SUBDIVISION PREAPPLICATION SUBMISSION

AUTUMN WAY CONSERVATION SUBDIVISION

TOWN OF FALMOUTH, ME






Prepared By:

ACORN ENGINEERING, INC.

for

ENVY CONSTRUCTION, LLC

RESUBMISSION
NOVEMBER 3, 2026

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207-775-2655 • PO Box 3372 • Portland • Maine • 04104

ACORN ENGINEERING, INC.

Planning Division
Town of Falmouth, Maine
271 Falmouth Road
Falmouth, ME 04105

November 3, 2026

Subject: Pre-Application Sketch Plan Re-submission
Autumn Way Conservation Subdivision
Falmouth, Maine 04105

To Nicholas King and the Town of Falmouth Planning Board:

On behalf of Envy Construction, LLC, Acorn Engineering is pleased to resubmit the accompanying package of pre-application review materials related to a Conservation Subdivision located on Autumn Way in Falmouth, Maine. The subject parcel is identified as Lot R06-042 with a land area of 12.65 acres. The parcel is located within the Farm & Forest (Manufactured Housing) (FM) zone. The parcel is also situated within the Town's Resource Conservation Overlay. A pre-application package was submitted for this project on August 5, 2025 and reviewed with the Town of Falmouth Planning Board at the October 7, 2025 Planning Board meeting.

This submission package is intended to generally align with the Town's Pre-application Submission Requirements as outlined in Appendix 7-2 of the Town Code of Ordinances, and provide further clarification on the questions asked by the Board during the October 2025 Planning Board meeting. The applicant has utilized the Town's Conservation Subdivision standards per Chapter II-19-18.5, along with the Site Inventory and Analysis and Four-Step Design Process to develop a Concept Plan for the proposed development.

During the October 2025 Planning Board meeting, the Board asked for further clarification on the developer's and future lots' rights to utilize and pave Autumn Way, which is an existing private roadway off of Hadlock Road. The development team has reviewed the existing roadway rights with Attorney David A. Goldman, Esq. of Norman Hanson & DeTroy, LLC and confirmed that adequate rights are in place to utilize Autumn Way for the project. A letter from Goldman with accompanying documentation is provided in this application as Attachment 6 – Roadway Development Rights Review.

In addition to the review of roadway rights, an updated boundary and existing conditions survey has been completed, and lot configurations have been slightly modified. Clearing extents have been added to the rear of the lots as shown on the Concept Site Plan. Further clarification of tree removals and impacts to the developed parcels will be provided in subsequent submissions, as required by the Conservation Subdivision Standards. Overall, the development scheme is consistent with the previously reviewed preapplication plans.

A waiver request to extend the existing nonconforming Autumn Way is included within this

submission as Attachment 7. Per the Falmouth Code of Ordinances Appendix 7-5.E.5.c. the maximum length of a dead end street is 1,500 linear feet. In the existing condition, Autumn Way and Hadlock Road extends approximately 2,580 linear feet to the intersection with Gray Road. Please see Attachment 7: Waiver Request for more information. We respectfully request that the Board provide feedback on the waiver request as the feasibility of the development will depend on its approval in subsequent reviews.

The included submission is intended to meet the preapplication submission requirements set forth by the Town and also provide additional information based upon feedback from the Board in the previous review. We look forward to the review and discussion surrounding the project, please do not hesitate to reach out with any questions or preliminary comments.

Sincerely,

Mike Triglione, P.E.
Associate Project Manager
Acorn Engineering, Inc.

The following documents and drawings are included in this submission:

Documents:

- Attachment 1: Planning Board Request for Hearing, Major Subdivision Pre-application checklist, and Subdivision Fee Calculation Sheet
- Attachment 2: Agent Authorization
- Attachment 3: Right, Title, or Interest
- Attachment 4: Location Map
- Attachment 5: Abutter Information
- Attachment 6: Roadway Development Rights Review
- Attachment 7: Waiver Request
- Attachment 8: Site Analysis Narrative
- Attachment 9: Four-Step Design Process
- Attachment 10: Viewshed Analysis
- Attachment 11: Wetland Delineation Report
- Attachment 12: Class 'B' High Intensity Soil Survey

Drawings:

- C-01 Cover Sheet & Legend
- EX Boundary Survey & Existing Conditions
- C-09 Site Inventory and Analysis Plan
- C-10 Site Analysis Sketch Plan
- EX.A Site Analysis Sketch Plan – Site Aerial
- EX.B Site Analysis Sketch Plan – Natural Resources
- EX.C Site Analysis Sketch Plan – Slopes
- EX.D Site Analysis Sketch Plan – Soil Drainage
- EX.E Site Analysis Sketch Plan – Overall Site Analysis
- EX.G Tree Survey

Attachment 1

Request for Public Hearing, Preapplication Checklist & Fee Calculation Sheet

FALMOUTH PLANNING BOARD REQUEST FOR HEARING

IN ADDITION TO THE SPECIFIED REVIEW FEES, APPLICATIONS SHALL BE ACCOMPANIED BY A $125.00 FEE TO COVER THE COST OF NOTIFICATIONS AND PUBLISHING.

Name of Applicant: Envy Construction, LLC (Nick Voltolina) Phone# 207-232-0351

Full Address: 18 Rogers Trail, Falmouth, ME 04105 Alt. Phone#

Map: R06 Lot: 42 Zone: Fm E-Mail: nick@envyconstruction.com

Address of Property to be Developed: Autumn Way

Property Owner (if other):

Full Address: Phone:

The undersigned requests that the Falmouth Planning Board consider the following application for:

Major Subdivision:

☑ **Pre-App Sketch Plan** ☐ **Preliminary Approval** ☐ **Final Approval** ☐ **Amendment** ☐ **Re-Approval**

Minor Subdivision:

☐ **Pre-App Sketch Plan** ☐ **Final Approval** ☐ **Amendment** ☐ **Re-Approval**

Site Plan Review:

☐ **Pre-App Sketch Plan** ☐ **Final Approval** ☐ **Amendment** ☐ **Re-Approval**

☐ **Private Way Approval/Amendment** ☐ **Fill Permit** ☐ **Sign Permit**

☐ **Shoreland Zone Permit** ☐ **Personal Wireless Service Facility** ☐ **(Tier I)** ☐ **(Tier I & II)**

☐ **Contract Zoning** ☐ **Other** (specify)

Notes to the Applicant:

1. A short description of the project must be attached to this form. This application must be filed at the Town Hall no later than twenty-eight (28) days prior to the regular meeting of the Board (1st Tuesday monthly). Applications shall be accompanied by all application fees and materials required by the applicable ordinance(s), checklists and fee schedule.
2. Applications shall include all materials and copies as specified on the Submittal Requirements form.
3. All materials in color shall be copied in color.

Application Authorization

I hereby make application to the Town of Falmouth for the above-referenced property(ies) and the development as described. To the best of my knowledge, the information provided herein is accurate and is in accordance with the Zoning and Subdivision Ordinances of the Town, except where waivers are requested. The Town of Falmouth Planning Board and/or town employees are authorized to enter the property(ies) for purposes of reviewing this proposal and for inspecting improvements as a result of an approval of this proposal. I understand that I am responsible for appearing, or having someone appear on my behalf, at all meetings before the Planning Board.

Unless the applicant has submitted notice to the Community Development Department as part of the initial and any subsequent submittals, no alteration of site conditions, including the existing landscape, structures and buildings, shall occur between the date of application submittal and the date the application has received final sign off from staff after Planning Board approval.

Signed: Date: 11/3/26

Printed name: Mike Triglione, PE

Please identify yourself (check one): ☑ Agent* ☐ Property Owner

***(If you are an agent, written authorization from the property owner must be attached to this form.)**

MAJOR SUBDIVISION
PRE-APPLICATION PLAN CHECKLIST

Name: Mike Triglione, PE Date: 11/3/26

Note: Please refer to separate "Submittal Requirements" form to determine the number of copies necessary for each submission.

(√)

__X__ 1. Applicable fees (please refer to fee schedule)

__X__ 2. Fee Calculation Sheet

__X__ 3. Site Inventory and Analysis Submission shall contain, at a minimum, the following:

- __X__ a. Names and addresses of the record owner and the applicant.
- __X__ b. Names and addresses of all consultants working on the project.
- __X__ c. Names and addresses of all abutting property owners.
- __X__ d. Evidence of right, title, or interest in the property; and

__X__ 4. Appropriate number of copies of an accurate inventory plan of the parcel at a scale of not more than 1" = 100' showing as a minimum:

- __X__ a. Name of the property owner, north arrow, date, and scale.
- __X__ b. Boundaries of the parcel.
- __X__ c. Relationship of the site to the surrounding area (including distance to closest street intersection).
- __X__ d. Topography of the site at an appropriate contour interval depending on the nature of the use and character of the site (in many cases, submittal of U.S.G.S. 10' contours will be adequate) identifying areas with slopes of 3 percent or less and areas with slopes in excess of 15 percent.
- __X__ e. Hydrology of the site, including drainage courses, wetlands, streams, ponds, and flood plains.
- __X__ f. Location and size of existing utilities or improvements servicing the site (if none, state so).
- __X__ g. Existing buildings, structures, or other improvements on the site (if none, state so).
- __X__ h. Existing restrictions or easements on the site (if none, state so).
- __X__ i. Class B high intensity soil survey.

__X__ 5. Appropriate number of copies of a site analysis sketch plan at the same scale as the inventory plan, highlighting the opportunities and constraints of the site. This plan should indicate:

- __X__ a. Prime portions of the site that are suitable for development or use.
- __X__ b. Portions of the site that are suitable for on-site sewage disposal if public sewerage is not available.
- __X__ c. Areas of the site that have development limitations (steep slope, flat, soil constraints, wetlands, flood plains, drainage, etc.) which must be addressed in the development plan.
- __X__ d. Suitable access points and routes for roads and utilities.
- __X__ e. Areas where there may be off-site conflicts or concerns (i.e., noise, lighting, traffic, etc.).

Town of Falmouth
Planning Department
Subdivision Fee Calculation Sheet
Effective 09-22-2026

Name of Applicant	Envy Construction, LLC (Nick Voltolina)
Applicant Address	18 Rogers Trail, Falmouth, ME 04105
Project Name	Autumn Way Conservation Subdivision
Address of Project	Autumn Way, Falmouth, ME 04105
# of Units or Lots	4
Map-Lot #	R06-42

Publishing & Notice	$125.00 flat fee	125.00
Review Fee		
Pre-application Sketch Plan	$500.00 flat fee	500
Subdivision		
Minor Final or Major Preliminary:		
First three lots	$1500.00 flat fee	
Each additional lot	_____ x $500.00	
Major Final Approval:	$500.00 flat fee	
Each additional lot	_____ x $100.00	
Subdivision Review Escrow		
Each Dwelling Unit or Lot	_____ x $100.00	
Amendment		
Revision (no new lots/units created)	$500.00 flat fee	
Re-approval	$250.00 (with no changes)	
TOTAL FEES REQUIRED		625

Note: If an application is subject to site plan review and subdivision review, the applicant shall pay the larger of the subdivision review fee or the site plan review fee. Both Fee Calculation Sheets must be completed.

Review fees are not typically refundable. If extenuating circumstances occur, the Department may consider a partial or full refund.

Staff Use Only:
Approved by _____ Date _____

Attachment 2

Agent Authorization Letter

ENVY CONSTRUCTION

August 4,2025

Nick Voltolina
President
Envy Construction
46 Gray Road Falmouth Maine, 04105
P: 207.232.0351
E: Nick@envyconstruction.com
W: Envyconstruction.com

ENVY CONSTRUCTION

To whom it may concern,

I grant Acorn Engineering, Inc. authority to act on my behalf for all matters pertaining to the subdivision permitting associated with the property identified as Lot R06-042 on Autumn Way in Falmouth, Maine.

Sincerely,

Nick Voltolina

Attachment 3

Right, Title or Interest

MAINE REAL ESTATE TAX-Paid

WARRANTY DEED
Statutory Short Form

DLN: 1002240198191

KNOW ALL BY THESE PRESENTS, That **0 Autumn Way, LLC**, a Maine Limited Liability Company, whose mailing address is **190 US Route 1, #348, Falmouth, ME 04105**, for consideration paid, grants to **Envy Construction LLC, a Maine Limited Liability Company,** whose mailing address is **18 Rogers Trail, Falmouth, ME 04105,** with Warranty Covenants, the real property in the Town of **Falmouth**, County of **Cumberland** and State of **Maine**, more particularly described as follows:

The following described property with any buildings thereon, located in the Town of Falmouth, County of Maine, and situated on both sides leading from Portland to Gray and known as Cumberland and State of the State Highway the Gray Road:

The following described lots or parcels of land with the buildings thereon situated on the east side of the said Gray Road and bounded and described as follows: Beginning at a stake ninety and three tenths (90.3) feet northerly from an iron rod set in a ledge by the County Commissioners and on the easterly side of said Road; thence south 75° 22' East two hundred eighteen (218) feet to a stake; thence South 14° 38' West four hundred (400) feet to a stake; thence North 75° 22' West two hundred eighteen (218) feet to said Road; thence North 14° 38' by said Road four hundred (400) feet to the point of beginning; containing two (2) acres, more or less.

Also, Beginning at a point on the easterly side of said Road leading from Portland to Gray at the most northwesterly corner of said premises first described above, said point being marked by an iron stake; and thence on a course of South 75° 22' East on the lire of said premises first described above 13 rods 5 links to a stake; thence North 14° 38' East 25 rods 8 links to a stake and line of land now or formerly of W. H. Pearson; thence North 78° 52' West on line of land of said Pearson 6 rods 21 links to the Hadlock Road, so called; thence in nearly a southwesterly direction by line of said Hadlock Road 9 rods 9 links to the easterly side of the said Road to Gray; thence southerly by said Road to Gray 17 rods 23 links to the point of beginning; containing 1 and 1 and 1/12ths acres, more or less.

Also, beginning at a point on the easterly side of said Road leading from Portland to Gray at an iron pipe driven in the ground at the southwesterly corner of the lot first described above; thence southwesterly by said Road one hundred twenty-five (125) feet, more or less, to a point on said Road at which a stone wall now situated on said land would intersect the easterly side of said Highway if said stone wall was extended along its present course in a northwesterly direction; thence turning and running southeasterly along said projected line to the northwesterly end of said stone wall; thence continuing southeasterly along said stone wall and along a line representing a southeasterly projection of said stone wall to the Old Gray Road, so called; thence turning and running northeasterly along said Old Gray Road to land now or formerly of Fred Philbrick; thence turning and running northwesterly along said Philbrick land to other land hereby conveyed; thence turning and running South 14° 38' West eight hundred twenty (820) feet, more or less, to the southeasterly corner of the lot first described above; thence turning and running North 75° 22' West two hundred eighteen (218) feet by said first lot the point of beginning. Meaning and intending to the foregoing a contiguous lot of land located on the side of the Gray Road and having a frontage on said of eight hundred twenty - one (821) feet, more or less.

Also, another certain lot or parcel of land with the buildings thereon situated on the west side of the Gray Road and bounded and described as follows: Beginning at a point on the westerly side of said Gray ,Road at the southeasterly corner of land now or formerly of Fred M. Blake; thence running North 84 - 3/4° West by a stone wall along said Blake line four hundred (400) feet to a stake; thence running South 15° West by land now or formerly of Willis C. Wasson, et al., eight hundred (800) feet, more or less, to an iron driven in the ground; thence running South 84 - 3/4° East four hundred (400) feet to the said Gray Road; thence running North 15° East by the westerly side line of the said Gray Road eight hundred (800) feet, more or less, to the point of beginning, containing seven and four tenths (7.4) acres, more or less.

Excepting and reserving, however, from the above described premises three certain easements to Central Maine Power Company as follows: an easement dated April 29, 1947, and recorded in the Cumberland County Registry of Deeds in Book 1864, Page 424; an easement dated June 17, 1949, and recorded in said Registry of Deeds in Book 1960, Page 187; and an easement dated May 10, 1951, and recorded in said Registry of Deeds in Book 2046, Page 125.

Also hereby conveying all that certain lot or parcel of land described in a quitclaim deed from Ralph Sama, et al. to Thomas N. Hackett, et al. dated June 11, 1992 and recorded in the Cumberland County Registry of Deeds in Book 10291, Page 173, which is incorporated herein by reference, and subject to the easement therein described.

Together with all our right, title and interest in and to Old Hurricane Road.

Excepting, however, the following parcels of land conveyed by Thomas N. Hackett, et al.:

1. **Deed to Martha Morrison dated December 13, 1977 in Book 4147, Page 127.**

2. **Deed to Martha Morrison dated July 19, 1978 in Book 4304, Page 321.**

3. **Deed to Judith A. Mooney dated December 22, 1983 in Book 6357, Page 96.**

4. **Deed to Alan R. Norton, et al. dated March 3, 1984 in Book 6418, Page 40.**

5. **Deed to Michael Valente III dated August, 1994 in Book 11655, Page 97.**

6. **Also excepting the parcel of land containing 3.9 acres, more or less, also being conveyed to Peter Therriault by deed of even date to be recorded herewith, and the right of way described in said deed.**

Meaning and intending to convey and conveying the real property described in a deed to **0 Autumn Way, LLC** dated April 8, 2014 and recorded with the Cumberland County Registry of Deeds in Book 31435, Page 175.

Witness my hand and seal this 17th day of June, 2022.

Witness:

_____

0 Autumn Way, LLC

By: _____
Peter Therriault, Managing Member

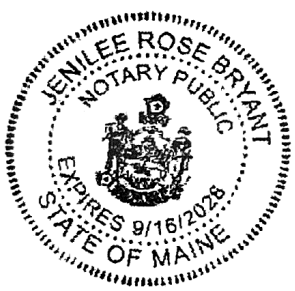
DOC :31461 BK:39514 PG:301
RECEIVED - RECORDED, CUMBERLAND COUNTY REGISTER OF DEEDS
06/21/2022, 01:47:18P
Register of Deeds Jessica M. Spaulding E-RECORDED

STATE OF **MAINE**
COUNTY OF **CUMBERLAND**, ss. June 17, 2022

Personally appeared on the above date, the above-named **Peter Therriault, Managing Member of 0 Autumn Way, LLC** and acknowledged the foregoing instrument to be his free act and deed, in said capacity, and the free act and deed of 0 Autumn Way, LLC.

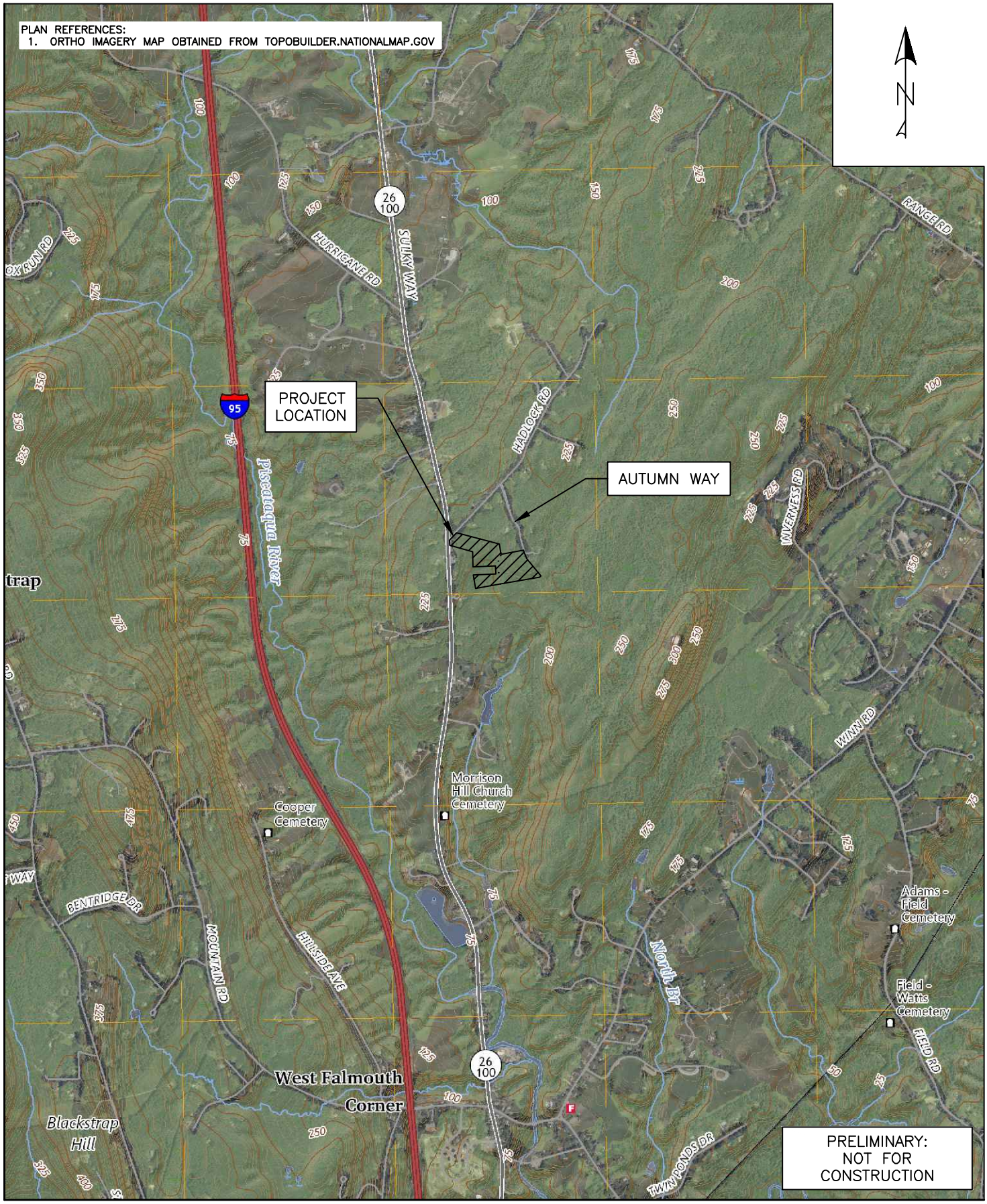
Before me,

Notary Public/Attorney at Law
Print name: Jenilee Bryant
Exp: _____



Attachment 4

Location Map



THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM ACORN ENGINEERING, INC. ANY ALTERATIONS, AUTHORIZED OR OTHERWISE, SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO ACORN ENGINEERING, INC.

DRAWING NO.
C-01

FILE:	AE_1284
DATE:	7/30/25
JN:	1284
SCALE:	1"=2000'
DESIGN BY:	MKT
DRAWN BY:	CPN
CHECKED BY:	CAB

ACORN ENGINEERING, INC
ACORN ENGINEERING, INC. P.O. BOX 3372
PORTLAND, MAINE 04104 (207) 775-2655

DRAWING NAME:
VICINITY MAP

PROJECT NAME:
AUTUMN WAY SUBDIVISION – AUTUMN WAY, FALMOUTH

CLIENT:
NICK VOLTOLINA
18 ROGERS TRAIL, FALMOUTH, MAINE, 04105

ISSUED FOR	BY	DATE
PERMITTING	MKT	7/30/25

Attachment 5

Abutter Information

Attachment 5: Adjacent Property Owners

The following map and lot numbers represent the property owners adjacent to the subject property identified as Lot R06-042:

Parcel Number	Property Address	Owner Name	Owner Address	Owner City	Owner State	Owner Zip
R06-037-B	321 GRAY RD FALMOUTH, ME	MACMASTER, JASON B	321 GRAY RD	FALMOUTH	ME	04105
R06-042-A	331 GRAY RD FALMOUTH, ME	GREEN ON THE HILL PROPERTIES LLC	53 ASTER LANE #2	CAPE ELIZABETH	ME	04107
R06-042-B	333 GRAY RD FALMOUTH, ME	MOORE, JENNIFER J & JESSE A	333 GRAY RD	FALMOUTH	ME	04105
R06-042-C	329 GRAY RD FALMOUTH, ME	SENGA, DANIEL B & SARAH M	329 GRAY RD	FALMOUTH	ME	04105
R06-042-D	11 AUTUMN WAY FALMOUTH, ME	RAEGH, SHANE & REBECCA	11 AUTUMN WAY	FALMOUTH	ME	04105
R06-042-E	15 AUTUMN WAY FALMOUTH, ME	POWER, ABBY B & MICHAEL S	15 AUTUMN WAY	FALMOUTH	ME	04105
R06-045-E	25 HADLOCK RD FALMOUTH, ME	DARCY, THOMAS O & WENDY S	25 HADLOCK RD	FALMOUTH	ME	04105
R06-046-B	14 AUTUMN WAY FALMOUTH, ME	MARKLEY, BRENDA M & THOMAS M	14 AUTUMN WAY	FALMOUTH	ME	04105
R06-046-C	18 AUTUMN WAY FALMOUTH, ME	NORTHUP, STEPHEN & KELSEY	18 AUTUMN WAY	FALMOUTH	ME	04105
R06-053	15 PATRICIAS WAY FALMOUTH, ME	TOWN OF FALMOUTH OPEN SPACE – PARKS & COMMUNITY PROGRAMS	271 FALMOUTH RD	FALMOUTH	ME	04105

Attachment 6

Roadway Development Rights Review

A C O R N Engineering, Inc. • www.acorn-engineering.com
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NORMAN HANSON DETROY

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David A. Goldman, Esq.

May 11, 2026

Envy Construction LLC
c/o Nick Voltolina
18 Rogers Trail
Falmouth, ME 04105

Re: Scope of Deeded Rights to Use of Autumn Way to Access Subdivided Property

Dear Mr. Voltolina:

I am writing to offer my opinion regarding the scope of the rights benefitting the parcel of property you own along the private road in Falmouth currently referred to as "Autumn Way" (the "Property"). Specifically, I understand that you will be seeking approval from the Town of Falmouth's Planning Board to subdivide the Property and to make use of Autumn Way to access the subdivided lots from Hadlock Road over Autumn Way. As described below, my research indicates that each of the lots subdivided from the Property will be benefitted by a right to use Autumn Way for access and egress so long as the Town of Falmouth Planning Board gives its approval for that use.

By way of brief explanation, I conducted title research in the chain of title for the Property dating back to a Plan of a Private Way made for Falmouth Hills Ltd. Partnership that is dated October 15, 1991, was approved by the Falmouth Planning Board on October 24, 1991, and was subsequently recorded in the Cumberland County Registry of Deeds ("Registry") in Plan Book 191, Page 206.

This plan depicts all the real estate, including the Property, located along what is now known as Autumn Way but that at that time was referred to as "Hicks Farm Way" in part and as "Old Hurricane Road" in part. The plan itself depicts two numbered lots that are being approved at that time by the Planning Board, while also recognizing that further divisions of property would not be restricted on the basis of issues relating to the scope of the easement rights benefitting those properties, but only by the Planning Board's willingness to authorize such divisions. Specifically, Note 5 on the plan states that "Further lot divisions utilizing the private way are prohibited without the prior approval of the Planning Board." The plan also references, in Note 9, a maintenance agreement to be recorded in the Registry.

The referenced maintenance agreement, dated January 15, 1992, is recorded in the Registry in Book 9950, Page 69 (the "Maintenance Agreement"). The Maintenance Agreement was entered into between the owners of lots abutting what is now known as Autumn Way. Importantly, Marcel R. Morin and Thomas Hackett are signatories to the Maintenance Agreement. Those two owned the Property now owned by Envy Construction LLC, meaning that Envy Construction LLC is Mr. Morin and Mr. Hackett's successor in interest to all of their rights under the Maintenance Agreement.

Through paragraph 1 of the Maintenance Agreement, the parties agreed to bind themselves and their successors to the use of Autumn Way as a "private way" that "provides access to each of their properties . . . ." Paragraph 2 of the document explicitly mentions only Lots 1 and 2 (as depicted on the above referenced plan) as being benefitted by easement rights. That said, paragraph 4 states that "[a]ny further development along [what is now known as Autumn Way] . . . which exceeds the Town of Falmouth private way criteria will require compliance with the public way criteria by those parties desiring to further develop their land along said right of way . . . and shall require further approval by the Falmouth Planning Board." Thus, paragraph 4 directly acknowledges that further use of Autumn Way by lots subdivided from the Property, among others along that private road, might occur, subject to Planning Board approval.

In addition to the above, paragraph 11 of the Maintenance Agreement explicitly "recognize[s] that additional Landowners may be added in the future due to development of properties accessed by [Autumn Way]" and simply requires that "any expansion of the use of" Autumn Way be completed in a manner consistent with municipal requirements.

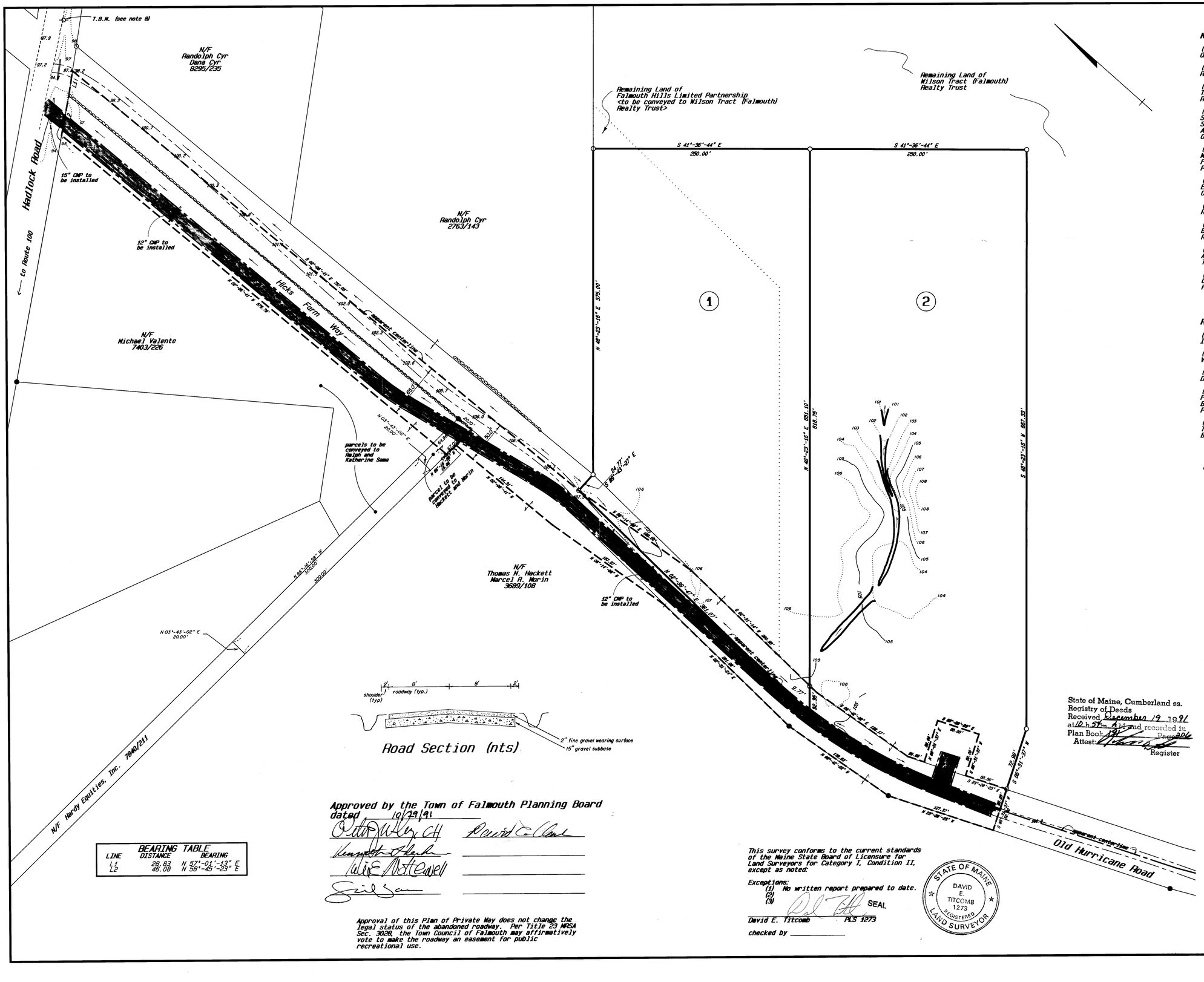
Given that the Property, now owned by Envy Construction LLC is the same one once owned by two of the parties to the Maintenance Agreement, the Property remains benefited and burdened by the rights described in that document, including the right to create lots from the Property benefitted by a right to use Autumn Way for access and egress. That right is, essentially, constrained only by what the Town's Planning Board otherwise authorizes.

For ease of reference, I have included both the above referenced plan and the Maintenance Agreement along with this letter. Please feel free to share this with the Planning Board or with anyone else who is interested in the nature of the rights over Autumn Way benefitting the Property. I am happy to discuss this with the Planning Board or Town staff.

Very truly yours,

David A. Goldman

Enclosures



Road Section (nts)

BEARING TABLE		
LINE	DISTANCE	BEARING
L1	29.83	N 57°-01'-13" E
L2	46.08	N 58°-45'-23" E

Approved by the Town of Falmouth Planning Board
dated 10/29/91

Approval of this Plan of Private Way does not change the legal status of the abandoned roadway. Per Title 23 MRSA Sec. 3026, the Town Council of Falmouth may affirmatively vote to make the roadway an easement for public recreational use.

This survey conforms to the current standards of the Maine State Board of Licensure for Land Surveyors for Category I, Condition II, except as noted:

Exceptions:
(1) No written report prepared to date.
(2)
(3)

SEAL

David E. Titcomb PLS 1273

checked by _____

STATE OF MAINE
DAVID E. TITCOMB 1273 REGISTERED
LAND SURVEYOR

NOTES

(1) BEARINGS ARE BASED ON MAGNETIC NORTH 1986 AS SHOWN ON REFERENCED PLAN BY SURVEY, INC.

(2) BOOK AND PAGE REFERENCES ARE TO THE CUMBERLAND COUNTY REGISTRY OF DEEDS.

(3) A DEFINITION OF HADLOCK ROAD HAS NOT BEEN RECOVERED. THE WIDTH IS ASSUMED TO BE THREE RODS (49.5') AND THE RIGHT OF WAY LOCATION IS ASSUMED.

(4) HURRICANE ROAD IS ASSUMED TO BE ABANDONED. THE SIDELINE IS BASED ON THE LOCATION SHOWN ON THE REFERENCED SURVEYS. THE WIDTH IS ASSUMED TO BE THREE RODS (49.5'). ABUTTING LANDOWNERS ARE ASSUMED TO OWN TO THE CENTERLINE OF THE ABANDONED ROAD.

(5) THE TOWN OF FALMOUTH WILL NOT BE RESPONSIBLE FOR THE MAINTENANCE, REPAIR, OR PLOWING OF THE PRIVATE WAY AND FURTHER LOT DIVISIONS UTILIZING THE PRIVATE WAY ARE PROHIBITED WITHOUT THE PRIOR APPROVAL OF THE PLANNING BOARD.

(6) THE OWNER(S) OF THE PRIVATE WAY WILL CONVEY A SEWER EASEMENT OVER THE ENTIRE RIGHT OF WAY TO THE TOWN OF FALMOUTH.

(7) EASEMENTS TO BE OBTAINED FROM LAND OWNERS TO PASS AND REPASS OVER THE PRIVATE WAY.

(8) ELEVATIONS ARE BASED ON AN ASSUMED DATUM. LOCATION OF BENCH MARK: P.K. NAIL IN POLE NO. 6, SOUTH SIDE OF HADLOCK ROAD AND EASTERLY OF THE OLD HURRICANE ROAD. ELEV.: 100.00'

(9) THE PRIVATE WAY IS SUBJECT TO THE TERMS AND CONDITIONS AS DESCRIBED IN THE MAINTENANCE AGREEMENT TO BE RECORDED IN THE CUMBERLAND COUNTY REGISTRY OF DEEDS.

(10) THE PROFILE OF THE PROPOSED ROAD WILL APPROXIMATELY CONFORM TO THE PROFILE OF THE EXISTING ROADWAY OF THE OLD HURRICANE ROAD.

REFERENCES

(1) PLAN OF LAND FOR MICHAEL VALENTE BY DELTA ENGINEERING, INC. DATED 3/12/88. UNRECORDED.

(2) PLAN OF PROPERTY IN FALMOUTH, MAINE FOR MICHAEL VALENTE III BY SURVEY, INC. DATED 12/86. UNRECORDED.

(3) PLAN MADE FOR RALPH WINSLOW BY HOWARD F. BABBIDGE, DATED 9/20/83. RECORDED IN PLAN BOOK 139, PAGE 66.

(4) FINAL MINOR SUBDIVISION PLAN OF WASSON'S GROVE MADE FOR MARCEL R. MORIN AND THOMAS N. HACKETT BY HOWARD F. BABBIDGE DATED 5/30/80. RECORDED IN PLAN BOOK 141, PAGE 55.

(5) STANDARD BOUNDARY SURVEY MADE FOR RANDOLPH CYR BY TITCOMB ASSOCIATES DATED APRIL 29, 1991. RECORDED IN PLAN BOOK 190, PAGE 69.

LEGEND

- ● IRON PIN FOUND
- ○ IRON PIN SET (5/8" rebar with cap)
- N/F NOW OR FORMERLY OF
- —○— UTILITY POLE
- ------ EDGE OF PAVEMENT
- — — EDGE OF GRAVEL
- EXISTING CONTOUR
- PROPOSED CONTOUR
- STONE WALL FOUND
- 105.9 SPOT ELEVATION
- ..... EXISTING PROPERTY LINE
- DRAINAGE ARROW
- — • — PROPOSED ROAD

OWNERS OF RECORD

Leslie E. Lowry III, Trustee of the Wilson Tract (Falmouth) Realty Trust 9526/163

Falmouth Hills Limited Partnership 9526/155

AREA

Lot 1 (including R/W) 133,138 s.f. / 3.06 acres
Lot 2 (including R/W) 178,937 s.f. / 4.11 acres

State of Maine, Cumberland ss.
Registry of Deeds
Received December 19 1991
at 12 h 57 m P.M. and recorded in
Plan Book 190 Page 206
Attest: _____ Register

1 INCH = 50 FEET
50 0 50 100 150

— STANDARD BOUNDARY SURVEY —

Plan Of A Private Way

Hadlock Road Falmouth, Maine

made for

Falmouth Hills Ltd. Partnership

85 Longwoods Road Cumberland, Maine

Job 91065 Book 480 File 5968 Disc 321

October 15, 1991

TITCOMB ASSOCIATES
LAND SURVEYORS / LAND PLANNERS
#8 Portland North Business Park, Falmouth, Maine

Rec'd 12/30/1996 4:69

13206

ROAD MAINTENANCE/EASEMENT AGREEMENT

THIS AGREEMENT is entered into by and between Marcel R. Morin, Thomas Hackett, Leslie E. Lowry III, as Trustee of Wilson Tract*, being the property owners with land fronting upon a private way previously known as the "Old Hurricane Road", so-called, in Falmouth, Cumberland County, Maine (hereinafter referred to as "Landowners").

W I T N E S S E T H

WHEREAS, Landowners each own property with frontage on a portion of an old right-of-way known as the "Old Hurricane Road" now being a private way named "Hick's Farm Way" located in Falmouth, Cumberland County, Maine as depicted upon Exhibit "A" annexed hereto and made a part hereof by reference which Old Hurricane Road is an abandoned Town Road which is now a "private way" as described in Section 5.27 of the Falmouth Zoning Ordinance serving only the Landowners' properties which private way is not plowed or otherwise maintained by the Town of Falmouth; and

WHEREAS, in order to ensure that said private way is wide enough to comply with the Town of Falmouth's private way provisions it was necessary to acquire an easement from Marcel R. Morin and Thomas Hackett; and

WHEREAS, Landowners are desirous of entering into an agreement regarding the maintenance of said private way and the allocation of the costs necessary to so maintain the Road as well as providing liability protection for the said Marcel Morin and Thomas Hackett;

NOW THEREFORE, in consideration of the mutual covenants contained herein the parties hereto agree as follows:

1. Pursuant to the terms of this Agreement the Landowners agree to maintain the private way known as "Hick's Farm Way" which provides access to each of their properties and further agree to not obstruct or otherwise interfere with the use of said right-of-way by the other Landowners, their personal representatives, heirs and assigns, as well as any other parties who have a right to utilize said right-of-way including but not limited to Falmouth Hills Limited Partnership, Marcel Morin and Thomas Hackett, their personal representatives, heirs and assigns as well as any other parties, if any, who may have acquired or in the future may acquire rights to travel over the old way known as "Old Hurricane Road" which was abandoned and/or discontinued by the Town of Falmouth. The Landowners specifically hereby acknowledge that other parties do have or may acquire rights to pass over the right-of-way area in question as well as

*(Falmouth) Realty Trust under Declaration of Trust recorded in the Cumberland County Registry of Deeds in Book 9526, Page 143; and Falmouth Hills Limited Partnership, a Maine limited partnership

retaining other easement rights which rights will in no way be interfered with by virtue of this Road Maintenance/ Easement Agreement and/or the establishment of the private way known as "Hick's Farm Way". Furthermore, the Landowners acknowledge the fact that the Town of Falmouth has retained the right to declare a recreational easement over the abandoned "Old Hurricane Road".

2. The Landowners herein acknowledge that the total length of the private way known as "Hick's Farm Way" depicted on Exhibit "A" constitutes an easement and/or right-of-way appurtenant to the two numbered lots depicted on Exhibit "A" which abut said private way. The respective right-of-way rights identified herein run to the respective lots and their Landowners, their heirs, successors and assigns.

3. Said easement or right-of-way over the subject private way depicted on Exhibit "A" shall include the right of ingress and egress from Hadlock Road, so-called, to each numbered lot or parcel of land depicted on Exhibit "A" which abuts or is accessed by said private way, and any portion thereof by foot or vehicle of any nature as well as the right to install all utilities, including but not limited to water and sewer lines, electric, telephone and cable television lines, above or below ground, as well as the right to install utility poles and associated fixtures. Provided, however, that the installation of said utilities shall not interfere with the installation of a two-way right-of-way over said private way. Provided further that no such use of the private way or the installation of utilities shall interfere with any Landowners right of ingress and egress other than on a reasonable temporary basis needed to install said utilities.

4. The Landowners who are a party hereto acknowledge that the subject private way will be established as a private way commencing at Hadlock Road as referenced in Section 5.27 of the Falmouth Zoning Ordinance. As such a private way, the Landowners will be required to comply with all of the private way criteria set forth in the Falmouth Zoning Ordinance and any additional requirements imposed by the Falmouth Planning Board. As a private way, "Hick's Farm Way" can only be utilized to service the two lots depicted on Exhibit "A" within 1500 feet of said Hadlock Road and may only serve as frontage for said lots. Furthermore, the subject private way shall comply with all additional design criteria set forth in Section 5.27 of the Falmouth Zoning Ordinance or as otherwise imposed by the Town of Falmouth Planning Board. Any further development along the Old Hurricane Road which exceeds the Town of Falmouth private way criteria will require compliance with the public way criteria by those parties desiring to further develop their land along said right of

way (see Section 5.27 of the Falmouth Zoning Ordinance) and shall require further approval by the Falmouth Planning Board.

5. The subject private way shall be maintained by all Landowners pursuant to the following criteria. Each Landowner who commences the construction of a home or other structure on all or a portion of his or her land which abuts the private way shall assume an equal obligation with all other Landowners who have built or commenced construction of homes or structures based on the total number of homes built on land which abuts the private way.

Furthermore, any Landowners who utilize the private way to access their property for commercial purposes, i.e., development and/or logging shall have the same maintenance obligation as any Landowner with a structure(s) on his/her land.

Commencement of a home or structure shall occur when a building permit is acquired and actual construction is commenced on the home or structure such as the digging of a foundation hole, installation of a subsurface waste water disposal system, well, commencement of actual construction of the structure or the like whichever occurs first.

Said portion of the maintenance obligation shall be binding upon all of the Landowner's heirs, successors and assigns.

6. The term "maintenance" as herein used, shall be deemed to include:

a. Maintaining a 16 foot width of all weather gravelled surface with 15 inches of heavy road gravel with a minimum subbase with a fine gravel wearing surface of at least 2 inches;

b. Appropriate drainage mechanisms shall be maintained at required locations within said right-of-way using appropriately sized culverts with said drainage to be approved by the Falmouth Public Works Director;

c. Suitable snowplowing equipment shall be employed for the removal of snow accummulations when the same reaches 4 inches in depth;

d. Grading the surface of said right-of-way shall be periodically completed so as to maintain a reasonably smooth and level surface.

7. The decisions relating to the usual and ordinary

maintenance of the private way shall be determined by majority vote of the Landowners required to contribute to the maintenance costs of the right-of-way.

8. The Landowners required to contribute to the maintenance of the private way shall meet at least annually (a quorum consisting of a majority of the Landowners being required to contribute to the maintenance of the right-of-way) after reasonable notice to each said Landowners, for the purpose of establishing a budget for the maintenance of the private way for the ensuing year and establishing the resulting monetary liability of each Landowner. Said resulting monetary liability of each of the said Landowners shall be paid into an account established for that purpose within 60 days after the annual budget determination. Any of the said Landowners may bring an action in a court of competent jurisdiction against any delinquent Landowner failing to timely pay his or her said annual monetary liability and in that event such delinquent Landowner shall further be liable for the costs of bringing and maintaining that action, including reasonable attorneys fees. All Landowners who are required to contribute to the maintenance of said right-of-way further agree to contribute any additional sums required for the maintenance of the road not covered by the annual budgeted amount which is only intended to be a reasonable estimate of the maintenance costs for any particular year.

9. All Landowners whether they are required to contribute to the maintenance of the private way pursuant to paragraph 4 above or not shall be required to repair any damage caused to the right-of-way by them, individually, or caused by their agents, invitees or guests and the Landowners shall have all private remedies available to them in the State of Maine to bring suit against any other users of the private way who cause damage thereto.

10. The Landowners agree that all mortgagees of any property which abuts or is accessed by said Old Hurricane Road and the successors, administrators and assigns of said mortgagees, including but not limited to all FHA or VA insured mortgage interests on said properties shall be considered third party beneficiaries of this Road Maintenance/Easement Agreement.

11. The Landowners who are a party hereto recognize that additional Landowners may be added hereto in the future due to development of properties accessed by the private way and/or the area previously identified as the "Old Hurricane Road" provided that any expansion of the use of the subject private way shall be completed in accordance with Section 5.27 of the Falmouth Zoning Ordinance.

12. The Landowners agree that by executing this Agreement

they have also agreed to indemnify and hold harmless Marcel R. Morin and Thomas Hackett who provided an easement running with the land abutting said Old Hurricane Road to ensure that the private way is wide enough to comply with the Town of Falmouth road criteria. Said indemnity and hold harmless agreement is intended to protect Marcel R. Morin and Thomas Hackett from any liability related to the Landowners', their agents, guests, invitees and other parparties' use of said right-of-way and shall include the obligationto pay all costs, including reasonable attorney's fees, incurred in defending any actions against Marcel R. Morin and Thomas Hackett associated with the private way and their easements related thereto.

13. The Landowners hereby agree that the private way in question is a "private way" as described in Section 5.27 of the Falmouth Zoning Ordinance and the Town of Falmouth shall have no responsibility for maintaining, repairing or plowing the private way. The Landowners agree that they shall convey to the Town of Falmouth an easement described by metes and bounds, for sewer purposes over the entire private way right of way which shall be recorded in the Cumberland County Registry of Deeds. Furthermore, the Landowners acknowledge the Town of Falmouth's retention of the right to declare a recreational easement over the abandoned "Old Hurricane Road".

14. The Landowners represent that they have carefully read the foregoing Road Maintenance/Easement Agreement and know and understand the contents hereof and specifically acknowledge that the terms hereof are contractual and not a mere recital.

IN WITNESS WHEREOF the parties hereto have set their hands and seals as of the date set forth next to each signature below.

Dated: 1-15-92

Thomas Hackett

Thomas Hackett

STATE OF
COUNTY OF

JAN 15, 1992

Then personally appeared the above named THOMAS HACKETT and acknowledged the foregoing to be his/her free act and deed.

Before me,

M. W. Philbrick Jr.

~~Notary Public~~ ATTORNEY AT LAW

M. W. PHILBRICK JR

Instr 13200 Bk 9950 Pg 74

Dated: 1/15/92

Marcel R. Morin

STATE OF
COUNTY OF

Jan. 15, 1992

Then personally appeared the above named MARCEL MORIN and acknowledged the foregoing to be his/her free act and deed.

Before me,

Notary Public ATTORNEY AT LAW
M W PHILBRICK JR

Dated: 2/28/92

Michael A. Valente, III, General Partner

STATE OF
COUNTY OF

February 28, 1991

Then personally appeared the above named Michael A. Valente III and acknowledged the foregoing to be his/her free act and deed.

Before me,

Notary Public Atty at law

Dated: Feb 27, 1992

Leslie E. Lowry, III

(As TRUSTEE OF WILSON TRACT (FALMOUTH) REALTY TRUST UNDER DECLARATION RECORDED CCRD 9526/143

STATE OF
COUNTY OF

Feb. 27, 1991

Then personally appeared the above named Leslie E. Lowry III and acknowledged the foregoing to be his/~~her~~ free act and deed in said capacity.

Before me,

Karen B. Potter
Notary Public

KAREN B. POTTER
NOTARY PUBLIC, MAINE
MY COMMISSION EXPIRES NOVEMBER 14, 1998

Recorded
Cumberland County
Registry of Deeds
03/12/92 02:57:27PM
Robert P. Titcomb
Register

SEAL

Attachment 7

Waiver Request

ACORN ENGINEERING, INC.

Waivers

Autumn Way Conservation Subdivision
Falmouth, Maine

Waiver Request #1 – Maximum length of Dead End Street Appendix 7-5.E.5.c.

- Ordinance: Maximum length of Dead End Street: 1,500 feet measured from the centerline of feeder street to center of turnaround. In those cases where on or off-site street configurations create an effective dead end condition, the dead end length is measured from the point where only one means of access exists and extends over the intervening roadway length(s) to the point of turnaround.

- Request: We are requesting a waiver to allow for the existing dead end street to be extended 215 feet to a maximum length of approximately 2,795 feet from the centerline of Gray Road (Rt 100). Allowing this 8% extension in roadway length would allow for access and frontage for the proposed lots while reducing the need to connect a roadway to Gray Road, which would result in impacts to the natural resources that currently bisect the parcel. Autumn Way is an existing nonconforming street at 2,580 feet long and the 3 additional single-family homes will not generate significant traffic. It is also understood that this standard is primarily to ensure emergency services can be adequately provided by the Town. The development proposes to construct a new turnaround to the latest Town standards that can be utilized by emergency vehicles. The existing gravel turnaround on Autumn Way does not provide adequate turning movements for emergency vehicles. Additionally, the new buildings are proposed to be sprinkled.

Attachment 8

Site Analysis Narrative

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

ACORN ENGINEERING, INC.

Planning Division
Town of Falmouth, Maine

November 3rd, 2026

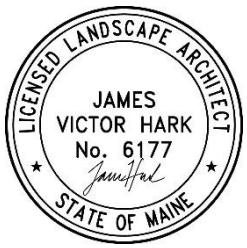
Subject: Autumn Way Subdivision
Site Analysis Narrative

The 12.40-acre site, located at Autumn Way in Falmouth, Maine, is an undeveloped, forested parcel consisting primarily of native red oaks, pines and hemlocks in upland areas, with forested wetland zones characterized by red maples and an understory layer of native ferns and other groundcover. The surrounding neighborhood is characterized by predominantly single-family homes, and power and telecom utilities can be accessed via a utility pole on Autumn Way, at the northeast corner of the site. Given the site's location within the Resource Conservation Zoning Overlay District, the project proposes the creation of (3) single-family residential lots and (1) open space lot as part of a Conservation Subdivision.

In assessing the inherent opportunities and constraints of the site, we found considerable benefits in concentrating the subdivision lots towards Autumn Way, on the eastern end of the property, and preserving land at the western portion of the site. Most significantly, a stream, vernal pool, and forested wetlands are situated along the western half of the property, limiting development potential. Soil tests supported this primary analysis, whereby the most poorly draining soils coincide with wetland areas, and moderately or excessively draining zones, which would best serve a septic system disposal field, are located towards the eastern half of the property. While some steep slopes (15% and greater) are found within this same, eastern portion of the site, those are balanced by zones of shallow slopes immediately adjacent to Autumn Way. At the southern property line, a zone of shallow slopes could be accessed via a driveway to bypass some areas of steeper slopes.

By conserving the western half of the site and concentrating development along Autumn Road, the project incorporates a natural buffer between the proposed subdivision and existing residential lots along Gray Road/ Route 100. The proposed extension of Autumn Way also provides closer access of the subdivision lots to the road, limiting the development footprint of driveways and trenching for utilities. Given that Autumn Way is an existing, private road currently serving (4) single-family homes and the new (3) homes would be located at the rear of the road, no significant increases to traffic are anticipated. By utilizing the Conservation Subdivision designation, the project increases the Town's available housing stock while conserving valuable natural resources and habitat close to Route 100. The incorporation of a publicly accessible trail throughout the property, to be presented within the full Site Plan submission, would also provide added recreational benefits, and may one day connect with existing trails systems east of the site.

Jamie Hark,
Landscape Architect, Acorn Engineering



Attachment 9

Four-Step Design Process Narrative

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

ACORN ENGINEERING, INC.

Four-Step Design Process for Subdivisions in Resource Conservation Zoning Overlay District

Autumn Way Subdivision
Falmouth, Maine

Appendix 7-9: *All subdivisions shall be designed in accordance with the following four step process. The submission for the preliminary plan of a major subdivision or the final plan of a minor subdivision (if required by the Planning Board) shall include documentation of the four-step design process for determining the layout of the subdivision including proposed conservation lands, house sites, streets, and lot lines in accordance with the following process. Applicants shall submit four separate sketch maps indicating the findings of each step of the design process, if so requested by the Planning Board.*

Step 1: Delineation and Design of Common Open Space:

Step 1A: Delineation of Common Open Space:

The area to be designated as common open space or otherwise preserved as part of the development shall be delineated based upon the Primary and Secondary Conservation Areas as defined by the Zoning and Site Plan Review Ordinance. The proposed common open space in conservation subdivisions shall be identified in accordance with the following:

1. *The minimum percentage and acreage of required common open space shall be calculated by the applicant and submitted in accordance with the provisions of this ordinance and of the Zoning Ordinance.*

   The minimum open space required is calculated per the Ordinance Section 19-64.1. The project has 9.39 acres of common open space, exceeding the requirement of 7.76 acres. The calculation is shown below and Sheet C-10, Site Analysis Sketch Plan.

Common Open Space Calculations	
Total Lot Area	12.40 AC
Minimum Required Open Space	
50% Net Residential Area	4.64 AC
Land Unsuitable for Development	3.11 AC
Total Open Space Required	**7.76 AC**
Total Open Space Provided	**9.39AC**

2. *The proposed common open space shall be designated using the Site Analysis Sketch Plan as a base.*

   The open space has been designated in accordance with the Site Inventory Plan and Site Analysis Sketch Plan. See plans attached to this application.

3. *The Primary Conservation Areas on the site shall be delineated and shall be incorporated into the common open space in accordance with Section 19-18 of the Zoning and Site Plan Review Ordinance.*

   The primary conservation areas are the natural resources including wetlands, the stream, the significant vernal pool, and associated buffers.

4. *The Secondary Conservation Areas on the site shall then be delineated. In delineating Secondary Conservation Areas, the applicant shall prioritize natural and cultural resources on the tract in terms of their highest to lowest suitability for inclusion in the proposed common open space based upon the priorities set forth in the Zoning and Site Plan Review Ordinance.*

   Secondary Conservation Areas include the 50' conservation subdivision perimeter buffer as well as the 100' streetscape buffer to Hadlock & Gray Roads. These buffers may also provide a corridor for trail connectivity to Autumn Way, increasing the connectivity of the Town of Falmouth's trail system and the proposed parcels. No historic, archeological, or cultural features have been identified on the site.

5. *On the basis of those priorities and practical considerations related to the tract's configuration, its context in relation to resource areas on adjoining and neighboring properties, and the applicant's subdivision objectives, sufficient Secondary Conservation Areas shall be identified to be included in the common open space to meet at least the minimum area percentage requirement for common open space. This delineation shall clearly indicate the boundaries as well as the types of resources included within them.*

   Primary and Secondary Conservation areas are included on the Site Analysis Sketch. Conservation areas have been designed to meet the objectives of Sec. 19-18.5 to the maximum extent possible.

<u>Step 1B: Design of Common Open Space:</u>

1. *All open space areas shall be part of a larger continuous and integrated open space system within the parcel being developed. At least 75 percent of the common open space shall be contiguous to another common open space area. For the purposes of this subsection, areas shall be considered contiguous if they are within 100 feet of each other and there are no impediments to access between the areas.*

   All open space area of the parcel is included as one contiguous parcel. Common

Open space abuts all parcels to be developed as part of the subdivision.

2. *Common open space shall, to the greatest extent possible, protect site features identified in the Existing Resources and Site Analysis Plan.*

   Common open space has been designed around features identified in the Existing Resources and Site Analysis Plan to the greatest extent possible, including wetlands, streams, vernal pools, and their associated buffers, steep slopes, perimeter buffers, and viewsheds from public ways. An emphasis is put on protecting Primary and Secondary Conservation Areas located on the parcel, discussed above.

3. *Natural features shall generally be maintained in their natural condition, but may be modified to improve their appearance, or to restore their overall condition and natural processes, as recommended by natural resource professionals and in compliance with an approved Common Open Space Ownership and Stewardship Plan as provided in Appendix 7-3 for major subdivision submissions and Appendix 7-4 for minor subdivision submissions.*

   Natural features such as the wetlands on the western portion of the site, an existing stream and the identified vernal pool will generally be maintained in their natural condition and protected via their inclusion within the Common Open Space of the subdivision. The Common Open Space Ownership and Stewardship Plan will be provided in subsequent submissions and will further describe maintenance plans.

4. *No common open space shall be less than 50 feet in its smallest dimension and less than 10,000 square feet in area. Open space not meeting this standard is allowed as an added project enhancement, but shall not be counted towards the required project open space.*

   No common open space provided is less than 50 feet in its smallest dimension.

5. *The boundaries of common open spaces shall be marked by natural features wherever possible, such as hedgerows, stone walls, edges of woodlands, streams, or individual large trees. Where no such existing demarcations are present, additional plantings, fences, or other landscape features shall be added to enable residents or the public, if applicable, to distinguish where the common open space ends and private lot areas begin. Where structural demarcations, such as fences are used, they shall be the minimum needed to accomplish this objective*

   There are minimal opportunities on site to utilize natural features as demarcations of open spaces. Proposed demarcations shall be provided in future submissions.

6. *Common open space shall include lands located along existing public streets in order to preserve existing rural landscape character as seen from these streets, and shall, in no case,*

contain less than the required buffer, setback area, or separation distance.

Common Open space is located along Gray Road and Hadlock Road and exceeds the 100' streetscape requirement. Autumn Way is identified as a private way, so no streetscape is required Along the eastern parcel boundaries perpendicular to Autumn Way, the 50' buffer shall be maintained in the form of a deed-protected buffer encumbering the new parcels.

Step 2: Location of Building Sites:
Potential building sites shall be tentatively located taking into consideration the proposed common open space and/or the Primary and Secondary Conservation Areas identified in Step 1 as well as other relevant data from the Site Inventory Plan and Site Analysis Sketch Plan, such as topography and soils. Building sites should generally be located at least 100 feet from Primary Conservation Areas and at least 50 feet from Secondary Conservation Areas, taking into consideration the potential negative impacts of development on such areas as well as the potential positive benefits of such locations to provide attractive views and visual settings for residences and other uses.

Potential building locations are shown on the Site Analysis Sketch Plan. Building sites have been located in appropriate areas with respect to Primary and Secondary Conservation Areas, proposed buffers, topography and soils. Further design of individual house lots will be provided with subsequent submissions.

Step 3: Alignments of Streets and Ways and Creation of a Trail System:
Based upon the designated building sites, a circulation plan shall be designed to provide vehicular and pedestrian access to each site. The street layout shall bear a logical relationship to topographic conditions. Impacts of the street plan on proposed Conservation Lands as defined in this Ordinance, Primary Conservation Areas, and Secondary Conservation Areas as defined in the Zoning and Site Plan Review Ordinance shall be minimized, in accordance with Section 19-18 of the Zoning and Site Plan Review Ordinance. Street connections shall generally be encouraged to minimize the number of new cul-de-sacs and to facilitate access to and from buildings in different parts of the subdivision. A trail system shall be created within the common open space to provide access from the subdivision homes to the open space network created by the subdivision.

No new streets are proposed as part of the development. The existing Autumn Way will be extended to create necessary frontage required to develop the lots. A trail connection may be feasible within the 50' corridor or open space that connects to Autumn Way on either side of the parcels to be developed. Trail alignment will be included within subsequent submissions. Each individual lot within the subdivision will abut the proposed common open space.

Step 4: Drawing in the Lot Lines:
Upon completion of the preceding three steps, lot lines shall be drawn as required to delineate the boundaries of individual lots. Lots shall be designed in keeping with the standards for individual lots found in Section 19-18.5 D. of the Zoning and Site Plan Review Ordinance and shall be further designed to provide each residence with a clear delineation of its property bounds and with useable

yard spaces.

Preliminary lot boundaries have been outlined on the Site Analysis Sketch Plan. Space and Bulk requirements consistent with Section 19-18.5 D. are shown on the plan.

Attachment 10

Viewshed Analysis

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

Attachment 11

Wetland Delineation Report

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

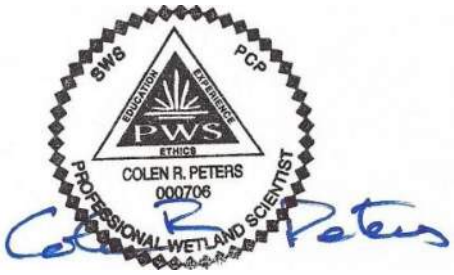
Wetland Delineation Report

To: **Nick Voltolina, President Envy Construction**

From: **Cole Peters, PWS**

Date: **June 6, 2025**

Project: 230083 – Autumn Way, Falmouth, ME



Wetland boundaries were delineated on April 1 and May 30, 2024, at the +/- 12.65-acre wooded property located between Autumn Way and Hadlock Road and designated as Lot R06-042-F on Town of Falmouth Tax Sheet 120 ("Site"). A handheld GPS (global positioning system) unit capable of submeter accuracy was used to locate the wetland boundaries displayed on project plans (Figure 1).

The Site ranges between approximately 190 to 224 ft in elevation and generally drains to the south. No streams are depicted at the Site on the 2024 Cumberland Center, ME 7.5-minute Quadrangle Map. The Federal Emergency Management Agency (FEMA) has prepared a Flood Insurance Rate Map (FIRM) for this part of Falmouth (Community Panel Number 23005C0518F effective date- 6/20/2024) and no FEMA-designated 100-year floodplain (Zone A) occurs at the Site. The Town's Shoreland Zoning Map (May 29, 2024) indicates no part of the Site is subject to the Shoreland Zoning Ordinance. No Significant Wildlife Habitats, such as Deer Wintering Areas or Inland Waterfowl and Wading Bird Habitat, are designated at the Site on the Beginning with Habitat Primary Map 2 (October 2022) of High Value Plant & Animal Habitats for Falmouth, prepared by the Maine Department of Inland Fisheries and Wildlife (MDIFW) (https://www.maine.gov/ifw/fish-wildlife/wildlife/beginning-with-habitat/maps/pdf/Falmouth/Falmouth%20Map%202.pdf). No vernal pools are identified at the Site on the Town of Falmouth Vernal Pools Map (https://www.falmouthme.org/sites/g/files/vyhlif11826/f/file/file/vernal_pools_map.pdf).

Wetland Delineation:
Evidence indicative of wetland from three parameters – vegetation, soils and hydrology – is used to identify and delineate the wetlands in accordance with the 1987 *US Army Corps of Engineers Wetland Delineation Manual*, and the subsequent *Regional Supplement to the US Army Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region* (January 2012). Except for unusual or atypical situations, evidence of wetland must be exhibited by all three parameters for an area or position to be designated as wetland.

The deciduous forested freshwater wetland community at the Site is chiefly dominated by red maple (*Acer rubrum*) trees and saplings with an understory of cinnamon (*Osmundustrum cinnamomeum*), and sensitive (*Onoclea sensibilis*) ferns, and sphagnum moss (*Sphagnum* spp.). All these plants are identified as "Facultative Wetland" (FACW) and "Facultative" (FAC) indicators of wetland by the 2022 *National Wetland Plant List*[1] prepared by the US Army Corps of Engineers (USACE) and are therefore hydrophytes.

Dominant vegetation found throughout upland areas of the Site consists of- northern red oak (*Quercus rubra*), white pine (*Pinus strobus*), eastern hemlock (*Tsuga canadensis*), and wild sarsaparilla (*Aralia*

[1] USACOE NWPL, 2022. https://wetland-plants.sec.usace.army.mil/mapper/NCNE

nudicaulis). All these plants are classified as "Facultative Upland" (FACU) or are not indicative of wetland, and when occurring in predominance, are indicative of upland.

The medium intensity soil survey prepared by the USDA Natural Resource Conservation Service (NRCS) indicates the Ridgebury (RbA) fine sandy loam and the Scantic silt loam (Sn) occur in areas of the Site delineated as wetland. Both soil series area classified as "poorly drained" (**PD**) and designated as being "hydric", or indicative of wetlands by NRCS. A hand auger was also used to evaluate soil characteristics. At sampling locations in areas dominated by hydrophytes, characteristics representative of hydric soil indicator criteria A2: Histic Epipedon were observed.

Hydrology is referred to as the "*driving force*" of wetlands (Mitch and Gosselink, 1986)[2] and is inherently responsible for the adaptation by certain vegetation (hydrophytes) and development of specific soil characteristics (hydric) indicative of wetlands. Evidence indicative of wetland hydrology observed at the Site includes soils saturated within 12-inches of the surface, small, localized areas of surface water, sediment deposits, and water-stained leaves.

The National Wetland Inventory (NWI) makes use of *Classification of Wetlands and Deepwater Habitats of the United States* (Cowardin et. al, 1979)[3] to differentiate types of wetlands. With this system, freshwater wetlands are classified based on dominant plant-type as: Palustrine Forested (**PFO**), Palustrine Scrub-Shrub (**PSS**), Palustrine Emergent (**PEM**), Palustrine Unconsolidated Bottom (**PUB**). Wetlands classified by this system as PFO or PSS are more commonly known as swamps whereas PEM typically represents marshes or meadows, and PUB corresponds to ponds. Deciduous red maple trees dominate the forested wetland at the Site which is therefore classified as PFO1 (Photo 1).

Watercourses:
"Rivers, streams or brooks" (**RSB**) are a designated resource of the Natural Resources Protection Act (NRPA- 38 M.R.S.A. §480-B (9)) regulated by the Maine Department of Environmental Protection (MDEP). To be regulated as an RSB under the NRPA, two of five characteristics must be present in *a channel between defined banks created by the action of surface water*. Appearance as a blue line on a USGS 7.5-minute quadrangle map is one of five potential diagnostic criteria and the other four definitive characteristics indicative of regulated RSB include- flow duration of at least 6 months of the year in most years, substrate character, presence of aquatic flora, and presence aquatic fauna.

Although not displayed on the USGS map, a shallow (3-8 in deep), narrow (3-6 ft wide) stream flows southward across the west portion of the Site. The unnamed stream (Photo 2) is likely to be perennial or flow year-round and has a cobble-boulder substrate in which aquatic insects are present to thereby exhibit at least two of the definitive criteria of RSB.

Vernal Pools:
Vernal pools (**VP**s) are defined by the MDEP as: "*a natural, temporary to semi-permanent body of water occurring in a shallow depression that typically fills during the spring or fall and may dry during the summer. Vernal pools have no permanent inlet or outlet and no viable populations of predatory fish*" (Chapter 335 §9). "Significant vernal pools" (**SVP**s) are recognized by the presence of fairy shrimp

[2] Mitch, W.J., and Gosselink, J.G., 2000. *Wetlands* (3rd ed.), Van Nostrand Reinhold Company, NY, 920 pgs.

[3] Cowardin, L.M., Carter, V., Golet, F.C., and LaRoe, E.T., 1979. *Classification of Wetlands and Deepwater Habitats of the United States*, US Fish and Wildlife Service, FWS/OBS79/31, 103 pgs.

(*Eubrandhipus* spp.), or more than 40 wood frog (*Rana sylvatica*) egg masses or at least 10 blue spotted salamander (*Ambystoma laterale*) or 20 spotted salamander (*A. maculatum*) egg masses. VPs documented to be used by state-listed rare, endangered or threatened species such as Blanding's turtles (*Emydoidea blandingii*), spotted turtles (*Clemmys guttata*), ringed boghaunter dragonflies (*Williamsoni lintneri*), Eastern ribbon snakes (*Thamnophis sauritus*), wood turtles (*Clemmys insculpta*), four-toed salamanders (*Hemidactylium scutalum*), swamp darner dragonflies (*Epiaeschna heros*), and comet darner dragonflies (*Anax longipes*), are also considered to be SVPs (Ch 335 §9B 1-4).

Under the provisions of Section 404 of the federal Clean Water Act, the USACE regulates activities in "*waters of the United States"* including VPs, which are defined by the USACE New England District in the State of Maine General Permit (GP, reissued on October 14, 2020). The NED definition, while very similar to MDEP's, does not reference "natural" and does not recognize or differentiate SVPs based on number of indicator species egg masses. Instead, the GP definition states: "*VPs are depressional wetland basins that typically go dry in most years and may contain inlets or outlets, typically of intermittent flow. Vernal pools range in both size and depth depending on landscape position and parent material(s). In most years, VPs support one or more of the following obligate species: wood frog (Rana sylvatica), spotted salamander (Ambystoma maculatum), blue spotted salamander (A. laterale) fairy shrimp (Eubrandhipus* spp.). *However, they should preclude sustainable populations of predatory fish."*

West of Penobscot Bay and southward from Augusta to Fryeburg, the Maine Department of Inland Fisheries and Wildlife (MDIFW) recommends that evidence of VP indicator species egg masses be observed on separate dates in Central Maine (Falmouth) during periods established for wood frogs (April 10th to April 25th) and spotted salamanders (April 20th to May 10th). Potential vernal pools (**PVP**s) can be identified outside (before/after) the recommended survey period but are not necessarily indicative of regulatory jurisdiction. During the recommended survey periods VP and SVP characteristics are to be documented on MDIFW data forms and located with submeter accuracy GPS to identify the portion of Critical Terrestrial Habitat (**CTH**) within 250 feet around an SVP that is referred to as *Significant Vernal Pool Habitat* (**SVPH** Ch 335 §9A (7)).

Vernal pool surveys were conducted at the Site on April 24 and May 6, 2024, and as described on the accompanying data form based on 24 spotted salamander egg masses observed during the second survey, an SVP occurs in the forested wetland near the northwest corner of the property. The 250 ft of CTH surrounding the pool is therefore regulated under the NRPA as SVPH.

Regulatory Assessment:
Activities in and adjacent to wetlands at the Site are regulated by the MDEP under the provisions of the NRPA and the associated Permit by Rule Standards (PBR- Chapter 305), the Wetland and Waterbodies Protection Rules (Chapter 310), and the Significant Wildlife Habitat Rules (Chapter 335). Crossings (utility lines, pipes and cables) of freshwater wetlands is an activity that can be approved under PBR (Ch 305 §9).

Under the NRPA, certain characteristics are relevant to whether a wetland is regulated as a "freshwater wetland of special significance" or "**WOSS**" (Ch 310 §4A 1-8). Wetland delineated at the Site (Figure 1):

- does not contain a "critically imperiled (S1)" (Ch 310 §3F) or an "imperiled (S2)" (Ch 310 §3L) community as defined by the Natural Areas Program
- contains significant wildlife habitat (38 MRSA §480-B (10)) mapped, or as defined by MDIFW in accordance with criteria adopted by MDEP that is associated with the SVP near the northwest corner of the Site

- is not located within 250 feet of a "coastal wetland" (38 MRSA §480-B (2))
- is not located within 250 feet of a "great pond" (38 MRSA §480-B (5))
- does not contain more than 20,000 square feet of open water or aquatic or emergent marsh vegetation (Ch 310 §4A (5))
- does not occur in a FEMA designated 100-year floodplain (Ch 310 §4A (6)) and therefore a "floodplain wetland" (38 M.R.S.A. §2-D)
- is not a "peatland" (Ch 310 §3P)
- at specific locations occurs within 25 ft of a river, stream or brook (38 M.R.S.A. §480-B (9); Ch 310 §4A (8)).

Activities within 75 ft of the stream channel are regulated under the NRPA. Activities requiring alteration of wetlands covering less than 15,000 square feet of non-WOSS wetland are typically eligible for a Tier 1 permit under the NRPA. A Tier 2 permit would be necessary for impacts more than this up to an acre (43,560 square feet) and a Tier 3 permit would be required for more extensive impact or wetland impacts in WOSS. Under the NRPA, wetland impacts exceeding 15,000 sq ft typically require compensatory mitigation. In Lieu Fee (ILF) is commonly used to address compensatory mitigation and in Cumberland County, the current base rate is $6.01/sq ft of wetland impact.

Wetlands at the Site are also regulated by the USACE as "*waters of the United States*" under the provisions of Section 404 of the Clean Water Act. To authorize minimal-impact activities in wetlands, including placement of fill, the USACE makes use of a General Permit (GP) for the State of Maine. Such impacts to wetlands are broken down into two permit categories under the GP based on the following area thresholds: Self-Verification (SV) – less than 15,000 square feet, and Pre-Construction Notification (PCN) – 15,000 square feet to three acres. Activities eligible for SV can be authorized by a Self-Verification Notification Form submitted to the Corps. PCN requires submitting a more detailed application package with written approval from the USACE and as applicable, applications are reviewed in conjunction with the US Fish and Wildlife Service, the US Environmental Protection Agency or as appropriate the National Marine Fisheries Services. ILF is also acceptable as compensatory mitigation under the GP, however the USACE generally requires this to be implemented at a lower threshold of 5,000 sq ft of wetland impact.

The Town of Falmouth Charter and Code of Ordinances establishes specific requirements related to Buffers and Setbacks adjacent to Streams, Ponds and Wetlands (Div. II-19-1-5, Sec 19-71). Presence of specific criteria including ponds, vernal pools, floodplain, very poorly drained soils as designated by the USDA and dominance in all strata by FACW or OBL wetland vegetation are indicative of: E) "High Value Wetland" and when absent F) "Low Value Wetland". The dominant indicator status of all strata in the PFO1 at the Site is indicative of Low Value Wetland.

Photographs:



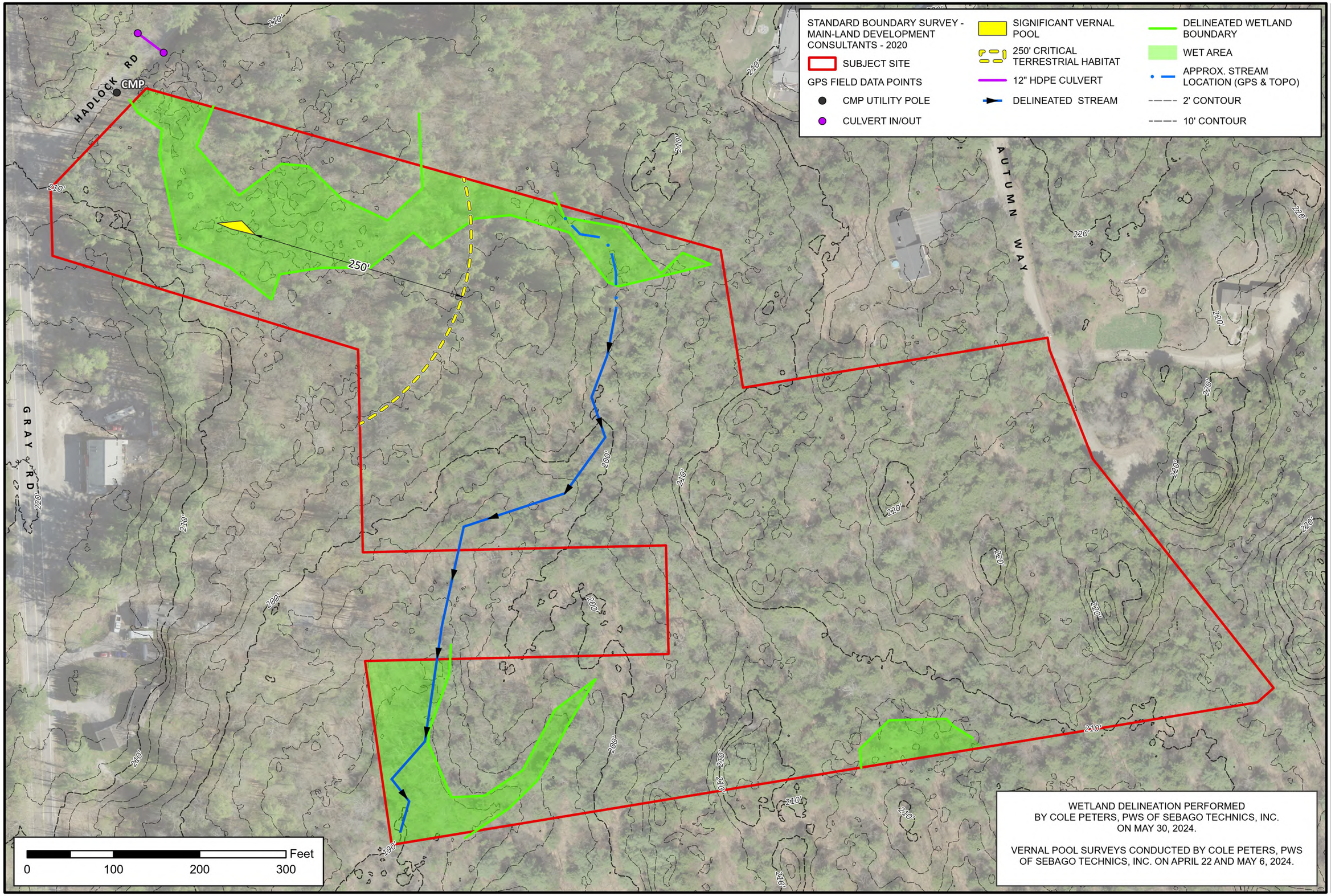
Photo 1: The deciduous forested wetland (PFO1) at the Site is dominated by red maple trees.



Photo 2: Southward downstream view of a narrow unnamed stream that flows through the west part of the Site.



Photo 3: Southward view of the significant vernal pool (SVP) located near the northwest corner of the Site.



SCALE: 1:1,200 1" = 100'

DATE: 6/12/2025

FIGURE 1: NATURAL RESOURCES
AUTUMN'S WAY SUBDIVISION

LOCATION:
AUTUMN'S WAY
FALMOUTH, MAINE

INFORMATION:
MAINE GEOLIBRARY
2021 ORTHOIMAGERY
2020 USGS LIDAR TOPOGRAPHY

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

Project Number: 230083

11x17 Plan, 230083.aprx

Maine State Vernal Pool Assessment Form

INSTRUCTIONS:

- **Complete all 3 pages of form thoroughly. Most fields are required for pool registration.**
- **Clear photographs of a) the pool AND b) the indicators (one example of each species egg mass) are required for all observers.**

Observer's Pool ID: SVP-A **MDIFW Pool ID:** _____

1. PRIMARY OBSERVER INFORMATION

a. Observer name: Cole Peters

b. Contact and credentials previously provided? ○ No (submit Addendum 1) ◉ Yes

2. PROJECT CONTACT INFORMATION

a. Contact name: ◉ same as observer ○ other _____

b. Contact and credentials previously provided? ○ No (submit Addendum 1) ◉ Yes

c. Project Name: Autumn Way (#230083)

3. LANDOWNER CONTACT INFORMATION

a. Are you the landowner? ○ Yes ◉ No If no, was landowner permission obtained for survey? ◉ Yes ○ No

b. Landowner's contact information (required)

Name: Envy Const., Attn Nick Voltolina Phone: 207.232.0351 E-mail: nick@envyconstruction.com

Street Address: 28 Stone Ridge Road City: Falmouth State: ME Zip: 04105

c. ☐ Large Projects: check if separate project landowner data file submitted

The Maine Department of Environmental Protection will e-mail official status letters to the project contact and landowner. Please check these data for completeness and accuracy to prevent delay in mailings. E-mail is the preferred method of notification; please provide e-mail addresses for the project contact and the landowner when available.

4. VERNAL POOL LOCATION INFORMATION

a. Location Township: Falmouth

Brief site directions to the pool (using mapped landmarks):

From Turnpike Exit 53 offramp, travel approximately 2.7 miles north on Rte 26/100 and turn right onto Hadlock Road where property is on the right (east) at this intersection.

b. Mapping Requirements

i. USGS topographic map OR aerial photograph with pool clearly marked.

ii. GPS location of vernal pool (use Datum NAD83 / WGS84)

Longitude/Easting: _____ Latitude/Northing: _____

Coordinate system: _____

Check one:

◉ GIS shapefile
- send to VernalPool.MDIFW@maine.gov; observer has reviewed shape accuracy

○ (Best) The pool perimeter is delineated by multiple GPS points. (Excellent)
- Include map or spreadsheet with coordinates.

○ The above GPS point is at the center of the pool. (Good)

5. VERNAL POOL HABITAT INFORMATION

a. Habitat survey date (only if different from indicator survey dates on page 3): _____

b. Wetland habitat characterization

■ Choose the best descriptor for the landscape setting:

- ○ Isolated depression
- ○ Floodplain depression
- ◉ Pool associated with larger wetland complex
- ○ Other: _____

■ Check all wetland types that best apply to this pool:

- ☑ Forested swamp
- ☐ Shrub swamp
- ☐ Peatland (fen or bog)
- ☐ Emergent marsh
- ☐ Wet meadow
- ☐ Lake or pond cove
- ☐ Abandoned beaver flowage
- ☐ Active beaver flowage
- ☐ Slow stream
- ☐ Floodplain
- ☐ Mostly unvegetated pool
- ☐ ATV or skidder rut
- ☐ Dug pond or borrow pit
- ☐ Roadside ditch
- ☐ Other: _____

c. Vernal pool status under the Natural Resources Protection Act (NRPA)

i. Pool Origin: ◉ Natural ○ Natural-Modified ○ Unnatural ○ Unknown

If modified, unnatural or unknown, describe any modern or historic human impacts to the pool (**required**):

ii. Pool Hydrology

■ Select the pool's estimated hydroperiod AND provide rationale in box (**required**):

- ○ Permanent
- ◉ Semi-permanent (drying partially in all years and completely in drought years)
- ○ Ephemeral (drying out completely in most years)
- ○ Unknown

Explain:

■ Maximum depth at survey: ○ 0-12" (0-1 ft.) ◉ 12-36" (1-3 ft.) ○ 36-60" (3-5 ft.) ○ >60" (>5 ft.)

■ Approximate size of pool (at spring highwater): Width: 10 ○ m ◉ ft Length: 40 ○ m ◉ ft

■ Predominate substrate in order of increasing hydroperiod:

- ○ Mineral soil (bare, leaf-litter bottom, or upland mosses present)
- ○ Mineral soil (sphagnum moss present)
- ◉ Organic matter (peat/muck) shallow or restricted to deepest portion
- ○ Organic matter (peat/muck) deep and widespread

■ Pool vegetation indicators in order of increasing hydroperiod (check all that apply):

- ☐ Terrestrial nonvascular spp. (e.g. haircap moss, lycopodium spp.)
- ☐ Dry site ferns (e.g. spinulose wood fern, lady fern, bracken fern)
- ☐ Moist site ferns (e.g. sensitive fern, cinnamon fern, interrupted fern, New York fern)
- ☐ Moist site vasculars (e.g. skunk cabbage, jewelweed, blue flag iris, swamp candle)
- ☐ Sphagnum moss (anchored or suspended)
- ☑ Wet site ferns (e.g. royal fern, marsh fern)
- ☑ Wet site shrubs (e.g. highbush blueberry, maleberry, winterberry, mountain holly)
- ☐ Wet site graminoids (e.g. blue-joint grass, tussock sedge, cattail, bulrushes)
- ☐ Aquatic vascular spp. (e.g. pickerelweed, arrowhead)
- ☐ Floating or submerged aquatics (e.g. water lily, water shield, pond weed, bladderwort)
- ☑ No vegetation in pool

■ Faunal indicators (check all that apply):

- ☐ Fish
- ☐ Bullfrog or Green Frog tadpoles
- ☐ Other: _____

iii. Inlet/Outlet Flow Permanency

Type of inlet or outlet (a seasonal or permanent channel providing water flowing into or out of the pool):

- ◉ No inlet or outlet
- ○ Intermittent inlet or outlet
- ○ Permanent inlet or outlet (channel with well-defined banks and permanent flow)
- ○ Other or Unknown (explain): _____

6. VERNAL POOL INDICATOR INFORMATION

a. Indicator survey dates: April 22, 2024, May 6, 2024

b. Indicator abundance criteria and pool survey effort

- Is pool depression bisected by 2 ownerships (straddler pool)? ○ Yes ◉ No
- Was the entire pool surveyed for egg masses? ◉ Yes ○ No; what % of entire pool surveyed? _____
- For each indicator species, indicate the exact number of egg masses, confidence level for species determination, and egg mass maturity. Separate cells are provided for separate survey dates.

INDICATOR SPECIES	Egg Masses (or adult Fairy Shrimp)									Tadpoles/Larvae[4]					
	Visit #1	Visit #2	Visit #3	Confidence Level[1]			Egg Mass Maturity[2]			Observed			Confidence Level[1]		
Wood Frog	-	-		3			-	-		0			3	3	
Spotted Salamander	18	24		3			M	A		0			3	3	
Blue-spotted Salamander	-	-		3			-	-		0			3	3	
Fairy Shrimp[3]	-	-		-											

1-Confidence level: 1 = <60%, 2 = 60-95%, 3 = >95%

2-Egg mass maturity: F= Fresh (<24 hrs), M= Mature (round embryos), A= Advanced (loose matrix, curved embryos), H= Hatched or Hatching

3-Fairy shrimp: X = present

4-Tadpoles/larvae: X = present

c. Rarity criteria

- Note any rare species associated with vernal pools. Observations should be accompanied by photographs.

SPECIES	Method of Verification*			CL**	SPECIES	Method of Verification*			CL**
	P	H	S			P	H	S	
Blanding's Turtle	☐	☐	☐		Wood Turtle	☐	☐	☐	
Spotted Turtle	☐	☐	☐		Ribbon Snake	☐	☐	☐	
Ringed Boghaunter	☐	☐	☐		Other:	☐	☐	☐	

*Method of verification: P = Photographed, H = Handled, S = Seen

**CL - Confidence level in species determination: 1= <60%, 2= 60-95%, 3= >95%

d. Optional observer recommendation:

☑ SVP ☐ Potential SVP ☐ Non Significant VP ☐ Indicator Breeding Area

e. General vernal pool comments and/or observations of other wildlife:

Send completed form and supporting documentation to: VernalPool.MDIFW@maine.gov

NOTE: Digital submissions are preferred but if not possible, please mail to: Maine Department of Inland Fisheries and Wildlife
Attn: Vernal Pools
106 Hogan Road, Suite 1
Bangor, ME 04401

For MDIFW use only Reviewed by MDIFW Date: _____ Initials: _____

This pool is: ☐ **Significant** ☐ **Potentially Significant** but lacking critical data ☐ **Not Significant** due to: ○ does not meet biological criteria. ○ does not meet MDEP vernal pool criteria.

Comments:

Attachment 12

Class 'B' High Intensity Soil Survey

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

SEBAGO TECHNICS

CIVIL ENGINEERING ▪ SURVEYING ▪ LANDSCAPE ARCHITECTURE

CLASS 'B' HIGH INTENSITY SOIL SURVEY REPORT

Prepared for:

Autumn Way Subdivision

Envy Construction
18 Rogers Trail
Falmouth, Maine 04105

Prepared by:

Sebago Technics, Inc.
75 John Roberts Road Suite 4A
South Portland, Maine 04106

June 13, 2025

CLASS 'B' HIGH INTENSITY SOIL SURVEY

Autumn Way Subdivision

TABLE OF CONTENTS

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3.	Site Location and Description	1
4.	Site Investigation	2
5.	Soil Characteristics	2
6.	Soil Map and Map Unit Descriptions	3
7.	Conclusions	4
8.	Limitations	5

APPENDICES

APPENDIX A - Soil Narrative Report

APPENDIX B - Soil Legend/MDEP Form E

APPENDIX C - Soil Survey Interpretations

APPENDIX D - Soil Test Pits/MDEP Form F

APPENDIX E - Class 'B' High Intensity Soil Map

Section 1

Introduction

Sebago Technics has completed a Class 'B' High Intensity Soil Survey for the proposed residential subdivision located between Hadlock Road and Autumn Way in Falmouth, Maine. The soils found on the above referenced site have been observed in the field using test pits dug by an excavator (see Soil Map for Survey Limits in Appendix E). The test pits were located by Global Positioning Systems (GPS) technology and incorporated into the soil map. The soil map has been merged into the existing base plan prepared by Sebago Technics. Topography is based on 1-foot contour intervals prepared using Lidar DEM from Maine GIS.

The soil map units and soil boundaries have been drawn, reviewed, and forwarded to the Project Manager, Mike Triglione, PE of Acorn Engineering for consideration during engineering design and layout of the proposed residential subdivision. Soils found at the site are described below and were examined and classified to identify potential soil limitations relating to the development of the property. This report has been prepared as part of the project requirements for the Town of Falmouth, and may be used to support permitting procedures as required under the Site Location of Development Act, Natural Resources Protection Act (NRPA), Stormwater Management Law, or other pertinent regulation.

Section 2

Purpose of Soil Survey

The purpose of this Class 'B' High Intensity Soil Survey was to investigate, identify, describe, and map the soils on the above referenced site for the proposed residential subdivision. The accompanying soil survey map depicts the location and types of soil found on the project site. The soil information may be used to obtain hydrologic soil group ratings to assist in the calculations for stormwater runoff curve values required by the Maine Department of Environmental Protection (MDEP). This soil information may also be used to evaluate soil suitability relating to development for the proposed subdivision.

Section 3

Site Location and Description

The site is located at the intersection of Gray Road and Hadlock Road and extends to Autumn Way in Falmouth, Maine. The abutting properties include residential house lots to the north, south and east with conservation land to the south. The proposed development parcel includes approximately 12.5 acres of land. There are wetlands mapped throughout the property with a stream running from north to south in the western half. These wetlands were delineated by Cole Peters of Sebago Technics in May, 2024.

Section 4

Site Investigation

We collected site-specific soil information at various locations across the site on June 3, 2025. The areas examined were designated with letters from TP-1 to TP-13. Test pits were dug by an excavator. Test pit locations were selected based on the proposed development areas, topographic relief, and vegetation stands, which typically are indicative of soil type variations. Excavated test pits were examined for soil colors, rock content, texture, consistence, root depths, redoximorphic features, and depth to restrictive horizons. From this information, soil logs were completed and are included in Appendix E. In addition to these test pits, several hand-augured borings were reviewed to verify consistency within map units.

The test pits observed in the field were located by a GPS unit capable of submeter accuracy on the respective dates that they were excavated. These points were then incorporated into the topographic survey to aid in the preparation of a soil map of the project area. The provided base map has a scale of 1 inch = 60 feet, with one-foot contour intervals on the site.

Drainage classifications of the soils on the site were determined by parameters found in the Guidelines for Maine Certified Soil Scientists for Soil Identification and Mapping, published by the Maine Association of Professional Soil Scientists in April 1989 and revised in March 2009.

Section 5

Soil Characteristics

The soils found on the site are predominantly developed from glacial till and marine/ lacustrine sediment. There are also some areas of glacial outwash soils. The landforms typically associated with glacial till are drumlins and till ridges. The landforms associated with the marine and lacustrines soils are coastal lowlands and river valleys. Glacial outwash landforms include sand plains and deltas. There were areas of lodgment till (dense) and ablation till throughout the site. The ablation till was generally dominated by Abram sandy loam and included exposed ledge above the ground surface. The till soils contain some gravel and coarse fragments, whereas, the marine and lacustrine soils contained finer silty soils

There are wetlands on site that include poorly drained soils. The soils in the wetlands are mapped as poorly drained Scantic silt loam and Roundabout silt loam, both developed in marine and lacustrine soils. Slopes in the wetlands range from 0 to 8 percent.

The glacial till soils include the excessively drained Abram sandy loam mixed with rock outcrops, the somewhat poorly drained Colonel fine sandy loam and Colonel-Dixfield Complex. The

lacustrine and marine soils in the upland include the somewhat poorly drained Roundabout silt loam, the moderately well drained Nicholville silt loam, and the moderately well drained Elmwood fine sandy loam. The outwash soils include the poorly and somewhat poorly drained Naumburg loamy fine sand. There is an area of Naumburg-like soils that include gravelly fill overlying ledge which was found near the intersection of Gray Road and Hadlock Road.

The slopes on the site vary from 0 to 3 percent in the wetland areas to 15 to 25 percent in the excessively drained Rock Outcrop-Abram Complex. The strong (8 to 15 percent) to moderately steep (15 to 25 percent) slopes were found in the Rock Outcrop Complexes throughout the site. The level areas (0 to 3 percent) were primarily found in the wetlands and the dominant slopes on the property were 3 to 8 percent.

There were areas throughout the property that contained ledge within 40 inches of the ground surface which are not typical of many of the soil series found. These areas may be considered variants from the typical soil profile. Specifically, these test pits were labeled as TP-1, TP-3, TP-4, TP-6 and TP-11. All of these test pits contained seasonal high watertables well above the ledge that were more limiting and most closely resemble the named soil series.

These soils should respond to use and management as determined and described in the Soil Series of Maine Soil Interpretations published by the Maine Association of Professional Soil Scientists in cooperation with the USDA Natural Resources Conservation Service, dated January 1987 and revised January 1988 and 1989. Soil survey interpretations are enclosed in Appendix C of this report.

This site may contain inclusions of soil types that differ from the soil map units. The areas where these soils were found are too small to be mapped and, for the purpose of this soil survey, there appears to be less than 1 contiguous acre of this soil in any part of the site. It also appears that the total area of this soil type in any given map unit is less than 25 percent, therefore classifying these soil types as inclusions. One exception was the area of gravelly fill near the intersection of Gray Road and Hadlock Road which was approximately 0.5 acres in size. Since this area was the only filled land, it has been mapped smaller than the standard map unit size. The soil map units found at the site are listed with soil potential rating classes in Appendix C of this report.

Section 6

Soil Map and Map Unit Descriptions

The attached soil survey map depicts the size and location of the soil map units relative to each other and existing site features. Each soil map unit typically consists of three letters (e.g., AdB), with the first two letters representing a phase of the established soil series found within soil map unit areas as shown on the soil map. This soil map unit phase name is a representation of the soil characteristics, such as texture, stoniness, drainage, and depth to bedrock, all of which may affect the use and management of the soil. The third capitalized letter represents the surface slope gradient of the area within the soil map unit (e.g., B represents 3 to 8 percent slopes).

Therefore, in this example “AdB” is interpreted as Adams loamy fine sand on a 3 to 8 percent slope.

Section 7

Conclusions

The soils found on site consist of predominantly glacial till and marine/ lacustrine sediment, with lesser amounts of glacial outwash deposits. These soils are generally suitable for a residential subdivision. Generally, this property will require additional work to prepare the land for house lots.

Site investigations suggest some limitations typical of glacial till, glacial marine/ lacustrine sediment and glacial outwash soils. These limitations are expected to include high water tables associated with wetlands, areas of very shallow ledge, and fine-textured soils which all may be overcome by appropriate planning, engineering and site preparation in these areas. Such site features as the depth to restrictive layers, runoff volumes, seasonal soil saturation depths, potential for frost and erosion activity, and jurisdictional wetland areas were examined. The following is a summary of areas and on-site features identified in the field with potential effects relating to the development of this parcel:

1. Jurisdictional wetland areas were identified on the property. Alteration to wetland areas may require regulatory permitting together with appropriate engineering to support the proposed development. These soils contain fine-textured silt and clay deposits in the subsoil, with ponded water or saturated conditions at or near the surface throughout much of the year. In addition, a stream runs southerly in the western half of the property. Erosion control devices will need to prevent soil erosion to the stream during storm events.

2. Naumburg, Roundabout, and Scantic map units contain soils that are saturated for much of the year. These map units contain a seasonal high watertable within 15 inches of the surface during the growing season and the wetland areas will have a seasonal high watertable within 6 inches. Any roadways, foundations and septic systems in these map units will require proper drainage and additional fill during construction.

3. Rock outcrops and underground ledge within 36 inches of the surface exist throughout the property. Full foundations and underground utilities will require blasting or filling if in these areas.

4. Moderately steep slopes of 15 to 25 percent occur in the eastern half of the property in areas of rock outcrops. Runoff potential during storm events is high in these areas and erosion control devices will need to be installed.

Section 8

Limitations

The scope of this investigation has been limited to this Class 'B' High Intensity Soil Survey in general accordance with standards and guidelines established by the Maine Association of Professional Soil Scientists. The soil survey report and soil map have been prepared for the exclusive use of Envy Construction and Acorn Engineering for specific application for the proposed residential subdivision on this site located off Autumn Way in Falmouth, Maine.

No other warranty, expressed or implied, is made. The conclusions and recommendations presented in this soil report are based on data obtained at the referenced site and our interpretations of this information. This report and soil map may not reflect soil variations that may occur between our observation test pits. Data from this soil report and soil map should not be used for any other purpose. Soils which are considered non-limiting for one use may be considered limiting for another use. The soil map units used in the soil report and on the soil map are at least in part influenced by the intended use of the soil survey, and information provided may not always be adequate for uses other than that which the soil survey was originally developed.

APPENDICES

APPENDIX A

SOIL NARRATIVE REPORT

SOIL NARRATIVE REPORT

Autumn Way Subdivision

June 13, 2025

Date: Soil profiles observed June 3, 2025

Base Map: Lidar topography

1 (one) foot contour intervals on-site

Map Scale 1 inch = 60 feet

Ground Control: Test pits and borings located by GPS with sub-meter accuracy

The Maine Association of Professional Soil Scientists has adopted standards for soil surveys. Soil surveys are divided into four classes of survey, which are dependent upon the amount of information required for the project. The following is a summary of requirements for this High Intensity Soil Survey.

Class 'B' High Intensity Soil Survey Standards

1. Map units will not contain dissimilar limiting inclusions larger than one acre.
2. Scale of 1 inch = 200 feet or larger.
3. Dissimilar limiting inclusions may total more than one acre per map unit delineation, in the aggregate, if not continuous.
4. Ground control - test pits for which detailed data is recorded are located by means of a compass by chaining, pacing, or taping from known survey points; or other methods of equal or greater accuracy.
5. Base map with 5-foot contour lines with ground survey.

The accompanying soil profile descriptions, soil survey map and this soil narrative report were done in accordance with the standards adopted by the Maine Association of Professional Soil Scientists, March 2009.

This Soil Survey was prepared in relation to a proposed residential subdivision.

Gary M. Fullerton, LSS #462

STATE OF MAINE GARY M. FULLERTON NO. 462 LICENSED SOIL SCIENTIST

June 13, 2025
Date

APPENDIX B

SOIL LEGEND/MDEP FORM E

SOIL LEGEND

Autumn Way Subdivision

June 13, 2025

SYMBOL	SOIL SERIES	PHASE	SLOPE	HSG	DRAINAGE CLASS
ArC	Abram-Rock Outcrop Complex	Sandy Loam	8-15%	D	Excessively Drained (ED)
CnA	Colonel	Fine Sandy Loam	0-3%	D	Somewhat Poorly Drained (SPD)
CdB	Colonel-Dixfield Complex	Fine Sandy Loam	3-8%	C/D	Somewhat Poorly Drained / Moderately Well Drained (SPD/MWD)
EmB	Elmwood	Fine Sandy Loam	3-8%	D	Moderately Well Drained (MWD)
NlB	Naumburg-like	Gravelly Sand	3-8%	D	Poorly Drained / Somewhat Poorly Drained (PD/SPD)
NaB	Naumburg	Loamy Fine Sand	3-8%	D	Poorly Drained / Somewhat Poorly Drained (PD/ SPD)
RaD	Rock Outcrop-Abram Complex	Sandy Loam	15-25%	D	Excessively Drained (ED)
RnB	Roundabout-Nicholville Complex	Silt Loam	3-8%	D	Poorly Drained / Somewhat Poorly Drained/ Moderately Well Drained (PD/ SPD/ MWD)
SnA	Scantic	Silt Loam	0-3%	D	Poorly Drained (PD)

FORM E Rev. 07/11

SOIL CONDITIONS SUMMARY TABLE

SUMMARY LOG OF SUBSURFACE EXPLORATIONS AT PROJECT SITES

Project Name:	Applicant Name:	Project Location (municipality):
AUTUMN WAY SUBDIVISION	ENVY CONSTRUCTION	FALMOUTH

Lot No.	Exploration Symbol *(TP 1, B 2, etc.)*	✖ if at SSWD Field	Description of subsurface materials by: ● Soil profile/condition *(if by S.E.)*, ● Soil series name *(if by C.S.S.)*, or by ● Geologic unit *(if by C.G.)*	Depths to *(inches)*: Redoximorphic Features	Bedrock	Hydraulically Restrictive Layer	Limit of Exploration	Ground Surface Slope (%)	Ground Surface Elevation
	TP-1	☐	NAUMBURG-LIKE VARIANT	12	36	--	36	3-8	209.0'
	TP-2	☐	SCANTIC	0	--	8	48	0-3	205.0'
	TP-3	☐	COLONEL VARIANT	13	28	20	28	0-3	206.0'
	TP-4	☒	ROUNDABOUT VARIANT	8	24	16	36	3-8	202.0'
	TP-5	☐	ABRAM	--	8	--	8	8-15	204.5'
	TP-6	☐	COLONEL VARIANT	10	36	16	36	3-8	210.5'
	TP-7	☐	NICHOLVILLE	20	--	26	60	3-8	199.0'
	TP-8	☒	ELMWOOD	16	--	26	60	3-8	209.0'
	TP-9	☐	LYMAN	--	12	--	12	15-25	214.5'
	TP-10	☐	NAUMBURG	0	--	--	40	3-8	216.0'
	TP-11	☒	NAUMBURG VARIANT	15	28	--	28	3-8	218.0'
	TP-12	☒	ELMWOOD	16	--	26	60	3-8	213.0'
	TP-13	☐	DIXFIELD	24	--	30	60	3-8	212.5'
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INVESTIGATOR INFORMATION AND SIGNATURE

Signature	Date
	6/13/25
Name Printed	**Cert/Lic/Reg. #**
Gary M. Fullerton	355/ 462

Qualification

☒ Licensed Site Evaluator ☒ Certified Soil Scientist
☐ Certified Geologist ☐ Other:

STATE OF MAINE GARY M. FULLERTON NO. 462 LICENSED SOIL SCIENTIST

affix professional seal

APPENDIX C

SOIL SURVEY INTERPRETATIONS

SOIL SURVEY INTERPRETATIONS

Soil survey interpretations are derived from the inherent soil characteristics found within the soil profile. The interpretations are predictions (numeric and descriptive) of soil suitability for a specific use, based on the soil's characteristics. These interpretations have many practical applications, such as estimating costs for land development, calculating storm water runoff, determining structural bearing strengths, estimating erodibility, etc. Soil potential ratings have been developed using soil survey interpretations to compare soil series, based on limitations or potentials, for a given use.

Limitations of Soil Interpretations

Soil interpretations are very useful for many purposes and projects, although they do have limitations, including:

1. An interpretation for a specific purpose is rarely adaptable for another use without management considerations.
2. Use of interpretations for specific areas has an inherent limitation relating to variability of the soil map unit. As the size of the soil survey area and the soil map units increase, soil interpretations provide a less reliable prediction of actual soil conditions.
3. Interpretations are also limited by the natural variability within a soil profile, which directly affects the precision of the soil interpretation.
4. Soil interpretations are predictions of potentials or limitations based on soil properties. A soil may possess several limiting factors and therefore all site specific soil properties must be known for accurate interpretations.
5. Soil interpretations are used to predict the costs of development and to ultimately determine feasibility of a project. It should be noted that most soil limitations can be overcome with engineering solutions to make a soil suitable for a proposed use.

Soil Potential Rating Factors

Soil potential ratings have been developed as a useful form of soil interpretations. These ratings are based on local conditions, local experience and expertise, and laws, codes and rules governing the use of soils for various purposes. Potential ratings include the feasibility of a soil for a particular use relative to other soils within a given area. Factors considered in preparing soil potential ratings are the feasibility of using certain technology and practices to overcome limiting factors and the relative cost of implementing these practices. Some examples of unfavorable soil qualities inherent in Maine soils are listed below:

1. **Depth to Water Table** – The depth to water table affects the natural drainage of the soil in which in turn affects the soils potential for development. A soil with a shallow depth to seasonal high water table requires construction methods such as added fill and artificial drainage to overcome this limitation. A soil with a seasonal high water table deeper than 6 feet below the soil surface would have higher potential than a soil with a seasonal high water table at 18 inches.
2. **Flooding** – Soils are rated on the basis of whether they are subject to flooding or not. Flooding is separated into three categories: none, occasional (floods at least once in ten years), and frequent (floods at least once every two years). Soils subject to flooding have less potential for development than those that do not flood.

3. **Slope** – Soils are rated on the basis of slope. The less sloping areas require fewer corrective measures than the steeper areas and thus have a greater potential for development.

4. **Depth to Bedrock** – The presence of bedrock affects the use of soils for development. Soils with shallow depth over bedrock have less potential for development than deep soils.

5. **Surface Stones** – The presence of stones and boulders on the soil surface affect the use of the soil for development. In preparing a site for a dwelling or septic sewage disposal area, surface stones have to be removed.

6. **Depth to Restrictive Layer** – Some soils have a restrictive layer that begins at a shallow depth. This layer can impede natural drainage and permeability. This soil factor is important when designing a septic sewage disposal system.

7. **Soil Profile and Condition** – The Maine Subsurface Wastewater Disposal Rules provides a table by which each soil can be categorized by profile group and soil condition. The profile group is based on parent material or origin of the soil, texture of the soil, and the presence of any restricting layer within the soil profile. The soil condition refers to the depth to bedrock or drainage class.

Low density development includes single family unit residences with basements and comparable buildings and septic tank absorption fields, with or without on-site sources of water. Development may be as a single unit or as a cluster of units in a development. Paved roads in a development are also included in the rating. Soil potentials have been developed by selecting the best soil in a county for low density development. This "reference soil" is the best because it has all the best characteristics for all rated uses with regards to development. For low density urban development, a reference soil has the following properties:

- A water table level greater than 6 feet
- The soil does not flood
- Slope is 0-3 percent
- The soil lacks a restrictive layer
- The depth to bedrock is more than 5 feet
- Surface stone cover is 0.1 to 15 percent
- The soil requires a medium sized rating for a septic sewage disposal field
- There is low potential for groundwater contamination from septic field effluent

This reference soil is assigned a value of 100 index points. Costs are also developed for all other soils in the county for overcoming the various soil limitations. These costs are converted to index points and subtracted from the reference soil. The result is a method of comparing development costs for the soils in a county. Environmental constraints as well as long term maintenance costs are also a factor in developing soil potentials.

The Soil Potential index is a mathematical expression of a soil's position in the overall range of potentials which is 100 to 0. Since the entire range is large, these numerical ratings are separated into Soil Potential Rating Classes of very low to very high.

The composite rating for development was determined by a weighted average of individual soil potential indices as follows: septic tank absorption fields, 45 percent; dwellings with basements, 20 percent; and local roads and streets, 35 percent.

Soil Potential Rating Classes

Soil Potential Rating Classes are based on the expected performance of a soil if feasible measures are taken to overcome its limitations, the cost of such measures, and the magnitude of the limitations that remain after measures have been applied. The development rating (fourth column in the rating tables) is a weighted sum of the septic, dwelling, and road indices. The septic system has the most restrictive site requirements and the dwelling has the least restrictive site requirements.

Very High Potential – Site conditions and soil properties are favorable. Installation costs are lowest for that use and there are no soil limitations. Soils in the group have soil properties similar to the reference soil. The Soil Potential Index for this rating class is 100 for each soil use.

High Potential – Site conditions and soil properties are not as favorable as the reference soil condition. The cost of measures for overcoming soil limitations is slight. The index for this rating class ranges from 83 to 99 for each soil use.

Medium Potential – Site conditions and soil properties are below soils with high potential. Costs of the measures for overcoming soil limitations are significant. The index for this rating class ranges from 60 to 82.

Low Potential – Site conditions and soil properties are significantly below soils with medium potential. Costs of measures required to overcome soil limitations are very high. The index for this rating class ranges from 40 to 59 for each soil use.

Very Low Potential – There are severe soil limitations for which economical corrective measures are prohibitive or unavailable and costs of these measures are extremely high. Also, soil limitations which detract from environmental quality may continue even after installation of corrective measures. The index for this rating class is less than 40. They may also be prohibited for use by local or state laws.

Drainage Classes

Drainage classes are the relative wetness that a soil under normal conditions has relating to the soil water table. The following seven drainage classes are used for the soils found in Maine:

1. **Excessively Drained (ED)** soils with water that is removed very rapidly. The occurrence of internal free water is very rare or very deep.
2. **Somewhat Excessively Drained (SED)** soils with water that is removed rapidly through the soil. Internal free water occurrence is very rare or very deep.
3. **Well Drained (WD)** soils with water that is removed from the soil readily but not rapidly. Internal free water occurrence commonly is deep or very deep.
4. **Moderately Well Drained (MWD)** soils with water that is moved somewhat slowly during some periods of the year. Internal free water is moderately deep and transitory to permanent throughout the soil profile.
5. **Somewhat Poorly Drained (SPD)** soils with water that is removed from the soil slowly and remains wet from significant periods of time during the growing season. The depth to internal free water is shallow to moderately deep, transitory to permanent.
6. **Poorly Drained (PD)** soils with water that is removed so slowly that the soil is wet at shallow depths during the growing season or remains in a wet state for long periods.

7. **Very Poorly Drained (VPD)** soils with water that is removed from the soil so slowly that the free water remains at or near the ground surface during the growing season. Internal free water is very shallow and persistent or permanent.

Slope Class

A	**Level and nearly level**	0-3 percent
B	**Gently sloping (undulating)**	3-8 percent
C	**Strongly sloping (rolling)**	8-15 percent
D	**Moderately steep (hilly)**	15-25 percent
E	**Steep**	25-45 percent
F	**Very Steep**	45+ percent

Depth to Bedrock

1.	**Very Shallow**	Less than 10-inches to bedrock
2.	**Shallow**	10-inches to less than 20-inches to bedrock
3.	**Moderately Deep**	20-inches to less than 40-inches to bedrock
4.	**Deep**	40-inches to less than 60-inches to bedrock
5.	**Very Deep**	Greater than 60-inches to bedrock

Classes of Surface Stones

1.	**Stony or bouldery**	0.01 to 0.1 percent surface coverage
2.	**Very stony/ boulder**	0.1 to 3.0 percent surface coverage
3.	**Extremely stony/ bouldery**	3.0 to 15 percent surface coverage
4.	**Rubbly**	15 to 50 percent surface coverage
5.	**Very Rubbly**	More than 50 percent surface coverage

SOIL POTENTIAL RATINGS

Autumn Way Subdivision

June 13, 2025

MAP UNIT	SEPTICS	BUILDINGS	ROADS	DEVELOPMENT
ArC Abram-Rock Outcrop Complex, 8-15%	VERY LOW	VERY LOW	VERY LOW	VERY LOW
CdB Colonel-Dixfield Complex, 3-8%	VERY LOW	MEDIUM	MEDIUM	LOW
CnA Colonel fine sandy loam, 0-3%	VERY LOW	MEDIUM	MEDIUM	LOW
EmB Elmwood fine sandy loam, 3-8%	MEDIUM	HIGH	MEDIUM	MEDIUM
NaB Naumburg loamy fine sand, 3-8%	VERY LOW	MEDIUM	MEDIUM	VERY LOW
NlB Naumburg-like gravelly sand, 3-8%	VERY LOW	MEDIUM	MEDIUM	VERY LOW
RaD Rock Outcrop-Abram Complex, 15-25%	VERY LOW	VERY LOW	VERY LOW	VERY LOW
RnB Roundabout-Nicholville Complex, 3-8%	VERY LOW	MEDIUM	MEDIUM	LOW
SnA Scantic silt loam, 0-3%	VERY LOW	VERY LOW	VERY LOW	VERY LOW

ABRAM (ArC, RaD)

(Frigid Loamy Lithic Haplorthods)

SETTING

Parent Material:	Thin mantle of glacial till
Landform:	Ridges hills and mountains less than 2,500' in Maine
Position in Landscape:	Uppermost locations, ridge crests, side slopes
Slope Gradient Ranges:	(C) 8-15% (D) 15-25%

COMPOSITION AND SOIL CHARACTERISTICS

Drainage Class:	Excessively drained	
Typical Profile:	**Surface layer:**	Thin black organic mat
	Subsurface layer:	Pinkish gray very stony sandy loam, 1"
	Subsoil layer:	Very dusky red and brown very stony sandy loam, 4"
	Bedrock:	Bedrock is at 4" or less
Hydrologic Group:	D	
Surface Run Off:	Rapid, depending upon slope and bedrock exposure	
Permeability:	Moderately rapid	
Depth to Bedrock:	Very Shallow, 0" to 10"	
Hazard to Flooding:	None	

INCLUSIONS WITHIN MAPPING UNIT

Similar:	Lyman
Contrasting:	Naumburg, Colonel, Dixfield

USE AND MANAGEMENT

The limiting factor for building site development is the depth to bedrock (<10") within this complex. Blasting or ripping of the bedrock is necessary for deep excavation for nearly all uses.

COLONEL (CnA, CdB)

(Frigid Aquic Haplorthods)

SETTING

Parent Material: Compact glacial till

Landform: Lower toe slopes, gently sloping crests of broad till ridges

Position in Landscape: Lower to intermediate positions

Slope Gradient Ranges: (A) 0-3% (B) 3-8%

COMPOSITION AND SOIL CHARACTERISTICS

Drainage Class: Somewhat poorly drained soils

Typical Profile:

Surface layer:	Very dark grayish brown fine sandy loam, 6”
Subsoil layer:	Dark brown and mottled dark yellowish brown fine sandy loam in the upper part and mottled olive brown gravelly fine sandy loam in the lower part, 11”
Substratum:	Mottled olive gravelly fine sandy loam, 65”

Hydrologic Group: D

Surface Runoff: Medium

Permeability: Moderate in the solum, moderately slow or slow in substratum

Depth to Bedrock: Deep, > 60”

Hazard to Flooding: None

INCLUSIONS WITHIN MAPPING UNIT

Similar: Dixfield

Contrasting: Abram, Naumburg

USE AND MANAGEMENT

The limiting factor for building site development is wetness due to the presence of a water table within 15 inches of the soil surface for a significant portion of the year. Proper foundation drainage or other site modification is recommended for construction. Colonel soils have a “very low” rating for septic systems due to presence of a shallow watertable. These soils are also prone to frost action.

DIXFIELD (CdB)

(Frigid Aquic Haplorthods)

SETTING

Parent Material: Compact loamy glacial till

Landform: Glaciated uplands

Position in Landscape: Ridge tops and side slopes

Slope Gradient Ranges: (B) 3-8%

COMPOSITION AND SOIL CHARACTERISTICS

Drainage Class: Moderately well drained

Typical Profile:

- **Surface layer:** Dark brown fine sandy loam, 6”
- **Subsoil layer:** Strong brown and dark yellowish brown fine sandy in the upper part and mottled light olive brown gravelly fine sandy loam in the lower part, 15”
- **Substratum:** Mottled light olive brown gravelly fine sandy loam, very firm, 65”

Hydrologic Group: C/D

Surface Runoff: Medium

Permeability: Moderate in the solum, moderately slow or slow in substratum

Depth to Bedrock: Very deep, greater than 60 inches

Hazard to Flooding: None

INCLUSIONS WITHIN MAPPING UNIT

Similar: Colonel, Nicholville

Contrasting: Abram, Naumburg

USE AND MANAGEMENT

Few limitations for most uses. However, this mapping unit typically possesses stones of various sizes and may require special management practices to work in these areas.

ELMWOOD (EmB)

(Frigid Aquic Dystric Eutrochrepts)

SETTING

Parent Material: Loamy outwash or lacustrine materials over clayey sediments

Landform: Glaciolacustrine, marine or outwash plains and deltas

Position in Landscape: Nearly level to intermediate

Slope Gradient Ranges: (B) 3-8%

COMPOSITION AND SOIL CHARACTERISTICS

Drainage Class: Moderately well drained

Typical Profile:

- **Surface layer:** Brown to dark brown, fine sandy loam, 9”
- **Subsoil layer:** Yellowish brown, mottled light olive brown and mottled olive gray sandy loam, 23”
- **Substratum:** Olive, silty clay loam, 60”

Hydrologic Group: B/D, dependent on depth to limiting factor

Surface Runoff: Low to medium depending on slope

Permeability: Moderately rapid in the loamy material, slow to very slow in the clayey material

Depth to Bedrock: Very deep, > 60”

Hazard to Flooding: None

INCLUSIONS WITHIN MAPPING UNIT

Similar: Dixfield

Contrasting: Abram, Naumburg

USE AND MANAGEMENT

A limiting factor for building site development is wetness due to the presence of shallow water table from November through May. Proper foundation drainage or site modification is recommended for construction. Use of this soil for roadways is “medium” due to wetness and low strength. Underground piping has limitations due to wetness. Elmwood soils have an overall development rating of “medium” in the B-slope map units.

NAUMBURG (NaB, NlB)

(Frigid Sandy Typic Endoaquods)

SETTING

Parent Material:	Glaciofluvial or sandy deltaic outwash deposits
Landform:	Nearly level to strongly sloping areas on low plains and terraces
Position in Landscape:	Lower to intermediate positions with flat gentle slopes
Slope Gradient Ranges:	(B) 3-8%

COMPOSITION AND SOIL CHARACTERISTICS

Drainage Class:	Somewhat Poorly drained	
Typical Profile	**Surface layer:**	Black organic, 4”
Description:	**Subsurface layer:**	Pale brown fine sandy loam, 7”
	Subsoil layer:	Gray, friable, fine sandy loam, 26, mottled
	Substratum:	Gray sand, 60”
Hydrologic Group:	D	
Surface Runoff:	Slow	
Permeability:	Rapid	
Depth to Bedrock:	Very deep, >60”	
Hazard to Flooding:	None	

INCLUSIONS WITHIN MAPPING UNIT

Similar:	Colonel
Contrasting:	Abram, Elmwood

USE AND MANAGEMENT

Development with subsurface wastewater disposal is “very low” due to wetness and poor filtering capability. A limiting factor for building site development is the soil is prone to cutbanks caving in. Naumburg soils are rated “medium” for road fill materials. Proper foundation drainage or site modification is recommended for construction. Use of this soil for roadways is “medium” due to wetness. Underground piping has “severe” limitations due to wetness.

NICHOLVILLE (RnB)

(Frigid Aquic Haplorthods)

SETTING

Parent Material: Wind and water deposited silts and very fine sands

Landform: Lake plains, uplands.

Position in Landscape: Moderately high on long planar slightly convex slopes

Slope Gradient Ranges: (B) 3-8%

COMPOSITION AND SOIL CHARACTERISTICS

Drainage Class: Moderately well drained

Typical Profile:

Surface layer:	Very dark grayish brown, silt loam, 10”
Subsoil layer:	Dark yellowish brown silt loam to mottled yellowish brown very fine sandy loam, 18”
Substratum:	Grayish brown loamy very fine sand, 60”

Hydrologic Group: B/D

Surface Runoff: Medium

Permeability: Moderate throughout

Depth to Bedrock: Very deep, >60”

Hazard to Flooding: None

INCLUSIONS WITHIN MAPPING UNIT

Similar: Roundabout, Dixfield

Contrasting: Abram,

USE AND MANAGEMENT

Nicholville soils are rated “very low” for septic systems due to fine-textured soils. Nicholville has a “medium” rating for road fill material due to frost action susceptibility. Proper foundation drainage or site modification is recommended for construction.

ROUNDABOUT (RnB)

(Frigid Aeric Haplaquepts)

SETTING

Parent Material: Marine, lacustrine sediments

Landform: Level, gently sloping marine, lake plains

Position in Landscape: Lower to intermediate positions

Slope Gradient Ranges: (B) 3-8%

COMPOSITION AND SOIL CHARACTERISTICS

Drainage Class: Poorly drained, somewhat poorly drained

Typical Profile:

Surface layer:	Very dark brown silt loam, 7”
Subsoil layer:	Olive brown, silt loam, mottled 26”; olive gray very fine sandy loam, 30”
Substratum:	Olive, mottled silt loam, 60”

Hydrologic Group: D

Surface Runoff: Medium

Permeability: Moderate throughout

Depth to Bedrock: Very deep, >60”

Hazard to Flooding: None

INCLUSIONS WITHIN MAPPING UNIT

Similar: Nicholville

Contrasting: Abram

USE AND MANAGEMENT

Development with subsurface wastewater disposal is rated “very low” due to a seasonal high water table. A limiting factor for building site development is wetness due to the presence of shallow water table throughout November through May. Proper foundation drainage or site modification is recommended for construction. Use of this soil for roadways is “poor” due to wetness. Underground piping has severe limitations due to wetness.

SCANTIC (SnA)

(Frigid Typic Epiaquepts)

SETTING

Parent Material: Marine, lacustrine sediments

Landform: Level or gently sloping marine or lake plains

Position in Landscape: Lower to intermediate positions

Slope Gradient Ranges: (A) 0-3%

COMPOSITION AND SOIL CHARACTERISTICS

Drainage Class: Poorly drained

Typical Profile:

Surface layer:	Dark grayish brown silt loam, 9”
Subsurface layer:	Mottled olive gray silt loam, 11”
Subsoil layer:	Mottled olive gray silty clay loam, 16”
Substratum:	Mottled olive gray silty clay, 65”

Hydrologic Group: D

Surface Runoff: Slow

Permeability: Moderate or moderately slow in upper profile, slow to very slow in the subsoil and substratum

Depth to Bedrock: Very deep, >60”

Hazard to Flooding: May flood occasionally on lowest fringes during spring and periods of excessive precipitation

INCLUSIONS WITHIN MAPPING UNIT

Similar: Roundabout

Contrasting: Abram, Colonel

USE AND MANAGEMENT

A limiting factor for building site development is wetness due to the presence of shallow water table throughout most of the year. Proper foundation drainage or site modification is recommended for construction. Use of this soil for roadways is severe due to low strength and frost action. Underground piping has severe limitations due to wetness. Most of these soils are found in wetlands.

APPENDIX D

SOIL TEST PITS

FORM F 230083

SOIL PROFILE/CLASSIFICATION INFORMATION

Detailed Description of Subsurface Conditions at Project Sites

Project Name:	Applicant Name:	Project Location (municipality):
AUTUMN WAY SUBDIVISION	ENVY CONSTRUCTION	FALMOUTH

SOIL DESCRIPTION AND CLASSIFICATION

Exploration Symbol: TP-1 ■ Test Pit ☐ Boring

0-1 " Depth of Organic Horizon Above Mineral Soil

DEPTH BELOW MINERAL SOIL SURFACE (Inches)

Texture	Consistence	Color	Redox
		5Y 5/2	
GRAVELLY	FRIABLE		
SAND FILL		OLIVE GRAY	
			COMMON, MEDIUM AND DISTINCT
LEDGE AT 36"			

hydric	Slope %	Limiting factor	ground water
■ non-hydric	3-8	12"	☐ restrictive layer ☐ bedrock

L.S.S. Soil Series / phase name: NAUMBURG-LIKE VARIANT | Drainage Class: SWPD | Hydrologic Group: D

L.S.E. Soil Classification: 12 (5) Profile | Drainage Condition: D

SOIL DESCRIPTION AND CLASSIFICATION

Exploration Symbol: TP-2 ■ Test Pit ☐ Boring

2-3 " Depth of Organic Horizon Above Mineral Soil

DEPTH BELOW MINERAL SOIL SURFACE (Inches)

Texture	Consistence	Color	Redox
		5Y 3/1	
SILT LOAM	FRIABLE		COMMON, MEDIUM
		VERY DARK GRAY	AND DISTINCT
		5Y 4/2	
SILTY CLAY	FIRM		MANY, COARSE
LOAM		OLIVE GRAY	AND PROMINENT
LIMIT OF EXCAVATION = 48"			

hydric	Slope %	Limiting factor	ground water
■ non-hydric	0-3	0"	☐ restrictive layer ☐ bedrock

L.S.S. Soil Series / phase name: SCANTIC | Drainage Class: PD | Hydrologic Group: D

L.S.E. Soil Classification: 9 Profile | Drainage Condition: E

SOIL DESCRIPTION AND CLASSIFICATION

Exploration Symbol: TP-3 ■ Test Pit ☐ Boring

1-2 " Depth of Organic Horizon Above Mineral Soil

DEPTH BELOW MINERAL SOIL SURFACE (Inches)

Texture	Consistence	Color	Redox
		10YR 3/6	
SANDY LOAM			
		DARK YELLOWISH	
	FRIABLE	BROWN	
		10YR 4/4	
GRAVELLY		DARK YELLOWISH	
SANDY LOAM		BROWN	COMMON, MEDIUM AND DISTINCT
VERY FINE	FIRM	5Y 5/2	
SANDY LOAM		OLIVE GRAY	
LEDGE AT 28"			

hydric	Slope %	Limiting factor	ground water
■ non-hydric	0-3	13"	☐ restrictive layer ☐ bedrock

L.S.S. Soil Series / phase name: COLONEL VARIANT | Drainage Class: SPD | Hydrologic Group: D

L.S.E. Soil Classification: 3 Profile | Drainage Condition: D

SOIL DESCRIPTION AND CLASSIFICATION

Exploration Symbol: TP-4 ■ Test Pit ☐ Boring

1-2 " Depth of Organic Horizon Above Mineral Soil

DEPTH BELOW MINERAL SOIL SURFACE (Inches)

Texture	Consistence	Color	Redox
		10YR 4/4	
FINE SANDY	FRIABLE		
LOAM		DARK YELLOWISH	
		BROWN	
			COMMON, MEDIUM
			AND DISTINCT
SILTY CLAY	FIRM	5Y 5/1	
LOAM		GRAY	
LEDGE VARIES 24"-36"			

hydric	Slope %	Limiting factor	ground water
■ non-hydric	3-8	8"	☐ restrictive layer ☐ bedrock

L.S.S. Soil Series / phase name: ROUNDABOUT VARIANT | Drainage Class: SPD | Hydrologic Group: D

L.S.E. Soil Classification: 8 Profile | Drainage Condition: E

Professional Endorsements *(as applicable)*

L.S.S. signature:  Date: 6/3/25

name printed/typed: Gary M. Fullerton Lic.#: 462

L.S.E. signature: Date:

name printed/typed: Lic.#:



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FORM F 230083

SOIL PROFILE/CLASSIFICATION INFORMATION

Detailed Description of Subsurface Conditions at Project Sites

Project Name:	Applicant Name:	Project Location (municipality):
AUTUMN WAY SUBDIVISION	ENVY CONSTRUCTION	FALMOUTH

SOIL DESCRIPTION AND CLASSIFICATION

Exploration Symbol: TP-5 ■ Test Pit ☐ Boring

1-2 " Depth of Organic Horizon Above Mineral Soil

DEPTH BELOW MINERAL SOIL SURFACE (Inches)

Texture	Consistence	Color	Redox
		7.5YR 3/4	
FINE SANDY LOAM	FRIABLE		NONE OBSERVED
		DARK BROWN	
LEDGE AT 8"			

hydric	non-hydric	Slope %	Limiting factor	ground water	restrictive layer	bedrock
☐	■	8-15	8"	☐	☐	■

L.S.S. Soil Series / phase name: ABRAM | ED Drainage Class | D Hydrologic Group

L.S.E. Soil Classification: 2 Profile | AI Drainage Condition

SOIL DESCRIPTION AND CLASSIFICATION

Exploration Symbol: TP-6 ■ Test Pit ☐ Boring

1-2 " Depth of Organic Horizon Above Mineral Soil

DEPTH BELOW MINERAL SOIL SURFACE (Inches)

Texture	Consistence	Color	Redox
		10YR 4/4	
GRAVELLY FINE SANDY LOAM	FRIABLE	DARK YELLOWISH BROWN	
		2.5Y 5/2	
		GRAYISH BROWN	COMMON, MEDIUM AND DISTINCT
GRAVELLY SANDY LOAM	FIRM		
		2.5Y 4/4	
		OLIVE BROWN	
LEDGE AT 36"			

hydric	non-hydric	Slope %	Limiting factor	ground water	restrictive layer	bedrock
☐	■	3-8	10"	■	☐	☐

L.S.S. Soil Series / phase name: COLONEL VARIANT | SPD Drainage Class | D Hydrologic Group

L.S.E. Soil Classification: 3 Profile | D Drainage Condition

SOIL DESCRIPTION AND CLASSIFICATION

Exploration Symbol: TP-7 ■ Test Pit ☐ Boring

1-2 " Depth of Organic Horizon Above Mineral Soil

DEPTH BELOW MINERAL SOIL SURFACE (Inches)

Texture	Consistence	Color	Redox
		2.5Y 5/6	
VERY FINE SANDY LOAM	FRIABLE	LIGHT OLIVE BROWN	
SILT LOAM		5Y 4/2	COMMON, MEDIUM AND DISTINCT
		OLIVE GRAY	
SILTY CLAY LOAM	FIRM		
LIMIT OF EXCAVATION = 60"			

hydric	non-hydric	Slope %	Limiting factor	ground water	restrictive layer	bedrock
☐	■	3-8	20"	■	☐	☐

L.S.S. Soil Series / phase name: NICHOLVILLE | MWD Drainage Class | D Hydrologic Group

L.S.E. Soil Classification: 8 Profile | C Drainage Condition

SOIL DESCRIPTION AND CLASSIFICATION

Exploration Symbol: TP-8 ■ Test Pit ☐ Boring

1-2 " Depth of Organic Horizon Above Mineral Soil

DEPTH BELOW MINERAL SOIL SURFACE (Inches)

Texture	Consistence	Color	Redox
		10YR 4/6	
SANDY LOAM		DARK YELLOWISH BROWN	
	FRIABLE	10YR 4/4	
		DAKR YELLOWISH BROWN	
LOAMY SAND			
		2.5Y 5/6	COMMON, MEDIUM AND DISTINCT
		LIGHT OLIVE BROWN	
		5Y 5/2	MANY, COARSE AND PROMINENT
SILTY CLAY LOAM	FIRM	OLIVE GRAY	
LIMIT OF EXCAVATION = 60"			

hydric	non-hydric	Slope %	Limiting factor	ground water	restrictive layer	bedrock
☐	■	3-8	16"	■	☐	☐

L.S.S. Soil Series / phase name: ELMWOOD | MWD Drainage Class | D Hydrologic Group

L.S.E. Soil Classification: 7 Profile | C Drainage Condition

Professional Endorsements *(as applicable)*

L.S.S.	signature:	Date: 6/3/25
	name printed/typed: Gary M. Fullerton	Lic.#: 462
L.S.E.	signature:	Date:
	name printed/typed:	Lic.#:

STATE OF MAINE GARY M. FULLERTON NO. 462 LICENSED SOIL SCIENTIST

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FORM F 230083

SOIL PROFILE/CLASSIFICATION INFORMATION

Detailed Description of Subsurface Conditions at Project Sites

Project Name:	Applicant Name:	Project Location (municipality):
AUTUMN WAY SUBDIVISION	ENVY CONSTRUCTION	FALMOUTH

SOIL DESCRIPTION AND CLASSIFICATION

Exploration Symbol: TP-9 ■ Test Pit ☐ Boring

1-2 " Depth of Organic Horizon Above Mineral Soil

DEPTH BELOW MINERAL SOIL SURFACE (Inches)

Texture	Consistence	Color	Redox
		7.5YR 3/4	
FINE SANDY	FRIABLE		NONE
LOAM		DARK BROWN	OBSERVED
LEDGE AT 12"			

hydric / non-hydric	Slope %	Limiting factor	ground water / restrictive layer / bedrock
☐ hydric ■ non-hydric	15-25	12"	☐ ground water ☐ restrictive layer ■ bedrock

L.S.S. Soil Series / phase name: LYMAN | SED (Drainage Class) | D (Hydrologic Group)

L.S.E. Soil Classification: 2 (Profile) | All (Drainage Condition)

SOIL DESCRIPTION AND CLASSIFICATION

Exploration Symbol: TP-10 ■ Test Pit ☐ Boring

1-2 " Depth of Organic Horizon Above Mineral Soil

DEPTH BELOW MINERAL SOIL SURFACE (Inches)

Texture	Consistence	Color	Redox
		2.5Y 3/1	
		VERY DARK	
LOAMY SAND		GRAY	
			COMMON, MEDIUM
			AND DISTINCT
	FRIABLE		
		7.5YR 2.5/2	
		VERY DARK	
		BROWN	
		2.5Y 5/2	
FINE SAND		GRAYISH	
		BROWN	
LIMIT OF EXCAVATION = 40"			

hydric / non-hydric	Slope %	Limiting factor	ground water / restrictive layer / bedrock
■ hydric ☐ non-hydric	3-8	0"	■ ground water ☐ restrictive layer ☐ bedrock

L.S.S. Soil Series / phase name: NAUMBURG | PD (Drainage Class) | D (Hydrologic Group)

L.S.E. Soil Classification: 5 (Profile) | E (Drainage Condition)

SOIL DESCRIPTION AND CLASSIFICATION

Exploration Symbol: TP-11 ■ Test Pit ☐ Boring

1-2 " Depth of Organic Horizon Above Mineral Soil

DEPTH BELOW MINERAL SOIL SURFACE (Inches)

Texture	Consistence	Color	Redox
		10YR 4/6	
SANDY LOAM		DARK YELLOWISH	
		BROWN	
	FRIABLE		
		10YR 4/4	COMMON, MEDIUM
LOAMY SAND			AND DISTINCT
		DARK YELLOWISH	
		BROWN	
LEDGE AT 28"			

hydric / non-hydric	Slope %	Limiting factor	ground water / restrictive layer / bedrock
☐ hydric ■ non-hydric	3-8	15"	■ ground water ☐ restrictive layer ☐ bedrock

L.S.S. Soil Series / phase name: NAUMBURG VARIANT | SPD (Drainage Class) | D (Hydrologic Group)

L.S.E. Soil Classification: 5 (Profile) | C (Drainage Condition)

SOIL DESCRIPTION AND CLASSIFICATION

Exploration Symbol: TP-12 ■ Test Pit ☐ Boring

1-2 " Depth of Organic Horizon Above Mineral Soil

DEPTH BELOW MINERAL SOIL SURFACE (Inches)

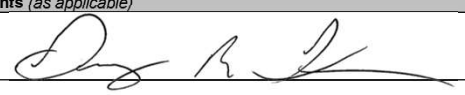
Texture	Consistence	Color	Redox
		10YR 4/4	
	FRIABLE		
		DARK YELLOWISH	
LOAMY SAND		BROWN	
		7.5YR 3/6	
	CEMENTED		
		DARK BROWN	COMMON, MEDIUM
			AND DISTINCT
		5Y 4/3	
SILTY CLAY	FIRM		
LOAM		OLIVE	
		2.5Y 5/6	
GRAVELLY SAND	FRIABLE	LIGHT OLIVE	
		BROWN	
LIMIT OF EXCAVATION = 60"			

hydric / non-hydric	Slope %	Limiting factor	ground water / restrictive layer / bedrock
☐ hydric ■ non-hydric	3-8	16"	■ ground water ■ restrictive layer ☐ bedrock

L.S.S. Soil Series / phase name: ELMWOOD | MWD (Drainage Class) | D (Hydrologic Group)

L.S.E. Soil Classification: 7 (Profile) | C (Drainage Condition)

Professional Endorsements *(as applicable)*

L.S.S.	signature: 	Date: 6/3/25
	name printed/typed: Gary M. Fullerton	Lic.#: 462
L.S.E.	signature:	Date:
	name printed/typed:	Lic.#:



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FORM F 230083

SOIL PROFILE/CLASSIFICATION INFORMATION

Detailed Description of Subsurface Conditions at Project Sites

Project Name:	Applicant Name:	Project Location (municipality):
AUTUMN WAY SUBDIVISION	ENVY CONSTRUCTION	FALMOUTH

SOIL DESCRIPTION AND CLASSIFICATION

Exploration Symbol: TP-13 ■ Test Pit ☐ Boring

1-2 " Depth of Organic Horizon Above Mineral Soil

DEPTH BELOW MINERAL SOIL SURFACE (Inches)

Texture	Consistence	Color	Redox
		10YR 4/6	
SANDY LOAM	FRIABLE	DARK YELLOWISH BROWN	
		7.5YR 3/4	COMMON, MEDIUM
MEDIUM SAND		DARK BROWN	AND DISTINCT
GRAVELLY		5Y 5/2	MANY, COARSE
FINE SANDY	FIRM		AND PROMINENT
LOAM WITH		OLIVE GRAY	
STONES			
LIMIT OF EXCAVATION = 60"			

hydric	Slope %	Limiting factor	ground water
■ non-hydric	3-8	24"	☐ restrictive layer
			☐ bedrock

L.S.S. Soil Series / phase name: DIXFIELD — MWD (Drainage Class) — C (Hydrologic Group)

L.S.E. Soil Classification: 3 (Profile) — C (Drainage Condition)

SOIL DESCRIPTION AND CLASSIFICATION

Exploration Symbol: _____ ☐ Test Pit ☐ Boring

_____ " Depth of Organic Horizon Above Mineral Soil

DEPTH BELOW MINERAL SOIL SURFACE (Inches)

Texture	Consistence	Color	Redox

hydric	Slope %	Limiting factor	ground water
☐ non-hydric			☐ restrictive layer
			☐ bedrock

L.S.S. Soil Series / phase name: _____ (Drainage Class) _____ (Hydrologic Group)

L.S.E. Soil Classification: _____ (Profile) _____ (Drainage Condition)

SOIL DESCRIPTION AND CLASSIFICATION

Exploration Symbol: _____ ☐ Test Pit ☐ Boring

_____ " Depth of Organic Horizon Above Mineral Soil

DEPTH BELOW MINERAL SOIL SURFACE (Inches)

Texture	Consistence	Color	Redox

hydric	Slope %	Limiting factor	ground water
☐ non-hydric			☐ restrictive layer
			☐ bedrock

L.S.S. Soil Series / phase name: _____ (Drainage Class) _____ (Hydrologic Group)

L.S.E. Soil Classification: _____ (Profile) _____ (Drainage Condition)

SOIL DESCRIPTION AND CLASSIFICATION

Exploration Symbol: _____ ☐ Test Pit ☐ Boring

_____ " Depth of Organic Horizon Above Mineral Soil

DEPTH BELOW MINERAL SOIL SURFACE (Inches)

Texture	Consistence	Color	Redox

hydric	Slope %	Limiting factor	ground water
☐ non-hydric			☐ restrictive layer
			☐ bedrock

L.S.S. Soil Series / phase name: _____ (Drainage Class) _____ (Hydrologic Group)

L.S.E. Soil Classification: _____ (Profile) _____ (Drainage Condition)

Professional Endorsements *(as applicable)*

L.S.S.	signature:	Date: 6/3/25
	name printed/typed: Gary M. Fullerton	Lic.#: 462
L.S.E.	signature:	Date:
	name printed/typed:	Lic.#:

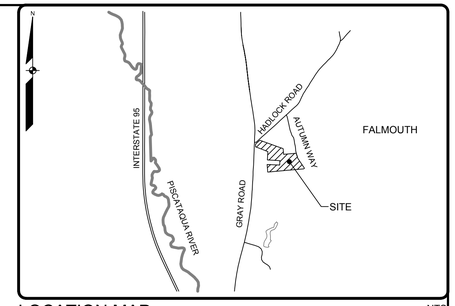
STATE OF MAINE GARY M. FULLERTON NO. 462 LICENSED SOIL SCIENTIST

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APPENDIX E

CLASS ‘B’ HIGH INTENSITY SOIL MAP





LOCATION MAP NTS

LEGEND

DESCRIPTION
PROPERTY LINE/R.O.W.
ABUTTER LINE/R.O.W.
SETBACK
SOILS
BM-1 BENCHMARK
TP-1 TEST PIT
EDGE WETLAND
WETLANDS
EDGE PAVEMENT
EDGE GRAVEL
EDGE OF WATER
TREELINE
120 118 CONTOURS
DECIDUOUS TREE
CONIFEROUS TREE
LEDGE

SOIL LEGEND

SYMBOL	SOIL SERIES	PHASE	SLOPE	HSG	DRAINAGE CLASS
ArC	ABRAM-ROCK OUTCROP COMPLEX	SANDY LOAM	8-15%	D	EXCESSIVELY DRAINED (ED)
CdB	COLONEL-DIXFIELD COMPLEX	FNE SANDY LOAM	3-8%	C/D	SOMEWHAT POORLY DRAINED/MODERATELY WELL DRAINED (SPD/MWD)
CnA	COLONEL	FINE SANDY LOAM	0-3%	D	SOMEWHAT POORLY DRAINED (SPD)
EmB	ELMWOOD	FINE SANDY LOAM	3-8%	D	MODERATELY WELL DRAINED (MWD)
NaB	NAUMBURG	LOAMY FINE SAND	3-8%	D	POORLY DRAINED/ SOMEWHAT POORLY DRANED (PD/ SPD)
NlB	NAUMBURG-LIKE	GRAVELLY SAND	3-8%	D	POORLY DRAINED/ SOMEWHAT POORLY DRAINED (PD/ SPD)
RaD	ROCK OUTCROP-ABRAM COMPLEX	SANDY LOAM	15-25%	D	EXCESSIVELY DRAINED (ED)
RnB	ROUNDABOUT-NICHOLVILLE COMPLEX	SILT LOAM	3-8%	D	POORLY DRAINED/ SOMEWHAT POORLY DRAINED/ MODERATELY WELL DRAINED (PD/ SPD/ MWD)
SnA	SCANTIC	SILT LOAM	0-3%	D	POORLY DRAINED (PD)

NOTES:

THIS CLASS 'B' HIGH INTENSITY SOIL MAP CONFORMS TO THE GUIDELINES FOR MAINE CERTIFIED SOIL SCIENTISTS FOR SOIL IDENTIFICATION AND MAPPING, DATED MARCH 2009 FOR CLASS 'B' HIGH INTENSITY SOIL SURVEYS. THE SOIL MAP UNITS AS DEPICTED WERE IN PART INFLUENCED BY THE INTENDED USE FOR A PROPOSED RESIDENTIAL SUBDIVISION AND THE SOILS WHICH WERE NON-LIMITING FOR ONE USE MAY BE CONSIDERED LIMITING FOR ANOTHER USE. THEREFORE, THIS CLASS 'B' HIGH INTENSITY SOIL MAP MAY NOT BE ADEQUATE FOR ANOTHER USE. (REFER TO SOIL NARRATIVE REPORT AND SOIL PROFILE DESCRIPTIONS.)

STATE OF MAINE — GARY M. FULLERTON No. 462 — LICENSED SOIL SCIENTIST

GARY M. FULLERTON
LICENSED SOIL SCIENTIST #462

JUNE 13, 2025
DATE

GRAPHIC SCALE
60 0 30 60 120
(IN FEET)
1 INCH = 60 FT.

REV:	BY:	DATE:	STATUS:

THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM SEBAGO TECHNICS, INC. ANY ALTERATIONS, AUTHORIZED OR OTHERWISE, SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO SEBAGO TECHNICS, INC.

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South Portland, ME 04106
207-200-2100
South Portland, Bridgton, Sanford and Bath

CLASS 'B' HIGH INTENSITY SOIL MAP

OF:
AUTUMN WAY SUBDIVISION
AUTUMN WAY
FALMOUTH, MAINE 04105

FOR:
ENVY CONSTRUCTION
18 ROGERS TRAIL
FALMOUTH, MAINE 04105

DESIGNED	GMF
DRAWN	RGL
CHECKED	GMF
DATE	5/30/2025
SCALE	1" = 60'
PROJECT	230083-01

SHEET C-100

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230083-01 SA.dwg, TAB:C-100 CLASS 'B' HIGH INTENSITY SOIL MAP