

EcoTec, Inc.

ENVIRONMENTAL CONSULTING SERVICES

102 Grove Street

Worcester, MA 01605-2629

508-752-9666 – Fax: 508-752-9494

February 20, 2024

Sturbridge Conservation Commission
Sturbridge Town Hall
301 Main St, Sturbridge, MA 01566

RE: Notice of Intent under the Massachusetts Wetlands Protection Act and the Town of Sturbridge Wetlands Protection Bylaw for Proposed Construction of a Single-Family House and Associated Site Work at 36 Champeaux Rd. (Map: 206, Block: 01922, lot: 036) Sturbridge, Massachusetts;
Owner/Applicant: Kevin Lamy.

To the Commission:

Enclosed please find two (2) copies of the Notice of Intent filed under the Massachusetts Wetlands Protection Act (“WPA”) and Town of Sturbridge Wetlands Protection Bylaw and Bylaw Regulations for the above-referenced project. Also enclosed please find two checks made payable to the Town of Sturbridge: (1) 317.50 (for category 1.a. and 2.f) to cover the town share of the filing fee under the WPA; and (2) \$300.00 (for construction of a single-family house) to cover the filing fee under the Bylaw. EcoTec, Inc. (Scott Jordan; 508-752-9666 ext. 226) will pay the Legal Notice fee promptly upon notification of the cost of the advertisement. This filing is comprised of:

1. This cover letter;
2. The Town of Sturbridge Conservation Commission Notice of Intent Application Coversheet/Checklist;
3. WPA Form 3, Notice of Intent Form with Fee Transmittal Form and Copies of filing fee checks;
4. Sturbridge Wetland Protection By-Law and Regulations Wetlands Filing Fee Calculation Worksheet;
5. Certified Abutters List, Form of Abutter Notice, and Affidavit of Service;
6. Town of Sturbridge Tax Form Sign-Off;
7. Project Narrative by EcoTec Inc. dated December 18, 2023;
8. Wetland Replication Protocol by EcoTec Inc. dated December 18, 2023;
9. Wetland Resource Evaluation Report by EcoTec dated January 30, 2021, including:
 - USGS Map, with site indicated;
 - Flood Insurance Rate Map FIRMette, with site indicated;
 - NHESP Atlas, with site indicated; and
 - BVW delineation field forms.
10. Site Plan titled: “Proposed Single-Family Home” by McClure Engineering, Inc. dated February 19, 2024.

Sturbridge Conservation Commission
Re: 36 Champeaux Rd.
Page 2 of 2

The proposed project consists of the construction of a single-family home, pool, driveway, septic system, grading and associated site work within the 200-foot Buffer Zone. Work within the 100-foot Buffer Zone consists of a portion of the proposed pool and portions of the proposed driveway. The proposed driveway also requires a crossing of the Bordering Vegetated Wetland on the Site and work within the 25-foot No-Disturbance Buffer. A box culvert which meets the requirements of the Mass Stream Crossing Standards shall be constructed at the driveway crossing. Accordingly, a waiver request has been prepared and is included in the Project Narrative, which is included in the Notice of Intent filing materials. The wetland resource areas will be protected during construction of silt fence and straw wattles or bales and a stone tire scrubbed is proposed at the site entrance to prevent tracking onto the roadway.

One copy of this filing and payment of \$292.50 have been submitted by certified mail, return receipt requested to the Central Regional Office of the Department of Environmental Protection and the MassDEP Lockbox, respectively. Documentation of all payments is included in the filing.

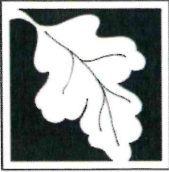
We look forward to meeting with the Commission regarding this filing. If you have any questions, please feel free to contact me at any time.

Cordially,
ECOTEC, INC.



Scott Jordan
Senior Environmental Scientist

CC: MassDEP Central Regional Office



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):

36 Champeaux Road
a. Street Address

Sturbridge
b. City/Town

01518
c. Zip Code

Latitude and Longitude:
42.126248,
d. Latitude

-72.130551,
e. Longitude

206-
f. Assessors Map/Plat Number

01922-036
g. Parcel /Lot Number

2. Applicant:

Kevin
a. First Name

Lamy
b. Last Name

-
c. Organization

33 Paige Hill Road
d. Street Address

Brimfield
e. City/Town

MA
f. State

01010
g. Zip Code

413-599-5023
h. Phone Number

i. Fax Number

jamilynnlamy@comcast.net
j. Email Address

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

same as applicant
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
a. First Name

Morrison
b. Last Name

EcoTec, Inc.
c. Company

102 Grove Street
d. Street Address

Worcester
e. City/Town

MA
f. State

01605
g. Zip Code

508-752-9666 x227
h. Phone Number

i. Fax Number

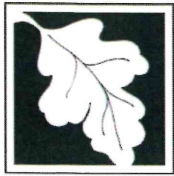
smorrison@ecotecinc.com
j. Email address

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

\$610.00
a. Total Fee Paid

\$292.50
b. State Fee Paid

\$317.50
c. City/Town Fee Paid



Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

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

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A. General Information (continued)

6. General Project Description:

Crossing for a Driveway to a Single-Family House and Associated Site Work

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

- 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

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 CMR10.24(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

66304,

c. Book

b. Certificate # (if registered land)

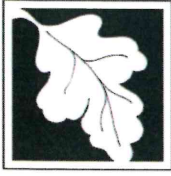
185

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
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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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 checked="" type="checkbox"/> Bordering Vegetated Wetland	538 1. square feet _____	1100 replication area 2. square feet _____
c. <input type="checkbox"/> Land Under Waterbodies and Waterways	1. square feet _____ 3. cubic yards dredged _____	2. square feet _____

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

4. Proposed alteration of the Riverfront Area:

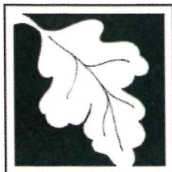
a. total square feet _____ b. square feet within 100 ft. _____ c. square feet between 100 ft. and 200 ft. _____

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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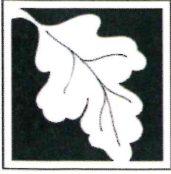
City/Town

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

8/1/2022

b. Date of map

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 **

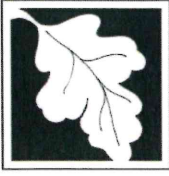
(a) Project description (including description of impacts outside of wetland resource area & buffer zone)

(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/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
Bureau of Resource Protection - Wetlands

WPA Form 3 – Notice of Intent

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

Provided by MassDEP:

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

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

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.

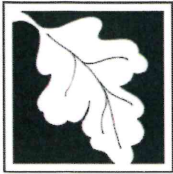
D. Additional Information

- 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.



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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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.

"Proposed Single-Family House"

a. Plan Title

McClure Engineering

Robert J. Duff PE

b. Prepared By

c. Signed and Stamped by

2/19/24

1"=60

d. Final Revision Date

e. Scale

Project Narrative and Wetland Replication Protocol

12/18/2023

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:

1249

2. Municipal Check Number

1/26/24

3. Check date

1250

4. State Check Number

1/26/24

5. Check date

Kevin R.

6. Payor name on check: First Name

Lamy

7. Payor name on check: Last Name



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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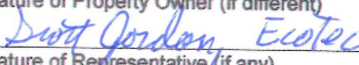
Sturbridge

City/Town

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.

	2-14-24
1. Signature of Applicant	2. Date
3. Signature of Property Owner (if different)	4. Date
	2/20/24
5. Signature of Representative (if any)	6. Date

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.

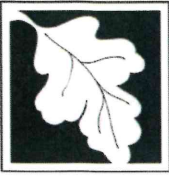
For MassDEP:

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:

36 Champeaux Road Sturbridge
 a. Street Address b. City/Town
1250 (state check) \$610.00 total, \$292.50 state
 c. Check number d. Fee amount

2. Applicant Mailing Address:

Kevin Lamy
 a. First Name b. Last Name
 -
 c. Organization
33 Paige Hill Rd
 d. Mailing Address
Brimfield MA 01010
 e. City/Town f. State g. Zip Code
413-599-5023 jamilynn.lamy@comcast.net
 h. Phone Number i. Fax Number j. Email Address

3. Property Owner (if different):

 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

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

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.

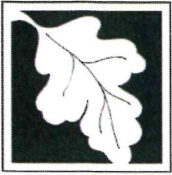
Step 2/Number of Activities: Identify the number of each type of activity.

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.



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 2. f. crossing for driveway	1	\$500.00	\$500.00
Category 1. a. work on s/f lot	1	\$110.00	\$110.00
Step 5/Total Project Fee:			\$610.00

Step 6/Fee Payments:

Total Project Fee:	\$610.00
State share of filing Fee:	\$292.50
City/Town share of filling Fee:	\$317.50
	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.)



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

Date	12/19/2023
------	------------

in all white cells completely

Parcel		Applicant name	Kevin Lamy
Address	36 Champeaux Road	Address	33 Paige Hill Road, Brimfield, MA 01010
Assessors	206-01922-036	Email	jamilynnlamy@comcast.net
Map/Plat	66304, 185	Phone	413-599-5023
Book & Page			
Owner name	same as applicant	Representative	Scott Morrison, PWS
Address		Address	EcoTec, Inc. 102 Grove Street, Worcester, MA 01605
Email		Email	smorrison@ecotecinc.com
Phone		Phone	508-752-9666 x227

FI

Wetland type	Bordering Vegetated Wetland	sf/cf affected	538 s.f. fill	Relevant Perf. Standards	10. <u>1,076 s.f.</u> replication
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 checked="" type="checkbox"/> Yes <input type="checkbox"/> No
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>\$300.00</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	<i>Present them at the hearing</i>
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 checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input 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

Conservation Commission Wetland Permit Process

NOI	Process
1	Obtain a Certified list of all abutters within 200' of property lines from the Assessor's Office. <i>(may take 10 business days)</i>
2	Obtain a Tax Form Sign-Off by the Finance Department
3	<p>Submit applications (see bullets below) by noon of the Tuesday deadline (16 days before the desired hearing):</p> <p>a. <u>To Sturbridge Conservation Commission</u>: 301 Main St., Sturbridge, MA 01566</p> <ul style="list-style-type: none"> • This coversheet (1 paper copy) • Complete application -- see the checklist on the other side of this page (2 paper copies and 1 pdf) <ul style="list-style-type: none"> • <i>Plans must be stamped by an engineer if any component of the project requires engineering.</i> • Checks <p>b. <u>To Mass DEP Central Regional Office</u>: 8 New Bond Street, Worcester, MA 01606</p> <ul style="list-style-type: none"> • Complete application -- see the checklist on the other side of this page (1 paper copy) • Photocopy of the two state checks • Email a complete application to CERO_NOI@mass.gov <p>c. <u>To DEP Lock Box</u>: Box 4062, Boston MA 02211</p> <ul style="list-style-type: none"> • Check for state portion of the state fee • Fee transmittal form
4	<i>Upon receipt of a complete application, the Conservation Agent will schedule a Public hearing/meeting.</i>
5	Once you are provided the date and time of the hearing, notify all abutters within 200' of the property line using the Town's " Notification to Abutters Form " by certified mail, certificate of mailing, or hand delivery with signatures 7 business days prior to the Hearing. (Present proof of notification prior to the beginning of the public hearing.)
6	<i>The Conservation Agent will place a legal ad in a local newspaper and the Applicant will be billed for the ad.</i>
7	Stake the project. 2 weeks in advance of the public hearing, stake all proposed structures, erosion control barriers, stormwater systems, etc. within Con Com jurisdiction. (See SWB Regulations)
8	<i>The Conservation Commission and/or Agent will perform a site visit before the public hearing to confirm existing conditions and proposed work. If you wish to be informed of the time of the visit, please contact the Con Com office.</i>
9	<p>Attend the public hearing/meeting. The applicant or representative is required to provide proof of abutter notification (including Affidavit of Service), proof of legal advertisement, briefly present the project, and answer any questions about possible impacts on wetlands. At the end of the hearing, the Con Com will either:</p> <ul style="list-style-type: none"> • Issue an <u>Order of Conditions</u> (OOC) approving or denying the project, or • Approve a continuation of the public hearing to allow time for additional information to be provided.
10	Receive and read the decision and understand the conditions. Contact the Con Com if you have any questions. Some conditions are temporary (such as maintaining erosion controls), and some are perpetual (such as maintaining restoration planting areas or limiting the use of fertilizers).
11	Wait-out the 10-Day appeal period. A decision of the Con Com can be appealed by MassDEP or by any abutter, applicant, or 10-citizen group within 10 business days of the decision.
12	Record the Order at the Registry of Deeds. Provide proof of recording to the Conservation office along with signed Certificates of Understanding.
13	Install MassDEP file number sign and erosion controls.
14	Schedule and attend a pre-construction site visit. Contact the Conservation office to schedule the site visit.
15	Execute the project. The project must be completed within 3 years, unless an extension of the permit is issued; extensions must be requested at least 30 days prior to the expiration of the permit.
16	Request a Certificate of Compliance (COC). Once the project is complete and all conditions have been satisfied, request a COC from the Conservation office by submitting at least: (1) DEP Form 8a , (2) a stamped as-built plan , and (3) a letter from the engineer stating that everything is in substantial compliance with the approved plans and OOC. The Con Com will perform a site visit to ensure compliance and will issue a COC if appropriate.
17	Record the Certificate of Compliance (COC) at the Registry of Deeds to remove the cloud from the title. Provide proof of recording to the Conservation office.

INCOMPLETE APPLICATIONS WILL NOT BE ACCEPTED.

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)	_____	\$150	_____
Shoreline Work	_____	\$150	_____
New Construction	<u>1</u>	\$300	<u>\$300.00</u>
Residential – Other:			
Subdivision/Multi-Unit	_____	\$750	_____
Commercial/Industrial:			
New	_____	\$1500	_____
Redevelopment	_____	\$1000	_____
Limited Project (as defined in SWB & WPA)	_____	Equal to full WPA fee	_____
Alterations – located within Riverfront Area	_____	Additional 50% of Fee	_____
Application filed after Enforcement Order		Double the Municipal fee	_____
Request for Amended Order of Conditions	_____	50% of initial fee	_____
Request for Determination of Applicability (RDA):			
No Wetland Boundary Confirmation			
Residential:	_____	\$100	_____
No Wetland Boundary Confirmation			
All Other:	_____	\$200	_____
For Wetland Boundary Confirmation			
File ANRAD or NOI			
Abbreviated Notice of Resource Area Delineation (ANRAD):			
Residential – Single Family:			
	_____	\$100	_____
All Other:			
Base Review	_____	\$300	_____
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	_____

OOE Extension Request	_____	\$50	_____
------------------------------	-------	------	-------

Emergency Certification	_____	\$50	_____
(NOI may be required to be filed following issuance of Emergency Cert)			

		\$300.00 (bylaw) + 317.50 (WPA) = \$617.50
Local Bylaw Fee (includes Town Filing Fee)	\$	_____
State Filing Fee (from DEP Wetland Transmittal Form)	\$	292.50
<u>Total Payable to "Town of STURBRIDGE"</u>	\$	<u>617.50</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: Kevin Lamy
- B. The address of the lot(s) where the activity is proposed is: 36 Champeaux Road, Sturbridge
- C. The nature of the activity proposed includes: Construction of a Single-Family House and Associated Site Work
- 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: _____

Public Hearing can be accessed remotely:

- **From your computer using:** _____ **or**
- **From your phone: +1 872 240 3212, followed by the access code** _____

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.



Town of Sturbridge

Conservation Commission

STURBRIDGE CONSERVATION COMMISSION AFFIDAVIT OF SERVICE

Under the Massachusetts Wetlands Protection Act and the Town of Sturbridge Wetland Bylaws I, Scott Morrison of EcoTec, Inc., hereby certify under the pains and penalties of perjury that on (date) _____, I gave notification to abutters in compliance with the second paragraph of the Massachusetts General Laws Chapter 131, § 40, and the DEP Guide to Abutter Notification as well as the Town of Sturbridge Wetland Bylaws, in connection with the following matter:

- A Notice of Intent OR
- A Request for Determination OR
- An Abbreviated Notice of Resource Area Delineation

that was filed under the Massachusetts Wetlands Protection Act and the Town of Sturbridge Bylaws, by Kevin Lamy with the Sturbridge Conservation Commission on (date) _____ for the property located at

36 Champeaux Road, Sturbridge.

The form of the Notification and a list of abutters to whom it was given and their addresses are included in the application file.

(signature of applicant) (date)

(name of applicant-printed or typed)



Town of Sturbridge

Barbara A. Barry, Finance Director

Department/Board/Committee: Conservation Commission

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

Property Owner: Kevin Lamy

Property Location: 36 Champeaux Road, Sturbridge

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

for Meghan Sacher
Finance Director

2/18/23
Date



Town of Sturbridge

Conservation Commission

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Parcel ID	Owner	Owner Address	Owner City	State	Zip	Property Address
206-01921-049	BACHAND SCOTT P	49 CHAMPEAUX ROAD	FSKDALE	MA	01518	49 CHAMPEAUX ROAD
206-01922-039	BOHILL SARAH MARIE	39 CHAMPEAUX ROAD	FSKDALE	MA	01518	39 CHAMPEAUX ROAD
206-01911-053	DAMERY PAUL J	BOX 590	FSKDALE	MA	01518	53 CHAMPEAUX ROAD
206-01912-037	FISH DOUGLAS M	37 CHAMPEAUX ROAD	FSKDALE	MA	01518	37 CHAMPEAUX ROAD
206-01921-051	GORDON CHRISTOPHER S	51 CHAMPEAUX ROAD	FSKDALE	MA	01518	51 CHAMPEAUX ROAD
206-01922-047	MORRELL ROBERT E	47 CHAMPEAUX ROAD	FSKDALE	MA	01518	47 CHAMPEAUX ROAD
206-01921-046	SCHERMERHORN DAVID W	84 CHAMPEAUX ROAD	BRIMFIELD	MA	01010	46 CHAMPEAUX ROAD
206-01922-041	STRAUSE JEFFREY	41 CHAMPEAUX ROAD	FSKDALE	MA	01518	41 CHAMPEAUX ROAD
206-01932-042	SULLIVAN DOUGLAS S	106 STURBRIDGE ROAD	BRIMFIELD	MA	01010	42 CHAMPEAUX ROAD
415-02321-800	SULLIVAN JEAN M	108 STURBRIDGE ROAD	BRIMFIELD	MA	01010	800 MAIN STREET
206-01924-033	U S ARMY CORPS OF ENGINEERS	696 VIRGINIA ROAD	CONCORD	MA	01742	33 CHAMPEAUX ROAD
415-02342-712	U S ARMY CORPS OF ENGINEERS	696 VIRGINIA ROAD	CONCORD	MA	01742	712 MAIN STREET
206-01921-043	WHEELING DAVID CHAD	43 CHAMPEAUX ROAD	FSKDALE	MA	01518	43 CHAMPEAUX ROAD
	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 Commission - 200'				
RE: 36 CHAMPEAUX ROAD						
Certified Copy						
Assessor:		<i>Walter P. Murphy</i>				
Date:		<i>12-19-2023</i>				



Town of Sturbridge

Barbara A. Barry, Finance Director

Department/Board/Committee: Conservation Commission

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

Property Owner: Kevin Lamy

Property Location: 36 Champeaux Road, Sturbridge

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 The license/permit may not be released.

for Meghan Sacher
Finance Director

12/18/23
Date

EcoTec, Inc.

ENVIRONMENTAL CONSULTING SERVICES

102 Grove Street

Worcester, MA 01605-2629

508-752-9666 – Fax: 508-752-9494

NOTICE OF INTENT REPORT

Champeaux Road

Sturbridge, Massachusetts

Prepared For:

Kevin Lamy

33 Paige Road

Brimfield, MA 01069

Prepared By:

Scott Morrison, PWS

EcoTec, Inc.

102 Grove Street

Worcester, MA 01605

January 3, 2024

Introduction:

The Notice of Intent has been filed for the construction of a single-family home, driveway, septic system, pool, grading, vista pruning, and associated site work. The following sections provide a description of the existing and proposed conditions as well as compliance with the Wetlands Protection Act and the Bylaw regulations.

Existing Conditions:

The site consists of an existing single-family home, gravel driveway, lawn, and fringe of forest. The site is serviced by a municipal sewer system and an on-site well provides water to the home. The Notice of Intent (NOI) application includes a copy of the wetland resource evaluation report prepared by EcoTec dated January 30, 2021, is appended to the NOI application. The wetlands include a forested/shrub swamp located along the southern property line as well as a vegetated wetland located along the northeastern portion of the site. The wetland in the northeastern portion of the site appears to have been (in part) created as a result of road runoff being directed onto the site along the northern property line. This wetland sheet flows through an area of maintained turf and flows into the back of the stairs leading into the lake. This resulted in the stairs being damaged and requiring them to be reconstructed under a negative Determination of Applicability issued by the Sturbridge Conservation Commission in the fall of 2022.

Proposed Conditions:

The proposed project consists of the construction of a driveway, single-family home, pool, garage, septic system and associated site work. The site contains steep slopes and numerous wetland resource areas. As such, the project has been designed to minimize impacts to reach the developable portion of the property. With the exception of the "limited project" driveway the project has been designed to fully comply or exceed the Bylaw regulatory setbacks for the structures and limit of disturbance.

It should be noted that due to the requirement to cross the wetland to conduct perk testing in accordance with the Title V regulations, this testing will be performed following approval of the project. The current plans identify a location for the septic system, but updated plans can be provided once soil evaluations are completed and the septic design approved by the Board of Health.

Alternatives:

The site contains expansive wetland in the northern portion of the site and Long Pond and land owned by the United States Army Corps of Engineers to the east. This limits the possible developable portions of the property. The following alternative were assessed prior to the development of the proposed site plans as follows:

Alternative 1 No Wetland Fill:

This alternative was evaluated and would require the proposed home, driveway, septic system and associated site work to be located in the northwestern portion of the site. Topography in this portion of the site slopes steeply from west to east, with only a small areas located outside the 100-foot

Buffer Zone and the entire area within the 200-foot Buffer Zone under the Bylaw. Given the small size and steep topography of this portion of the site this location has been dismissed.

Alternative 2 Access via Existing Cart Path of Army Corps land:

Alternative 2 was assessed to determine if the existing cart path that runs alongside Long Pond could be utilized and upgraded to provide a driveway access to the site. This is located on land owned by the Corps of Engineers and is not an allowable use. Furthermore, portions of the access path are located within the Flowage Easement and would be flooded during significant storms, which would prevent emergency access to the proposed home. For these reasons, this alternative is not feasible and has been dismissed.

Alternative 3 Preferred Alternative:

This alternative consists of the proposed project design. This utilizes an upland break within the C series wetland to avoid Bordering Vegetated Wetland (BVW) fill along the roadside, and connects with an existing logging path and crosses a stream and BVW at a narrow point to allow access to the significant upland area in the southern portion of the site. This proposal utilizes a culvert to maintain flows within the C-series wetland, proposes a Massachusetts Stream Crossing Standard culvert to upgrade the existing cart path crossing, and proposed the development area in the southeastern portion of the site in a nearly level portion of the site, which minimizes the extent of grading and excavating required to construct the proposed house. Alternatives 1 & 2 are not allowable or contain significant constraints making the project impracticable, which would not allow the project to be constructed, while complying with the setback requirements. Therefore, this alternative has been chosen.

Compliance under the Wetlands Protection Act:

The proposed project requires a wetland crossing to access developable upland in the southern portion of the site. Based upon the location of the wetland systems on the site, this crossing is unavoidable. The project would be deemed a Limited Project, thus strict compliance with the performance standards is not required. However, the project has been designed to meet the performance standards.

The proposed project includes the impact to 538 square feet of BVW contained within a historic cart path/logging access. There was an existing 8-inch pipe carrying water beneath the cart path, but this appears to have been removed sometime in the past 4-5 years. The proposed project proposes a 6-foot wide by 3-foot-high box culvert to ensure that the project spans the stream by at least 120% and complies with the Massachusetts Stream Crossing Standards openness ratio. Furthermore, there is a proposed 1,100 square foot wetland replication area proposed to comply with the requirements to mitigate the loss of BVW. The following wetland replication protocol has been prepared in accordance with the regulatory requirements.

Wetland Replication Protocol:

1. The following protocol conforms to the general performance standards in the MA Wetlands Protection Act Regulations at 310 CMR 10.55(4)(b) for replication of Bordering Vegetated Wetland (“BVW”).
2. The wetland boundaries (i.e., downgradient edges of the wetland replication area) will be marked in the field.
3. The wetland scientist may mark trees to be left intact within the replication area or along the wetland boundary. Excavation immediately proximate to these trees will not occur. This will result in a variable microtopography of the replication area, analogous to the natural “pit and mound” topography in wooded swamps in Massachusetts. Mounded areas will represent only a small percentage of the replication area.
4. Prior to the start of earth-moving activities in the replication area, an erosion control barrier of properly installed siltation fence (i.e., the bottom few inches of the siltation fence installed in a narrow trench and the trench filled with soil around the siltation fence) will be installed along the wetland boundaries between the wetland and the wetland replication area. The wetland replication area will then be cleared and grubbed, with the exception of the trees that have been marked to be saved.
5. The proposed final grade for the replication area will approximate the elevation of the adjacent wetland areas, as noted on the site plans. The replication area will be excavated to a depth of 12 inches below the proposed final grade. The excavation and planting work will be closely supervised by a qualified Wetland Scientist. Minor modifications to the proposed grading may be made in the field by the Wetland Scientist in response to observed subsurface hydrologic conditions. All excavated subsoil material will be disposed of away from all wetland resource areas.
6. Site topsoil to be utilized in the replication area will consist of a 1:1 mixture of high quality, leaf mold compost, as necessary, to approximate 12 inches in thickness throughout the replication area. The substrate will be roughly graded to provide an appropriate microtopography. A minimum of 4 inches of loamy topsoil will be applied to the side-slopes of the wetland replication area. The side slopes will be planted and stabilized as necessary to prevent erosion.
7. An erosion control barrier comprised only of toed-in siltation fence will be properly installed between the completed replication area and the adjacent upland side slopes.
8. Planting will be done only during the beginning (April 15 through June) or end (September 1 to November 15) of the growing season. Alternatively, planting in the mid-growing season is only acceptable if irrigation is provided. The plant species identified in the table below will be planted in the replication area either by transplant from on-site within areas of proposed disturbance or

from nursery stock. The shrubs will be planted randomly throughout the area with the average spacing between shrubs approximately 6 feet on-center. The woody vegetation should not be planted in rows.

Planting Plan for 1,100 Square Foot Wetland Replication Area

SPECIES; SIZE; SPACING	NUMBER
Saplings; 8 to 10' height, container or balled, burlapped; Red Maple (<i>Acer rubrum</i>)	5 total
Shrubs; 2.5 to 3' in height, container; 6' on-center average spacing Highbush blueberry (<i>Vaccinium corymbosum</i>) Arrow-wood (<i>Viburnum dentatum</i>) Winterberry (<i>Ilex verticillata</i>) Silky dogwood (<i>Cornus amomum</i>)	30 total*
Herbaceous; New England Wetland Plants, New England Wetmix (or equivalent)	.5 lbs.

* Depending upon availability from local nursery stock, plantings may be substituted with similar native species

9. The replication areas will be mulched with 1 to 2 inches of leaf compost or straw to simulate a forest floor and to provide for temporary erosion control and moisture retention.
10. The side-slopes of the wetland replication area will be seeded with an erosion control grass/wildflower mixture designed to provide permanent cover. After seeding, the side-slopes will be mulched with a thin layer of straw to provide for temporary erosion control.
11. The replication area will be inspected, by a qualified Wetland Scientist, at the end of each growing season for a minimum of two years or until such time as the required 75% of vegetative cover with wetland species has been established and. Success of the replication area will be determined by achieving the 75% of vegetative cover. Written results of these inspections will be submitted to the Conservation Commission. Monitoring reports will include photographs of the replication area, and visual estimates of percent cover and vigor of the plant community.
12. After the wetland replication area has become vegetatively stabilized and following approval of the issuing authority, the siltation fence and all wooden stakes will be removed and disposed of properly.

Wetlands Protection Act Regulatory Compliance:

The impacts to BVW are required to comply with the performance standards at 310 CMR 10.55 (4) b as follows:

(b) Notwithstanding the provisions of 310 CMR 10.55(4)(a), the issuing authority may issue an Order of Conditions permitting work which results in the loss of up to 5000 square feet of Bordering Vegetated Wetland when said area is replaced in accordance with the following general conditions and any additional, specific conditions the issuing authority deems necessary to ensure that the replacement area will function in a manner similar to the area that will be lost:

1. the surface of the replacement area to be created ("the replacement area") shall be equal to that of the area that will be lost ("the lost area");

Response: The proposed project meets this standard by providing more replication than required.

2. the ground water and surface elevation of the replacement area shall be approximately equal to that of the lost area;

Response: The groundwater and surface elevations are approximately equal to that of the lost area.

3. The overall horizontal configuration and location of the replacement area with respect to the bank shall be similar to that of the lost area;

Response: The replacement area is within a similar location to the Bank.

4. the replacement area shall have an unrestricted hydraulic connection to the same water body or waterway associated with the lost area;

Response: The replacement areas will have an unrestricted hydraulic connection to the same waterbody.

5. the replacement area shall be located within the same general area of the water body or reach of the waterway as the lost area;

Response: The replacement area is in the same area as the lost area.

6. at least 75% of the surface of the replacement area shall be reestablished with indigenous wetland plant species within two growing seasons, and prior to said vegetative reestablishment any exposed soil in the replacement area shall be temporarily stabilized to prevent erosion in accordance with standard U.S. Soil Conservation Service methods; and

Response: A detailed planting is provided to propose native plant cover within the replacement area.

7. the replacement area shall be provided in a manner which is consistent with all other General Performance Standards

Response: The replacement area is provided in a manner consistent with all other performance standards including the local Bylaw standards, which are detailed below.

Compliance with the Sturbridge Wetlands Protection Bylaw and regulations:

The Town of Sturbridge Wetlands Protection Bylaw regulations have provisions for project that qualify as “Limited Projects” such as this project.

C. Limited project permits may be issued for the following:

(4) The construction and maintenance of a new roadway or driveway of minimum legal and practical width (provided general performance standards for § 365-3.5 STURBRIDGE CODE § 365-3.5 365:20 alteration are met).

Limited Projects are required to comply with sections 365-3.5 and 365:20 as follows:

§ 365-3.5. Limited projects.

A. Limited projects are activities within the existing wetlands which can proceed at the discretion of the Commission without fully meeting the resource area performance standards due to a lack of any practicable alternatives. Self-imposed hardship disqualifies an applicant from limited project consideration.

(1) In permitting limited projects, the Commission may issue an order of conditions and impose such conditions as will contribute to the interests identified.

Response: No response needed

(2) No such project may be permitted which will have any adverse effect on specified habitat sites of rare vertebrate or invertebrate species, as identified by DFW-NHESP.

Response: The site is not mapped within Estimated or Priority Habitat by the natural Heritage and Endangered Species Program.

(3) In the exercise of this discretion, the Commission shall consider the magnitude of the alteration and the significance of the project site to the interests identified, the availability of reasonable alternatives to the proposed activity, the extent to which adverse impacts are minimized and the extent to which mitigation measures, including replication or restoration, are provided to contribute to the protection of the interests identified.

Response: The proposed project proposes to impact 538 square feet of BVW to allow access to construct a single-family home. The site is nearly 20-acres, which with the exception of a single-family home, driveway and associated work will remain in its natural state allowing for significant wetland and Buffer Zone to remain to provide a significant environmental benefit.

The Bylaw regulations provide additional requirements for Limited Projects as follows

B. Limited project applications. Limited project applications may be approved, provided they are carried out in accordance with the following general conditions and any additional conditions deemed necessary by the Commission:

(1) There shall occur no change in the existing topography or the existing soil and surface water levels of the area.

Response: The project has been designed to minimize cuts and fills associated with the development of the site. No changes to the surface water levels are proposed.

(2) No fertilizers, pesticides, herbicides, salts and other such materials shall be used within 200 feet of any resource area except by Massachusetts state licensed applicators.

Response: None are proposed and the Commission will likely add this as a special condition.

(3) All activities shall be undertaken in such a manner as to prevent erosion and siltation of adjacent resource area.

Response: The proposed project has been designed to minimize excavation and grading work and erosion controls will be installed, inspected, and maintained to ensure that erosion is prevented.

(4) A minimum of 2:1 in-kind mitigation shall be provided for any and all resource area disturbance. Riverfront resource area shall also be mitigated at a minimum ratio of 2:1.

Response: Greater than 2;1 in-kind mitigation is proposed to be provided.

Tree Cutting Requirements

The applicant is seeking approval for trees to be removed to provide an increased view of Long Pond from the home. This will include a 30-foot-wide area where trees will be cut, but stumps and other shrubs will remain. The Bylaw regulations provide guidance as to the requirements for this work as follows.

B. Should trees or vegetation need to be altered or removed, the following guidelines shall apply:

(1) No disturbance of trees or other vegetation is allowed within the first 25 feet to any resource area. A tree removal permit application may be filed for the removal of a tree if is hazardous, dead or documentation can be provided that the tree is diseased or in poor health. The Commission may allow the removal of a healthy tree, but requires mitigation in the form of replacement in such situations.

Response: No trees within the 25-feet of the resource area are proposed to be removed.

(2) For the proposed cutting of trees or more than 10% of the vegetation within the 100-foot buffer zone, a request for determination must be filed. Likewise, the cutting of trees or more than 10% of the vegetation within the 100- to 200-foot buffer will require the filing of a bylaw permit application. Should a permit be issued, the following best management practices shall be required:

Response: The applicant seeks to selectively remove trees within a 30-foot wide area between the proposed house and the lake (remaining on the property). This will be much less than 10% on the vegetation within the 0-100 and 100-200 foot Buffer Zones.

(a) No stumps shall be removed within the first 50 feet to a resource area. Stumps may be ground below the surface and loamed and seeded.

Response: No stumps are proposed to be removed.

(b) Plans for removal of trees or vegetation on slopes must also contain plans to replace the erosion control values being lost. Tree or vegetation removal will only be allowed if there is not an increased risk of erosion to resource areas.

Response: The stumps will remain along with all the existing vegetation to ensure that there is no increased risk of erosion.

(c) Tree removal within the first 50 feet of any resource area will only be allowed if there is not a significant change to the canopy.

Response: Removal of trees from this limited area will not result in a significant change to the tree canopy within the Buffer Zone.

(3) Tree cutting, or any other work, within areas designated as estimated habitat for rare and endangered species by the Natural Heritage and Endangered Species Program must be permitted through NHESP as well as through the Commission.

Response: The site is not located within any areas mapped by the NHESP.

Conclusion:

Based upon the details provided above, the proposed project has been designed to fully comply with the performance standards of the Wetlands Protection Act and the Town of Sturbridge Wetlands Protection Bylaw for “Limited Projects” . Therefore, the applicant is seeking an Order of Conditions approving the proposed project.

EcoTec, Inc.

ENVIRONMENTAL CONSULTING SERVICES

102 Grove Street

Worcester, MA 01605-2629

508-752-9666 – Fax: 508-752-9494

BORDERING VEGETATED WETLAND REPLICATION CONSTRUCTION PROTOCOL

**36 Champeaux Road
Sturbridge, MA 01518**

December 18, 2023

1. The following protocol conforms to the general performance standards in the MA Wetlands Protection Act Regulations at 310 CMR 10.55(4)(b) for replication of Bordering Vegetated Wetland (“BVW”).
2. The wetland boundaries (i.e., downgradient edges of the wetland replication area) will be marked in the field.
3. The wetland scientist may mark trees to be left intact within the replication area or along the wetland boundary. Excavation immediately proximate to these trees will not occur. This will result in a variable microtopography of the replication area, analogous to the natural “pit and mound” topography in wooded swamps in Massachusetts. Mounded areas will represent only a small percentage of the replication area.
4. Prior to the start of earth-moving activities in the replication area, an erosion control barrier of properly installed siltation fence (i.e., the bottom few inches of the siltation fence installed in a narrow trench and the trench filled with soil around the siltation fence) will be installed along the wetland boundaries between the wetland and the wetland replication area. The wetland replication area will then be cleared and grubbed, with the exception of the trees that have been marked to be saved.
5. The proposed final grade for the replication area will approximate the elevation of the adjacent wetland areas (740-742), as noted on the site plans. The replication area will be excavated to a depth of 12 inches below the proposed final grade. The excavation and planting work will be closely supervised by a qualified Wetland Scientist. Minor modifications to the proposed grading may be made in the field by the Wetland Scientist in

response to observed subsurface hydrologic conditions. All excavated subsoil material will be disposed of away from all wetland resource areas.

6. Site topsoil to be utilized in the replication area will consist of a 1:1 mixture of high quality, leaf mold compost, as necessary, to approximate 12 inches in thickness throughout the replication area. The substrate will be roughly graded to provide an appropriate microtopography. A minimum of 4 inches of loamy topsoil will be applied to the side-slopes of the wetland replication area. The side slopes will be planted and stabilized as necessary to prevent erosion.
7. An erosion control barrier comprised only of toed-in siltation fence will be properly installed between the completed replication area and the adjacent upland side slopes.
8. Planting will be done only during the beginning (April 15 through June) or end (September 1 to November 15) of the growing season. Alternatively, planting in the mid-growing season is only acceptable if irrigation is provided. The plant species identified in the table below will be planted in the replication area either by transplant from on-site within areas of proposed disturbance or from nursery stock. The shrubs will be planted randomly throughout the area with the average spacing between shrubs approximately 6 feet on-center. The woody vegetation should not be planted in rows.

Planting Plan for 1,100 Square Foot Wetland Replication Area

<u>SPECIES; SIZE; SPACING</u>	<u>NUMBER</u>
Saplings; 8 to 10' height, container or balled, burlapped; Red Maple (<i>Acer rubrum</i>)	14 total
Shrubs; 2.5 to 3' in height, container; 6' on-center average spacing Highbush blueberry (<i>Vaccinium corymbosum</i>) Arrow-wood (<i>Viburnum dentatum</i>) Winterberry (<i>Ilex verticillata</i>) Silky dogwood (<i>Cornus amomum</i>)	30 total*
Herbaceous; New England Wetland Plants, New England Wetmix (or equivalent)	.5 lbs.

* Depending upon availability from local nursery stock, plantings may be substituted with similar native species

9. The replication areas will be mulched with 1 to 2 inches of leaf compost or straw to simulate a forest floor and to provide for temporary erosion control and moisture retention.

36 Champeaux Road, Sturbridge

December 18, 2023

Page 3.

10. The side-slopes of the wetland replication area will be seeded with an erosion control grass/wildflower mixture designed to provide permanent cover. After seeding, the side-slopes will be mulched with a thin layer of straw to provide for temporary erosion control.

11. The replication area will be inspected, by a qualified Wetland Scientist, at the end of each growing season for a minimum of two years or until such time as the required 75% of vegetative cover with wetland species has been established and. Success of the replication area will be determined by achieving the 75% of vegetative cover. Written results of these inspections will be submitted to the Conservation Commission. Monitoring reports will include photographs of the replication area, and visual estimates of percent cover and vigor of the plant community.

12. After the wetland replication area has become vegetatively stabilized and following approval of the issuing authority, the siltation fence and all wooden stakes will be removed and disposed of properly.

EcoTec, Inc.

ENVIRONMENTAL CONSULTING SERVICES

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

January 30, 2021

Jean Sullivan
51 West Old Sturbridge Road
Brimfield, MA 01010

RE: Wetland Resource Evaluation, Champeaux Road, Sturbridge, Massachusetts

Dear Ms. Sullivan:

On June 3, 2016, January 19, 2017, and January 30, 2021 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 U.S. Clean Water Act (i.e., Section 404 and 401 wetlands); and (3) the Town of Sturbridge Wetlands Protection Bylaw and regulations Scott Morrison, PWS conducted the inspection.

The subject site consists of a 12+/-acre parcel located to the south of Champeaux Road in Sturbridge just easterly of the Brimfield Town line. The upland portions of the site consist of and existing garage, field and forest. Plant species observed include northern red oak (*Quercus rubra*), white oak (*Quercus alba*), eastern white pine (*Pinus strobus*), black cherry (*Prunus serotina*), red maple (*Acer rubrum*), sugar maple (*Acer saccharum*), American beech (*Fagus grandifolia*), white ash (*Fraxinus americana*) and black birch (*Betula lenta*) trees and/or saplings; poison ivy (*Toxicodendron radicans*), Virginia creeper (*Parthenocissus quinquefolia*), and grape (*Vitis sp.*) climbing woody vines; American witch-hazel (*Hamamelis virginiana*), highbush blueberry (*Vaccinium corymbosum*), mountain laurel (*Kalmia latifolia*), American hazel-nut (*Corylus americana*), and maple-leaf viburnum (*Viburnum acerifolium*) shrubs; and wild sarsaparilla (*Aralia nudicaulis*), tree clubmoss (*Lycopodium obscurum*), bracken fern (*Pteridium aquilinum*), hayscented fern (*Dennstaedtia punctilobula*), partridge-berry (*Mitchella repens*), feather false-Solomon’s-seal (*Smilacina racemosa*) and wild-lily-of-the-valley (*Maianthemum canadense*) ground cover. 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 or, in the absence of Bordering Vegetated Wetlands, Bank was delineated in the field in accordance with the definitions set forth in the regulations at 310 CMR 10.55(2)(c) and 310 CMR 10.54(2). 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.” Section 10.54(2)(c) states that “The upper boundary of Bank is the first observable break in the slope or the mean annual flood level, whichever is lower.” The methodology used to delineate Bordering Vegetated Wetlands is further described in: (1) the BVW Policy “*BVW: Bordering Vegetated Wetlands Delineation Criteria and Methodology*,” issued March 1, 1995; and (2) “*Delineating Bordering Vegetated Wetlands Under the Massachusetts Wetlands Protection Act: A Handbook*,” produced by the Massachusetts Department of Environmental Protection, dated March 1995. The plant taxonomy used in this report 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 and Bank. One set of DEP Bordering Vegetated Wetland Delineation Field Data Forms completed for observation plots located in the wetlands and uplands near flag C-7 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 A19 Stop (A1 connect to AA1)	Blue Flags	Boundary of Bordering Vegetated Wetlands/Bank located in the southern portion of the site that is associated with an intermittent stream.
Start AA1 to AA15 Stop (AA1 connect to A1)	Blue Flags	Boundary of Bordering Vegetated Wetlands/Bank located in the southern portion of the site that is associated with an intermittent stream.
Start B1 to B64 Stop	Blue Flags	Boundary of Bordering Vegetated Wetlands/Bank located in the southern and eastern portions of the site that is associated with an intermittent stream.
Start C1 to C22 Connect to C1	Blue Flags	Boundary of Bordering Vegetated Wetlands located in the northern portion of the site that is associated with an internal intermittent stream.

Findings

Wetland A, AA B & C (i.e., flags A1 to A19, AA1 to AA15 B1 to B64, and C1 to C22) consists of a forested swamp located in the northern and southern portions of the site that is associated with intermittent streams. Plant species observed include red maple (*Acer rubrum*), yellow birch (*Betula alleghaniensis*), gray birch (*Betula populifolia*), and American elm (*Ulmus americana*) trees and/or saplings; poison ivy (*Toxicodendron radicans*) climbing woody vines; highbush blueberry (*Vaccinium corymbosum*), common winterberry (*Ilex verticillata*), arrow-wood (*Viburnum dentatum*), northern spicebush (*Lindera benzoin*), speckled alder (*Alnus rugosa*), silky dogwood (*Cornus amomum*) and American elderberry (*Sambucus canadensis*) shrubs; and bristly blackberry (*Rubus hispidus*), cinnamon fern (*Osmunda cinnamomea*), royal fern (*Osmunda regalis*), sensitive fern (*Onoclea sensibilis*), skunk-cabbage (*Symplocarpus*

foetidus), swamp Jack-in-the-pulpit (*Arisaema triphyllum*), Alaska goldthread (*Coptis trifolia*) and spotted touch-me-not (*Impatiens capensis*) ground cover. Evidence of wetland hydrology, including hydric soils, high groundwater, saturated soils, and drainage patterns, 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 and Bylaw. A 100-foot Buffer Zone extends horizontally outward from the edge of Bordering Vegetated Wetlands and Bank under the Act and the Bylaw regulates a 200-foot Buffer that can extend to 500-feet based upon the slopes on the site.

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." Based upon a review of the Flood Insurance Rate Map, Worcester County, Massachusetts, Map Number 25027C0745E, Effective Date July 4, 2011 there is a mapped Zone A (i.e., 100-year floodplain with an unspecified flood elevation) located to the east of the site. 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 or Bank boundary. Bordering Land Subject to Flooding does not have a Buffer Zone under the Act and Bylaw.

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 in the northern and southern portions of the site. The watershed area for this stream at the site was determined to be approximately 0.1 square miles, which is less than 0.5 square miles. 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 or Bylaw.

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*, 14th edition, Priority Habitats and Estimated Habitats, there are no Estimated Habitats [for use with

Ms. Sullivan
January 30, 2021
Page 4.

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 blue ink that reads "Scott M. Morrison". The signature is written in a cursive style and is positioned above the printed name.

Scott M. Morrison, PWS
Senior Environmental Scientist

Attachments (6, 8 pages)

17/E/SturChampeauxRd2

EcoTec, Inc.

ENVIRONMENTAL CONSULTING SERVICES

102 Grove Street

Worcester, MA 01605-2629

508-752-9666 – Fax: 508-752-9494

Scott M. Morrison, PWS, RPSS, SE **Senior Environmental Scientist**

Scott Morrison is a Senior Environmental Scientist with EcoTec, Inc. Since joining EcoTec in 2000, Mr. Morrison's project experience include wetland resource evaluation, delineation, and permitting at the local, state, and federal levels; wildlife habitat evaluation; pond and stream evaluation; vernal pool evaluation, monitoring, and certification; wetland replacement, replication, and restoration area design, construction, and monitoring; soil evaluations to determine infiltration rates and seasonal high groundwater elevations for detention basin construction; environmental sampling and analysis tasks, including soil and groundwater sample collection and handling; and expert testimony preparation. He has conducted rare species habitat assessments for the eastern box turtle, wood turtle, Blanding's turtle, spotted turtle, and marbled salamander. He has participated in rare species studies for rare species including the marbled salamander, piping plover, eastern box turtle, and northern diamondback terrapin and developed mitigation strategies for the marbled salamander, spotted turtle, eastern box turtle and wood turtle. He has participated in visual preconstruction sweeps for the wood turtle and both preconstruction and research projects for the eastern box turtle. He has served as a consultant to municipalities, conservation commissions, engineering and survey firms. He has completed numerous wetland related projects including environmental impact assessments for proposed development, erosion control and environmental monitoring for subdivisions, commercial developments, golf courses and landfills. He has prepared Massachusetts Environmental Policy Act (MEPA) documentation, including Environmental Notification Forms (ENFs), Notice of Project Changes (NPCs), and Draft and Final Environmental Impact Reports (EIRs) including Green House Gas Assessments for various projects including subdivisions, commercial buildings, and dredging projects. Prior to joining EcoTec, Inc. Mr. Morrison worked for the Massachusetts Department of Environmental Management (currently the Department of Conservation and Recreation) where he was involved with the monitoring and protection of endangered species and rare old growth forest. He was an active member of the Spencer Conservation Commission from 1998 to 2000 where he provided oversight of proposed wetland replication projects and review of projects submitted for wetland permitting. His educational background includes courses in forestry, ecology, chemistry, soils, and natural resource policy. His prior research experience includes research on forest succession and field research on nesting piping plovers, an endangered coastal shore bird.

Education:

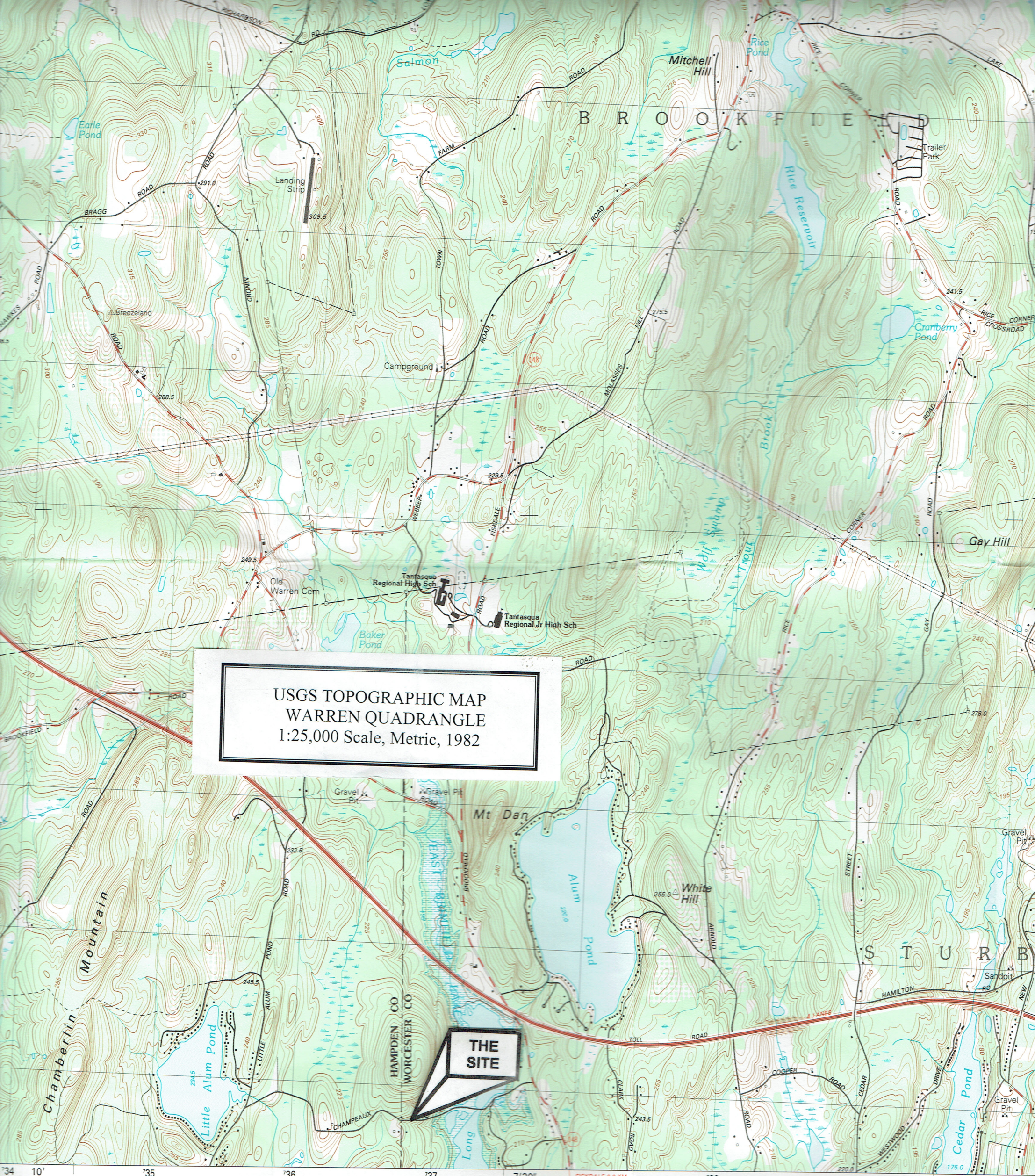
Graduate Soil Science Certificate Program
University of Massachusetts at Amherst, 2006
Bachelor of Science: Natural Resource Studies
University of Massachusetts at Amherst, 1998
Associate of Science: Business Administration
Quinsigamond Community College, 1996

Professional Affiliations: Registered Professional Soil Scientist, Society of Soil Scientists of Southern New England (SSSSNE)

Massachusetts Association of Conservation Commissioners
Association of Massachusetts Wetland Scientists
Society of Wetland Scientists

Certifications:

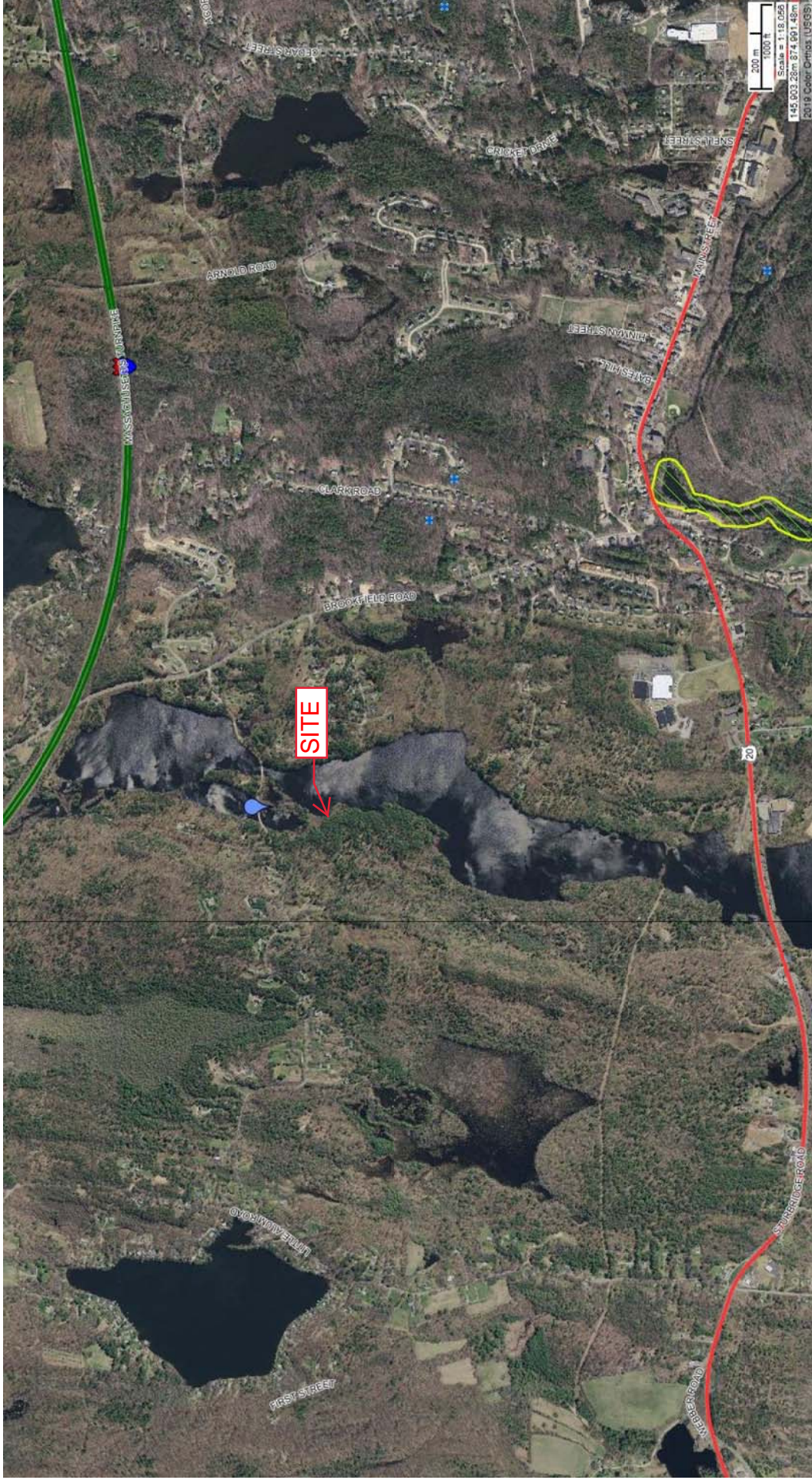
Society of Wetlands Scientists Professional Wetland Scientist,
Certification Number 2583
Massachusetts Department of Environmental Protection Soil Evaluator,
Certification Number SE 13766
OSHA Health and Safety Training, 40-Hour, 29 CFR 1910.120
University of Massachusetts Extension, Invasive Species Management



USGS TOPOGRAPHIC MAP
WARREN QUADRANGLE
1:25,000 Scale, Metric, 1982

THE SITE

SCALE 1:25 000
1 CENTIMETER ON THE MAP REPRESENTS 250 METERS ON THE GROUND
CONTOUR INTERVAL 3 METERS



Natural heritage Atlas Online Data Viewer Output

Champeaux Road, Sturbridge -September 17, 2020



MAP SCALE 1" = 1000'



NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0745E

FIRM FLOOD INSURANCE RATE MAP WORCESTER COUNTY, MASSACHUSETTS (ALL JURISDICTIONS)

PANEL 745 OF 1075
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

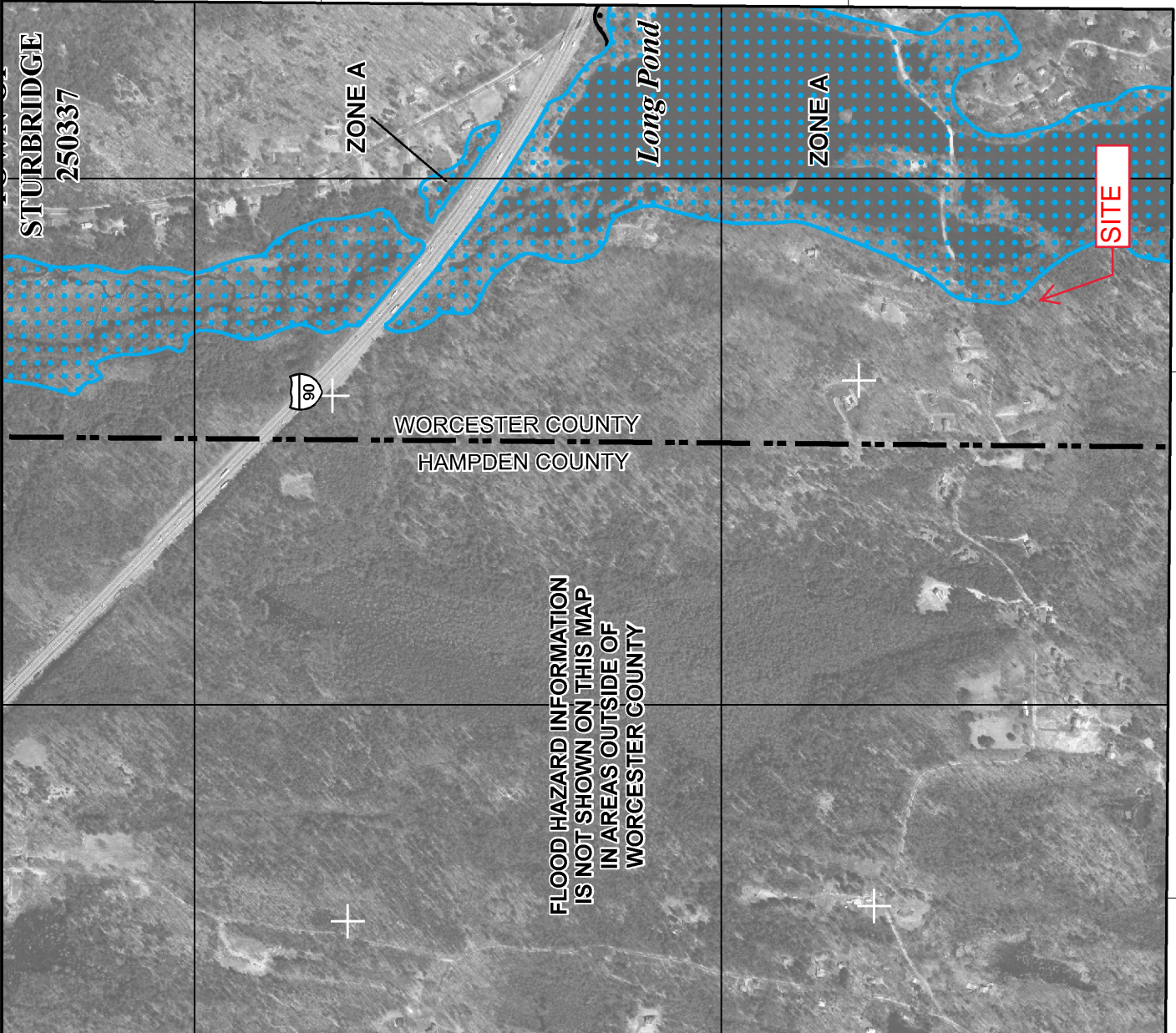
COMMUNITY	NUMBER	PANEL	SUFFIX
BROOKFIELD, TOWN OF	250298	0745	E
STURBRIDGE, TOWN OF	250337	0745	E
WARREN, TOWN OF	250342	0745	E
WEST BROOKFIELD, TOWN OF	250346	0745	E

Notice to User: The Map Number shown below should be used when placing map orders; the Community Number shown above should be used on insurance applications for the subject community.



MAP NUMBER
25027C0745E
EFFECTIVE DATE
JULY 4, 2011
Federal Emergency Management Agency

This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps, check the FEMA Flood Map Store at www.msc.fema.gov



JOINS PANEL 0763

42°

72° 07' 30"

FLOOD HAZARD INFORMATION
IS NOT SHOWN ON THIS MAP
IN AREAS OUTSIDE OF
WORCESTER COUNTY

JOINS PANEL 0907

DEP Bordering Vegetated Wetland (310 CMR 10.55) Delineation Field Data Form

Applicant: Prepared by: EcoTec, Inc. Project location: Champeaux Road, Sturbridge DEP File # :

- Check all that apply:
- Vegetation alone presumed adequate to delineate BVW boundary: fill out Section I only
 - Vegetation and other indications of hydrology used to delineate BVW boundary: fill out Sections I and II
 - Method other than dominance test used (attach additional information)

Section I. Vegetation		Observation Plot Number: UPLAND	Transect Number: TPU@C-7	Date of Delineation: 1/30/2021
A. Sample Layer and Plant Species (by common/scientific name)	B. Percent Cover (or basal area)	C. Percent Dominance	D. Dominant Plant (yes or no)	E. Wetland Indicator Category *
Trees				
Black Birch	30	30	Yes	FACU
Sugar Maple	20	20	Yes	FACU-
Eastern Hemlock	40	40	Yes	WET*
White Ash	10	10	No	FACU
Sapling				
Black Birch	20	25	Yes	FACU
Eastern Hemlock	20	25	Yes	WET*
Sugar Maple	20	25	Yes	FACU-
Eastern Hop-Hornbeam	20	25	Yes	FACU
Shrub				
Witch Hazel	40	100	Yes	FAC-
Herb				
Christmas Fern	30	33	Yes	FACU-
Hay Scented Fern	20	22	Yes	NL
Poison Ivy	40	45	Yes	FAC*

*Use an asterisk to mark wetland indicator plants: plant species listed in the Wetlands Protection Act (MGL c. 131, s. 40); plants in the genus *Sphagnum*; plants listed as FAC, FAC+, FACW-, FACW, FACW+, or OBL; or plants with physiological or morphological adaptations. If any plants are identified as wetland indicator plants due to physiological or morphological adaptations, describe the adaptation next to the asterisk.

Vegetation conclusions:
 Number of dominant wetland indicator plants: 3 Number of dominant non-wetland indicator plants: 8
 Is the number of dominant wetland plants equal to or greater than the number of dominant non-wetland plants? Yes

Section II. Indicators of Hydrology

1. Soil Survey

Is there a published soil survey for this site? -

title/date: -
 map number: -
 soil type mapped: -
 hydric soil inclusions: -

Are field observations consistent with soil survey? -

Remarks: -

2. Soil Description
 Horizon Depth (inches) Matrix Color Mottle Color

A 0-6 10 YR 3/2
 Bw 6-16 10YR 4/6

Other Indications of Hydrology: (check all that apply and describe)

- Site inundated: _____
- Depth to free water in observation hole: _____
- Depth to soil saturation in observation hole: _____
- Water marks: _____
- Drift lines: _____
- Sediment deposits: _____
- Drainage patterns in BWW: _____
- Oxidized rhizospheres: _____
- Water-stained leaves: _____
- Recorded data (stream, lake, or tidal gauge; aerial photo; other): _____
- Other: _____

Vegetation and Hydrology Conclusion		yes	no
Number of wetland indicator plants	≥ number of non-wetland indicator plants	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Wetland hydrology present:			
hydric soil present		<input type="checkbox"/>	<input checked="" type="checkbox"/>
other indicators of hydrology present		<input type="checkbox"/>	<input checked="" type="checkbox"/>
Sample location is in a BWW		<input type="checkbox"/>	<input checked="" type="checkbox"/>

Submit this form with the Request for Determination of Applicability or Notice of Intent.

3. Other:
 Conclusion: Is soil Hydric? No

DEP Bordering Vegetated Wetland (310 CMR 10.55) Delineation Field Data Form

Applicant: Prepared by: EcoTec, Inc. Project location: Champeaux Road, Sturbridge DEP File # :

- Check all that apply:
- Vegetation alone presumed adequate to delineate BVW boundary: fill out Section I only
 - Vegetation and other indications of hydrology used to delineate BVW boundary: fill out Sections I and II
 - Method other than dominance test used (attach additional information)

Section I. Vegetation		Observation Plot Number: WETLAND	Transect Number: TPW@C-7	Date of Delineation: 1/30/2021	
A. Sample Layer and Plant Species (by common/scientific name)	B. Percent Cover (or basal area)	C. Percent Dominance	D. Dominant Plant (yes or no)	E. Wetland Indicator Category *	
Trees	White Pine Sugar Maple	10 20	33 67	Yes Yes	FACU FACU-
Sapling	Red Maple	30	100	Yes	FAC*
Shrub	Witch Hazel Winterberry	10 50	16 84	No Yes	FAC- FACW-*
Herb	Skunk Cabbage Jewelweed Poison Ivy Jack-in-the-Pulpit	30 30 20 20	30 30 20 20	Yes Yes Yes Yes	OBL* FACW* FAC* FACW-*

*Use an asterisk to mark wetland indicator plants: plant species listed in the Wetlands Protection Act (MGL c. 131, s. 40); plants in the genus *Sphagnum*; plants listed as FAC, FAC+, FACW-, FACW, FACW+, or OBL; or plants with physiological or morphological adaptations. If any plants are identified as wetland indicator plants due to physiological or morphological adaptations, describe the adaptation next to the asterisk.

Vegetation conclusions:
 Number of dominant wetland indicator plants: 6 Number of dominant non-wetland indicator plants: 2
 Is the number of dominant wetland plants equal to or greater than the number of dominant non-wetland plants? Yes

Section II. Indicators of Hydrology

1. Soil Survey

Is there a published soil survey for this site? -

title/date: -
 map number: -
 soil type mapped: -
 hydric soil inclusions: -

Are field observations consistent with soil survey? -

Remarks: -

2. Soil Description

Horizon	Depth (inches)	Matrix Color	Mottle Color
A	0-2	10 YR 2/1	
Bg	2-16	10YR 4/2	10% w/ 10 YR 4/1 30% 5 YR 4/3

Remarks: Course Sand

3. Other:

Conclusion: Is soil Hydric? Yes

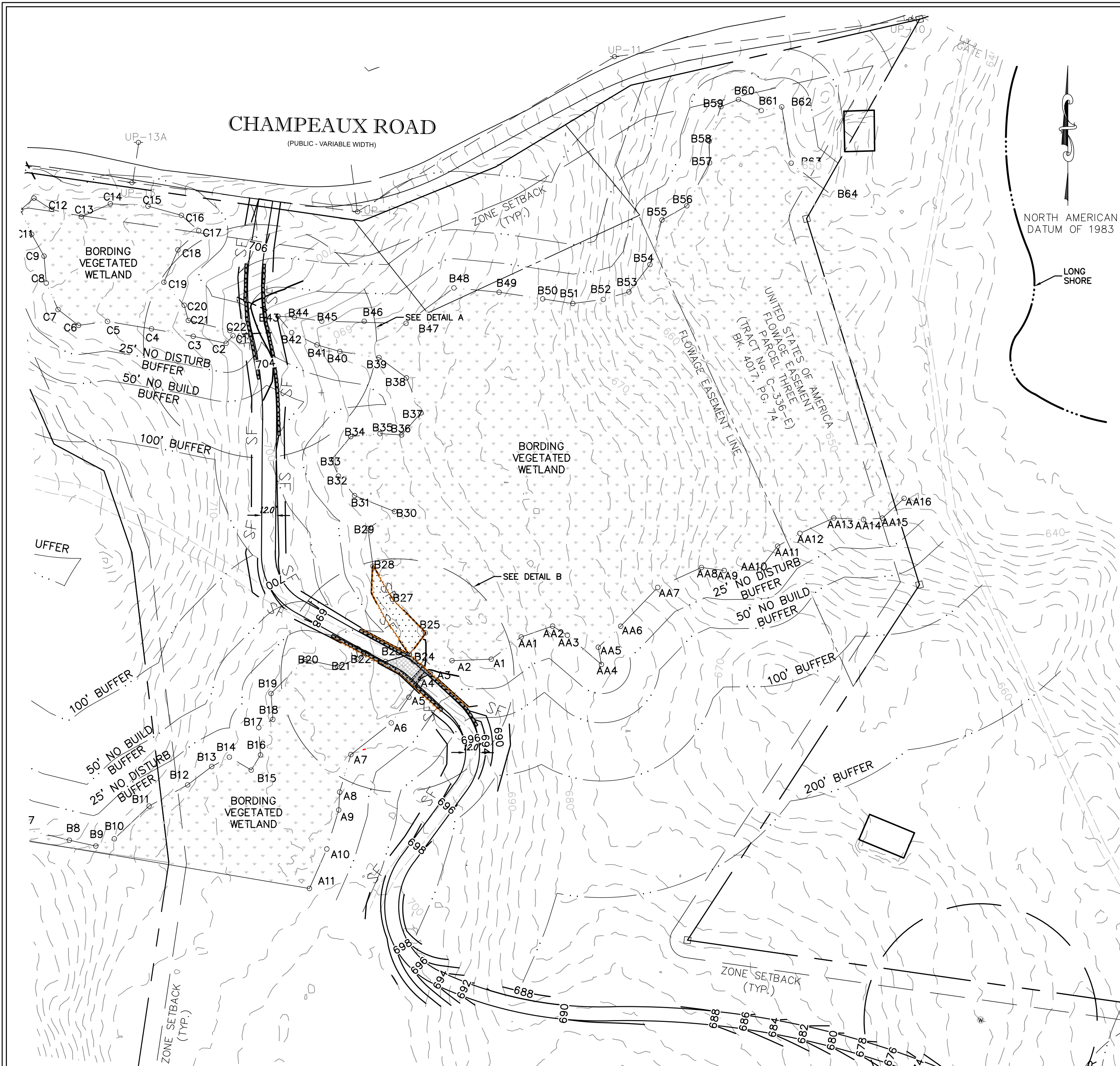
Other Indications of Hydrology: (check all that apply and describe)

- Site inundated: _____
- Depth to free water in observation hole: _____
- Depth to soil saturation in observation hole: _____
- Water marks: _____
- Drift lines: _____
- Sediment deposits: _____
- Drainage patterns in BWW: _____
- Oxidized rhizospheres: _____
- Water-stained leaves: _____
- Recorded data (stream, lake, or tidal gauge; aerial photo; other): _____
- Other: _____

Vegetation and Hydrology Conclusion	yes	no
Number of wetland indicator plants ≥ number of non-wetland indicator plants	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Wetland hydrology present:		
hydric soil present	<input checked="" type="checkbox"/>	<input type="checkbox"/>
other indicators of hydrology present	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Sample location is in a BWW	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Submit this form with the Request for Determination of Applicability or Notice of Intent.

McClure & Associates, Inc., 2023 PROJECTS 0219-2865-C, Lmty., 36 Champeaux Rd., Sturbridge, MA 01518, 02/20/2024, 11:00 AM, REVISED



GENERAL CONTROLS
1. CLEANING OF STORMWATER STRUCTURES: CLEAN ALL STORMWATER STRUCTURES INCLUDING, BUT NOT LIMITED TO, PIPES, SWALES AND RIPRAP APRONS OF SEDIMENT UPON COMPLETION OF THE PROJECT.

2. PAVEMENT MAINTENANCE: THE CONTRACTOR SHALL SWEEP PAVED ROADWAYS ADJACENT TO THE SITE ON A ROUTINE BASIS TO PREVENT TRACKING OF MUD ONTO PUBLIC ROADWAYS AND WASHING OF MUD INTO WATERWAYS.

3. WASTE DISPOSAL: THE CONTRACTOR SHALL PROVIDE AN ADEQUATE NUMBER OF COVERED WASTE CONTAINERS TO ENSURE THAT NO LITTER, DEBRIS, BUILDING MATERIALS, OR SIMILAR MATERIALS ARE DISCHARGED TO WETLANDS OR WATERCOURSES.

GENERAL CONDITIONS
1. IF EROSION CONTROL MEASURES ARE DAMAGED BY CONSTRUCTION VEHICLES, ACTS OF VANDALISM, OR SEVERE WEATHER CONDITIONS, THE CONTRACTOR SHALL IMMEDIATELY REMOVE SEDIMENT IN THE VICINITY OF THE EROSION CONTROL MEASURES AND REPAIR THESE MEASURES TO A FUNCTIONAL CONDITION.

2. IF DURING OR AFTER CONSTRUCTION, IT BECOMES APPARENT THAT EXISTING EROSION CONTROL MEASURES ARE INCAPABLE OF CONTROLLING EROSION, THE ENGINEER OR THE TOWN MAY REQUIRE ADDITIONAL CONTROL MEASURES, INCLUDING BUT NOT LIMITED TO: ADDITIONAL STRAW WATTLES, HAYBALES, SILT FENCES, SEDIMENT BASINS, MECHANICALLY ANCHORED MULCH, OR ENHANCED DEWATERING FILTRATION.

3. NO CONSTRUCTION SHALL PROCEED UNTIL A WRITTEN PROPOSAL OF METHODS TO PREVENT CONSTRUCTION DEBRIS, PAINT, OR OTHER SUCH CONTAMINATED MATERIALS FROM ENTERING A STORM SEWER, THE WETLAND, OR WATERCOURSE HAS BEEN SUBMITTED BY THE CONTRACTOR TO THE OWNER APPROVED BY THE OWNER AND SUCH METHODS HAVE BEEN IMPLEMENTED AS THE OWNER DIRECTS.

4. ALL TEMPORARY FILL SHALL BE STABILIZED DURING USE TO PREVENT EROSION AND SHALL BE SUITABLY CONTAINED TO PREVENT SEDIMENT OF OTHER PARTICULATE MATTER FROM REENTERING A WETLAND OR WATERCOURSE. ALL AREAS AFFECTED BY TEMPORARY FILLS MUST BE RESTORED TO THEIR ORIGINAL CONTOURS OR AS DIRECTED BY THE OWNER, AND REVEGETATED.

5. DUMPING OF OIL, CHEMICALS OR OTHER DELETERIOUS MATERIALS ON THE GROUND IS FORBIDDEN. THE CONTRACTOR SHALL PROVIDE A MEANS OF CATCHING, RETAINING, AND PROPERLY DISPOSING OF DRAINED OIL, REMOVED OIL FILTERS, OR OTHER DELETERIOUS MATERIAL. ALL SPILLS OF SUCH MATERIALS SHALL BE REPORTED IMMEDIATELY BY THE CONTRACTOR TO APPROPRIATE TOWN AND STATE AGENCIES. SPILL KIT TO BE KEPT ON SITE AT ALL TIMES.

6. ALL REFUELING OF CONSTRUCTION EQUIPMENT IS TO TAKE PLACE OUTSIDE OF WETLAND BUFFER AREAS. NO CONCRETE WASHOUT OR WASHING OF CONSTRUCTION EQUIPMENT IS ALLOWED WITHIN THE RESOURCE BUFFER AREAS.

7. INSPECTIONS: EROSION CONTROLS SHALL BE INSPECTED DAILY OR AFTER A LEGITIMATE STORM EVENT. INSPECTION SHALL BE RECORDED IN A LOG ALONG WITH THE TIME AND DATE. LOG SHALL BE AVAILABLE FOR INSPECTION BY THE TOWN OR ENGINEER.

8. FILL MATERIAL TESTING: THE TOWN MAY REQUIRE TESTING OF OUTSIDE FILL SOURCES. THE RESULTS OF SUCH TESTING MAY BE REVIEWED BY A STATE OF MASSACHUSETTS LICENSED SITE PROFESSIONAL (LSP) AND CONSERVATION AGENT PRIOR TO DELIVERY OF SAID MATERIAL TO THE SITE. CONTRACTOR TO REFER TO CONSERVATION ORDER OF CONDITIONS FOR SPECIFIC SOIL TESTING AND REVIEW REQUIREMENTS FOR ALL OUTSIDE FILL SOURCES.

DESCRIPTION AND MAINTENANCE OF EROSION CONTROL MEASURES

TEMPORARY STABILIZATION MEASURES

EROSION CONTROL BARRIERS: INSTALL EROSION CONTROL BARRIERS AT VARIOUS LOCATIONS AS SHOWN ON THE PLANS AND DETAILS. EMBED THE EROSION CONTROL BARRIER INTO THE GROUND AND FIRMLY ANCHOR IT AS SHOWN IN THE DETAILS. REMOVE SEDIMENT ONCE LEVELS HAVE REACHED 1/4 OF THE EFFECTIVE HEIGHT. REPAIR AND/OR REPLACE THE SILT FENCE/ HAYBALES IMMEDIATELY IF DAMAGED OR DETERIORATED.

STOCKPILING OR STORAGE OF EXCAVATED MATERIALS: COMPLETELY SURROUND TEMPORARY STOCKPILES WITH STRAW WATTLES TO PREVENT TRANSPORTATION OF SEDIMENT. NO STOCKPILES SHALL BE KEPT WITHIN 100' WETLAND BUFFER ZONES.

DUST CONTROL: TAKE PRECAUTIONS TO PREVENT DUST FROM BECOMING A NUISANCE TO ADJUTING PROPERTY OWNERS. BROOM OFF PAVEMENT AREAS ADJOINING THE EXCAVATION ON A DAILY BASIS. COVER AND/OR KEEP MOIST ALL EARTH STOCKPILES AT ALL TIMES. USE CALCIUM CHLORIDE TO CONTROL DUST OVER CERTAIN AREAS OF THE SITE AS NEEDED AND/OR AS DIRECTED BY THE ENGINEER. CALCIUM CHLORIDE SHALL CONFORM TO ASTM D-98, TYPE I. THE CONTRACTOR SHALL MAINTAIN AND INSPECT, ON A DAILY BASIS, THE ADEQUACY OF DUST CONTROL MEASURES AND CORRECT ANY DEFICIENCIES IMMEDIATELY.

DEWATERING: IF DEWATERING IS REQUIRED, WATER SHOULD BE DISCHARGED TO DEWATERING BAGS OR OTHER SEDIMENT REMOVAL DEVICES PRIOR TO DISCHARGE TO RESOURCE AREAS. WATER MAY ALSO BE USED FOR DUST CONTROL AND/OR VEGETATION WATERING.

PERMANENT STABILIZATION MEASURES
DISTURBED PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES PERMANENTLY CEASE SHALL BE STABILIZED WITH PERMANENT SEED NO LATER THAN 14 DAYS AFTER THE LAST CONSTRUCTION ACTIVITY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL LANDSCAPED AREAS. IF TOPSOIL, SEED, AND/OR MULCH IS WASHED AWAY BY RAINFALL, THE CONTRACTOR SHALL RESTORE THE AREA.

MAINTENANCE:

ALL MEASURES STATED ON THIS EROSION AND SEDIMENT CONTROL PLAN, AND IN THE STORM WATER POLLUTION PREVENTION PLAN, SHALL BE MAINTAINED IN FULLY FUNCTIONAL CONDITION UNTIL NO LONGER REQUIRED FOR A COMPLETED PHASE OF WORK OR FINAL STABILIZATION OF THE SITE. ALL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE CHECKED BY A QUALIFIED PERSON IN ACCORDANCE WITH THE CONTRACT DOCUMENTS OR THE APPLICABLE PERMIT, WHICHEVER IS MORE STRINGENT, AND REPAIRED IN ACCORDANCE WITH THE FOLLOWING:

- 1. INLET PROTECTION DEVICES AND BARRIERS SHALL BE REPAIRED OR REPLACED IF THEY SHOW SIGNS OF UNDERMINING OR DETERIORATION.
2. ALL SEEDED AREAS SHALL BE CHECKED REGULARLY TO SEE THAT A GOOD STAND IS MAINTAINED. AREAS SHOULD BE FERTILIZED, WATERED, AND RE-SEEDED AS NEEDED.
3. SILT FENCES AND MULCH TUBES SHALL BE REPAIRED TO THEIR ORIGINAL CONDITIONS IF DAMAGED. SEDIMENT SHALL BE REMOVED FROM THE EROSION CONTROL BARRIERS WHEN IT REACHES ONE-HALF THE HEIGHT OF BARRIER.
4. THE TEMPORARY PARKING AND STORAGE AREA SHALL BE KEPT IN GOOD CONDITION (SUITABLE FOR PARKING AND STORAGE). THIS MAY REQUIRE PERIODIC TOP DRESSING OF THE TEMPORARY PARKING AS CONDITIONS DEMAND.

CONSTRUCTION SCHEDULE AND EROSION & SEDIMENTATION CONTROL CHECKLIST

36 CHAMPEAUX ROAD

WORK DESCRIPTION

SEQUENCE OF CONSTRUCTION
THE FOLLOWING NARRATIVE DESCRIBES THE PLANNED CONSTRUCTION SEQUENCE WITH AN EMPHASIS ON THE TIMING AND SEQUENCE OF EROSION/SEDIMENTATION CONTROL MEASURES:

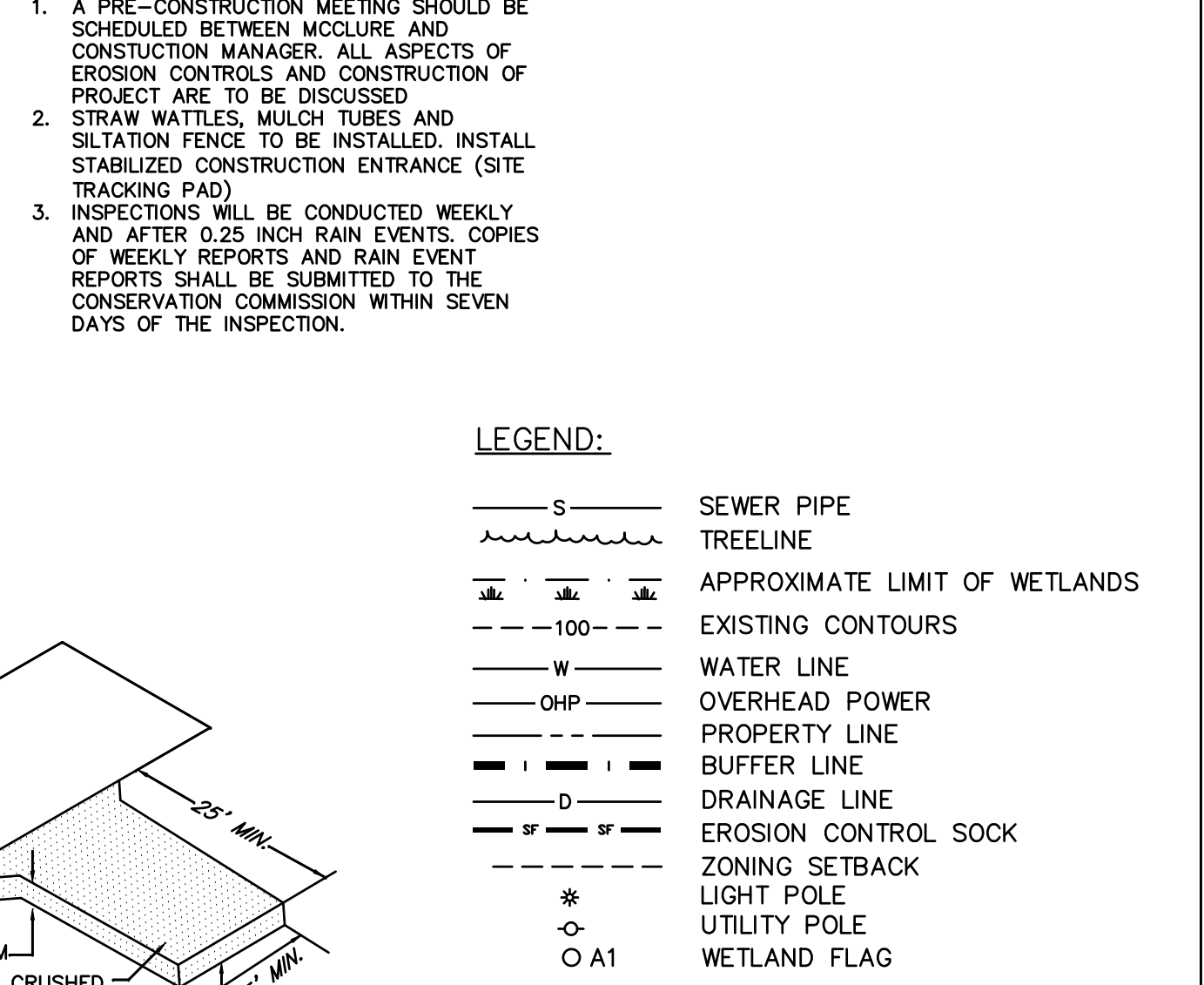
- 1. INSTALL EROSION CONTROL BARRIERS ON THE ENTIRE SITE (CLEAR ONLY THOSE AREAS NECESSARY TO INSTALL SILT FENCE, STRAW WATTLES AND MULCH TUBES.)
2. EROSION CONTROL INSPECTION WILL BE CONDUCTED AFTER INSTALLATION OF EROSION CONTROL BARRIERS.
3. PREPARE TEMPORARY STAGING AND STORAGE AREA UPON IMPLEMENTATION AND INSTALLATION OF THE FOLLOWING AREAS: PARKING, LAY DOWN PORTA POTTY, MATERIAL STORAGE CONTAINERS, ETC., DENOTE THEM ON THE SITE MAPS IMMEDIATELY AND NOTE ANY CHANGES IN THE LOCATIONS AS THEY OCCUR THROUGHOUT THE CONSTRUCTION PROCESS.
4. BEGIN CLEARING AND GRUBBING OF THE SITE.
5. START INSTALLATION OF DRAINAGE SYSTEM.
6. INSTALL TEMPORARY STREAM DIVERSION (ONLY WHEN NECESSARY).
7. TEMPORARILY SEED, THROUGHOUT CONSTRUCTION, DENUEDED AREAS THAT WILL BE INACTIVE FOR 15 DAYS OR MORE. PERMANENTLY STABILIZE AREAS TO BE VEGETATED AS THEY ARE COMPLETED.

FINAL PHASE
1. PERMANENTLY STABILIZE ANY REMAINING EXPOSED AREAS.
2. REPAIR ALL SIDEWALK, CURBING AND PARKING AREAS.
3. TEMPORARY STREAM DIVERSION MATERIALS TO BE REMOVED AND STABILIZED.
4. ONCE ENTIRE SITE IS STABILIZED, CALL FOR FINAL INSPECTION FROM SITE MONITOR.

- NOTES:
1. ONCE CONSTRUCTION IS COMPLETED, ALL DISTURBED AREAS ARE TO BE STABILIZED WITH LOAM AND SEED UNLESS OTHERWISE SPECIFIED.
2. INSPECTIONS WILL BE CONDUCTED WEEKLY AND AFTER 0.25 INCH RAIN EVENTS. COPIES OF WEEKLY REPORTS AND RAIN EVENT REPORTS SHALL BE KEPT ON RECORD AND PROVIDED TO THE TOWN AND ENGINEER AT THEIR REQUEST.
3. EXTRA EROSION CONTROL MATERIALS (STRAW WATTLES, SILT FENCE, AND MULCH TUBES) EQUAL TO 100 LF SHALL BE KEPT ON SITE FOR EMERGENCY REPAIRS. THESE MATERIALS SHALL BE KEPT COVERED.

NOTE: APPLICANT AND/OR LANDOWNER SHALL NOTIFY THE TOWN OF STURBRIDGE IN WRITING AT LEAST FIVE (5) BUSINESS DAYS PRIOR TO COMMENCING ANY WORK.

LEGEND:



RESPONSIBILITIES OF OWNER/PERMITEE
THE OWNER/ PERMITEE SHALL:
A. PROVIDE THE CONTRACTOR WITH COPIES OF LAND-USE PERMITS THAT THE OWNER HAS ACQUIRED.
B. INFORM ALL PARTIES INVOLVED WITH THE PROPOSED SITE WORK OF THIS PLAN'S OBJECTIVES AND REQUIREMENTS.

RESPONSIBILITIES OF CONTRACTOR
THE CONTRACTOR IS RESPONSIBLE FOR PREVENTING EROSION OF THE SITE AND FOR PROTECTING ADJACENT STORM SEWERS AND WATERWAYS FROM SEDIMENTATION.

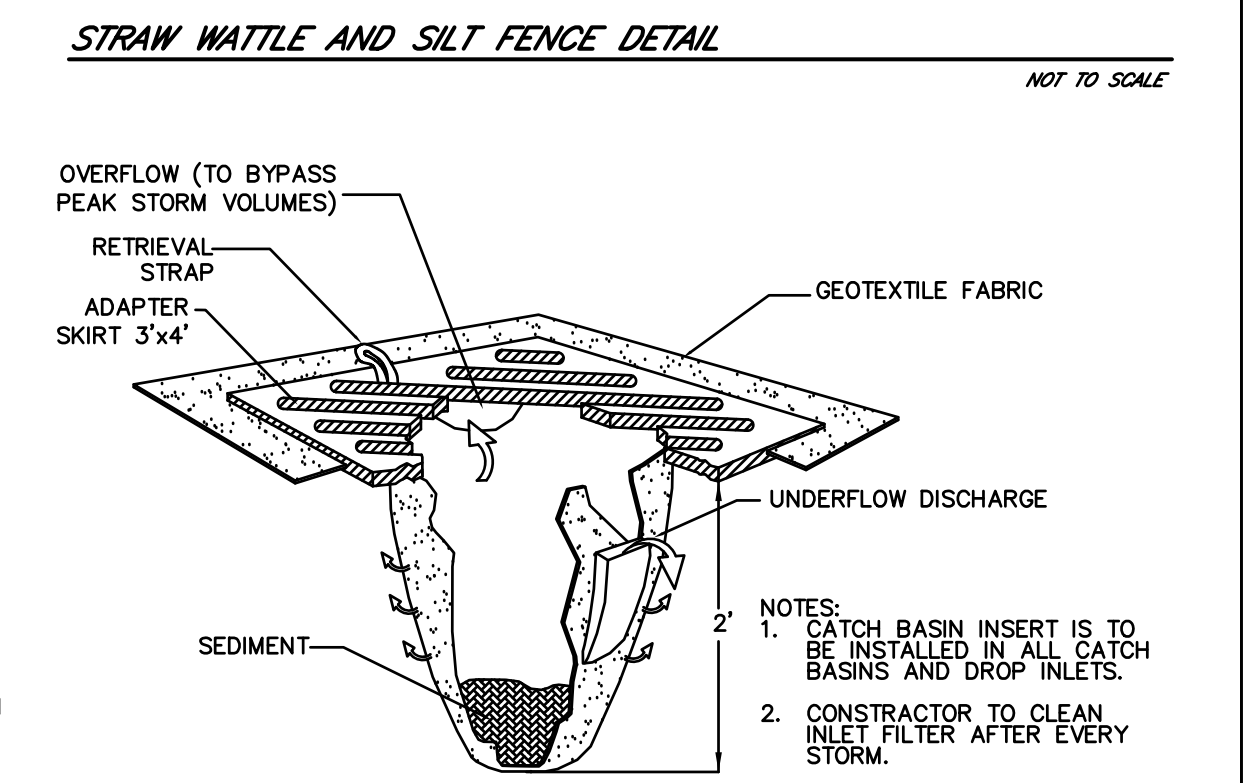
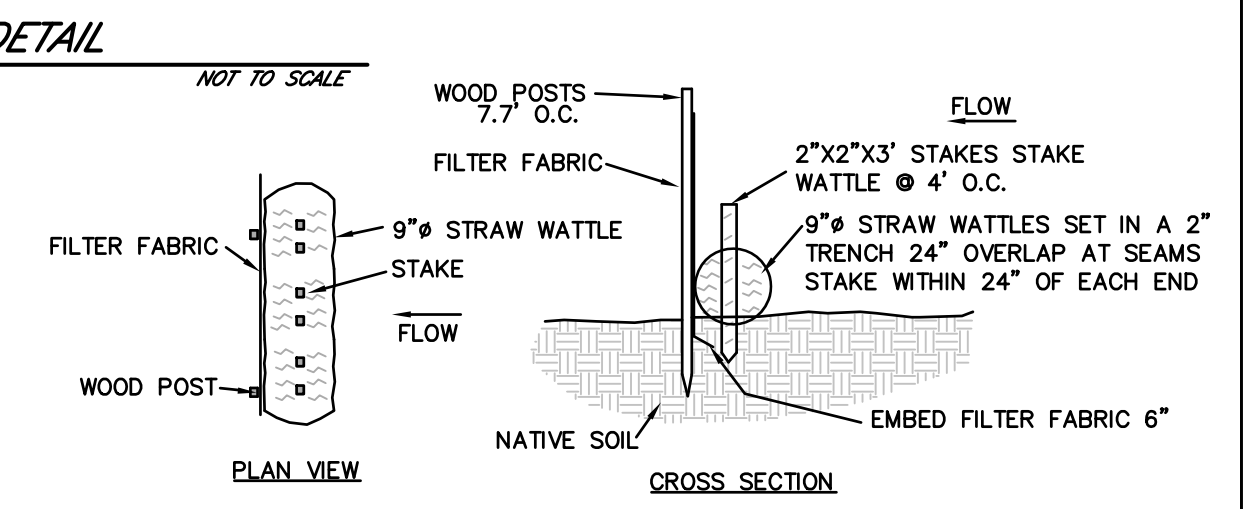
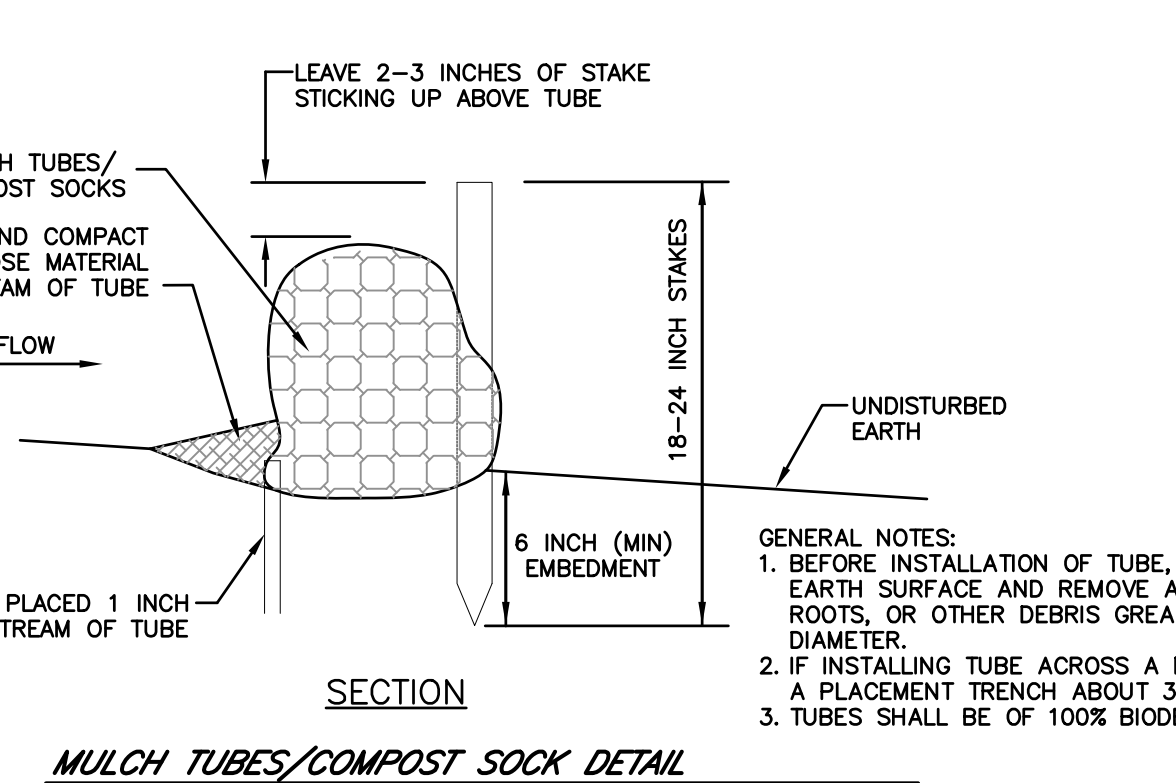
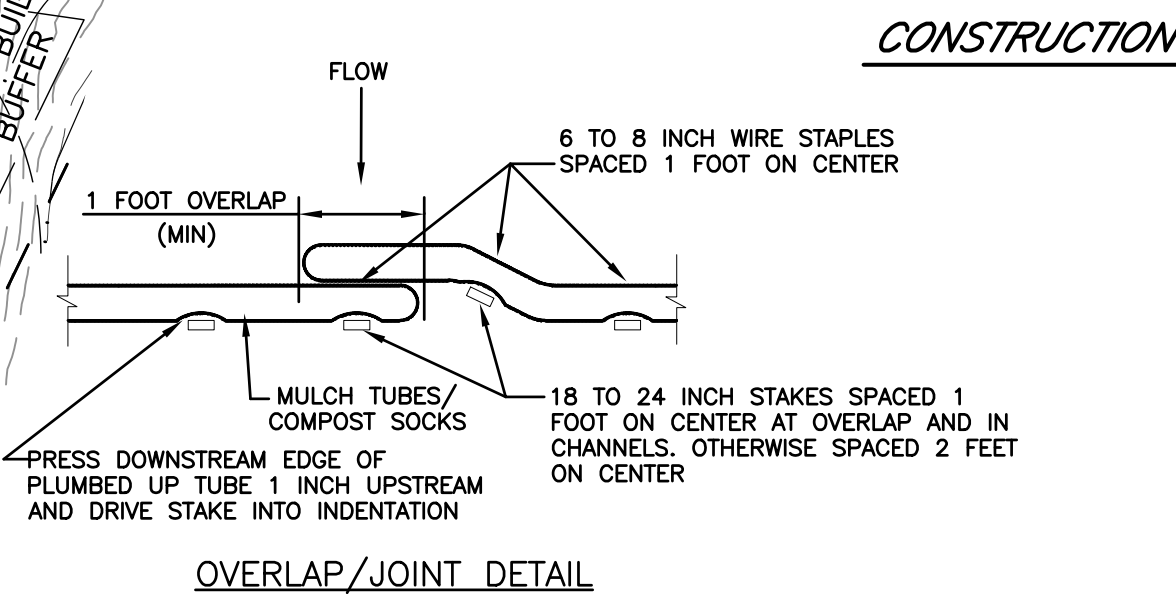
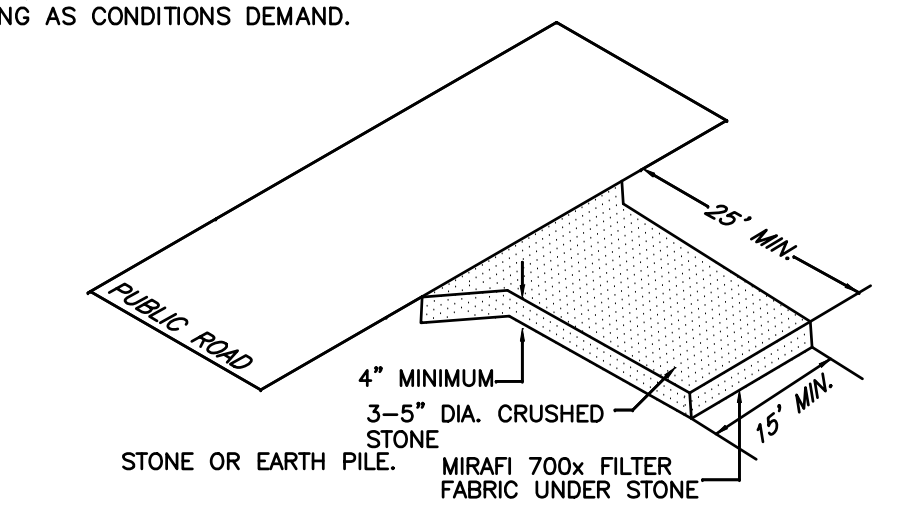
THE CONTRACTOR SHALL:
A. INSTALL, MONITOR AND MAINTAIN ALL OF THE SOIL EROSION AND SEDIMENT CONTROL MEASURES AS SHOWN ON THIS PLAN.
B. COMPLY WITH ALL PERMIT REQUIREMENTS.

PRE-CONSTRUCTION CONFERENCE
PRIOR TO CONSTRUCTION, FOLLOWING INSTALLATION OF EROSION CONTROL.
THE PERMITEE, OWNER-OF-RECORD, CONTRACTOR, ENGINEER, AND TOWN REPRESENTATIVE (CONSERVATION COMMISSION) SHALL: HOLD A "PRE-CONSTRUCTION" CONFERENCE AT THE SITE TO REVIEW THE INSTALLATION OF THE PROPOSED SOIL EROSION AND SEDIMENT CONTROL MEASURES.

EXISTING UTILITY LINES SHOWN ON THIS DRAWING ARE FROM AVAILABLE INFORMATION AND ARE APPROXIMATE LOCATIONS. THERE MAY BE EXISTING LINES OTHER THAN THOSE INDICATED. WE ASSUME NO RESPONSIBILITY FOR DAMAGES INCURRED AS A RESULT OF UTILITIES OMITTED OR INACCURATELY SHOWN. BEFORE PLANNING FUTURE CONNECTIONS, THE PROPER PUBLIC UTILITY ENGINEERING DEPARTMENT SHOULD BE CONSULTED.

DIG-SAFE (1-888-344-7233) NOTE:
1. CONTRACTOR REQUIRED TO NOTIFY "DIG SAFE" 72 HOURS PRIOR TO ANY ON-SITE EXCAVATION OR CONSTRUCTION AT 1-888-344-7233. CONTRACTOR SHALL ALSO NOTIFY LOCAL WATER AND SEWER DEPARTMENTS TO MARK OUT THEIR UTILITIES.

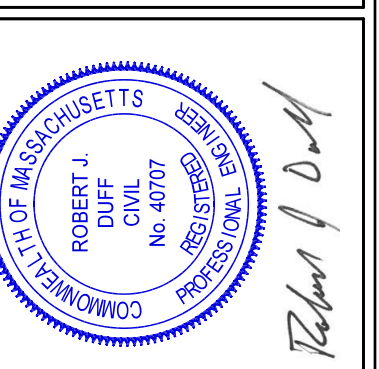
- NOTE:
1. CONTRACTOR SHALL INSTALL ALL NEW STRUCTURES AND PIPING TO THE MAXIMUM EXTENT FEASIBLE PRIOR TO ABANDONING EXISTING CULVERT TO MINIMIZE/ELIMINATE THE NEED FOR PROLONGED STREAM DIVERSION
2. ALL DISTURBED AREAS SHALL BE STABILIZED AS SOON AS POSSIBLE VIA BFM HYDROSEED APPLICATION.



NOTES:
1. CATCH BASIN INSERT IS TO BE INSTALLED IN ALL CATCH BASINS AND DROP INLETS.
2. CONTRACTOR TO CLEAN INLET FILTER AFTER EVERY STORM.

Table with columns: REV, DATE, DESCRIPTION, PER CLIENT COMMENTS, REVISIONS, MADE APVD, CPM.

ROBERT DUFF P.E. PROFESSIONAL ENGINEER MA LIC. NO. 40707



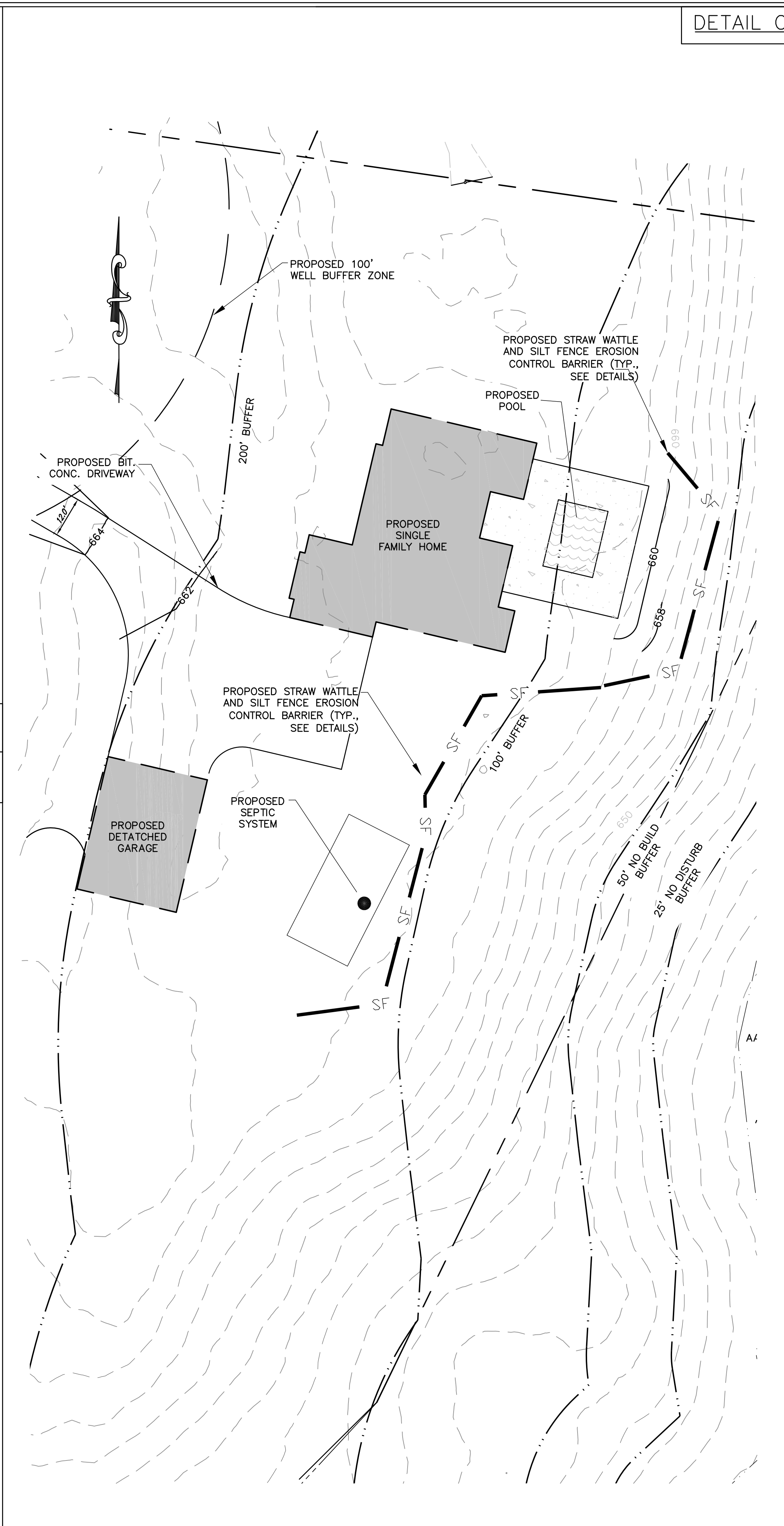
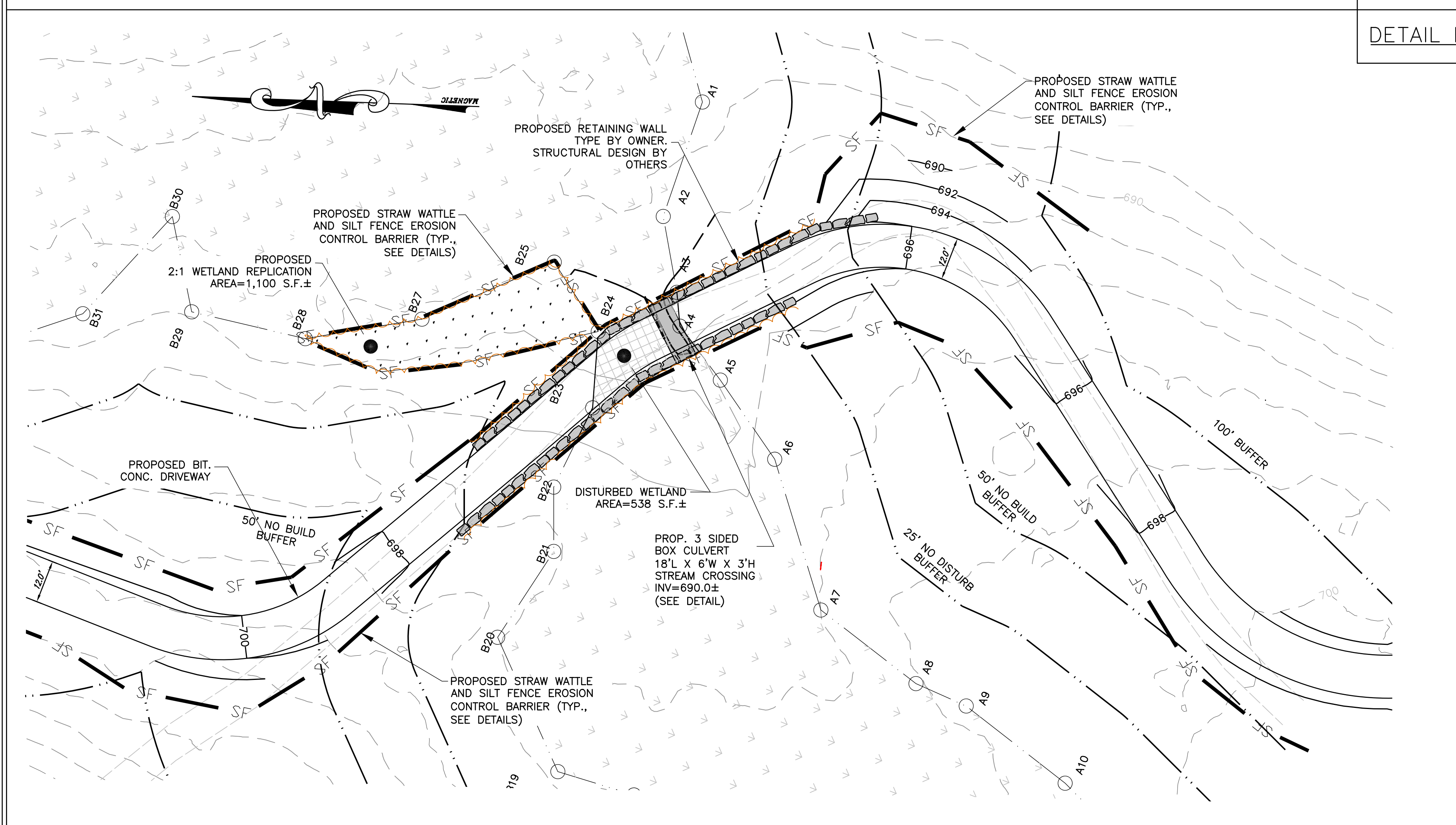
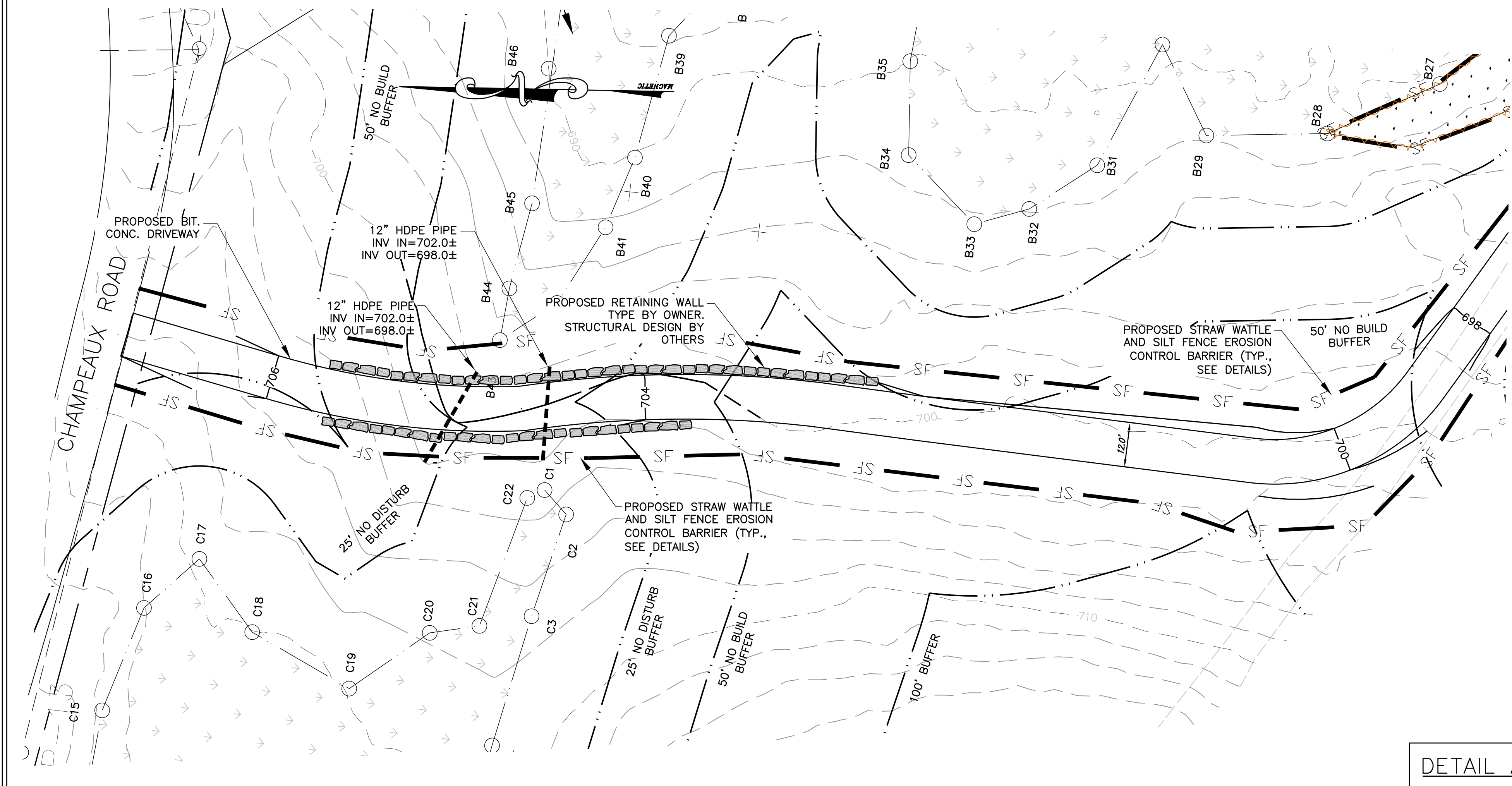
McCLURE ENGINEERING, INC
119 Worcester Road
Charlton, MA 01507
Tel: (508) 248-2005
Fax: (508) 248-4887
Email: rduff@mcclureengineering.com

PROPOSED SINGLE FAMILY HOME
36 CHAMPEAUX ROAD
STURBRIDGE, MA 01518
PREPARED FOR: KEVIN LAMY, 32 PAIGE ROAD, BRIMFIELD, MA 01507

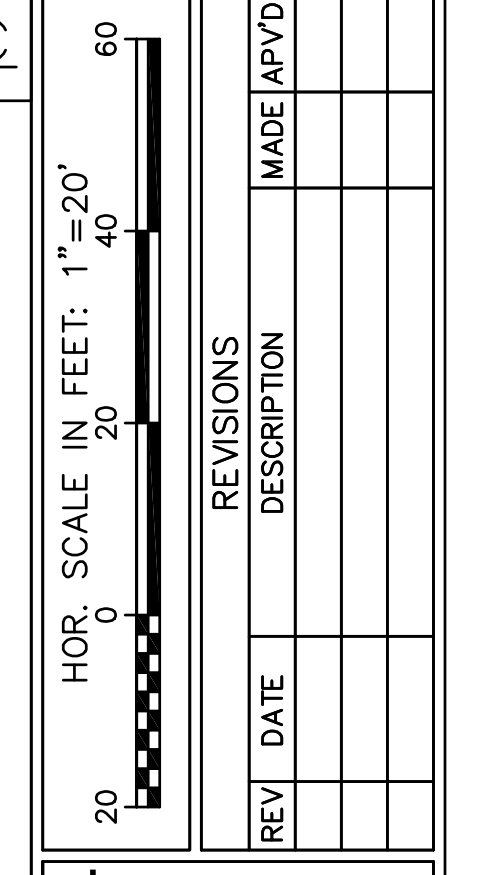
DRAWN BY: JMW
DATE: 2/20/2024
CHK BY: RD
SCALE: 1"=60'
PROJ. NO.: 287-2865-0

EROSION AND SEDIMENTATION CONTROL PLAN
C-4

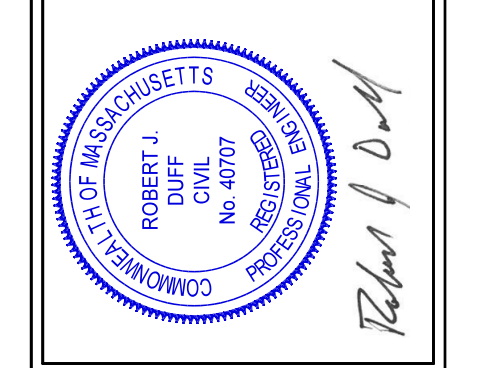
MACQUINN/MSA, SHELTON, 2024 PROJECTS 0219/2865-0_Lammy, 36 Champeaux Rd., Champeaux, RI, Site Plan/REST/1.dwg



DETAIL C



ROBERT DUFFE, P.E.
 PROFESSIONAL ENGINEER
 MA LIC. NO. 40707

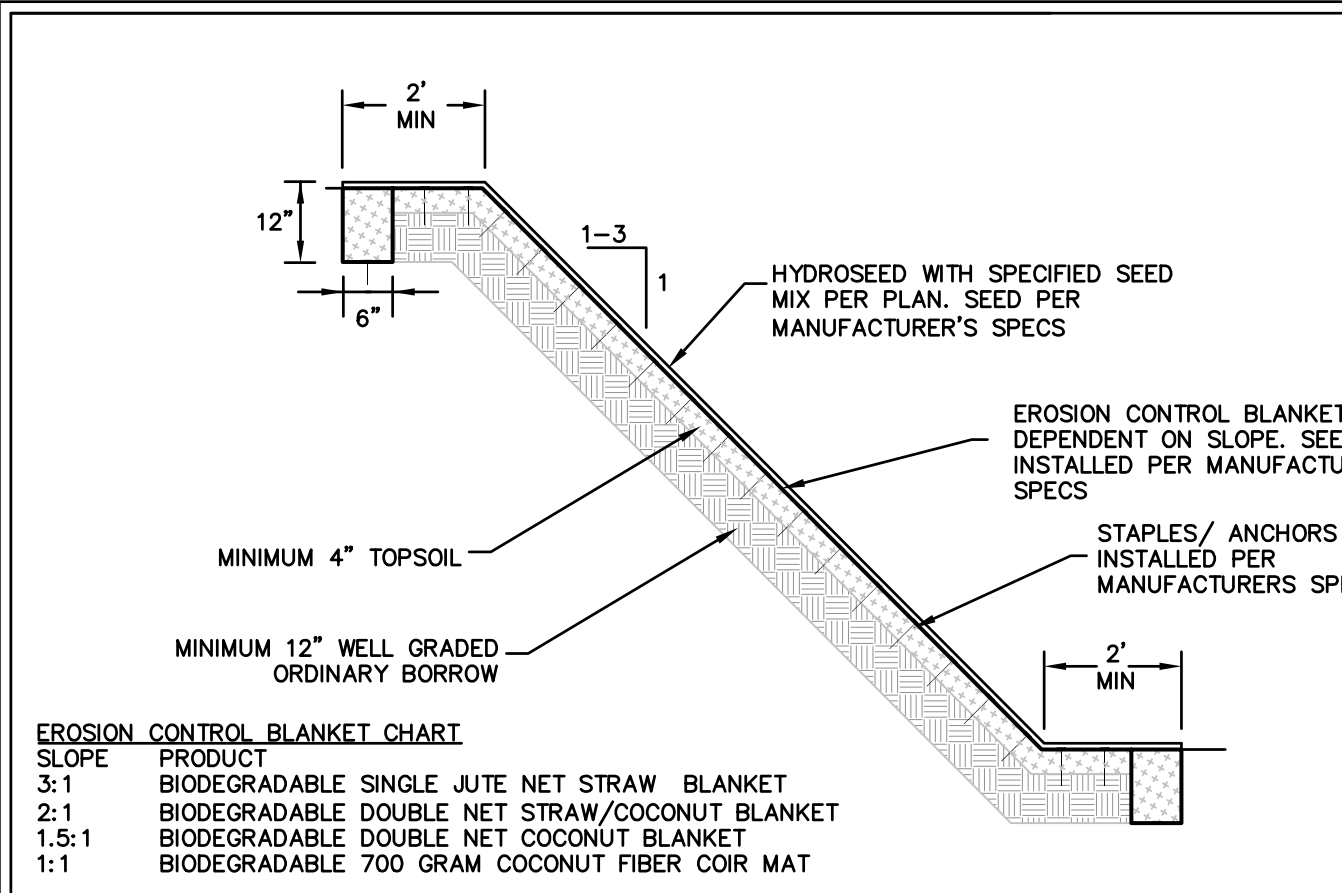


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 119 Worcester Road
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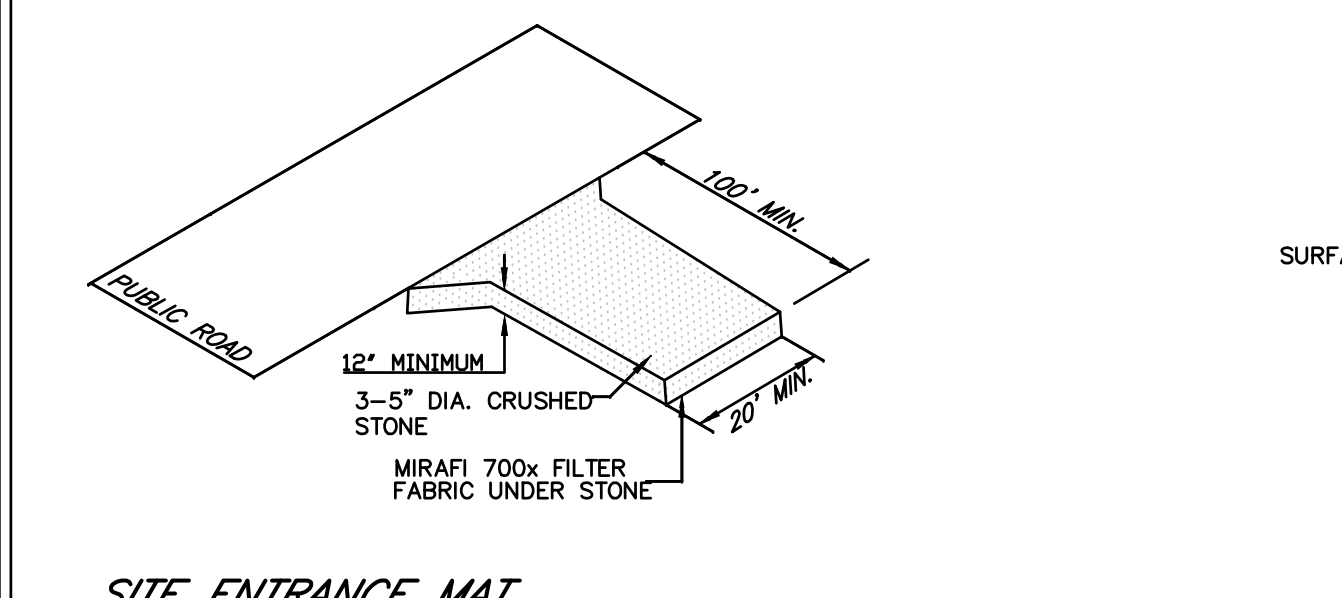
PROPOSED SINGLE FAMILY HOME
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 BRIMFIELD, MA 01507

DRAWN BY: JW
 DATE: 02/19/2024
 CHK BY: RD
 SCALE: 1"=20'
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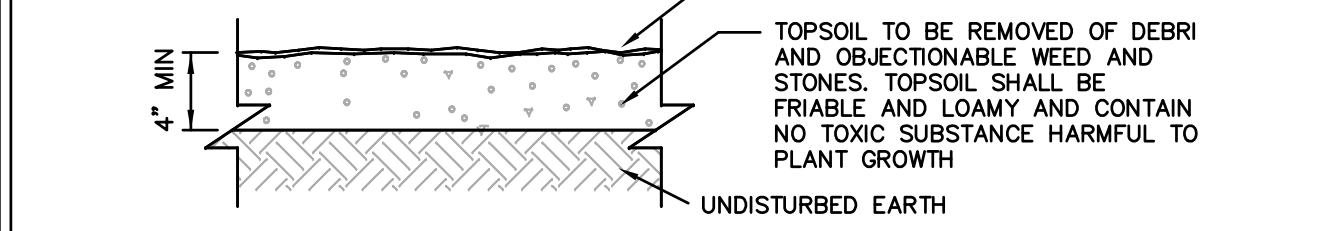
EROSION AND SEDIMENTATION CONTROL PLAN



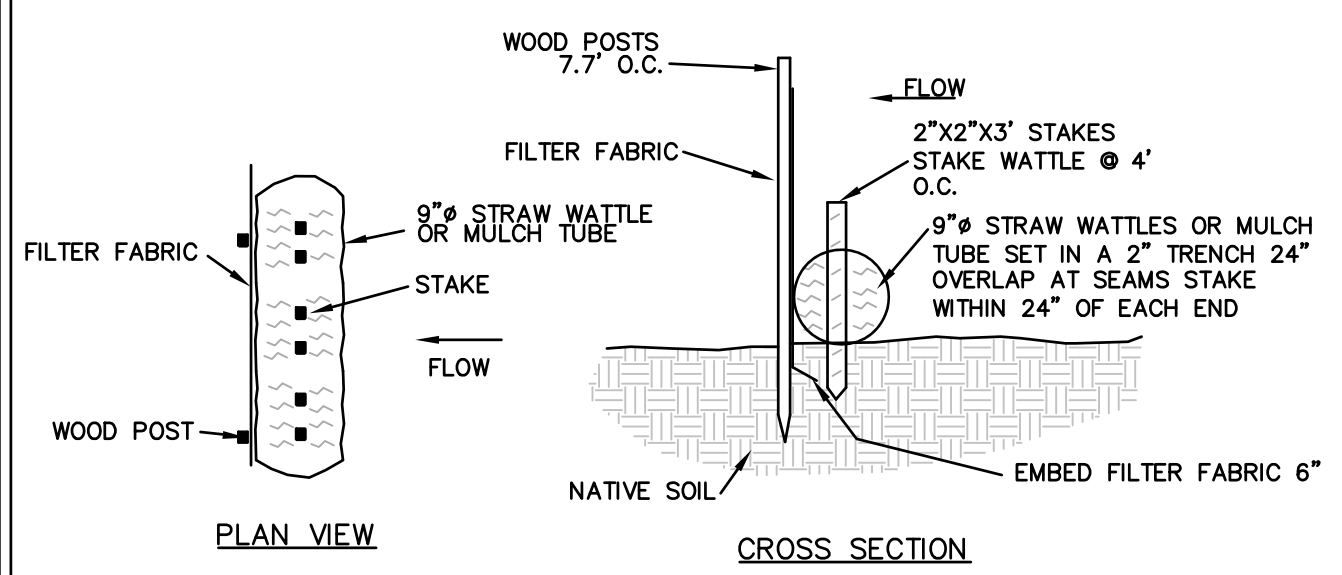
SLOPE STABILIZATION DETAILS



SITE ENTRANCE MAT

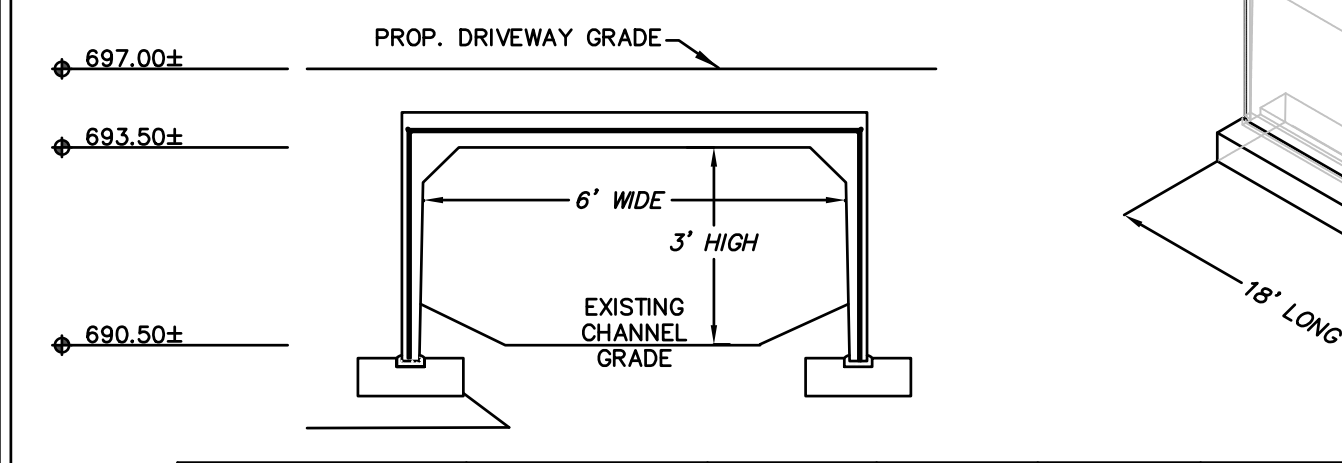


TOP SOIL & SEEDING DETAIL

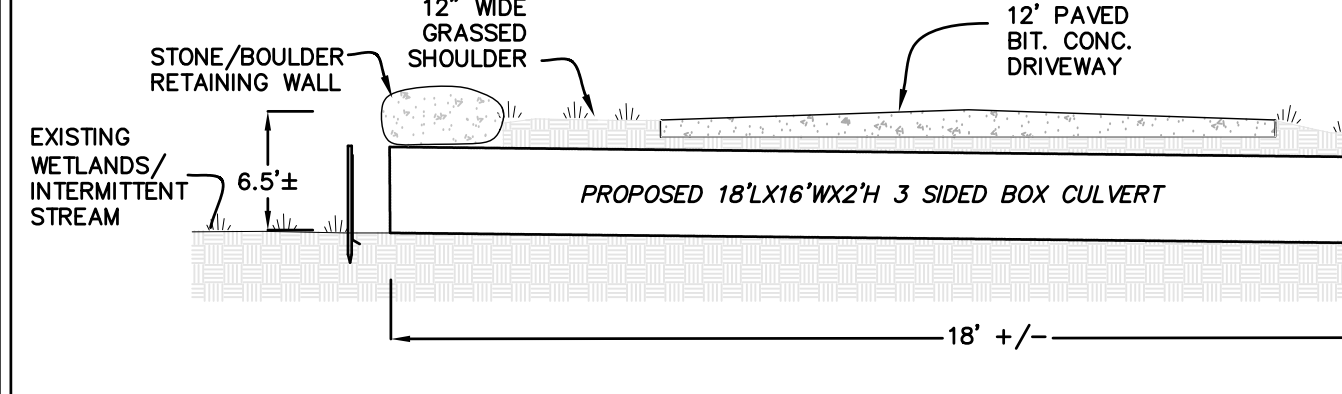


STRAW WATTLE AND SILT FENCE DETAIL

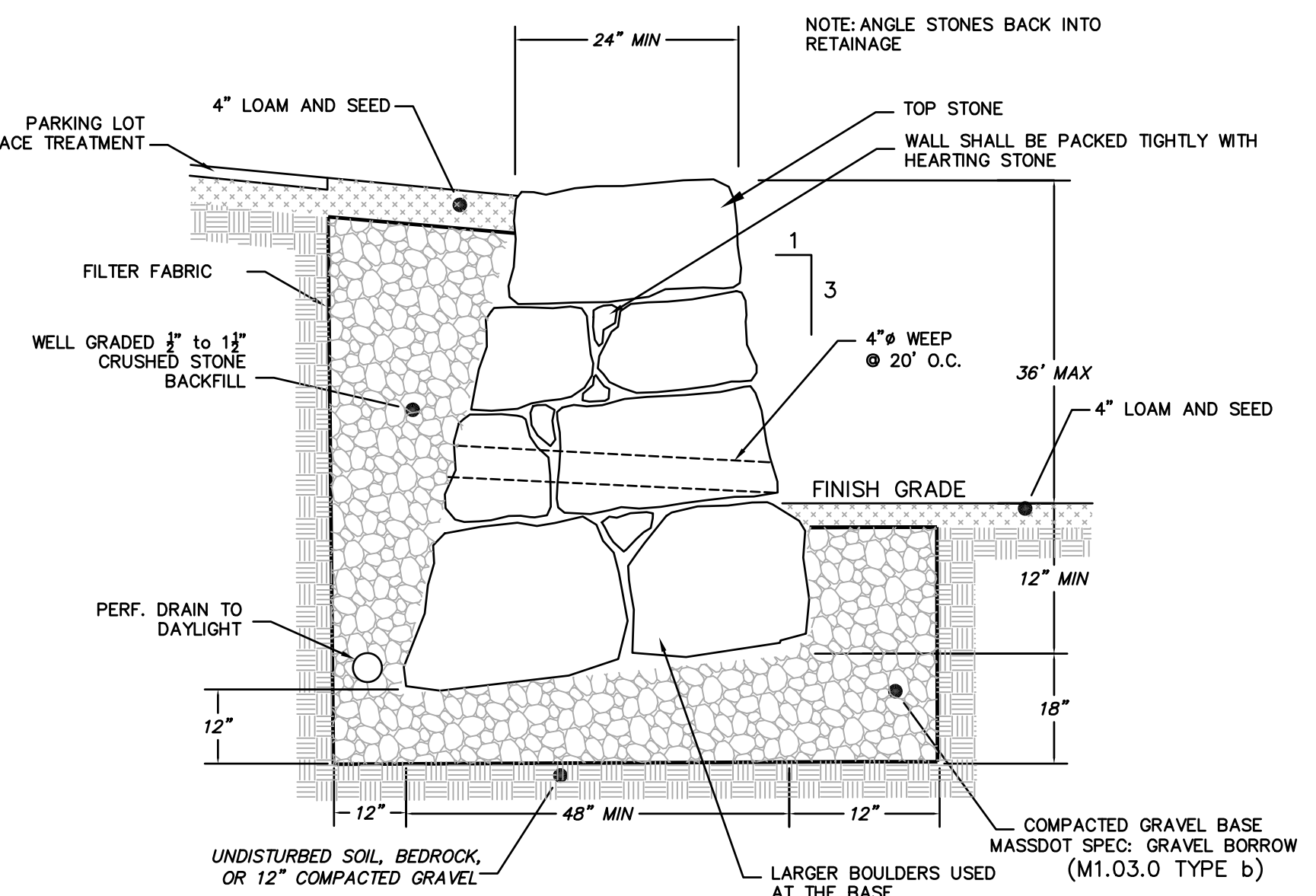
RE-CONSTRUCT THE NATURAL CHANNEL BOTTOM SUBSTRATE AND BVM WITHIN STRUCTURE IF NECESSARY (IF DAMAGE TO THE CHANNEL IS INCURRED DURING CONSTRUCTION OR FROM TEMPORARY CROSSING). SUBJECT TO INSPECTION BY WETLAND SCIENTIST, DESIGN ENGINEER, AND TOWN. ALL EFFORTS SHALL BE MADE TO NOT DISTURB OR DAMAGE THE BVM, STREAM BANKS, OR CHANNEL DURING CONSTRUCTION.



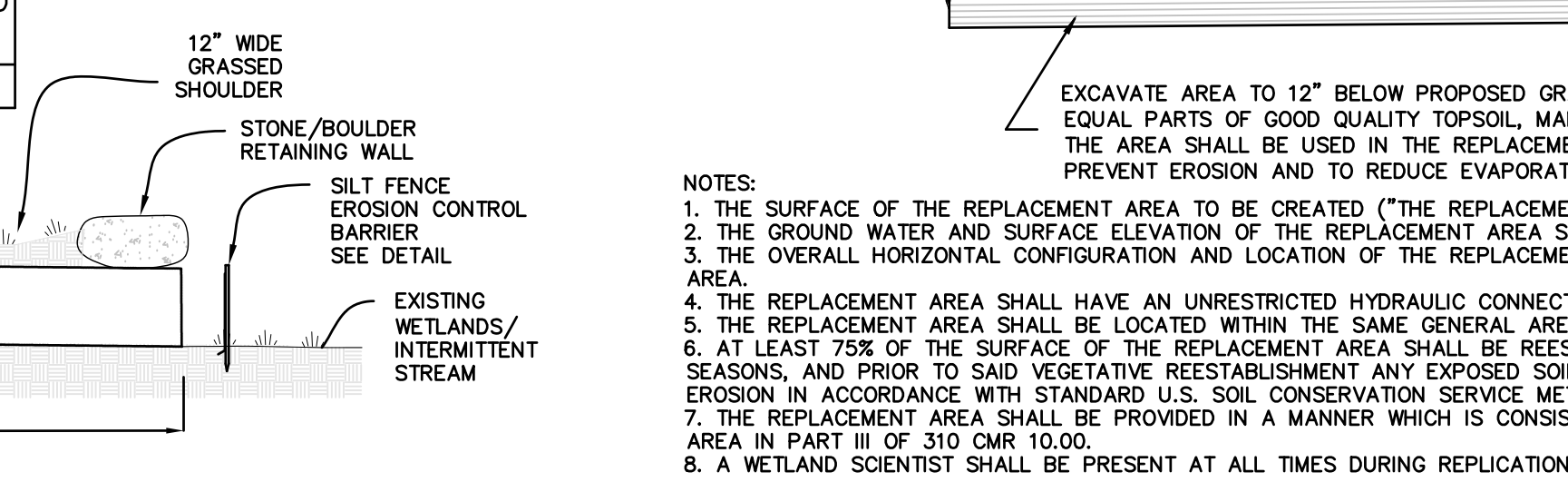
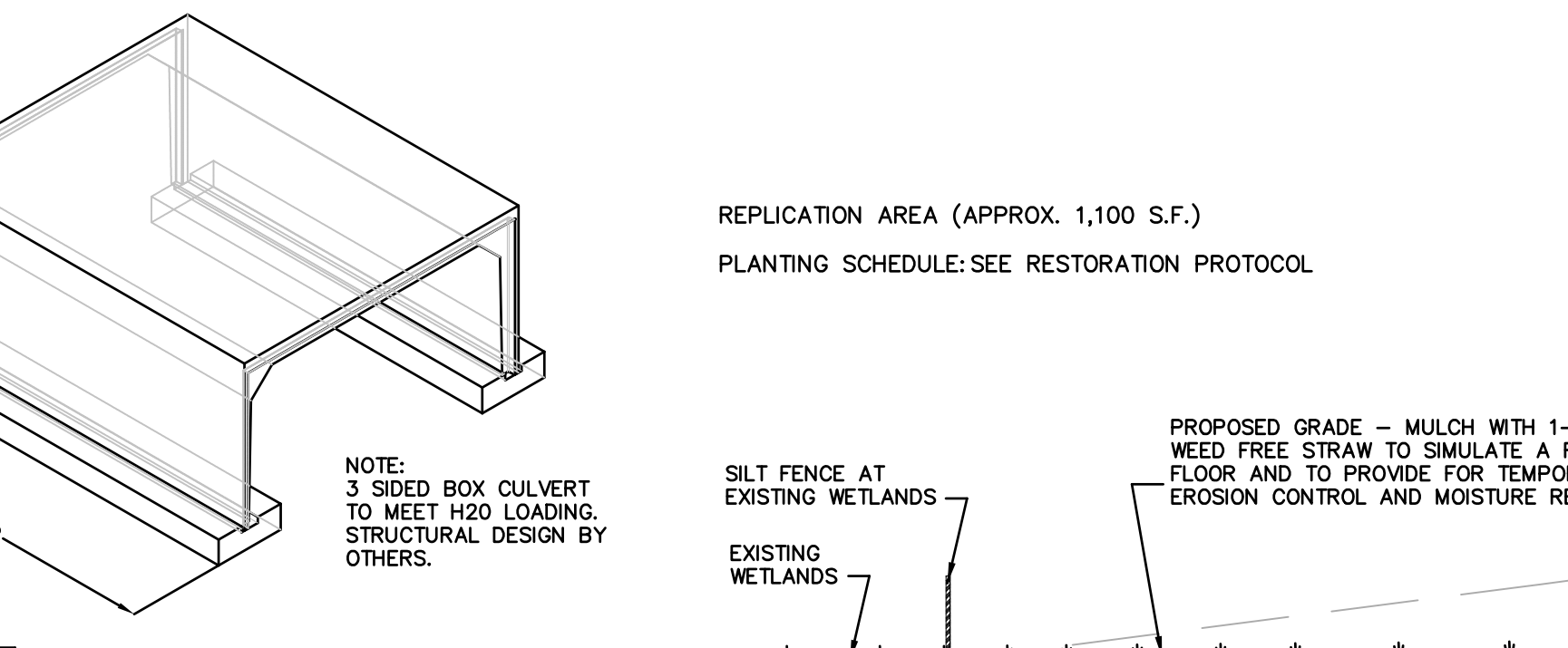
CROSSING TYPE	DIMENSION LENGTH (FEET)	OPENNESS RATIO	BANKFULL WIDTH	MIN. SPAN REQUIRED	PROVIDED SPAN
INTERMITTENT STREAM	18'L X 6'W X 3'H	1.0	5'	6'	6'



3-SIDED BOX CULVERT DETAIL



BOULDER RETAINING WALL DETAIL OR APPROVED EQUAL



WETLAND REPLICATION DETAIL

DESCRIPTION AND MAINTENANCE OF EROSION CONTROL MEASURES

ALL MEASURES STATED ON THIS PLAN, AND IN THE STORMWATER MANAGEMENT PLAN, SHALL BE MAINTAINED IN FULLY FUNCTIONAL CONDITION UNTIL NO LONGER REQUIRED FOR A COMPLETED PHASE OF WORK OR FINAL STABILIZATION OF THE SITE. ALL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE CHECKED BY A QUALIFIED PERSON IN ACCORDANCE WITH THE CONTRACT DOCUMENTS OR THE APPLICABLE PERMIT, WHICHEVER IS MORE STRINGENT IN ACCORDANCE WITH THE FOLLOWING:

- INSTALL EROSION CONTROL BARRIERS AT LOCATIONS AS SHOWN ON THE PLANS AND DETAILS. EROSION CONTROLS SHALL BE INSPECTED DAILY AND AFTER 1/4" RAIN EVENTS. INSPECTIONS SHALL BE RECORDED WITH THE TIME AND DATE AND REPORTS SHALL BE AVAILABLE FOR INSPECTION BY THE TOWN OR ENGINEER. REMOVE SEDIMENT ONCE LEVELS HAVE REACHED 1/4 OF THE EFFECTIVE HEIGHT. REPAIR AND/OR REPLACE THE BARRIER IMMEDIATELY IF DAMAGED OR IF THEY SHOW SIGNS OF UNDERMINING OR DETERIORATION. IF EROSION CONTROL MEASURES ARE DAMAGED BY CONSTRUCTION VEHICLES, ACTS OF VANDALISM, OR SEVERE WEATHER CONDITIONS, THE CONTRACTOR SHALL IMMEDIATELY REMOVE SEDIMENT IN THE VICINITY OF THE EROSION CONTROL MEASURES AND REPAIR THESE MEASURES TO A FUNCTIONAL CONDITION.
- IF, DURING OR AFTER CONSTRUCTION, IT BECOMES APPARENT THAT EXISTING EROSION CONTROL MEASURES ARE INCAPABLE OF CONTROLLING EROSION, THE ENGINEER OR THE TOWN MAY REQUIRE ADDITIONAL CONTROL MEASURES, INCLUDING BUT NOT LIMITED TO: ADDITIONAL STRAW WATTLES, HAYBALES, SILT FENCE, SEDIMENT BASINS, MECHANICALLY ANCHORED MULCH, OR ENHANCED DEWATERING FILTRATION.
- THE CONSTRUCTION ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOW OF SEDIMENT ONTO A PUBLIC RIGHT-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING OF THE CONSTRUCTION ENTRANCE AS CONDITIONS DEMAND. THE CONTRACTOR SHALL SWEEP PAVED ROADWAYS ADJACENT TO THE SITE ON A ROUTINE BASIS TO PREVENT TRACKING OF MUD ONTO PUBLIC ROADWAYS AND WASHING OF MUD INTO WATERWAYS. IF THE CONTRACTOR'S SCHEDULE FOR CLEANING THE PAVEMENT IS FOUND TO BE INADEQUATE BY THE OWNER, OWNER'S REPRESENTATIVE, OR TOWN, THE CONTRACTOR SHALL INCREASE THE FREQUENCY AT NO ADDITIONAL COST TO THE OWNER.
- NO EQUIPMENT OR MATERIAL STOCKPILES SHALL BE STORED WITHIN 50' OF WETLANDS. COMPLETELY SURROUND TEMPORARY MATERIAL STOCKPILES WITH STRAW WATTLES OR MULCH TUBES TO PREVENT TRANSPORTATION OF SEDIMENT. STOCKPILES SHOULD BE STABILIZED (HYDROSEED, TACKIFIER, TARP COVER, ETC.) IF NOT TOUCHED FOR 14 DAYS. ALL REFUELING OF CONSTRUCTION EQUIPMENT IS TO TAKE PLACE OUTSIDE OF WETLAND BUFFER AREAS. NO CONCRETE WASHOUT OR WASHING OF CONSTRUCTION EQUIPMENT IS ALLOWED WITHIN THE RESOURCE BUFFER AREAS.
- THE CONTRACTOR SHALL MAINTAIN AND INSPECT, ON A DAILY BASIS, THE ADEQUACY OF DUST CONTROL MEASURES AND CORRECT ANY DEFICIENCIES IMMEDIATELY. BROOM OFF PAVEMENT AREAS ADJOINING THE EXCAVATION ON A DAILY BASIS. COVER AND/OR KEEP MOIST ALL EARTH STOCKPILES AT ALL TIMES.
- IF DEWATERING IS REQUIRED, WATER SHOULD BE DISCHARGED TO DEWATERING BAGS OR OTHER SEDIMENT REMOVAL DEVICES PRIOR TO DISCHARGE TO RESOURCE AREAS. WATER MAY ALSO BE USED FOR DUST CONTROL AND/OR VEGETATION WATERING.
- DISTURBED PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES PERMANENTLY CEASE SHALL BE STABILIZED WITH PERMANENT SEED NO LATER THAN 14 DAYS AFTER THE LAST CONSTRUCTION ACTIVITY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL LANDSCAPED AREAS. IF TOPSOIL, SEED, AND/OR MULCH IS WASHED AWAY BY RAINFALL, THE CONTRACTOR SHALL RESTORE THE AREA. ALL SEEDED AREAS SHALL BE CHECKED REGULARLY TO SEE THAT A GOOD STAND IS MAINTAINED. AREAS SHOULD BE FERTILIZED, WATERED, AND RE-SEEDED AS NEEDED.
- CLEAN ALL STORMWATER STRUCTURES INCLUDING, BUT NOT LIMITED TO, PIPES, SWALES, SUBSURFACE RETENTION BASINS, SEDIMENT TRAPS, AND RIPRAP APRONS OF SEDIMENT UPON COMPLETION OF THE PROJECT.
- THE CONTRACTOR SHALL PROVIDE AN ADEQUATE NUMBER OF COVERED WASTE CONTAINERS TO ENSURE THAT NO LITTER, DEBRIS, BUILDING MATERIALS, OR SIMILAR MATERIALS ARE DISCHARGED TO WETLANDS OR WATERCOURSES. THE CONTRACTOR SHALL INSTRUCT SUBCONTRACTORS TO USE THE CONTAINERS FOR WASTE MATERIAL. THE CONTAINERS SHALL BE PROMPTLY EMPTIED WHEN FULL.

PRE-CONSTRUCTION CONFERENCE

- PRIOR TO ANY WORK TAKING PLACE, A PRE-CONSTRUCTION MEETING SHOULD BE SCHEDULED BETWEEN THE ENGINEER, CONSTRUCTION MANAGER, AND THE CONSERVATION COMMISSION REPRESENTATIVE TO REVIEW THE OOC, ESC PLAN, AND SCHEDULE.
- FOLLOWING THE PRE-CONSTRUCTION MEETING, ALL ASPECTS OF EROSION CONTROLS ARE TO BE INSTALLED INCLUDING INSTALLATION OF STRAW WATTLES, SILTATION FENCE, AND THE STABILIZED CONSTRUCTION ENTRANCE.
- PRIOR TO ANY SITE WORK OR EQUIPMENT MOBILIZATION, THE EROSION AND SEDIMENTATION CONTROLS SHALL BE INSPECTED BY THE CONSERVATION COMMISSION REPRESENTATIVE.

INSPECTIONS:

- EROSION AND SEDIMENTATION CONTROL INSPECTIONS SHOULD BE CONDUCTED DAILY. ANY REPAIRS SHOULD BE MADE IMMEDIATELY.
- STORMWATER CONSTRUCTION SITE INSPECTIONS SHOULD BE PERFORMED WEEKLY AND AFTER 1/4" RAINFALL EVENTS. ANY NECESSARY STORMWATER REPAIRS SHOULD BE MADE IMMEDIATELY AND DOCUMENTED IN REPORTS AS LISTED IN THE STORMWATER MANAGEMENT REPORT.
- COPIES OF REPORTS AND RAIN EVENT REPORTS SHOULD BE KEPT ON FILE UNTIL COMPLETION.

RESPONSIBILITIES OF OWNER/PERMITEE

- THE OWNER/ PERMITEE SHALL:
- PROVIDE THE CONTRACTOR WITH COPIES OF LAND-USE PERMITS THAT THE OWNER HAS ACQUIRED.
 - INFORM ALL PARTIES INVOLVED WITH THE PROPOSED SITE WORK OF THIS PLAN'S OBJECTIVES AND REQUIREMENTS.

RESPONSIBILITIES OF CONTRACTOR

- THE CONTRACTOR IS RESPONSIBLE FOR PREVENTING EROSION OF THE SITE AND FOR PROTECTING ADJACENT STORM SEWERS AND WATERWAYS FROM SEDIMENTATION. THE CONTRACTOR SHALL:
- INSTALL, MONITOR, AND MAINTAIN ALL OF THE SOIL EROSION AND SEDIMENT CONTROL MEASURES AS SHOWN ON THIS PLAN.
 - READ, UNDERSTAND, AND COMPLY WITH ALL PERMIT REQUIREMENTS AND MAINTAIN A COPY OF APPLICABLE PERMITS ON SITE AT ALL TIMES.

REPLICATION CONSTRUCTION PROTOCOL:

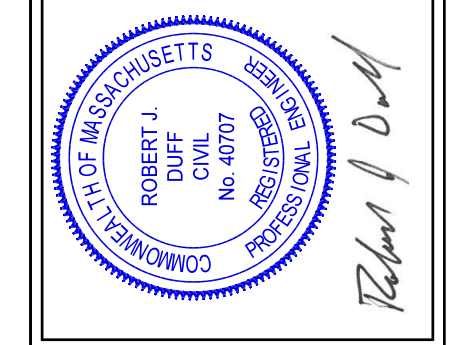
THE REPLICATION WORK SHALL BE COMPLETED IN CONFORMANCE WITH THE FOLLOWING PROTOCOL. A WETLAND SCIENTIST SHALL BE PRESENT ON SITE DURING MITIGATION ACTIVITIES. A WETLAND SCIENTIST REPORT SHALL BE REQUIRED FOLLOWING REPLICATION/ RESTORATION ACTIVITIES.

- THE CONSERVATION COMMISSION WILL BE NOTIFIED AT LEAST 48 BUSINESS WEEK HOURS PRIOR TO COMMENCEMENT OF RESTORATION WORK.
- THE WETLAND BOUNDARIES (I.E., DOWNGRADE EDGES OF THE WETLAND REPLICATION AREAS) WILL BE MARKED IN THE FIELD.
- PRIOR TO THE START OF EARTH-MOVING ACTIVITIES IN THE REPLICATION AREA, AN EROSION CONTROL BARRIER OF PROPERLY INSTALLED SILTATION FENCE WILL BE INSTALLED ALONG THE WETLAND BOUNDARIES BETWEEN THE WETLAND AND THE WETLAND REPLICATION AREA. THE PROJECT WETLAND SCIENTIST WILL EVALUATE THE REPLICATION AREAS PRIOR TO CLEARING. THE WETLAND REPLICATION AREA WILL THEN BE CLEARED AND GRUBBED, WITH THE EXCEPTION OF THE TREES THAT HAVE BEEN MARKED TO BE SAVED.
- THE PROPOSED FINAL GRADE FOR THE REPLICATION AREAS SHOULD APPROXIMATE THE ELEVATION OF THE ADJACENT WETLAND AREA AS NOTED ON THE SITE PLANS. THE REPLICATION AREAS WILL BE EXCAVATED TO A DEPTH OF 12 INCHES BELOW THE PROPOSED FINAL GRADE. THE EXCAVATION AND PLANTING WORK WILL BE CLOSELY SUPERVISED BY A QUALIFIED WETLAND SCIENTIST. MODIFICATIONS TO THE PROPOSED GRADING MAY BE MADE IN THE FIELD BY THE WETLAND SCIENTIST IN RESPONSE TO OBSERVED SUBSURFACE HYDROLOGIC CONDITIONS. ALL EXCAVATED MATERIAL WILL BE DISPOSED OF AWAY FROM ALL WETLAND RESOURCE AREAS AND PROTECTED FROM EROSION. ROCK PILES WILL BE PLACED AT SUB-GRADE AS NOTED BELOW.
- WETLAND TOPSOILS WILL CONSIST OF A 1:1 MIXTURE OF HIGH QUALITY, LOAMY TOPSOIL AND LEAF MOLD COMPOST, AS NECESSARY, TO APPROXIMATE 12 INCHES IN THICKNESS THROUGHOUT THE REPLICATION AREA. THE SUBSTRATE WILL BE ROUGHLY GRADED TO PROVIDE AN APPROPRIATE MICROTOPOGRAPHY. A MINIMUM OF 4 INCHES OF LOAMY TOPSOIL WILL BE APPLIED TO THE SIDE-SLOPES OF THE WETLAND REPLICATION AREA. THE SIDE SLOPES SHOULD BE STABILIZED AS NECESSARY TO PREVENT EROSION.
- WILDLIFE ENHANCEMENT MEASURES INCLUDING TREE SNAGS AND ROCK PILES WILL BE INSTALLED WITHIN THE REPLICATION AREA. THE TREE SNAGS WILL CONSIST OF FIVE OR SIX BOULDERS EACH (APPROXIMATELY 24 INCHES IN DIAMETER) PILED AT SUB-GRADE SO AS TO CREATE CREVICES AND CAVITIES FOR SHELTER AND NESTING.
- AN EROSION CONTROL BARRIER COMPRISING OF ONLY TOED-IN SILTATION FENCE WILL BE PROPERLY INSTALLED BETWEEN THE COMPLETED REPLICATION AREA AND THE ADJACENT UPLAND SIDESLOPES.
- PLANTINGS IN THE REPLICATION AREAS TO BE NATIVE WETLAND SPECIES. SCHEDULE TO BE DETERMINED BY WETLAND SCIENTIST. PLANTING WILL BE DONE ONLY DURING THE BEGINNING (APRIL 15 THROUGH JUNE 15) OR END (SEPTEMBER 15 TO NOVEMBER 15) OF THE GROWING SEASON. PLANTING IN THE MID-GROWING SEASON IS ONLY ACCEPTABLE IF IRRIGATION IS PROVIDED. THE PLANT SPECIES IDENTIFIED IN THE TABLE BELOW WILL BE PLANTED IN THE REPLICATION AREA EITHER BY TRANSPLANT OR FROM NURSERY STOCK. THE SAPLINGS WILL BE DISTRIBUTED THROUGHOUT THE AREA. THE SHRUBS WILL BE PLANTED RANDOMLY THROUGHOUT THE AREA IN CLUMPS OF TWO TO THREE WITH THE AVERAGE SPACING BETWEEN SHRUB CLUMPS APPROXIMATELY 5 FEET ON-CENTER. THE WOODY VEGETATION SHOULD NOT BE PLANTED IN ROWS.
- THE PLANTED REPLICATION AREA WILL BE MULCHED WITH 1 TO 2 INCHES OF WEED FREE STRAW TO SIMULATE A FOREST FLOOR AND TO PROVIDE FOR TEMPORARY EROSION CONTROL AND MOISTURE RETENTION.
- THE SIDE-SLOPES OF THE WETLAND REPLICATION AREA WILL BE SEEDED WITH A GRASS/WILDFLOWER MIXTURE DESIGNED TO PROVIDE PERMANENT COVER (NEW ENGLAND CONSERVATION/WILDFLOWER MIX OR EQUAL), AFTER SEEDING, THE SIDE-SLOPES WILL BE MULCHED WITH A THIN LAYER OF STRAW TO PROVIDE FOR TEMPORARY EROSION CONTROL.
- THE REPLICATION AREA ACCESS ROUTE WILL BE RESTORED FOLLOWING THE COMPLETION OF THE REPLICATION AREA.
- THE REPLICATION AREA WILL BE INSPECTED, BY A QUALIFIED WETLAND SCIENTIST, AT THE END OF EACH GROWING SEASON FOR A MINIMUM OF TWO YEARS OR UNTIL SUCH TIME AS THE REQUIRED 75% OF VEGETATIVE COVER WITH WETLAND SPECIES HAS BEEN ESTABLISHED. WRITTEN RESULTS OF THESE INSPECTIONS WILL BE SUBMITTED TO THE CONSERVATION COMMISSION TWICE A YEAR BY JUNE 1 AND NOVEMBER 1 OF EACH YEAR.
- IF INVASIVE SPECIES ARE NOTED (E.G., KNOTWEED, PHRAOQUITES, ETC.) THESE SPECIES WILL BE REMOVED BY EITHER HAND-PULLING THE ENTIRE PLANT OUT BY THE ROOTS OR BY CUTTING THE ABOVE-GROUND PORTION AND APPLYING GLYPHOSATE HERBICIDE TO THE STEM WITH A DRIP APPLICATOR. THE CUT OR PULLED PLANTS WILL BE PROPERLY DISPOSED OF OUTSIDE THE WETLANDS AND BUFFER ZONES AND CARE WILL BE TAKEN NOT TO DISTRIBUTE ANY SEEDS OR BERRIES THAT MAY BE PRESENT.
- IF THE WETLAND REPLICATION AREA HAS BECOME VEGETATIVELY STABILIZED, AND FOLLOWING APPROVAL OF THE ISSUING AUTHORITY, THE SILTATION FENCE AND ALL WOODEN STAKES WILL BE REMOVED AND DISPOSED OF PROPERLY.

HOR. SCALE IN FEET: NTS

REV	DATE	DESCRIPTION	MADE	APVD

ROBERT DUFFE, P.E.
PROFESSIONAL ENGINEER
MA LIC. NO. 40707



McCLURE
ENGINEERING, INC
119 Worcester Road
Charlton, MA 01507
Tel: (508) 248-2005
Fax: (508) 248-4887
Email: rduffe@mcclureengineering.com

PROPOSED SINGLE FAMILY HOME
36 CHAMPEAUX ROAD
STURBRIDGE, MA 01518
PREPARED FOR
KEVIN LAMY
32 PAIGE ROAD
BRIMFIELD, MA 01507

DRAWN BY: JW
DATE: 02/19/2024
CHK BY: RD
SCALE: NTS
PROJ. NO.: 287-2865-0