ☐ Unknown

Has the property ever been soil tested?..... ☒ Yes ☐ No ☐ Unknown

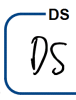
If Yes, are the results available?..... ☐ Yes ☒ No ☐ Unknown

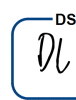
Are mobile/manufactured homes allowed?..... ☐ Yes ☒ No ☐ Unknown

Are modular homes allowed?..... ☒ Yes ☐ No ☐ Unknown

Source of information: Seller

Additional Information: See attached Deed and Survey information

Buyer Initials 

Seller Initials 

PROPERTY LOCATED AT: **92 US Route 1, Cumberland, ME 04110**

ATTACHMENTS CONTAINING ADDITIONAL INFORMATION:..... ☒ Yes ☐ No

Seller shall be responsible and liable for any failure to provide known information about property defects to Buyer. As Seller, I/we have provided the above information and represent that all information is correct.

DocuSigned by:

David Landa

4/24/2021

SELLER

DATE

SELLER

DATE

Ledgeview Properties, LLC/David A. Landa

SELLER

DATE

SELLER

DATE

I/We have read and received a copy of this disclosure and understand that I/we should seek information from qualified professionals if I/we have questions or concerns.

DocuSigned by:

DAVID SPELLMAN

4/25/2021

BUYER

DATE

BUYER

DATE

100 US Route 1 LLC/David Spellman

BUYER

DATE

BUYER

DATE





0035119

9K17591PG242

WARRANTY DEED

FREDERICK B. JENSEN AND DARLEEN E. JENSEN, both of Falmouth, Maine, for consideration paid, grant to **LEDGEVIEW PROPERTIES, LLC**, a Maine limited liability company, whose mailing address is 92 U.S. Route One, Cumberland, Maine 04110, with **Warranty Covenants**, the following property in Cumberland, County of Cumberland, State of Maine, described as follows:

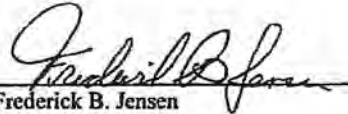
SEE ATTACHED SCHEDULE A

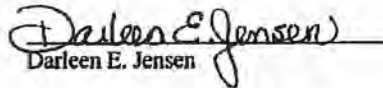
Meaning and intending to convey the same premises conveyed to Frederick B. Jensen and Darleen E. Jensen by virtue of warranty deed from William E. Randall and Eleanor A. Randall dated September 27, 1988 recorded in the Cumberland County Registry of Deeds in Book 8492, Page 89 and by virtue of another warranty deed from William and Eleanor A. Randall dated February 4, 1992 recorded in the said Registry of Deeds in Book 9904, Page 220 and to convey a portion of the same premises conveyed to Frederick B. Jensen and Darleen E. Jensen by virtue of warranty deed of Richard A. Bobbitt, Dennis H. Perry, James A. Perry and Diane A. Travis, Sole Acting Trustees under Declaration of Trust known as Twin Town Trust dated November 2, 1992 and recorded in the said Registry of Deeds in Book 10386, Page 175.

Witness our hands and seal this 4th day of May, 2002.

Signed, Sealed and Delivered
in the presence of



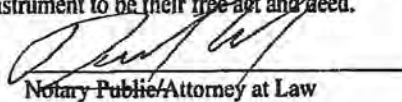

Frederick B. Jensen


Darleen E. Jensen

State of Maine
County of Cumberland

May 4, 2002.

Then personally appeared the above named Frederick B. Jensen and Darleen E. Jensen and acknowledged the foregoing instrument to be their free act and deed.


Notary Public/Attorney at Law

DANIEL R. FELKEL, ESQ
printed name of notary or attorney

MAINE REAL ESTATE TAX PAID

BK 17591 PG 243

SCHEDULE AParcel 1:

A certain lot or parcel of land, situated in Cumberland, County of Cumberland, State of Maine, bounded and described as follows:

Beginning at an iron pipe located on the westerly sideline of U. S. Route 1; said iron pipe marks the northeast corner of land, now or formerly of Randall; said iron pipe is also located N 12° 04' 36" E. 262', more or less, from a right of way monument;

Thence N 54° 42' 05" W, along the northerly sideline of land, now or formerly of Randall, 516.81' to a drill hole set in ledge on the easterly sideline of Interstate 95;

Thence N 25° 46' 38" E, along the easterly sideline of Interstate 95, 202.79' to an iron pipe marking the southwest corner of land, now or formerly of the Estate of Janet Lowe Palmer;

Thence S 54° 42' 05" E, along the southerly sideline of land, now or formerly of the Estate of Janet Lowe Palmer, 464.55' to a drill hole found in a stone wall on the westerly sideline of U. S. Route 1;

Thence S 12° 04' 36" W, along the westerly sideline of U. S. Route 1, 217.63' to the point of beginning. Said parcel contains 2.25 acres. Bearings are Grid North, West Zone, M.S.G.S. Reference is made to a Plan of Property, Cumberland, Maine, for William E. Randall, Eleanor A. Randall, and Frederick Jensen by Survey, Inc. dated January 1988.

Meaning and intending to convey all of the same property described in a deed of William E. Randall to Frederick B. Jensen and Darleen E. Jensen dated September 27, 1988 recorded in the Cumberland County Registry of Deeds in Book 8492, Page 89.

Parcel 2:

Also, another certain lot or parcel of land, situated in Cumberland, County of Cumberland, State of Maine, bounded and described as follows:

Beginning at an iron pipe located on the westerly sideline of Route 1; said iron pipe marks the boundary line between land now or formerly of William E. Randall and land now or formerly of Frederick Jensen (Ledgeview Estates);

BK 1759 | PG 244

thence North 54° 42' 05" West along said boundary line, 516.81' to a drill hole located on the easterly sideline of Interstate 95; thence South 25° 46' 38" West along the easterly sideline of Interstate 95, 35.49' to a railroad spike; thence South 54° 42' 05" East, 347.42' to an iron pipe; thence South 66° 46' 58" East, 167.22' to the point of beginning. Said parcel contains 15,124 square feet. Bearings are grid north.

Meaning and intending to convey the premises conveyed to Frederick B. Jensen and Darleen E. Jensen by deed of William E. Randall dated February 4, 1992, recorded in the Cumberland County Registry of Deeds in Book 9904, Page 220.

Parcel 3:

Also, another certain lot or parcel of land situated in the Town of Cumberland, County of Cumberland, and bounded and described as follows:

Beginning at a no. 5 rebar located on the westerly sideline of Route One, said rebar marking the northeasterly corner of land now or formerly of Jensen as described in a deed recorded in the Cumberland County Registry of Deeds in Book 8492, Page 89; thence N 54° 42' 05" W along land now or formerly of Jensen as described in a deed recorded in the Cumberland County Registry of Deeds in Book 8492, Page 89, 263.93' to a point; thence N 54° 59' 52" E crossing over other land now or formerly of Jensen as described in a deed recorded in the Cumberland County Registry of Deeds in Book 10386, Page 175, 95.03' to a point; thence S 45° 48' 00" E crossing over other land now or formerly of Jensen as described in a deed recorded in the Cumberland County Registry of Deeds in Book 10386, Page 175, 209.98' to a point located on the westerly sideline of Route One; thence S 12° 04' 36" W along the westerly sideline of Route One, 62.00' to the point of beginning. Said parcel contains 17,319 square feet. Bearings are magnetic of the year 1991.

Meaning and intending to convey a portion of the property described in a deed from the Trustees of the Twin Town Trust to Frederick B. Jensen and Darleen E. Jensen dated November 2, 1992, recorded in the Cumberland County Registry of Deeds in Book 10386, Page 175. Said parcel is subject to easements and right-of-ways of record. The Grantors, Frederick B. Jensen and Darleen E. Jensen, reserve for themselves, their heirs and assigns, an easement for passage by foot and motor vehicle over the gravel drive that begins at the Northeast corner of that parcel. Said easement then continues from the gravel drive North to the land of the Grantors, to be limited to use for one single-family residence.

Leach bed drainage plume easement:

BK 1759 | PG 245

Together with an easement for the location and maintenance of a leach bed drainage plume associated with the operation of a leach bed for the Ledgeview Nursing Home, a nursing facility, on the following described parcel:

Commencing at a no. 5 rebar located on the westerly sideline of Route One, said rebar marking the northeasterly corner of land now or formerly of Jensen as described in a deed recorded in the Cumberland County Registry of Deeds in Book 8492, Page 89; thence N 54° 42' 05" W along land now or formerly of Jensen as described in a deed recorded in the Cumberland County Registry of Deeds in Book 8492, Page 89, 263.93 feet to the point of beginning; thence N 54° 42' 05" W along land now or formerly of Jensen as described in a deed recorded in the Cumberland County Registry of Deeds in Book 8492, Page 89, 200.62 feet to a no. 5 rebar located on the easterly sideline of Interstate I-95; thence N 25° 46' 38" E along the easterly sideline of Interstate I-95, 131.11 feet to a point; thence S 45° 48' 00" E crossing over other land now or formerly of Jensen as described in a deed recorded in the County Cumberland Registry of Deeds in Book 10386, Page 175, 257.44 feet to a point; thence S 54° 59' 52" W crossing over other land now or formerly of Jensen as described in a deed recorded in the Cumberland County Registry of Deeds in Book 10386, Page 175, 95.03 feet to the point of beginning. Said parcel contains 24,987 square feet. Bearings are magnetic of the year 1991.

The Grantee, its successors and assigns, shall have the right to enter the above described easement premises with equipment for the installation, maintenance, repair or replacement of the soils associated with the operation of the leach bed located on adjoining land of Grantee, provided that Grantee shall restore the grade and re-seed any disturbed land on the easement premises following such activities.

Meaning and intending to convey an easement in and to a portion of the property of Frederick B. Jensen and Darleen E. Jensen, described in a deed recorded in the Cumberland County Registry of Deeds in Book 10386, Page 175.

RECEIVED
RECORDED REGISTRY OF DEEDS

2002 MAY -1 PM 3:41

CUMBERLAND COUNTY

John B. C. Brin

ENGINEERED PUMP STATION AND FORCE MAIN WASTEWATER DISPOSAL SYSTEM LEDGEVIEW PROPERTIES, LLC CUMBERLAND, MAINE

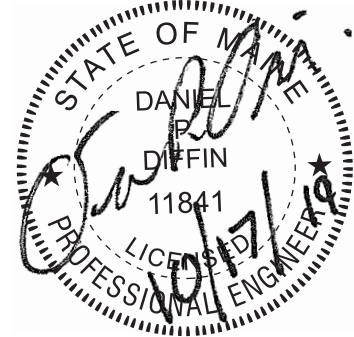
TITLE	DWG NO
COVER SHEET	
GENERAL NOTES, LEGEND, AND ABBREVIATIONS	C-100
SITE PLAN AND PROFILE	C-101
EROSION CONTROL NOTES AND DETAILS	C-300
SECTIONS AND DETAILS	C-301

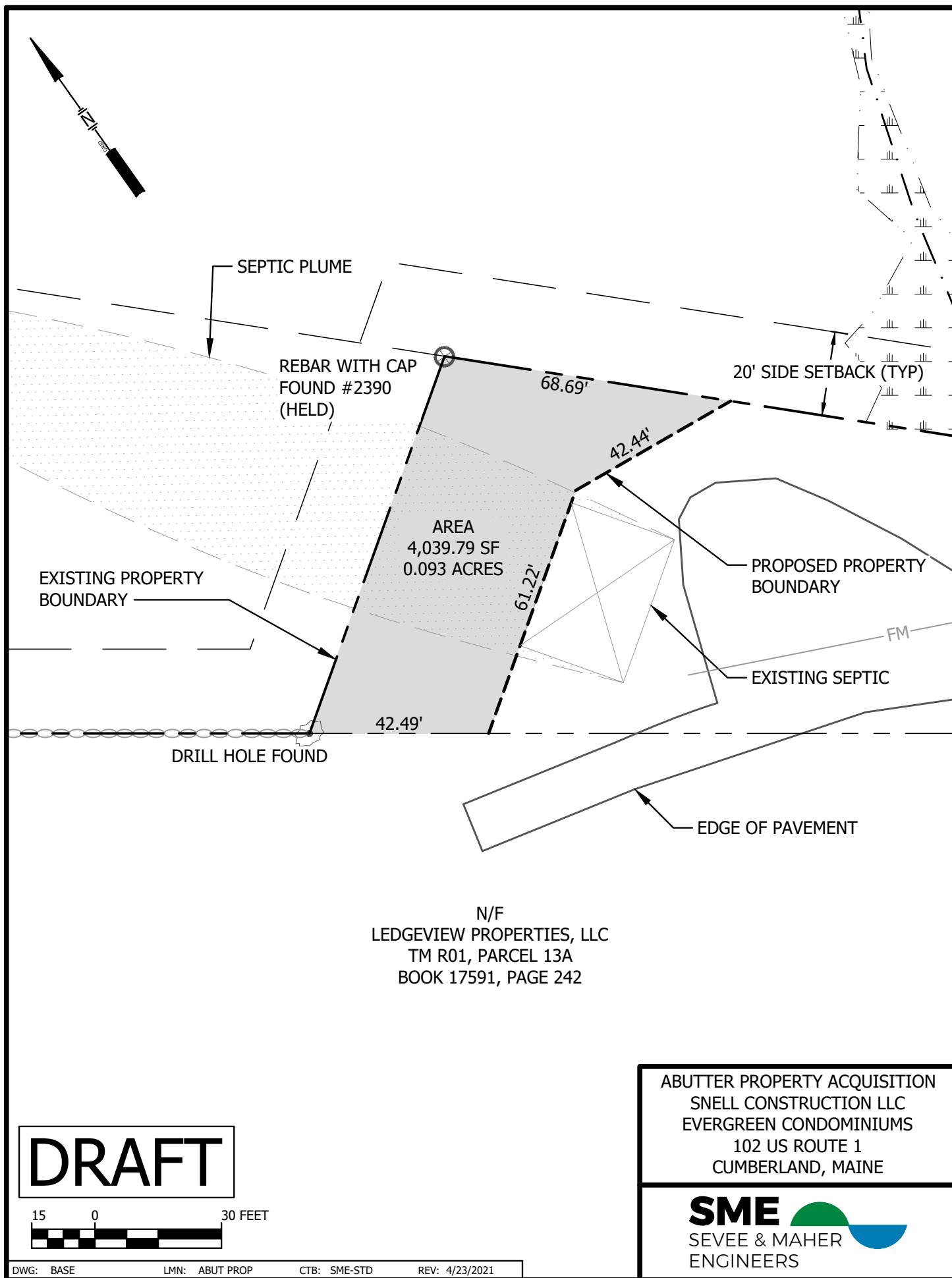
LOCATION MAP



ENVIRONMENTAL • CIVIL • GEOTECHNICAL • WATER • COMPLIANCE

4 Blanchard Road, PO Box 85A, Cumberland Center, Maine 04021
Phone 207.829.5016 • Fax 207.829.5692 • smemaine.com





LETTER OF INTENT

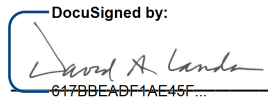
BETWEEN

LEDGEVIEW PROPERTIES LLC/DAVID LANDA (SELLER) AND 100 US ROUTE 1 LLC/DAVID (BUYER)

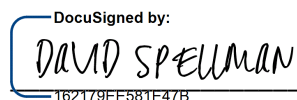
April 26, 2021

The purpose of this Letter of Intent is to confirm Ledgeview Properties, LLC as Seller and 100 US Route 1, LLC have executed a Purchase and Sale Agreement to transfer the plot of land as presented in the attached drawing provided by Sevee & Maher Engineers, Inc. The plot of land is to be included in the development proposal for the property owned by 100 US Route 1, LLC and is contingent upon approval of said proposal by the Town of Cumberland, acceptance and partial release of collateral as noted in said Purchase and Sale by HUD, and other contingencies in the Purchase and Sale Agreement.

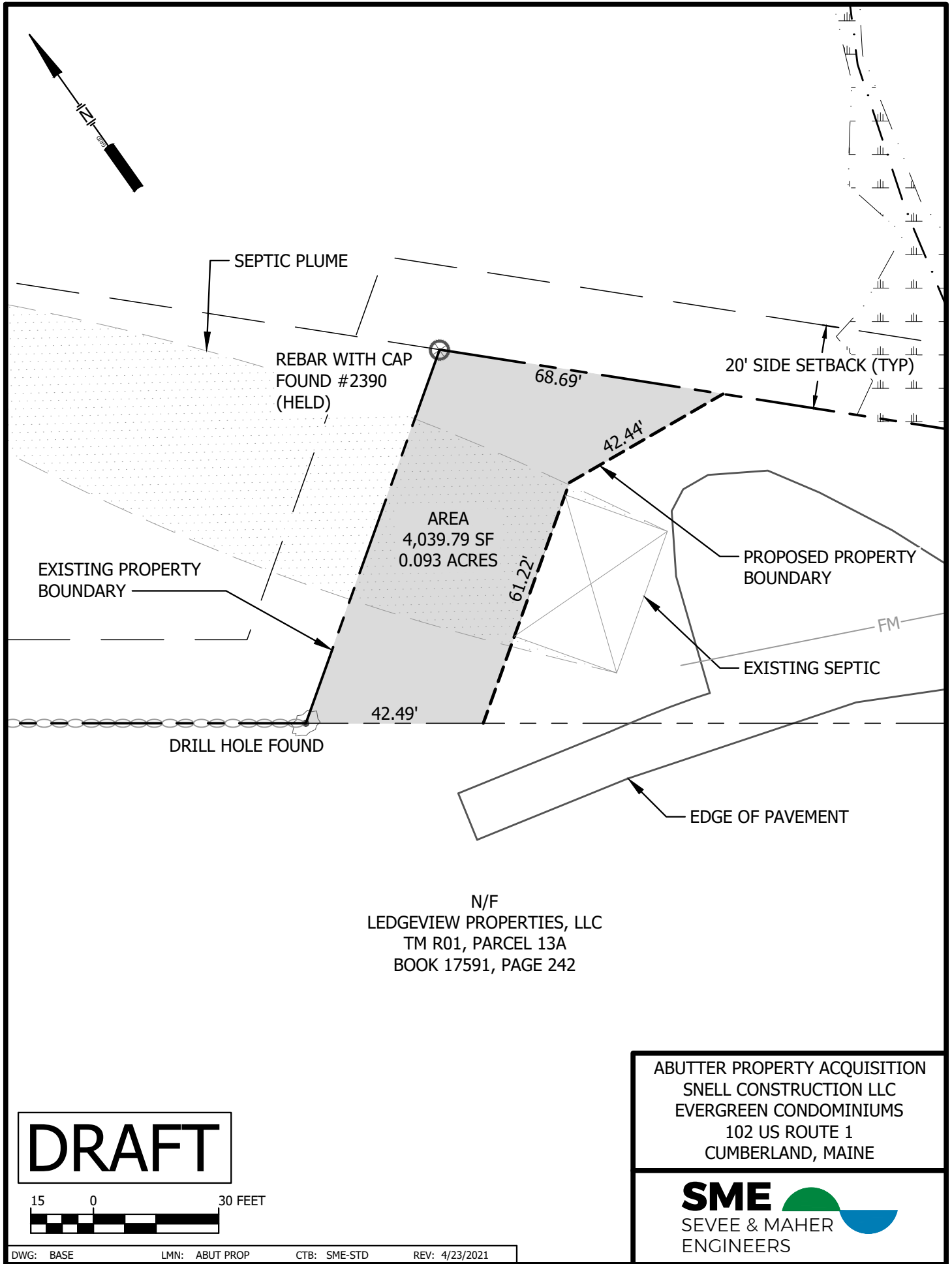
Signed:

DocuSigned by:

617B8EADF1AE45F...

LEDGEVIEW PROPERTIES, LLC/DAVID LANDA

DocuSigned by:

162179EE581E47B...

100 US ROUTE 1 LLC, DAVID SPELLMAN



APPENDIX B

FINANCIAL CAPABILITY



May 17, 2021

Town of Cumberland

Planning Dept

290 Tuttle Rd.

Cumberland, ME 04021

Re: Snell Construction LLC / Evergreen Condos

This bank has an established commercial banking relationship with Snell Construction LLC. Subject to normal and routine conditions, financing would be available to the company.

Sincerely

A handwritten signature in black ink, appearing to read 'A. Cannan', is written over a horizontal line.

Aaron Cannan

Sr. Vice President

APPENDIX C

TECHNICAL CAPABILITY

TECHNICAL CAPACITY

Snell Construction, LLC is working with the following permit application representative and site design engineer:

Sevee & Maher Engineers, Inc. (SME)

SME of Cumberland, Maine is providing technical assistance for the site design and environmental permitting. Founded in 1985, SME has obtained hundreds of local, state, and federal permits related to environmental projects throughout the Northeast, including Site Location Permits for Backyard Farms in Madison, the Pineland Center in New Gloucester, the Mill Stream Subdivision in Freeport, and the Pine Tree Landfill in Hampden.

Sevee & Maher Engineers, Inc.
4 Blanchard Road
Cumberland, Maine 04021
207-829-5016

Daniel P. Diffin, P.E., LEED AP – Permitting and Site Design, SME

Mr. Diffin has more than twelve years of experience on a wide variety of civil engineering design and construction management projects for private and public sector clients. Mr. Diffin has been responsible for the engineering, design, and construction services for land development projects, commercial, industrial, and medical site developments, educational campuses, stormwater management and erosion control projects, and local, state, and federal permitting. Projects include: Backyard Farms, Madison; Maine R&D Station and other facility upgrades; and 2015 Mill Build-out Plan, Woodland Mill, Baileyville Maine.

Snell Construction, LLC is working with the following subconsultants to support the project:

Peter Biegel, ASLA, LEED AP– Maine Licensed Landscape Architect, Land Design Solutions

Land Design Solutions
1 Faraday Drive, Suite 7
Cumberland, ME 04021

Travis Nadeau, LEED AP BD+C– Maine Licensed Architect, Platz Associates

Platz Associates
Two Great Falls Plaza
Auburn, Maine 04210

APPENDIX D

MNAP AND MDIFW REVIEW LETTERS



4 Blanchard Road, P.O. Box 85A
Cumberland, ME 04021
Tel: 207.829.5016 • Fax: 207.829.5692
info@smemaine.com
smemaine.com

April 13, 2021

Mr. Lisa St. Hilaire
Maine Natural Areas Program
93 State House Station
Augusta, Maine 04333-0093

Subject: Evergreen Ridge Condominiums
US Route 1, Cumberland, Maine

Dear Lisa,

Snell Construction, LLC is seeking approval for construction of a 50-condo multiplex, with approximately 75 parking spaces and associated site improvement in Cumberland, Maine, under a Maine Department of Environmental Protection (MEDEP) Stormwater Management Permit. The project location is outlined in the attached Figure 1 - Site Location Map.

We would appreciate receiving any information relative to unusual natural areas at, or in the immediate vicinity of our project.

Please feel free to contact me at 207.829.5016 or dpd@smemaine.com if you have any questions or need additional information.

Sincerely,

SEVEE & MAHER ENGINEERS, INC.

A handwritten signature in blue ink, appearing to read "Daniel P. Diffin". The signature is fluid and cursive, with the first name "Daniel" and last name "Diffin" clearly distinguishable.

Daniel P. Diffin, P.E., LEED AP BD+C
Vice President/Project Manager

Attachments: Figure 1 - Site Location Map



BASEMAP ADAPTED FROM 7.5 MIN USGS TOPO QUADS
YARMOUTH, ME - 1975
PORTLAND-EAST, ME - 1975



FIGURE 1
SITE LOCATION MAP
EVERGREEN RIDGE CONDOMINIUMS
CUMBERLAND, MAINE

SME
SEVEE & MAHER
ENGINEERS



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

JANET T. MILLS
GOVERNOR

AMANDA E. BEAL
COMMISSIONER

April 15, 2021

Daniel Diffin
Sevee & Maher Engineers
PO Box 85A
Cumberland, ME 04021

Via email: dpd@smemaine.com

Re: Rare and exemplary botanical features in proximity to: Evergreen Ridge Condominiums, US Route 1, Cumberland, Maine

Dear Mr. Diffin:

I have searched the Maine Natural Areas Program's Biological and Conservation Data System files in response to your request received April 13, 2021 for information on the presence of rare or unique botanical features documented from the vicinity of the project in Cumberland, 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,

Lisa St. Hilaire

Lisa St. Hilaire | Information Manager | Maine Natural Areas Program
207-287-8044 | lisa.st.hilaire@maine.gov

Rare and Exemplary Botanical Features within 4 miles of Project: Evergreen Ridge Condominiums, Cumberland, Maine

Common Name	State Status	State Rank	Global Rank	Date Last Observed	Occurrence Number	Habitat
Adder's Tongue Fern						
	SC	S1	G5	1905-08-10	7	Non-tidal rivershore (non-forested, seasonally wet),Open wetland, not coastal nor rivershore (non-forested, wetland),Old field/roadside (non-forested, wetland or upland)
American Chestnut						
	SC	S4	G3	2001-02-13	2	Hardwood to mixed forest (forest, upland)
Bottlebrush Grass						
	SC	S3	G5	1905-09-13	10	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)
Foxtail Bog-clubmoss						
	E	S1	G5	2017-08-22	1	<null>
Great Blue Lobelia						
	PE	SX	G5	1905-09	3	Forested wetland,Non-tidal rivershore (non-forested, seasonally wet)
Horned Pondweed						
	SC	S2	G5	1913-09-13	9	Tidal wetland (non-forested, wetland)
Marsh Milkwort						
	PE	SH	G5T4	1903-08-18	1	Dry barrens (partly forested, upland),Open wetland, not coastal nor rivershore (non-forested, wetland)
Mountain-laurel						
	SC	S2	G5	1985-08-01	13	Conifer forest (forest, upland),Hardwood to mixed forest (forest, upland)
Mountain Honeysuckle						
	E	S2	G5	2009-07-16	12	Dry barrens (partly forested, upland),Hardwood to mixed forest (forest,

Rare and Exemplary Botanical Features within 4 miles of Project: Evergreen Ridge Condominiums, Cumberland, Maine

Common Name	State Status	State Rank	Global Rank	Date Last Observed	Occurrence Number	Habitat
upland)						
Rattlesnake Hawkweed						
	E	S1	G5T4Q	1909-07	1	Dry barrens (partly forested, upland)
Salt-hay Saltmarsh						
	<null>	S3	G5	2009	24	Tidal wetland (non-forested, wetland)
	<null>	S3	G5	2015-08-19	62	Tidal wetland (non-forested, wetland)
Saltmarsh Sedge						
	PE	SH	G4G5	1909-07-02	3	Tidal wetland (non-forested, wetland)
Screwstem						
	T	S1	G5	2014-09-24	17	Coastal non-tidal wetland (non-forested, wetland)
Slender Knotweed						
	PE	SH	G5	1902-09-07	1	Dry barrens (partly forested, upland)
Smooth Winterberry Holly						
	SC	S3	G5	2017-08-22	32	Forested wetland
Upper Floodplain Hardwood Forest						
	<null>	S3	GNR	2012	20	Forested wetland
Variable Sedge						
	E	S1	G3	1985-07-16	5	Dry barrens (partly forested, upland),Hardwood to mixed forest (forest, upland)
	E	S1	G3	2012-08-09	1	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)
Water-plantain Spearwort						

Rare and Exemplary Botanical Features within 4 miles of
Project: Evergreen Ridge Condominiums, Cumberland, Maine

Common Name	State Status	State Rank	Global Rank	Date Last Observed	Occurrence Number	Habitat
Wild Garlic	PE	SH	G4	1903-07-29	2	Open water (non-forested, wetland)
	SC	S2	G5	1918-07-16	6	Forested wetland,Hardwood to mixed forest (forest, upland)

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>



4 Blanchard Road, P.O. Box 85A
Cumberland, ME 04021
Tel: 207.829.5016 • Fax: 207.829.5692
info@smemaine.com
smemaine.com

April 13, 2021

John Perry, Environmental Review Coordinator
Maine Department of Inland Fisheries and Wildlife
284 State Street, 41 SHS
Augusta, Maine 04333-0041

Subject: Evergreen Ridge Condominiums
US Route 1, Cumberland, Maine

Dear John:

Snell Construction, LLC is seeking approval for construction of a 50-condo multiplex, with approximately 75 parking spaces and associated site improvement in Cumberland, Maine, under a Maine Department of Environmental Protection (MEDEP) Stormwater Management Permit. The project location is outlined in the attached Figure 1 - Site Location Map. The lot is bordered to the east by US Route 1. to the west by Route I-295, and to south by Ledgerview Assisted Living. Undeveloped properties to the north.

We would appreciate receiving any information relative to rare, threatened, or endangered species or the presence of important wildlife or fisheries habitat at or in the immediate vicinity of our project.

Should you have any questions or require additional information, please contact me. Thank you in advance for your consideration.

Sincerely,

SEVEE & MAHER ENGINEERS, INC.

A handwritten signature in blue ink, appearing to read "Dan P. Diffin".

Daniel Diffin, P.E., LEED AP BD+C
Vice President/Project Manager

Attachments: Figure 1 - Site Location Map



BASEMAP ADAPTED FROM 7.5 MIN USGS TOPO QUADS
YARMOUTH, ME - 1975
PORTLAND-EAST, ME - 1975



FIGURE 1
SITE LOCATION MAP
EVERGREEN RIDGE CONDOMINIUMS
CUMBERLAND, MAINE

SME
SEVEE & MAHER
ENGINEERS



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



May 11, 2021

Daniel Diffin
Sevee & Maher Engineers
4 Blanchard Rd., P.O. Box 85A
Cumberland Center, ME 04021

RE: Information Request – Evergreen Ridge Condominiums Project, Cumberland

Dear Daniel:

Per your request received on April 13, 2021, 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 inland fisheries habitat concerns within the vicinity of the *Evergreen Ridge Condominiums* project in Cumberland. For purposes of this review we are assuming tree clearing will be part of your project.

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

Endangered, Threatened, and Special Concern Species

Bat Species – 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.

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, Maine Department of Marine Resources, and Maine Department of Environmental Protection in order to avoid unintended protected resource disturbance.

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

Best regards,

A handwritten signature in black ink, appearing to read 'Becca Settele', with a stylized, flowing script.

Becca Settele
Wildlife Biologist

402000

404000

4846000

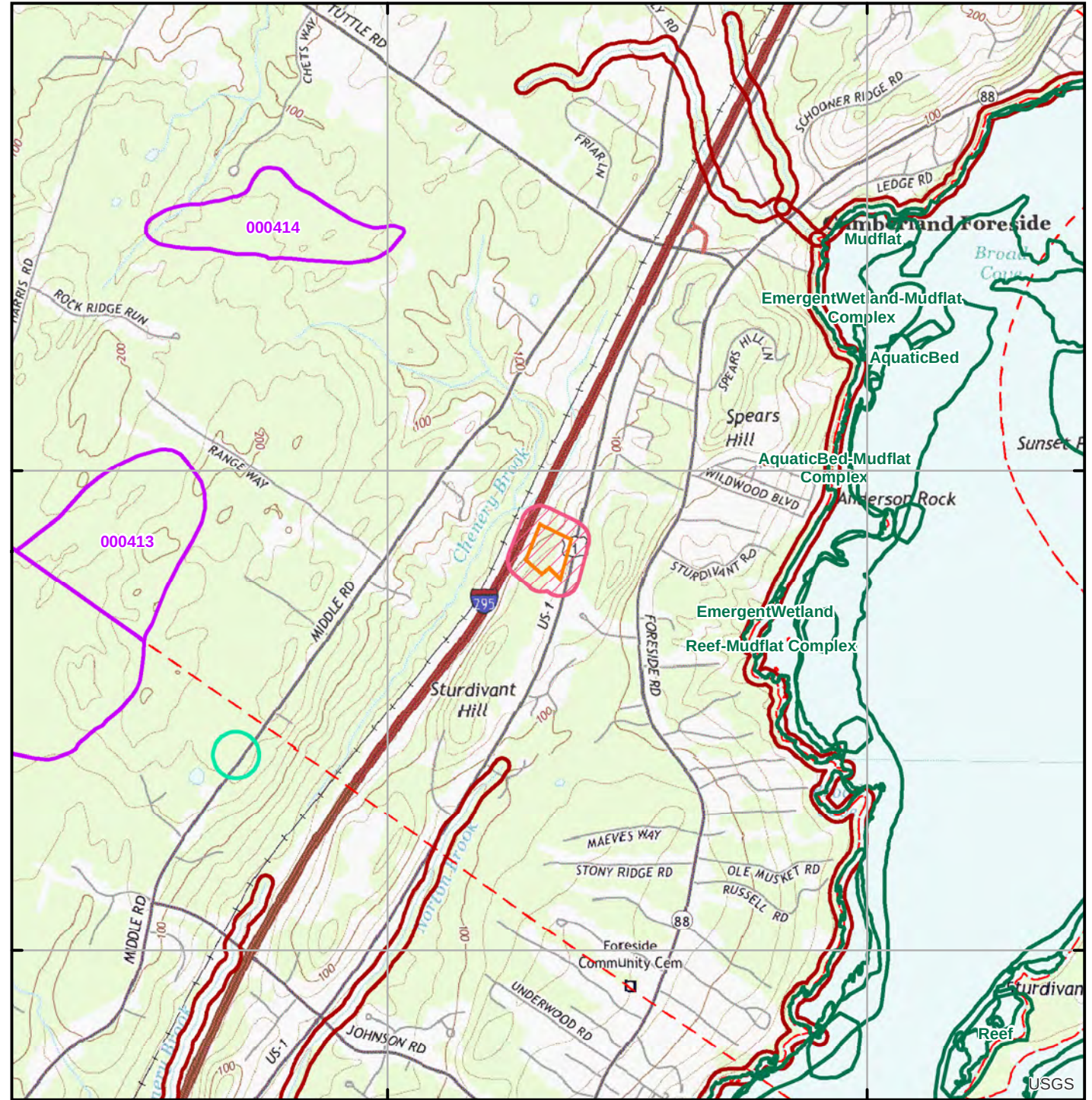
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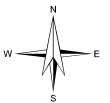
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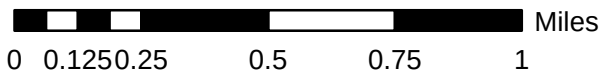


Environmental Review of Fish and Wildlife Observations and Priority Habitats

Project Name: Evergreen Ridge Condominiums, Cumberland
(Version 1)



Maine Department of
Inland Fisheries and Wildlife



Projection: UTM, NAD83, Zone 19N

Date: 4/15/2021

- ProjectSearchAreas - All Versions
- Maine Cliff and Talus Areas

- Deer Winter Area
- LUPC p-fw
- Cooperative DWAs
- Seabird Nesting Islands
- Shorebird Areas
- Inland Waterfowl and Wading Bird
- 2008 lwwh - Shoreland Zoning
- Tidal Waterfowl and Wading Bird
- Significant Vernal Pools
- Environmental Review Polygons

- Roseate Tern
- Piping Plover and Least Tern
- Aquatic ETSc - 2.5 mi review
- Rare Mussels - 5 mi review
- Maine Heritage Fish Waters
- Arctic Charr Habitat
- Redfin Pickerel and Swamp Darter Habitats - buffer100ft
- Special Concern occupied habitats - 100ft buffer
- Wild Lake Trout Habitats





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

DEPARTMENT ORDER

IN THE MATTER OF

SCHOONER VENTURES III, LLC	) STORMWATER MANAGEMENT LAW
Cumberland, Cumberland County	) NATURAL RESOURCES PROTECTION ACT
14-LOT SUBDIVISION	) FRESHWATER WETLAND ALTERATION
L-29196-NI-A-N (approval)	) WATER QUALITY CERTIFICATION
L-29196-TA-B-N (approval)	) FINDINGS OF FACT AND ORDER

Pursuant to the provisions of 38 M.R.S. §§ 480-A–480-JJ, 38 M.R.S. § 420-D, Section 401 of the Clean Water Act (33 U. S. C. § 1341), and Chapters 310 and 500 of Department rules, the Department of Environmental Protection has considered the application of SCHOONER VENTURES III, LLC with the supportive data and other related materials on file and FINDS THE FOLLOWING FACTS:

1. PROJECT DESCRIPTION:

A. Summary: The applicant proposes to construct a stormwater management system for 2,350 linear feet of roadway for a 14-lot residential subdivision on a 44-acre parcel of land. Approximately 26 acres located to the south and north of the subdivision and connected by easement corridors, will remain open space and will be protected by a conservation easement with the Town of Cumberland. The proposed project includes approximately 2.60 acres of developed area of which 1.54 acres is impervious area as shown on set of plans the first of which is entitled “Blanchard Oaks Subdivision, Cumberland, Maine,” prepared by Northeast Civil Solutions Inc., and dated April 15, 2021 with a latest revision date on any of the sheets of May 24, 2021. The project site is located off Blanchard Road Extension in the Town of Cumberland.

The applicant submitted a Notice of Intent (NOI #72202) to comply with the standards and requirements of the Maine Construction General Permit which was accepted by the Department on May 11, 2021.

The parcel has two jurisdictional streams, 5.35 acres of forested freshwater wetland and three significant vernal pools (SVP). The majority of the wetland, streams and two SVPs and associated critical terrestrial habit (CTH) will be protected by conservation easement. The applicant is seeking approval to fill 8,408 square feet of forested freshwater wetland under the Natural Resources Protection Act; 2,815 square feet of which will be associated with a stream crossing.

The applicant submitted a Permit by Rule Notification Form (PBR #72203) pursuant to Chapter 305 Permit by Rule Standards Section 10 and Section 19 (06-096 Ch. 305, 10 § 19, last amended June 8, 2012) for a stream crossing and impacts to the significant vernal pool habitat which was accepted by the Department on May 11, 2021.

B. Current Use of the Site: The site of the proposed project is currently undeveloped woodland with one residential structure and driveway. The parcel is identified as Lot 68A on Map R08 of the Town of Cumberland's tax maps.

2. STORMWATER STANDARDS:

The proposed project includes approximately 2.60 acres of developed area of which 1.54 acres is impervious area. It lies within the watershed of Piscataqua River. The applicant submitted a stormwater management plan based on the Basic and General contained in Department Rules, Chapter 500. The proposed stormwater management system consists of five forested buffers; three with stone berm level lip spreaders and two are adjacent to the downhill side of a road.

A. Basic Standards:

(1) Erosion and Sedimentation Control: The applicant submitted an Erosion and Sedimentation Control Plan that is based on the performance standards contained in Appendix A of Chapter 500 and the Best Management Practices outlined in the Maine Erosion and Sediment Control BMPs, which were developed by the Department. This plan and plan sheets containing erosion control details were reviewed by, and revised in response to the comments of the Cumberland County Soil and Water Conservation District (CCSWCD).

Erosion control details will be included on the final construction plans and the erosion control narrative will be included in the project specifications to be provided to the construction contractor. Given slope, stream and wetland crossings of the project site, the applicant must retain the services of a third party inspector in accordance with the Special Condition for Third Party Inspection Program, which is attached to this Order.

(2) Inspection and Maintenance: The applicant submitted a maintenance plan that addresses both short and long-term maintenance requirements. This plan was reviewed by, and revised in response to the comments of, CCSWD. The maintenance plan is based on the standards contained in Appendix B of Chapter 500. Prior to the formation of a homeowners' association (HOA), the applicant will be responsible for all such maintenance. If an HOA is formed, the Declaration of Covenants and Restrictions for the association must be provided to the Department for review. If the Town intends to accept the road and stormwater management system upon completion, a letter must be submitted from the Town to the Department documenting the Town's agreement to maintain both in accordance with the terms of this Order.

(3) Housekeeping: The proposed project will comply with the performance standards outlined in Appendix C of Chapter 500.

Based on CCSWD's review of the erosion and sedimentation control plan and the maintenance plan, the Department finds that the proposed project meets the Basic Standards contained in Chapter 500, § 4(B) provided that documentation for conveyance

to an HOA or the town for maintenance of the road and stormwater management system is submitted to the Department for review and a third party inspector is retained as described above.

B. General Standards:

The applicant's stormwater management plan includes general 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 thermal impacts. The proposed road meets the definition of "a linear portion of a project" in Chapter 500 and the applicant is proposing to control runoff volume from no less than 76.9% of the volume from the impervious area and no less than 57.7% of the developed area.

The forested, no disturbance stormwater buffers on lots, including those located in open space, will be protected from alteration through the execution of a deed restriction. The applicant proposes to use the deed restriction language contained in Appendix G of Chapter 500 and submitted a draft deed restriction that meets Department standards.

Prior to the start of construction, the location of forested buffers on individual lots must be permanently marked on the ground. The deed for each lot, including open space lots, that contains any portion of the designated buffer must contain deed restrictions relative to the buffer and have attached to it a plot plan for the lot, drawn to scale, that specifies the location of the buffer on the lot. The applicant shall execute and record the required deed restriction prior to the start of construction on the lot. The applicant shall submit a copy of the recorded deed restriction, including the plot plan, to the Department within 60 days of its recording.

The stormwater management system proposed by the applicant was reviewed by, and revised in response to comments from, CCSWD. After a final review, CCSWD commented that the proposed stormwater management system is designed in accordance with the Chapter 500 General Standards, and recommended that the applicant's design engineer or other qualified professional oversee the construction of the stormwater management structures with level lip spreaders to insure that it is installed in accordance with the details and notes specified on the approved plans. Within 30 days from completion, the applicant must submit a log of inspection reports to the Department that contains a list of the items inspected, photographs taken, and other relevant information. CCSWCD requested that within six months of completion, the applicant must submit as-built (record) drawings for each of the stormwater control structures, including the stormwater BMP's to the Department for review.

Based on the stormwater system's design and CCSWD's review, the Department finds that the applicant has made adequate provision to ensure that the proposed project will meet the Basic and General Standards contained in Chapter 500 provided that prior to construction all buffers are marked on the ground, deeds are executed and recored as described above, that a professional engineer is retained to oversee the construction of

each of the buffers with level lip spreaders and as-built drawings are submitted to the BLR, as outlined above.

5. WETLAND ALTERATION:

The applicant proposes to alter 8,408 square feet of forested wetland. After reviewing the information in the file, the Department determined that the activity will not negatively affect the protected natural resources; therefore the proposed project is eligible for Tier 1 review. The applicant has avoided wetland impacts to the greatest extent practicable by siting the road as far away from the critical terrestrial habitat of the significant vernal pool located at the entrance to the subdivision, by designating the open space lots deed restricted conservation area, and by lengthening the road to avoid a second stream crossing, and by designating building envelopes on lots with wetland area. The applicant has minimized impacts by limiting the roadway width, by utilizing 2:1 road side slopes and oversized culverts in wetland areas. Given the location of the wetlands on this parcel, encroachment within these wetland areas is unavoidable.

According to the Department's Geographic Information System, there are mapped Significant Wildlife Habitats associated with the project site. Three significant vernal pools (SVP) exist on the parcel; two will remain undisturbed within a 23-acre deed restricted, conservation open space. The proposed roadway will impact the critical terrestrial habitat of the third SVP at the entrance of the project site (PBR #72203).

Prior to the start of construction, the location of wetland area on individual lots must be permanently marked on the ground. The deed for each lot, that contains any portion of wetland area must contain deed restrictions relative to the wetland and have attached to it a plot plan for the lot, drawn to scale, that specifies the location of the wetland on the lot. The applicant shall execute and record the required deed restriction prior to the start of construction on the lot. The applicant shall submit a copy of the recorded deed restriction, including the plot plan, to the Department within 60 days of its recording.

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 prior to construction all wetland area is marked on the ground and deeds are recorded and executed as described above.

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. § 420-D, and Chapters 500 of the Department's rules:

A. The applicant has made adequate provision to ensure that the proposed project will meet the Chapter 500 Basic Standards for: (1) erosion and sediment control; (2) inspection and maintenance; (3) housekeeping; and (4) grading and construction activity provided provided that conveyance of maintenance of the road and stormwater

management system responsibility is submitted to the Department for review and a third party inspector is retained as outlined in Finding 2A.

B. The applicant has made adequate provision to ensure that the proposed project will meet the Chapter 500 General Standards provided that buffers are marked on the ground, a professional engineer is retained to inspect and document the installation of level lip spreaders and pipes, and that as-built drawings of stormwater treatment BMPs are submitted to the BLR, as outlined in Finding 2B.

C. The applicant has made adequate provision to ensure that the proposed project will meet the Chapter 500 standards for: (1) easements and covenants; (2) management of stormwater discharges; (3) discharge to freshwater or coastal wetlands; (4) threatened or endangered species; and (5) discharges to public storm sewer systems.

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 Clean Water Act:

A. 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 wetland area on each lot is marked on the ground and wetland deed restrictions are executed and recorded as described in Finding 5.

B. The proposed activity will not violate any state water quality law including those governing the classification of the State's waters.

THEREFORE, the Department APPROVES the above noted application of SCHOONER VENTURES III, LLC to construct a stormwater management system for (activity) as described in Finding 1, Maine, SUBJECT TO THE FOLLOWING CONDITIONS, and all applicable standards and regulations:

1. The Standard Conditions of Approval, a copy attached.
2. In addition to any specific erosion control measures described in this or previous orders, the applicant shall take all necessary actions to ensure that its activities or those of its do not result in noticeable erosion of soils or fugitive dust emissions on the site during the construction and operation 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. The applicant shall retain its design engineer or another qualified engineer to oversee the construction of the stormwater management system according to the details and notes

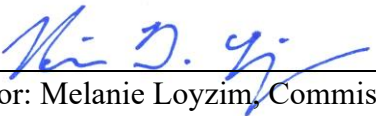
specified on the approved plans. Within 30 days of completion of the entire system or at least once per year, the applicant shall submit a log of inspection reports detailing the items inspected, photographs taken, and dates of each inspection to the Department for review.

5. The applicant shall submit to the Department for review copies of as-built drawings, signed and stamped by a professional engineer licensed in Maine, for stormwater treatment BMPs within six months of their completion.
6. The applicant shall include in all conveyances of subdivision lot deed restrictions making the conveyance subject to all terms and conditions of this Department permit, particularly those conditions related to maintenance of the stormwater management system, buffer and wetland areas. These terms and conditions may be incorporated by specific and prominent reference to the permit in the deed. All conveyances required by this approval to contain restrictions shall include in the restrictions the requirement that any subsequent conveyance shall specifically include the same restrictions.
7. The applicant shall give a copy of this permit, including the standard conditions, and a copy of the approved subdivision plan to each lot buyer at least 14 days prior to the date of closing on the sale or lease of the lot. The applicant also shall maintain a file containing signed and dated statements by lot buyers or lessees acknowledging that they have received and read their copy of this permit and the subdivision plan prior to the closing on their lot. The file shall also contain a copy of the signed and dated deed or lease containing the restrictive covenants required under this approval. The applicant shall make this file available for inspection upon request by the Department.
8. The applicant shall execute and record the required deed restriction, including the appropriate stormwater buffer and wetland deed restrictions, prior to the start of construction on any lot. The applicant shall submit a copy of the recorded deed restriction, including the plot plan, to the Department within 60 days of its recording.
9. Prior to the start of construction, the location of forested buffers and wetland areas on individual lots shall be permanently marked on the ground.
10. The applicant shall retain the services of a third-party inspector in accordance with the Special Condition for Third-Party Inspection Program, which is attached to this Order.

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 23RD DAY OF JUNE, 2021.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: 
For: Melanie Loyzim, Commissioner

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES.

AJS/L29196ANBN/87505, 87506

FILED
June 24th, 2021
State of Maine
Board of Environmental Protection

STORMWATER STANDARD CONDITIONS**STRICT CONFORMANCE WITH THE STANDARD AND SPECIAL
CONDITIONS OF THIS APPROVAL IS NECESSARY FOR THE PROJECT
TO MEET THE STATUTORY CRITERIA FOR APPROVAL**

- (1) Approval of variations from plans. The granting of this approval 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 must be reviewed and approved by the department prior to implementation. Any variation undertaken without approval of the department is in violation of 38 M.R.S.A. §420-D(8) and is subject to penalties under 38 M.R.S.A. §349.
- (2) Compliance with all terms and conditions of approval. The applicant shall submit all reports and information requested by the department demonstrating that the applicant has complied or will comply with all terms and conditions of this approval. All preconstruction terms and conditions must be met before construction begins.
- (3) Advertising. Advertising relating to matters included in this application may not refer to this approval unless it notes that the approval has been granted WITH CONDITIONS, and indicates where copies of those conditions may be obtained.
- (4) Transfer of project. Unless otherwise provided in this approval, the applicant may not sell, lease, assign, or otherwise transfer the project or any portion thereof without written approval by the department where the purpose or consequence of the transfer is to transfer any of the obligations of the developer as incorporated in this approval. Such approval may only be granted if the applicant or transferee demonstrates to the department that the transferee agrees to comply with conditions of this approval and the proposals and plans contained in the application and supporting documents submitted by the applicant. Approval of a transfer of the permit must be applied for no later than two weeks after any transfer of property subject to the license.
- (5) Time frame for approvals. If the construction or operation of the activity is not begun within four years, this approval shall lapse and the applicant shall reapply to the department for a new approval. The applicant may not begin construction or operation of the project until a new approval is granted. A reapplication for approval 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.
- (6) Certification. Contracts must specify that "all work is to comply with the conditions of the Stormwater Permit." Work done by a contractor or subcontractor pursuant to this approval may not begin before the contractor and any subcontractors have been shown a copy of this approval with the conditions by the developer, and the owner and each contractor and subcontractor has certified, on a form provided by the department, that the approval and conditions have been received and read, and that the work will be carried out in accordance with the approval and conditions. Completed certification forms must be forwarded to the department.
- (7) Maintenance. The components of the stormwater management system must be adequately maintained to ensure that the system operates as designed, and as approved by the department.

- (8) Recertification requirement. Within three months of the expiration of each five-year interval from the date of issuance of the permit, the permittee shall certify the following to the department.
 - (a) 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) 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 facilities.
 - (c) The erosion and stormwater maintenance plan for the site is being implemented as written, or modifications to the plan have been submitted to and approved by the department, and the maintenance log is being maintained.
- (9) Severability. The invalidity or unenforceability of any provision, or part thereof, of this permit shall not affect the remainder of the provision or any other provisions. This permit shall be construed and enforced in all respects as if such invalid or unenforceable provision or part thereof had been omitted.



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.

Special Condition
for
Third Party Inspection Program

THIRD-PARTY INSPECTION PROGRAM

1.0 THE PURPOSE OF THE THIRD-PARTY INSPECTION

As a condition of this permit, the Maine Department of Environmental Protection (MDEP) requires the permit applicant to retain the services of a third-party inspector to monitor compliance with MDEP permit conditions during construction. The objectives of this condition are as follows:

- 1) to ensure that all construction and stabilization activities comply with the permit conditions and the MDEP-approved drawings and specifications,
- 2) to ensure that field decisions regarding erosion control implementation, stormwater system installation, and natural resource protection are based on sound engineering and environmental considerations, and
- 3) to ensure communication between the contractor and MDEP regarding any changes to the development's erosion control plan, stormwater management plan, or final stabilization plan.

This document establishes the inspection program and outlines the responsibilities of the permit applicant, the MDEP, and the inspector.

2.0 SELECTING THE INSPECTOR

At least 30 days prior to starting any construction activity on the site, the applicant will submit the names of at least two inspector candidates to the MDEP. Each candidate must meet the minimum qualifications listed under section 3.0. The candidates may not be employees, partners, or contracted consultants involved with the permitting of the project or otherwise employed by the same company or agency except that the MDEP may accept subcontractors who worked for the project's primary consultant on some aspect of the project such as, but not limited to, completing wetland delineations, identifying significant wildlife habitats, or conducting geotechnical investigations, but who were not directly employed by the applicant, as Third Party inspectors on a case by case basis. The MDEP will have 15 days from receiving the names to select one of the candidates as the inspector or to reject both candidates. If the MDEP rejects both candidates, then the MDEP shall state the particular reasons for the rejections. In this case, the applicant may either dispute the rejection to the Director of the Bureau of Land Resources or start the selection process over by nominating two, new candidates.

3.0 THE INSPECTOR'S QUALIFICATIONS

Each inspector candidate nominated by the applicant shall have the following minimum

qualifications:

- 1) a degree in an environmental science or civil engineering, or other demonstrated expertise,
- 2) a practical knowledge of erosion control practices and stormwater hydrology,
- 3) experience in management or supervision on large construction projects,
- 4) the ability to understand and articulate permit conditions to contractors concerning erosion control or stormwater management,
- 5) the ability to clearly document activities being inspected,
- 6) appropriate facilities and, if necessary, support staff to carry out the duties and responsibilities set forth in section 6.0 in a timely manner, and
- 7) no ownership or financial interest in the development other than that created by being retained as the third-party inspector.

4.0 INITIATING THE INSPECTOR'S SERVICES

The applicant will not formally and finally engage for service any inspector under this permit condition prior to MDEP approval or waiver by omission under section 2.0. No clearing, grubbing, grading, filling, stockpiling, or other construction activity will take place on the development site until the applicant retains the MDEP-approved inspector for service.

5.0 TERMINATING THE INSPECTOR'S SERVICES

The applicant will not terminate the services of the MDEP-approved inspector at any time between commencing construction and completing final site stabilization without first getting written approval to do so from the MDEP.

6.0 THE INSPECTOR'S DUTIES AND RESPONSIBILITIES

The inspector's work shall consist of the duties and responsibilities outlined below.

- 1) Prior to construction, the inspector will become thoroughly familiar with the terms and conditions of the state-issued site permit, natural resources protection permit, or both.
- 2) Prior to construction, the inspector will become thoroughly familiar with the proposed construction schedule, including the timing for installing and removing erosion controls, the timing for constructing and stabilizing any basins or ponds, and the deadlines for completing stabilization of disturbed soils.
- 3) Prior to construction, the inspector will become thoroughly familiar with the project plans and specifications, including those for building detention basins, those for installing the

erosion control measures to be used on the site, and those for temporarily or permanently stabilizing disturbed soils in a timely manner.

- 4) During construction, the inspector will monitor the contractor's installation and maintenance of the erosion control measures called for in the state permit(s) and any additional measures the inspector believes are necessary to prevent sediment discharge to off-site properties or natural resources. This direction will be based on the approved erosion control plan, field conditions at the time of construction, and the natural resources potentially impacted by construction activities.
- 5) During construction, the inspector will monitor the contractor's construction of the stormwater system, including the construction and stabilization of ditches, culverts, detention basins, water quality treatment measures, and storm sewers.
- 6) During construction, the inspector will monitor the contractor's installation of any stream or wetland crossings.
- 7) During construction, the inspector will monitor the contractor's final stabilization of the project site.
- 8) During construction, the inspector will keep logs recording any rain storms at the site, the contractor's activities on the site, discussions with the contractor(s), and possible violations of the permit conditions.
- 9) During construction, the inspector will inspect the project site at least once a week and before and after any significant rain event. The inspector will photograph all protected natural resources both before and after construction and will photograph all areas under construction. All photographs will be identified with, at a minimum the date the photo was taken, the location and the name of the individual taking the photograph. *Note: the frequency of these inspections as contained in this condition may be varied to best address particular project needs.*
- 10) During construction, the inspector will prepare and submit weekly (*or other frequency*) inspection reports to the MDEP.
- 11) During construction, the inspector will notify the designated person at the MDEP immediately of any sediment-laden discharges to a protected natural resource or other significant issues such as the improper construction of a stormwater control structure or the use of construction plans not approved by the MDEP.

7.0 INSPECTION REPORTS

The inspector will submit weekly written reports (*or at another designated frequency*), including photographs of areas that are under construction, on a form provided by the Department to the designated person at the MDEP. Each report will be due at the MDEP by the Friday (*or other designated day*) following the inspection week (Monday through

Sunday).

The weekly report will summarize construction activities and events on the site for the previous week as outlined below.

- 1) The report will state the name of the development, its permit number(s), and the start and end dates for the inspection week (Monday through Sunday).
- 2) The report will state the date(s) and time(s) when the inspector was on the site making inspections.
- 3) The report will state the date(s) and approximate duration(s) of any rainfall events on the site for the week.
- 4) The report will identify and describe any erosion problems that resulted in sediment leaving the property or sediment being discharged into a wetland, brook, stream, river, lake, or public storm sewer system. The report will describe the contractor's actions to repair any damage to other properties or natural resources, actions to eliminate the erosion source, and actions to prevent future sediment discharges from the area.
- 5) The report will list the buildings, roads, parking lots, detention basins, stream crossings or other features open to construction for the week, including those features or areas actively worked and those left unworked (dormant).
- 6) For each area open to construction, the report will list the date of initial soil disturbance for the area.
- 7) For each area open to construction, the report will note which areas were actively worked that week and which were left dormant for the week. For those areas actively worked, the report will briefly state the work performed in the area that week and the progress toward final stabilization of the area – e.g. “grubbing in progress,” “grubbing complete,” “rough grading in progress,” “rough grading complete,” “finish grading in progress,” “finish grading complete,” “permanent seeding completed,” “area fully stable and temporary erosion controls removed,” etc.
- 8) For each area open to construction, the report will list the erosion and sedimentation control measures installed, maintained, or removed during the week.
- 9) For each erosion control measure in-place, the report will note the condition of the measure and any maintenance performed to bring it to standard.

Third Party Inspection Form

**This report is prepared by a Third Party Inspector to meet the requirements of the Third Party Inspector Condition attached as a Special Condition to the Department Order that was issued for the project identified below. The information in this report/form is not intended to serve as a determination of whether the project is in compliance with the Department permit or other applicable Department laws and rules.
Only Department staff may make that determination.**

TO: <i>PM, Maine DEP (@maine.gov)</i>	FROM:
PROJECT NAME/ LOCATION:	DEP #:
DATE OF INSPECTION:	DATE OF REPORT:
WEATHER:	CONDITIONS:

SITE CHARACTERISTICS:

# ACRES OPEN:	# ACRES ACTIVE:	# ACRES INACTIVE:
LOCATION OF OPEN LAND:	LOCATION OF ACTIVE LAND:	LOCATION OF INACTIVE LAND:
OPEN SINCE:	OPEN SINCE:	OPEN SINCE:

PROGRESS OF WORK:

INSPECTION OF:	Satisfactory	Minor Deviation (corrective action required)	Unsatisfactory (include photos)
STORMWATER CONTROL (VEGETATIVE & STRUCTURAL BMP'S)			
EROSION & SEDIMENTATION CONTROL (TEMPORARY & PERMANENT BMP'S)			
OTHER: (PERMIT CONDITIONS, ENGINEERING DESIGN, ETC.)			

COMMENTS/CORRECTIVE ACTIONS TAKEN (attach additional sheets as necessary):

Photos (must be labeled with date, photographer and location):

Cc:		
<i>Original and all copies were sent by email only.</i>		



DEP INFORMATION SHEET

Appealing a Department Licensing Decision

Dated: March 2012

Contact: (207) 287-2811

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) in an administrative process before the Board of Environmental Protection ("Board"); or (2) in 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.A. § 3451(4)) or a general permit for an offshore wind energy demonstration project (38 M.R.S.A. § 480-HH(1)) or a general permit for a tidal energy demonstration project (38 M.R.S.A. § 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.A. §§ 341-D(4) & 346, the *Maine Administrative Procedure Act*, 5 M.R.S.A. § 11001, and the DEP's *Rules Concerning the Processing of Applications and Other Administrative Matters* ("Chapter 2"), 06-096 CMR 2 (April 1, 2003).

HOW LONG YOU HAVE 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 after 30 calendar days of the date on which the Commissioner's decision was filed with the Board will be rejected.

HOW TO SUBMIT AN APPEAL TO THE BOARD

Signed original appeal documents must be sent to: Chair, Board of Environmental Protection, c/o Department of Environmental Protection, 17 State House Station, Augusta, ME 04333-0017; faxes are acceptable for purposes of meeting the deadline when followed by the Board's receipt of mailed original documents within five (5) working days. Receipt on a particular day must be by 5:00 PM at DEP's offices in Augusta; materials received after 5:00 PM are not considered received until the following day. The person appealing a licensing decision must also send the DEP's Commissioner a copy of the appeal documents and if the person appealing is not the applicant in the license proceeding at issue the applicant must also be sent a copy of the appeal documents. All of the information listed in the next section must be submitted at the time the appeal is filed. Only the extraordinary circumstances described at the end of that section will justify evidence not in the DEP's record at the time of decision being added to the record for consideration by the Board as part of an appeal.

WHAT YOUR APPEAL PAPERWORK MUST CONTAIN

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

1. *Aggrieved Status.* The appeal must explain how the person filing the appeal has standing to maintain an appeal. This requires an explanation of how the person filing the appeal 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.* Specific references and facts regarding the appellant's issues with the decision must be provided in the notice of appeal.
3. *The basis of the objections or challenge.* If possible, specific regulations, statutes or other facts should be referenced. This may include citing omissions of relevant requirements, and errors believed to have been made in interpretations, conclusions, and relevant requirements.
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 arguments specifically raised in the written notice of appeal.
6. *Request for hearing.* The Board will hear presentations on appeals at its regularly scheduled meetings, unless a public hearing on the appeal is requested and granted. A request for public hearing on an appeal must be filed as part of the notice of appeal.
7. *New or additional evidence to be offered.* The Board may allow new or additional evidence, referred to as supplemental evidence, to be considered by the Board in an appeal only when the evidence is relevant and material and that the person seeking to add information to the record can show due diligence in bringing the evidence to the DEP's attention at the earliest possible time in the licensing process or that the evidence itself is newly discovered and could not have been presented earlier in the process. Specific requirements for additional evidence are found in Chapter 2.

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, made easily accessible by DEP. Upon request, the DEP will make the material available during normal working hours, provide space to review the file, and provide 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 questions regarding applicable requirements.
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. 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, including 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, and any materials submitted in response to the appeal will be sent to Board members with a recommendation from DEP staff. Persons filing appeals and interested persons are notified in advance of the date set for Board consideration of an appeal or request for public hearing. 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, a 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.A. § 346(1); 06-096 CMR 2; 5 M.R.S.A. § 11001; & 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. Failure to file a timely appeal will result in the Board's or the Commissioner's decision becoming final.

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.A. § 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.

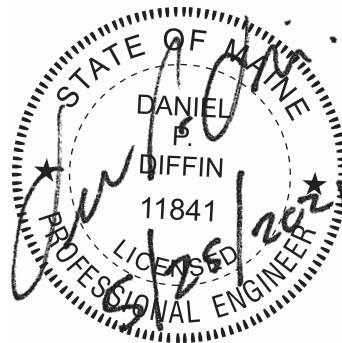
APPENDIX E

STORMWATER MANAGEMENT REPORT

**STORMWATER MANAGEMENT REPORT
BROAD COVE RIDGE CONDOMINIUMS
100 US ROUTE 1
CUMBERLAND, MAINE**

Prepared for

SNELL CONSTRUCTION, LLC
97 Ledge Brook Crossing
Brunswick, Maine



May 2021

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SME
SEVEE & MAHER
ENGINEERS



ENVIRONMENTAL • CIVIL • GEOTECHNICAL • WATER • COMPLIANCE

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**STORMWATER MANAGEMENT REPORT
BROAD COVE RIDGE CONDOMINIUMS
100 US ROUTE 1
CUMBERLAND, MAINE**

1.0 INTRODUCTION

This Stormwater Management Report was prepared by Sevee & Maher Engineers, Inc. (SME) to assess stormwater management design for the construction for the proposed 50-unit condominium building located in Cumberland, Maine. Stormwater design is based on the Town's water quantity objectives identified in Town Ordinances. This project will require a Stormwater Permit by Rule from the MEDEP for disturbed areas in excess of one acre, less than one acre of impervious surface, and less than five acres of developed area.

2.0 PROJECT DESCRIPTION

The Snell Construction, LLC (Applicant) proposes to develop a new 50-unit condominium building called the Broad Cove Ridge project at 100 US Route One in Cumberland, Maine. The existing property is currently owned by Dave Spellman OF 100 US Route One, LLC. The location of the project is shown in Figure 1, Site Location Map.

The 3.16-acre property is bound by Interstate 295 (I-295) to the west, US Route One (US 1) to the east, the Ledgeview Assisted Living facility to the south, and a residential property to the north. The project will include a property transfer between Ledgeview Properties, LLC and 100 US Route 1, LLC for a 0.1-acre (ac) triangular portion of the Ledgeview Properties, LLC property to the 100 US Route 1, LLC parcel. This transfer will expand the property to 3.26 acres and permit the full build-out of the proposed development.

The Broad Cove Ridge condominium project will include a five story, 12,800-square-foot building that will include a mix of one-bedroom, two-bedroom, and three-bedroom condo units to be offered for sale. The site construction will include area for 96 parking spaces with 9 identified as visitor parking and 4 as ADA accessible parking spaces. Of these parking spaces, twenty-two will be within the lower level of the building as covered parking. The project will have site access from a new 24-foot access drive from US Route 1. Additional site improvements include public water and sewer, underground utilities, stormwater management, site lighting, and landscaping.

Construction of the project is expected to result in approximately 76,101 square feet (1.75 acres) of developed area and approximately 43,450 square feet of new impervious surface. Based on review of the Maine Department of Environmental Protection (MEDEP) requirements, this project will require a MEDEP Stormwater Permit by Rule (PBR) permit prior to the start of construction.



BASEMAP ADAPTED FROM 7.5 MIN USGS TOPO QUADS
YARMOUTH, ME - 1975
PORTLAND-EAST, ME - 1975



FIGURE 1
SITE LOCATION MAP
BROAD COVE RIDGE CONDOMINIUMS
CUMBERLAND, MAINE

SME
SEVEE & MAHER
ENGINEERS

3.0 SITE WATERSHED

On-site soils were identified using the Natural Resources Conservation Service (NRCS) soil information for Cumberland and Part of Oxford County, Maine. A copy of the custom Soil Resource Report is included in Appendix A of this report. The report includes a soil map for the project area. Soil mapping information is also included in the project plan sets.

The soil within the watersheds consists of Suffield (SuE2) silt loam, Lyman-Tunbridge complex, (HrB/HrC), Hartland (HfC2) very fine sandy loam, and Lyman-Abram complex (HsC). Soil natural drainage classifications range from "Somewhat excessively drained" to "Moderately well drained." Hydrologic soil groups range from Type B to Type D.

The site is currently undeveloped woods and generally slopes from a high point southeast of the property to the north off the property toward an unnamed tributary to Chenery Brook. The slopes range from 5 to 20 percent. The east portion of the site drains via overland flow to a stream which drains off the property at Analysis Point 1 (AP-1) for the purposes of this analysis. The stream and analysis point convey runoff from off the property to the south through an existing culvert as well as flow from roadside drainage along US 1. There is also an existing culvert that conveys runoff from east of US 1 to the northeast portion of the site that enters the stream before leaving the property to the north.

The west portion of the subject area drains to the west via overland flow to shallow concentrated flow which eventually drains offsite to a wetland complex to the northwest. The drainage off the west side of the site is identified as Analysis Point 2 (AP-2) for the purposes of this analysis.

The areas draining to AP1 in post developed conditions will generally flow similar to existing conditions. The proposed building is a flat roof and will drain through a roof drain to a detention pond east of the proposed building. The front entrance parking area will drain into a closed system and outlet to the detention pond as well. These flows will be attenuated to control peak flows from the development on the property before the stream leaves the site. An open bottomed stream crossing will be constructed to provide adequate flow space so the stream can flow freely and convey the off-site flows from the south. The off-site flows were not included in the peak flow analysis below, but were evaluated to evaluate the opening of the precast stream crossing.

The flow patterns to AP2 will include a closed storm drain system that will convey flow from the side and rear parking areas prior to outletting into a riprap apron on the northwest portion of the property. The total area to AP2 was reduced in post development conditions to control peak flows to the west of the property.

Stormwater management plans identify the on-site drainage patterns before and after development (see Drawings D-100 and D-101). These drawings are included in the project plan set for reference. Appendix B provides pre-development stormwater calculations and Appendix C includes post-development

calculations. These calculations were prepared using TR-20 methodologies within the HydroCAD Version 10.0 computer stormwater modeling system by Applied Microcomputer Systems of Chocorua, New Hampshire.

4.0 STORMWATER QUALITY ANALYSIS

As previously outlined, stormwater treatment will not be required for this project based on MEDEP Chapter 500 standards. Based on the size of the project and the scope of proposed development, SME does not anticipate that development of the parcel will adversely impact the quality of stormwater runoff from the property. New construction will include clearing the site, a proposed paved parking lot, building, concrete transformer pad, and stormwater distribution systems.

This project is designed to meet basic standards outlined in MEDEP Chapter 500 standards, and construction will adhere to MEDEP Best Management Practices (BMPs) for erosion and sedimentation control.

5.0 FLOODING STANDARDS

Stormwater quantity is managed to the maximum extent practicable through minimizing the amount of impervious area on the site, revegetating the cleared and grubbed area with grass, and a new detention pond area east of the proposed building.

The stormwater model for this project was developed to size the water quality treatment BMPs and to determine peak flow rates to AP-1 and AP-2. Stormwater peak flow rates were modeled for the 2-, 10-, and 25-year/24-hour storm events with Type III Soil Conservation Service rainfall distribution, using the HydroCAD computer modeling system by Applied Microcomputer Systems of Chocorua, New Hampshire. The peak flow rates are summarized in Table 1. Rainfall intensities were taken from Appendix H of MEDEP's Chapter 500 for each of the storms. Copies of the calculations for the pre-development are in Appendix B and post-development models are provided in Appendix C.

TABLE 1
STORMWATER QUANTITY SUMMARY

	2-Year Storm		10-Year Storm		25-Year Storm	
	Existing	Proposed	Existing	Proposed	Existing	Proposed
Analysis Point 1 (cfs)	2..35	2.49	4.88	4.76	7.07	6.68
Analysis Point 2 (cfs)	2.11	2.79	4.49	5.08	6.55	6.99

Site drainage from the proposed development will generally follow the pre-development conditions. As outlined in Table 1, our model indicates similar peak flow rates at AP-1 with an insignificant increase at Analysis Point 1 during the 2-year storm and a decrease during the 10-year and 25-year storms. There is a minor increase at AP-2 during the three storms between 0.44 cfs and 0.68 cfs. The drainage area to this analysis point was reduced from predevelopment conditions to post development to minimize flows at this analysis point. The downstream drainage includes stable vegetated waterways that the minor increase in peak flow rates will not adversely effect.

6.0 CONCLUSION

The stormwater management for the Broad Cove Ridge Condominiums project was designed in accordance with Town Ordinances stormwater standards and will have no adverse effects on downstream drainage or abutting properties.

APPENDIX A

NRCS SOIL SURVEY



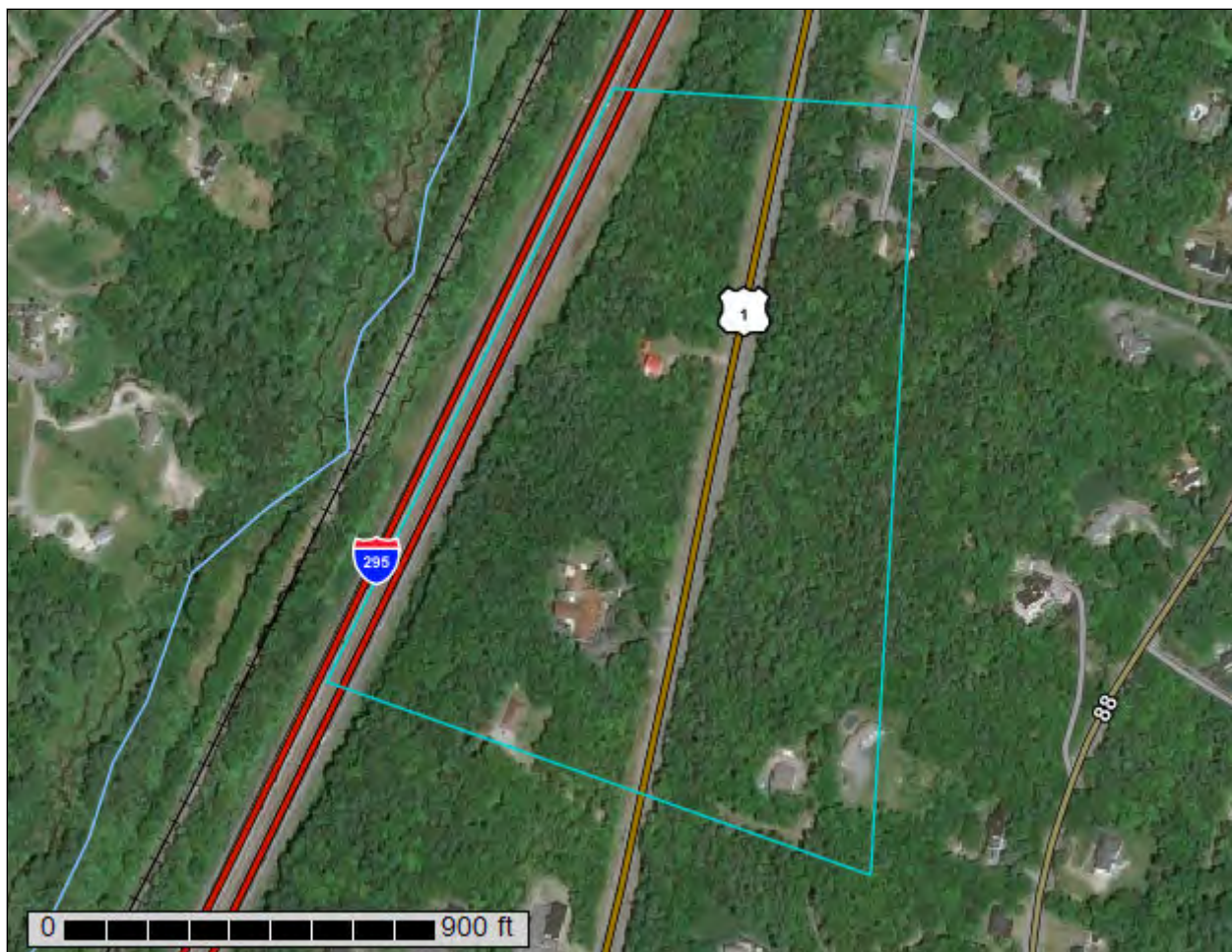
United States
Department of
Agriculture

NRCS

Natural
Resources
Conservation
Service

A product of the National
Cooperative Soil Survey,
a joint effort of the United
States Department of
Agriculture and other
Federal agencies, State
agencies including the
Agricultural Experiment
Stations, and local
participants

Custom Soil Resource Report for Cumberland County and Part of Oxford County, Maine



April 5, 2021

Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (<http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/>) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (<https://offices.sc.egov.usda.gov/locator/app?agency=nrcs>) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, age, disability, and where applicable, sex, marital status, familial status, parental status, religion, sexual orientation, genetic information, political beliefs, reprisal, or because all or a part of an individual's income is derived from any public assistance program. (Not all prohibited bases apply to all programs.) Persons with disabilities who require

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Custom Soil Resource Report

identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Custom Soil Resource Report
Soil Map



Custom Soil Resource Report

MAP LEGEND

Area of Interest (AOI)

 Area of Interest (AOI)

Soils

 Soil Map Unit Polygons

 Soil Map Unit Lines

 Soil Map Unit Points

Special Point Features

 Blowout

 Borrow Pit

 Clay Spot

 Closed Depression

 Gravel Pit

 Gravelly Spot

 Landfill

 Lava Flow

 Marsh or swamp

 Mine or Quarry

 Miscellaneous Water

 Perennial Water

 Rock Outcrop

 Saline Spot

 Sandy Spot

 Severely Eroded Spot

 Sinkhole

 Slide or Slip

 Sodic Spot

 Spoil Area

 Stony Spot

 Very Stony Spot

 Wet Spot

 Other

 Special Line Features

Water Features

 Streams and Canals

Transportation

 Rails

 Interstate Highways

 US Routes

 Major Roads

 Local Roads

Background

 Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Cumberland County and Part of Oxford County, Maine
Survey Area Data: Version 17, Jun 5, 2020

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

Date(s) aerial images were photographed: Jun 7, 2019—Jul 2, 2019

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background

MAP LEGEND

MAP INFORMATION

imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
Au	Au Gres loamy sand	0.4	1.1%
BgB	Nicholville very fine sandy loam, 0 to 8 percent slopes	3.8	9.2%
BuB	Lamoine silt loam, 3 to 8 percent slopes	0.1	0.2%
HfC2	Hartland very fine sandy loam, 8 to 15 percent slopes, eroded	2.6	6.1%
HrB	Lyman-Tunbridge complex, 0 to 8 percent slopes, rocky	7.0	16.8%
HrC	Lyman-Tunbridge complex, 8 to 15 percent slopes, rocky	4.4	10.5%
HsB	Lyman-Abram complex, 0 to 8 percent slopes, very rocky	3.3	7.8%
HsC	Lyman-Abram complex, 8 to 15 percent slopes, very rocky	14.9	35.8%
PbC	Paxton fine sandy loam, 8 to 15 percent slopes	0.5	1.3%
Sn	Scantic silt loam, 0 to 3 percent slopes	0.1	0.2%
SuE2	Suffield silt loam, 25 to 45 percent slopes, eroded	4.6	10.9%
Totals for Area of Interest		41.6	100.0%

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called

noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can

Custom Soil Resource Report

be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Cumberland County and Part of Oxford County, Maine

Au—Au Gres loamy sand

Map Unit Setting

National map unit symbol: blgr
Elevation: 10 to 2,200 feet
Mean annual precipitation: 29 to 50 inches
Mean annual air temperature: 37 to 46 degrees F
Frost-free period: 70 to 160 days
Farmland classification: Not prime farmland

Map Unit Composition

Au gres and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Au Gres

Setting

Landform: Outwash plains
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Talf
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Sandy glaciofluvial deposits derived from granite and gneiss

Typical profile

H1 - 0 to 10 inches: loamy sand
H2 - 10 to 32 inches: loamy sand
H3 - 32 to 65 inches: sand

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Poorly drained
Capacity of the most limiting layer to transmit water (Ksat): High (2.00 to 6.00 in/hr)
Depth to water table: About 0 to 18 inches
Frequency of flooding: None
Frequency of ponding: None
Available water capacity: Low (about 3.6 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 4w
Hydrologic Soil Group: A/D
Hydric soil rating: Yes

Minor Components

Saugatuck

Percent of map unit: 6 percent
Landform: Outwash plains
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Talf

Custom Soil Resource Report

Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: Yes

Deerfield

Percent of map unit: 4 percent
Landform: Outwash plains
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Rise
Down-slope shape: Convex
Across-slope shape: Convex
Hydric soil rating: No

Scantic

Percent of map unit: 2 percent
Landform: Coastal plains
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Dip
Down-slope shape: Concave
Across-slope shape: Concave
Hydric soil rating: Yes

Walpole

Percent of map unit: 2 percent
Landform: Outwash plains
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Talf
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: Yes

Windsor

Percent of map unit: 1 percent
Landform: Outwash plains
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Rise
Down-slope shape: Convex
Across-slope shape: Convex
Hydric soil rating: No

BgB—Nicholville very fine sandy loam, 0 to 8 percent slopes

Map Unit Setting

National map unit symbol: 2yjg5
Elevation: 20 to 2,300 feet
Mean annual precipitation: 34 to 50 inches
Mean annual air temperature: 37 to 45 degrees F
Frost-free period: 90 to 160 days
Farmland classification: Farmland of statewide importance

Map Unit Composition

Nicholville and similar soils: 85 percent

Minor components: 15 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Nicholville

Setting

Landform: Lakebeds (relict)

Landform position (two-dimensional): Backslope

Landform position (three-dimensional): Side slope

Down-slope shape: Linear

Across-slope shape: Linear

Parent material: Coarse-silty glaciomarine deposits

Typical profile

Ap - 0 to 7 inches: very fine sandy loam

Bs - 7 to 19 inches: very fine sandy loam

BC - 19 to 30 inches: very fine sandy loam

C - 30 to 65 inches: loamy very fine sand

Properties and qualities

Slope: 0 to 8 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Moderately well drained

Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.14 to 1.42 in/hr)

Depth to water table: About 18 to 30 inches

Frequency of flooding: None

Frequency of ponding: None

Maximum salinity: Nonsaline (0.0 to 1.9 mmhos/cm)

Available water capacity: High (about 10.3 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 2e

Hydrologic Soil Group: C

Hydric soil rating: No

Minor Components

Roundabout, somewhat poorly drained

Percent of map unit: 5 percent

Landform: Lakebeds (relict)

Landform position (two-dimensional): Footslope, toeslope

Landform position (three-dimensional): Base slope

Down-slope shape: Linear

Across-slope shape: Linear

Hydric soil rating: No

Croghan

Percent of map unit: 5 percent

Landform: Lakebeds (relict)

Landform position (two-dimensional): Backslope

Landform position (three-dimensional): Side slope

Down-slope shape: Linear

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Across-slope shape: Linear

Hydric soil rating: No

Salmon

Percent of map unit: 3 percent

Landform: Lakebeds (relict)

Landform position (two-dimensional): Backslope, summit

Landform position (three-dimensional): Side slope, crest

Down-slope shape: Linear

Across-slope shape: Convex

Hydric soil rating: No

Roundabout

Percent of map unit: 2 percent

Landform: Lakebeds (relict)

Landform position (two-dimensional): Footslope, toeslope

Landform position (three-dimensional): Base slope

Down-slope shape: Linear

Across-slope shape: Concave

Hydric soil rating: Yes

BuB—Lamoine silt loam, 3 to 8 percent slopes

Map Unit Setting

National map unit symbol: 2t0kc

Elevation: 10 to 490 feet

Mean annual precipitation: 33 to 60 inches

Mean annual air temperature: 36 to 52 degrees F

Frost-free period: 90 to 160 days

Farmland classification: Farmland of statewide importance

Map Unit Composition

Lamoine and similar soils: 85 percent

Minor components: 15 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Lamoine

Setting

Landform: Marine terraces, river valleys

Landform position (two-dimensional): Footslope

Landform position (three-dimensional): Base slope

Down-slope shape: Linear

Across-slope shape: Linear

Parent material: Fine glaciomarine deposits

Typical profile

Ap - 0 to 7 inches: silt loam

Bw - 7 to 13 inches: silt loam

Bg - 13 to 24 inches: silty clay loam

Cg - 24 to 65 inches: silty clay

Properties and qualities

Slope: 3 to 8 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Somewhat poorly drained
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.14 in/hr)
Depth to water table: About 6 to 17 inches
Frequency of flooding: None
Frequency of ponding: None
Maximum salinity: Nonsaline (0.0 to 1.9 mmhos/cm)
Available water capacity: Moderate (about 7.6 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3w
Hydrologic Soil Group: C/D
Hydric soil rating: No

Minor Components

Scantic

Percent of map unit: 10 percent
Landform: Marine terraces, river valleys
Landform position (two-dimensional): Toeslope, footslope
Landform position (three-dimensional): Base slope
Down-slope shape: Linear
Across-slope shape: Concave
Hydric soil rating: Yes

Buxton

Percent of map unit: 3 percent
Landform: Marine terraces, river valleys
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Linear
Across-slope shape: Convex
Hydric soil rating: No

Ragmuff

Percent of map unit: 1 percent
Landform: Marine terraces, river valleys
Landform position (two-dimensional): Backslope, shoulder
Landform position (three-dimensional): Side slope, base slope
Down-slope shape: Convex
Across-slope shape: Convex
Hydric soil rating: No

Biddeford

Percent of map unit: 1 percent
Landform: Marine terraces, river valleys
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Base slope
Down-slope shape: Concave
Across-slope shape: Concave
Ecological site: F144BY002ME - Marine Terrace Depression
Hydric soil rating: Yes

HfC2—Hartland very fine sandy loam, 8 to 15 percent slopes, eroded

Map Unit Setting

National map unit symbol: blhc
Elevation: 0 to 2,500 feet
Mean annual precipitation: 34 to 50 inches
Mean annual air temperature: 37 to 46 degrees F
Frost-free period: 60 to 160 days
Farmland classification: Not prime farmland

Map Unit Composition

Hartland and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Hartland

Setting

Landform: Lakebeds
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Coarse-silty glaciolacustrine deposits

Typical profile

H1 - 0 to 9 inches: very fine sandy loam
H2 - 9 to 29 inches: silt loam
H3 - 29 to 65 inches: silt loam

Properties and qualities

Slope: 8 to 15 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high
(0.60 to 2.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water capacity: High (about 11.8 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3e
Hydrologic Soil Group: B
Hydric soil rating: No

Minor Components

Belgrade

Percent of map unit: 6 percent
Landform: Lakebeds
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Buxton

Percent of map unit: 3 percent
Landform: Lakebeds
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Tunbridge

Percent of map unit: 2 percent
Landform: Lakebeds
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Tread
Down-slope shape: Convex
Across-slope shape: Convex
Hydric soil rating: No

Hollis

Percent of map unit: 2 percent
Landform: Lakebeds
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Tread
Down-slope shape: Convex
Across-slope shape: Convex
Hydric soil rating: No

Hartland, slopes >15%

Percent of map unit: 1 percent
Landform: Lakebeds
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Riser
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Hartland, slopes <8%

Percent of map unit: 1 percent
Landform: Lakebeds
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

HrB—Lyman-Tunbridge complex, 0 to 8 percent slopes, rocky

Map Unit Setting

National map unit symbol: 2x1cx

Elevation: 0 to 520 feet

Mean annual precipitation: 36 to 65 inches

Mean annual air temperature: 36 to 52 degrees F

Frost-free period: 90 to 160 days

Farmland classification: Farmland of statewide importance

Map Unit Composition

Lyman and similar soils: 50 percent

Tunbridge and similar soils: 30 percent

Minor components: 20 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Lyman

Setting

Landform: Ridges, hills

Landform position (two-dimensional): Shoulder, backslope, summit

Landform position (three-dimensional): Crest, nose slope

Down-slope shape: Convex

Across-slope shape: Convex

Parent material: Loamy supraglacial till derived from granite and gneiss and/or
loamy supraglacial till derived from phyllite and/or loamy supraglacial till
derived from mica schist

Typical profile

Oe - 0 to 1 inches: moderately decomposed plant material

A - 1 to 3 inches: loam

E - 3 to 5 inches: fine sandy loam

Bhs - 5 to 7 inches: loam

Bs1 - 7 to 11 inches: loam

Bs2 - 11 to 18 inches: channery loam

R - 18 to 79 inches: bedrock

Properties and qualities

Slope: 0 to 8 percent

Surface area covered with cobbles, stones or boulders: 1.5 percent

Depth to restrictive feature: 11 to 24 inches to lithic bedrock

Drainage class: Somewhat excessively drained

Capacity of the most limiting layer to transmit water (Ksat): Very low to high (0.00
to 14.03 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Available water capacity: Low (about 3.2 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 6s

Hydrologic Soil Group: D

Hydric soil rating: No

Description of Tunbridge

Setting

Landform: Hills, ridges

Landform position (two-dimensional): Backslope, shoulder, summit

Landform position (three-dimensional): Side slope, crest

Down-slope shape: Linear

Across-slope shape: Convex

Parent material: Loamy supraglacial till derived from granite and gneiss and/or
loamy supraglacial till derived from phyllite and/or loamy supraglacial till
derived from mica schist

Typical profile

Oe - 0 to 3 inches: moderately decomposed plant material

Oa - 3 to 5 inches: highly decomposed plant material

E - 5 to 8 inches: fine sandy loam

Bhs - 8 to 11 inches: fine sandy loam

Bs - 11 to 26 inches: fine sandy loam

BC - 26 to 28 inches: fine sandy loam

R - 28 to 79 inches: bedrock

Properties and qualities

Slope: 3 to 8 percent

Surface area covered with cobbles, stones or boulders: 1.5 percent

Depth to restrictive feature: 21 to 41 inches to lithic bedrock

Drainage class: Well drained

Capacity of the most limiting layer to transmit water (Ksat): Very low to high (0.00
to 14.03 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Available water capacity: Low (about 5.6 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 6s

Hydrologic Soil Group: C

Hydric soil rating: No

Minor Components

Ragmuff

Percent of map unit: 10 percent

Landform: Ridges, hills

Landform position (two-dimensional): Backslope, footslope

Landform position (three-dimensional): Base slope, side slope

Down-slope shape: Linear

Across-slope shape: Linear

Hydric soil rating: No

Abram

Percent of map unit: 5 percent
Landform: Hills, ridges
Landform position (two-dimensional): Summit, shoulder
Landform position (three-dimensional): Nose slope, crest
Down-slope shape: Convex
Across-slope shape: Convex
Hydric soil rating: No

Peru

Percent of map unit: 4 percent
Landform: Hills, ridges
Landform position (two-dimensional): Footslope, backslope
Landform position (three-dimensional): Base slope, side slope
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Rock outcrop

Percent of map unit: 1 percent
Landform: Hills, ridges
Landform position (two-dimensional): Shoulder, summit
Landform position (three-dimensional): Nose slope, crest, free face
Down-slope shape: Convex
Across-slope shape: Convex
Hydric soil rating: No

HrC—Lyman-Tunbridge complex, 8 to 15 percent slopes, rocky

Map Unit Setting

National map unit symbol: 2x1cy
Elevation: 0 to 520 feet
Mean annual precipitation: 36 to 65 inches
Mean annual air temperature: 36 to 52 degrees F
Frost-free period: 90 to 160 days
Farmland classification: Not prime farmland

Map Unit Composition

Lyman and similar soils: 45 percent
Tunbridge and similar soils: 40 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Lyman

Setting

Landform: Hills, ridges
Landform position (two-dimensional): Backslope, shoulder, summit
Landform position (three-dimensional): Crest, nose slope

Custom Soil Resource Report

Down-slope shape: Convex

Across-slope shape: Convex

Parent material: Loamy supraglacial till derived from granite and gneiss and/or loamy supraglacial till derived from phyllite and/or loamy supraglacial till derived from mica schist

Typical profile

Oe - 0 to 1 inches: moderately decomposed plant material

A - 1 to 3 inches: loam

E - 3 to 5 inches: fine sandy loam

Bhs - 5 to 7 inches: loam

Bs1 - 7 to 11 inches: loam

Bs2 - 11 to 18 inches: channery loam

R - 18 to 79 inches: bedrock

Properties and qualities

Slope: 8 to 15 percent

Surface area covered with cobbles, stones or boulders: 1.5 percent

Depth to restrictive feature: 11 to 24 inches to lithic bedrock

Drainage class: Somewhat excessively drained

Capacity of the most limiting layer to transmit water (Ksat): Very low to high (0.00 to 14.03 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Available water capacity: Low (about 3.2 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 6s

Hydrologic Soil Group: D

Hydric soil rating: No

Description of Tunbridge

Setting

Landform: Hills, ridges

Landform position (two-dimensional): Backslope, summit, shoulder

Landform position (three-dimensional): Side slope, crest

Down-slope shape: Linear

Across-slope shape: Convex

Parent material: Loamy supraglacial till derived from granite and gneiss and/or loamy supraglacial till derived from phyllite and/or loamy supraglacial till derived from mica schist

Typical profile

Oe - 0 to 3 inches: moderately decomposed plant material

Oa - 3 to 5 inches: highly decomposed plant material

E - 5 to 8 inches: fine sandy loam

Bhs - 8 to 11 inches: fine sandy loam

Bs - 11 to 26 inches: fine sandy loam

BC - 26 to 28 inches: fine sandy loam

R - 28 to 79 inches: bedrock

Properties and qualities

Slope: 8 to 15 percent

Surface area covered with cobbles, stones or boulders: 1.5 percent

Custom Soil Resource Report

Depth to restrictive feature: 21 to 41 inches to lithic bedrock

Drainage class: Well drained

Capacity of the most limiting layer to transmit water (Ksat): Very low to high (0.00 to 14.03 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Available water capacity: Low (about 5.6 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 6s

Hydrologic Soil Group: C

Hydric soil rating: No

Minor Components

Ragmuff

Percent of map unit: 5 percent

Landform: Hills, ridges

Landform position (two-dimensional): Backslope, footslope

Landform position (three-dimensional): Base slope, side slope

Down-slope shape: Linear

Across-slope shape: Linear

Hydric soil rating: No

Abram

Percent of map unit: 5 percent

Landform: Ridges, hills

Landform position (two-dimensional): Summit, shoulder

Landform position (three-dimensional): Nose slope, crest

Down-slope shape: Convex

Across-slope shape: Convex

Hydric soil rating: No

Peru

Percent of map unit: 4 percent

Landform: Hills, ridges

Landform position (two-dimensional): Backslope, footslope

Landform position (three-dimensional): Base slope, side slope

Down-slope shape: Linear

Across-slope shape: Linear

Hydric soil rating: No

Rock outcrop

Percent of map unit: 1 percent

Landform: Ridges, hills

Landform position (two-dimensional): Shoulder, summit

Landform position (three-dimensional): Nose slope, crest, free face

Down-slope shape: Convex

Across-slope shape: Convex

Hydric soil rating: No

HsB—Lyman-Abram complex, 0 to 8 percent slopes, very rocky

Map Unit Setting

National map unit symbol: 2x1d0

Elevation: 0 to 520 feet

Mean annual precipitation: 36 to 65 inches

Mean annual air temperature: 36 to 52 degrees F

Frost-free period: 90 to 160 days

Farmland classification: Not prime farmland

Map Unit Composition

Lyman and similar soils: 50 percent

Abram and similar soils: 30 percent

Minor components: 20 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Lyman

Setting

Landform: Hills, ridges

Landform position (two-dimensional): Backslope, shoulder, summit

Landform position (three-dimensional): Crest, nose slope

Down-slope shape: Convex

Across-slope shape: Convex

Parent material: Loamy supraglacial till derived from granite and gneiss and/or
loamy supraglacial till derived from phyllite and/or loamy supraglacial till
derived from mica schist

Typical profile

Oe - 0 to 1 inches: moderately decomposed plant material

A - 1 to 3 inches: loam

E - 3 to 5 inches: fine sandy loam

Bhs - 5 to 7 inches: loam

Bs1 - 7 to 11 inches: loam

Bs2 - 11 to 18 inches: channery loam

R - 18 to 79 inches: bedrock

Properties and qualities

Slope: 0 to 8 percent

Surface area covered with cobbles, stones or boulders: 1.5 percent

Depth to restrictive feature: 11 to 24 inches to lithic bedrock

Drainage class: Somewhat excessively drained

Capacity of the most limiting layer to transmit water (Ksat): Very low to high (0.00
to 14.03 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Available water capacity: Low (about 3.2 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6s
Hydrologic Soil Group: D
Hydric soil rating: No

Description of Abram

Setting

Landform: Ridges, hills
Landform position (two-dimensional): Summit, shoulder
Landform position (three-dimensional): Nose slope, crest
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Loamy subglacial till

Typical profile

Oa - 0 to 2 inches: highly decomposed plant material
E - 2 to 3 inches: loam
Bs - 3 to 6 inches: loam
R - 6 to 79 inches: bedrock

Properties and qualities

Slope: 0 to 8 percent
Surface area covered with cobbles, stones or boulders: 1.5 percent
Depth to restrictive feature: 3 to 13 inches to lithic bedrock
Drainage class: Excessively drained
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.14 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water capacity: Very low (about 1.1 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7s
Hydrologic Soil Group: D
Hydric soil rating: No

Minor Components

Ragmuff

Percent of map unit: 6 percent
Landform: Ridges, hills
Landform position (two-dimensional): Backslope, footslope
Landform position (three-dimensional): Base slope, side slope
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Tunbridge

Percent of map unit: 5 percent
Landform: Hills, ridges
Landform position (two-dimensional): Backslope, shoulder, footslope
Landform position (three-dimensional): Side slope, crest

Custom Soil Resource Report

Down-slope shape: Linear
Across-slope shape: Convex
Hydric soil rating: No

Hogback

Percent of map unit: 3 percent
Landform: Mountains
Landform position (two-dimensional): Backslope, shoulder
Landform position (three-dimensional): Mountaintop, upper third of mountainflank
Down-slope shape: Linear
Across-slope shape: Convex
Hydric soil rating: No

Rock outcrop

Percent of map unit: 3 percent
Landform: Ridges, hills
Landform position (two-dimensional): Shoulder, summit
Landform position (three-dimensional): Free face, nose slope, crest
Down-slope shape: Convex
Across-slope shape: Convex
Hydric soil rating: No

Knob lock

Percent of map unit: 3 percent
Landform: Hills, ridges
Landform position (two-dimensional): Summit, shoulder
Landform position (three-dimensional): Crest, nose slope, free face
Down-slope shape: Convex
Across-slope shape: Convex
Hydric soil rating: No

HsC—Lyman-Abram complex, 8 to 15 percent slopes, very rocky

Map Unit Setting

National map unit symbol: 2x1d1
Elevation: 0 to 520 feet
Mean annual precipitation: 36 to 65 inches
Mean annual air temperature: 36 to 52 degrees F
Frost-free period: 90 to 160 days
Farmland classification: Not prime farmland

Map Unit Composition

Lyman and similar soils: 45 percent
Abram and similar soils: 35 percent
Minor components: 20 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Lyman

Setting

Landform: Hills, ridges

Landform position (two-dimensional): Backslope, shoulder, summit

Landform position (three-dimensional): Crest, nose slope

Down-slope shape: Convex

Across-slope shape: Convex

Parent material: Loamy supraglacial till derived from granite and gneiss and/or loamy supraglacial till derived from phyllite and/or loamy supraglacial till derived from mica schist

Typical profile

Oe - 0 to 1 inches: moderately decomposed plant material

A - 1 to 3 inches: loam

E - 3 to 5 inches: fine sandy loam

Bhs - 5 to 7 inches: loam

Bs1 - 7 to 11 inches: loam

Bs2 - 11 to 18 inches: channery loam

R - 18 to 79 inches: bedrock

Properties and qualities

Slope: 8 to 15 percent

Surface area covered with cobbles, stones or boulders: 1.5 percent

Depth to restrictive feature: 11 to 24 inches to lithic bedrock

Drainage class: Somewhat excessively drained

Capacity of the most limiting layer to transmit water (Ksat): Very low to high (0.00 to 14.03 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Available water capacity: Low (about 3.2 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 6s

Hydrologic Soil Group: D

Hydric soil rating: No

Description of Abram

Setting

Landform: Hills, ridges

Landform position (two-dimensional): Summit, shoulder

Landform position (three-dimensional): Nose slope, crest

Down-slope shape: Convex

Across-slope shape: Convex

Parent material: Loamy subglacial till

Typical profile

Oa - 0 to 2 inches: highly decomposed plant material

E - 2 to 3 inches: loam

Bs - 3 to 6 inches: loam

R - 6 to 79 inches: bedrock

Properties and qualities

Slope: 8 to 15 percent

Custom Soil Resource Report

Surface area covered with cobbles, stones or boulders: 1.5 percent
Depth to restrictive feature: 3 to 13 inches to lithic bedrock
Drainage class: Excessively drained
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.14 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water capacity: Very low (about 1.1 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7s
Hydrologic Soil Group: D
Hydric soil rating: No

Minor Components

Knob lock

Percent of map unit: 6 percent
Landform: Ridges, hills
Landform position (two-dimensional): Summit, shoulder
Landform position (three-dimensional): Crest, nose slope, free face
Down-slope shape: Convex
Across-slope shape: Convex
Hydric soil rating: No

Tunbridge

Percent of map unit: 5 percent
Landform: Hills, ridges
Landform position (two-dimensional): Backslope, footslope, shoulder
Landform position (three-dimensional): Side slope, crest
Down-slope shape: Linear
Across-slope shape: Convex
Hydric soil rating: No

Hogback

Percent of map unit: 4 percent
Landform: Mountains
Landform position (two-dimensional): Backslope, shoulder
Landform position (three-dimensional): Mountaintop, upper third of mountainflank
Down-slope shape: Linear
Across-slope shape: Convex
Hydric soil rating: No

Rock outcrop

Percent of map unit: 3 percent
Landform: Ridges, hills
Landform position (two-dimensional): Shoulder, summit
Landform position (three-dimensional): Free face, nose slope, crest
Down-slope shape: Convex
Across-slope shape: Convex
Hydric soil rating: No

Ragmuff

Percent of map unit: 2 percent

Landform: Ridges, hills
Landform position (two-dimensional): Backslope, footslope
Landform position (three-dimensional): Base slope, side slope
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

PbC—Paxton fine sandy loam, 8 to 15 percent slopes

Map Unit Setting

National map unit symbol: bljg
Elevation: 0 to 3,500 feet
Mean annual precipitation: 34 to 50 inches
Mean annual air temperature: 37 to 46 degrees F
Frost-free period: 100 to 160 days
Farmland classification: Farmland of statewide importance

Map Unit Composition

Paxton and similar soils: 86 percent
Minor components: 14 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Paxton

Setting

Landform: Drumlinoid ridges
Landform position (two-dimensional): Backslope, shoulder
Landform position (three-dimensional): Crest, nose slope
Down-slope shape: Linear
Across-slope shape: Convex
Parent material: Coarse-loamy lodgment till derived from mica schist

Typical profile

H1 - 0 to 8 inches: fine sandy loam
H2 - 8 to 20 inches: fine sandy loam
H3 - 20 to 65 inches: fine sandy loam

Properties and qualities

Slope: 8 to 15 percent
Depth to restrictive feature: 18 to 40 inches to densic material
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.60 in/hr)
Depth to water table: About 30 to 42 inches
Frequency of flooding: None
Frequency of ponding: None
Available water capacity: Very low (about 2.9 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Custom Soil Resource Report

Land capability classification (nonirrigated): 3e
Hydrologic Soil Group: C
Hydric soil rating: No

Minor Components

Woodbridge

Percent of map unit: 4 percent
Landform: Drumlinoid ridges
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Colonel

Percent of map unit: 3 percent
Landform: Drumlinoid ridges, till plains
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Convex
Across-slope shape: Linear
Hydric soil rating: No

Berkshire

Percent of map unit: 3 percent
Landform: Drumlinoid ridges
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Nose slope
Down-slope shape: Linear
Across-slope shape: Convex
Hydric soil rating: No

Lyman

Percent of map unit: 2 percent
Landform: Drumlinoid ridges
Landform position (two-dimensional): Shoulder
Landform position (three-dimensional): Crest
Down-slope shape: Convex
Across-slope shape: Convex
Hydric soil rating: No

Rock outcrop

Percent of map unit: 2 percent
Landform: Drumlinoid ridges
Landform position (two-dimensional): Shoulder
Landform position (three-dimensional): Crest
Down-slope shape: Convex
Across-slope shape: Convex
Hydric soil rating: No

Sn—Scantic silt loam, 0 to 3 percent slopes

Map Unit Setting

National map unit symbol: 2slv3
Elevation: 10 to 900 feet
Mean annual precipitation: 33 to 60 inches
Mean annual air temperature: 39 to 45 degrees F
Frost-free period: 90 to 160 days
Farmland classification: Not prime farmland

Map Unit Composition

Scantic and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Scantic

Setting

Landform: Marine terraces, river valleys
Landform position (three-dimensional): Talf
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Glaciomarine deposits

Typical profile

Ap - 0 to 9 inches: silt loam
Bg1 - 9 to 16 inches: silty clay loam
Bg2 - 16 to 29 inches: silty clay
Cg - 29 to 65 inches: silty clay

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Poorly drained
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.06 in/hr)
Depth to water table: About 0 to 12 inches
Frequency of flooding: None
Frequency of ponding: None
Available water capacity: Moderate (about 6.3 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 4w
Hydrologic Soil Group: D
Hydric soil rating: Yes

Minor Components

Lamoine

Percent of map unit: 8 percent
Landform: River valleys, marine terraces
Landform position (three-dimensional): Riser, rise
Down-slope shape: Convex
Across-slope shape: Linear
Hydric soil rating: No

Biddeford

Percent of map unit: 3 percent
Landform: Marine terraces, river valleys
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Dip
Down-slope shape: Concave
Across-slope shape: Concave, linear
Ecological site: F144BY002ME - Marine Terrace Depression
Hydric soil rating: Yes

Roundabout

Percent of map unit: 2 percent
Landform: River valleys, marine terraces
Landform position (three-dimensional): Tread, talf
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: Yes

Buxton

Percent of map unit: 2 percent
Landform: Marine terraces, river valleys
Landform position (three-dimensional): Riser, rise
Down-slope shape: Convex
Across-slope shape: Linear
Hydric soil rating: No

SuE2—Suffield silt loam, 25 to 45 percent slopes, eroded

Map Unit Setting

National map unit symbol: blk3
Elevation: 10 to 1,500 feet
Mean annual precipitation: 34 to 48 inches
Mean annual air temperature: 43 to 46 degrees F
Frost-free period: 90 to 160 days
Farmland classification: Not prime farmland

Map Unit Composition

Suffield and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Suffield

Setting

Landform: Coastal plains
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Riser
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Fine glaciolacustrine deposits

Typical profile

H1 - 0 to 6 inches: silt loam
H2 - 6 to 23 inches: silt loam
H3 - 23 to 33 inches: silty clay
H4 - 33 to 65 inches: silty clay

Properties and qualities

Slope: 25 to 45 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Moderately well drained
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately high (0.00 to 0.20 in/hr)
Depth to water table: About 18 to 36 inches
Frequency of flooding: None
Frequency of ponding: None
Available water capacity: High (about 9.5 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7e
Hydrologic Soil Group: C
Hydric soil rating: No

Minor Components

Hartland

Percent of map unit: 7 percent
Landform: Coastal plains
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Riser
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Suffield, slopes <25%

Percent of map unit: 4 percent
Landform: Coastal plains
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Riser
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Belgrade

Percent of map unit: 3 percent
Landform: Coastal plains
Landform position (two-dimensional): Backslope

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Landform position (three-dimensional): Riser
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Suffield, slopes >45%

Percent of map unit: 1 percent
Landform: Coastal plains
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Riser
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Soil Information for All Uses

Soil Reports

The Soil Reports section includes various formatted tabular and narrative reports (tables) containing data for each selected soil map unit and each component of each unit. No aggregation of data has occurred as is done in reports in the Soil Properties and Qualities and Suitabilities and Limitations sections.

The reports contain soil interpretive information as well as basic soil properties and qualities. A description of each report (table) is included.

Soil Physical Properties

This folder contains a collection of tabular reports that present soil physical properties. The reports (tables) include all selected map units and components for each map unit. Soil physical properties are measured or inferred from direct observations in the field or laboratory. Examples of soil physical properties include percent clay, organic matter, saturated hydraulic conductivity, available water capacity, and bulk density.

Engineering Properties

This table gives the engineering classifications and the range of engineering properties for the layers of each soil in the survey area.

Hydrologic soil group is a group of soils having similar runoff potential under similar storm and cover conditions. The criteria for determining Hydrologic soil group is found in the National Engineering Handbook, Chapter 7 issued May 2007(<http://directives.sc.egov.usda.gov/OpenNonWebContent.aspx?content=17757.wba>). Listing HSGs by soil map unit component and not by soil series is a new concept for the engineers. Past engineering references contained lists of HSGs by soil series. Soil series are continually being defined and redefined, and the list of soil series names changes so frequently as to make the task of maintaining a single national list virtually impossible. Therefore, the criteria is now used to calculate the HSG using the component soil properties and no such national series lists will be maintained. All such references are obsolete and their use should be discontinued. Soil properties that influence runoff potential are those that influence the minimum rate of infiltration for a bare soil after prolonged wetting and when not frozen. These properties are depth to a seasonal high water table, saturated hydraulic conductivity after prolonged wetting, and depth to a layer with a very slow water transmission

rate. Changes in soil properties caused by land management or climate changes also cause the hydrologic soil group to change. The influence of ground cover is treated independently. There are four hydrologic soil groups, A, B, C, and D, and three dual groups, A/D, B/D, and C/D. In the dual groups, the first letter is for drained areas and the second letter is for undrained areas.

The four hydrologic soil groups are described in the following paragraphs:

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.

Depth to the upper and lower boundaries of each layer is indicated.

Texture is given in the standard terms used by the U.S. Department of Agriculture. These terms are defined according to percentages of sand, silt, and clay in the fraction of the soil that is less than 2 millimeters in diameter. "Loam," for example, is soil that is 7 to 27 percent clay, 28 to 50 percent silt, and less than 52 percent sand. If the content of particles coarser than sand is 15 percent or more, an appropriate modifier is added, for example, "gravelly."

Classification of the soils is determined according to the Unified soil classification system (ASTM, 2005) and the system adopted by the American Association of State Highway and Transportation Officials (AASHTO, 2004).

The Unified system classifies soils according to properties that affect their use as construction material. Soils are classified according to particle-size distribution of the fraction less than 3 inches in diameter and according to plasticity index, liquid limit, and organic matter content. Sandy and gravelly soils are identified as GW, GP, GM, GC, SW, SP, SM, and SC; silty and clayey soils as ML, CL, OL, MH, CH, and OH; and highly organic soils as PT. Soils exhibiting engineering properties of two groups can have a dual classification, for example, CL-ML.

The AASHTO system classifies soils according to those properties that affect roadway construction and maintenance. In this system, the fraction of a mineral soil that is less than 3 inches in diameter is classified in one of seven groups from A-1 through A-7 on the basis of particle-size distribution, liquid limit, and plasticity index. Soils in group A-1 are coarse grained and low in content of fines (silt and clay). At the other extreme, soils in group A-7 are fine grained. Highly organic soils are classified in group A-8 on the basis of visual inspection.

If laboratory data are available, the A-1, A-2, and A-7 groups are further classified as A-1-a, A-1-b, A-2-4, A-2-5, A-2-6, A-2-7, A-7-5, or A-7-6. As an additional refinement, the suitability of a soil as subgrade material can be indicated by a group

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index number. Group index numbers range from 0 for the best subgrade material to 20 or higher for the poorest.

Percentage of rock fragments larger than 10 inches in diameter and 3 to 10 inches in diameter are indicated as a percentage of the total soil on a dry-weight basis. The percentages are estimates determined mainly by converting volume percentage in the field to weight percentage. Three values are provided to identify the expected Low (L), Representative Value (R), and High (H).

Percentage (of soil particles) passing designated sieves is the percentage of the soil fraction less than 3 inches in diameter based on an oven-dry weight. The sieves, numbers 4, 10, 40, and 200 (USA Standard Series), have openings of 4.76, 2.00, 0.420, and 0.074 millimeters, respectively. Estimates are based on laboratory tests of soils sampled in the survey area and in nearby areas and on estimates made in the field. Three values are provided to identify the expected Low (L), Representative Value (R), and High (H).

Liquid limit and *plasticity index* (Atterberg limits) indicate the plasticity characteristics of a soil. The estimates are based on test data from the survey area or from nearby areas and on field examination. Three values are provided to identify the expected Low (L), Representative Value (R), and High (H).

References:

American Association of State Highway and Transportation Officials (AASHTO). 2004. Standard specifications for transportation materials and methods of sampling and testing. 24th edition.

American Society for Testing and Materials (ASTM). 2005. Standard classification of soils for engineering purposes. ASTM Standard D2487-00.

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Absence of an entry indicates that the data were not estimated. The asterisk '*' denotes the representative texture; other possible textures follow the dash. The criteria for determining the hydrologic soil group for individual soil components is found in the National Engineering Handbook, Chapter 7 issued May 2007(<http://directives.sc.egov.usda.gov/OpenNonWebContent.aspx?content=17757.wba>). Three values are provided to identify the expected Low (L), Representative Value (R), and High (H).

Engineering Properties—Cumberland County and Part of Oxford County, Maine														
Map unit symbol and soil name	Pct. of map unit	Hydrologic group	Depth	USDA texture	Classification		Pct Fragments		Percentage passing sieve number—				Liquid limit	Plasticity index
					Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
			<i>In</i>				<i>L-R-H</i>	<i>L-R-H</i>	<i>L-R-H</i>	<i>L-R-H</i>	<i>L-R-H</i>	<i>L-R-H</i>	<i>L-R-H</i>	<i>L-R-H</i>
Au—Au Gres loamy sand														
Au gres	85	A/D	0-10	Loamy sand	SP-SM, SW-SM, SM	A-4, A-2, A-3	0- 0- 0	0- 0- 0	95-98-100	90-95-100	50-68-85	5-25- 45	0-7 -14	NP
			10-32	Loamy fine sand, loamy sand, sand	SM, SP-SM, SW-SM	A-1, A-2, A-3	0- 0- 0	0- 0- 0	95-98-100	90-95-100	45-65-85	5-20- 35	0-7 -14	NP
			32-65	Coarse sand, sand, loamy fine sand	SM, SP-SM, SW-SM	A-1, A-2, A-3	0- 0- 0	0- 0- 0	95-98-100	90-95-100	45-63-80	5-20- 35	0-7 -14	NP
BgB—Nicholville very fine sandy loam, 0 to 8 percent slopes														
Nicholville	85	C	0-7	Very fine sandy loam, silt loam	ML	A-4, A-6	0- 0- 0	0- 0- 0	95-100-100	90-100-100	86-98-100	61-71-81	21-28-41	2-5 -11
			7-19	Very fine sandy loam, silt loam	CL-ML	A-6, A-4	0- 0- 0	0- 0- 0	95-100-100	90-100-100	87-98-100	62-71-82	19-25-37	2-5 -12
			19-30	Very fine sandy loam, silt loam	ML, CL-ML	A-6, A-4	0- 0- 0	0- 0- 0	96-100-100	92-100-100	89-98-100	62-69-80	19-21-32	2-4 -12
			30-65	Very fine sandy loam, silt loam, very fine sand, loamy very fine sand	ML	A-4	0- 0- 0	0- 0- 0	92-100-100	84-100-100	81-97-100	45-55-65	0-0 -26	NP-0 -8

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Engineering Properties—Cumberland County and Part of Oxford County, Maine														
Map unit symbol and soil name	Pct. of map unit	Hydrologic group	Depth	USDA texture	Classification		Pct Fragments		Percentage passing sieve number—				Liquid limit	Plasticity index
					Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
			<i>In</i>				<i>L-R-H</i>	<i>L-R-H</i>	<i>L-R-H</i>	<i>L-R-H</i>	<i>L-R-H</i>	<i>L-R-H</i>	<i>L-R-H</i>	<i>L-R-H</i>
BuB—Lamoine silt loam, 3 to 8 percent slopes														
Lamoine	85	C/D	0-7	Silt loam	ML, MH	A-6, A-7, A-7-5	0- 0- 0	0- 0- 0	96-100-100	91-100-100	85-98-100	77-90-94	37-46-54	12-15-18
			7-13	Silty clay loam, silt loam	CL, ML, MH	A-7, A-6	0- 0- 0	0- 0- 0	96-100-100	92-100-100	87-98-100	80-91-100	34-40-51	15-19-25
			13-24	Silty clay loam	CL	A-6, A-7-6, A-7	0- 0- 0	0- 0- 0	96-100-100	93-100-100	88-100-100	82-93-99	37-43-50	19-23-28
			24-65	Clay, silty clay, silty clay loam	CL, CH	A-7, A-7-6	0- 0- 0	0- 0- 0	97-100-100	93-100-100	88-100-100	83-95-100	45-52-67	27-32-43
HfC2—Hartland very fine sandy loam, 8 to 15 percent slopes, eroded														
Hartland	85	B	0-9	Very fine sandy loam	CL-ML, ML	A-4, A-6	0- 0- 0	0- 0- 0	100-100-100	85-93-100	80-90-100	70-83-95	20-30-40	2-7 -12
			9-29	Very fine sandy loam, silt loam	CL-ML, ML	A-4	0- 0- 0	0- 0- 0	100-100-100	85-93-100	80-90-100	70-83-95	15-20-25	NP-3 -5
			29-65	Very fine sandy loam, silt loam	CL-ML, ML	A-4	0- 0- 0	0- 0- 0	100-100-100	85-93-100	80-90-100	70-83-95	15-20-25	NP-3 -5

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Engineering Properties—Cumberland County and Part of Oxford County, Maine														
Map unit symbol and soil name	Pct. of map unit	Hydrologic group	Depth	USDA texture	Classification		Pct Fragments		Percentage passing sieve number—				Liquid limit	Plasticity index
					Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
			<i>In</i>				<i>L-R-H</i>	<i>L-R-H</i>	<i>L-R-H</i>	<i>L-R-H</i>	<i>L-R-H</i>	<i>L-R-H</i>	<i>L-R-H</i>	<i>L-R-H</i>
HrB—Lyman-Tunbridge complex, 0 to 8 percent slopes, rocky														
Lyman	50	D	0-1	Moderately decomposed plant material, highly decomposed plant material, slightly decomposed plant material	PT	A-8	0- 0- 0	0- 0- 0	—	—	—	—	—	—
			1-3	Loam, fine sandy loam, very fine sandy loam, gravelly sandy loam	ML	A-4	0- 0- 28	0- 0- 18	55-100-100	53-100-100	38-82-90	22-55-62	0-35 -65	NP-3 -5
			3-5	Fine sandy loam, very fine sandy loam, loam, gravelly sandy loam	SC-SM	A-4	0- 0- 22	0- 0- 14	64-84-98	63-84-98	46-69-89	23-41-57	0-23 -34	NP-4 -6
			5-7	Fine sandy loam, very fine sandy loam, loam, gravelly sandy loam	SM	A-4	0- 0- 28	0- 0- 18	77-89-99	53-77-97	38-64-88	22-42-60	0-40 -76	NP-3 -5
			7-11	Loam, fine sandy loam, very fine sandy loam, gravelly sandy loam	SM	A-4	0- 0- 27	0- 0- 18	77-89-99	53-77-97	38-64-88	22-42-60	0-34 -61	NP-3 -5
			11-18	Channery loam, fine sandy loam, sandy loam, very fine sandy loam	SM	A-4	0- 0- 25	0-14- 30	52-84-99	50-83-99	36-69-89	21-46-61	0-26 -36	NP-4 -6

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Engineering Properties—Cumberland County and Part of Oxford County, Maine														
Map unit symbol and soil name	Pct. of map unit	Hydrologic group	Depth	USDA texture	Classification		Pct Fragments		Percentage passing sieve number—				Liquid limit	Plasticity index
					Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
			<i>In</i>				<i>L-R-H</i>	<i>L-R-H</i>	<i>L-R-H</i>	<i>L-R-H</i>	<i>L-R-H</i>	<i>L-R-H</i>	<i>L-R-H</i>	<i>L-R-H</i>
			18-79	Bedrock	—	—	—	—	—	—	—	—	—	—
Tunbridge	30	C	0-3	Moderately decomposed plant material	PT	A-8	0- 0- 0	0- 0- 0	—	—	—	—	—	—
			3-5	Highly decomposed plant material	PT	A-8	0- 0- 0	0- 0- 0	—	—	—	—	—	—
			5-8	Fine sandy loam, very fine sandy loam, loam, gravelly sandy loam	SC-SM	A-4	0- 0- 0	0- 8- 24	53-91-96	51-91-96	37-75-87	19-45-55	0-23 -34	NP-4 -6
			8-11	Loam, very fine sandy loam, fine sandy loam, gravelly sandy loam	SM	A-4	0- 0- 0	0- 4- 30	43-78-90	41-77-90	30-64-81	15-38-52	0-40 -76	NP-3 -5
			11-26	Very fine sandy loam, fine sandy loam, loam, gravelly sandy loam	SM	A-4	0- 0- 0	0- 6- 30	43-78-91	41-77-90	30-64-82	15-38-52	0-31 -60	NP-3 -5
			26-28	Fine sandy loam, very fine sandy loam, loam, gravelly sandy loam	SC-SM	A-4	0- 0- 0	0- 0- 25	52-91-91	50-91-91	36-75-83	19-45-53	0-21 -30	NP-4 -6
			28-79	Bedrock	—	—	—	—	—	—	—	—	—	—

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Engineering Properties—Cumberland County and Part of Oxford County, Maine														
Map unit symbol and soil name	Pct. of map unit	Hydrologic group	Depth	USDA texture	Classification		Pct Fragments		Percentage passing sieve number—				Liquid limit	Plasticity index
					Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
			<i>In</i>				<i>L-R-H</i>	<i>L-R-H</i>	<i>L-R-H</i>	<i>L-R-H</i>	<i>L-R-H</i>	<i>L-R-H</i>	<i>L-R-H</i>	<i>L-R-H</i>
HrC—Lyman-Tunbridge complex, 8 to 15 percent slopes, rocky														
Lyman	45	D	0-1	Moderately decomposed plant material, highly decomposed plant material, slightly decomposed plant material	PT	A-8	0- 0- 0	0- 0- 0	—	—	—	—	—	—
			1-3	Loam, fine sandy loam, very fine sandy loam, gravelly sandy loam	ML	A-4	0- 0- 28	0- 0- 18	55-100-100	53-100-100	38-82-90	22-55-62	0-35 -65	NP-3 -5
			3-5	Very fine sandy loam, loam, fine sandy loam, gravelly sandy loam	SC-SM	A-4	0- 0- 22	0- 0- 14	64-84-98	63-84-98	46-69-89	23-41-57	0-23 -34	NP-4 -6
			5-7	Fine sandy loam, very fine sandy loam, loam, gravelly sandy loam	SM	A-4	0- 0- 28	0- 0- 18	77-89-99	53-77-97	38-64-88	22-42-60	0-40 -76	NP-3 -5
			7-11	Loam, fine sandy loam, very fine sandy loam, gravelly sandy loam	SM	A-4	0- 0- 27	0- 0- 18	77-89-99	53-77-97	38-64-88	22-42-60	0-34 -61	NP-3 -5
			11-18	Sandy loam, very fine sandy loam, channery loam, fine sandy loam	SM	A-4	0- 0- 25	0-14- 30	52-84-99	50-83-99	36-69-89	21-46-61	0-26 -36	NP-4 -6

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Engineering Properties—Cumberland County and Part of Oxford County, Maine														
Map unit symbol and soil name	Pct. of map unit	Hydrologic group	Depth	USDA texture	Classification		Pct Fragments		Percentage passing sieve number—				Liquid limit	Plasticity index
					Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
			<i>In</i>				<i>L-R-H</i>	<i>L-R-H</i>	<i>L-R-H</i>	<i>L-R-H</i>	<i>L-R-H</i>	<i>L-R-H</i>	<i>L-R-H</i>	<i>L-R-H</i>
			18-79	Bedrock	—	—	—	—	—	—	—	—	—	—
Tunbridge	40	C	0-3	Moderately decomposed plant material	PT	A-8	0- 0- 0	0- 0- 0	—	—	—	—	—	—
			3-5	Highly decomposed plant material	PT	A-8	0- 0- 0	0- 0- 0	—	—	—	—	—	—
			5-8	Loam, fine sandy loam, very fine sandy loam, gravelly sandy loam	SC-SM	A-4	0- 0- 0	0- 8- 24	53-91-96	51-91-96	37-75-87	19-45-55	0-23 -34	NP-4 -6
			8-11	Very fine sandy loam, loam, fine sandy loam, gravelly sandy loam	SM	A-4	0- 0- 0	0- 4- 30	43-78-90	41-77-90	30-64-81	15-38-52	0-40 -76	NP-3 -5
			11-26	Very fine sandy loam, fine sandy loam, loam, gravelly sandy loam	SM	A-4	0- 0- 0	0- 6- 30	43-78-91	41-77-90	30-64-82	15-38-52	0-31 -60	NP-3 -5
			26-28	Fine sandy loam, very fine sandy loam, loam, gravelly sandy loam	SC-SM	A-4	0- 0- 0	0- 0- 25	52-91-91	50-91-91	36-75-83	19-45-53	0-21 -30	NP-4 -6
			28-79	Bedrock	—	—	—	—	—	—	—	—	—	—

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Engineering Properties—Cumberland County and Part of Oxford County, Maine														
Map unit symbol and soil name	Pct. of map unit	Hydrologic group	Depth	USDA texture	Classification		Pct Fragments		Percentage passing sieve number—				Liquid limit	Plasticity index
					Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
			<i>In</i>				<i>L-R-H</i>	<i>L-R-H</i>	<i>L-R-H</i>	<i>L-R-H</i>	<i>L-R-H</i>	<i>L-R-H</i>	<i>L-R-H</i>	<i>L-R-H</i>
HsB—Lyman-Abram complex, 0 to 8 percent slopes, very rocky														
Lyman	50	D	0-1	Moderately decomposed plant material, highly decomposed plant material, slightly decomposed plant material	PT	A-8	0- 0- 0	0- 0- 0	—	—	—	—	—	—
			1-3	Fine sandy loam, very fine sandy loam, loam, gravelly sandy loam	ML	A-4	0- 0- 28	0- 0- 18	55-100-100	53-100-100	38-82-90	22-55-62	0-35 -65	NP-3 -5
			3-5	Fine sandy loam, very fine sandy loam, loam, gravelly sandy loam	SC-SM	A-4	0- 0- 22	0- 0- 14	64-84-98	63-84-98	46-69-89	23-41-57	0-23 -34	NP-4 -6
			5-7	Fine sandy loam, loam, very fine sandy loam, gravelly sandy loam	SM	A-4	0- 0- 28	0- 0- 18	77-89-99	53-77-97	38-64-88	22-42-60	0-40 -76	NP-3 -5
			7-11	Fine sandy loam, very fine sandy loam, loam, gravelly sandy loam	SM	A-4	0- 0- 27	0- 0- 18	77-89-99	53-77-97	38-64-88	22-42-60	0-34 -61	NP-3 -5
			11-18	Channery loam, fine sandy loam, sandy loam, very fine sandy loam	SM	A-4	0- 0- 25	0-14- 30	52-84-99	50-83-99	36-69-89	21-46-61	0-26 -36	NP-4 -6

Custom Soil Resource Report

Engineering Properties—Cumberland County and Part of Oxford County, Maine														
Map unit symbol and soil name	Pct. of map unit	Hydrologic group	Depth	USDA texture	Classification		Pct Fragments		Percentage passing sieve number—				Liquid limit	Plasticity index
					Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
			<i>In</i>				<i>L-R-H</i>	<i>L-R-H</i>	<i>L-R-H</i>	<i>L-R-H</i>	<i>L-R-H</i>	<i>L-R-H</i>	<i>L-R-H</i>	<i>L-R-H</i>
			18-79	Bedrock	—	—	—	—	—	—	—	—	—	—
Abram	30	D	0-2	Moderately decomposed plant material, highly decomposed plant material	PT	A-8	0- 0- 16	0- 0- 16	—	—	—	—	—	—
			2-3	Silt loam, fine sandy loam, loam, sandy loam, gravelly fine sandy loam	SC-SM, GM	A-2, A-4	0- 0- 6	0- 0- 19	60-79-89	60-79-89	50-68-80	30-43-51	0-22 -27	NP-5 -6
			3-6	Sandy loam, fine sandy loam, loam, silt loam, gravelly fine sandy loam	GM, SM	A-4, A-2	0- 0- 6	0- 0- 19	60-79-89	60-79-89	50-68-80	30-43-51	0-31 -43	NP-4 -5
			6-79	Bedrock	—	—	—	—	—	—	—	—	—	—

Custom Soil Resource Report

Engineering Properties—Cumberland County and Part of Oxford County, Maine														
Map unit symbol and soil name	Pct. of map unit	Hydrologic group	Depth	USDA texture	Classification		Pct Fragments		Percentage passing sieve number—				Liquid limit	Plasticity index
					Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
			<i>In</i>				<i>L-R-H</i>	<i>L-R-H</i>	<i>L-R-H</i>	<i>L-R-H</i>	<i>L-R-H</i>	<i>L-R-H</i>	<i>L-R-H</i>	<i>L-R-H</i>
HsC—Lyman-Abram complex, 8 to 15 percent slopes, very rocky														
Lyman	45	D	0-1	Moderately decomposed plant material, highly decomposed plant material, slightly decomposed plant material	PT	A-8	0- 0- 0	0- 0- 0	—	—	—	—	—	—
			1-3	Fine sandy loam, very fine sandy loam, loam, gravelly sandy loam	ML	A-4	0- 0- 28	0- 0- 18	55-100-100	53-100-100	38-82-90	22-55-62	0-35 -65	NP-3 -5
			3-5	Fine sandy loam, very fine sandy loam, loam, gravelly sandy loam	SC-SM	A-4	0- 0- 22	0- 0- 14	64-84-98	63-84-98	46-69-89	23-41-57	0-23 -34	NP-4 -6
			5-7	Fine sandy loam, loam, very fine sandy loam, gravelly sandy loam	SM	A-4	0- 0- 28	0- 0- 18	77-89-99	53-77-97	38-64-88	22-42-60	0-40 -76	NP-3 -5
			7-11	Fine sandy loam, very fine sandy loam, loam, gravelly sandy loam	SM	A-4	0- 0- 27	0- 0- 18	77-89-99	53-77-97	38-64-88	22-42-60	0-34 -61	NP-3 -5
			11-18	Channery loam, fine sandy loam, sandy loam, very fine sandy loam	SM	A-4	0- 0- 25	0-14- 30	52-84-99	50-83-99	36-69-89	21-46-61	0-26 -36	NP-4 -6

Custom Soil Resource Report

Engineering Properties—Cumberland County and Part of Oxford County, Maine														
Map unit symbol and soil name	Pct. of map unit	Hydrologic group	Depth	USDA texture	Classification		Pct Fragments		Percentage passing sieve number—				Liquid limit	Plasticity index
					Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
			<i>In</i>				<i>L-R-H</i>	<i>L-R-H</i>	<i>L-R-H</i>	<i>L-R-H</i>	<i>L-R-H</i>	<i>L-R-H</i>	<i>L-R-H</i>	<i>L-R-H</i>
			18-79	Bedrock	—	—	—	—	—	—	—	—	—	—
Abram	35	D	0-2	Moderately decomposed plant material, highly decomposed plant material	PT	A-8	0- 0- 16	0- 0- 16	—	—	—	—	—	—
			2-3	Silt loam, fine sandy loam, loam, sandy loam, gravelly fine sandy loam	SC-SM, GM	A-2, A-4	0- 0- 6	0- 0- 19	60-79-89	60-79-89	50-68-80	30-43-51	0-22 -27	NP-5 -6
			3-6	Sandy loam, fine sandy loam, loam, silt loam, gravelly fine sandy loam	GM, SM	A-4, A-2	0- 0- 6	0- 0- 19	60-79-89	60-79-89	50-68-80	30-43-51	0-31 -43	NP-4 -5
			6-79	Bedrock	—	—	—	—	—	—	—	—	—	—
PbC—Paxton fine sandy loam, 8 to 15 percent slopes														
Paxton	86	C	0-8	Fine sandy loam, gravelly fine sandy loam	CL-ML, ML, SC, SM	A-2, A-4	0- 1- 1	0- 5- 10	90-95-100	75-85-90	50-70-90	30-55-80	15-23 -30	NP-5 -10
			8-20	Fine sandy loam, loam, gravelly sandy loam	CL-ML, ML, SC-SM, SM	A-1-b, A-2, A-4	0- 1- 1	0- 8- 15	75-85-95	60-80-90	40-63-85	20-43-65	15-23 -30	NP-5 -10
			20-65	Fine sandy loam, loam, gravelly sandy loam	CL-ML, ML, SC-SM, SM	A-1-b, A-2, A-4	0- 1- 1	0- 5- 15	70-80-90	60-80-85	35-58-80	20-40-60	15-23 -30	NP-5 -10

Custom Soil Resource Report

Engineering Properties—Cumberland County and Part of Oxford County, Maine														
Map unit symbol and soil name	Pct. of map unit	Hydrologic group	Depth	USDA texture	Classification		Pct Fragments		Percentage passing sieve number—				Liquid limit	Plasticity index
					Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
			<i>In</i>				<i>L-R-H</i>	<i>L-R-H</i>	<i>L-R-H</i>	<i>L-R-H</i>	<i>L-R-H</i>	<i>L-R-H</i>	<i>L-R-H</i>	<i>L-R-H</i>
Sn—Scantic silt loam, 0 to 3 percent slopes														
Scantic	85	D	0-9	Silt loam	ML	A-7-5	0- 0- 0	0- 0- 0	100-100-100	93-96-100	84-90-99	75-84-93	31-46-53	9-15-16
			9-16	Silt loam, silty clay loam	CL	A-7-6	0- 0- 0	0- 0- 0	100-100-100	95-96-100	85-92-99	77-85-94	32-43-51	13-20-24
			16-29	Silty clay loam, silty clay	CH	A-7-6	0- 0- 0	0- 0- 0	100-100-100	95-97-100	89-96-100	81-91-100	43-52-72	24-29-43
			29-65	Silty clay, clay	CH	A-7-6	0- 0- 0	0- 0- 0	100-100-100	95-97-100	90-96-100	85-95-100	47-55-72	28-34-47
SuE2—Suffield silt loam, 25 to 45 percent slopes, eroded														
Suffield	85	C	0-6	Silt loam	MH, ML	A-4, A-5, A-7	0- 0- 0	0- 0- 0	98-99-100	95-98-100	95-98-100	85-93-100	36-46-55	5-10-15
			6-23	Silt loam, silty clay loam, silty clay	CL, MH, ML	A-4, A-6, A-7	0- 0- 0	0- 0- 0	98-99-100	95-98-100	95-98-100	85-93-100	28-42-55	8-17-25
			23-33	Silt loam, silty clay loam, silty clay	CL, MH, ML	A-4, A-6, A-7	0- 0- 0	0- 0- 0	98-99-100	95-98-100	95-98-100	85-93-100	28-42-55	8-17-25
			33-65	Silty clay, silty clay loam, clay	CL, MH	A-6, A-7	0- 0- 0	0- 0- 0	98-99-100	95-98-100	95-98-100	90-95-100	30-45-60	10-18-25

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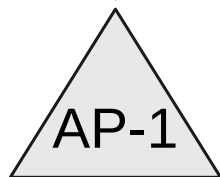
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APPENDIX B

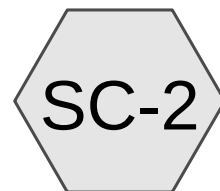
PRE-DEVELOPMENT HYDROCAD CALCULATIONS



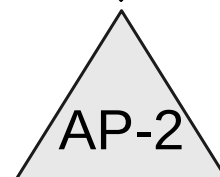
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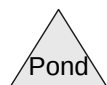
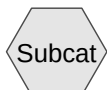
STREAM TO OFF-SITE



WEST



WEST PROPERTY
LINE



Routing Diagram for Broad Cove Pre-Development

Prepared by {enter your company name here}, Printed 5/25/2021
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Broad Cove Pre-Development

Type III 24-hr 2-yr Storm Rainfall=3.10"

Prepared by {enter your company name here}

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Page 2

Summary for Subcatchment SC-1: EAST

Runoff = 2.35 cfs @ 12.19 hrs, Volume= 0.218 af, Depth= 1.14"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-yr Storm Rainfall=3.10"

	Area (sf)	CN	Description
*	6,713	98	Pavement
	3,259	55	Woods, Good, HSG B
	9,360	70	Woods, Good, HSG C
	80,382	77	Woods, Good, HSG D
	99,714	77	Weighted Average
	93,001		93.27% Pervious Area
	6,713		6.73% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.1	100	0.0865	0.14		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.10"
0.3	32	0.1250	1.77		Shallow Concentrated Flow, B-C Woodland Kv= 5.0 fps
0.7	467	0.0810	11.28	60.14	Parabolic Channel, C-D W=4.00' D=2.00' Area=5.3 sf Perim=5.9' n= 0.035 Earth, dense weeds
13.1	599	Total			

Summary for Subcatchment SC-2: WEST

Runoff = 2.11 cfs @ 12.18 hrs, Volume= 0.193 af, Depth= 1.08"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-yr Storm Rainfall=3.10"

	Area (sf)	CN	Description
*	552	98	Pavement
	3,249	55	Woods, Good, HSG B
	9,357	70	Woods, Good, HSG C
	79,986	77	Woods, Good, HSG D
	93,144	76	Weighted Average
	92,592		99.41% Pervious Area
	552		0.59% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.5	100	0.1231	0.16		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.10"
1.8	230	0.1739	2.09		Shallow Concentrated Flow, B-C Woodland Kv= 5.0 fps
12.3	330	Total			

Broad Cove Pre-Development

Type III 24-hr 2-yr Storm Rainfall=3.10"

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Summary for Pond AP-1: STREAM TO OFF-SITE

Inflow Area = 2.289 ac, 6.73% Impervious, Inflow Depth = 1.14" for 2-yr Storm event
Inflow = 2.35 cfs @ 12.19 hrs, Volume= 0.218 af
Primary = 2.35 cfs @ 12.19 hrs, Volume= 0.218 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs

Summary for Pond AP-2: WEST PROPERTY LINE

Inflow Area = 2.138 ac, 0.59% Impervious, Inflow Depth = 1.08" for 2-yr Storm event
Inflow = 2.11 cfs @ 12.18 hrs, Volume= 0.193 af
Primary = 2.11 cfs @ 12.18 hrs, Volume= 0.193 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs

Broad Cove Pre-Development

Type III 24-hr 10-yr Storm Rainfall=4.60"

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Summary for Subcatchment SC-1: EAST

Runoff = 4.88 cfs @ 12.18 hrs, Volume= 0.437 af, Depth= 2.29"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Storm Rainfall=4.60"

	Area (sf)	CN	Description
*	6,713	98	Pavement
	3,259	55	Woods, Good, HSG B
	9,360	70	Woods, Good, HSG C
	80,382	77	Woods, Good, HSG D
	99,714	77	Weighted Average
	93,001		93.27% Pervious Area
	6,713		6.73% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.1	100	0.0865	0.14		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.10"
0.3	32	0.1250	1.77		Shallow Concentrated Flow, B-C Woodland Kv= 5.0 fps
0.7	467	0.0810	11.28	60.14	Parabolic Channel, C-D W=4.00' D=2.00' Area=5.3 sf Perim=5.9' n= 0.035 Earth, dense weeds
13.1	599	Total			

Summary for Subcatchment SC-2: WEST

Runoff = 4.49 cfs @ 12.17 hrs, Volume= 0.394 af, Depth= 2.21"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Storm Rainfall=4.60"

	Area (sf)	CN	Description
*	552	98	Pavement
	3,249	55	Woods, Good, HSG B
	9,357	70	Woods, Good, HSG C
	79,986	77	Woods, Good, HSG D
	93,144	76	Weighted Average
	92,592		99.41% Pervious Area
	552		0.59% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.5	100	0.1231	0.16		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.10"
1.8	230	0.1739	2.09		Shallow Concentrated Flow, B-C Woodland Kv= 5.0 fps
12.3	330	Total			

Broad Cove Pre-Development

Type III 24-hr 10-yr Storm Rainfall=4.60"

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Summary for Pond AP-1: STREAM TO OFF-SITE

Inflow Area = 2.289 ac, 6.73% Impervious, Inflow Depth = 2.29" for 10-yr Storm event
Inflow = 4.88 cfs @ 12.18 hrs, Volume= 0.437 af
Primary = 4.88 cfs @ 12.18 hrs, Volume= 0.437 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs

Summary for Pond AP-2: WEST PROPERTY LINE

Inflow Area = 2.138 ac, 0.59% Impervious, Inflow Depth = 2.21" for 10-yr Storm event
Inflow = 4.49 cfs @ 12.17 hrs, Volume= 0.394 af
Primary = 4.49 cfs @ 12.17 hrs, Volume= 0.394 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs

Broad Cove Pre-Development

Type III 24-hr 25-yr Storm Rainfall=5.80"

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Summary for Subcatchment SC-1: EAST

Runoff = 7.07 cfs @ 12.18 hrs, Volume= 0.630 af, Depth= 3.31"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-yr Storm Rainfall=5.80"

	Area (sf)	CN	Description
*	6,713	98	Pavement
	3,259	55	Woods, Good, HSG B
	9,360	70	Woods, Good, HSG C
	80,382	77	Woods, Good, HSG D
	99,714	77	Weighted Average
	93,001		93.27% Pervious Area
	6,713		6.73% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.1	100	0.0865	0.14		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.10"
0.3	32	0.1250	1.77		Shallow Concentrated Flow, B-C Woodland Kv= 5.0 fps
0.7	467	0.0810	11.28	60.14	Parabolic Channel, C-D W=4.00' D=2.00' Area=5.3 sf Perim=5.9' n= 0.035 Earth, dense weeds
13.1	599	Total			

Summary for Subcatchment SC-2: WEST

Runoff = 6.55 cfs @ 12.17 hrs, Volume= 0.572 af, Depth= 3.21"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-yr Storm Rainfall=5.80"

	Area (sf)	CN	Description
*	552	98	Pavement
	3,249	55	Woods, Good, HSG B
	9,357	70	Woods, Good, HSG C
	79,986	77	Woods, Good, HSG D
	93,144	76	Weighted Average
	92,592		99.41% Pervious Area
	552		0.59% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.5	100	0.1231	0.16		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.10"
1.8	230	0.1739	2.09		Shallow Concentrated Flow, B-C Woodland Kv= 5.0 fps
12.3	330	Total			

Broad Cove Pre-Development

Type III 24-hr 25-yr Storm Rainfall=5.80"

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Summary for Pond AP-1: STREAM TO OFF-SITE

Inflow Area = 2.289 ac, 6.73% Impervious, Inflow Depth = 3.31" for 25-yr Storm event
Inflow = 7.07 cfs @ 12.18 hrs, Volume= 0.630 af
Primary = 7.07 cfs @ 12.18 hrs, Volume= 0.630 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs

Summary for Pond AP-2: WEST PROPERTY LINE

Inflow Area = 2.138 ac, 0.59% Impervious, Inflow Depth = 3.21" for 25-yr Storm event
Inflow = 6.55 cfs @ 12.17 hrs, Volume= 0.572 af
Primary = 6.55 cfs @ 12.17 hrs, Volume= 0.572 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs

Broad Cove Pre-Development

Type III 24-hr 100-yr Storm Rainfall=8.10"

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Summary for Subcatchment SC-1: EAST

Runoff = 11.41 cfs @ 12.18 hrs, Volume= 1.024 af, Depth= 5.37"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-yr Storm Rainfall=8.10"

	Area (sf)	CN	Description
*	6,713	98	Pavement
	3,259	55	Woods, Good, HSG B
	9,360	70	Woods, Good, HSG C
	80,382	77	Woods, Good, HSG D
	99,714	77	Weighted Average
	93,001		93.27% Pervious Area
	6,713		6.73% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.1	100	0.0865	0.14		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.10"
0.3	32	0.1250	1.77		Shallow Concentrated Flow, B-C Woodland Kv= 5.0 fps
0.7	467	0.0810	11.28	60.14	Parabolic Channel, C-D W=4.00' D=2.00' Area=5.3 sf Perim=5.9' n= 0.035 Earth, dense weeds
13.1	599	Total			

Summary for Subcatchment SC-2: WEST

Runoff = 10.67 cfs @ 12.17 hrs, Volume= 0.935 af, Depth= 5.25"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-yr Storm Rainfall=8.10"

	Area (sf)	CN	Description
*	552	98	Pavement
	3,249	55	Woods, Good, HSG B
	9,357	70	Woods, Good, HSG C
	79,986	77	Woods, Good, HSG D
	93,144	76	Weighted Average
	92,592		99.41% Pervious Area
	552		0.59% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.5	100	0.1231	0.16		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.10"
1.8	230	0.1739	2.09		Shallow Concentrated Flow, B-C Woodland Kv= 5.0 fps
12.3	330	Total			

Broad Cove Pre-Development*Type III 24-hr 100-yr Storm Rainfall=8.10"*

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Summary for Pond AP-1: STREAM TO OFF-SITE

Inflow Area = 2.289 ac, 6.73% Impervious, Inflow Depth = 5.37" for 100-yr Storm event
Inflow = 11.41 cfs @ 12.18 hrs, Volume= 1.024 af
Primary = 11.41 cfs @ 12.18 hrs, Volume= 1.024 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs

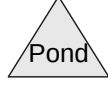
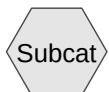
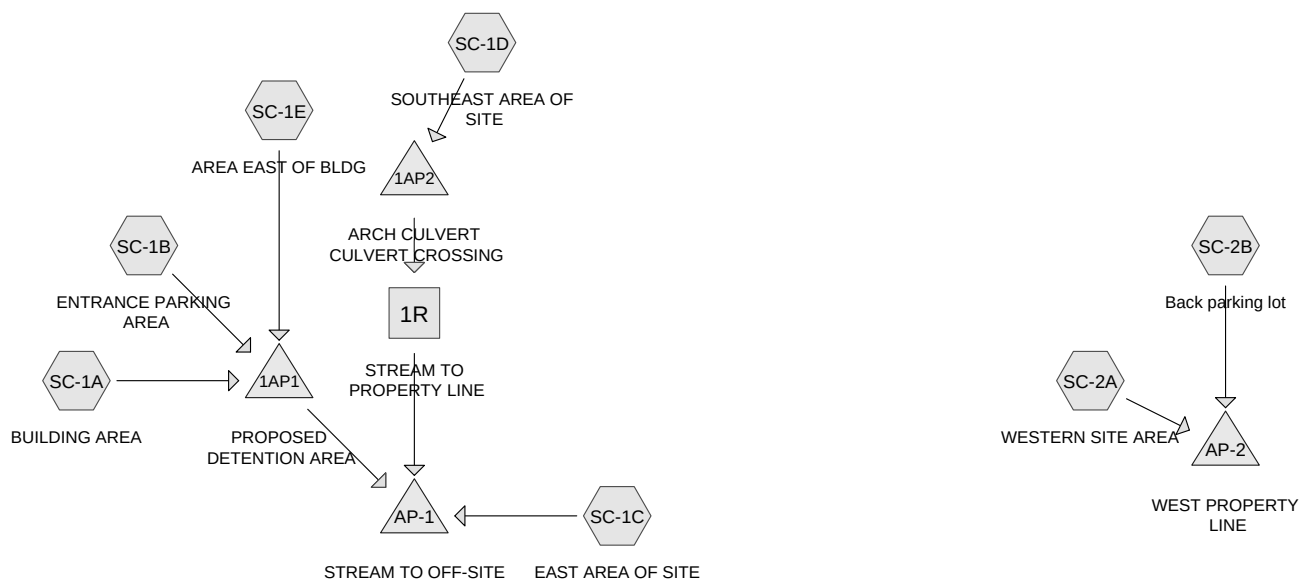
Summary for Pond AP-2: WEST PROPERTY LINE

Inflow Area = 2.138 ac, 0.59% Impervious, Inflow Depth = 5.25" for 100-yr Storm event
Inflow = 10.67 cfs @ 12.17 hrs, Volume= 0.935 af
Primary = 10.67 cfs @ 12.17 hrs, Volume= 0.935 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs

APPENDIX C

POST-DEVELOPMENT HYDROCAD CALCULATIONS



Broad Cove Post-Development

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Rainfall Events Listing (selected events)

Event#	Event Name	Storm Type	Curve	Mode	Duration (hours)	B/B	Depth (inches)	AMC
1	2-yr Storm	Type III 24-hr		Default	24.00	1	3.10	2

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Type III 24-hr 2-yr Storm Rainfall=3.10"

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Summary for Subcatchment SC-1A: BUILDING AREA

Runoff = 0.91 cfs @ 12.07 hrs, Volume= 0.070 af, Depth= 2.87"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-yr Storm Rainfall=3.10"

	Area (sf)	CN	Description
*	12,700	98	Pavement
	12,700		100.00% Impervious Area

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

Summary for Subcatchment SC-1B: ENTRANCE PARKING AREA

Runoff = 0.74 cfs @ 12.07 hrs, Volume= 0.052 af, Depth= 2.26"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-yr Storm Rainfall=3.10"

	Area (sf)	CN	Description
*	8,377	98	Impervious Area
	2,700	80	>75% Grass cover, Good, HSG D
	989	77	Woods, Good, HSG D
	12,066	92	Weighted Average
	3,689		30.57% Pervious Area
	8,377		69.43% Impervious Area

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

Summary for Subcatchment SC-1C: EAST AREA OF SITE

Runoff = 0.95 cfs @ 12.18 hrs, Volume= 0.092 af, Depth= 0.82"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-yr Storm Rainfall=3.10"

	Area (sf)	CN	Description
*	264	98	Impervious
	17,080	55	Woods, Good, HSG B
	682	61	>75% Grass cover, Good, HSG B
	10,766	80	>75% Grass cover, Good, HSG D
	29,901	77	Woods, Good, HSG D
	58,693	71	Weighted Average
	58,429		99.55% Pervious Area
	264		0.45% Impervious Area

Broad Cove Post-Development

Type III 24-hr 2-yr Storm Rainfall=3.10"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.5	100	0.1000	0.15		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.10"
0.5	344	0.0810	11.28	60.14	Parabolic Channel, W=4.00' D=2.00' Area=5.3 sf Perim=5.9' n= 0.035 Earth, dense weeds
12.0	444	Total			

Summary for Subcatchment SC-1D: SOUTHEAST AREA OF SITE

Runoff = 0.79 cfs @ 12.16 hrs, Volume= 0.067 af, Depth= 1.39"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-yr Storm Rainfall=3.10"

	Area (sf)	CN	Description
*	4,565	98	Impervious
	3,120	80	>75% Grass cover, Good, HSG D
	17,576	77	Woods, Good, HSG D
	25,261	81	Weighted Average
	20,696		81.93% Pervious Area
	4,565		18.07% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.0	100	0.1100	0.15		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.10"
0.1	68	0.0660	10.18	54.29	Parabolic Channel, B-C W=4.00' D=2.00' Area=5.3 sf Perim=5.9' n= 0.035 Earth, dense weeds
11.1	168	Total			

Summary for Subcatchment SC-1E: AREA EAST OF BLDG

Runoff = 0.14 cfs @ 12.08 hrs, Volume= 0.010 af, Depth= 1.33"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-yr Storm Rainfall=3.10"

	Area (sf)	CN	Description
	3,875	80	>75% Grass cover, Good, HSG D
	3,875		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry, Tc MUST BE GREATER THAN OR EQUAL TO 5 MIN

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Type III 24-hr 2-yr Storm Rainfall=3.10"

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Summary for Subcatchment SC-2A: WESTERN SITE AREA

Runoff = 0.97 cfs @ 12.16 hrs, Volume= 0.086 af, Depth= 1.03"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-yr Storm Rainfall=3.10"

Area (sf)	CN	Description
477	61	>75% Grass cover, Good, HSG B
4,937	80	>75% Grass cover, Good, HSG D
2,179	55	Woods, Good, HSG B
9,357	70	Woods, Good, HSG C
26,714	77	Woods, Good, HSG D
43,664	75	Weighted Average
43,664		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.5	100	0.1231	0.16		Sheet Flow, A-B
					Woods: Light underbrush n= 0.400 P2= 3.10"
0.3	32	0.1739	2.09		Shallow Concentrated Flow,
					Woodland Kv= 5.0 fps
10.8	132	Total			

Summary for Subcatchment SC-2B: Back parking lot

Runoff = 1.84 cfs @ 12.13 hrs, Volume= 0.151 af, Depth= 2.16"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-yr Storm Rainfall=3.10"

Area (sf)	CN	Description
* 23,236	98	Pavement
12,120	80	>75% Grass cover, Good, HSG D
994	61	>75% Grass cover, Good, HSG B
36,350	91	Weighted Average
13,114		36.08% Pervious Area
23,236		63.92% Impervious Area

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Type III 24-hr 2-yr Storm Rainfall=3.10"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.6	40	0.0450	0.09		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.10"
0.8	22	0.5000	0.45		Sheet Flow, B-C Grass: Short n= 0.150 P2= 3.10"
0.4	38	0.0500	1.61		Sheet Flow, C-D Smooth surfaces n= 0.011 P2= 3.10"
0.6	150	0.0500	4.54		Shallow Concentrated Flow, D-E Paved Kv= 20.3 fps
0.3	210	0.0500	10.14	7.97	Pipe Channel, E-F 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.013 Corrugated PE, smooth interior
9.7	460	Total			

Summary for Reach 1R: STREAM TO PROPERTY LINE

Inflow Area = 0.580 ac, 18.07% Impervious, Inflow Depth = 1.37" for 2-yr Storm event
 Inflow = 0.79 cfs @ 12.16 hrs, Volume= 0.066 af
 Outflow = 0.78 cfs @ 12.21 hrs, Volume= 0.066 af, Atten= 2%, Lag= 3.1 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs

Max. Velocity= 3.54 fps, Min. Travel Time= 1.7 min

Avg. Velocity = 1.41 fps, Avg. Travel Time= 4.4 min

Peak Storage= 81 cf @ 12.18 hrs

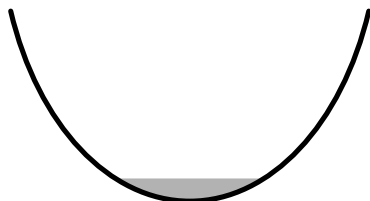
Average Depth at Peak Storage= 0.24' , Surface Width= 1.38'

Bank-Full Depth= 2.00' Flow Area= 5.3 sf, Capacity= 63.11 cfs

4.00' x 2.00' deep Parabolic Channel, n= 0.035 Earth, dense weeds

Length= 370.0' Slope= 0.0892 '/'

Inlet Invert= 117.00', Outlet Invert= 84.00'

**Summary for Pond 1AP1: PROPOSED DETENTION AREA**

Inflow Area = 0.658 ac, 73.59% Impervious, Inflow Depth = 2.40" for 2-yr Storm event
 Inflow = 1.79 cfs @ 12.07 hrs, Volume= 0.132 af
 Outflow = 0.79 cfs @ 12.24 hrs, Volume= 0.132 af, Atten= 56%, Lag= 10.1 min
 Primary = 0.79 cfs @ 12.24 hrs, Volume= 0.132 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs

Peak Elev= 115.36' @ 12.24 hrs Surf.Area= 1,007 sf Storage= 990 cf

Plug-Flow detention time= 20.5 min calculated for 0.132 af (100% of inflow)

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Type III 24-hr 2-yr Storm Rainfall=3.10"

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Center-of-Mass det. time= 20.5 min (799.8 - 779.2)

Volume	Invert	Avail.Storage	Storage Description
#1	114.00'	7,362 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
114.00	450	0	0
116.00	1,270	1,720	1,720
116.50	2,324	899	2,619
118.00	4,000	4,743	7,362

Device	Routing	Invert	Outlet Devices
#1	Primary	114.00'	6.0" Round Culvert L= 54.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 114.00' / 113.00' S= 0.0185 ' S= 0.0185 ' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.20 sf
#2	Secondary	116.50'	10.0' long x 5.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.34 2.50 2.70 2.68 2.68 2.66 2.65 2.65 2.65 2.65 2.67 2.66 2.68 2.70 2.74 2.79 2.88

Primary OutFlow Max=0.79 cfs @ 12.24 hrs HW=115.36' (Free Discharge)↑**1=Culvert** (Inlet Controls 0.79 cfs @ 4.00 fps)**Secondary OutFlow** Max=0.00 cfs @ 0.00 hrs HW=114.00' (Free Discharge)↑**2=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)**Summary for Pond 1AP2: ARCH CULVERT CULVERT CROSSING**

Inflow Area =	0.580 ac, 18.07% Impervious, Inflow Depth = 1.39" for 2-yr Storm event
Inflow =	0.79 cfs @ 12.16 hrs, Volume= 0.067 af
Outflow =	0.79 cfs @ 12.16 hrs, Volume= 0.066 af, Atten= 0%, Lag= 0.2 min
Primary =	0.79 cfs @ 12.16 hrs, Volume= 0.066 af
Secondary =	0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs

Peak Elev= 119.90' @ 12.16 hrs Surf.Area= 76 sf Storage= 52 cf

Plug-Flow detention time= 12.7 min calculated for 0.066 af (98% of inflow)

Center-of-Mass det. time= 3.8 min (849.6 - 845.9)

Volume	Invert	Avail.Storage	Storage Description
#1	119.00'	1,967 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
119.00	40	0	0
120.00	80	60	60
122.00	1,827	1,907	1,967

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Type III 24-hr 2-yr Storm Rainfall=3.10"

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Device	Routing	Invert	Outlet Devices
#1	Primary	119.80'	84.0" W x 18.0" H Box Culvert L= 44.0' Box, 30-75° wingwalls, square crown, Ke= 0.400 Inlet / Outlet Invert= 119.80' / 117.50' S= 0.0523 '/ Cc= 0.900 n= 0.035 Earth, dense weeds, Flow Area= 10.50 sf
#2	Secondary	122.25'	10.0' long x 20.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63

Primary OutFlow Max=0.78 cfs @ 12.16 hrs HW=119.90' (Free Discharge)↑ **1=Culvert** (Inlet Controls 0.78 cfs @ 1.10 fps)**Secondary OutFlow** Max=0.00 cfs @ 0.00 hrs HW=119.00' (Free Discharge)↑ **2=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)**Summary for Pond AP-1: STREAM TO OFF-SITE**

Inflow Area = 2.585 ac, 23.01% Impervious, Inflow Depth = 1.34" for 2-yr Storm event
 Inflow = 2.49 cfs @ 12.20 hrs, Volume= 0.290 af
 Primary = 2.49 cfs @ 12.20 hrs, Volume= 0.290 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs

Summary for Pond AP-2: WEST PROPERTY LINE

Inflow Area = 1.837 ac, 29.04% Impervious, Inflow Depth = 1.54" for 2-yr Storm event
 Inflow = 2.79 cfs @ 12.14 hrs, Volume= 0.236 af
 Primary = 2.79 cfs @ 12.14 hrs, Volume= 0.236 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs

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Rainfall Events Listing (selected events)

Event#	Event Name	Storm Type	Curve	Mode	Duration (hours)	B/B	Depth (inches)	AMC
1	10-yr Storm	Type III 24-hr		Default	24.00	1	4.60	2
2	25-yr Storm	Type III 24-hr		Default	24.00	1	5.80	2
3	100-yr Storm	Type III 24-hr		Default	24.00	1	8.10	2

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Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.049	61	>75% Grass cover, Good, HSG B (SC-1C, SC-2A, SC-2B)
0.861	80	>75% Grass cover, Good, HSG D (SC-1B, SC-1C, SC-1D, SC-1E, SC-2A, SC-2B)
0.111	98	Impervious (SC-1C, SC-1D)
0.192	98	Impervious Area (SC-1B)
0.825	98	Pavement (SC-1A, SC-2B)
0.442	55	Woods, Good, HSG B (SC-1C, SC-2A)
0.215	70	Woods, Good, HSG C (SC-2A)
1.726	77	Woods, Good, HSG D (SC-1B, SC-1C, SC-1D, SC-2A)
4.422	80	TOTAL AREA

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Soil Listing (all nodes)

Area (acres)	Soil Group	Subcatchment Numbers
0.000	HSG A	
0.492	HSG B	SC-1C, SC-2A, SC-2B
0.215	HSG C	SC-2A
2.587	HSG D	SC-1B, SC-1C, SC-1D, SC-1E, SC-2A, SC-2B
1.128	Other	SC-1A, SC-1B, SC-1C, SC-1D, SC-2B
4.422		TOTAL AREA

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Ground Covers (all nodes)

HSG-A (acres)	HSG-B (acres)	HSG-C (acres)	HSG-D (acres)	Other (acres)	Total (acres)	Ground Cover	Subcatchment Numbers
0.000	0.049	0.000	0.861	0.000	0.911	>75% Grass cover, Good	SC-1B, SC-1C, SC-1D, SC-1E, SC-2A, SC-2B
0.000	0.000	0.000	0.000	0.111	0.111	Impervious	SC-1C, SC-1D
0.000	0.000	0.000	0.000	0.192	0.192	Impervious Area	SC-1B
0.000	0.000	0.000	0.000	0.825	0.825	Pavement	SC-1A, SC-2B
0.000	0.442	0.215	1.726	0.000	2.383	Woods, Good	SC-1B, SC-1C, SC-1D, SC-2A
0.000	0.492	0.215	2.587	1.128	4.422	TOTAL AREA	

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Pipe Listing (all nodes)

Line#	Node Number	In-Invert (feet)	Out-Invert (feet)	Length (feet)	Slope (ft/ft)	n	Diam/Width (inches)	Height (inches)	Inside-Fill (inches)
1	SC-2B	0.00	0.00	210.0	0.0500	0.013	12.0	0.0	0.0
2	1AP1	114.00	113.00	54.0	0.0185	0.013	6.0	0.0	0.0
3	1AP2	119.80	117.50	44.0	0.0523	0.035	84.0	18.0	0.0

Broad Cove Post-Development

Type III 24-hr 10-yr Storm Rainfall=4.60"

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Time span=0.00-30.00 hrs, dt=0.01 hrs, 3001 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment SC-1A: BUILDING AREA Runoff Area=12,700 sf 100.00% Impervious Runoff Depth=4.36"
Tc=5.0 min CN=98 Runoff=1.36 cfs 0.106 af

Subcatchment SC-1B: ENTRANCE Runoff Area=12,066 sf 69.43% Impervious Runoff Depth=3.70"
Tc=5.0 min CN=92 Runoff=1.19 cfs 0.085 af

Subcatchment SC-1C: EAST AREA OF SITE Runoff Area=58,693 sf 0.45% Impervious Runoff Depth=1.82"
Flow Length=444' Tc=12.0 min CN=71 Runoff=2.30 cfs 0.204 af

Subcatchment SC-1D: SOUTHEAST AREA Runoff Area=25,261 sf 18.07% Impervious Runoff Depth=2.63"
Flow Length=168' Tc=11.1 min CN=81 Runoff=1.51 cfs 0.127 af

Subcatchment SC-1E: AREA EAST OF BLDG Runoff Area=3,875 sf 0.00% Impervious Runoff Depth=2.55"
Tc=5.0 min CN=80 Runoff=0.28 cfs 0.019 af

Subcatchment SC-2A: WESTERN SITE Runoff Area=43,664 sf 0.00% Impervious Runoff Depth=2.13"
Flow Length=132' Tc=10.8 min CN=75 Runoff=2.11 cfs 0.178 af

Subcatchment SC-2B: Back parking lot Runoff Area=36,350 sf 63.92% Impervious Runoff Depth=3.59"
Flow Length=460' Tc=9.7 min CN=91 Runoff=2.99 cfs 0.250 af

Reach 1R: STREAM TO PROPERTY LINE Avg. Flow Depth=0.32' Max Vel=4.29 fps Inflow=1.51 cfs 0.126 af
n=0.035 L=370.0' S=0.0892 ' Capacity=63.11 cfs Outflow=1.49 cfs 0.126 af

Pond 1AP1: PROPOSED DETENTION AREA Peak Elev=116.08' Storage=1,830 cf Inflow=2.82 cfs 0.210 af
Primary=1.01 cfs 0.210 af Secondary=0.00 cfs 0.000 af Outflow=1.01 cfs 0.210 af

Pond 1AP2: ARCH CULVERT CULVERT Peak Elev=119.96' Storage=57 cf Inflow=1.51 cfs 0.127 af
Primary=1.51 cfs 0.126 af Secondary=0.00 cfs 0.000 af Outflow=1.51 cfs 0.126 af

Pond AP-1: STREAM TO OFF-SITE Inflow=4.76 cfs 0.541 af
Primary=4.76 cfs 0.541 af

Pond AP-2: WEST PROPERTY LINE Inflow=5.08 cfs 0.428 af
Primary=5.08 cfs 0.428 af

Total Runoff Area = 4.422 ac Runoff Volume = 0.970 af Average Runoff Depth = 2.63"
74.49% Pervious = 3.294 ac 25.51% Impervious = 1.128 ac

Broad Cove Post-Development

Type III 24-hr 25-yr Storm Rainfall=5.80"

Prepared by {enter your company name here}

Printed 5/25/2021

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Time span=0.00-30.00 hrs, dt=0.01 hrs, 3001 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment SC-1A: BUILDING AREA Runoff Area=12,700 sf 100.00% Impervious Runoff Depth=5.56"
Tc=5.0 min CN=98 Runoff=1.72 cfs 0.135 af

Subcatchment SC-1B: ENTRANCE Runoff Area=12,066 sf 69.43% Impervious Runoff Depth=4.87"
Tc=5.0 min CN=92 Runoff=1.54 cfs 0.112 af

Subcatchment SC-1C: EAST AREA OF SITE Runoff Area=58,693 sf 0.45% Impervious Runoff Depth=2.74"
Flow Length=444' Tc=12.0 min CN=71 Runoff=3.53 cfs 0.307 af

Subcatchment SC-1D: SOUTHEAST AREA Runoff Area=25,261 sf 18.07% Impervious Runoff Depth=3.70"
Flow Length=168' Tc=11.1 min CN=81 Runoff=2.12 cfs 0.179 af

Subcatchment SC-1E: AREA EAST OF BLDG Runoff Area=3,875 sf 0.00% Impervious Runoff Depth=3.60"
Tc=5.0 min CN=80 Runoff=0.39 cfs 0.027 af

Subcatchment SC-2A: WESTERN SITE Runoff Area=43,664 sf 0.00% Impervious Runoff Depth=3.11"
Flow Length=132' Tc=10.8 min CN=75 Runoff=3.11 cfs 0.260 af

Subcatchment SC-2B: Back parking lot Runoff Area=36,350 sf 63.92% Impervious Runoff Depth=4.76"
Flow Length=460' Tc=9.7 min CN=91 Runoff=3.91 cfs 0.331 af

Reach 1R: STREAM TO PROPERTY LINE Avg. Flow Depth=0.38' Max Vel=4.73 fps Inflow=2.12 cfs 0.178 af
n=0.035 L=370.0' S=0.0892 ' Capacity=63.11 cfs Outflow=2.09 cfs 0.178 af

Pond 1AP1: PROPOSED DETENTION AREA Peak Elev=116.51' Storage=2,642 cf Inflow=3.64 cfs 0.274 af
Primary=1.10 cfs 0.274 af Secondary=0.03 cfs 0.000 af Outflow=1.13 cfs 0.274 af

Pond 1AP2: ARCH CULVERT CULVERT Peak Elev=120.00' Storage=60 cf Inflow=2.12 cfs 0.179 af
Primary=2.12 cfs 0.178 af Secondary=0.00 cfs 0.000 af Outflow=2.12 cfs 0.178 af

Pond AP-1: STREAM TO OFF-SITE Inflow=6.68 cfs 0.760 af
Primary=6.68 cfs 0.760 af

Pond AP-2: WEST PROPERTY LINE Inflow=6.99 cfs 0.591 af
Primary=6.99 cfs 0.591 af

Total Runoff Area = 4.422 ac Runoff Volume = 1.352 af Average Runoff Depth = 3.67"
74.49% Pervious = 3.294 ac 25.51% Impervious = 1.128 ac

Broad Cove Post-Development

Type III 24-hr 100-yr Storm Rainfall=8.10"

Prepared by {enter your company name here}

Printed 5/25/2021

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Page 8

Time span=0.00-30.00 hrs, dt=0.01 hrs, 3001 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment SC-1A: BUILDING AREA Runoff Area=12,700 sf 100.00% Impervious Runoff Depth=7.86"
Tc=5.0 min CN=98 Runoff=2.40 cfs 0.191 af

Subcatchment SC-1B: ENTRANCE Runoff Area=12,066 sf 69.43% Impervious Runoff Depth=7.14"
Tc=5.0 min CN=92 Runoff=2.21 cfs 0.165 af

Subcatchment SC-1C: EAST AREA OF SITE Runoff Area=58,693 sf 0.45% Impervious Runoff Depth=4.67"
Flow Length=444' Tc=12.0 min CN=71 Runoff=6.06 cfs 0.524 af

Subcatchment SC-1D: SOUTHEAST AREA Runoff Area=25,261 sf 18.07% Impervious Runoff Depth=5.84"
Flow Length=168' Tc=11.1 min CN=81 Runoff=3.30 cfs 0.282 af

Subcatchment SC-1E: AREA EAST OF BLDG Runoff Area=3,875 sf 0.00% Impervious Runoff Depth=5.72"
Tc=5.0 min CN=80 Runoff=0.61 cfs 0.042 af

Subcatchment SC-2A: WESTERN SITE Runoff Area=43,664 sf 0.00% Impervious Runoff Depth=5.13"
Flow Length=132' Tc=10.8 min CN=75 Runoff=5.12 cfs 0.429 af

Subcatchment SC-2B: Back parking lot Runoff Area=36,350 sf 63.92% Impervious Runoff Depth=7.02"
Flow Length=460' Tc=9.7 min CN=91 Runoff=5.64 cfs 0.488 af

Reach 1R: STREAM TO PROPERTY LINE Avg. Flow Depth=0.47' Max Vel=5.37 fps Inflow=3.29 cfs 0.281 af
n=0.035 L=370.0' S=0.0892 ' Capacity=63.11 cfs Outflow=3.27 cfs 0.281 af

Pond 1AP1: PROPOSED DETENTION AREA Peak Elev=116.72' Storage=3,155 cf Inflow=5.22 cfs 0.398 af
Primary=1.14 cfs 0.356 af Secondary=2.42 cfs 0.043 af Outflow=3.56 cfs 0.398 af

Pond 1AP2: ARCH CULVERT CULVERT Peak Elev=120.07' Storage=67 cf Inflow=3.30 cfs 0.282 af
Primary=3.29 cfs 0.281 af Secondary=0.00 cfs 0.000 af Outflow=3.29 cfs 0.281 af

Pond AP-1: STREAM TO OFF-SITE Inflow=12.74 cfs 1.203 af
Primary=12.74 cfs 1.203 af

Pond AP-2: WEST PROPERTY LINE Inflow=10.72 cfs 0.917 af
Primary=10.72 cfs 0.917 af

Total Runoff Area = 4.422 ac Runoff Volume = 2.121 af Average Runoff Depth = 5.76"
74.49% Pervious = 3.294 ac 25.51% Impervious = 1.128 ac



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

DEPARTMENT ORDER

IN THE MATTER OF

SCHOONER VENTURES III, LLC	) STORMWATER MANAGEMENT LAW
Cumberland, Cumberland County	) NATURAL RESOURCES PROTECTION ACT
14-LOT SUBDIVISION	) FRESHWATER WETLAND ALTERATION
L-29196-NI-A-N (approval)	) WATER QUALITY CERTIFICATION
L-29196-TA-B-N (approval)	) FINDINGS OF FACT AND ORDER

Pursuant to the provisions of 38 M.R.S. §§ 480-A–480-JJ, 38 M.R.S. § 420-D, Section 401 of the Clean Water Act (33 U. S. C. § 1341), and Chapters 310 and 500 of Department rules, the Department of Environmental Protection has considered the application of SCHOONER VENTURES III, LLC with the supportive data and other related materials on file and FINDS THE FOLLOWING FACTS:

1. PROJECT DESCRIPTION:

A. Summary: The applicant proposes to construct a stormwater management system for 2,350 linear feet of roadway for a 14-lot residential subdivision on a 44-acre parcel of land. Approximately 26 acres located to the south and north of the subdivision and connected by easement corridors, will remain open space and will be protected by a conservation easement with the Town of Cumberland. The proposed project includes approximately 2.60 acres of developed area of which 1.54 acres is impervious area as shown on set of plans the first of which is entitled “Blanchard Oaks Subdivision, Cumberland, Maine,” prepared by Northeast Civil Solutions Inc., and dated April 15, 2021 with a latest revision date on any of the sheets of May 24, 2021. The project site is located off Blanchard Road Extension in the Town of Cumberland.

The applicant submitted a Notice of Intent (NOI #72202) to comply with the standards and requirements of the Maine Construction General Permit which was accepted by the Department on May 11, 2021.

The parcel has two jurisdictional streams, 5.35 acres of forested freshwater wetland and three significant vernal pools (SVP). The majority of the wetland, streams and two SVPs and associated critical terrestrial habit (CTH) will be protected by conservation easement. The applicant is seeking approval to fill 8,408 square feet of forested freshwater wetland under the Natural Resources Protection Act; 2,815 square feet of which will be associated with a stream crossing.

The applicant submitted a Permit by Rule Notification Form (PBR #72203) pursuant to Chapter 305 Permit by Rule Standards Section 10 and Section 19 (06-096 Ch. 305, 10 § 19, last amended June 8, 2012) for a stream crossing and impacts to the significant vernal pool habitat which was accepted by the Department on May 11, 2021.

B. Current Use of the Site: The site of the proposed project is currently undeveloped woodland with one residential structure and driveway. The parcel is identified as Lot 68A on Map R08 of the Town of Cumberland's tax maps.

2. STORMWATER STANDARDS:

The proposed project includes approximately 2.60 acres of developed area of which 1.54 acres is impervious area. It lies within the watershed of Piscataqua River. The applicant submitted a stormwater management plan based on the Basic and General contained in Department Rules, Chapter 500. The proposed stormwater management system consists of five forested buffers; three with stone berm level lip spreaders and two are adjacent to the downhill side of a road.

A. Basic Standards:

(1) Erosion and Sedimentation Control: The applicant submitted an Erosion and Sedimentation Control Plan that is based on the performance standards contained in Appendix A of Chapter 500 and the Best Management Practices outlined in the Maine Erosion and Sediment Control BMPs, which were developed by the Department. This plan and plan sheets containing erosion control details were reviewed by, and revised in response to the comments of the Cumberland County Soil and Water Conservation District (CCSWCD).

Erosion control details will be included on the final construction plans and the erosion control narrative will be included in the project specifications to be provided to the construction contractor. Given slope, stream and wetland crossings of the project site, the applicant must retain the services of a third party inspector in accordance with the Special Condition for Third Party Inspection Program, which is attached to this Order.

(2) Inspection and Maintenance: The applicant submitted a maintenance plan that addresses both short and long-term maintenance requirements. This plan was reviewed by, and revised in response to the comments of, CCSWD. The maintenance plan is based on the standards contained in Appendix B of Chapter 500. Prior to the formation of a homeowners' association (HOA), the applicant will be responsible for all such maintenance. If an HOA is formed, the Declaration of Covenants and Restrictions for the association must be provided to the Department for review. If the Town intends to accept the road and stormwater management system upon completion, a letter must be submitted from the Town to the Department documenting the Town's agreement to maintain both in accordance with the terms of this Order.

(3) Housekeeping: The proposed project will comply with the performance standards outlined in Appendix C of Chapter 500.

Based on CCSWD's review of the erosion and sedimentation control plan and the maintenance plan, the Department finds that the proposed project meets the Basic Standards contained in Chapter 500, § 4(B) provided that documentation for conveyance

to an HOA or the town for maintenance of the road and stormwater management system is submitted to the Department for review and a third party inspector is retained as described above.

B. General Standards:

The applicant's stormwater management plan includes general 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 thermal impacts. The proposed road meets the definition of "a linear portion of a project" in Chapter 500 and the applicant is proposing to control runoff volume from no less than 76.9% of the volume from the impervious area and no less than 57.7% of the developed area.

The forested, no disturbance stormwater buffers on lots, including those located in open space, will be protected from alteration through the execution of a deed restriction. The applicant proposes to use the deed restriction language contained in Appendix G of Chapter 500 and submitted a draft deed restriction that meets Department standards.

Prior to the start of construction, the location of forested buffers on individual lots must be permanently marked on the ground. The deed for each lot, including open space lots, that contains any portion of the designated buffer must contain deed restrictions relative to the buffer and have attached to it a plot plan for the lot, drawn to scale, that specifies the location of the buffer on the lot. The applicant shall execute and record the required deed restriction prior to the start of construction on the lot. The applicant shall submit a copy of the recorded deed restriction, including the plot plan, to the Department within 60 days of its recording.

The stormwater management system proposed by the applicant was reviewed by, and revised in response to comments from, CCSWD. After a final review, CCSWD commented that the proposed stormwater management system is designed in accordance with the Chapter 500 General Standards, and recommended that the applicant's design engineer or other qualified professional oversee the construction of the stormwater management structures with level lip spreaders to insure that it is installed in accordance with the details and notes specified on the approved plans. Within 30 days from completion, the applicant must submit a log of inspection reports to the Department that contains a list of the items inspected, photographs taken, and other relevant information. CCSWCD requested that within six months of completion, the applicant must submit as-built (record) drawings for each of the stormwater control structures, including the stormwater BMP's to the Department for review.

Based on the stormwater system's design and CCSWD's review, the Department finds that the applicant has made adequate provision to ensure that the proposed project will meet the Basic and General Standards contained in Chapter 500 provided that prior to construction all buffers are marked on the ground, deeds are executed and recored as described above, that a professional engineer is retained to oversee the construction of

each of the buffers with level lip spreaders and as-built drawings are submitted to the BLR, as outlined above.

5. WETLAND ALTERATION:

The applicant proposes to alter 8,408 square feet of forested wetland. After reviewing the information in the file, the Department determined that the activity will not negatively affect the protected natural resources; therefore the proposed project is eligible for Tier 1 review. The applicant has avoided wetland impacts to the greatest extent practicable by siting the road as far away from the critical terrestrial habitat of the significant vernal pool located at the entrance to the subdivision, by designating the open space lots deed restricted conservation area, and by lengthening the road to avoid a second stream crossing, and by designating building envelopes on lots with wetland area. The applicant has minimized impacts by limiting the roadway width, by utilizing 2:1 road side slopes and oversized culverts in wetland areas. Given the location of the wetlands on this parcel, encroachment within these wetland areas is unavoidable.

According to the Department's Geographic Information System, there are mapped Significant Wildlife Habitats associated with the project site. Three significant vernal pools (SVP) exist on the parcel; two will remain undisturbed within a 23-acre deed restricted, conservation open space. The proposed roadway will impact the critical terrestrial habitat of the third SVP at the entrance of the project site (PBR #72203).

Prior to the start of construction, the location of wetland area on individual lots must be permanently marked on the ground. The deed for each lot, that contains any portion of wetland area must contain deed restrictions relative to the wetland and have attached to it a plot plan for the lot, drawn to scale, that specifies the location of the wetland on the lot. The applicant shall execute and record the required deed restriction prior to the start of construction on the lot. The applicant shall submit a copy of the recorded deed restriction, including the plot plan, to the Department within 60 days of its recording.

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 prior to construction all wetland area is marked on the ground and deeds are recorded and executed as described above.

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. § 420-D, and Chapters 500 of the Department's rules:

A. The applicant has made adequate provision to ensure that the proposed project will meet the Chapter 500 Basic Standards for: (1) erosion and sediment control; (2) inspection and maintenance; (3) housekeeping; and (4) grading and construction activity provided provided that conveyance of maintenance of the road and stormwater

management system responsibility is submitted to the Department for review and a third party inspector is retained as outlined in Finding 2A.

B. The applicant has made adequate provision to ensure that the proposed project will meet the Chapter 500 General Standards provided that buffers are marked on the ground, a professional engineer is retained to inspect and document the installation of level lip spreaders and pipes, and that as-built drawings of stormwater treatment BMPs are submitted to the BLR, as outlined in Finding 2B.

C. The applicant has made adequate provision to ensure that the proposed project will meet the Chapter 500 standards for: (1) easements and covenants; (2) management of stormwater discharges; (3) discharge to freshwater or coastal wetlands; (4) threatened or endangered species; and (5) discharges to public storm sewer systems.

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 Clean Water Act:

A. 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 wetland area on each lot is marked on the ground and wetland deed restrictions are executed and recorded as described in Finding 5.

B. The proposed activity will not violate any state water quality law including those governing the classification of the State's waters.

THEREFORE, the Department APPROVES the above noted application of SCHOONER VENTURES III, LLC to construct a stormwater management system for (activity) as described in Finding 1, Maine, SUBJECT TO THE FOLLOWING CONDITIONS, and all applicable standards and regulations:

1. The Standard Conditions of Approval, a copy attached.
2. In addition to any specific erosion control measures described in this or previous orders, the applicant shall take all necessary actions to ensure that its activities or those of its do not result in noticeable erosion of soils or fugitive dust emissions on the site during the construction and operation 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. The applicant shall retain its design engineer or another qualified engineer to oversee the construction of the stormwater management system according to the details and notes

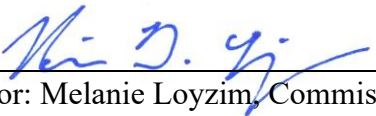
specified on the approved plans. Within 30 days of completion of the entire system or at least once per year, the applicant shall submit a log of inspection reports detailing the items inspected, photographs taken, and dates of each inspection to the Department for review.

5. The applicant shall submit to the Department for review copies of as-built drawings, signed and stamped by a professional engineer licensed in Maine, for stormwater treatment BMPs within six months of their completion.
6. The applicant shall include in all conveyances of subdivision lot deed restrictions making the conveyance subject to all terms and conditions of this Department permit, particularly those conditions related to maintenance of the stormwater management system, buffer and wetland areas. These terms and conditions may be incorporated by specific and prominent reference to the permit in the deed. All conveyances required by this approval to contain restrictions shall include in the restrictions the requirement that any subsequent conveyance shall specifically include the same restrictions.
7. The applicant shall give a copy of this permit, including the standard conditions, and a copy of the approved subdivision plan to each lot buyer at least 14 days prior to the date of closing on the sale or lease of the lot. The applicant also shall maintain a file containing signed and dated statements by lot buyers or lessees acknowledging that they have received and read their copy of this permit and the subdivision plan prior to the closing on their lot. The file shall also contain a copy of the signed and dated deed or lease containing the restrictive covenants required under this approval. The applicant shall make this file available for inspection upon request by the Department.
8. The applicant shall execute and record the required deed restriction, including the appropriate stormwater buffer and wetland deed restrictions, prior to the start of construction on any lot. The applicant shall submit a copy of the recorded deed restriction, including the plot plan, to the Department within 60 days of its recording.
9. Prior to the start of construction, the location of forested buffers and wetland areas on individual lots shall be permanently marked on the ground.
10. The applicant shall retain the services of a third-party inspector in accordance with the Special Condition for Third-Party Inspection Program, which is attached to this Order.

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 23RD DAY OF JUNE, 2021.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: _____
For: Melanie Loyzim, Commissioner

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES.

AJS/L29196ANBN/87505, 87506

FILED June 24th, 2021 State of Maine Board of Environmental Protection

STORMWATER STANDARD CONDITIONS**STRICT CONFORMANCE WITH THE STANDARD AND SPECIAL
CONDITIONS OF THIS APPROVAL IS NECESSARY FOR THE PROJECT
TO MEET THE STATUTORY CRITERIA FOR APPROVAL**

- (1) Approval of variations from plans. The granting of this approval 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 must be reviewed and approved by the department prior to implementation. Any variation undertaken without approval of the department is in violation of 38 M.R.S.A. §420-D(8) and is subject to penalties under 38 M.R.S.A. §349.
- (2) Compliance with all terms and conditions of approval. The applicant shall submit all reports and information requested by the department demonstrating that the applicant has complied or will comply with all terms and conditions of this approval. All preconstruction terms and conditions must be met before construction begins.
- (3) Advertising. Advertising relating to matters included in this application may not refer to this approval unless it notes that the approval has been granted WITH CONDITIONS, and indicates where copies of those conditions may be obtained.
- (4) Transfer of project. Unless otherwise provided in this approval, the applicant may not sell, lease, assign, or otherwise transfer the project or any portion thereof without written approval by the department where the purpose or consequence of the transfer is to transfer any of the obligations of the developer as incorporated in this approval. Such approval may only be granted if the applicant or transferee demonstrates to the department that the transferee agrees to comply with conditions of this approval and the proposals and plans contained in the application and supporting documents submitted by the applicant. Approval of a transfer of the permit must be applied for no later than two weeks after any transfer of property subject to the license.
- (5) Time frame for approvals. If the construction or operation of the activity is not begun within four years, this approval shall lapse and the applicant shall reapply to the department for a new approval. The applicant may not begin construction or operation of the project until a new approval is granted. A reapplication for approval 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.
- (6) Certification. Contracts must specify that "all work is to comply with the conditions of the Stormwater Permit." Work done by a contractor or subcontractor pursuant to this approval may not begin before the contractor and any subcontractors have been shown a copy of this approval with the conditions by the developer, and the owner and each contractor and subcontractor has certified, on a form provided by the department, that the approval and conditions have been received and read, and that the work will be carried out in accordance with the approval and conditions. Completed certification forms must be forwarded to the department.
- (7) Maintenance. The components of the stormwater management system must be adequately maintained to ensure that the system operates as designed, and as approved by the department.

- (8) Recertification requirement. Within three months of the expiration of each five-year interval from the date of issuance of the permit, the permittee shall certify the following to the department.
 - (a) 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) 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 facilities.
 - (c) The erosion and stormwater maintenance plan for the site is being implemented as written, or modifications to the plan have been submitted to and approved by the department, and the maintenance log is being maintained.
- (9) Severability. The invalidity or unenforceability of any provision, or part thereof, of this permit shall not affect the remainder of the provision or any other provisions. This permit shall be construed and enforced in all respects as if such invalid or unenforceable provision or part thereof had been omitted.



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.

Special Condition
for
Third Party Inspection Program

THIRD-PARTY INSPECTION PROGRAM

1.0 THE PURPOSE OF THE THIRD-PARTY INSPECTION

As a condition of this permit, the Maine Department of Environmental Protection (MDEP) requires the permit applicant to retain the services of a third-party inspector to monitor compliance with MDEP permit conditions during construction. The objectives of this condition are as follows:

- 1) to ensure that all construction and stabilization activities comply with the permit conditions and the MDEP-approved drawings and specifications,
- 2) to ensure that field decisions regarding erosion control implementation, stormwater system installation, and natural resource protection are based on sound engineering and environmental considerations, and
- 3) to ensure communication between the contractor and MDEP regarding any changes to the development's erosion control plan, stormwater management plan, or final stabilization plan.

This document establishes the inspection program and outlines the responsibilities of the permit applicant, the MDEP, and the inspector.

2.0 SELECTING THE INSPECTOR

At least 30 days prior to starting any construction activity on the site, the applicant will submit the names of at least two inspector candidates to the MDEP. Each candidate must meet the minimum qualifications listed under section 3.0. The candidates may not be employees, partners, or contracted consultants involved with the permitting of the project or otherwise employed by the same company or agency except that the MDEP may accept subcontractors who worked for the project's primary consultant on some aspect of the project such as, but not limited to, completing wetland delineations, identifying significant wildlife habitats, or conducting geotechnical investigations, but who were not directly employed by the applicant, as Third Party inspectors on a case by case basis. The MDEP will have 15 days from receiving the names to select one of the candidates as the inspector or to reject both candidates. If the MDEP rejects both candidates, then the MDEP shall state the particular reasons for the rejections. In this case, the applicant may either dispute the rejection to the Director of the Bureau of Land Resources or start the selection process over by nominating two, new candidates.

3.0 THE INSPECTOR'S QUALIFICATIONS

Each inspector candidate nominated by the applicant shall have the following minimum

qualifications:

- 1) a degree in an environmental science or civil engineering, or other demonstrated expertise,
- 2) a practical knowledge of erosion control practices and stormwater hydrology,
- 3) experience in management or supervision on large construction projects,
- 4) the ability to understand and articulate permit conditions to contractors concerning erosion control or stormwater management,
- 5) the ability to clearly document activities being inspected,
- 6) appropriate facilities and, if necessary, support staff to carry out the duties and responsibilities set forth in section 6.0 in a timely manner, and
- 7) no ownership or financial interest in the development other than that created by being retained as the third-party inspector.

4.0 INITIATING THE INSPECTOR'S SERVICES

The applicant will not formally and finally engage for service any inspector under this permit condition prior to MDEP approval or waiver by omission under section 2.0. No clearing, grubbing, grading, filling, stockpiling, or other construction activity will take place on the development site until the applicant retains the MDEP-approved inspector for service.

5.0 TERMINATING THE INSPECTOR'S SERVICES

The applicant will not terminate the services of the MDEP-approved inspector at any time between commencing construction and completing final site stabilization without first getting written approval to do so from the MDEP.

6.0 THE INSPECTOR'S DUTIES AND RESPONSIBILITIES

The inspector's work shall consist of the duties and responsibilities outlined below.

- 1) Prior to construction, the inspector will become thoroughly familiar with the terms and conditions of the state-issued site permit, natural resources protection permit, or both.
- 2) Prior to construction, the inspector will become thoroughly familiar with the proposed construction schedule, including the timing for installing and removing erosion controls, the timing for constructing and stabilizing any basins or ponds, and the deadlines for completing stabilization of disturbed soils.
- 3) Prior to construction, the inspector will become thoroughly familiar with the project plans and specifications, including those for building detention basins, those for installing the

erosion control measures to be used on the site, and those for temporarily or permanently stabilizing disturbed soils in a timely manner.

- 4) During construction, the inspector will monitor the contractor's installation and maintenance of the erosion control measures called for in the state permit(s) and any additional measures the inspector believes are necessary to prevent sediment discharge to off-site properties or natural resources. This direction will be based on the approved erosion control plan, field conditions at the time of construction, and the natural resources potentially impacted by construction activities.
- 5) During construction, the inspector will monitor the contractor's construction of the stormwater system, including the construction and stabilization of ditches, culverts, detention basins, water quality treatment measures, and storm sewers.
- 6) During construction, the inspector will monitor the contractor's installation of any stream or wetland crossings.
- 7) During construction, the inspector will monitor the contractor's final stabilization of the project site.
- 8) During construction, the inspector will keep logs recording any rain storms at the site, the contractor's activities on the site, discussions with the contractor(s), and possible violations of the permit conditions.
- 9) During construction, the inspector will inspect the project site at least once a week and before and after any significant rain event. The inspector will photograph all protected natural resources both before and after construction and will photograph all areas under construction. All photographs will be identified with, at a minimum the date the photo was taken, the location and the name of the individual taking the photograph. *Note: the frequency of these inspections as contained in this condition may be varied to best address particular project needs.*
- 10) During construction, the inspector will prepare and submit weekly (*or other frequency*) inspection reports to the MDEP.
- 11) During construction, the inspector will notify the designated person at the MDEP immediately of any sediment-laden discharges to a protected natural resource or other significant issues such as the improper construction of a stormwater control structure or the use of construction plans not approved by the MDEP.

7.0 INSPECTION REPORTS

The inspector will submit weekly written reports (*or at another designated frequency*), including photographs of areas that are under construction, on a form provided by the Department to the designated person at the MDEP. Each report will be due at the MDEP by the Friday (*or other designated day*) following the inspection week (Monday through

Sunday).

The weekly report will summarize construction activities and events on the site for the previous week as outlined below.

- 1) The report will state the name of the development, its permit number(s), and the start and end dates for the inspection week (Monday through Sunday).
- 2) The report will state the date(s) and time(s) when the inspector was on the site making inspections.
- 3) The report will state the date(s) and approximate duration(s) of any rainfall events on the site for the week.
- 4) The report will identify and describe any erosion problems that resulted in sediment leaving the property or sediment being discharged into a wetland, brook, stream, river, lake, or public storm sewer system. The report will describe the contractor's actions to repair any damage to other properties or natural resources, actions to eliminate the erosion source, and actions to prevent future sediment discharges from the area.
- 5) The report will list the buildings, roads, parking lots, detention basins, stream crossings or other features open to construction for the week, including those features or areas actively worked and those left unworked (dormant).
- 6) For each area open to construction, the report will list the date of initial soil disturbance for the area.
- 7) For each area open to construction, the report will note which areas were actively worked that week and which were left dormant for the week. For those areas actively worked, the report will briefly state the work performed in the area that week and the progress toward final stabilization of the area – e.g. “grubbing in progress,” “grubbing complete,” “rough grading in progress,” “rough grading complete,” “finish grading in progress,” “finish grading complete,” “permanent seeding completed,” “area fully stable and temporary erosion controls removed,” etc.
- 8) For each area open to construction, the report will list the erosion and sedimentation control measures installed, maintained, or removed during the week.
- 9) For each erosion control measure in-place, the report will note the condition of the measure and any maintenance performed to bring it to standard.

Third Party Inspection Form

**This report is prepared by a Third Party Inspector to meet the requirements of the Third Party Inspector Condition attached as a Special Condition to the Department Order that was issued for the project identified below. The information in this report/form is not intended to serve as a determination of whether the project is in compliance with the Department permit or other applicable Department laws and rules.
Only Department staff may make that determination.**

TO: <i>PM, Maine DEP (@maine.gov)</i>	FROM:
PROJECT NAME/ LOCATION:	DEP #:
DATE OF INSPECTION:	DATE OF REPORT:
WEATHER:	CONDITIONS:

SITE CHARACTERISTICS:

# ACRES OPEN:	# ACRES ACTIVE:	# ACRES INACTIVE:
LOCATION OF OPEN LAND:	LOCATION OF ACTIVE LAND:	LOCATION OF INACTIVE LAND:
OPEN SINCE:	OPEN SINCE:	OPEN SINCE:

PROGRESS OF WORK:

INSPECTION OF:	Satisfactory	Minor Deviation (corrective action required)	Unsatisfactory (include photos)
STORMWATER CONTROL (VEGETATIVE & STRUCTURAL BMP'S)			
EROSION & SEDIMENTATION CONTROL (TEMPORARY & PERMANENT BMP'S)			
OTHER: (PERMIT CONDITIONS, ENGINEERING DESIGN, ETC.)			

COMMENTS/CORRECTIVE ACTIONS TAKEN (attach additional sheets as necessary):

Photos (must be labeled with date, photographer and location):

Cc:		
<i>Original and all copies were sent by email only.</i>		



DEP INFORMATION SHEET

Appealing a Department Licensing Decision

Dated: March 2012

Contact: (207) 287-2811

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) in an administrative process before the Board of Environmental Protection ("Board"); or (2) in 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.A. § 3451(4)) or a general permit for an offshore wind energy demonstration project (38 M.R.S.A. § 480-HH(1)) or a general permit for a tidal energy demonstration project (38 M.R.S.A. § 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.A. §§ 341-D(4) & 346, the *Maine Administrative Procedure Act*, 5 M.R.S.A. § 11001, and the DEP's *Rules Concerning the Processing of Applications and Other Administrative Matters* ("Chapter 2"), 06-096 CMR 2 (April 1, 2003).

HOW LONG YOU HAVE 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 after 30 calendar days of the date on which the Commissioner's decision was filed with the Board will be rejected.

HOW TO SUBMIT AN APPEAL TO THE BOARD

Signed original appeal documents must be sent to: Chair, Board of Environmental Protection, c/o Department of Environmental Protection, 17 State House Station, Augusta, ME 04333-0017; faxes are acceptable for purposes of meeting the deadline when followed by the Board's receipt of mailed original documents within five (5) working days. Receipt on a particular day must be by 5:00 PM at DEP's offices in Augusta; materials received after 5:00 PM are not considered received until the following day. The person appealing a licensing decision must also send the DEP's Commissioner a copy of the appeal documents and if the person appealing is not the applicant in the license proceeding at issue the applicant must also be sent a copy of the appeal documents. All of the information listed in the next section must be submitted at the time the appeal is filed. Only the extraordinary circumstances described at the end of that section will justify evidence not in the DEP's record at the time of decision being added to the record for consideration by the Board as part of an appeal.

WHAT YOUR APPEAL PAPERWORK MUST CONTAIN

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

1. *Aggrieved Status.* The appeal must explain how the person filing the appeal has standing to maintain an appeal. This requires an explanation of how the person filing the appeal 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.* Specific references and facts regarding the appellant's issues with the decision must be provided in the notice of appeal.
3. *The basis of the objections or challenge.* If possible, specific regulations, statutes or other facts should be referenced. This may include citing omissions of relevant requirements, and errors believed to have been made in interpretations, conclusions, and relevant requirements.
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 arguments specifically raised in the written notice of appeal.
6. *Request for hearing.* The Board will hear presentations on appeals at its regularly scheduled meetings, unless a public hearing on the appeal is requested and granted. A request for public hearing on an appeal must be filed as part of the notice of appeal.
7. *New or additional evidence to be offered.* The Board may allow new or additional evidence, referred to as supplemental evidence, to be considered by the Board in an appeal only when the evidence is relevant and material and that the person seeking to add information to the record can show due diligence in bringing the evidence to the DEP's attention at the earliest possible time in the licensing process or that the evidence itself is newly discovered and could not have been presented earlier in the process. Specific requirements for additional evidence are found in Chapter 2.

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, made easily accessible by DEP. Upon request, the DEP will make the material available during normal working hours, provide space to review the file, and provide 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 questions regarding applicable requirements.
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. 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, including 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, and any materials submitted in response to the appeal will be sent to Board members with a recommendation from DEP staff. Persons filing appeals and interested persons are notified in advance of the date set for Board consideration of an appeal or request for public hearing. 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, a 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.A. § 346(1); 06-096 CMR 2; 5 M.R.S.A. § 11001; & 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. Failure to file a timely appeal will result in the Board's or the Commissioner's decision becoming final.

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.A. § 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.

APPENDIX F

PWD ABILITY TO SERVE REQUEST LETTER



4 Blanchard Road, P.O. Box 85A
Cumberland, ME 04021
Tel: 207.829.5016 • Fax: 207.829.5692
info@smemaine.com
smemaine.com

April 22, 2021

VIA E-MAIL

MEANS Group
Portland Water District
225 Douglass Street
Portland, ME 04102

Subject: Evergreen Ridge Condominiums
Route 1, Cumberland, Maine

To Whom It May Concern:

On behalf of Snell Construction, LLC, Sevee & Maher Engineers, Inc. (SME) is requesting a letter from the Portland Water District (PWD) to verify their capacity to serve a 50-unit Condominium multiplex at 102 US Route 1 in Cumberland. The parcel is indicated as Lot 13B on the Town of Cumberland Tax Map R1. The location of the facility is outlined in the attached Figure 1 - Site Location Map. Existing conditions of the site is outlined in the attached Existing Conditions Plan.

The proposed project includes a 50-unit Condominiums multiplex 5-story building with parking for visitors and residents. The proposed Condominiums will be serviced by a 2-inch domestic line connected to public water available along US Route 1.

SME anticipates 13 one-bedroom condos and 37 two-bedroom condos for this proposed condominium. The total anticipated water demand for the property is 8,220 gallons per day which includes an estimated 180 gallons of water per day for a two-bedroom condo unit and 120 gallons of water per day for a one-bedroom condo.

Please feel free to contact me at 207.829.5016 or dpd@smemaine.com if you have any questions or need additional information.

Sincerely,

SEVEE & MAHER ENGINEERS, INC.

Daniel Diffin, P.E., LEED AP BD+C
Vice President/Project Manager

Attachments

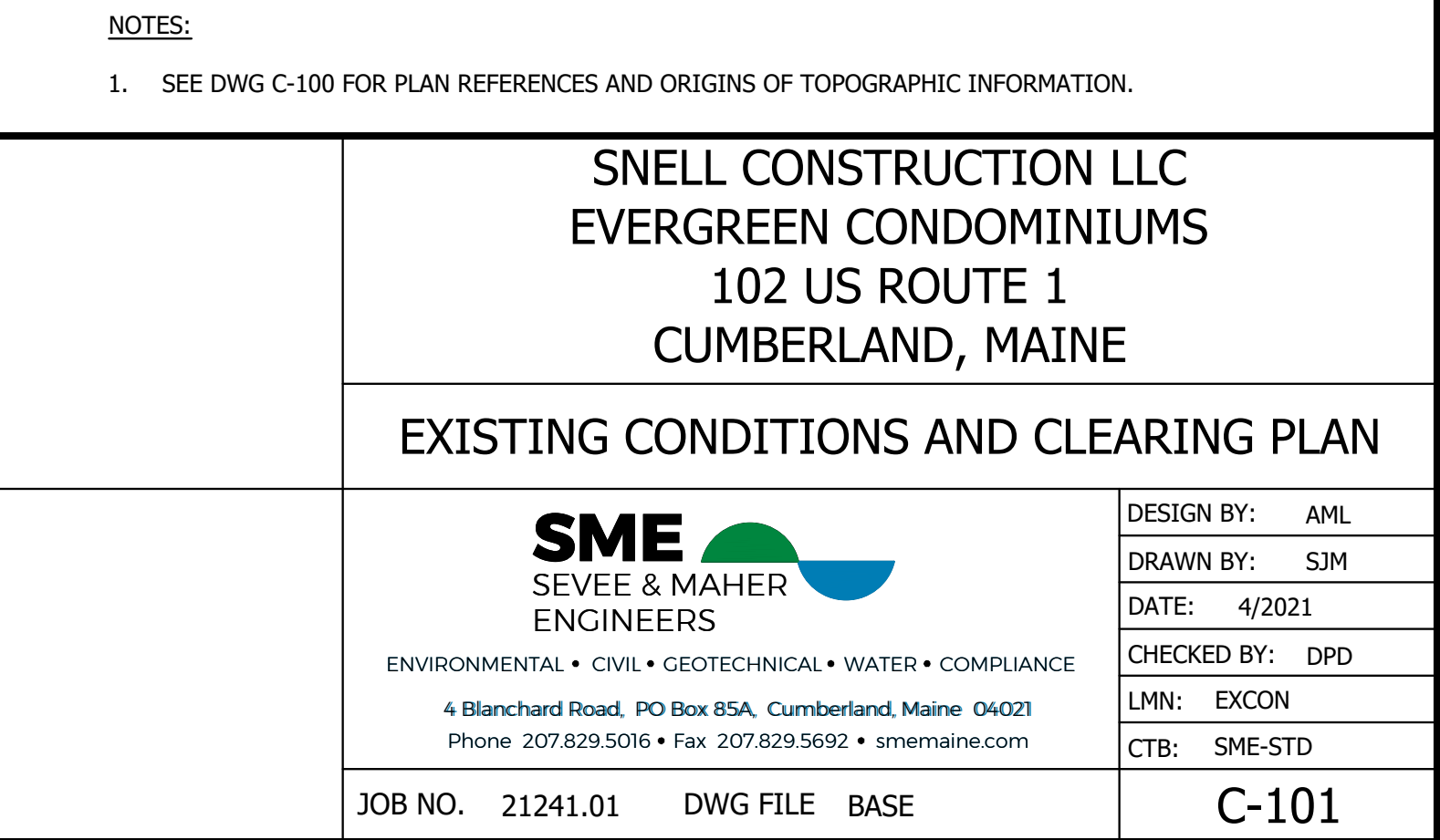


BASEMAP ADAPTED FROM 7.5 MIN USGS TOPO QUADS
YARMOUTH, ME - 1975
PORTLAND-EAST, ME - 1975



FIGURE 1
SITE LOCATION MAP
EVERGREEN RIDGE CONDOMINIUMS
CUMBERLAND, MAINE

SME
SEVEE & MAHER
ENGINEERS



	-	-	-
REV.	BY	DATE	STATUS

APPENDIX G

WASTEWATER CAPACITY REQUEST

Abigail Latulippe

From: Dan Diffin
Sent: Tuesday, May 25, 2021 8:51 AM
To: Bill Shane
Cc: Abigail Latulippe
Subject: Broad Cove Ridge Condos - Sewer Capacity to Serve

Hi Bill,

Would you be able to provide a capacity to serve letter for the Broad Cove Ridge Condominium project off Route 1? This is directly north of the sewer system that was constructed up to the Ledgeview Assisted Living Facility. As you know, the existing sewer system along Route 1 included an additional 2-inch force main pipe that was sized to accommodate the future development of this property. We estimate that the 50-unit condominium development, which includes a combination of 13 one-bedroom units and 37 two-bedroom units will result in approximately 8,000 GPD of wastewater flow.

Let us know if you need more information to provide the capacity to serve letter.

Thanks!

Dan

Daniel P. Diffin, P.E., LEED AP BD+C
Vice President/Senior Civil Engineer



Sevee & Maher Engineers, Inc.

4 Blanchard Road, P.O. Box 85A

Cumberland, ME 04021

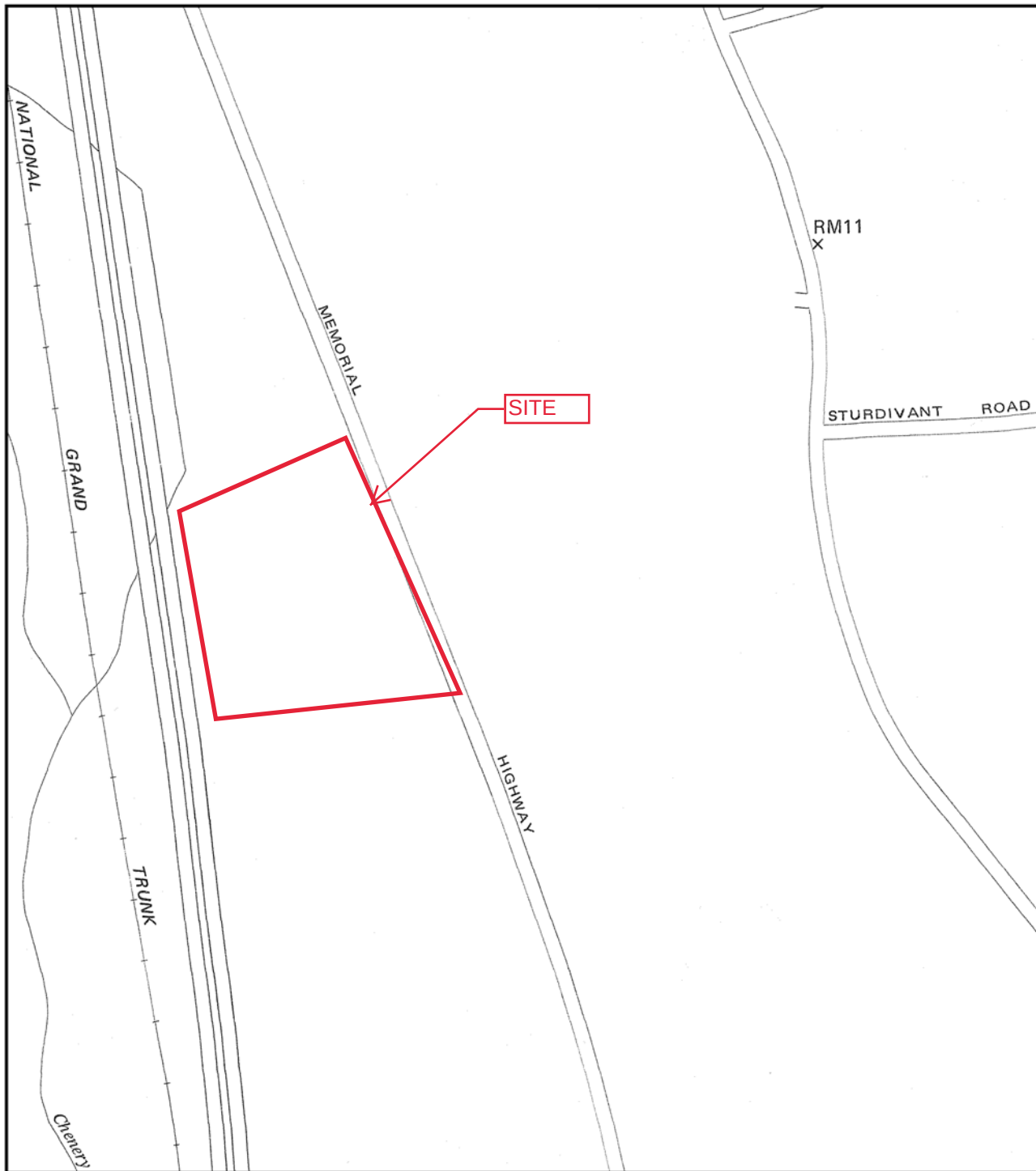
Office: 207.829.5016

Cell: 207.240.3315

Fax: 207.829.5692

APPENDIX H

FEMA FIRM MAP



Program, at (800) 638-6620.



APPROXIMATE SCALE

400 0 400 FEET



NATIONAL FLOOD INSURANCE PROGRAM

FIRM
FLOOD INSURANCE RATE MAP

TOWN OF
CUMBERLAND, MAINE
CUMBERLAND COUNTY

PANEL 18 OF 25
(SEE MAP INDEX FOR PANELS NOT PRINTED)

COMMUNITY-PANEL NUMBER
230162 0018 C

MAP REVISED:
OCTOBER 15, 1985



Federal Emergency Management Agency

This is an official FIRMette showing a portion of the above-referenced flood map created from the MSC FIRMette Web tool. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For additional information about how to make sure the map is current, please see the Flood Hazard Mapping Updates Overview Fact Sheet available on the FEMA Flood Map Service Center home page at <https://msc.fema.gov>.

APPENDIX I

MHPC REVIEW LETTER



4 Blanchard Road, P.O. Box 85A
Cumberland, ME 04021
Tel: 207.829.5016 • Fax: 207.829.5692
info@smemaine.com
smemaine.com

April 13, 2021

Mr. Kirk F. Mohny, Director
Maine Historic Preservation Commission
55 Capitol Street
65 State House Station
Augusta, Maine 04333-0065

Subject: Evergreen Ridge Condominiums
US Route 1, Cumberland, Maine

Dear Mr. Mohny:

Snell Construction, LLC is seeking approval for construction of a 50-condo multiplex with approximately 75 parking spaces and associated site improvement in Cumberland, Maine under a Maine Department of Environmental Protection (MEDEP) Stormwater Management Permit.

PROJECT DESCRIPTION

Snell Construction is proposing a 50-condo multiplex, with approximately 75 parking spaces and associated site improvement in Cumberland, Maine. The property is primarily undeveloped forested land. The property is accessed by a paved driveway off US Route 1.

The 3.16-acre parcel is bordered to the east by US Route 1, to the west by Route I-295, to south by Ledgeview Assisted Living, and undeveloped properties to the north. The project location is outlined in the attached Figure 1 - Site Location Map.

HISTORICAL FINDINGS

A search of the National Register of Historic Places online maps did not identify any historic places adjacent to the parcel.

In addition to searching the National Register of Historic Places, records of neighboring properties were searched for any buildings over fifty (50) years old. There are no neighboring properties with buildings over fifty (50) years old.



Please feel free to contact me at 207.829.5016 or dpd@smemaine.com if you have any questions or need additional information.

Sincerely,

SEVEE & MAHER ENGINEERS, INC.

A handwritten signature in blue ink, appearing to read "Daniel Diffin". The signature is fluid and cursive, with the first name "Daniel" and last name "Diffin" clearly distinguishable.

Daniel Diffin, P.E., LEED AP BD+C
Vice President/Project Manager

Attachment: Figure 1 – Site Location Map



BASEMAP ADAPTED FROM 7.5 MIN USGS TOPO QUADS
YARMOUTH, ME - 1975
PORTLAND-EAST, ME - 1975



FIGURE 1
SITE LOCATION MAP
EVERGREEN RIDGE CONDOMINIUMS
CUMBERLAND, MAINE

SME
SEVEE & MAHER
ENGINEERS



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

JANET T. MILLS
GOVERNOR

KIRK F. MOHNEY
DIRECTOR

April 26, 2021

Mr. Daniel Diffin
Sevee & Maher Engineers
PO Box 85A
Cumberland, ME 04021

Project: MHPC #0677-21 Snell Construction LLC; Evergreen Ridge Condominiums
Construction of 50 Condo Multiplex
Town: Cumberland, ME

Dear Mr. Diffin:

In response to your recent request, I have reviewed the information received April 14, 2021 to initiate consultation on the above referenced project in accordance with the requirements of the Maine Department of Environmental Protection.

Based on the information submitted, I have concluded that there will be no historic properties (archaeological or architectural) affected by the proposed undertaking, as defined by Section 106 of the National Historic Preservation Act.

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

Sincerely,

Kirk F. Mohney
State Historic Preservation Officer

APPENDIX J

LIST OF ABUTTERS

**BROAD COVE RIDGE CONDOMINIUMS
LIST OF ABUTTERS WITHIN 200 FEET
MAY 2021**

MAP	LOT	NAME	LOCATION	ADDRESS
R1	13	LEDGEVIEW PROPERTIES LLC	92 US ROUTE ONE	SAME
R1	14	GLENN S & SANDRA L PORTER	106 US ROUTE ONE	SAME
U5	2	NATHANIEL G HUBER	83 US ROUTE ONE	SAME

APPENDIX K

ROUTE ONE DESIGN GUIDELINES NARRATIVE

May 24, 2021

Carla Nixon, Town Planner
Town of Cumberland
290 Tuttle Road
Cumberland, ME 04021

Re: Rt.1 Design Guidelines Appropriateness:
Broad Cove Ridge Condominiums- Rt. 1, Cumberland, Maine

Dear Carla,

The general goal of this memorandum is to provide clarification to the development review application in response to the consideration of the Route 1 Design Guidelines that apply to this project in addition to the Site Plan review standards.

The project is proposed as a 50-unit, single-lot residential condominium with a condominium association that would own and maintain the building and property. The units are envisioned as a mix of one, two, and three-bedroom units and will be served by a parking field of 98 spaces, including 22 underground parking spaces.

ROUTE 1 DESIGN GUIDELINE RESPONSES

1.0 Site planning & Design:

1.5 Building Placement

Objective: Buildings should be placed on their sites in a way that is sensitive to existing site conditions and respectful of adjacent uses. Generous setbacks and landscaping are desirable to maintain the wooded character of the Route One corridor.

The building placement was well considered to take advantage of the dramatically-sloping site, with the “spine” of the building oriented along the ridgeline and parallel to Route 1. This building location allows for most of the parking areas to be located down-grade and around the side and rear of the building so views of the on-grade lots are screened from Route 1. The existing stream traversing the site and I-95 beautification strip will enhance the integration of the project into the natural landscape and the wooded character will be maintained along Route 1 except for a roughly 60’ wide initial canopy opening for a stream crossing and site access road.

2.0 Building Types:

2.1 General Architectural Form:

Drawing from traditional New England residential vernacular, the building form is intended to offer a timeless, classic appeal with modern transitional architectural detailing. The building is divided in three equal segments, with the center section shifting 6 feet towards Route 1 as a form of centerpiece to symmetrically-organize the façade. Vertically, the top floor is tucked into the roof, and the lowest level of housing and garage below is half underground, so the mass of the 6-level building is tucked into the ridgeline and couched from view on approach from Route 1.

2.1.1 Roofs:

The roof forms are a gabled in a staggered arrangement of three sections alternating 90 degrees, with shed dormers included on both sides on each set of rooflines.

2.1.2 Windows:

At the building entrances and center circulation stairwells, a modern glass and aluminum storefront system will utilized for durability, ease of cleaning and maintenance, and enhanced security provided by the large glass openings. At the residential units, the windows will include a mix of single or ganged double-hung windows with matching entry doors to the outdoor patios.

2.1.3 Detailing:

While many of the larger details owe more to traditional vernacular like the deep gable roof projections and use of siding materials like shingle and stone, it is the clean modern details like the cable railing systems and sharp, unfussy building trims that will form the more modern transitional design elements.

2.1.4 Building Materials:

The exterior façade will be a combination of traditional cedar shingles and painted composite/wood trims for a body, low-maintenance artificial stone or nickel-gap painted composite/wood cladding at the base, and durable standing seam metal and 60 mil adhered EPDM (rubber) roofing.

2.2 Large Scale Buildings:

Objective: Due to their visibility and mass, the design of new large structures (10,000 square feet or greater) have the ability to greatly enhance or detract from Route One's visual character. These structures should be designed as attractive pieces of commercial architecture that are responsive to their site and compatible with adjacent development.

While the project includes a building footprint of 12,700 square feet and a total area of just over 69,500 square feet, the architectural massing, detailing, and design is focused on

delivering an attractive and contributing modern style that would appeal to empty nesters, frequent vacationers, and young professionals alike.

2.2.1 Design and Massing

With the building on either end bisected by a contrasting glassy aluminum storefront system, the mass of the building is broken into smaller more traditional bay structure widths. To further accentuate the effect of reducing the scale of the building, the base has a more rugged texture and materiality stratification with the shingle siding on the body. A contrasting standing seam metal roof and decorative balconies cap the building with a varied skyline, as if comprised of a number of building additions over time.

2.2.2 Site Design:

The building sits along a 30-foot tall ridgeline with a wrapping driveway that connects three parking area tiers with the underground parking. The first section is reserved for accessible and visitor parking and is attached to a main entry and elevator access via a concrete paver sidewalk. The second section has a sidewalk connection to a center stairwell, while the rear parking area has connection to a main building entry and elevator access.

2.2.3 Architectural Details:

The building has incorporated a number of architectural details to create visual interest and personalization of the individual units within the context of the overall building. From the modern glass aluminum storefront window and door systems at the building entries to the simple detailing of the wood-capped and open cable balcony guardrails, the focus is on high quality and durable materials brought together with fine craftsmanship and clean detailing.

2.2.4 Facades and Exterior Walls:

To personalize the design and offer a more human scale to what would otherwise be a large, imposing structure, the sectioning of the building into three segments with a 90 degree rotating axial relationship serves to reduce the expression of scale. Extending 30% at both ends, these shifts are well over the “good practice” threshold of 20% of facade length. A 6 foot footprint shift that extends the mass reduction with deep shadows and roofline expression also exceeds the recommended length/depth threshold of 3% façade’s length by providing over 8.5% in foundation offset(s).

2.2.5 Building Entrances:

The building will be punctuated by four pedestrian building entrances, two of which will be ADA-compliant, and two garage entrances. The main building entries are identified by vestibule enclosure and large overhead canopies with flanking columnar supports, while the secondary entrance/exits have a smaller, more simple canopy overhang.

2.3 Linear Commercial Buildings: n/a

2.4 Smaller Freestanding Commercial Buildings: n/a

2.5 Residential Structures:

Objective: Cumberland's future housing stock in the Route One corridor should be well designed and constructed, and is encouraged to have some connection to the traditional styles of New England residential architecture. The large mass of duplex and, even more of multiplex dwellings, can be broken up by façade articulation and architectural detailing in order to reduce their apparent size.

As indicated in previous guideline responses, the architecture of the Broad Cove Ridge condominiums incorporates a number of design strategies that draw on local and regional traditions and features, while incorporating a modern sensibility in the detailing and overall aesthetic appeal. From segmenting the building massing and footprint offsets to the roofline variety and assortment of traditional double-hung fenestration arrangements, the design is intended to invoke the traditions, scale, and materiality of the past while forging exciting new relationships with more openness and modern indoor/outdoor connectivity.

2.7 Hotels and Motels: n/a

2.7.1 All Building Types- Awnings and Canopies:

The building design incorporates outdoor balconies, arranged in vertical stacks to offer light to the unit interior and shelter from the weather. Additionally, rooftop terrace porches are provided to the penthouse units that are envisioned with modern industrial steel trellis canopies.

3.0 Signage: n/a (no pylon or wayfinding signage is proposed at this time)

4.3 Types of Lighting:

The lighting scheme for the building balances the need for consistent, code-minimum lighting levels across all parking areas with dark-sky/cutoff requirements designed to reduce off-site light spoilage. Additionally, by utilizing a variety of building-mounted and pole-mounted lighting, the light levels may be "right-sized" to provide more intimate lighting levels at the pedestrian building entries by using canopy/balcony downlights and sconces with a softer pole-mounted general lighting at the parking areas.

4.3.1 Façade and Landscaping Lighting:

While no landscape lighting is proposed at this time, the façade lighting will consist of wall sconces at each of the four building pedestrian entries and two garage entrances, and wall-mounted lighting at the exterior balconies and rooftop patios.

4.3.2 Parking Lot and Driveway Lighting:

Parking lot lighting will be provided by cutoff-style LED fixtures on a 15' pole and 18" dia. concrete base elevated 2' above grade.

4.3.3 Pedestrian Lighting:

Pedestrian lighting will be provided in the form of wall-mounted sconces at each of the four building entries, as augmented by the pole-mounted parking area lights that are also designed to illuminate the sidewalks.

I hope this is helpful information and I am happy to answer questions about it. Please don't hesitate to call with any questions or comments.

Sincerely,



Travis Nadeau, LEED AP BD+C
Maine Licensed Architect

Cc: Jon Snell, Snell Construction LLC
Dan Diffin, SME

APPENDIX L

ARCHITECTURAL DRAWINGS



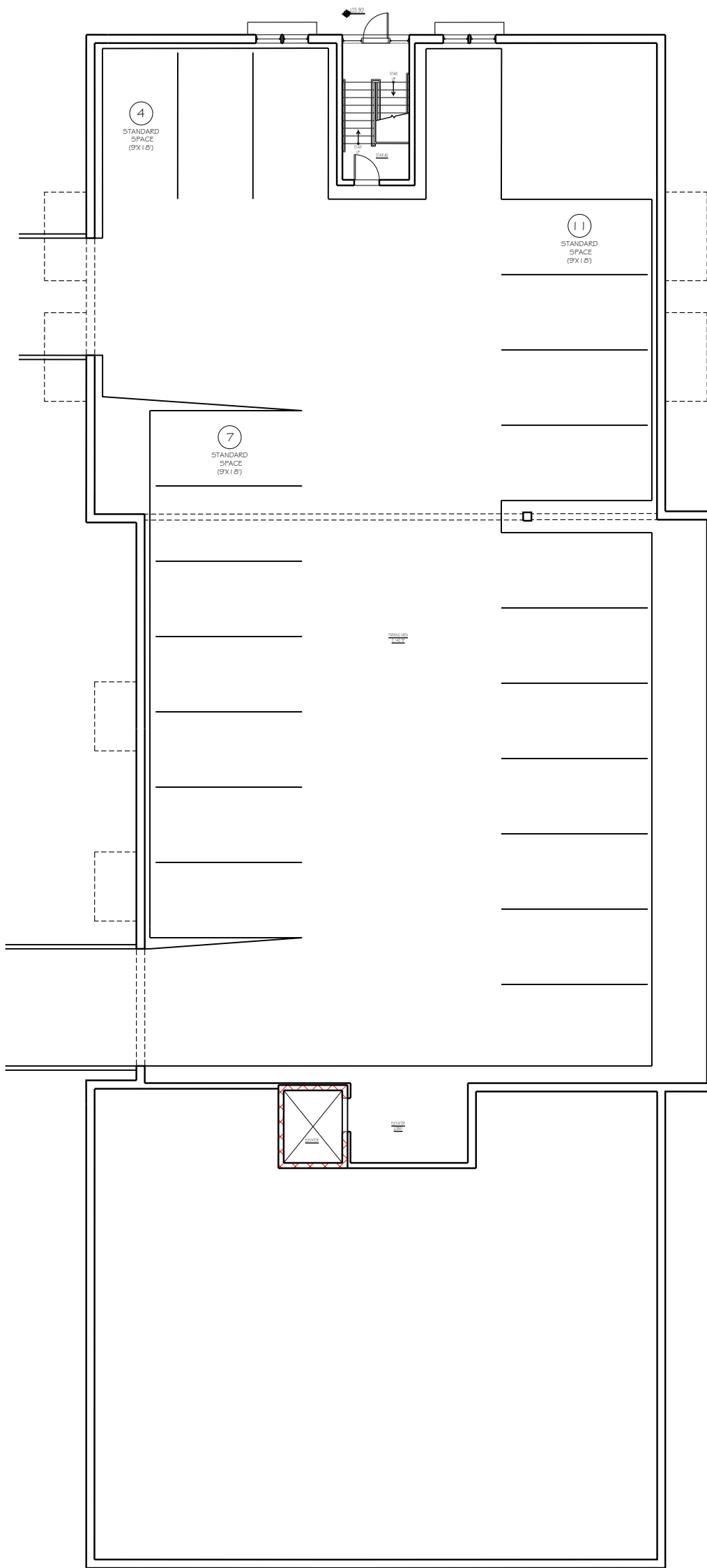




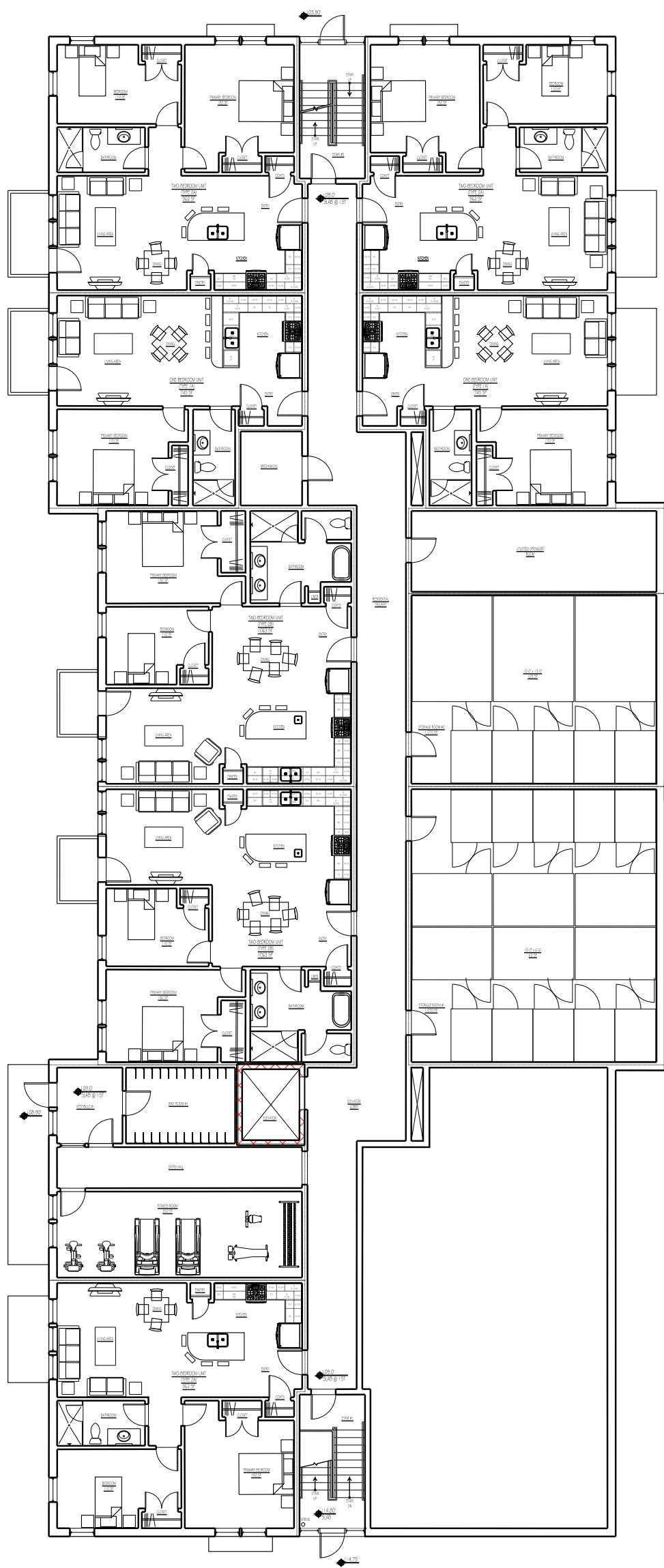




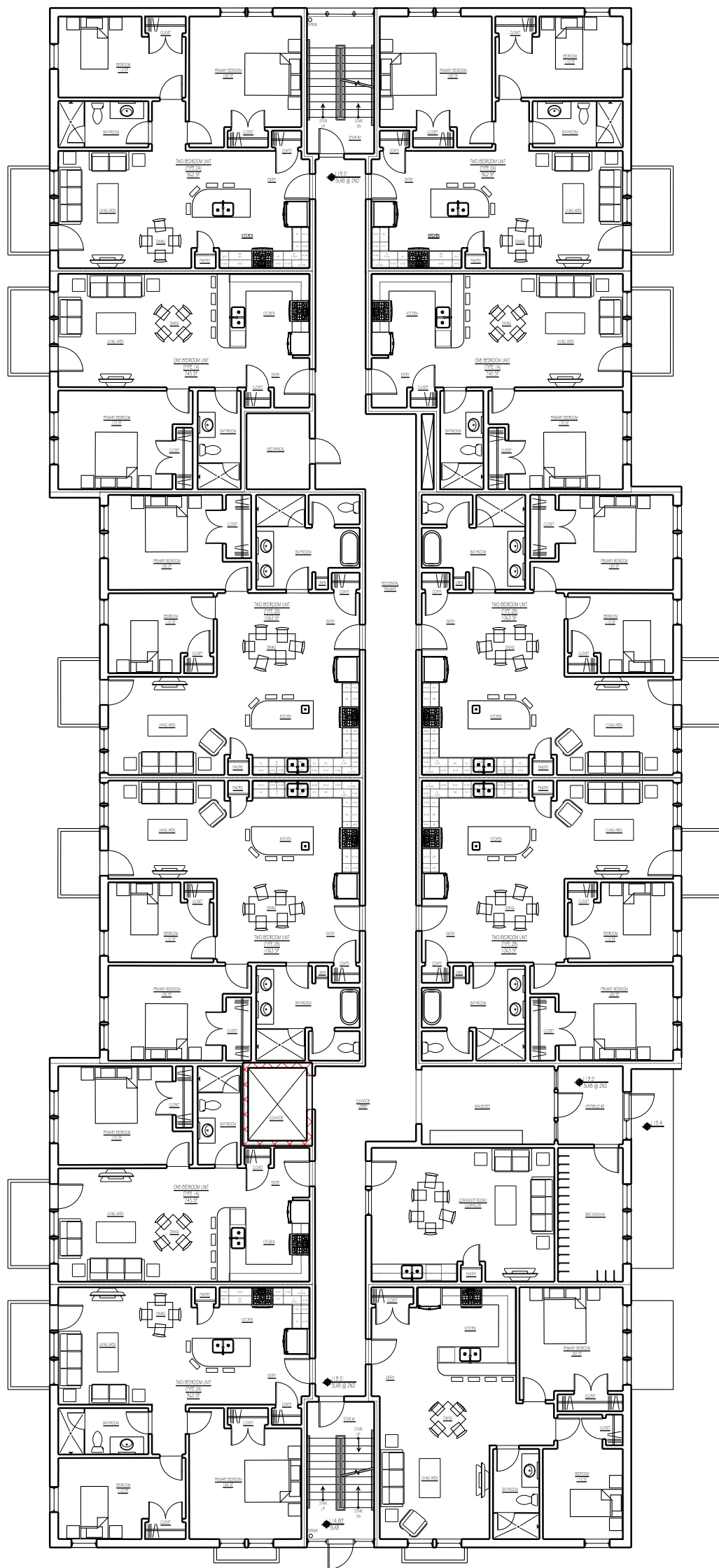




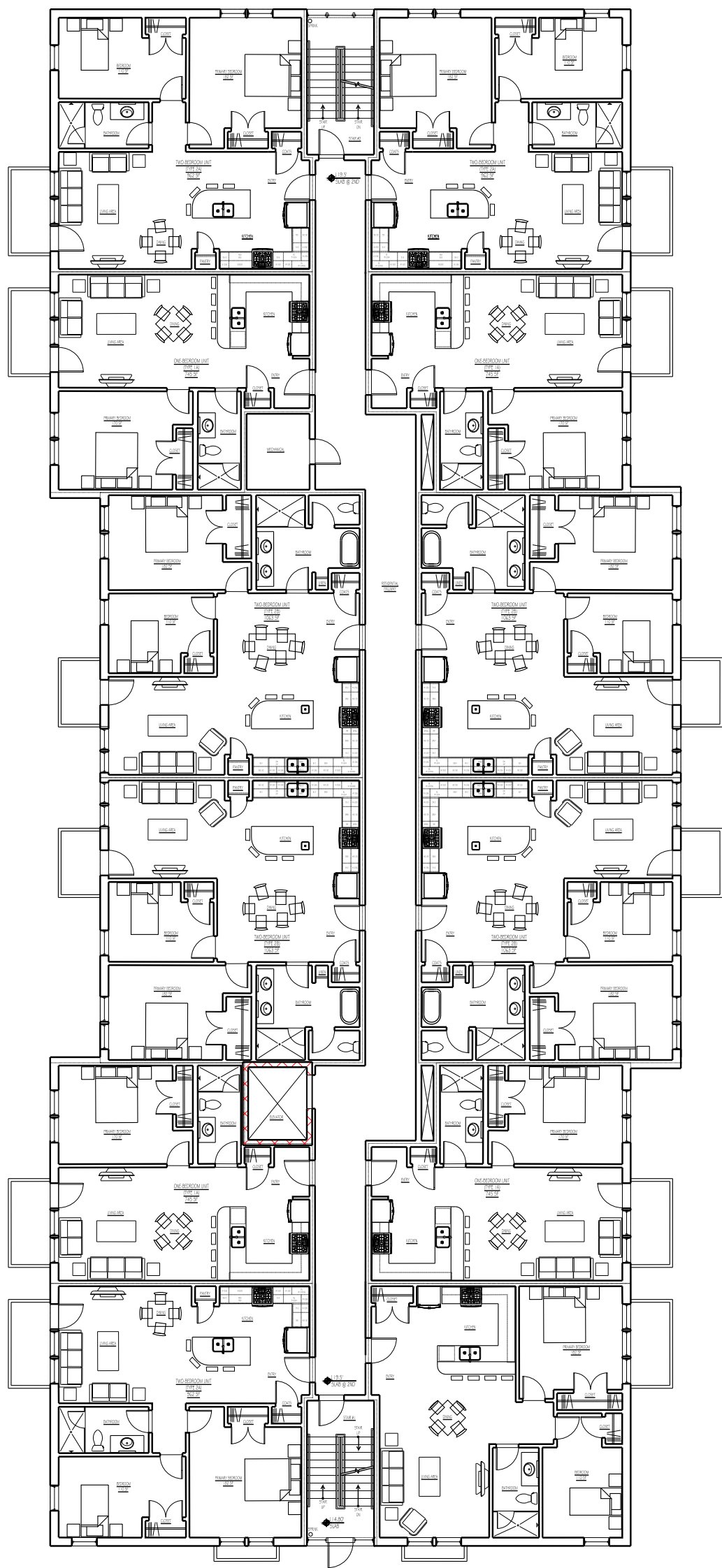
BASEMENT- 22 PARKING SPACES



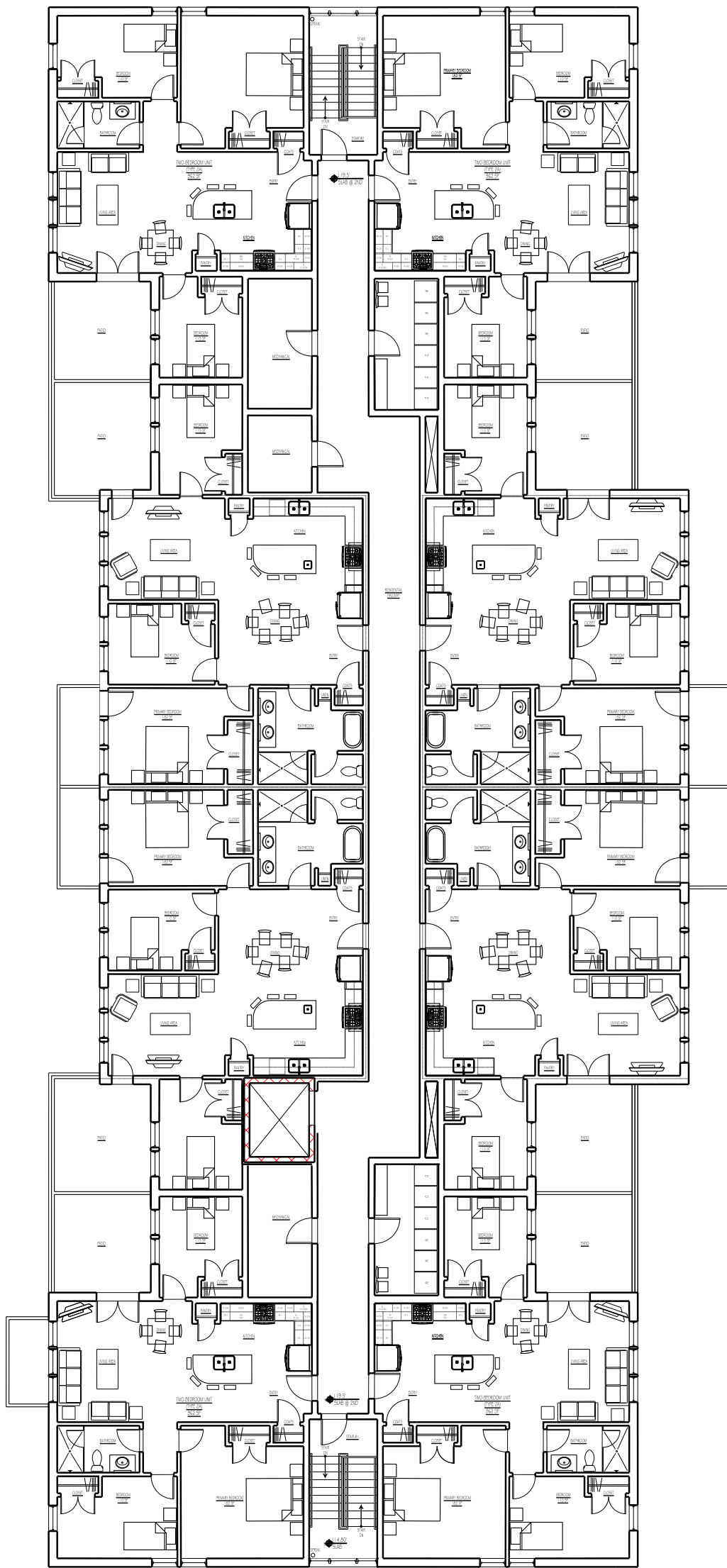
1ST FLOOR- 7 UNITS



2ND FLOOR- 11 UNITS



3RD & 4TH FLOORS- 12 UNITS EA.



5TH FLOOR- 8 UNITS

APPENDIX M

SITE LIGHTING CUT SHEETS AND PHOTOMETRIC PLAN

IMLIGHTING®

UR20 EDGE-LIT

ARCHITECTURAL AREA/SITE

DATE: _____

LOCATION: _____

TYPE: _____

PROJECT: _____

CATALOG #:

FEATURES

- 20" size in post top, pole and wall mount
- High performance optics up to 16,091 delivered lumens
- Elegant form factor
- Edge-Lit Light Guide
- SiteSync® and NX wireless control options
- ULULI listed for wet locations, IP66 and 15G and 4G vibration rated

CONTROL TECHNOLOGY

SiteSync®NX DISTRIBUTED INTELLIGENCE

CONSTRUCTION

- Low copper aluminum alloy die-casting is designed as one-piece, low profile luminaire
- Molded silicone gasket throughout ensures the sealing between the two compartments and provides ingress protection
- Housing is designed with integral heat sink fins to aid in thermal transfer of the electrical components
- KOT rated enclosure protects electrical equipment against external mechanical impacts
- All fasteners are stainless steel
- One-piece low copper aluminum alloy die-cast lens frame is secured to housing with a tool-less latch and integral offset hinge
- LEDs mount to a metal printed circuit board assembly (MCPCB)

INSTALLATION

- Fixtures must be grounded in accordance with national, state and/or local electrical codes. Failure to do so may result in serious personal injury

ELECTRICAL

- Universal voltage, 120 through 277V with a ±10% tolerance. Driver is Underwriters Laboratories listed
- High voltage configurations, 347/480. Driver has a 0-10V dimming interface for multi-level illumination options. Driver is Underwriters Laboratories listed

ELECTRICAL (CONTINUED)

- "Thermal Shield", secondary side, thermostat provides protection for the sustainable life of LED module and electronic components

KEY DATA

Lumen Range	3,305 - 16,091
Wattage Range	215 - 138.3W
Efficacy Range (LPW)	88.8 - 121.8 lm/W
Reported Life (Hours)	1,70,000-40,000
Weight	21 lbs (9.5 kg)
EPA	0.372

CONTROLS (CONTINUED)

- 7-pin wireless photoelectric control for for dimming and additional I/O connections for customer use
- Luminaire shall be capable of operating at 100% brightness in a 40°C environment. Both driver and optical array have integral thermal protection that will dim the luminaire upon detection of temperatures in excess of 85°C
- Surge protection: 10kV and 20kA in series
- Wiring: No. 18AWG rated 105°C, wet rating

7PIN OPTION

IMLIGHTING®

UR20 EDGE-LIT

ARCHITECTURAL AREA/SITE

DATE: _____

LOCATION: _____

TYPE: _____

PROJECT: _____

CATALOG #:

PHOTOMETRY

UR20-96L-50-4K7-2M

LUMINAIRE DATA

Direction	4000K, TC80
Downward Lumen	1480
Watt	46.5
Efficacy	103
IES Type	E-1
Beam Spread	85-100-03
Mounting Height	15 ft
Grid Scale	10 ft

ZONAL LUMEN SUMMARY

Zone	Lumens	% Luminaire
Downward Street Side	2570	50%
Downward House Side	2370	50%
Downward Total	5442	100%
Upward Street Side	0	0%
Upward House Side	0	0%
Upward Total	0	0%
Total Flux	5442	100%

ISOFOOT CANDLE PLOT

IMLIGHTING®

UR20 EDGE-LIT

ARCHITECTURAL AREA/SITE

DATE: _____

LOCATION: _____

TYPE: _____

PROJECT: _____

CATALOG #:

PHOTOMETRY

UR20-96L-50-4K7-3

LUMINAIRE DATA

Direction	4000K, TC80
Downward Lumen	5076
Watt	196.7
Efficacy	97
IES Type	E-1
Beam Spread	85-100-02
Mounting Height	15 ft
Grid Scale	10 ft

ZONAL LUMEN SUMMARY

Zone	Lumens	% Luminaire
Downward Street Side	4483	88%
Downward House Side	569	12%
Downward Total	5052	100%
Upward Street Side	0	0%
Upward House Side	0	0%
Upward Total	0	0%
Total Flux	5052	100%

ISOFOOT CANDLE PLOT

IMLIGHTING®

UR20 EDGE-LIT

ARCHITECTURAL AREA/SITE

DATE: _____

LOCATION: _____

TYPE: _____

PROJECT: _____

CATALOG #:

PHOTOMETRY

UR20-96L-50-4K7-3-PT

LUMINAIRE DATA

Direction	4000K, TC80
Downward Lumen	5095
Watt	196.7
Efficacy	97
IES Type	E-1
Beam Spread	85-100-02
Mounting Height	15 ft
Grid Scale	10 ft

ZONAL LUMEN SUMMARY

Zone	Lumens	% Luminaire
Downward Street Side	2448	48%
Downward House Side	2448	48%
Downward Total	4896	96%
Upward Street Side	0	0%
Upward House Side	0	0%
Upward Total	0	0%
Total Flux	4896	100%

ISOFOOT CANDLE PLOT

IMLIGHTING®

UR20 EDGE-LIT

ARCHITECTURAL AREA/SITE

DATE: _____

LOCATION: _____

TYPE: _____

PROJECT: _____

CATALOG #:

PHOTOMETRY

UR20-102L-75-4K7-5W-PT

LUMINAIRE DATA

Direction	4000K, TC80
Downward Lumen	8803
Watt	176.6
Efficacy	104
IES Type	E-1
Beam Spread	85-100-03
Mounting Height	15 ft
Grid Scale	10 ft

ZONAL LUMEN SUMMARY

Zone	Lumens	% Luminaire
Downward Street Side	4422	50%
Downward House Side	4422	50%
Downward Total	8844	100%
Upward Street Side	0	0%
Upward House Side	0	0%
Upward Total	0	0%
Total Flux	8844	100%

ISOFOOT CANDLE PLOT

LIGHTING TYPE W1-
WALL-MOUNTED 5-CONCE DOWNLIGHT (1/2 MOUNTING HEIGHT)

IMLIGHTING®

UR20 EDGE-LIT

ARCHITECTURAL AREA/SITE

DATE: _____

LOCATION: _____

TYPE: _____

PROJECT: _____

CATALOG #:

FEATURES

- 20" size in post top, pole and wall mount
- High performance optics up to 15,227 delivered lumens
- Elegant form factor
- Edge-Lit Light Guide
- SiteSync® and NX wireless control options
- ULULI listed for wet locations, IP66 and 4G/15G vibration rated

CONTROL TECHNOLOGY

SiteSync®NX DISTRIBUTED INTELLIGENCE

CONSTRUCTION

- Low copper aluminum alloy die-casting is designed as one-piece, low profile luminaire
- Molded silicone gasket throughout ensures the sealing between the two compartments and provides ingress protection
- Housing is designed with integral heat sink fins to aid in thermal transfer of the electrical component
- KOT rated enclosure protects electrical equipment against external mechanical impacts
- All fasteners are stainless steel
- Cover is secured to lens frame by the latch and hinge
- One-piece low copper aluminum alloy die-cast lens frame is secured to housing with a tool-less latch and integral offset hinge
- LEDs mount to a metal printed circuit board assembly (MCPCB)

INSTALLATION

- Fixtures must be grounded in accordance with national, state and/or local electrical codes. Failure to do so may result in serious personal injury

ELECTRICAL

- Universal voltage, 120 through 277V with a ±10% tolerance. Driver is Underwriters Laboratories listed
- High voltage configurations, 347/480. Driver has a 0-10V dimming interface for multi-level illumination options. Driver is Underwriters Laboratories listed

ELECTRICAL (CONTINUED)

- 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
- Luminaire shall be capable of operating at 100% brightness in a 40°C environment. Both driver and optical array have integral thermal protection that will dim the luminaire upon detection of temperatures in excess of 85°C
- Surge protection: 10kV and 20kA in series
- Wiring: No. 18AWG rated 105°C, wet rating

CONTROLS

- Fully gasketed and wired 7-pin receptacle option. Easy access location above the electrical compartment. 7-pin construction allows for a user-defined interface and provides a controlled definition of operational performance. ANSI wet-lock control module by others
- Traditional on/off photoelectric control
- 5-pin wireless photoelectric control for added dimming feature

7PIN RECEPTACLE PLACEMENT

IMLIGHTING®

UR20 EDGE-LIT

ARCHITECTURAL AREA/SITE

DATE: _____

LOCATION: _____

TYPE: _____

PROJECT: _____

CATALOG #:

PHOTOMETRY

UR20-96L-50-4K7-2M-PT

LUMINAIRE DATA

Direction	4000K, TC80
Downward Lumen	1480
Watt	46.5
Efficacy	103
IES Type	E-1
Beam Spread	85-100-03
Mounting Height	15 ft
Grid Scale	10 ft

ZONAL LUMEN SUMMARY

Zone	Lumens	% Luminaire
Downward Street Side	2448	48%
Downward House Side	2448	48%
Downward Total	4896	96%
Upward Street Side	0	0%
Upward House Side	0	0%
Upward Total	0	0%
Total Flux	4896	100%

ISOFOOT CANDLE PLOT

IMLIGHTING®

UR20 EDGE-LIT

ARCHITECTURAL AREA/SITE

DATE: _____

LOCATION: _____

TYPE: _____

PROJECT: _____

CATALOG #:

PHOTOMETRY

UR20-96L-50-4K7-3-PT

LUMINAIRE DATA

Direction	4000K, TC80
Downward Lumen	5095
Watt	196.7
Efficacy	97
IES Type	E-1
Beam Spread	85-100-02
Mounting Height	15 ft
Grid Scale	10 ft

ZONAL LUMEN SUMMARY

Zone	Lumens	% Luminaire
Downward Street Side	4422	87%
Downward House Side	1072	20%
Downward Total	5494	100%
Upward Street Side	0	0%
Upward House Side	0	0%
Upward Total	0	0%
Total Flux	5494	100%

ISOFOOT CANDLE PLOT

IMLIGHTING®

UR20 EDGE-LIT

ARCHITECTURAL AREA/SITE

DATE: _____

LOCATION: _____

TYPE: _____

PROJECT: _____

CATALOG #:

PHOTOMETRY

UR20-102L-75-4K7-5W-PT

LUMINAIRE DATA

Direction	4000K, TC80
Downward Lumen	8803
Watt	176.6
Efficacy	104
IES Type	E-1
Beam Spread	85-100-03
Mounting Height	15 ft
Grid Scale	10 ft

ZONAL LUMEN SUMMARY

Zone	Lumens	% Luminaire
Downward Street Side	4422	50%
Downward House Side	4422	50%
Downward Total	8844	100%
Upward Street Side	0	0%
Upward House Side	0	0%
Upward Total	0	0%
Total Flux	8844	100%

ISOFOOT CANDLE PLOT

LIGHTING TYPE A1-
SITE/AREA POST-TOP DOWNLIGHT (15' POLE, 2' BASE)

PHOTOMETRIC LEGEND

- 10+ footcandles
- 9-10 footcandles
- 7-8 footcandles
- 5-6 footcandles
- 3-4 footcandles
- 2-3 footcandles
- 1-2 footcandles

2

LIGHTING FIXTURE SELECTIONS

~

SCALE: N.T.S.

1

SITE PHOTOMETRIC PLAN

~

SCALE: N.T.S.

1

SKE-1

PLATZ ASSOCIATES

Architects - Engineers
Construction Managers

Tel 207-784-2941
Fax 207-784-3856

Two Great Falls Plaza, Auburn, Maine 04210

Proposed New Construction of:

BROAD COVE RIDGE
RESIDENTIAL CONDOMINIUM

U.S. Route 1
Cumberland, Maine 04021

SEAL

LICENSED ARCHITECT
TRAVIS R. NADEAU
4038
STATE OF MAINE

ORIGINAL DATE:

05/25/2021

DRAWING ISSUE

No.	DESCRIPTION	DATE

JOB NO.

202039

DRAWN BY

WMc

CHECKED BY

TRN

SHEET TITLE

SITE PHOTOMETRIC
PLAN & DETAILS

SHEET

SKE-1

1/2021/34/CONDOCS/A100-FL00RPLAN

SNELL CONSTRUCTION LLC

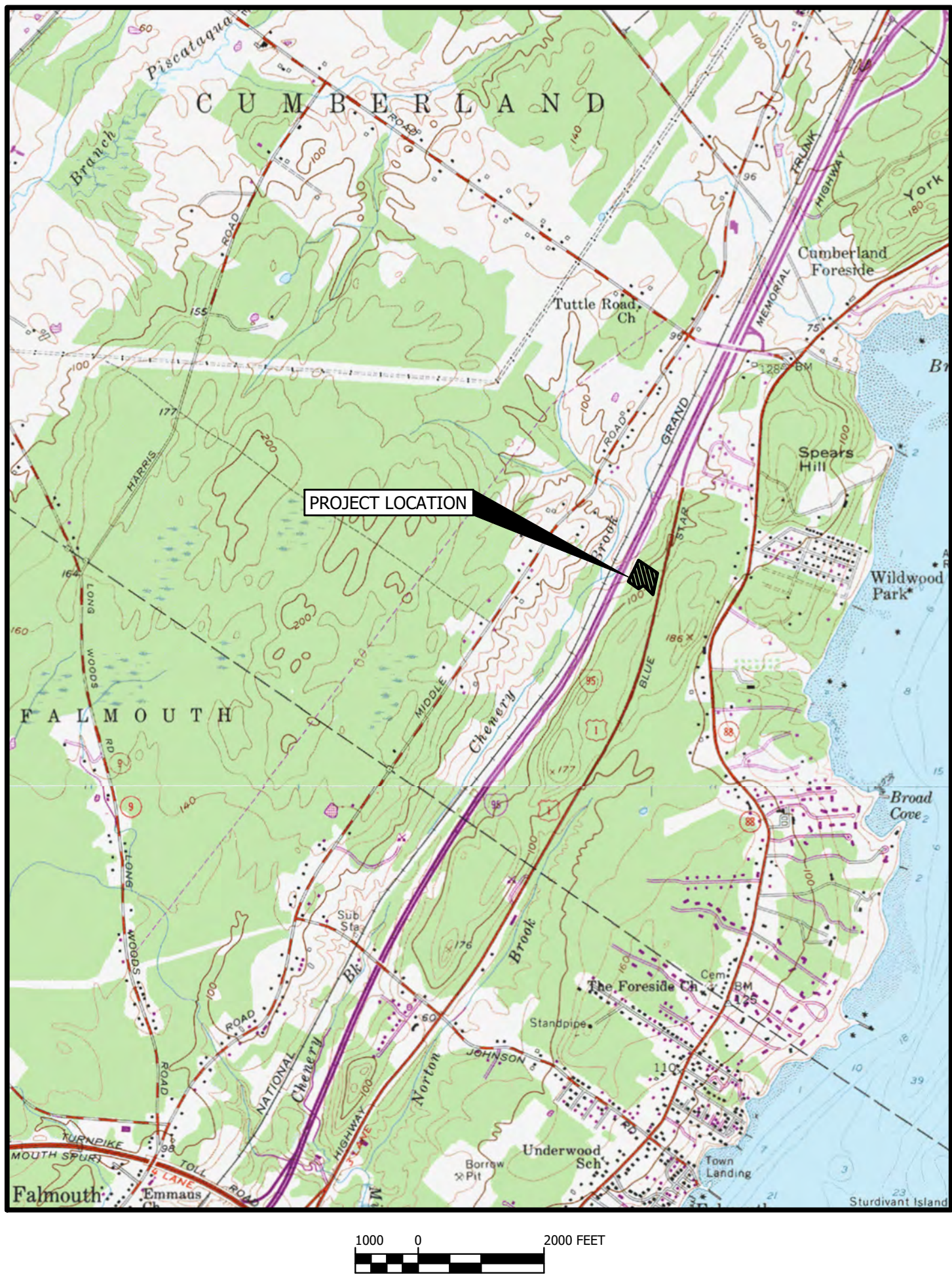
BROAD COVE RIDGE CONDOMINIUMS

100 US ROUTE 1

CUMBERLAND, MAINE

TITLE	DWG NO
COVER SHEET	
GENERAL NOTES, LEGEND, AND ABBREVIATIONS	C-100
EXISTING CONDITIONS AND CLEARING PLAN	C-101
SITE OVERVIEW PLAN	C-102
SITE LAYOUT PLAN	C-103
SITE UTILITY PLAN	C-104
SITE GRADING AND DRAINAGE PLAN	C-105
EROSION CONTROL PLAN	C-106
EROSION CONTROL NOTES AND DETAILS	C-300
SECTIONS AND DETAILS	C-301
SECTIONS AND DETAILS	C-302
SECTIONS AND DETAILS	C-303
SECTIONS AND DETAILS	C-304
STORMWATER MANAGEMENT PLAN - PRE-DEVELOPMENT CONDITIONS	D-100
STORMWATER MANAGEMENT PLAN - POST-DEVELOPMENT CONDITIONS	D-101
LANDSCAPE PLAN	L-1
BOUNDARY / EXISTING CONDITIONS SURVEY	

LOCATION MAP

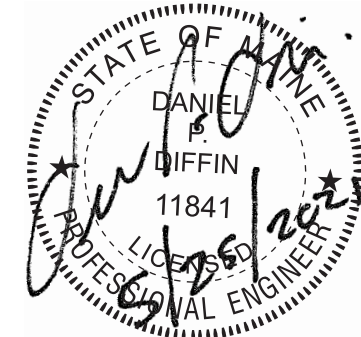


ISSUED FOR PERMITTING - NOT FOR CONSTRUCTION

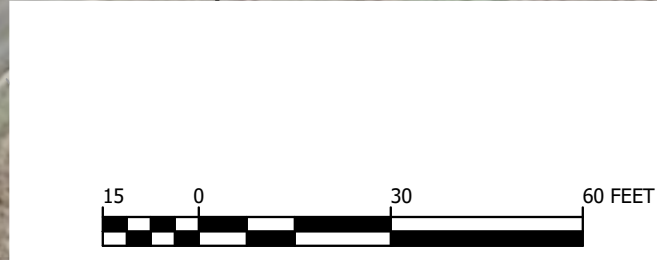


ENVIRONMENTAL • CIVIL • GEOTECHNICAL • WATER • COMPLIANCE

4 Blanchard Road, PO Box 85A, Cumberland Center, Maine 04021
Phone 207.829.5016 • Fax 207.829.5692 • smemaine.com







- NOTES:
- SEE DWG C-100 FOR PLAN REFERENCES AND ORIGINS OF TOPOGRAPHIC INFORMATION.
- AERIAL IMAGE FROM GOOGLE EARTH, DATED 5/4/2018.

SITE OVERVIEW PLAN

ENVIRONMENTAL • CIVIL • GEOTECHNICAL • WATER • COMPLIANCE

4 Blanchard Road, PO Box 85A, Cumberland, Maine 04021
Phone 207.829.5016 • Fax 207.829.5692 • smemaine.com

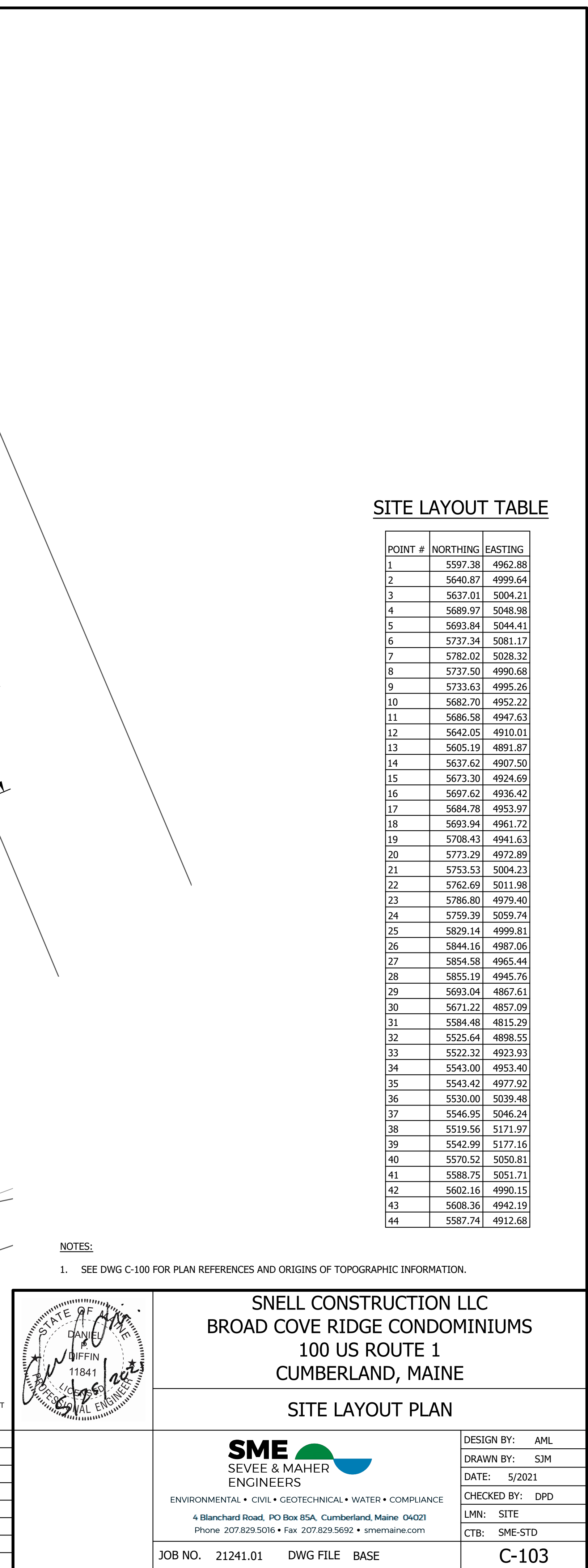
JOB NO. 21241.01 DWG FILE BASE

DESIGN BY:	AML
DRAWN BY:	SJM
DATE:	5/2021
CHECKED BY:	DPD
LMN:	SITE
CTB:	SME-STD

JOB NO. 21241.01 DWG FILE BASE

C-102

[illegible]



POINT #	NORTHING	EASTING
1	5597.38	4962.88
2	5640.87	4999.64
3	5637.01	5004.21
4	5689.97	5048.98
5	5693.84	5044.41
6	5737.34	5081.17
7	5782.02	5028.52
8	5737.50	4990.68
9	5733.63	4995.26
10	5682.70	4952.22
11	5686.58	4947.63
12	5642.05	4910.01
13	5605.19	4891.87
14	5637.62	4907.50
15	5673.30	4924.69
16	5697.62	4936.42
17	5684.78	4953.97
18	5693.94	4961.72
19	5708.43	4941.63
20	5773.29	4972.89
21	5753.53	5004.23
22	5762.69	5011.98
23	5786.80	4979.40
24	5759.39	5059.74
25	5829.14	4999.81
26	5844.16	4987.06
27	5854.58	4965.44
28	5855.19	4945.76
29	5693.04	4867.61
30	5671.22	4857.09
31	5584.48	4815.29
32	5525.64	4898.55
33	5522.32	4923.93
34	5543.00	4953.40
35	5543.42	4977.92
36	5530.00	5039.48
37	5546.95	5046.24
38	5519.56	5171.97
39	5542.99	5177.16
40	5570.52	5050.81
41	5588.75	5051.71
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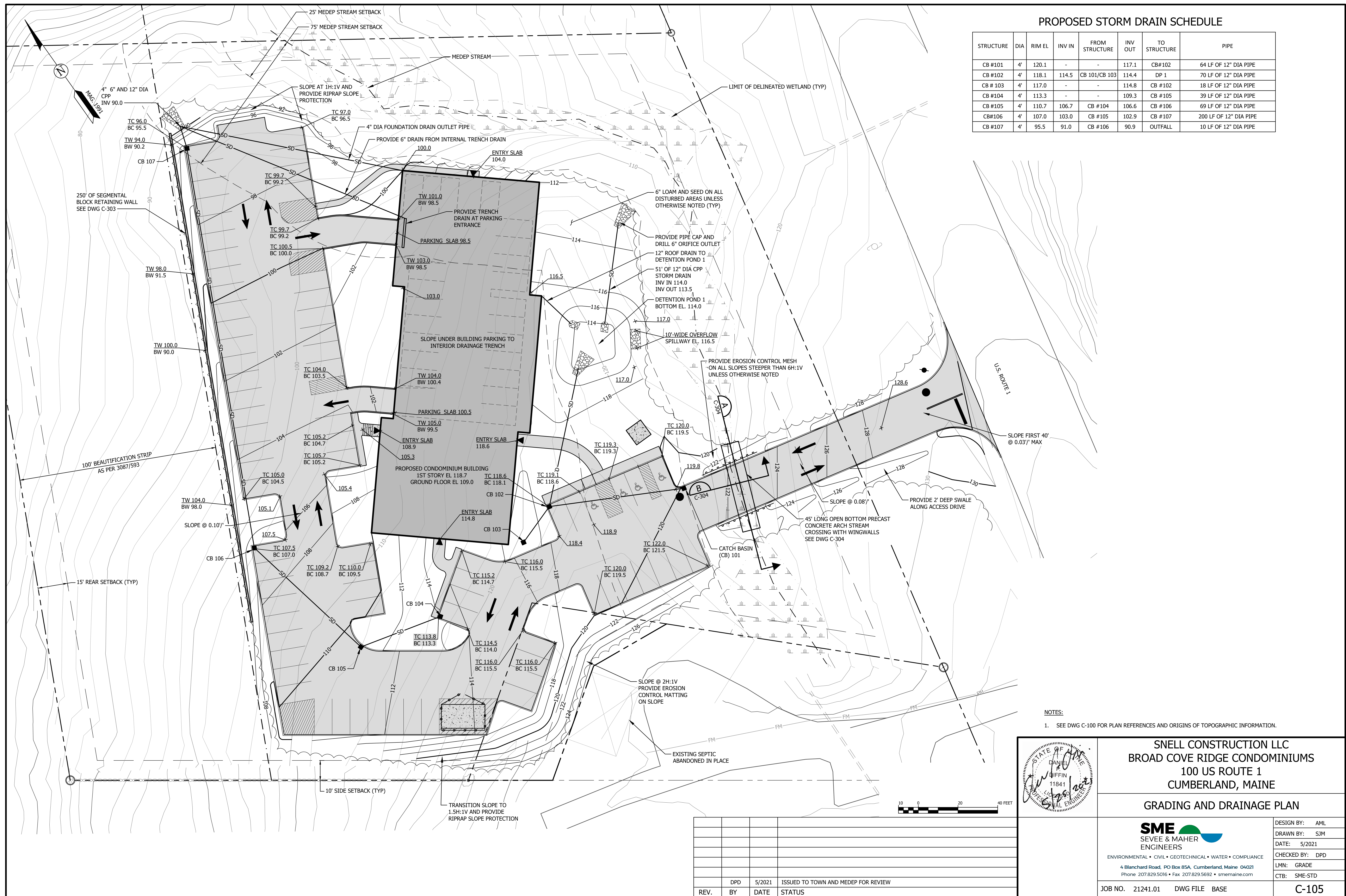
1. SEE DWG C-100 FOR PLAN REFERENCES AND ORIGINS OF TOPOGRAPHIC INFORMATION.

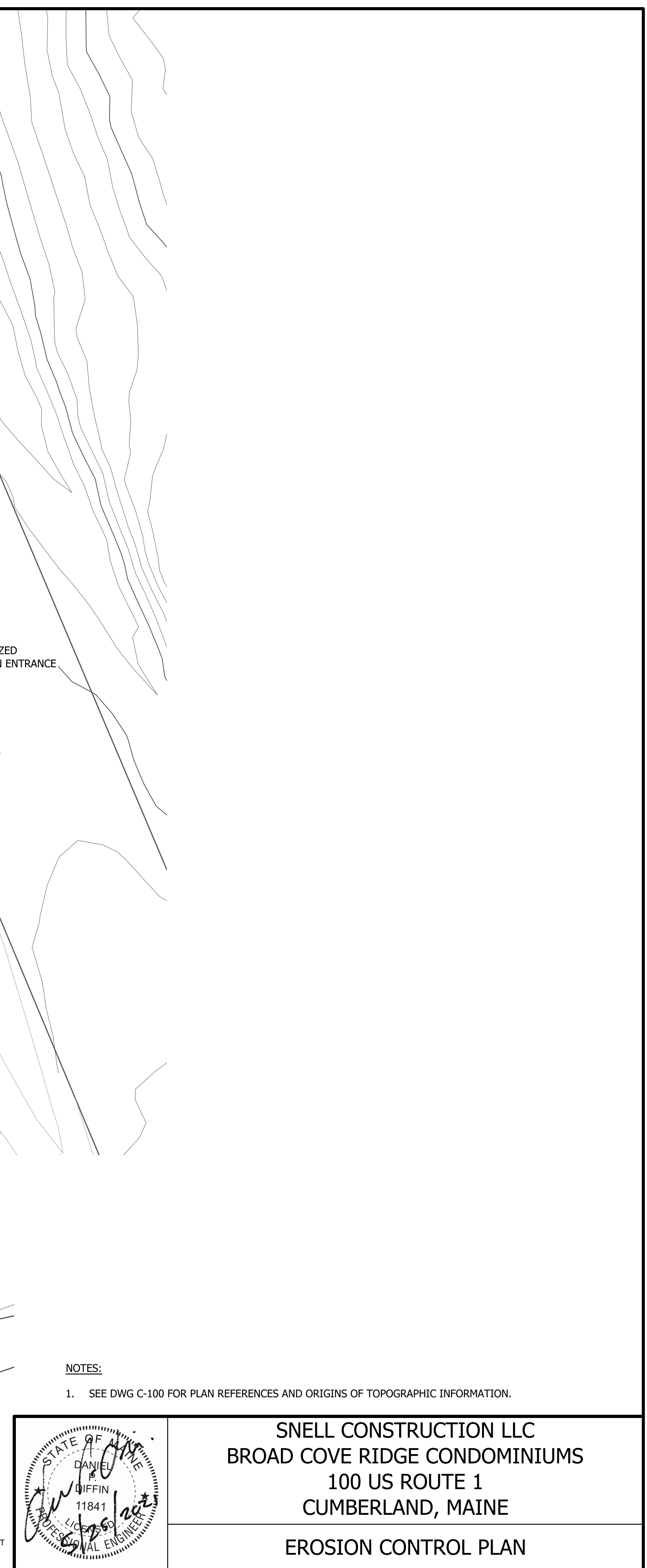
	SNELL CONSTRUCTION LLC BROAD COVE RIDGE CONDOMINIUMS 100 US ROUTE 1 CUMBERLAND, MAINE	
	SITE LAYOUT PLAN	
	 SME SEVEE & MAHER ENGINEERS ENVIRONMENTAL • CIVIL • GEOTECHNICAL • WATER • COMPLIANCE 4 Blanchard Road, PO Box 85A, Cumberland, Maine 04021 Phone 207.829.5016 • Fax 207.829.5692 • smemaine.com	DESIGN BY: AML DRAWN BY: SJM DATE: 5/2021 CHECKED BY: DPD LMN: SITE CTB: SME-STD
	JOB NO. 21241.01 DWG FILE BASE C-103	

	DPD	5/2021	ISSUED TO TOWN AND MEDEP FOR REVIEW
REV.	BY	DATE	STATUS

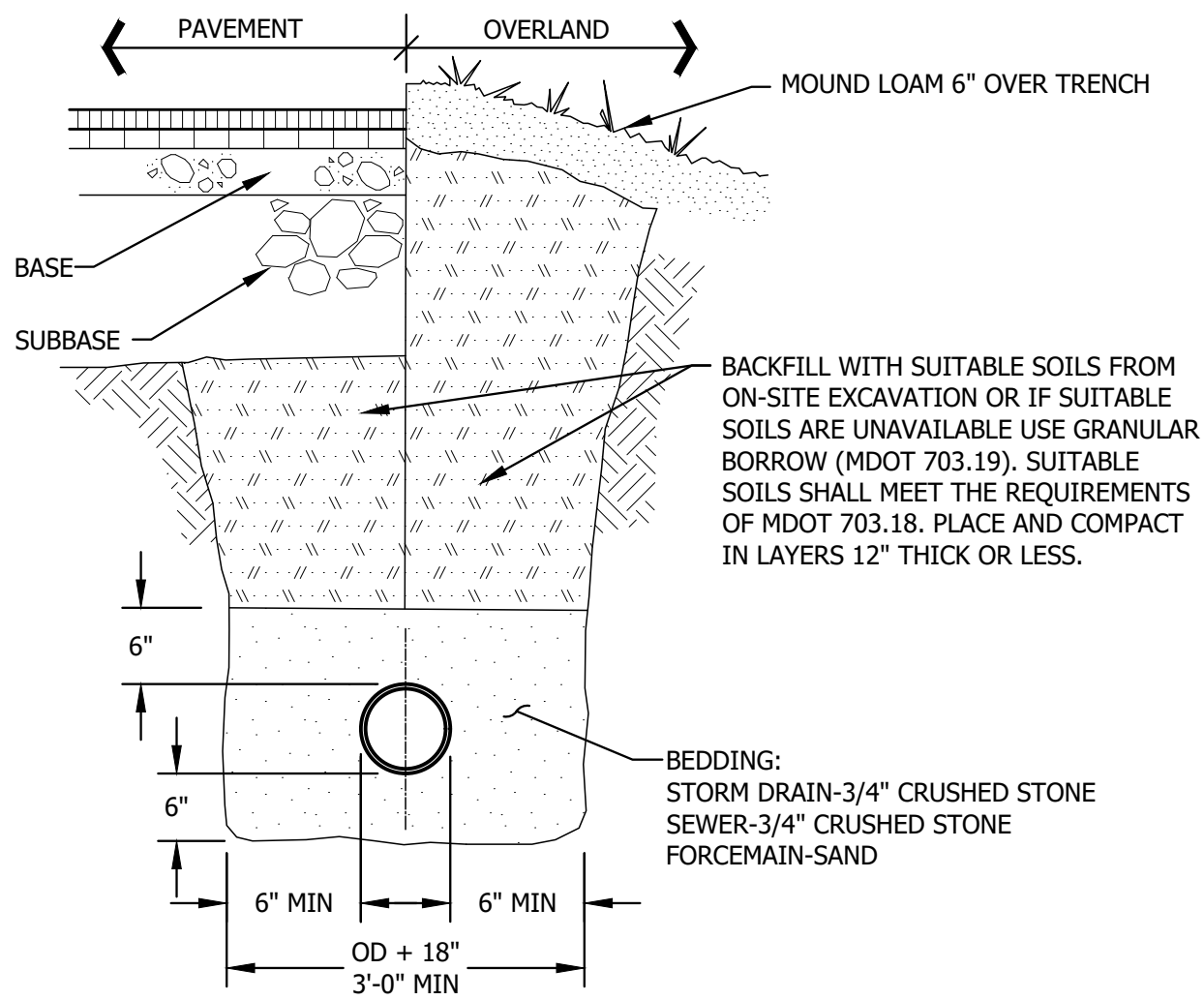


STRUCTURE	DIA	RIM EL	INV IN	FROM STRUCTURE	INV OUT	TO STRUCTURE	PIPE
CB #101	4'	120.1	-	-	117.1	CB#102	64 LF OF 12" DIA PIPE
CB #102	4'	118.1	114.5	CB 101/CB 103	114.4	DP 1	70 LF OF 12" DIA PIPE
CB # 103	4'	117.0	-	-	114.8	CB #102	18 LF OF 12" DIA PIPE
CB #104	4'	113.3	-	-	109.3	CB #105	39 LF OF 12" DIA PIPE
CB #105	4'	110.7	106.7	CB #104	106.6	CB #106	69 LF OF 12" DIA PIPE
CB#106	4'	107.0	103.0	CB #105	102.9	CB #107	200 LF OF 12" DIA PIPE
CB #107	4'	95.5	91.0	CB #106	90.9	OUTFALL	10 LF OF 12" DIA PIPE

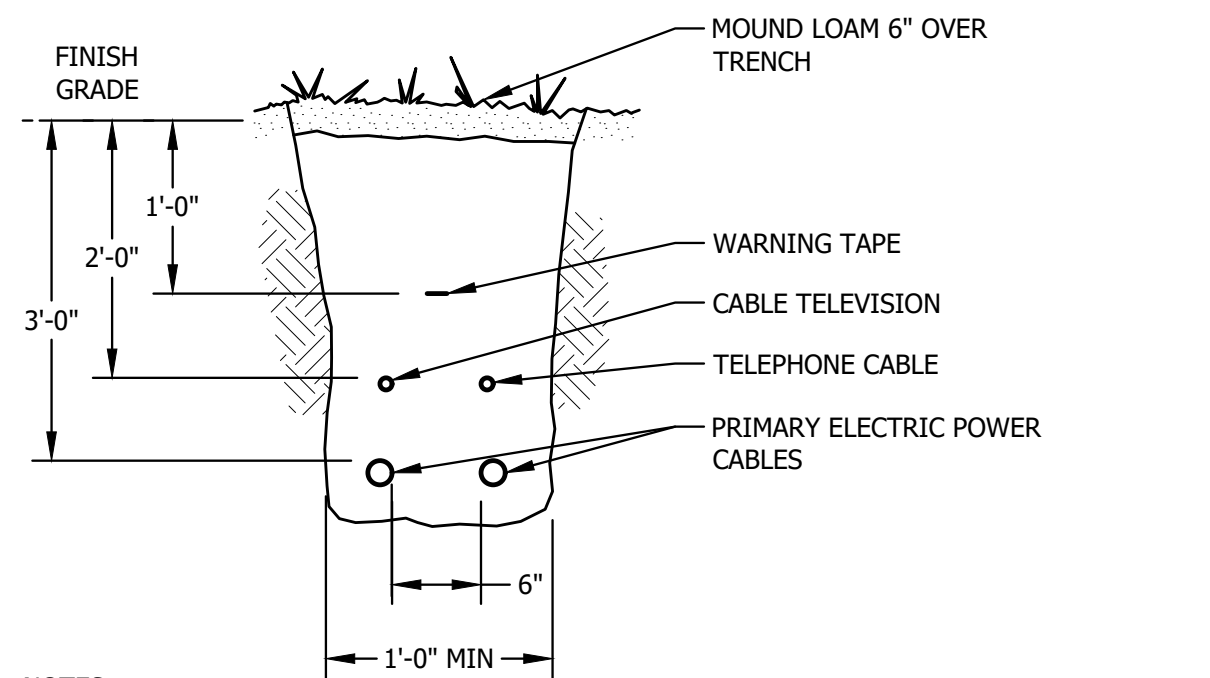




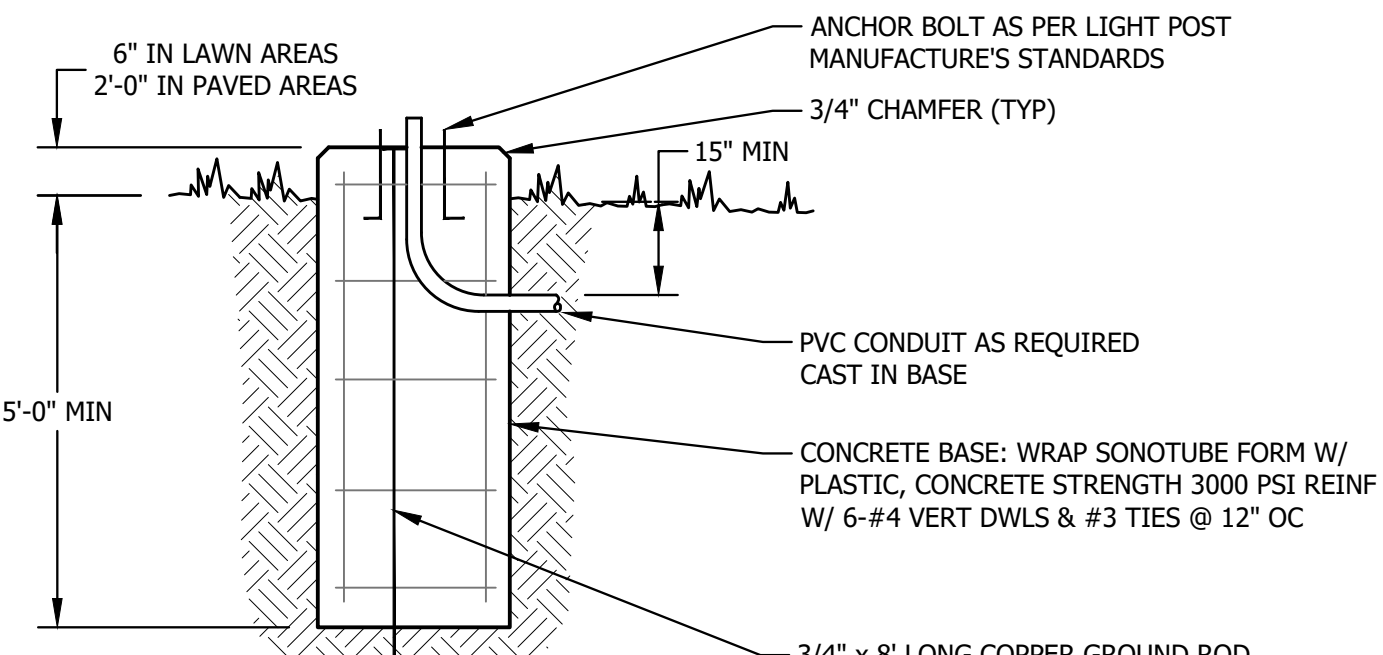
	 ENVIRONMENTAL • CIVIL • GEOTECHNICAL • WATER • COMPLIANCE 4 Blanchard Road, PO Box 85A, Cumberland, Maine 04021 Phone 207.829.5016 • Fax 207.829.5692 • smemaine.com	DESIGN BY: AML
		DRAWN BY: SJM
		DATE: 5/2021
		CHECKED BY: DPD
		LMN: GRADE
		CTB: SME-STD
	JOB NO. 21241.01 DWG FILE BASE	C-106



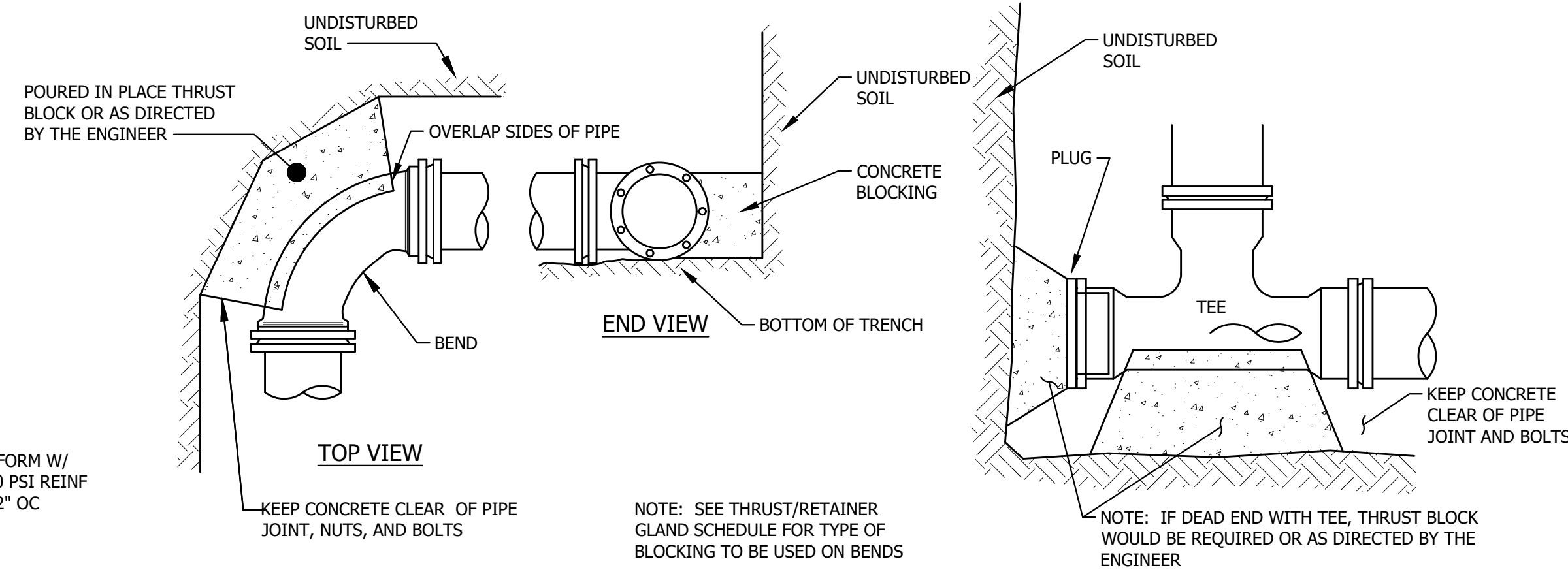
TYPICAL TRENCH SECTION
NTS



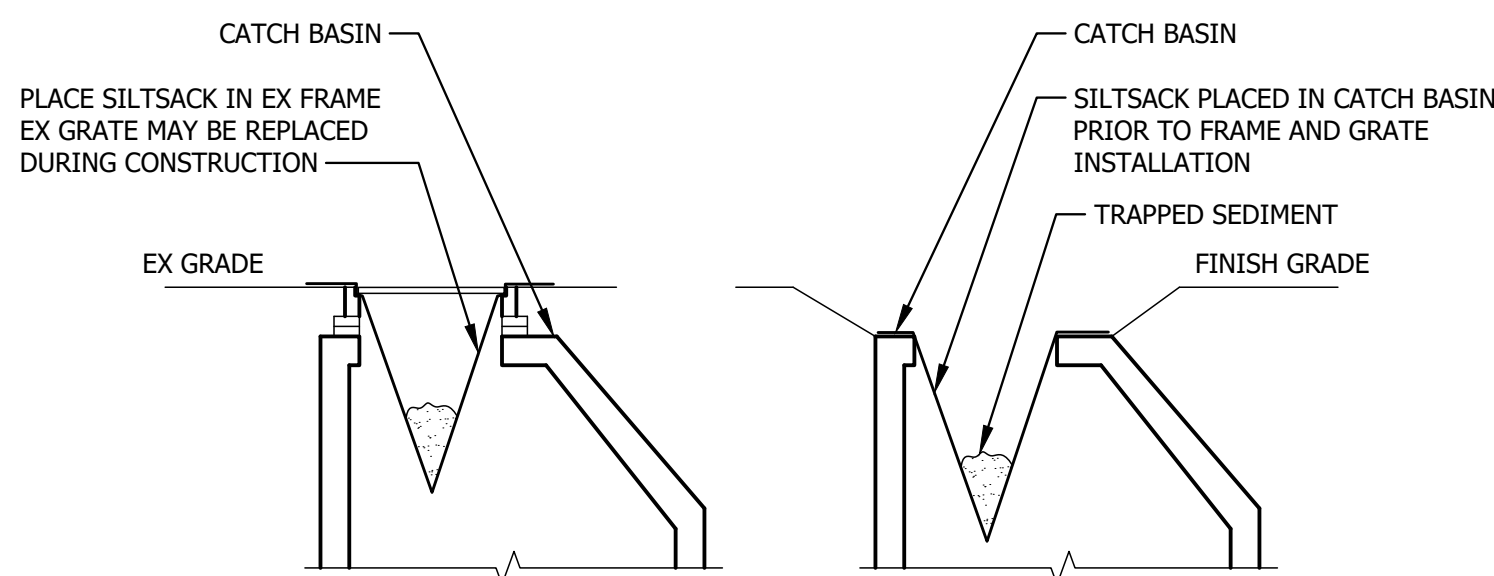
UNDERGROUND UTILITY TRENCH SECTION
NTS



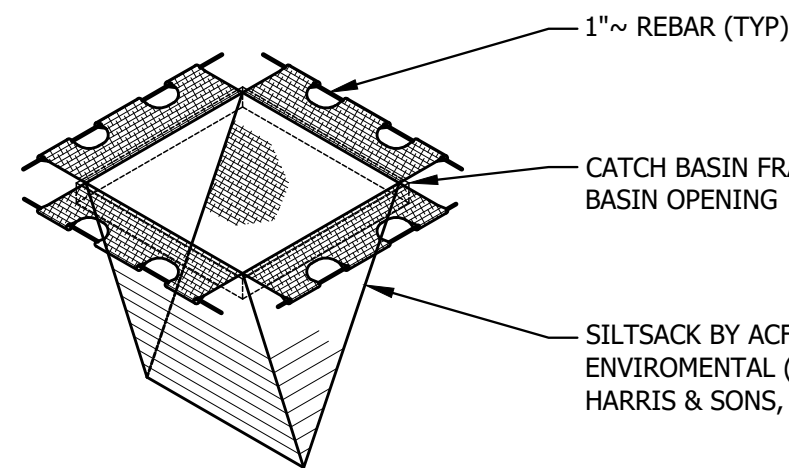
LIGHT POLE BASE DETAIL
NTS



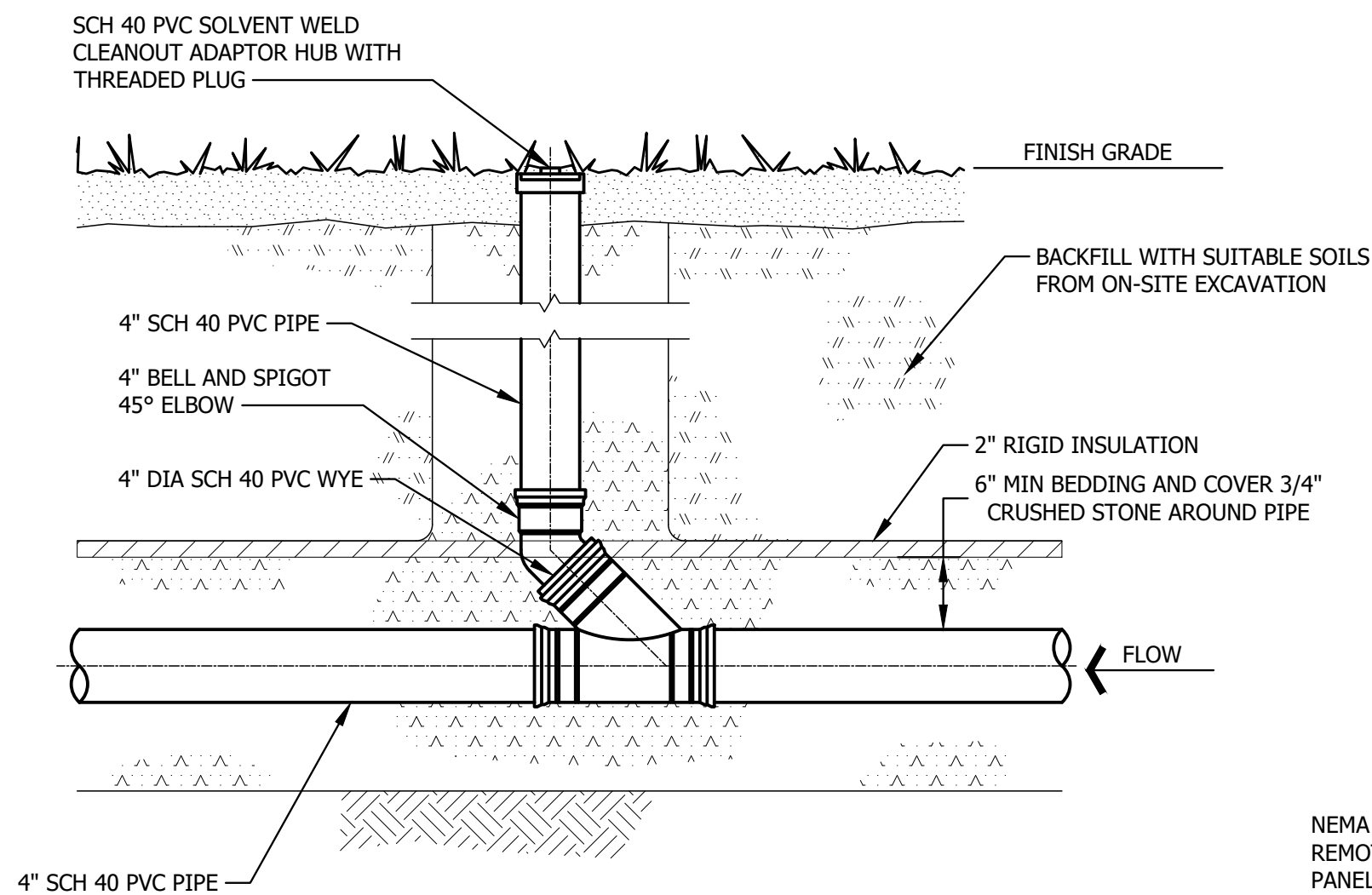
STANDARD BEND BLOCKING
NTS



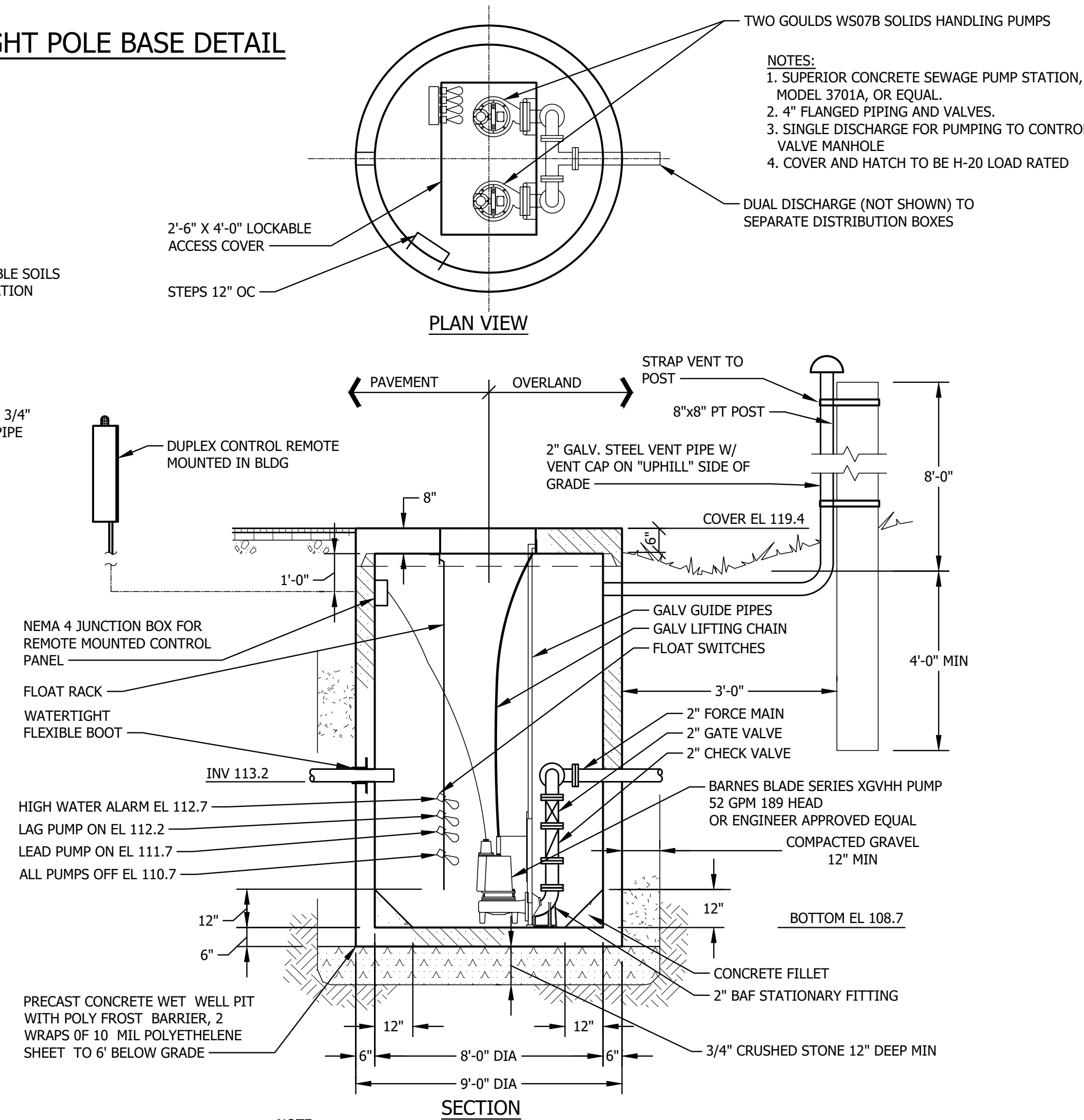
CATCH BASIN PROTECTION
NTS



CATCH BASIN PROTECTION
NTS



TYPICAL CLEANOUT
NTS



LIFT STATION
NTS

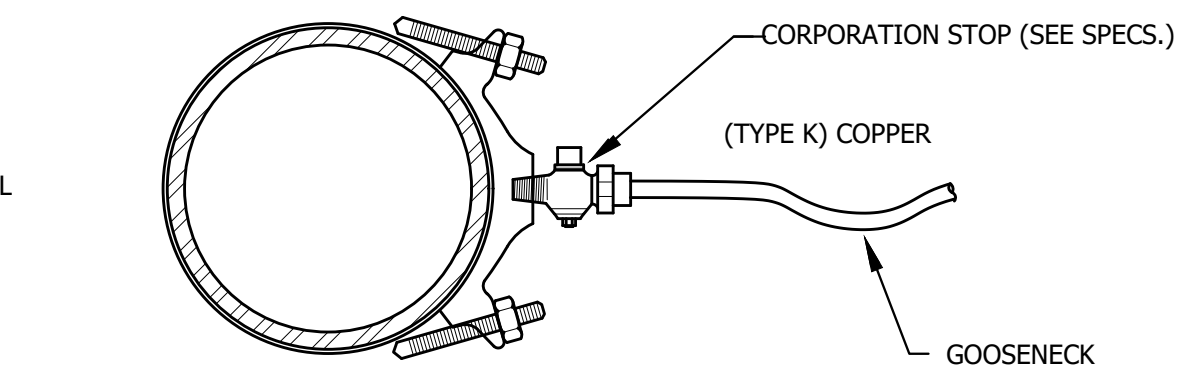
CATCH BASIN, MANHOLE, AND LIFT STATION NOTES:

THE CONTRACTOR SHALL PROVIDE SUBMITTALS TO THE ENGINEER FOR APPROVAL. SUBMITTALS SHALL INCLUDE BUT NOT LIMITED TO THE FOLLOWING:

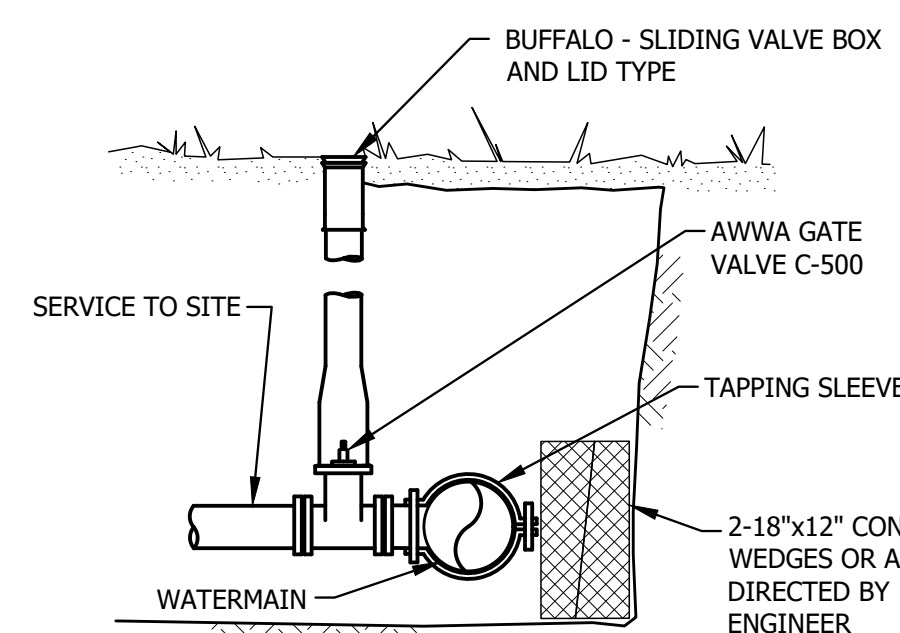
PRODUCT DATA: SUBMIT PRODUCT DATA FOR ALL MATERIALS USED ON THE JOB FOR REVIEW FOR LIMITED PURPOSE OF CHECKING FOR CONFORMANCE WITH INFORMATION GIVEN AND DESIGN CONCEPT EXPRESSED IN CONTRACT DOCUMENTS.

SHOP DRAWINGS: SUBMIT FOR REVIEW SHOP DRAWINGS OF ALL PRECAST UNITS. MANUFACTURER'S INFORMATION SHALL BE SUBMITTED FOR JOINT SEALANTS AND WATERPROOFING. MANUFACTURE SHALL PROVIDE ANTI-FLOTATION DESIGN SHOP DRAWINGS AND CALCULATIONS, INCLUDING ANY EXTENDED BASE SLABS AS NECESSARY, FOR PROPOSED MANHOLES. MANUFACTURER SHALL ASSUME GROUNDWATER LEVELS EQUAL TOP OF GROUND ELEVATIONS AND PROVIDE FOR A 1.2 FACTOR OF SAFETY AGAINST FLOTATION.

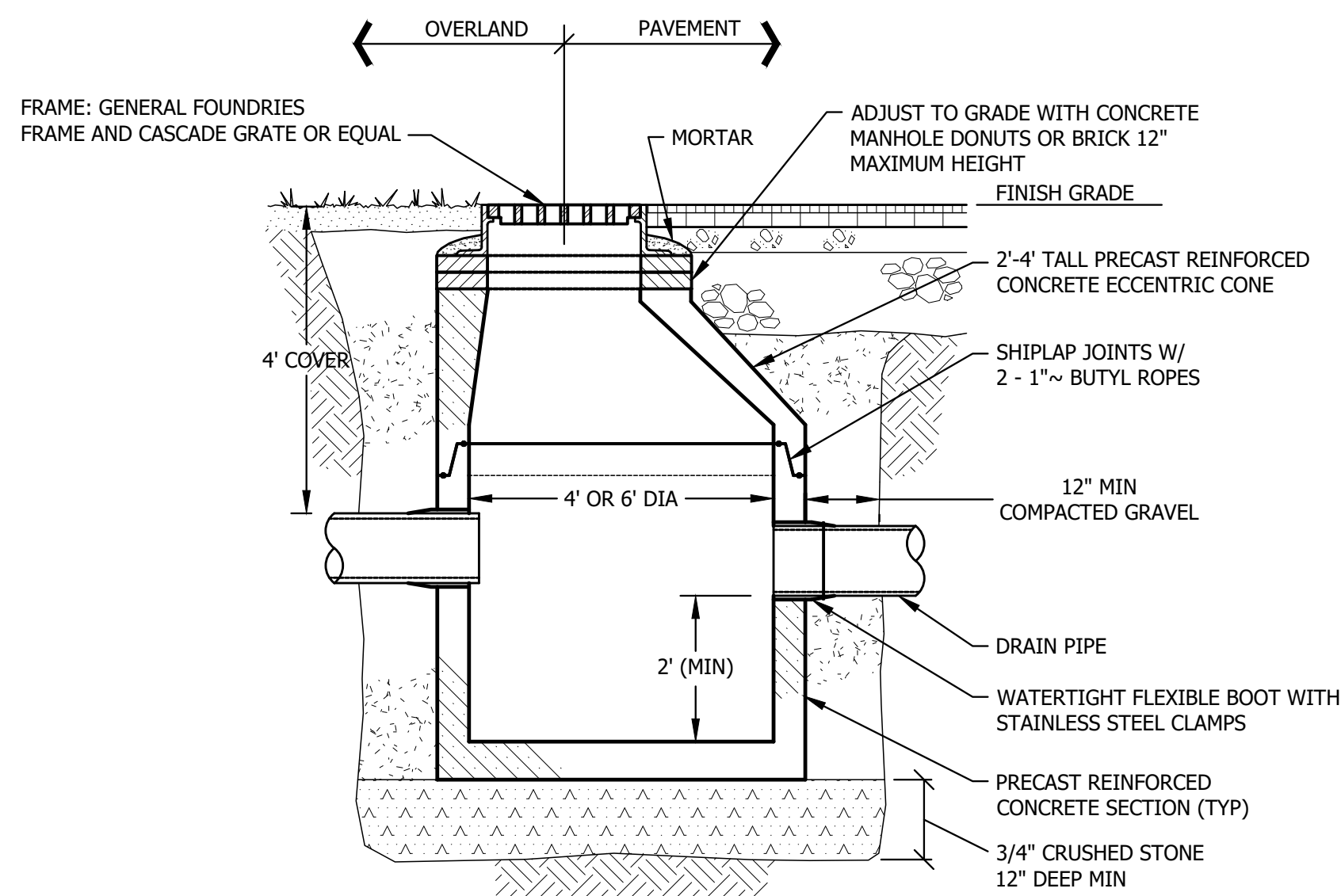
REV.	BY	DATE	STATUS
	DPD	5/2021	ISSUED TO TOWN AND MEDEP FOR REVIEW



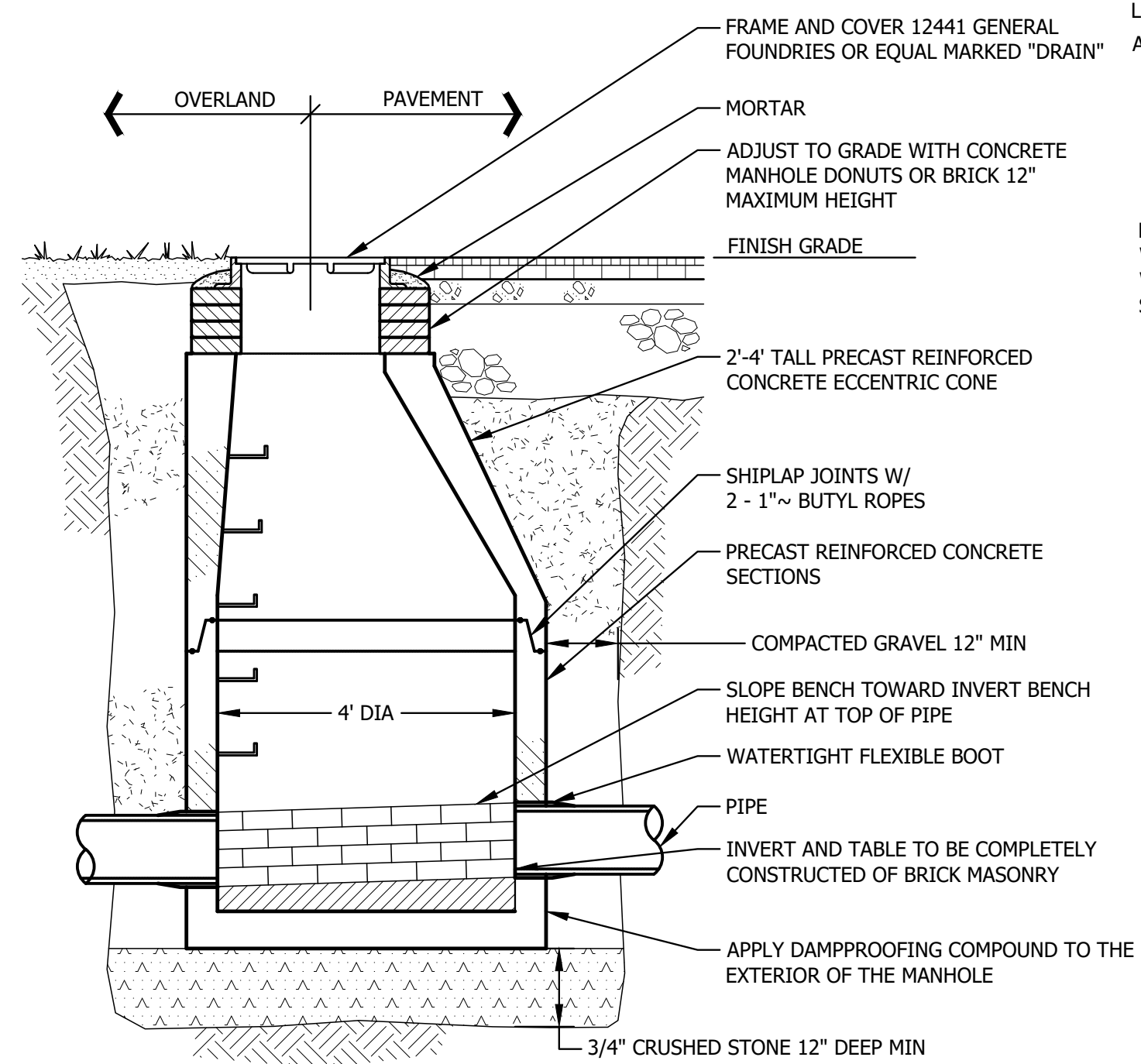
SERVICE SADDLE
NTS



TYPICAL TAPPING SLEEVE AND GATE VALVE
NTS



CATCH BASIN
NTS



CONCRETE MANHOLE SECTION
NTS

SNELL CONSTRUCTION LLC
BROAD COVE RIDGE CONDOMINIUMS
100 US ROUTE 1
CUMBERLAND, MAINE

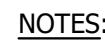
SECTIONS AND DETAILS

SME
SEVEE & MAHER
ENGINEERS

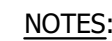
ENVIRONMENTAL • CIVIL • GEOTECHNICAL • WATER • COMPLIANCE
4 Blanchard Road, PO Box 85A, Cumberland, Maine 04021
Phone 207.829.5016 • Fax 207.829.5692 • smemaine.com

DESIGN BY: AML
DRAWN BY: SJM
DATE: 5/2021
CHECKED BY: DPD
LMN: SITE
CTB: SME-STD

JOB NO. 21241.01 DWG FILE DETAILS C-301



- ### VERTICAL GRANITE CURB SECTION

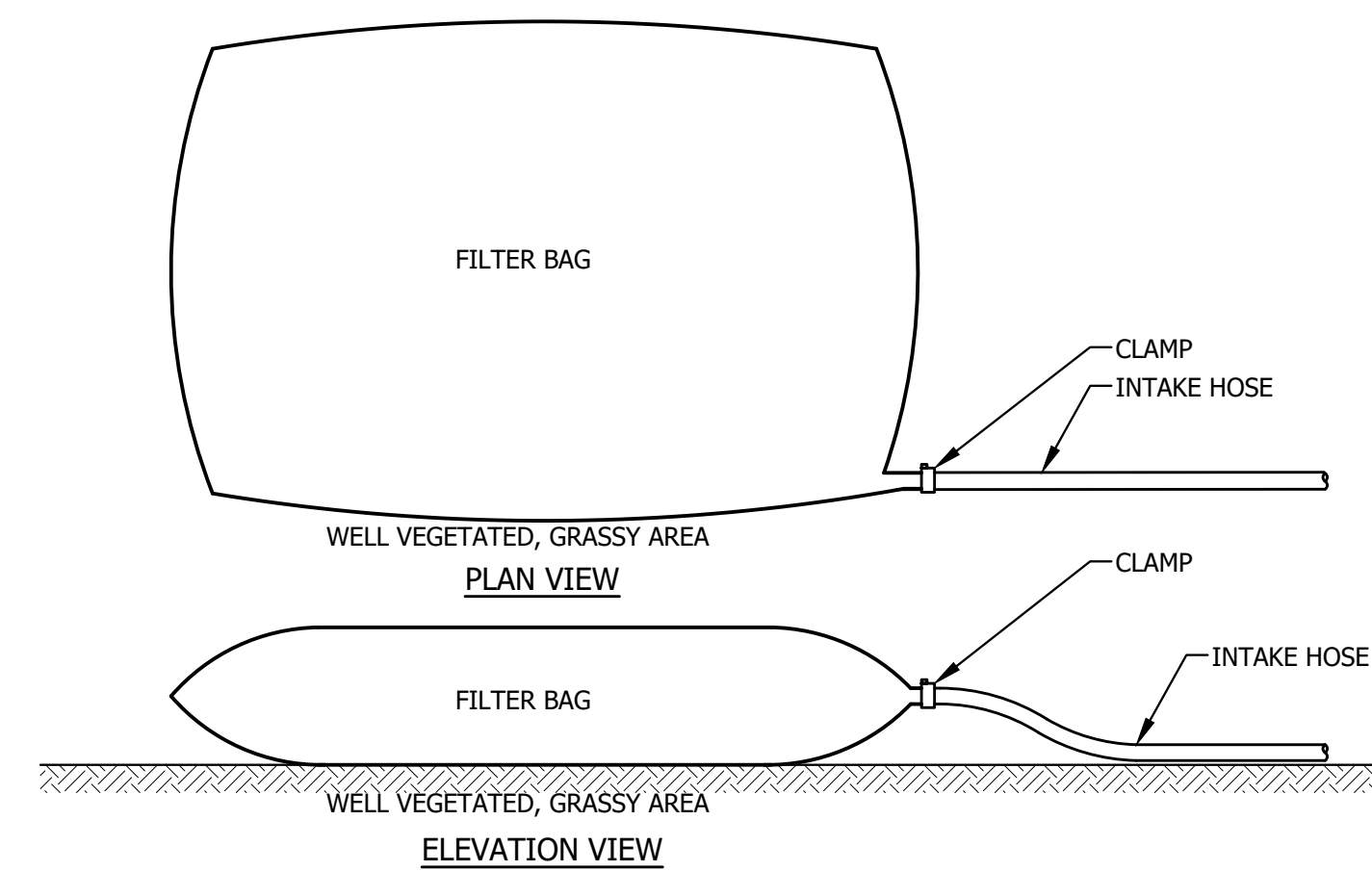


- ### FLUSH GRANITE CURB SECTION



ACCESSIBLE SIDEWALK RAMPS

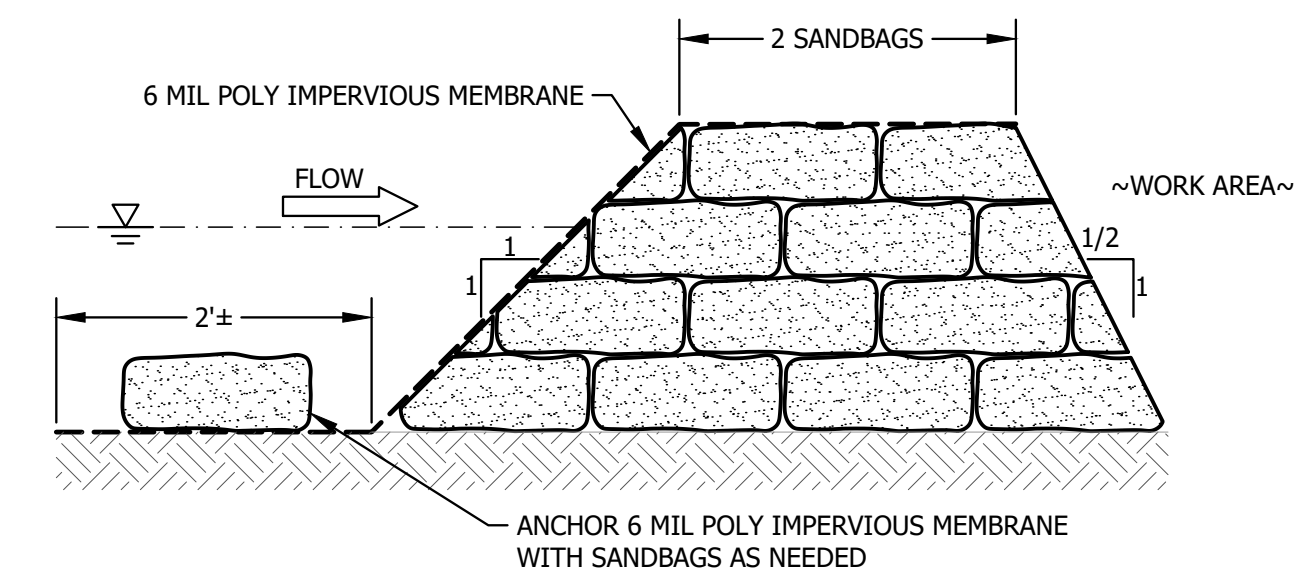
NTS



- NOTES:
1. FILTER BAGS SHALL BE MADE FROM NON-WOVEN GEOTEXTILE MATERIAL SEWN WITH HIGH STRENGTH, DOUBLE STITCHED "J" TYPE SEAMS. THEY SHALL BE CAPABLE OF TRAPPING PARTICLES LARGER THAN 150 MICRONS.
 2. A SUITABLE MEANS OF CLOSING THE BAG WITH A MECHANISM REQUIRED FOR DISPOSAL PURPOSES MUST BE PROVIDED. FILTER BAGS SHALL BE REPLACED WHEN THEY BECOME 1/2 FULL. SPARE BAGS SHALL BE KEPT AVAILABLE FOR REPLACEMENT OF THOSE THAT HAVE FAILED OR ARE FILLED.
 3. BAGS SHALL BE LOCATED IN WELL-VEGETATED (GRASSY) AREA, AND DISCHARGE OUTTO STABLE, EROSION RESISTANT AREAS WHERE THE RISK OF A GEOTEXTILE FLOW PATH SHALL BE PROVIDED. BAGS SHALL NOT BE PLACED ON SLOPES GREATER THAN 5%.
 4. THE PUMP DISCHARGE HOSE SHALL BE INSERTED INTO THE BAGS IN THE MANNER SPECIFIED BY THE MANUFACTURER AND SECURELY LAPPED.
 5. THE PUMPING RATE SHALL BE NO GREATER THAN 750 GPM OR 1/2 THE MAXIMUM SPECIFIED BY THE MANUFACTURER, WHICHEVER IS LESS. PUMP INTAKES SHOULD BE FLOATING AND SCREENED.

PUMPED WATER FILTER BAG

NTS



SANDBAG COFFER DAM

NTS



NTS



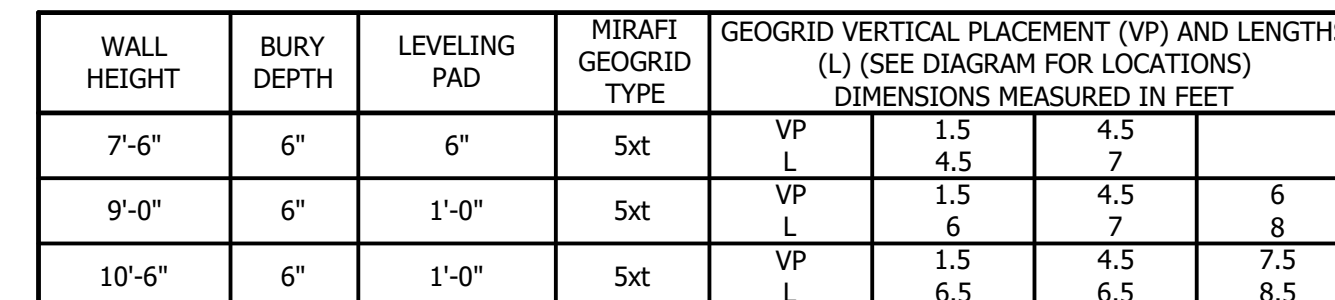
NTS



1. INSTALL IN ACCORDANCE WITH PORTLAND WATER DISTRICT STANDARDS.
2. ALL HYDRANT INSTALLATIONS SHALL CONSIST OF 12"x6" SWIVEL TEE, 6" GATE VALVE, 6" DI PIPE AND HYDRANT.

TYPICAL HYDRANT INSTALLATION

NTS

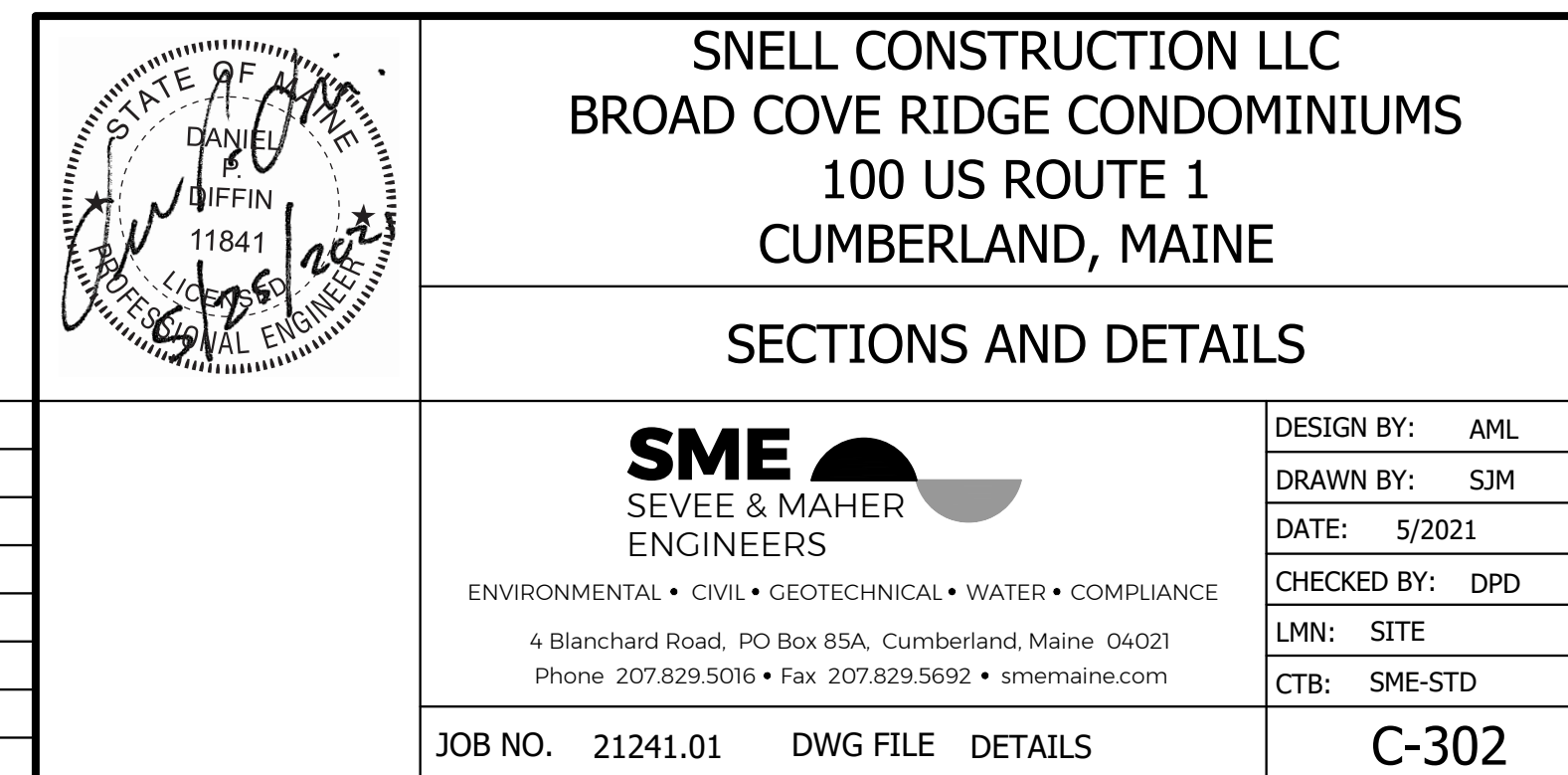


NOTE:
CONTRACTOR TO PROVIDE FINAL DESIGN STAMPED BY PROFESSIONAL ENGINEER.

MODULAR BLOCK WALL

NTS

	DPD	5/2021	ISSUED TO TOWN AND MEDEP FOR REVIEW
REV.	BY	DATE	STATUS



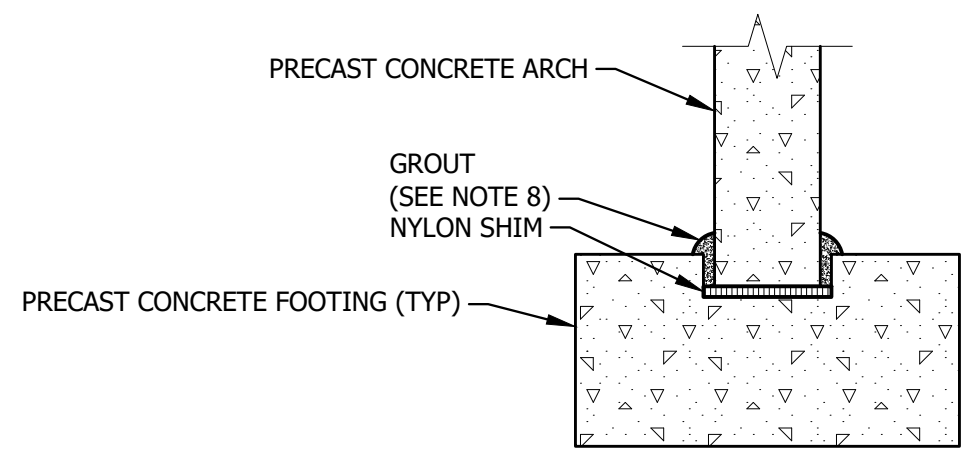


Diagram illustrating the cross-section of a bridge structure, showing various components and elevations:

- 100-YEAR EL 120.07*** and **25-YEAR EL 120.00*** (Left side elevations)
- 2-YEAR EL 119.90*** and **10-YEAR EL 119.96*** (Right side elevations)
- FINISH GRADE** and **EXISTING GRADE** (Top line elevations)
- TIMBER GUARDRAIL** (SEE DWG C-303)
- TOP OF PRECAST BOX EL 121.53**
- 6.67'** (Span length)
- INV 118.55** (Invert elevation)
- EL 119.66**, **EL 118.66**, **EL 116.66**, and **EL 115.66** (Right side elevations)
- ANTICIPATED MAXIMUM SCOUR POTENTIAL EL 117.08**
- 12" (MIN) CRUSHED STONE FOOTING BED** (SEE CULVERT REPLACEMENT NOTE 8)
- STREAM BOTTOM SUBSTRATE** (SEE CULVERT REPLACEMENT NOTE 9)
- RIPRAP D₅₀=5" FOR SCOUR PROTECTION (TYP)**
- PRECAST BOX CULVERT SECTIONS 8' LONG SECTIONS DIRIGO TIMBERLANDS OR ENGINEER APPROVED EQUAL**
- BRIDGE TO FOOTING CONNECTION (SEE DETAIL THIS DWG)**
- DIRIGO PRECAST FOOTING SECTIONS OR ENGINEER APPROVED EQUAL**
- DIRIGO PRECAST ABUTMENT BLOCK SECTIONS OR ENGINEER APPROVED EQUAL**
- APPROXIMATE LIMITS OF EXCAVATION (TYP)**

SIEVE DESIGNATION	PERCENTAGE BY WEIGHT PASSING SQUARE MESH SIEVES
1/2 INCH	35-80
1/4 INCH	25-65
No. 40	0-30
No. 200	0-7.0

3. ALL WORK SHALL BE SCHEDULED TO START AFTER JULY 15, 2021 AND BE CONCLUDED BEFORE OCTOBER 1, 2021.

4. ALL WORK SHALL BE IN ACCORDANCE WITH THE STREAM CROSSING STANDARDS CONTAINED IN THE STATE OF MAINE, DEPARTMENT OF ENVIRONMENTAL PROTECTION, NATURAL RESOURCES PROTECTION ACT, PERMIT BY RULE STANDARDS, CHAPTER 305, AS CURRENTLY REVISED. ADDITIONALLY ALL WORK SHALL MEET OR EXCEED THE EXPECTATIONS OF THE MAINE AUDUBON "STREAM SMART" GUIDELINE FOR FISH FRIENDLY STREAM CROSSINGS.

5. EROSION AND SEDIMENT CONTROL SHALL COMPLY WITH THE MAINE EROSION AND SEDIMENT CONTROL BMPs, DATED OCTOBER 2016, OR AS CURRENTLY REVISED.

6. LOCATION, ORIENTATION AND INVERT OF PRECAST CONCRETE ARCH AND FOOTING BLOCKS MAY BE ADJUSTED TO MEET FIELD CONDITIONS FOUND AT THE TIME OF CONSTRUCTION.

7. PRECAST CONCRETE ARCH AND FOOTING BLOCKS SHALL BE MANUFACTURED BY DIRIGO BRIDGE CO. OF NORTH ANSON, MAINE.

8. MINIMIZE DISTURBANCE TO EXISTING SUBSURFACE STREAM BED MATERIAL TO THE GREATEST EXTENT POSSIBLE.

9. GROUT SHALL BE NON-SHRINK SIKAGROUT 328 BY SIKA CORPORATION OR ENGINEER APPROVED EQUIV.

10. 3/4-INCH CRUSHED STONE SHALL MEET THE FOLLOWING GRADATION:

SIEVE DESIGNATION	WEIGHT PASSING SQUARE MESH SIEVES
1 INCH	100.00
3/4 INCH	90-100
1/2 INCH	20-55
3/8 INCH	0-15
No. 4	0-5

11. EXISTING STREAM SUBSTRATE TO REMAIN INTACT TO THE GREATEST EXTENT PRACTICABLE AND ANY REQUIRED SUBSTRATE GRVEL SHALL MEET THE REQUIREMENTS OF MEDOT TYPE D GRAVEL (703.06C). MATERIAL SHALL NOT CONTAIN PARTICLES OF ROCK WHICH WILL NOT PASS THE 6-INCH SQUARE MESH SIEVE. THE GRADATION OF THE MATERIAL THAT PASSES THE 3-INCH SIEVE SHALL MEET THE FOLLOWING REQUIREMENTS:

SIEVE DESIGNATION	PERCENTAGE BY WEIGHT PASSING SQUARE MESH SIEVES
1/2 INCH	35-80
1/4 INCH	25-65
No. 40	0-30
No. 200	0-7.0

12. PRECAST CONCRETE ARCH AND FOOTINGS SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURERS REQUIREMENTS.

13. FINAL FOOTING DIMENSIONS TO BE DETERMINED BASED ON OBSERVATION OF SUBGRADE MATERIAL BY ENGINEER AT TIME OF CONSTRUCTION.

	DPD	5/2021	ISSUED TO TOWN AND MEDEP FOR REVIEW
REV.	BY	DATE	STATUS



	DPD	5/2021	ISSUED TO TOWN AND MEDEP FOR REVIEW
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STORMWATER MANAGEMENT LEGEND

- SC-1C SUBCATCHMENT DESIGNATION
- SUBCATCHMENT BOUNDARY
- A --- B --- C TIME OF CONCENTRATION SEGMENT DESIGNATION
TIME OF CONCENTRATION PATH
- Sht L=100'
S=0.035 TIME OF CONCENTRATION TYPE, LENGTH
AND SLOPE. (75% TEXT HT)
- Sht SHEET FLOW
- Shc SHALLOW CONCENTRATED FLOW
- Cf CHANNEL FLOW
- DRAINAGE REACH
- R4 REACH DESIGNATION (HYDROCAD)
- △ POND/STRUCTURE DESIGNATION (HYDROCAD)
- tc 2 TIME OF CONCENTRATION WITH SUBCATCHMENT DESIGNATION
- SOIL TYPE BOUNDARY
- Su SOIL TYPE DESIGNATION

SOILS LEGEND

- HfC HARTLAND - HSG B
- HrC LYMAN/TUNBRIDGE - HSG D
- HsC LYMAN/ABRAMS - HSG D
- Su SUFFIELD - HSG C

- NOTES:
1. SEE DWG C-100 FOR PLAN REFERENCES AND ORIGINS OF TOPOGRAPHIC INFORMATION.

STATE OF MAINE

DANIEL J. SEVEE

11841

REGISTERED PROFESSIONAL ENGINEER

5/2021

5/2021

SNELL CONSTRUCTION LLC

BROAD COVE RIDGE CONDOMINIUMS

100 US ROUTE 1

CUMBERLAND, MAINE

STORMWATER MANAGEMENT PLAN

POST-DEVELOPMENT CONDITIONS

SME

SEVEE & MAHER

ENGINEERS

ENVIRONMENTAL • CIVIL • GEOTECHNICAL • WATER • COMPLIANCE

4 Blanchard Road, PO Box 85A, Cumberland, Maine 04021

Phone 207.829.5016 • Fax 207.829.5692 • smemaine.com

DESIGN BY: AML

DRAWN BY: SJM

DATE: 5/2021

CHECKED BY: DPD

LMN: SMP-P

CTB: SME-STD

JOB NO. 21241.01

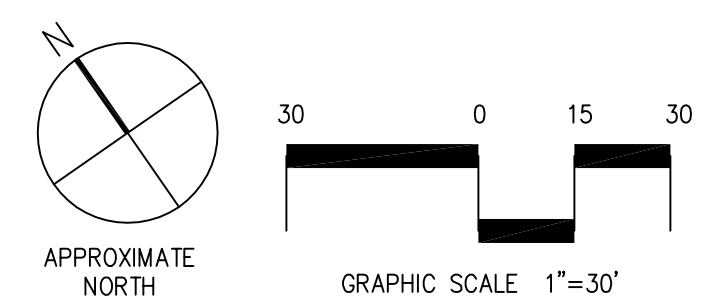
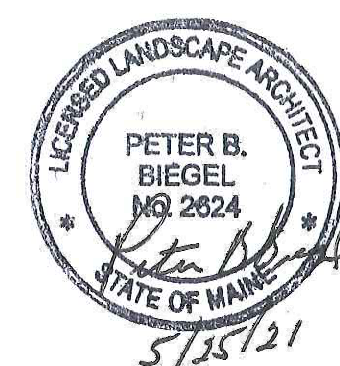
DWG FILE BASE

D-101

REV.	BY	DATE	STATUS
	DPD	5/2021	ISSUED TO TOWN AND MEDEP FOR REVIEW



1. PRIOR TO THE START OF ANY EXCAVATION FOR THE PROJECT BOTH ON AND OFF THE SITE, THE CONTRACTOR SHALL NOTIFY DISSAGE AND BE PROVIDED WITH A DISPAGE NUMBER INDICATING THAT ALL EXISTING UTILITIES HAVE BEEN LOCATED AND MARKED.
2. ANY TREES DESIGNATED TO REMAIN THAT ARE DAMAGED OR REMOVED DURING CONSTRUCTION, SHALL BE REPLACED WITH TREES EQUALING THE SPECIES AND CALIFER LOSS.
3. LANDSCAPE CONTRACTOR IS ENCOURAGED TO PROVIDE THE LANDSCAPE ARCHITECT WITH CONCERNS AND/OR SUGGESTIONS WITH REGARDS TO PROPOSED PLANT MATERIAL SELECTION PRIOR TO PLACING A PURCHASE ORDER.
4. THE LANDSCAPE CONTRACTOR SHALL SUPPLY ALL PLANT MATERIALS IN QUANTITIES SUFFICIENT TO COMPLETE ALL PLANTINGS SHOWN GRAPHICALLY ON THIS DRAWING. CLARIFY ANY DISCREPANCIES WITH THE LANDSCAPE ARCHITECT PRIOR TO PRICING ANY PLANT MATERIAL.
5. ALL PLANT MATERIALS SHALL CONFORM TO THE GUIDELINES ESTABLISHED BY THE LATEST EDITION OF THE AMERICAN ASSOCIATION OF NURSERYMENS' AMERICAN STANDARD OF NURSERY STOCK.
6. ALL PLANT MATERIALS ARE SUBJECT TO THE APPROVAL OF THE OWNER'S REPRESENTATIVE AT THE SITE. PLANTS WHICH ARE REJECTED SHALL BE REMOVED FROM THE SITE IMMEDIATELY AND REPLACED AT NO ADDITIONAL COST TO THE OWNER.
7. MULCH FOR PLANTED AREAS TO BE AGED SPRUCE AND FIR BARK, PARTIALLY DECOMPOSED, DARK BROWN IN COLOR AND FREE OF WOOD CHIPS THICKER THAN 1/4 INCH.
8. NO PLANTS SHALL BE PLANTED BEFORE ACCEPTANCE OF ROUGH GRADING AND BEFORE CONSTRUCTION HAS BEEN COMPLETED IN THE IMMEDIATE AREA.
9. ALL SHRUB GROUPINGS SHALL BE INCORPORATED INTO BEDS. WHERE MULCHED PLANT BED ABUTS LAWN, CONTRACTOR SHALL PROVIDE A TURF CUT EDGE.
10. PRUNE TREES ALONG WALKS AND PARKING AREA SO LOWER BRANCHES ARE NO LOWER THAN 6' HT. MIN.
11. ALL PLANT MATERIAL OR REPRESENTATIVE SAMPLES SHALL BE LEGIBLY TAGGED WITH PROPER COMMON AND BOTANICAL NAMES. TAGS SHALL REMAIN ON THE PLANTS UNTIL FINAL ACCEPTANCE.
12. CONTRACTOR SHALL LOAMED DISTURBED AREAS AS FOLLOWS:
 - LAWN AREAS 6" MIN. DEPTH OF TOPSOIL (LOAM)
 - PLANT BEDS 18" TOPSOIL (LOAM).
 - 10'X10' SQUARE AROUND THE PROPOSED TREES 24" TOPSOIL (LOAM).
13. LAWN AREAS CALLED OUT TO BE SEEDED SHALL BE SEEDED WITH "COTTAGE MIX" AS DISTRIBUTED BY ALLEN, STERLING & LOTHROP OF FORT WORTH, TEX. SEED AT THE RATE RECOMMENDED BY THE DISTRIBUTOR BUT NOT LESSER THAN 5 LBS. PER 1,000 S.F. LAWN AREAS CALLED OUT TO BE SOG SHALL BE SOGDED WITH HIGH QUALITY SOG MADE UP OF A GRASS BLEND FOR SUNNY AREAS OR SHADE AREAS DEPENDING ON THE LOCATION OF THE AREA TO BE SOGDED.
14. CONTRACTOR SHALL BEGIN MAINTENANCE IMMEDIATELY AFTER PLANTING AND WILL CONTINUE UNTIL FINAL ACCEPTANCE. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL MEANS AND METHODS OF WATERING AND MAINTENANCE.
15. THE LANDSCAPE CONTRACTOR SHALL GUARANTEE ALL PLANT MATERIALS FOR ONE (1) FULL YEAR FROM DATE OF FINAL ACCEPTANCE.
16. SCREENED IMAGES SHOW EXISTING CONDITIONS. WHERE EXISTING CONDITIONS LIE UNDER OR ARE IMPOSED UPON BY PROPOSED BUILDINGS AND/OR SITE ELEMENTS, THE EXISTING CONDITION WILL BE REMOVED, ABANDONED AND OR CAPPED OR DEMOLISHED AS REQUIRED.
17. SEE CIVIL DRAWINGS FOR ADDITIONAL INFORMATION.
18. THE CONTRACTOR SHALL INSTALL WATERING BAGS SUCH AS THE TREGATOR ON ALL TREES AT THE TIME OF INSTALLATION. BAGS TO BE LEFT ON UNTIL FREEZING TEMPERATURES.

[illegible]

LAND DESIGN SOLUTIONS
LAND PLANNING, SITE PLANNING & LANDSCAPE ARCHITECTURE

1 Paraday Drive, Suite T, Cumberland, ME 04021 tel: (207) 939-1717

CLIENT:

SEVEE & MAHER ENGINEERS INC.

4 BLANCHARD ROAD, CUMBERLAND CENTER, MAINE

DESIGN: PBB	BROAD COVE RIDGE CONDOMINIUMS 102 US ROUTE ONE, CUMBERLAND, MAINE		
DRAWN: DEPT.			
CHKD: PBB	LANDSCAPE PLAN		
DATE: MAY 2021	PROJ. NO.	21-116	REV.
SCALE: 1"=30'	DWG. NO.	L-1	A

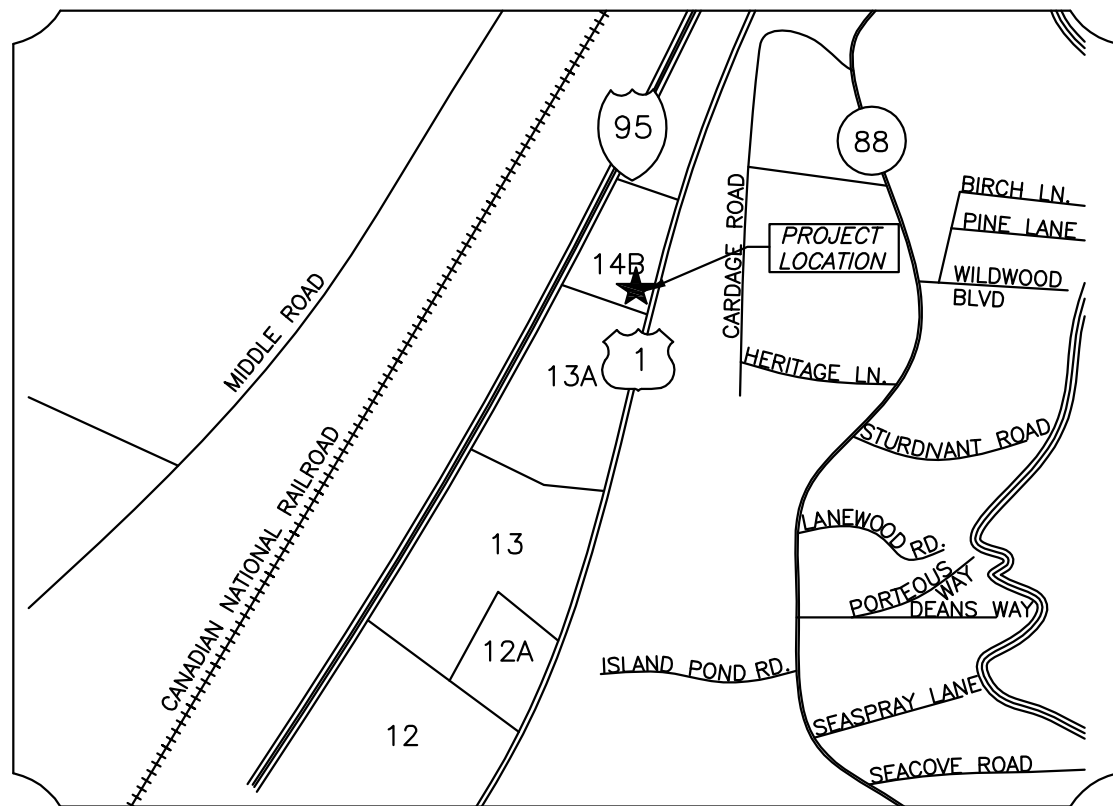
INTERSTATE I-95

N/F
GLENN S. PORTER
TM R01, PARCEL 14B
BOOK 10526, PAGE 233

N/F
100 US ROUTE 1 LLC
TM R01, P/O PARCEL 13B
BOOK 31838, PAGE 3
137,816 S.F.

N/F
LEDGEVIEW PROPERTIES,
LLC
TM R01, PARCEL 13A
BOOK 17591, PAGE 242

U.S. ROUTE 1



LOCATION MAP
(NOT TO SCALE)

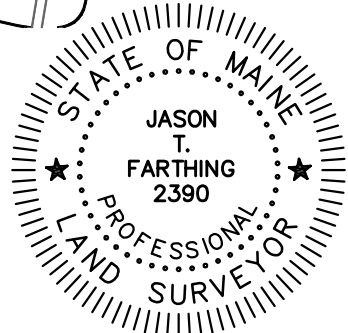
- NOTES:
- (1) OWNER OF RECORD: 100 US ROUTE 1 LLC PER DEED BOOK 31838, PAGE 3 RECORDED IN CUMBERLAND COUNTY REGISTRY OF DEEDS.
 - (2) TAX MAP R01, P/O PACEL 13B
 - (3) SURVEY REFERENCES:
 - (A) "PLAN OF PROPERTY IN CUMBERLAND, MAINE FOR WM. RANDALL, ELEANOR A. RANDALL & FRED JENSEN" BY: SURVEY, INC. JANUARY 1988
 - (B) "STANDARD BOUNDARY SURVEY, PLAN SHOWING A DIVISION OF LAND" FOR TWIN TOWN TRUST, BY LAND USE CONSULTANTS DATED OCTOBER 16, 1992.
 - (C) "SITE PLAN LEDGEVIEW PROPERTIES, LLC." FOR DAVID & KAREN LANDA, BY SURVEY INCORPORATED DATED DECEMBER 2001 AND REVISED THROUGH NOVEMBER 2002.
 - (4) TOPOGRAPHIC DATA AND EXISTING CONDITIONS ARE BASED UPON A GROUND SURVEY CONDUCTED WITH ASSUMED ELEVATIONS BY SURVEY, INC. JANUARY 15 & 16, 2015
 - (5) PROPERTY IS LOCATED IN THE "OC-S" OFFICE COMMERCIAL-SOUTH DENSITY RESIDENTIAL REQUIREMENTS:
MINIMUM LOT SIZE- 1 ACRE
MINIMUM LOT FRONTAGE- 150 FEET
SETBACK REQUIREMENTS:
FRONT: 25 FEET
REAR: 65 FEET
SIDE: 20 FEET

LEGEND:

- | | |
|--|--|
| | #5 REBAR WITH PLASTIC CAP STAMPED |
| | "SURVEY, INC. PLS 2390" SET ON |
| | FOUND IRON PIPE (SIZE & TYPE AS NOTED) |
| | FOUND DRILL HOLE |
| | FOUND IRON ROD |
| | UTILITY POLE (NUMBER AS NOTED) |
| | GUY WIRE ANCHOR |
| | STONEWALL |
| | BOUNDARY LINE |
| | EASEMENT LINE |
| | EDGE OF GRAVEL |
| | EDGE OF PAVEMENT |
| | RIGHT-OF-WAY LINE |
| | ABUTTER LINE |
| | OVERHEAD UTILITY |
| | NOW OR FORMERLY OWNED BY DEED BOOK AND PAGE (CCRD) |
| | TAX MAP-LOT |
| | PARENTHESIS DENOTE RECORD DATA |

N/F
1234/567
12-45
(123.45)

30 0 15 30 60
GRAPHIC SCALE
1"=30'



I CERTIFY THAT THIS SURVEY CONFORMS TO THE STANDARDS OF THE MAINE BOARD OF LICENSURE FOR PROFESSIONAL LAND SURVEYORS AND IS CORRECT TO THE BEST OF MY KNOWLEDGE, BELIEF AND PROFESSIONAL OPINION.

JASON T. FARTHING P.L.S. 2390

BOUNDARY / EXISTING
CONDITIONS SURVEY

US ROUTE 1
CUMBERLAND, ME

FOR: **DAVID SPELLMAN**
127 FORESIDE ROAD
FALMOUTH, MAINE 04110
(CLIENT)

SURVEY BY: **SURVEY, INC.**
P.O. BOX 210
WINDHAM, ME 04062
(207) 892-2556 (207) 892-2557 FAX
INFO@SURVEYINCORPORATED.COM

PLAN BY: AWH @ SURVEY, INC.
DATE: FEBRUARY 3, 2015 JOB NO. 15_005