

EcoTec, Inc.

ENVIRONMENTAL CONSULTING SERVICES

102 Grove Street

Worcester, MA 01605-2629

508-752-9666 – Fax: 508-752-9494

August 1, 2023

Sturbridge Conservation Commission
Center Office Building
308 Main St
Sturbridge, MA 01566

Re: Notice of Intent
223 Cedar Street, Sturbridge
Applicant: Justin Carter

Dear Commission Members:

Enclosed please find two (2) copies of a Notice of Intent (NOI), submitted on behalf of Justin Carter filed under the Massachusetts Wetlands Protection Act and the Town of Sturbridge Wetlands Protection Bylaw for the above referenced property.

Project Description

The applicant proposes to construct a replacement septic system within the Buffer Zone to a Bordering Vegetated Wetland. The existing leach field shall be abandoned in place and the existing septic tank shall be utilized. A Presby Enviro Septic Leaching System shall be installed, to include a 40 mil. poly barrier. The side slopes shall not exceed 3:1 steepness. No work will occur within 50 feet of the wetland boundary and a wire-backed silt fence and staked straw wattle sediment control barrier shall be installed at the limit of work. Upon completion, the area shall be stabilized with Bonded Fiber Matrix (BFM) hydromulch containing a combination of New England Erosion Control/Restoration seed mix or New England Conservation/Wildlife Mix and rye grass.

This filing is comprised of:

1. This cover letter;
2. The Notice of Intent forms with required attachments;
3. Sturbridge NOI Application Coversheet/Checklist;
4. Sturbridge Tax Fee Status Form;
5. Sturbridge Wetlands Filing Fee Worksheet;
6. Sturbridge Assessor's Abutters List and Notification to Abutters Form;
7. Checks to cover the state and local filing fees;
8. Wetland Resource Evaluation with USGS locus map and NHESP map, dated June 28, 2023;

Sturbridge Conservation Commission
August 1, 2023
Page 2.

One (1) copy of the NOI filing has been submitted electronically to the Central Regional Office of the Department of Environmental Protection at CERO-NOI@mass.gov, and one complete copy of this filing has been submitted to the applicant/property owner. All abutters, along with the Sturbridge Board of Health and Planning Board shall be notified via certificates of mailing, and proof of mailings will be provided to the Commission.

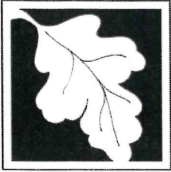
We look forward to meeting with the Commission regarding this project. If you have any questions, please feel free to contact me at any time.

Sincerely,

A handwritten signature in cursive script that reads "Scott Jordan".

Scott Jordan
Senior Environmental Scientist

cc. MassDEP CERO
Justin Carter



Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

WPA Form 3 – Notice of Intent

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Provided by MassDEP:

MassDEP File Number

Document Transaction Number

Sturbridge

City/Town

Important:

When filling out forms on the computer, use only the tab key to move your cursor - do not use the return key.



Note:

Before completing this form consult your local Conservation Commission regarding any municipal bylaw or ordinance.

A. General Information

1. Project Location (**Note:** electronic filers will click on button to locate project site):

<u>223 Cedar Street</u>	<u>Sturbridge</u>	<u>01518</u>
a. Street Address	b. City/Town	c. Zip Code
Latitude and Longitude:	<u>42.13818</u>	<u>-72.09650</u>
	d. Latitude	e. Longitude
<u>202</u>	<u>1526-223</u>	
f. Assessors Map/Plat Number	g. Parcel /Lot Number	

2. Applicant:

<u>Justin</u>	<u>Carter</u>	
a. First Name	b. Last Name	
c. Organization		
<u>223 Cedar Street</u>		
d. Street Address		
<u>Fiskdale</u>	<u>MA</u>	<u>01518</u>
e. City/Town	f. State	g. Zip Code
	<u>jcarter223307@gmail.com</u>	
h. Phone Number	i. Fax Number	j. Email Address

3. Property owner (required if different from applicant): Check if more than one owner

same

a. First Name	b. Last Name	
c. Organization		
d. Street Address		
<u></u>	<u></u>	<u></u>
e. City/Town	f. State	g. Zip Code
h. Phone Number	i. Fax Number	j. Email address

4. Representative (if any):

<u>Scott</u>	<u>Jordan</u>	
a. First Name	b. Last Name	
<u>EcoTec, Inc.</u>		
c. Company		
<u>102 Grove Street</u>		
d. Street Address		
<u>Worcester</u>	<u>MA</u>	<u>01605</u>
e. City/Town	f. State	g. Zip Code
<u>508-752-9666 x226</u>	<u>sjordan@ecotecinc.com</u>	
h. Phone Number	i. Fax Number	j. Email address

5. Total WPA Fee Paid (from NOI Wetland Fee Transmittal Form):

<u>\$110</u>	<u>\$42.50</u>	<u>\$67.50</u>
a. Total Fee Paid	b. State Fee Paid	c. City/Town Fee Paid



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A. General Information (continued)

6. General Project Description:

The applicant proposes to replace a septic system within the Buffer Zone to a BVW. No work is proposed within 50 feet of the BVW and erosion and sediment control measures are proposed.

7a. Project Type Checklist: (Limited Project Types see Section A. 7b.)

- | | |
|-----------------------------------------------------------------------|-----------------------------------------------------------|
| 1. <input type="checkbox"/> Single Family Home | 2. <input type="checkbox"/> Residential Subdivision |
| 3. <input type="checkbox"/> Commercial/Industrial | 4. <input type="checkbox"/> Dock/Pier |
| 5. <input type="checkbox"/> Utilities | 6. <input type="checkbox"/> Coastal engineering Structure |
| 7. <input type="checkbox"/> Agriculture (e.g., cranberries, forestry) | 8. <input type="checkbox"/> Transportation |
| 9. <input checked="" type="checkbox"/> Other | |

7b. Is any portion of the proposed activity eligible to be treated as a limited project (including Ecological Restoration Limited Project) subject to 310 CMR 10.24 (coastal) or 310 CMR 10.53 (inland)?

1. Yes No If yes, describe which limited project applies to this project. (See 310 CMR 10.24 and 10.53 for a complete list and description of limited project types)

2. Limited Project Type

If the proposed activity is eligible to be treated as an Ecological Restoration Limited Project (310 CMR 10.24(8), 310 CMR 10.53(4)), complete and attach Appendix A: Ecological Restoration Limited Project Checklist and Signed Certification.

8. Property recorded at the Registry of Deeds for:

Worcester

a. County

28061

c. Book

b. Certificate # (if registered land)

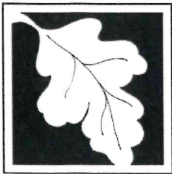
0380

d. Page Number

B. Buffer Zone & Resource Area Impacts (temporary & permanent)

1. Buffer Zone Only – Check if the project is located only in the Buffer Zone of a Bordering Vegetated Wetland, Inland Bank, or Coastal Resource Area.
2. Inland Resource Areas (see 310 CMR 10.54-10.58; if not applicable, go to Section B.3, Coastal Resource Areas).

Check all that apply below. Attach narrative and any supporting documentation describing how the project will meet all performance standards for each of the resource areas altered, including standards requiring consideration of alternative project design or location.



Massachusetts Department of Environmental Protection
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B. Buffer Zone & Resource Area Impacts (temporary & permanent) (cont'd)

For all projects affecting other Resource Areas, please attach a narrative explaining how the resource area was delineated.

Resource Area	Size of Proposed Alteration	Proposed Replacement (if any)
a. <input type="checkbox"/> Bank	1. linear feet	2. linear feet
b. <input type="checkbox"/> Bordering Vegetated Wetland	1. square feet	2. square feet
c. <input type="checkbox"/> Land Under Waterbodies and Waterways	1. square feet	2. square feet
	3. cubic yards dredged	

Resource Area	Size of Proposed Alteration	Proposed Replacement (if any)
d. <input type="checkbox"/> Bordering Land Subject to Flooding	1. square feet	2. square feet
	3. cubic feet of flood storage lost	4. cubic feet replaced
e. <input type="checkbox"/> Isolated Land Subject to Flooding	1. square feet	
	2. cubic feet of flood storage lost	3. cubic feet replaced

- f. Riverfront Area
1. Name of Waterway (if available) - **specify coastal or inland**
2. Width of Riverfront Area (check one):
- 25 ft. - Designated Densely Developed Areas only
 - 100 ft. - New agricultural projects only
 - 200 ft. - All other projects

3. Total area of Riverfront Area on the site of the proposed project: n/a
square feet

4. Proposed alteration of the Riverfront Area:

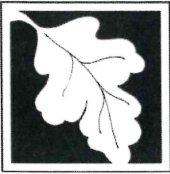
a. total square feet	b. square feet within 100 ft.	c. square feet between 100 ft. and 200 ft.
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5. Has an alternatives analysis been done and is it attached to this NOI? Yes No

6. Was the lot where the activity is proposed created prior to August 1, 1996? Yes No

3. Coastal Resource Areas: (See 310 CMR 10.25-10.35)

Note: for coastal riverfront areas, please complete **Section B.2.f.** above.



Massachusetts Department of Environmental Protection
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B. Buffer Zone & Resource Area Impacts (temporary & permanent) (cont'd)

Check all that apply below. Attach narrative and supporting documentation describing how the project will meet all performance standards for each of the resource areas altered, including standards requiring consideration of alternative project design or location.

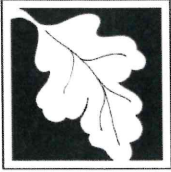
Online Users:
 Include your document transaction number (provided on your receipt page) with all supplementary information you submit to the Department.

<u>Resource Area</u>	<u>Size of Proposed Alteration</u>	<u>Proposed Replacement (if any)</u>
a. <input type="checkbox"/> Designated Port Areas	Indicate size under Land Under the Ocean, below	
b. <input type="checkbox"/> Land Under the Ocean	_____	
	1. square feet	

	2. cubic yards dredged	
c. <input type="checkbox"/> Barrier Beach	Indicate size under Coastal Beaches and/or Coastal Dunes below	
d. <input type="checkbox"/> Coastal Beaches	_____	_____
	1. square feet	2. cubic yards beach nourishment
e. <input type="checkbox"/> Coastal Dunes	_____	_____
	1. square feet	2. cubic yards dune nourishment
	<u>Size of Proposed Alteration</u>	<u>Proposed Replacement (if any)</u>
f. <input type="checkbox"/> Coastal Banks	_____	
	1. linear feet	
g. <input type="checkbox"/> Rocky Intertidal Shores	_____	
	1. square feet	
h. <input type="checkbox"/> Salt Marshes	_____	_____
	1. square feet	2. sq ft restoration, rehab., creation
i. <input type="checkbox"/> Land Under Salt Ponds	_____	
	1. square feet	

	2. cubic yards dredged	
j. <input type="checkbox"/> Land Containing Shellfish	_____	
	1. square feet	
k. <input type="checkbox"/> Fish Runs	Indicate size under Coastal Banks, inland Bank, Land Under the Ocean, and/or inland Land Under Waterbodies and Waterways, above	

	1. cubic yards dredged	
l. <input type="checkbox"/> Land Subject to Coastal Storm Flowage	_____	
	1. square feet	
4. <input type="checkbox"/> Restoration/Enhancement	If the project is for the purpose of restoring or enhancing a wetland resource area in addition to the square footage that has been entered in Section B.2.b or B.3.h above, please enter the additional amount here.	
	_____	_____
	a. square feet of BVW	b. square feet of Salt Marsh
5. <input type="checkbox"/> Project Involves Stream Crossings		
	_____	_____
	a. number of new stream crossings	b. number of replacement stream crossings



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C. Other Applicable Standards and Requirements

- This is a proposal for an Ecological Restoration Limited Project. Skip Section C and complete Appendix A: Ecological Restoration Limited Project Checklists – Required Actions (310 CMR 10.11).

Streamlined Massachusetts Endangered Species Act/Wetlands Protection Act Review

1. Is any portion of the proposed project located in **Estimated Habitat of Rare Wildlife** as indicated on the most recent Estimated Habitat Map of State-Listed Rare Wetland Wildlife published by the Natural Heritage and Endangered Species Program (NHESP)? To view habitat maps, see the *Massachusetts Natural Heritage Atlas* or go to http://maps.massgis.state.ma.us/PRI_EST_HAB/viewer.htm.

- a. Yes No **If yes, include proof of mailing or hand delivery of NOI to:**

Natural Heritage and Endangered Species Program
Division of Fisheries and Wildlife
1 Rabbit Hill Road
Westborough, MA 01581

6/19/23 (15th
edition)

If yes, the project is also subject to Massachusetts Endangered Species Act (MESA) review (321 CMR 10.18). To qualify for a streamlined, 30-day, MESA/Wetlands Protection Act review, please complete Section C.1.c, and include requested materials with this Notice of Intent (NOI); OR complete Section C.2.f, if applicable. *If MESA supplemental information is not included with the NOI, by completing Section 1 of this form, the NHESP will require a separate MESA filing which may take up to 90 days to review (unless noted exceptions in Section 2 apply, see below).*

- c. Submit Supplemental Information for Endangered Species Review*

1. Percentage/acreage of property to be altered:

(a) within wetland Resource Area

_____ percentage/acreage

(b) outside Resource Area

_____ percentage/acreage

2. Assessor's Map or right-of-way plan of site

2. Project plans for entire project site, including wetland resource areas and areas outside of wetlands jurisdiction, showing existing and proposed conditions, existing and proposed tree/vegetation clearing line, and clearly demarcated limits of work **

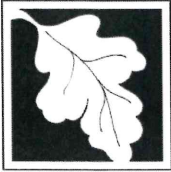
(a) Project description (including description of impacts outside of wetland resource area & buffer zone)

(b) Photographs representative of the site

* Some projects **not** in Estimated Habitat may be located in Priority Habitat, and require NHESP review (see <https://www.mass.gov/mass-endangered-species-act-mesa-regulatory-review>).

Priority Habitat includes habitat for state-listed plants and strictly upland species not protected by the Wetlands Protection Act.

** MESA projects may not be segmented (321 CMR 10.16). The applicant must disclose full development plans even if such plans are not required as part of the Notice of Intent process.



Massachusetts Department of Environmental Protection
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C. Other Applicable Standards and Requirements (cont'd)

- (c) MESA filing fee (fee information available at <https://www.mass.gov/how-to/how-to-file-for-a-mesa-project-review>).

Make check payable to "Commonwealth of Massachusetts - NHESP" and **mail to NHESP** at above address

Projects altering 10 or more acres of land, also submit:

- (d) Vegetation cover type map of site

- (e) Project plans showing Priority & Estimated Habitat boundaries

- (f) OR Check One of the Following

1. Project is exempt from MESA review.
Attach applicant letter indicating which MESA exemption applies. (See 321 CMR 10.14, <https://www.mass.gov/service-details/exemptions-from-review-for-projectsactivities-in-priority-habitat>; the NOI must still be sent to NHESP if the project is within estimated habitat pursuant to 310 CMR 10.37 and 10.59.)

2. Separate MESA review ongoing. a. NHESP Tracking # _____ b. Date submitted to NHESP _____

3. Separate MESA review completed.
Include copy of NHESP "no Take" determination or valid Conservation & Management Permit with approved plan.

3. For coastal projects only, is any portion of the proposed project located below the mean high water line or in a fish run?

- a. Not applicable – project is in inland resource area only b. Yes No

If yes, include proof of mailing, hand delivery, or electronic delivery of NOI to either:

South Shore - Cohasset to Rhode Island border, and the Cape & Islands:

Division of Marine Fisheries -
Southeast Marine Fisheries Station
Attn: Environmental Reviewer
836 South Rodney French Blvd.
New Bedford, MA 02744
Email: dmf.envreview-south@mass.gov

North Shore - Hull to New Hampshire border:

Division of Marine Fisheries -
North Shore Office
Attn: Environmental Reviewer
30 Emerson Avenue
Gloucester, MA 01930
Email: dmf.envreview-north@mass.gov

Also if yes, the project may require a Chapter 91 license. For coastal towns in the Northeast Region, please contact MassDEP's Boston Office. For coastal towns in the Southeast Region, please contact MassDEP's Southeast Regional Office.

- c. Is this an aquaculture project? d. Yes No

If yes, include a copy of the Division of Marine Fisheries Certification Letter (M.G.L. c. 130, § 57).



Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

WPA Form 3 – Notice of Intent

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

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C. Other Applicable Standards and Requirements (cont'd)

4. Is any portion of the proposed project within an Area of Critical Environmental Concern (ACEC)?
- a. Yes No If yes, provide name of ACEC (see instructions to WPA Form 3 or MassDEP Website for ACEC locations). **Note:** electronic filers click on Website.
- b. ACEC
5. Is any portion of the proposed project within an area designated as an Outstanding Resource Water (ORW) as designated in the Massachusetts Surface Water Quality Standards, 314 CMR 4.00?
- a. Yes No
6. Is any portion of the site subject to a Wetlands Restriction Order under the Inland Wetlands Restriction Act (M.G.L. c. 131, § 40A) or the Coastal Wetlands Restriction Act (M.G.L. c. 130, § 105)?
- a. Yes No
7. Is this project subject to provisions of the MassDEP Stormwater Management Standards?
- a. Yes. Attach a copy of the Stormwater Report as required by the Stormwater Management Standards per 310 CMR 10.05(6)(k)-(q) and check if:
1. Applying for Low Impact Development (LID) site design credits (as described in Stormwater Management Handbook Vol. 2, Chapter 3)
 2. A portion of the site constitutes redevelopment
 3. Proprietary BMPs are included in the Stormwater Management System.
- b. No. Check why the project is exempt:
1. Single-family house
 2. Emergency road repair
 3. Small Residential Subdivision (less than or equal to 4 single-family houses or less than or equal to 4 units in multi-family housing project) with no discharge to Critical Areas.

D. Additional Information

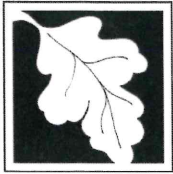
- This is a proposal for an Ecological Restoration Limited Project. Skip Section D and complete Appendix A: Ecological Restoration Notice of Intent – Minimum Required Documents (310 CMR 10.12).

Applicants must include the following with this Notice of Intent (NOI). See instructions for details.

Online Users: Attach the document transaction number (provided on your receipt page) for any of the following information you submit to the Department.

1. USGS or other map of the area (along with a narrative description, if necessary) containing sufficient information for the Conservation Commission and the Department to locate the site. (Electronic filers may omit this item.)
2. Plans identifying the location of proposed activities (including activities proposed to serve as a Bordering Vegetated Wetland [BVW] replication area or other mitigating measure) relative to the boundaries of each affected resource area.

Online Users:
Include your document transaction number (provided on your receipt page) with all supplementary information you submit to the Department.



Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

WPA Form 3 – Notice of Intent

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

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Sturbridge

City/Town

D. Additional Information (cont'd)

3. Identify the method for BVW and other resource area boundary delineations (MassDEP BVW Field Data Form(s), Determination of Applicability, Order of Resource Area Delineation, etc.), and attach documentation of the methodology.

4. List the titles and dates for all plans and other materials submitted with this NOI.

Septic System Plan Repair

a. Plan Title

DC Engineering & Surveying, Inc.

Jason Dubois, PE

b. Prepared By

c. Signed and Stamped by

7/11/2023

1"=20'

d. Final Revision Date

e. Scale

f. Additional Plan or Document Title

g. Date

5. If there is more than one property owner, please attach a list of these property owners not listed on this form.

6. Attach proof of mailing for Natural Heritage and Endangered Species Program, if needed.

7. Attach proof of mailing for Massachusetts Division of Marine Fisheries, if needed.

8. Attach NOI Wetland Fee Transmittal Form

9. Attach Stormwater Report, if needed.

E. Fees

1. Fee Exempt: No filing fee shall be assessed for projects of any city, town, county, or district of the Commonwealth, federally recognized Indian tribe housing authority, municipal housing authority, or the Massachusetts Bay Transportation Authority.

Applicants must submit the following information (in addition to pages 1 and 2 of the NOI Wetland Fee Transmittal Form) to confirm fee payment:

22029

7/17/23

2. Municipal Check Number

3. Check date

22030

7/17/23

4. State Check Number

5. Check date

EcoTec, Inc.

6. Payor name on check: First Name

7. Payor name on check: Last Name



Massachusetts Department of Environmental Protection
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F. Signatures and Submittal Requirements

I hereby certify under the penalties of perjury that the foregoing Notice of Intent and accompanying plans, documents, and supporting data are true and complete to the best of my knowledge. I understand that the Conservation Commission will place notification of this Notice in a local newspaper at the expense of the applicant in accordance with the wetlands regulations, 310 CMR 10.05(5)(a).

I further certify under penalties of perjury that all abutters were notified of this application, pursuant to the requirements of M.G.L. c. 131, § 40. Notice must be made by Certificate of Mailing or in writing by hand delivery or certified mail (return receipt requested) to all abutters within 100 feet of the property line of the project location.

1. Signature of Applicant <u><i>Justin Carter</i></u>	2. Date <u>7/18/2023</u>
3. Signature of Property Owner (if different)	4. Date
5. Signature of Representative (if any) <u><i>Scott Gordon, Ecotec</i></u>	6. Date <u>8/1/23</u>

For Conservation Commission:

Two copies of the completed Notice of Intent (Form 3), including supporting plans and documents, two copies of the NOI Wetland Fee Transmittal Form, and the city/town fee payment, to the Conservation Commission by certified mail or hand delivery.

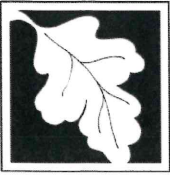
For MassDEP:

One copy of the completed Notice of Intent (Form 3), including supporting plans and documents, one copy of the NOI Wetland Fee Transmittal Form, and a **copy** of the state fee payment to the MassDEP Regional Office (see Instructions) by certified mail or hand delivery.

Other:

If the applicant has checked the "yes" box in any part of Section C, Item 3, above, refer to that section and the Instructions for additional submittal requirements.

The original and copies must be sent simultaneously. Failure by the applicant to send copies in a timely manner may result in dismissal of the Notice of Intent.



Massachusetts Department of Environmental Protection
 Bureau of Resource Protection - Wetlands
NOI Wetland Fee Transmittal Form
 Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Important: When filling out forms on the computer, use only the tab key to move your cursor - do not use the return key.



A. Applicant Information

1. Location of Project:

223 Cedar Street	Sturbridge
a. Street Address	b. City/Town
22030 (state)	\$42.50 (state)
c. Check number	d. Fee amount

2. Applicant Mailing Address:

Justin	Carter	
a. First Name		
c. Organization		
223 Cedar Street		
d. Mailing Address		
Fiskdale	MA	01518
e. City/Town	f. State	g. Zip Code
	jrcarter223307@gmail.com	
h. Phone Number	i. Fax Number	j. Email Address

3. Property Owner (if different):

same	
a. First Name	b. Last Name
c. Organization	
d. Mailing Address	
e. City/Town	f. State g. Zip Code
h. Phone Number	i. Fax Number j. Email Address

B. Fees

Fee should be calculated using the following process & worksheet. **Please see Instructions before filling out worksheet.**

Step 1/Type of Activity: Describe each type of activity that will occur in wetland resource area and buffer zone.

Step 2/Number of Activities: Identify the number of each type of activity.

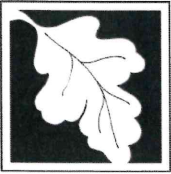
Step 3/Individual Activity Fee: Identify each activity fee from the six project categories listed in the instructions.

Step 4/Subtotal Activity Fee: Multiply the number of activities (identified in Step 2) times the fee per category (identified in Step 3) to reach a subtotal fee amount. Note: If any of these activities are in a Riverfront Area in addition to another Resource Area or the Buffer Zone, the fee per activity should be multiplied by 1.5 and then added to the subtotal amount.

Step 5/Total Project Fee: Determine the total project fee by adding the subtotal amounts from Step 4.

Step 6/Fee Payments: To calculate the state share of the fee, divide the total fee in half and subtract \$12.50. To calculate the city/town share of the fee, divide the total fee in half and add \$12.50.

To calculate filing fees, refer to the category fee list and examples in the instructions for filling out WPA Form 3 (Notice of Intent).



Massachusetts Department of Environmental Protection
 Bureau of Resource Protection - Wetlands
NOI Wetland Fee Transmittal Form
 Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

B. Fees (continued)

Step 1/Type of Activity	Step 2/Number of Activities	Step 3/Individual Activity Fee	Step 4/Subtotal Activity Fee
Category 1.a.	1	\$110	\$110
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
Step 5/Total Project Fee:			\$110

Step 6/Fee Payments:

Total Project Fee:	\$110
State share of filing Fee:	\$42.50
City/Town share of filling Fee:	\$67.50
	a. Total Fee from Step 5
	b. 1/2 Total Fee less \$12.50
	c. 1/2 Total Fee plus \$12.50

C. Submittal Requirements

- a.) Complete pages 1 and 2 and send with a check or money order for the state share of the fee, payable to the Commonwealth of Massachusetts.

Department of Environmental Protection
 Box 4062
 Boston, MA 02211

- b.) **To the Conservation Commission:** Send the Notice of Intent or Abbreviated Notice of Intent; a **copy** of this form; and the city/town fee payment.

To MassDEP Regional Office (see Instructions): Send a copy of the Notice of Intent or Abbreviated Notice of Intent; a **copy** of this form; and a **copy** of the state fee payment. (E-filers of Notices of Intent may submit these electronically.)



Sturbridge Conservation Commission

Notice of Intent

Sturbridge Wetland Bylaw Section 3.50

SCC File Number

A. General Information

1. Project Location:

223 Cedar St. Sturbridge 01518
a. Street Address b. City/Town c. Zip Code

202/1526-223
d. Assessors Map/Plat Number e. Parcel /Lot Number

2. Applicant:

Justin Carter
a. First Name b. Last Name

223 Cedar St.
c. Organization d. Street Address

Fiskdale MA 01518
e. City/Town f. State g. Zip Code

h. Phone Number i. Fax Number j. Email Address
j.carter223307@gmail.com

3. Property owner (required if different from applicant): [] Check if more than one owner

Same
a. First Name b. Last Name

c. Organization

d. Street Address

e. City/Town f. State g. Zip Code

h. Phone Number i. Fax Number j. Email address

4. Representative (if any):

Scott Jordan
a. First Name b. Last Name

Ecotec, Inc.
c. Company

102 Grove St., Suite 110
d. Street Address

Worcester MA 01605
e. f. State g. Zip Code

508-752-9666 x226 sjordan@ecotecinc.com
h. Phone Number i. Fax Number j. Email address

5. Total Fee Paid (Attach with submittal from Filing Fee Worksheet):

\$217.50 (\$150 Bylaw, \$67.50 state)
Fee Paid



Sturbridge Conservation Commission

Notice of Intent

SCC File Number _____

Sturbridge Wetland Bylaw Section 3.50

6. General Project Description:

Construction of replacement septic system
in the Buffer Zone.

7. Project Type Checklist:

- 1. Single Family Home
- 2. Residential Subdivision
- 3. Commercial/Industrial
- 4. Dock/Pier
- 5. Utilities
- 6. Coastal engineering Structure
- 7. Agriculture (e.g., cranberries, forestry)
- 8. Transportation
- 9. Other:

8. Property recorded at the Registry of Deeds for:

Worcester

a. County

b. Certificate # (if registered land)

28061

0380

c. Book

d. Page Number

D. Signatures and Submittal Requirements

1. Attach a narrative and any supporting documentation describing how the project will protect the jurisdictional resource areas during construction and what Best Management Practices have been incorporated to ensure there will be no long-term impacts to the Resource Areas. Indicate distance to Resource Areas.
2. On a separate sheet, list the titles and dates for all plans and other materials submitted with this NOI.
3. If there is more than one property owner, please attach a list of these property owners not listed on this form.
4. Include the Town of Sturbridge Notice of Intent Application Checklist Signatures and Submittal Requirements
5. I hereby certify under the penalties of perjury that the foregoing Notice of Intent and accompanying plans, documents, and supporting data are true and complete to the best of my knowledge. The Commission will provide legal advertisement to the applicant and it is the applicants requirement to post in accordance to the applicable Sturbridge Bylaw and/or supporting regulations. I further certify under penalties of perjury that all abutters were notified of this application. Notice must be made by Certificate of Mailing or in writing by hand delivery or certified mail (return receipt requested) to all abutters within 200 feet of the property line of the project location.

1. Signature of Applicant

Jordan Carter 7/18/2023
date

2. Signature of Property Owner (if different)

date

3. Signature of Representative (if any)

Scott Jordan 8/1/23
date



**Town of Sturbridge
Conservation Commission
Notice of Intent Application Coversheet/Checklist**

Date 8/1/2023

in all white cells completely

Parcel		Applicant name	Justin Carter
Address	223 Cedar St.	Address	223 Cedar St.
Assessors		Email	Fiskdale, MA 01518
Map/Plat	202/1526-273	Phone	jcarter223307@gmail.com
Book & Page	28061/0380		
Owner name	Same	Representative	Scott Jordan, Ecotec
Address		Address	102 Grove St., Suite 110
Email		Email	Worcester, MA 01605
Phone		Phone	sjordan@ecotecinc.com
			508-752-9666 x226

FI

Wetland type	Buffer Zone only	sf/cf affected		Relevant Perf. Standards	10. _____
Wetland type		sf/cf affected		Relevant Perf. Standards	10. _____
Wetland type		sf/cf affected		Relevant Perf. Standards	10. _____

Components of a Complete NOI Application

State Form: NOI Form 3	Included? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Engineered Plan	Included? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Proof of Mailing to DEP	Included? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Narrative	Included? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Proof that all relevant perf. standards are met	Included? <input type="checkbox"/> Yes <input type="checkbox"/> No N/A
TOPO Map identifying locus with scale	Included? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
FIRM Map identifying locus with scale	Included? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Natural Heritage Map with WH, PH, & VP data	Included? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Included? <input type="checkbox"/>
Delineation lines (backup material)	Included? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Tax Form	Included? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Fees	
★ Fee Transmittal form	Included? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
★ Filing Fee Worksheet	Included? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
★ Town portion of state filing fee	Included? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
★ Sturbridge local filing fee <u>\$150</u>	Included? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Abutter Information	
★ Certified abutters list (within 200')	Included? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
★ Abutter notification form	Included? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
★ Affidavit & proof -- bring to hearing	Present them at the hearing
Other Attachments, e.g.	
Confirmation of submission to NHESP	Included? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Applicable
Planting Plan	Included? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Applicable
Floodplain analysis	Included? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Applicable
Stormwater analysis	Included? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Applicable

Components of a Complete NOI Application

STURBRIDGE WETLANDS PROTECTION BY-LAW AND REGULATIONS

WETLANDS FILING FEE CALCULATION WORKSHEET

Application Type	Qty	Town Filing Fee	TOTAL
Notice of Intent (NOI):			
Residential – Single Family:			
Accessory (Deck, Shed, Pool Septic)	<u> 1 </u>	\$150	<u> \$150.00 </u>
Shoreline Work	<u> </u>	\$150	<u> </u>
New Construction	<u> </u>	\$300	<u> </u>
Residential – Other:			
Subdivision/Multi-Unit	<u> </u>	\$750	<u> </u>
Commercial/Industrial:			
New	<u> </u>	\$1500	<u> </u>
Redevelopment	<u> </u>	\$1000	<u> </u>
Limited Project (as defined in SWB & WPA)	<u> </u>	Equal to full WPA fee	<u> </u>
Alterations – located within Riverfront Area	<u> </u>	Additional 50% of Fee	<u> </u>
Application filed after Enforcement Order		Double the Municipal fee	<u> </u>
Request for Amended Order of Conditions	<u> </u>	50% of initial fee	<u> </u>
Request for Determination of Applicability (RDA):			
No Wetland Boundary Confirmation Residential:	<u> </u>	\$100	<u> </u>
No Wetland Boundary Confirmation All Other:	<u> </u>	\$200	<u> </u>
For Wetland Boundary Confirmation File ANRAD or NOI			
Abbreviated Notice of Resource Area Delineation (ANRAD):			
Residential – Single Family:	<u> </u>	\$100	<u> </u>
All Other:			
Base Review	<u> </u>	\$300	<u> </u>
Resource Area Boundary			

Certificate of Compliance (COC):			
Residential:			
Single Family	_____	\$50	_____
Subdivision or Multi-Unit	_____	\$150	_____
Commercial or Industrial:			
	_____	\$150	_____
If Order of Conditions has Expired	_____	Add an additional \$150	_____
OOO Extension Request	_____	\$50	_____
Emergency Certification	_____	\$50	_____
(NOI may be required to be filed following issuance of Emergency Cert)			

Local Bylaw Fee (includes Town Filing Fee)	\$ <u>150.00</u>
State Filing Fee (from DEP Wetland Transmittal Form)	\$ <u>67.50</u>
<u>Total Payable to "Town of STURBRIDGE"</u>	\$ <u>217.50</u>

*Additional Consultant Fee may be required for reasons which may include:

- Significant amount of wetland impact;
- Extensive resource areas on a site;
- Lack of information supplied;
- Incomplete plans, reports, forms submitted;
- Supplemental information submitted.



Town of Sturbridge

Conservation Commission

Notification to Abutters

under the MA Wetlands Protection Act and the Town of Sturbridge Wetland Bylaw Regulations

In accordance with the second paragraph of Massachusetts General Laws, Chapter 131, § 40, as well as the Town of Sturbridge Wetland Bylaw, you are hereby notified of the following permit application for work within a wetland resource area and/or within the 200-foot buffer zone to a resource area:

- A. The name of the applicant is: Justin Carter
- B. The address of the lot(s) where the activity is proposed is: 223 Cedar Street
- C. The nature of the activity proposed includes: Septic System Replacement
- D. The applicant has filed the following in accordance with the Wetlands Protection Act (MGL c. 131, § 40), and/or the Town of Sturbridge Wetland Bylaws.
- Notice of Intent seeking permission to conduct work within a wetland, water body or resource area
 - Request for Determination seeking permission to conduct work within a buffer zone to a wetland, waterbody or resource area
 - Abbreviated Notice of Resource Area Delineation seeking to confirm the wetland resource area boundaries.
 - Request to amend an existing Order of Conditions for DEP File #300-_____

The Public Hearing for this application will be held in person and remotely via GoTo Meeting

at the Center Office Building, 301 Main Street, 2nd Floor

Date and Time of Hearing: August 24, 2023 at 6:30 PM or thereafter

Public Hearing can be accessed remotely:

- **From your computer using:** a link to be obtained from the Commission or
- **From your phone:** +1 872 240 3212, followed by the access code provided by the Commission

Please note that while an option for remote attendance and/or participation is being provided to the public, the meeting/hearing will not be suspended or terminated if technological problems interrupt the virtual broadcast, unless otherwise required by law. Members of the public with particular interest in any specific item on this agenda should make plans for in-person vs. virtual attendance accordingly. Please note that meetings can also be watched either online via the Town's on demand video broadcast or on cable television on channel 191, however, there is no public participation through these options.

PLEASE NOTE: Copies of the application and related materials including agendas and staff notes can be found here:

- <https://www.sturbridge.gov/conservation-commission/pages/meeting-calendar-and-documents>

You may contact the Sturbridge Conservation Commission Office (508) 347-2506 or the Department of Environmental Protection Central Regional Office at 508-792-7650 with questions in regards to the application process or the Wetlands Protection Act.

Parcel ID	Owner	Owner Address	City	State	Zip	Address
202-01526-227	BAKER TYE M	227 CEDAR STREET	FISKDALE	MA	01518	227 CEDAR STREET
202-01536-219	CALLAGHAN RICHARD J	219 CEDAR STREET	FISKDALE	MA	01518	219 CEDAR STREET
202-01526-223	CARTER LYNN A	223 CEDAR STREET	FISKDALE	MA	01518	223 CEDAR STREET
202-01537-228	GENDRON THOMAS	228 CEDAR STREET	FISKDALE	MA	01518	228 CEDAR STREET
202-01537-226	HABITAT FOR HUMANITY METRO WEST/GREATER WORCESTER INC	640 LINCOLN STREET	WORCESTER	MA	01605	226 CEDAR STREET
202-01526-225	KOMAR RONALD J	225 CEDAR STREET	FISKDALE	MA	01518	225 CEDAR STREET
202-01527-230	PROULX WILLIAM J	230 CEDAR STREET	FISKDALE	MA	01518	230 CEDAR STREET
202-01536-221	WARRINGTON DEBRA A	18 CHAPMAN PLACE	LEOMINSTER	MA	01453	221 CEDAR STREET
202-01516-237	YOUNG MICHAEL W	237 CEDAR STREET	FISKDALE	MA	01518	237 CEDAR STREET
	BOARD OF ASSESSORS					
Above persons listed are record owners as they appear on the most recent applicable tax list.						
Assessors are not responsible for errors or omissions. RE: M.G.L. - Chapter 40A, Section 11						
Abutters List = Conservation - 200'						
RE: 223 Cedar Street						
Certified Copy						
Assessor: <i>Robert S. Murphy</i>						
Date: <i>6-27-2023</i>						



Town of Sturbridge

Barbara A. Barry, Finance Director

Department/Board/Committee: Conservation

Please verify outstanding tax/fee status for the following property owner:

Property Owner: Justin Carter

Property Location: 223 Cedar Street

- The license/permit may be released.
 The license/permit may not be released.

For Wendy MacAngola
Finance Director

7/18/23
Date

EcoTec, Inc.
ENVIRONMENTAL CONSULTING SERVICES
102 Grove Street, Suite 110
Worcester, MA 01605-2629
508-752-9666 – Fax: 508-752-9494

June 28, 2023

Justin Carter
223 Cedar Street
Sturbridge, MA 01566

RE: Wetland Resource Evaluation, 223 Cedar Street, Sturbridge, Massachusetts

Dear Mr. Carter:

On June 26, 2023, EcoTec, Inc. inspected the above-referenced property for the presence of wetland resources as defined by: (1) the Massachusetts Wetlands Protection Act (M.G.L. Ch. 131, § 40; the “Act”) and its implementing regulations (310 CMR 10.00 *et seq.*; the “Regulations”); (2) the Sturbridge Wetlands Protection Bylaw and its implementing regulations; and (3) the U.S. Clean Water Act (i.e., Section 404 and 401 wetlands). Scott Jordan conducted the inspection.

The subject site consists of a 1.02-acre parcel located at 223 Cedar Street in Sturbridge. The upland portions of the site consist of an existing single-family home with pool, patio, lawn and field. The wetland resources observed on the site are described below.

Methodology

The site was inspected, and areas suspected to qualify as wetland resources were identified. The boundary of Bordering Vegetated Wetlands was delineated in the field in accordance with the definition set forth in the regulations at 310 CMR 10.55(2)(c). Section 10.55(2)(c) states that “The boundary of Bordering Vegetated Wetlands is the line within which 50% or more of the vegetational community consists of wetland indicator plants and saturated or inundated conditions exist.” The methodology used to delineate Bordering Vegetated Wetlands is further described in the *Massachusetts Handbook for Delineation of Bordering Vegetated Wetlands*, Second Edition, produced by the Massachusetts Department of Environmental Protection, dated September 2022. As recommended by the Department, the plant taxonomy used in this letter is based on the *National List of Plant Species that Occur in Wetlands: Massachusetts* (Fish and Wildlife Service, U.S. Department of the Interior, 1988). Federal wetlands were presumed to have boundaries conterminous with the delineated Bordering Vegetated Wetlands. One set of *Bordering Vegetated Wetland Determination Forms* completed for observation plots located in the wetlands and uplands near flag A8 is attached. The table below provides the Flag Numbers, Flag Type, and Wetland Types and Locations for the delineated wetland resources.

Flag Numbers	Flag Type	Wetland Types and Locations
Start A1 to A12 Stop	Blue Flags	Boundary of Bordering Vegetated Wetlands located in the western portion of the site that is associated with an intermittent stream.

Findings

Wetland A (i.e., flags A1 to A12) consists of a wooded swamp located in the western portion of the site that is associated with an intermittent stream. Plant species observed include red maple (*Acer rubrum*) trees and/or saplings; common winterberry (*Ilex verticillata*) shrubs; and cinnamon fern (*Osmunda cinnamomea*), skunk-cabbage (*Symplocarpus foetidus*), and spotted touch-me-not (*Impatiens capensis*) ground cover. Evidence of wetland hydrology, including hydric soils, saturated soils, pore linings, and evidence of flooding, was observed within the delineated wetland. This vegetated wetland borders an intermittent stream; accordingly, the vegetated wetlands would be regulated as Bordering Vegetated Wetlands and the intermittent stream would be regulated as Bank under the Act. A 100-foot Buffer Zone extends horizontally outward from the edge of Bordering Vegetated Wetlands under the Act.

Bordering Land Subject to Flooding is an area that floods due to a rise in floodwaters from a bordering waterway or water body. Where flood studies have been completed, the boundary of Bordering Land Subject to Flooding is based upon flood profile data prepared by the National Flood Insurance Program. Section 10.57(2)(a)3. states that “The boundary of Bordering Land Subject to Flooding is the estimated maximum lateral extent of flood water which will theoretically result from the statistical 100-year frequency storm.” The project engineer should evaluate the most recent National Flood Insurance Program flood profile data to determine if Bordering Land Subject to Flooding occurs on the site. Bordering Land Subject to Flooding would occur in areas where the 100-year flood elevation is located outside of or upgradient of the delineated Bordering Vegetated Wetlands boundary. Bordering Land Subject to Flooding does not have a Buffer Zone under the Act.

The Massachusetts Rivers Protection Act amended the Act to establish an additional wetland resource area: Riverfront Area. Based upon a review of the current USGS Map (i.e., Warren Quadrangle, dated 1982, attached) and observations made during the site inspection, a stream that is not shown on the USGS Map is located off site to the west. The watershed area for this stream at the site was determined to be 0.04 square miles, which is less than 0.5 square miles (see attached watershed calculations). As such, the stream would be designated intermittent under the Massachusetts Wetlands Protection Act regulations. Furthermore, based upon a review of the current USGS Map and observations made during the site inspection, there are no other mapped or unmapped streams located within 200 feet of the site. Accordingly, Riverfront Area would not occur on the site. Riverfront Area does not have a Buffer Zone under the Act.

223 Cedar St., Sturbridge

June 28, 2023

Page 3.

The Regulations require that no project may be permitted that will have any adverse effect on specified habitat sites of rare vertebrate or invertebrate species, as identified by procedures set forth at 310 CMR 10.59. Based upon a review of the *Massachusetts Natural Heritage Atlas*, 15th edition, Priority Habitats and Estimated Habitats from the NHESP Interactive Viewer, valid from August 1, 2021, and Certified Vernal Pools from MassGIS, there are no Estimated Habitats [for use with the Act and Regulations (310 CMR 10.00 *et seq.*)], Priority Habitats [for use with Massachusetts Endangered Species Act (M.G.L. Ch. 131A; "MESA") and MESA Regulations (321 CMR 10.00 *et seq.*)], or Certified Vernal Pools on or in the immediate vicinity of the site. A copy of this map is attached.

The reader should be aware that the regulatory authority for determining wetland jurisdiction rests with local, state, and federal authorities. A brief description of my experience and qualifications is attached. If you have any questions, please feel free to contact me at any time.

Cordially,
ECOTEC, INC.

A handwritten signature in cursive script that reads "Scott Jordan".

Attachments (14 pages)

11/w/SturbridgeCedarSt223 Report

BORDERING VEGETATED WETLAND DETERMINATION FORM

Project/Site: 223 Cedar Street City/Town: Sturbridge Sampling Date: 6/26/23

Applicant/Owner: _____ Sampling Point or Zone: TPUpland @ A8

Investigator(s): Scott Jordan, EcoTec Latitude / Longitude: 42.13810 / -72.09679

Soil Map Unit Name: Woodbridge fine sandy loam NWI or DEP Classification: _____

Are climatic/hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks)

Are Vegetation , Soil , or Hydrology significantly disturbed? (If yes, explain in Remarks)

Are Vegetation , Soil , or Hydrology naturally problematic? (If yes, explain in Remarks)

SUMMARY OF FINDINGS – Attach site map and photograph log showing sampling locations, transects, etc.

Wetland vegetation criterion met?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Is the Sampled Area within a Wetland?
Hydic Soils criterion met?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
Wetlands hydrology present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
Remarks, Photo Details, Flagging, etc.:			

HYDROLOGY

Field Observations:		
Surface Water Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/> Depth (inches) _____
Water Table Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/> Depth (inches) _____
Saturation Present (including capillary fringe)?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/> Depth (inches) <u>0.00</u>
Wetland Hydrology Indicators		
Reliable Indicators of Wetlands Hydrology	Indicators that can be Reliable with Proper Interpretation	Indicators of the Influence of Water
<input type="checkbox"/> Water-stained leaves <input type="checkbox"/> Evidence of aquatic fauna <input type="checkbox"/> Iron deposits <input type="checkbox"/> Algal mats or crusts <input type="checkbox"/> Oxidized rhizospheres/pore linings <input type="checkbox"/> Thin muck surfaces <input type="checkbox"/> Plants with air-filled tissue (aerenchyma) <input type="checkbox"/> Plants with polymorphic leaves <input type="checkbox"/> Plants with floating leaves <input type="checkbox"/> Hydrogen sulfide odor	<input type="checkbox"/> Hydrological records <input type="checkbox"/> Free water in a soil test hole <input type="checkbox"/> Saturated soil <input type="checkbox"/> Water marks <input type="checkbox"/> Moss trim lines <input type="checkbox"/> Presence of reduced iron <input type="checkbox"/> Woody plants with adventitious roots <input type="checkbox"/> Trees with shallow root systems <input type="checkbox"/> Woody plants with enlarged lenticels	<input type="checkbox"/> Direct observation of inundation <input type="checkbox"/> Drainage patterns <input type="checkbox"/> Drift lines <input type="checkbox"/> Scoured areas <input type="checkbox"/> Sediment deposits <input type="checkbox"/> Surface soil cracks <input type="checkbox"/> Sparsely vegetated concave surface <input type="checkbox"/> Microtopographic relief <input type="checkbox"/> Geographic position (depression, toe of slope, fringing lowland)
Remarks (describe recorded data from stream gauge, monitoring well, aerial photos, previous inspections, if available):		

This form is only for BVW delineations. Other wetland resource areas may be present and should be delineated according to the applicable regulatory provisions.

VEGETATION – Use both common and scientific names of plants.

<u>Tree Stratum</u>		Plot size <u>30'</u>			
Common name	Scientific name	Indicator Status	Absolute % Cover	Dominant? (yes/no)	Wetland Indicator? (yes/no)
1. Sugar maple	Acer saccharum	FACU	20.0	Yes	No
2. White pine	Pinus strobus	FACU	20.0	Yes	No
3. Ironwood	Carpinus caroliniana	FAC	10.0	Yes	Yes
4.					
5.					
6.					
7.					
8.					
9.					
50.0 = Total Cover					
<u>Shrub/Sapling Stratum</u>		Plot size <u>15'</u>			
Common name	Scientific name	Indicator Status	Absolute % Cover	Dominant? (yes/no)	Wetland Indicator? (yes/no)
1. Sugar maple	Acer saccharum	FACU	10.0	No	No
2. Black cherry	Prunus serotina	FACU	5.0	No	No
3.					
4. Ironwood	Carpinus caroliniana	FAC	50.0	Yes	Yes
5.					
6.					
7.					
8.					
9.					
65.0 = Total Cover					
<u>Herb Stratum</u>		Plot size <u>5'</u>			
Common name	Scientific name	Indicator Status	Absolute % Cover	Dominant? (yes/no)	Wetland Indicator? (yes/no)
1. Spinulose woodfern	Dryopteris spinulosa	FAC	60.0	Yes	No
2. Christmas fern	Polystichum acrostichoides	FACU	20.0	Yes	No
3.					No
4.					No
5.					No
6.					No
7.					No
8.					No
9.					No
10.					No
11.					No
12.					No
80.0 = Total Cover					

VEGETATION – continued.

<u>Woody Vine Stratum</u>		Plot size <u>30'</u>		Indicator Status	Absolute % Cover	Dominant? (yes/no)	Wetland Indicator? (yes/no)
Common name	Scientific name						
1.							
2.							
3.							
4.							
				<u>0.0</u> = Total Cover			

Rapid Test: Do all dominant species have an indicator status of OBL or FACW?			Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Dominance Test:	Number of dominant species	Number of dominant species that are wetland indicator plants	Do wetland indicator plants make up ≥ 50% of dominant plant species?	
	6	3	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Prevalence Index:		Total % Cover (all strata)	Multiply by:	Result
	OBL species		X 1	= 0.00
	FACW species		X 2	= 0.00
	FAC species		X 3	= 0.00
	FACU species		X 4	= 0.00
	UPL species		X 5	= 0.00
	Column Totals	(A) 0		(B) 0
Prevalence Index		B/A = 0.00		Is the Prevalence Index ≤ 3.0?
				Yes <input type="checkbox"/> No <input type="checkbox"/>
Wetland vegetation criterion met?			Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>

Definitions of Vegetation Strata

- Tree - Woody plants 3 in. (7.62 cm) or more in diameter at breast height (DBH), regardless of height
- Shrub / Sapling - Woody plants less than 3 in. (7.62 cm) DBH and greater than or equal to 3.3 ft. (1 m) tall
- Herb - All herbaceous (non-woody plants, regardless of size, and woody plants less than 3.3 ft. (1 m) tall
- Woody vines - All woody vines greater than 3.3 ft. (1 m) in height

Cover Ranges	
Range	Midpoint
1-5 %	3.0 %
6-15 %	10.5 %
15-25 %	20.5 %
26-50 %	38.0 %
51-75 %	63.0 %
76-95 %	85.5 %
96-100 %	98.0 %

SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Location ²		
14.00	10YR 3/2	0.0%		0.0%			fs loam	
3.00	10YR 4/6	0.0%		1,000.0%			fs loam	
		0.0%		0.0%				
		0.0%		0.0%				
		0.0%		0.0%				
		0.0%		0.0%				
		0.0%		0.0%				
		0.0%		0.0%				
		0.0%		0.0%				
		0.0%		0.0%				
		0.0%		0.0%				

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains ²Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators (Check all that apply)		Indicators for Problematic Hydric Soils
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Polyvalue Below Surface (S8)	<input type="checkbox"/> 2 cm Muck (A10)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Thin Dark Surface (S9)	<input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Dark Surface (S7)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Polyvalue Below Surface (S8)
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Thin Dark Surface (S9)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Redox Dark Surface (F7)	<input type="checkbox"/> Iron-Manganese Masses (F12)
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Depleted Dark Surface (F8)	<input type="checkbox"/> Mesic Spodic (A17)
<input type="checkbox"/> Sandy Mucky Mineral (S1)		<input type="checkbox"/> Red Parent Material (F21)
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Sandy Redox (S5)		<input type="checkbox"/> Other (Include Explanation in Remarks)
<input type="checkbox"/> Stripped Matrix (S6)		
<input type="checkbox"/> Dark Surface (S7)		

Restrictive Layer (if observed) Type: _____ Depth (inches): _____

Remarks:

Hydric Soils criterion met? Yes No

BORDERING VEGETATED WETLAND DETERMINATION FORM

Project/Site: 223 Cedar Street City/Town: Sturbridge Sampling Date: 6/26/23

Applicant/Owner: _____ Sampling Point or Zone: TPWetland @ A8

Investigator(s): Scott Jordan, EcoTec Latitude / Longitude: 42.13810 / -72.09694

Soil Map Unit Name: Paxton fine sandy loam NWI or DEP Classification: WS1

Are climatic/hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks)

Are Vegetation , Soil , or Hydrology significantly disturbed? (If yes, explain in Remarks)

Are Vegetation , Soil , or Hydrology naturally problematic? (If yes, explain in Remarks)

SUMMARY OF FINDINGS – Attach site map and photograph log showing sampling locations, transects, etc.

Wetland vegetation criterion met?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydic Soils criterion met?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Wetlands hydrology present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Remarks, Photo Details, Flagging, etc.:			

HYDROLOGY

Field Observations:		
Surface Water Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/> Depth (inches) _____
Water Table Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/> Depth (inches) _____
Saturation Present (including capillary fringe)?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/> Depth (inches) <u>0.00</u>
Wetland Hydrology Indicators		
Reliable Indicators of Wetlands Hydrology <input checked="" type="checkbox"/> Water-stained leaves <input type="checkbox"/> Evidence of aquatic fauna <input type="checkbox"/> Iron deposits <input type="checkbox"/> Algal mats or crusts <input type="checkbox"/> Oxidized rhizospheres/pore linings <input type="checkbox"/> Thin muck surfaces <input type="checkbox"/> Plants with air-filled tissue (aerenchyma) <input type="checkbox"/> Plants with polymorphic leaves <input type="checkbox"/> Plants with floating leaves <input type="checkbox"/> Hydrogen sulfide odor	Indicators that can be Reliable with Proper Interpretation <input type="checkbox"/> Hydrological records <input type="checkbox"/> Free water in a soil test hole <input checked="" type="checkbox"/> Saturated soil <input type="checkbox"/> Water marks <input type="checkbox"/> Moss trim lines <input type="checkbox"/> Presence of reduced iron <input type="checkbox"/> Woody plants with adventitious roots <input type="checkbox"/> Trees with shallow root systems <input type="checkbox"/> Woody plants with enlarged lenticels	Indicators of the Influence of Water <input type="checkbox"/> Direct observation of inundation <input type="checkbox"/> Drainage patterns <input type="checkbox"/> Drift lines <input type="checkbox"/> Scoured areas <input type="checkbox"/> Sediment deposits <input type="checkbox"/> Surface soil cracks <input type="checkbox"/> Sparsely vegetated concave surface <input type="checkbox"/> Microtopographic relief <input type="checkbox"/> Geographic position (depression, toe of slope, fringing lowland)
Remarks (describe recorded data from stream gauge, monitoring well, aerial photos, previous inspections, if available):		

This form is only for BVW delineations. Other wetland resource areas may be present and should be delineated according to the applicable regulatory provisions.

VEGETATION – Use both common and scientific names of plants.

<u>Tree Stratum</u>		Plot size <u>30'</u>			
Common name	Scientific name	Indicator Status	Absolute % Cover	Dominant? (yes/no)	Wetland Indicator? (yes/no)
1. Red maple	Acer rubrum	FAC	50.0	Yes	Yes
2. White ash	Fraxinus americana	FACU	5.0	No	No
3.					
4.					
5.					
6.					
7.					
8.					
9.					
			<u>55.0</u> = Total Cover		
<u>Shrub/Sapling Stratum</u>		Plot size <u>15'</u>			
Common name	Scientific name	Indicator Status	Absolute % Cover	Dominant? (yes/no)	Wetland Indicator? (yes/no)
1. Winterberry	Ilex verticillata	FACW	40.0	Yes	Yes
2. White ash	Fraxinus americana	FACU	20.0	Yes	No
3. Maple leaf viburnum	Viburnum acerifolium	UPL	10.0	No	No
4. Ironwood	Carpinus caroliniana	FAC	20.0	Yes	Yes
5.					
6.					
7.					
8.					
9.					
			<u>90.0</u> = Total Cover		
<u>Herb Stratum</u>		Plot size <u>5'</u>			
Common name	Scientific name	Indicator Status	Absolute % Cover	Dominant? (yes/no)	Wetland Indicator? (yes/no)
1. Skunk cabbage	Symplocarpus foetidus	OBL	60.0	Yes	No
2. Jewelweed	Impatiens capensis	FACW	20.0	Yes	No
3. Virginia creeper	Parthenocissus quinquefolia	FACU	20.0	Yes	No
4.					No
5.					No
6.					No
7.					No
8.					No
9.					No
10.					No
11.					No
12.					No
			<u>100.0</u> = Total Cover		

VEGETATION – continued.

<u>Woody Vine Stratum</u>		Plot size <u>30'</u>		Indicator Status	Absolute % Cover	Dominant? (yes/no)	Wetland Indicator? (yes/no)
Common name	Scientific name						
1.							
2.							
3.							
4.							
				<u>0.0</u> = Total Cover			

Rapid Test: Do all dominant species have an indicator status of OBL or FACW?			Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Dominance Test:	Number of dominant species	Number of dominant species that are wetland indicator plants	Do wetland indicator plants make up ≥ 50% of dominant plant species?	
	7	5	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Prevalence Index:		Total % Cover (all strata)	Multiply by:	Result
	OBL species		X 1	= 0.00
	FACW species		X 2	= 0.00
	FAC species		X 3	= 0.00
	FACU species		X 4	= 0.00
	UPL species		X 5	= 0.00
	Column Totals	(A) 0		(B) 0
Prevalence Index		B/A = 0.00		Is the Prevalence Index ≤ 3.0?
				Yes <input type="checkbox"/> No <input type="checkbox"/>
Wetland vegetation criterion met?			Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>

Definitions of Vegetation Strata

- Tree - Woody plants 3 in. (7.62 cm) or more in diameter at breast height (DBH), regardless of height
- Shrub / Sapling - Woody plants less than 3 in. (7.62 cm) DBH and greater than or equal to 3.3 ft. (1 m) tall
- Herb - All herbaceous (non-woody plants, regardless of size, and woody plants less than 3.3 ft. (1 m) tall
- Woody vines - All woody vines greater than 3.3 ft. (1 m) in height

Cover Ranges	
Range	Midpoint
1-5 %	3.0 %
6-15 %	10.5 %
15-25 %	20.5 %
26-50 %	38.0 %
51-75 %	63.0 %
76-95 %	85.5 %
96-100 %	98.0 %

SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Location ²		
8.00	10YR 2/1	0.0%		0.0%			mucky loam	
4.00	2.5Y 5/1	0.0%	10YR 5/4	1,000.0%	C	M	loamy fine sand	
		0.0%		0.0%				
		0.0%		0.0%				
		0.0%		0.0%				
		0.0%		0.0%				
		0.0%		0.0%				
		0.0%		0.0%				
		0.0%		0.0%				
		0.0%		0.0%				

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains ²Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators (Check all that apply)		Indicators for Problematic Hydric Soils
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Polyvalue Below Surface (S8)	<input type="checkbox"/> 2 cm Muck (A10)
<input checked="" type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Thin Dark Surface (S9)	<input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Dark Surface (S7)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Polyvalue Below Surface (S8)
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Thin Dark Surface (S9)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Redox Dark Surface (F7)	<input type="checkbox"/> Iron-Manganese Masses (F12)
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Depleted Dark Surface (F8)	<input type="checkbox"/> Mesic Spodic (A17)
<input checked="" type="checkbox"/> Sandy Mucky Mineral (S1)		<input type="checkbox"/> Red Parent Material (F21)
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Sandy Redox (S5)		<input type="checkbox"/> Other (Include Explanation in Remarks)
<input type="checkbox"/> Stripped Matrix (S6)		
<input type="checkbox"/> Dark Surface (S7)		

Restrictive Layer (if observed) Type: _____ Depth (inches): _____

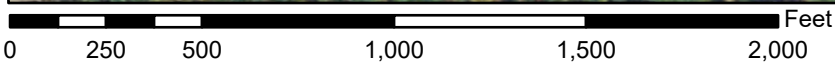
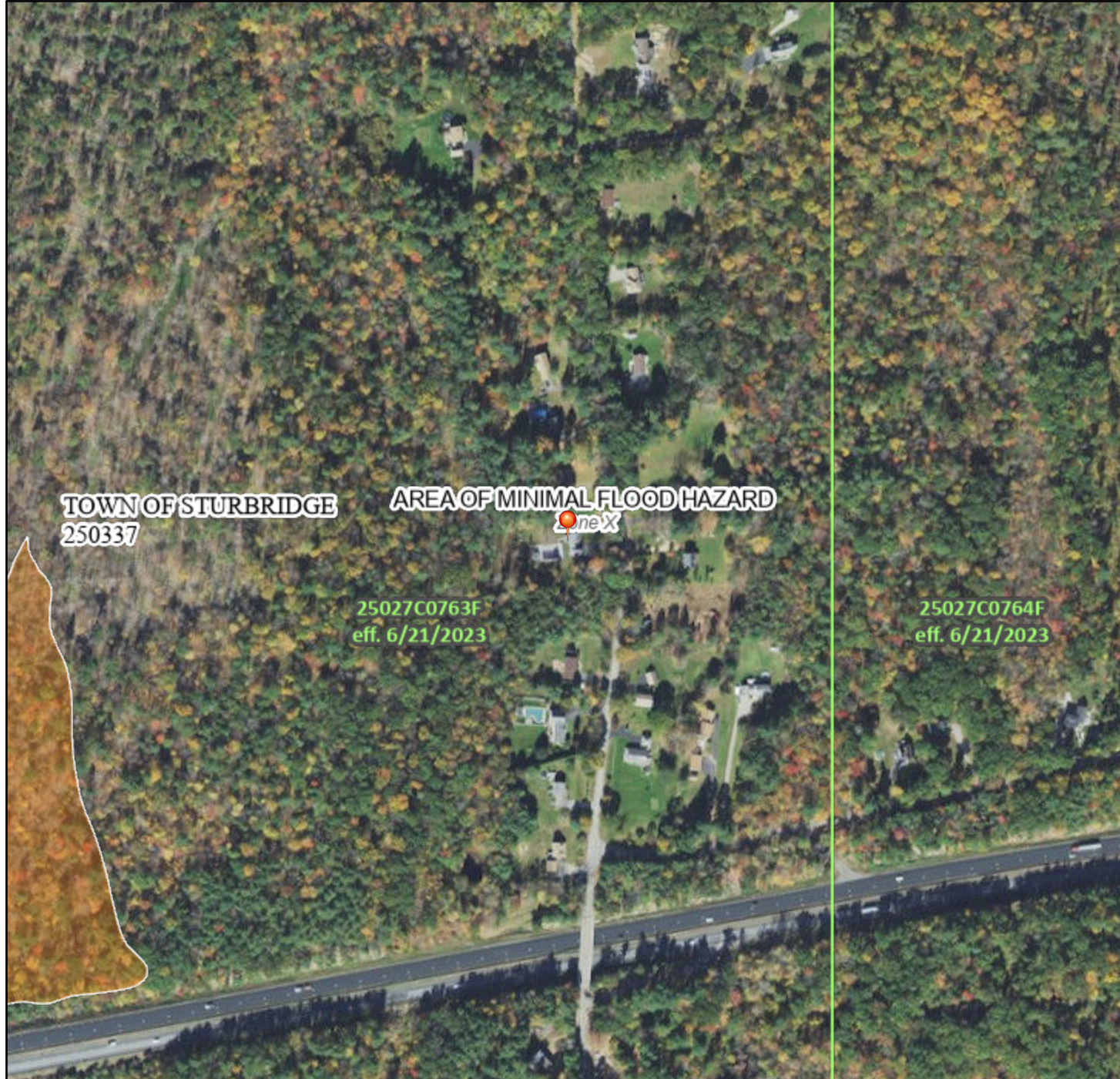
Remarks:

Hydric Soils criterion met? Yes No

National Flood Hazard Layer FIRMMette



72°6'5"W 42°8'31"N



1:6,000

72°5'28"W 42°8'4"N

Basemap Imagery Source: USGS National Map 2023

Legend

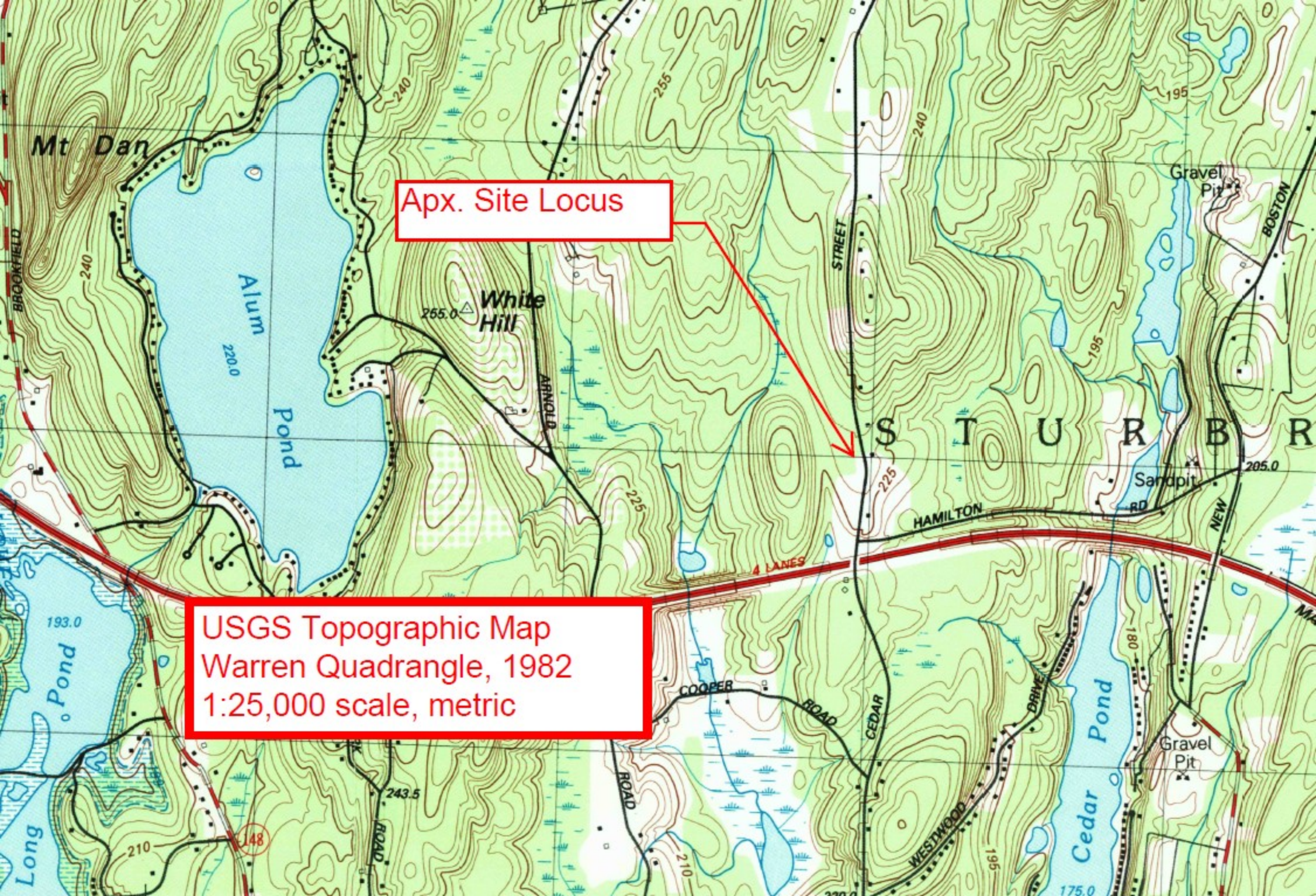
SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS		Without Base Flood Elevation (BFE) <i>Zone A, V, A99</i>
		With BFE or Depth <i>Zone AE, AO, AH, VE, AR</i>
		Regulatory Floodway
OTHER AREAS OF FLOOD HAZARD		0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile <i>Zone X</i>
		Future Conditions 1% Annual Chance Flood Hazard <i>Zone X</i>
		Area with Reduced Flood Risk due to Levee. See Notes. <i>Zone X</i>
		Area with Flood Risk due to Levee <i>Zone D</i>
OTHER AREAS		NO SCREEN Area of Minimal Flood Hazard <i>Zone X</i>
		Effective LOMRs
GENERAL STRUCTURES		Area of Undetermined Flood Hazard <i>Zone D</i>
		Channel, Culvert, or Storm Sewer
		Levee, Dike, or Floodwall
OTHER FEATURES		20.2 Cross Sections with 1% Annual Chance
		17.5 Water Surface Elevation
		Coastal Transect
		Base Flood Elevation Line (BFE)
		Limit of Study
MAP PANELS		Jurisdiction Boundary
		Coastal Transect Baseline
		Profile Baseline
		Hydrographic Feature
		Digital Data Available
		No Digital Data Available
		Unmapped
		The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on **6/27/2023 at 9:28 AM** and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

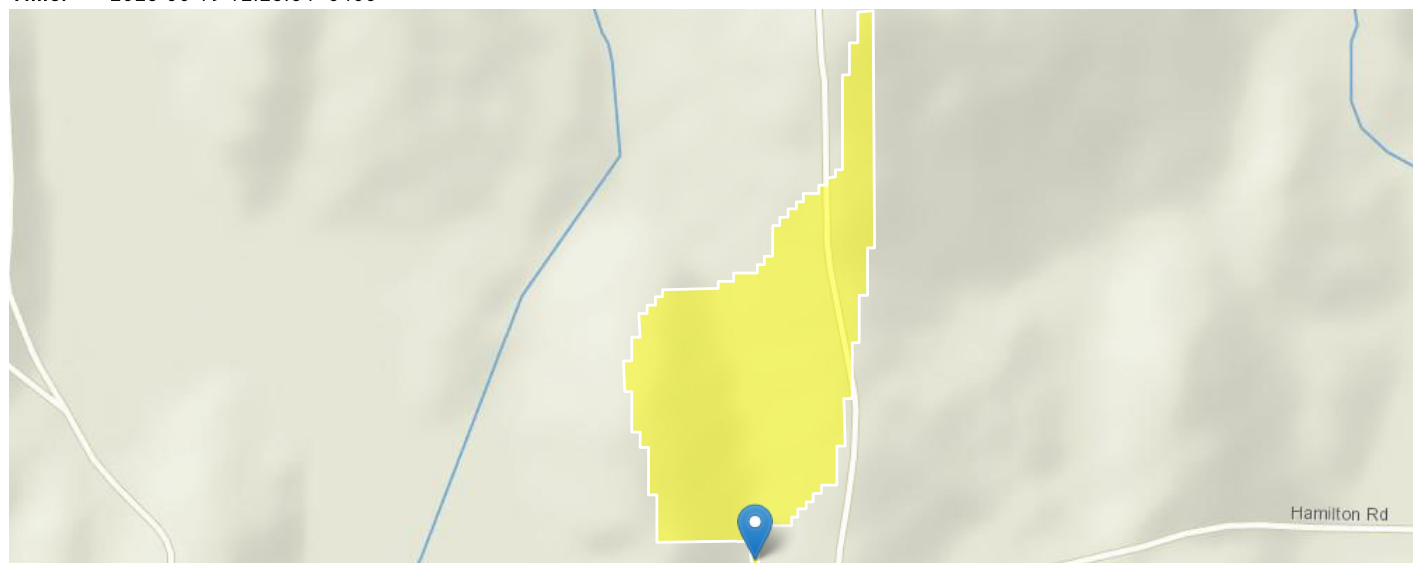


Apx. Site Locus

USGS Topographic Map
Warren Quadrangle, 1982
1:25,000 scale, metric

StreamStats Report

Region ID: MA
 Workspace ID: MA20230619162731712000
 Clicked Point (Latitude, Longitude): 42.13642, -72.09735
 Time: 2023-06-19 12:28:54 -0400



Collapse All

Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
DRNAREA	Area that drains to a point on a stream	0.0401	square miles
FOREST	Percentage of area covered by forest	79.31	percent
MAREGION	Region of Massachusetts 0 for Eastern 1 for Western	0	dimensionless
PCTSNDGRV	Percentage of land surface underlain by sand and gravel deposits	0	percent

Probability Statistics

Probability Statistics Parameters [Perennial Flow Probability]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	0.0401	square miles	0.01	1.99
PCTSNDGRV	Percent Underlain By Sand And Gravel	0	percent	0	100
FOREST	Percent Forest	79.31	percent	0	100
MAREGION	Massachusetts Region	0	dimensionless	0	1

Probability Statistics Flow Report [Perennial Flow Probability]

PIl: Prediction Interval-Lower, PIu: Prediction Interval-Upper, ASEp: Average Standard Error of Prediction, SE: Standard Error (other -- see report)

Statistic	Value	Unit	PC
Probability Stream Flowing Perennially	0.0981	dim	71

Probability Statistics Citations

Bent, G.C., and Steeves, P.A.,2006, A revised logistic regression equation and an automated procedure for mapping the probability of a stream flowing perennially in Massachusetts: U.S. Geological Survey Scientific Investigations Report 2006-5031, 107 p. (http://pubs.usgs.gov/sir/2006/5031/pdfs/SIR_2006-5031rev.pdf)

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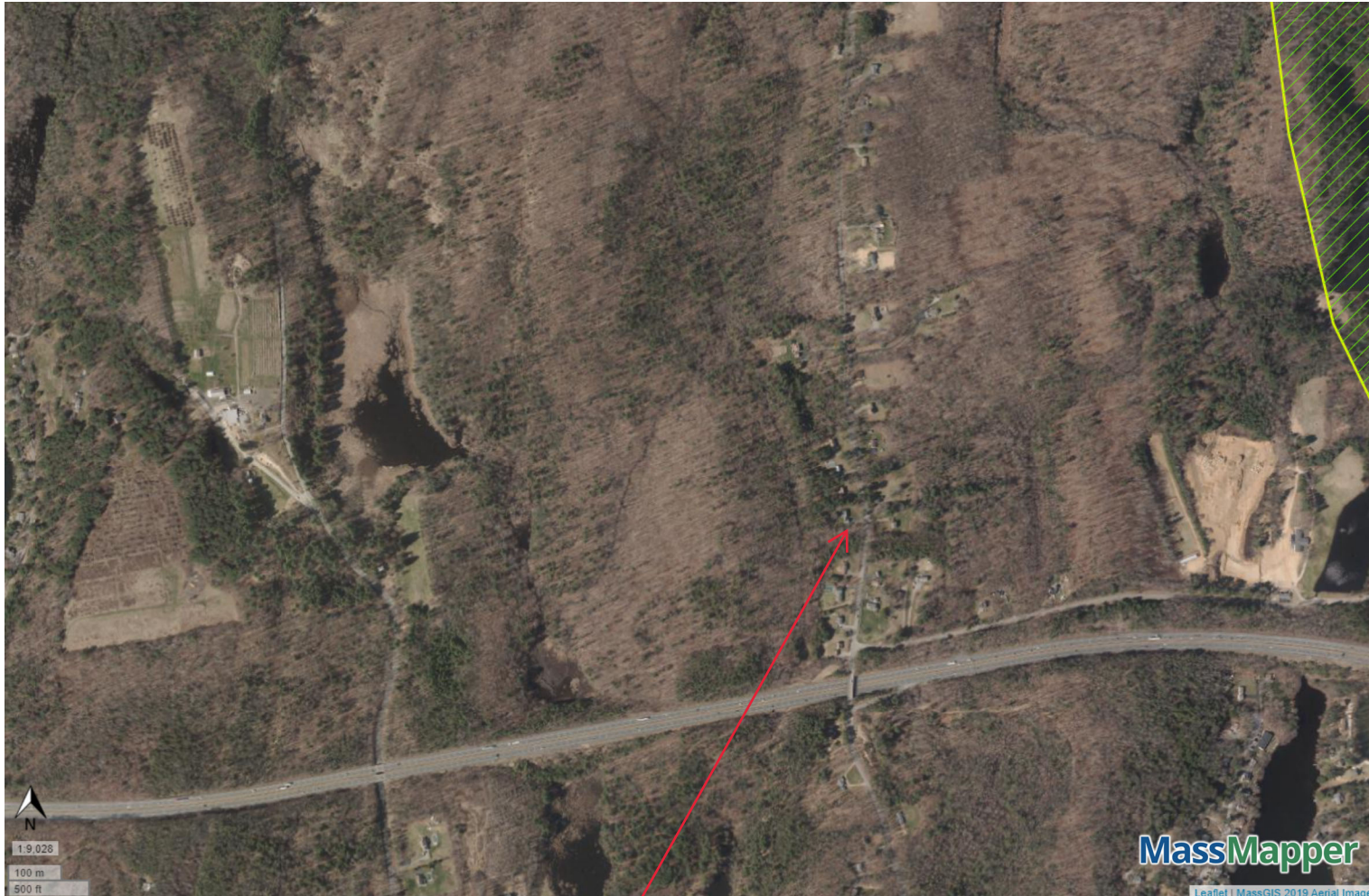
USGS Product Names Disclaimer: Any use of trade, firm, or product names is for descriptive purposes only and does not imply endorsement by the U.S. Government.

Application Version: 4.15.0

StreamStats Services Version: 1.2.22

NSS Services Version: 2.2.1

223 Cedar Street, Sturbridge, NHESP



approximate site
locus

NHESP Certified Vernal Pools



NHESP Estimated Habitats of Rare
Wildlife



NHESP Priority Habitats of Rare Species



Natural Heritage Atlas
Online Data Viewer,
15th edition, valid
August 1, 2021
created: 6/19/2023
223 Cedar St.,
Sturbridge

EcoTec, Inc.

ENVIRONMENTAL CONSULTING SERVICES

102 Grove Street
Worcester, MA 01605-2629
508-752-9666 – Fax: 508-752-9494

Scott Jordan **Senior Environmental Scientist**

Scott Jordan is an Environmental Scientist with EcoTec, Inc. Since joining EcoTec in 2000, Mr. Jordan's duties have included wetland resource evaluation and delineation; erosion and sediment control planning and monitoring, environmental monitoring, including water quality analysis, sediment analysis and wildlife habitat impact analysis; environmental permitting at local, state, and federal level; pond and stream evaluation; wildlife habitat evaluation, vernal pool evaluation; and wetland restoration and replication design and oversight. He has served as an environmental consultant to the development community, engineering firms, municipalities, and conservation commissions. Prior to joining EcoTec, Mr. Jordan was the Senior Laboratory Technician for GeoComp Corporation where he performed numerous physical properties analysis of soils and geosynthetic materials in accordance with ASTM, and AASHTO specifications. His seven years experience evaluating New England soils includes soil analysis and classification of site-remediated soils with oil and hazardous material contamination. His educational background includes courses in organic and inorganic chemistry, biology, botany and comparative vertebrate physiology, with extensive coursework in ecology and wildlife biology; and he has completed several professional training seminars including erosion and sediment control, soil evaluation, wildlife habitat evaluation, wetland mitigation, vernal pool evaluation, water quality assessment using macro-invertebrates, and river morphology and functions. He has participated in several rare species and wildlife monitoring and inventory projects, including marsh bird surveys, marbled salamander (*Ambystoma opacum*) survey, great laurel (*Rhododendron maximum*) survey, wood turtle (*Glyptemys insculpta*) habitat assessments and sweeps, eastern box turtle (*Terrapene carolina*) habitat assessments, and greater black-backed gull (*Larus marinus*) inventory. His prior research experience includes behavioral and acoustic studies of the common loon (*Gavia immer*) in northwestern Maine.

Education: Bachelor of Science: Biology - Wildlife and Environmental, *Cum Laude*
Framingham State College, 2000
Biotechnology Certificate
Middlesex Community College, 1994

Professional

Affiliations: Massachusetts Association of Conservation Commissioners
Association of Massachusetts Wetland Scientists
Society of Wetland Scientists
Society of Soil Scientists of Southern New England

DESIGN	CRITERIA
TYPE OF ESTABLISHMENT	3 BEDROOM RESIDENTIAL
DESIGN FLOW	330 G.P.D.
SEPTIC TANK CAPACITY	NEW 1500 GAL. SEPTIC TANK
LEACHING CAPACITY REQUIRED	330 GPD / 0.15 = 2,200 SQ FT REQUIRED (CONV) 2,200 SQ FT @ 60% = 1,320 SQ FT (PRESBY) 400 SQ FT MIN. (PRESBY)
LEACHING CAPACITY PROVIDED	PRESBY 210 L.F. PIPE MIN 280 L.F. ENVIRO SEPTIC PIPE PROVIDED 72' x 20' LEACHFIELD = 1,440 SQ.FT. PROVIDED

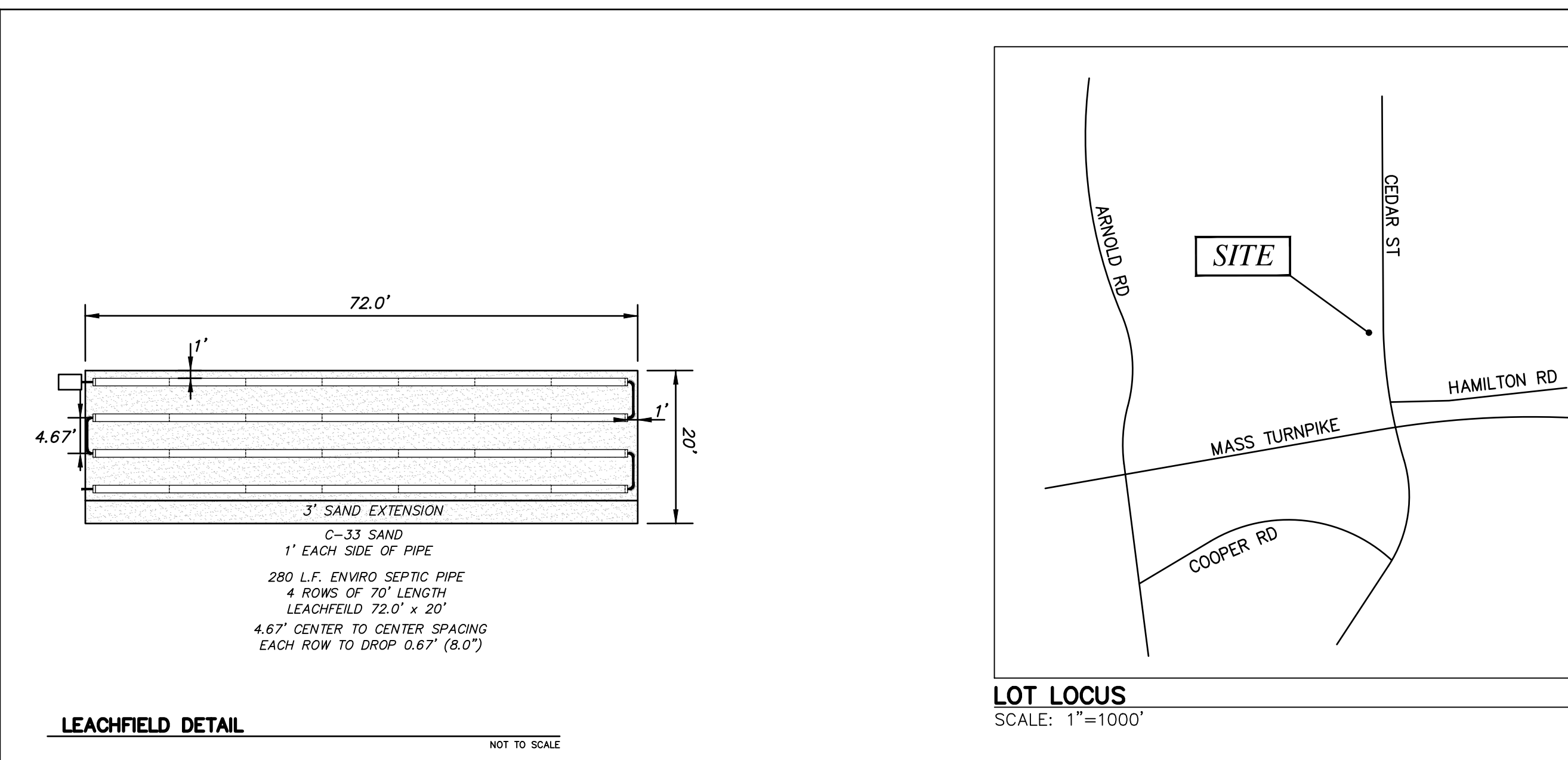
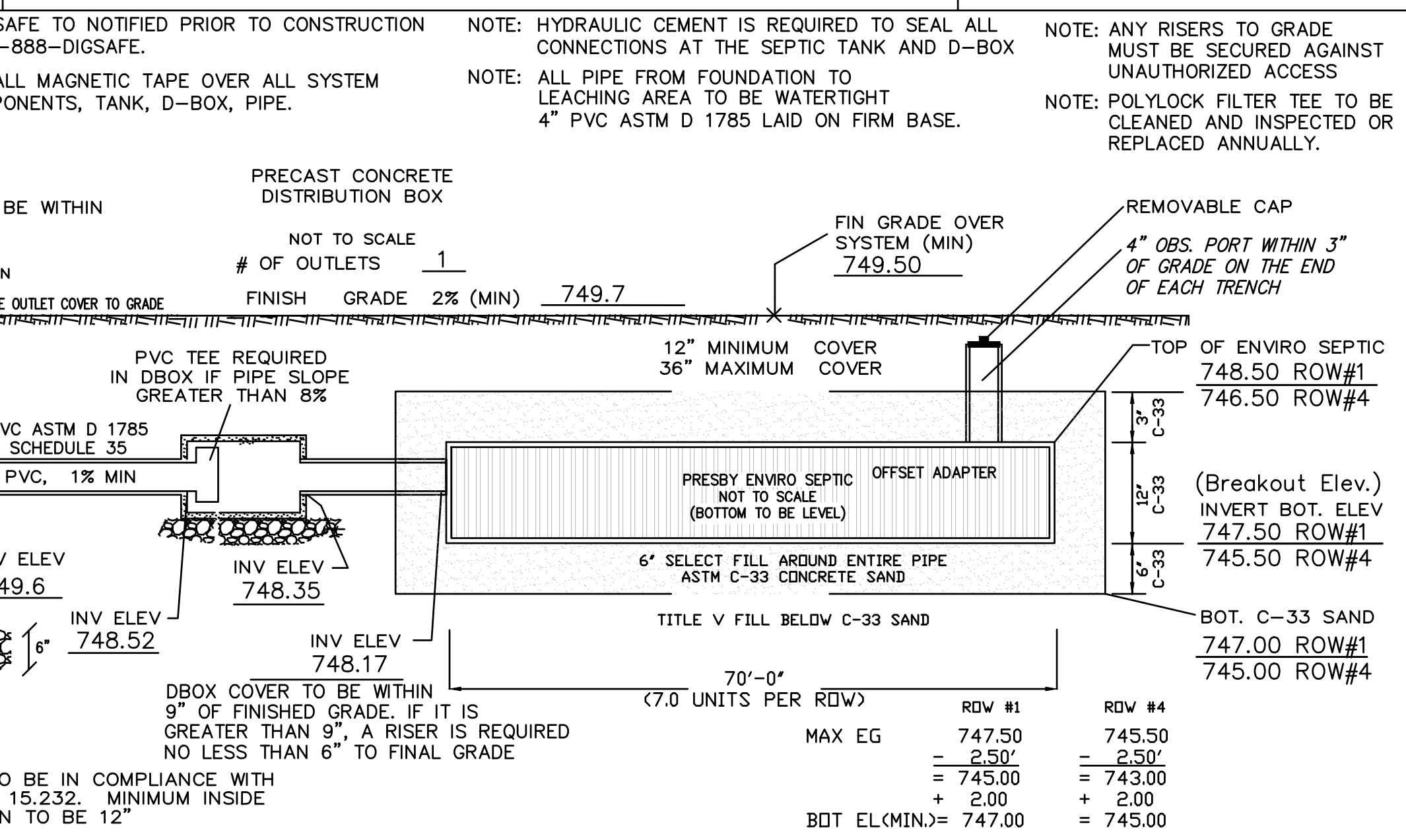
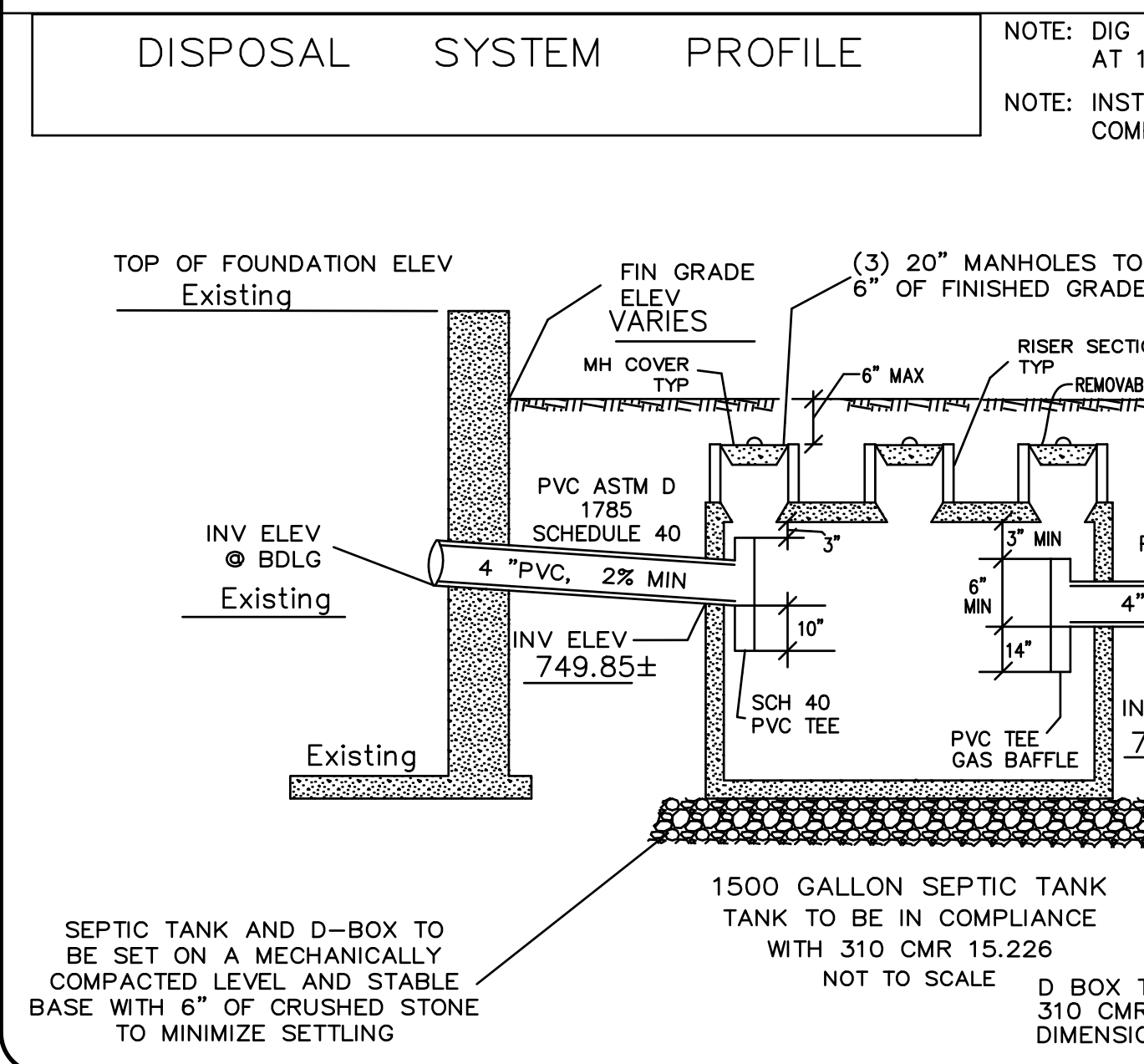
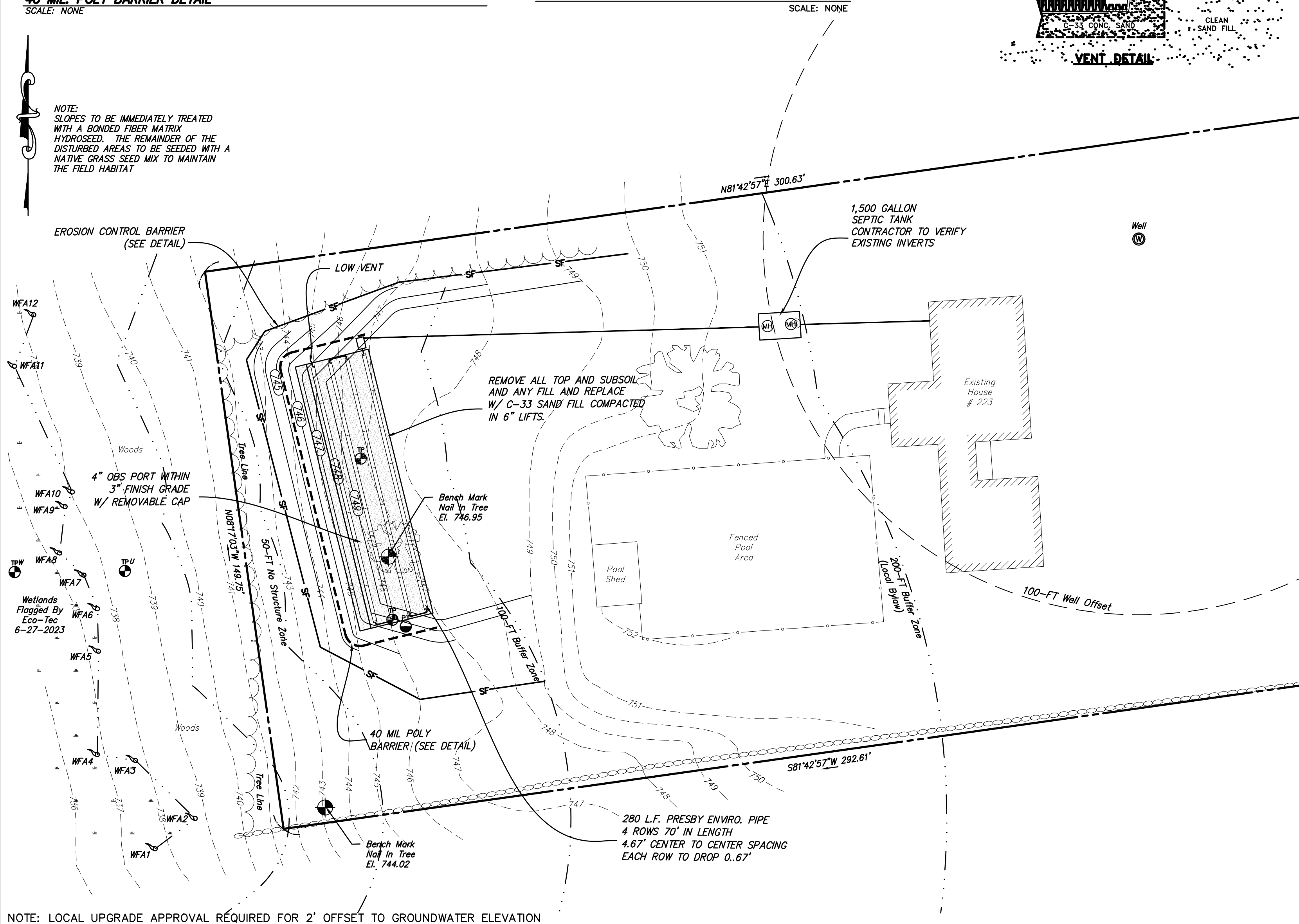
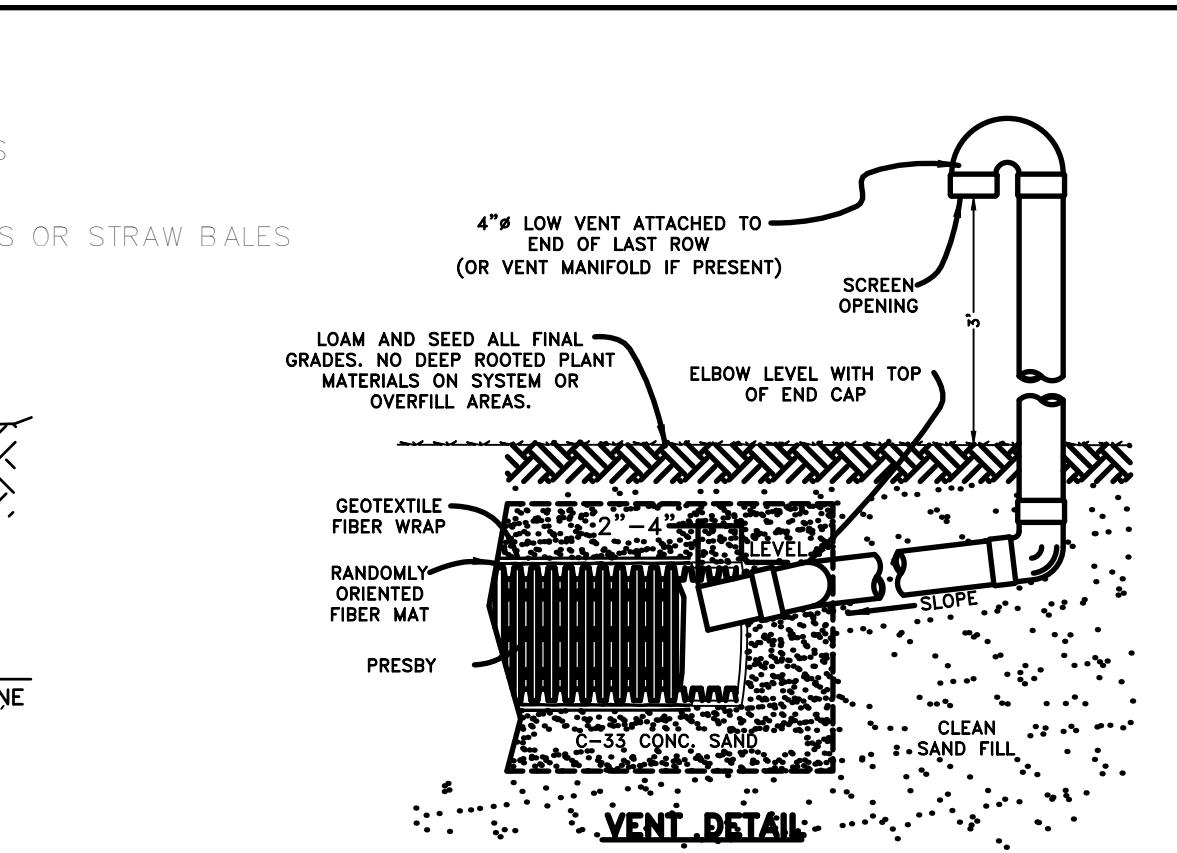
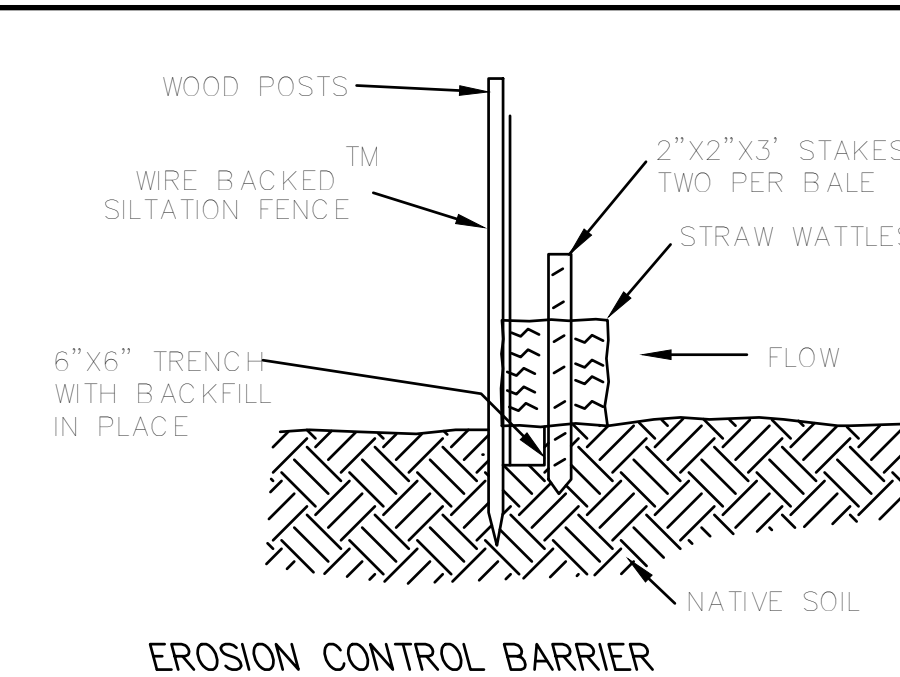
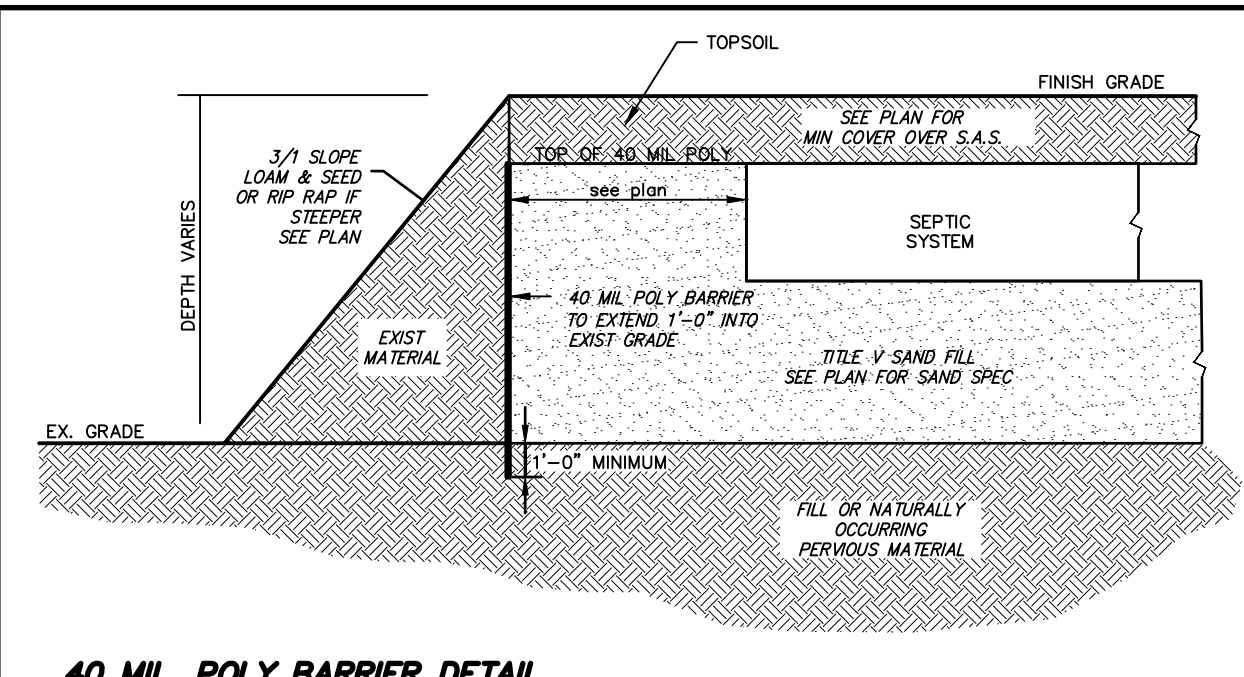
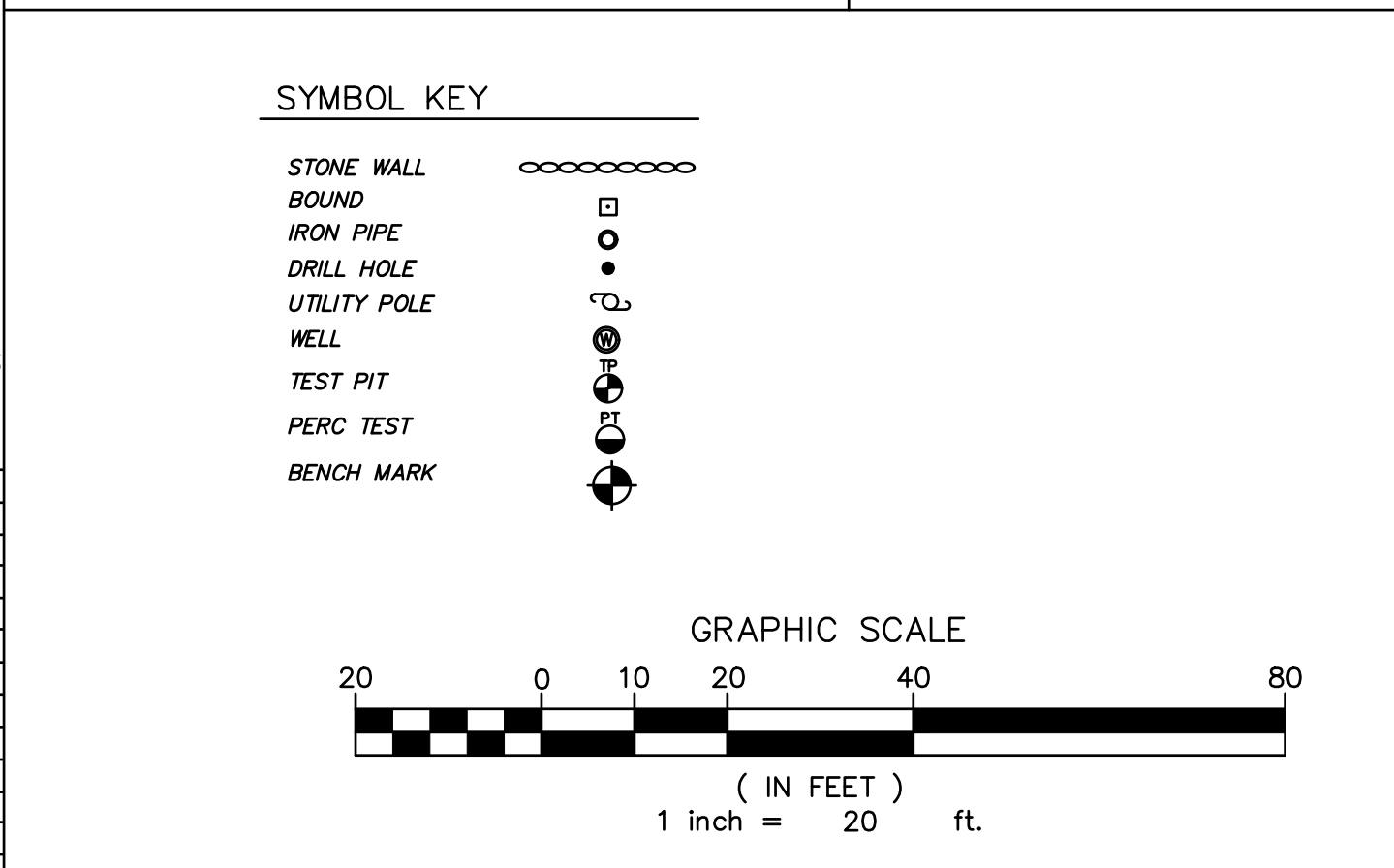
TEST PIT	DATA
TEST PIT #1	TEST PIT #2
0"-8" A SL 10YR 3/2 8"-24" B SL 10YR 5/6 24"-86" C SL 2.5Y 5/6	0"-7" A SL 10YR 3/2 7"-26" B SL 10YR 5/6 26"-92" C SL 2.5Y 5/6
REDOX @ 36" STANDING WATER @ 78"	REDOX @ 36"
GROUND WATER ELEV (OBSERVED) 78"	GROUND WATER ELEV (OBSERVED) N/A
MOTTLING ELEV (OBSERVED) 36"	MOTTLING ELEV (OBSERVED) 36"
REFUSAL ELEV N/A	REFUSAL ELEV N/A
TEST PIT #3	TEST PIT #4
GROUND WATER ELEV (OBSERVED) N/A	GROUND WATER ELEV (OBSERVED) N/A
MOTTLING ELEV (OBSERVED) N/A	MOTTLING ELEV (OBSERVED) N/A
REFUSAL ELEV N/A	REFUSAL ELEV N/A

AS BUILT INFORMATION
SYSTEM INSPECTION DATE:
SYSTEM CONSTRUCTED BY:

AS BUILT NOTE
IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO SUBMIT A LETTER CERTIFYING THAT THE SEWER GRAVEL INSTALLED MEETS TITLE V SIEVE ANALYSIS REQUIREMENTS TO DC ENGINEERING PRIOR TO THE SUBMISSION OF THE AS-BUILT. DC ENGINEERING IS NOT RESPONSIBLE FOR THE SIEVE ANALYSIS.

- ### GENERAL NOTES
- ALL CHANGES TO THIS PLAN MUST BE APPROVED BY THE TOWN OF STURBRIDGE BOARD OF HEALTH
 - ALL SITE WORK AND MATERIALS SHALL BE IN COMPLIANCE WITH TITLE 5
 - ANY CONDITIONS DURING CONSTRUCTION THAT DIFFER FROM THOSE ENCOUNTERED DURING TESTING SHALL BE REPORTED TO DC ENGINEERING AND THE LOCAL BOARD OF HEALTH IMMEDIATELY.
 - REMOVE ALL TOPSOIL & SUBSOIL FOR A DISTANCE OF 5 FEET AROUND SYSTEM
 - FILL MATERIAL FOR SYSTEMS CONSTRUCTED IN FILL SHALL CONSIST OF SELECT ON-SITE OR IMPORTED SOIL MATERIAL. THE FILL SHALL BE COMPRISED OF CLEAN GRANULAR SAND, FREE FROM ORGANIC MATTER AND DELETERIOUS SUBSTANCES. MIXTURES AND LAYERS OF DIFFERENT CLASSES OF SOIL SHALL NOT BE USED. THE FILL SHALL NOT CONTAIN ANY MATERIAL LARGER THAN 2 INCHES. A SIEVE ANALYSIS, USING A #4 SIEVE, SHALL BE PERFORMED ON A REPRESENTATIVE SAMPLE OF THE FILL. UP TO 45% BY WEIGHT OF THE FILL SAMPLE MAY BE RETAINED ON THE #4 SIEVE. FOR FURTHER INFORMATION SEE 310CMR 15:255(3).
 - OFFSETS ARE NOT TO BE USED FOR THE REPRODUCTION OF PROPERTY LINES.
 - ALL ELEVATIONS REFER TO AN ASSUMED DATUM.
 - NO ADDITIONAL CAPACITY HAS BEEN PROVIDED FOR A GARBAGE DISPOSAL.(NOT ALLOWED)
 - NO ADDITIONAL CAPACITY HAS BEEN PROVIDED FOR A WATER SOFTNER.(NOT ALLOWED)
 - THE PROPOSED SITE IS SUBJECT TO THE WETLANDS PROTECTION ACT.**
 - THE PROPOSED PROJECT DOES NOT FALL WITHIN A FLOOD HAZARD ZONE.
 - THE SEPTIC TANK SHOULD BE INSPECTED AND PUMPED EVERY 2 YEARS.
 - ALL EXISTING OR PROPOSED WELLS AND SEPTIC SYSTEMS WITHIN 150 FEET OF THE PROPOSED CONSTRUCTION ARE SHOWN OR NOTED TO THE BEST OF OUR KNOWLEDGE.
 - ALL WETLANDS, BROOKS, BODIES OF WATER AND FLOOD HAZARD ZONES WITHIN 200 FEET OF THE PROPOSED CONSTRUCTION ARE SHOWN OR NOTED TO THE BEST OF OUR KNOWLEDGE.
 - INSPECTIONS REQUIRED FOR ASBUILT CERTIFICATION * SEE ASBUILT NOTE *
 - A. BOTTOM INSPECTION PRIOR TO THE INSTALLATION OF SEWER GRAVEL.
 - B. ALL COMPONENTS OF SEPTIC SYSTEM MUST BE COMPLETE AND VISIBLE PRIOR TO REQUESTING A FINAL INSPECTION
 - DIG SAFE TO NOTIFIED PRIOR TO CONSTRUCTION AT 1-888-DIGSAFE.
 - INSTALL MAGNETIC TAPE OVER ALL SYSTEM COMPONENTS, TANK, D-BOX, LEACH AREA.
 - HYDRAULIC CEMENT IS REQUIRED TO SEAL ALL CONNECTIONS AT THE SEPTIC TANK AND D-BOX LEACHING AREA TO BE WATERTIGHT 4" PVC ASTM D 1785 LAID ON FIRM BASE.

PERCOLATION TEST DATA	
SOIL EVALUATOR: JASON DUBOIS	
WITNESSED BY: KEN LACEY	
DATE: 5/18/2023	
1	2
DEPTH: 46"	
FIELD RATE: 55 MPI	
DESIGN RATE: 60 MPI	
SOIL CLASSIFICATION: 3	
L.T.A.R. 0.15	



JEREMY S. CROTEAU, P.L.S.
PROFESSIONAL LAND SURVEYOR
MA LIC. NO.: 48722

NO.	DATE	REVISION

NORTH

DCO CONSULTANTS, INC. MA, INC. 01566
508-789-0059
508-341-2127

CLIENT:	JUSTIN CARTER
PROJECT:	SEPTIC SYSTEM PLAN REPAIR
DATE:	7-11-2023
DRAWN BY:	JDD
CK'D BY:	JDD
SCALE:	1"=20'
PROJECT #:	23-181
DWG. NO.:	S-1