TRANSMITTAL

Tighe&Bond

Project No.: S-5052-034-05-03
Date: 4/23/2024

Re: Notice of Intent
Geotechnical Investigations, 469A Main Street Trail and Bridge Project
(Sturbridge, Massachusetts)

To: Edward Goodwin, Chairman
Sturbridge Conservation Commission
301 Main Street
Sturbridge, MA 01566

Copy: MassDEP Central Region
Jamie Goodwin, Chair, Board of Selectmen
Charles Blanchard, Chair, Planning Board
Linda Cocalis, Chair, Board of Health
Nelson Burlingame, Building Inspector
Heather Blakely, PE, DPW Director via email

☐ **FOR SIGNATURE** ☐ **FOR FILE** ☐ **AS REQUESTED** ☒ **FOR REVIEW** ☐ **PLEASE REPLY**

NO. COPIES	DESCRIPTION
2	Notice of Intent

Dear Mr. Goodwin:

Enclosed please find two (2) physical copies of a Notice of Intent for the 469A Main Street Trail and Bridge Project (Project) in Sturbridge, Massachusetts for your review.

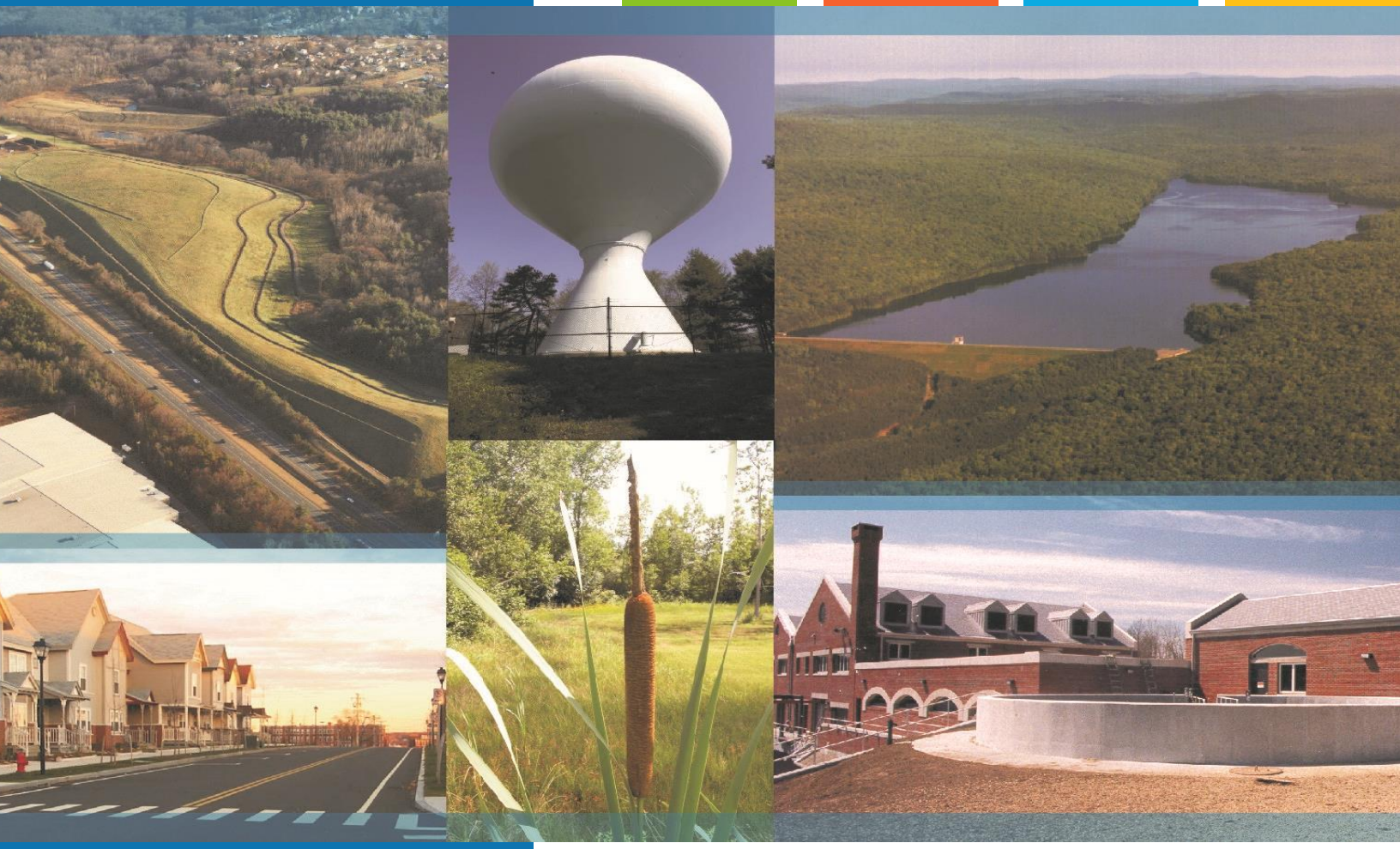
If you have any questions or require additional information, please feel free to contact me at (413) 977-3651 or via email at STaylor@tighebond.com.

Very truly yours,

Tighe & Bond, Inc.

Seth R. Taylor, MS
Project Manager

☐ **USPS FIRST-CLASS** ☐ **HAND DELIVERY** ☐ **OTHER (_____)**
☒ **USPS CERTIFIED MAIL (ARTICLE NO. CERTIFIED MAILING _____)**



Geotechnical Investigations, 469A Main Street Trail and Bridge Project

Main Street / Stallion Hill Road
Sturbridge, Massachusetts

Notice of Intent

Sturbridge Department of Public Works
1 New Boston Road Extension
P.O. Box 182
Sturbridge, MA 01566

April 2024

Tighe&Bond

S-5052-034-05-03
4/23/2024

Edward Goodwin, Chairman
308 Main St
Sturbridge Conservation Commission
Sturbridge, MA 01566

Re: **Notice of Intent**
Geotechnical Investigations, 469A Main Street Trail and Bridge Project
501 Main Street, 483A Main Street, 469A Main Street, and 52 Stallion Hill Road
Sturbridge, Massachusetts

Dear Chairman Goodwin and Members of the Commission,

On behalf of the Town of Sturbridge (Town; Applicant), Tighe & Bond, Inc. (Tighe & Bond) respectfully submits this Notice of Intent (NOI) pursuant to the Massachusetts Wetlands Protection Act (WPA; M.G.L. Chapter 131, § 40) and its implementing regulations (310 CMR 10.00) as well as the Town of Sturbridge Wetlands Protection Bylaw (Chapter 286) and its implementing regulations (Chapter 365) for authorization of exploratory borings to collect data on the subsurface soil conditions along a proposed extension to the Grand Trunk Tail.

This NOI requests the authorization to advance three (3) soil borings to assess subsurface geologic conditions and collect essential data for the design and planning of the continuation of the Grand Trunk Trail. The work is temporary in nature, and the boring will be backfilled with the spoils extracted at each location. Timber matting is proposed to cross Bordering Vegetated Wetlands to eliminate the impacts from crossing the wetlands with tracked vehicles. The work will occur within the 25-Foot No Disturb Zone, the 50-Foot No Build Zone, the 100-Foot Buffer Zone, the Riverfront Area (RFA), Bordering Land Subject to Flooding (BLSF), and Bordering Vegetated Wetland (BVW).

Under Section 286-4 F (*Applications for Permits and Requests for Determination*, published September 2021) of Chapter 286 of the Town of Sturbridge Wetlands Protection Bylaw the Town requests a waiver for any and all filing fees associated with this application.

Thank you in advance for your review of this NOI. Should you have any questions or require additional information, please contact me at (413) 977-3651 or via email at STaylor@Tighebond.com. We look forward to meeting with you for a public meeting on May 9, 2024.

Very truly yours,
TIGHE & BOND, INC.

Seth Taylor

Seth R. Taylor, MS
Project Manager
(413) 977-3651
STaylor@Tighebond.com

Enclosures: Notice of Intent & Associated Appendices

Copy: MassDEP Central Region Division of Wetlands and Waterways
Jamie Goodwin, Chair, Board of Selectmen
Charles Blanchard, Chair, Planning Board
Linda Cocalis, Chair, Board of Health
Nelson Burlingame, Building Inspector
Heather Blakeley, PE, Director of DPW

Tighe&Bond

CONTENTS

Table of Contents

Tighe&Bond

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

Date	

Fill in all white cells completely

Parcel Address Assessors Map/Plat Book & Page	See Property Cards attached to this sheet.	**Applicant** name Address Email Phone	Heath Blakeley, PE 301 Main Street Sturbridge, MA 01566 HBlakeley@Sturbridge.gov (508) 347-2515
Owner name Address Email Phone	Town of Sturbridge National Grid Inc. See Appendix F	**Representative** Address Email Phone	Seth R. Taylor, MS 53 Southampton Road Westfield, MA 01085 STaylor@Tighebond.com (413) 977-3651

Wetland type	BVW	**sf/cf affected**	862 SF	**Relevant Perf. Standards**	**10.** 56
Wetland type	BLSF	**sf/cf affected**	781 SF	**Relevant Perf. Standards**	**10.** 57
Wetland type	RFA	**sf/cf affected**		**Relevant Perf. Standards**	**10.**

Components of a Complete NOI Application

State Form: NOI Form 3	Included? ☒ Yes ☐ No	
Engineered Plan	Included? ☐ Yes ☒ No	GIS Figures
Proof of Mailing to DEP	Included? ☐ Yes ☒ No	Filed via eDEP
Narrative	Included? ☒ Yes ☐ No	
Proof that all relevant perf. standards are met	Included? ☒ Yes ☐ No	
TOPO Map identifying locus with scale	Included? ☒ Yes ☐ No	
FIRM Map identifying locus with scale	Included? ☒ Yes ☐ No	
Natural Heritage Map with WH, PH, & VP data	Included? ☒ Yes ☐ No	Included? ☐
Delineation lines (backup material)	Included? ☒ Yes ☐ No	
Tax Form	Included? ☐ Yes ☒ No	
Fees		
★ Fee Transmittal form	Included? ☒ Yes ☐ No	
★ Filing Fee Worksheet	Included? ☒ Yes ☐ No	
★ Town portion of state filing fee	Included? ☐ Yes ☒ No	Not Applicable
★ Sturbridge local filing fee _$_____	Included? ☐ Yes ☒ No	
Abutter Information		
★ Certified abutters list (within 200')	Included? ☒ Yes ☐ No	
★ Abutter notification form	Included? ☒ Yes ☐ No	
★ Affidavit & proof -- bring to hearing	*Present them at the hearing*	
Other Attachments, e.g.		
Confirmation of submission to NHESP	Included? ☐ Yes ☐ No ☒ Not Applicable	
Planting Plan	Included? ☐ Yes ☐ No ☒ Not Applicable	
Floodplain analysis	Included? ☐ Yes ☐ No ☒ Not Applicable	
Stormwater analysis	Included? ☐ Yes ☐ No ☒ Not Applicable	

Components of a Complete NOI Application

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 #:
eDEP Transaction #:1698802
City/Town:STURBRIDGE

A.General Information

1. Project Location:

a. Street Address	469 A MAIN STREET		
b. City/Town	STURBRIDGE	c. Zip Code	01518
d. Latitude	42.11341N	e. Longitude	72.10731W
f. Map/Plat #	415	g.Parcel/Lot #	469A

2. Applicant:

☐ Individual ☑ Organization

a. First Name	HEATHER		b.Last Name	BLAKELEY PE	
c. Organization	TOWN OF STURBRIDGE				
d. Mailing Address	1 NEW BOSTON ROAD EXTENSION				
e. City/Town	STURBRIDGE	f. State	MA	g. Zip Code	01566
h. Phone Number	508-347-2515	i. Fax		j. Email	HBlakeley@Sturbridge.gov

3.Property Owner:

☑ more than one owner

a. First Name	HEATHER		b. Last Name	BLAKELEY PE	
c. Organization	TOWN OF STURBRIDGE				
d. Mailing Address	1 NEW BOSTON ROAD EXTENSION				
e. City/Town	STURBRIDGE	f.State	MA	g. Zip Code	01566
h. Phone Number	508-347-2515	i. Fax		j.Email	HBlakeley@Sturbridge.gov

4.Representative:

a. First Name	SETH		b. Last Name	TAYLOR MS	
c. Organization	TIGHE & BOND, INC.				
d. Mailing Address	53 SOUTHAMPTON ROAD				
e. City/Town	WESTFIELD	f. State	MA	g. Zip Code	01085
h.Phone Number	413-977-3651	i.Fax		j.Email	staylor@tighebond.com

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

a.Total Fee Paid	0.00	b.State Fee Paid	0.00	c.City/Town Fee Paid	0.00

6.General Project Description:

PROPOSED EXPLORATORY GEOTECHNICAL BORINGS TO COLLECT DATA ON THE SUBSURFACE SOIL CONDITIONS FOR A PROPOSED SHARED-USE PATH AT 469A MAIN STREET. THE PROPOSED FUTURE PROJECT WILL INCLUDE A PEDESTRIAN BRIDGE OVER THE QUINEBAUG RIVER AND A RAISED BOARDWALK OVER WETLAND AREAS. THE EXPLORATORY GEOTECHNICAL BORING DATA WILL BE ESSENTIAL FOR THE DESIGN OF THE PROPOSED BRIDGE ABUTMENTS AND BOARDWALK SUPPORTS.

7a.Project Type:

1. ☐ Single Family Home
2. ☐ Residential Subdivision
3. ☐ Limited Project Driveway Crossing
4. ☐ Commercial/Industrial
5. ☐ Dock/Pier
6. ☐ Utilities
7. ☐ Coastal Engineering Structure
8. ☐ Agriculture (eg., cranberries, forestry)

9. ☐ Transportation 10. ☑ Other

7b.Is any portion of the proposed activity eligible to be treated as a 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:
2. Limited Project

8.Property recorded at the Registry of Deeds for:

a.County:	b.Certificate:	c.Book:	d.Page:
WORCESTER		62224	137
WORCESTER		42394	0113
WORCESTER		53491	0374
WORCESTER		04044	0234

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

1.Buffer Zone & Resource Area Impacts (temporary & permanent):

☐ This is a Buffer Zone only project - 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)

Resource Area	Size of Proposed Alteration	Proposed Replacement (if any)
a. ☐ Bank	1. linear feet	2. linear feet
b. ☑ Bordering Vegetated Wetland	862 1. square feet	862 2. square feet
c. ☐ Land under Waterbodies and Waterways	1. Square feet	2. square feet
	3. cubic yards dredged	
d. ☑ Bordering Land Subject to Flooding	781 1. square feet 0 3. cubic feet of flood storage lost	781 2. square feet 0 4. cubic feet replaced
e. ☐ Isolated Land Subject to Flooding	1. square feet	
	2. cubic feet of flood storage lost	3. cubic feet replaced
f. ☑ Riverfront Area	Quinebaug River 1. Name of Waterway (if any)	
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		420302

square feet

4. Proposed Alteration of the Riverfront Area:

3686	1843	1843
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)

Resource Area	Size of Proposed Alteration	Proposed Replacement (if any)
a. ☐ Designated Port Areas	Indicate size under	Land under the ocean below,
b. ☐ Land Under the Ocean	1. square feet 2. cubic yards dredged	
c. ☐ Barrier Beaches	Indicate size under Coastal Beaches and/or Coatstal Dunes, below	
d. ☐ Coastal Beaches	1. square feet	2. cubic yards beach nourishment
e. ☐ Coastal Dunes	1. square feet	2. cubic yards dune nourishment
f. ☐ Coastal Banks	1. linear feet	
g. ☐ Rocky Intertidal Shores	1. square feet	
h. ☐ Salt Marshes	1. square feet	2. sq ft restoration, rehab, crea.
i. ☐ Land Under Salt Ponds	1. square feet	
	2. cubic yards dredged	
j. ☐ Land Containing Shellfish	1. square feet	
k. ☐ 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. ☐ Land Subject to Coastal Storm Flowage	1. square feet	

4.Restoration/Enhancement

☐ Restoration/Replacement

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 entered the additional amount here.

a. square feet of BVW b. square feet of Salt Marsh

5.Projects Involves Stream Crossings

☐ Project Involves Streams Crossings

If the project involves Stream Crossings, please enter the number of new stream crossings/number of replacement stream crossings.

a. number of new stream crossings b. number of replacement stream crossings

C. Other Applicable Standards and Requirements

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 of Endangered Species program (NHESP)?

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

b. Date of map:FROM MAP VIEWER

If yes, the project is also subject to Massachusetts Endangered Species Act (MESA) review (321 CMR 10.18)....

c. Submit Supplemental Information for Endangered Species Review * (Check boxes as they apply)

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

3.☐ Project plans for entire project site, including wetland resource areas and areas outside of wetland 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

c.☐ MESA filing fee (fee information available at: http://www.mass.gov/eea/agencies/dfg/dfw/natural-heritage/regulatory-review/mass-endangered-species-act-mesa/mesa-fee-schedule.html)
Make check payable to "Natural Heritage & Endangered Species Fund" and **mail to NHESP** at above address

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

d.☐ Vegetation cover type map of site

e.☐ Project plans showing Priority & Estimated Habitat boundaries

d. OR Check One of the following

1.☐ Project is exempt from MESA review. Attach applicant letter indicating which MESA exemption applies. (See 321 CMR 10.14, http://www.mass.gov/eea/agencies/dfg/dfw/laws-regulations/cmr/321-cmr-1000-massachusetts-endangered-

species-act.html#10.14; the NOI must still be sent to NHESP if the project is within estimated habitat pursuant to 310 CMR 10.37 and 10.59.)

2. ☐ Separate MESA review ongoing.
   a. NHESP Tracking Number
   b. Date submitted to NHESP
3. ☐ Separate MESA review completed.

Include copy of NHESP "no Take" determination or valid Conservation & Management Permit with approved plan.

* Some projects **not** in Estimated Habitat may be located in Priority Habitat, and require NHESP review...

2. For coastal projects only, is any portion of the proposed project located below the mean high waterline or in a fish run?
   a. ☑ Not applicable - project is in inland resource area only
   b. ☐ Yes ☐ No

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

South Shore - Cohasset to Rhode Island, and the Cape & Islands:	North Shore - Hull to New Hampshire:
Division of Marine Fisheries - Southeast Marine Fisheries Station Attn: Environmental Reviewer 836 S. Rodney French Blvd New Bedford, MA 02744	Division of Marine Fisheries - North Shore Office Attn: Environmental Reviewer 30 Emerson Avenue Gloucester, MA 01930

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

3. 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 DEP Website for ACEC locations). **Note:** electronic filers click on Website.

   b. ACEC Name

4. 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

5. 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

6. 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, Explain why the project is exempt:

1. ☐ Single Family Home
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

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 by regular mail delivery.

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.
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. ☑

a. Plan Title:	b. Plan Prepared By:	c. Plan Signed/Stamped By:	c. Revised Final Date:	e. Scale:
MAIN STREET TRAIL & BRIDGE PROJECT, PERMITTING SET, APRIL 2024	TIGHE & BOND, INC	NONE	March 2024	SCALE VARIES

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:

2. Municipal Check Number

3. Check date

4. State Check Number

5. Check date

6. Payer name on check: First Name

7. Payer name on check: Last Name

F. Signatures and Submittal Requirements

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

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

1. Signature of Applicant

2. Date: 4/22/24

3. Signature of Property Owner(if different)

4. Date

5. Signature of Representative (if any): Seth Taylor

6. Date: 4/22/2024

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 Section C, Items 1-3, 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

WPA Form 3 - Notice of Wetland FeeTransmittal Form

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

Provided by MassDEP:
MassDEP File #:
eDEP Transaction #:1698802
City/Town:STURBRIDGE

A. Applicant Information

1. Applicant:

a. First Name	HEATHER	b.Last Name	BLAKELEY PE		
c. Organization	TOWN OF STURBRIDGE				
d. Mailing Address	1 NEW BOSTON ROAD EXTENSION				
e. City/Town	STURBRIDGE	f. State	MA	g. Zip Code	01566
h. Phone Number	5083472515	i. Fax		j. Email	HBlakeley@Sturbridge.gov

2.Property Owner:(if different)

a. First Name	HEATHER	b. Last Name	BLAKELEY PE		
c. Organization	TOWN OF STURBRIDGE				
d. Mailing Address	1 NEW BOSTON ROAD EXTENSION				
e. City/Town	STURBRIDGE	f.State	MA	g. Zip Code	01566
h. Phone Number	5083472515	i. Fax		j.Email	HBlakeley@Sturbridge.gov

3. Project Location:

a. Street Address	469 A MAIN STREET	b. City/Town	STURBRIDGE

Are you exempted from Fee? ☐ (YOU HAVE SELECTED 'YES')

Note: Fee will be exempted if you are one of the following:

- City/Town/County/District
- Municipal Housing Authority
- Indian Tribe Housing Authority
- MBTA

State agencies are only exempt if the fee is less than $100

B. Fees

Activity Type	Activity Number	Activity Fee	RF Multiplier	Sub Total

City/Town share of filling fee	State share of filing fee	Total Project Fee
$0.00	$0.00	$0.00

STURBRIDGE WETLANDS PROTECTION BY-LAW AND REGULATIONS

WETLANDS FILING FEE CALCULATION WORSHEET

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	____	$300	_____
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	_____
OOC Extension Request	____	$50	_____
Emergency Certification	_____	$50	_____

(NOI may be required to be filed following issuance of Emergency Cert)

Local Bylaw Fee (includes Town Filing Fee) **$** _____

State Filing Fee (from DEP Wetland Transmittal Form) **$** _____

Total Payable to "Town of STURBRIDGE" **$** _____

*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.

Under Section 286-4 F (Applications for Permits and Requests for Determination, published September 2021) of Chapter 286 of the Town of Sturbridge Wetlands Protection Bylaw the Town requests a waiver for any and all filing fees associated with this application.

Tighe&Bond

SECTION 1

Section 1
Introduction

1.1 Project Background and Purpose

This Notice of Intent (NOI) has been filed by Tighe & Bond, Inc. (Tighe & Bond) for the Town of Sturbridge (Town, Applicant) pursuant to the Massachusetts Wetlands Protection Act (WPA; M.G.L. Chapter 131, § 40) and its implementing regulations (310 CMR 10.00) as well as the Town of Sturbridge Wetlands Protection Bylaw (Chapters 365 & 286) and its implementing regulations for authorization for proposed exploratory geotechnical borings to collect data on the subsurface soil conditions for a proposed shared-use path at 469A Main Street. The proposed future project will include a pedestrian bridge over the Quinebaug River and a raised boardwalk over wetland areas. The exploratory geotechnical boring data will be essential for the design of the proposed bridge abutments and boardwalk supports.

The geotechnical investigations of the proposed Project will provide essential data for the design and planning of the continuation of the Grand Trunk Trail. This data will be acquired by completing three (3) exploratory geotechnical borings where the path is proposed to be installed (Phase II) from a parking lot at 501 Main Street east and south to the north bank of the Quinebaug River where a pedestrian bridge will be installed to provide safe passage to the south side of the river and connect to the "River Walk" trail, eventually being connected to the Grand Trunk Trail, see Plan Sheets in Appendix B and Figures in Appendix A).

Following these exploratory borings Phase II of the Project will include the development of approximately 500 feet of new shared use path on the north side of the Quinebaug River where some sections will be elevated (via boardwalks). The proposed geotechnical borings are required for assessing the subsurface conditions along the route of the proposed boardwalk/trail and bridge locations. Phase I of the Project is presented herein; Phase II of this Project will be submitted under a subsequent and independent Notice of Intent.

Tighe&Bond

SECTION 2

Section 2
Existing Environment

This section provides a description of the Project Locus and existing conditions, as well as information pertaining to wetland resource areas. Land use in the general vicinity of the Project was determined based on direct observations made during site inspections and wetland delineation tasks and a review of information available through the Massachusetts Geographic Information System (MassGIS). The area around the Site is a combination of forested upland and wetland areas as well as commercial and residential buildings.

2.1 Project Locus

The Project Locus includes four (4) parcels: 501 Main Street (PID: 415-02432-501), 483A Main Street (PID: 415-02433-483A), 469A Main Street (PID: 415-02443-469A) located north of the Quinebaug River and 52 Stallion Hill Road (PID: 605-02454-052) located south of the Quinebaug River. Three (3) of the parcels are owned by the Town, with the exception of 483A Main Street, which is owned by the Massachusetts Electric Company, d/b/a National Grid Electric Company, for which a right-of-way is being sought. See Figures in Appendix A.

2.2 Methodology of Resource Area Investigations

On December 21, 2023, January 4, 2024, and January 22, 2024, Tighe & Bond wetland scientists visited the Project Locus to identify and delineate wetland resource areas and evaluate the jurisdictional status of each relative to local, state, and federal criteria. Photos from the site visit are provided in Appendix C. Jurisdictional Resource Areas in the vicinity of the proposed work were delineated in accordance with the US Army Corps of Engineers' *Regional Supplement to the Corps of Engineers Wetland Delineation Manual* (2012), *Massachusetts Handbook for Delineation of Bordering Vegetated Wetlands* (2022), the Massachusetts Wetland Protection Act (MAWPA) and its implementing regulations (310 CMR 10.00), and the Town of Sturbridge Wetlands Protection Bylaw and its implementing regulations (Chapter 365).

Boundaries of jurisdictional resource areas within the vicinity of the proposed Project were delineated using sequentially numbered pink flagging tape for vegetated wetlands and blue flagging tape for inland bank/mean annual highwater line (MAHWL). Each flag was located by survey and incorporated into the existing conditions base map (see Sheet 1 of 4 in Appendix B and Figure 1 in Appendix A). Wetland Resource Areas were named based on the wetland system number and alphabetical letter in the order in which they were observed, i.e., "1A-1" refers to the first resource area delineated within wetland system 1. The boundaries of Bordering Vegetated Wetlands (BVW) and Bank were delineated in accordance with the definitions set forth in the regulations at 310 CMR 10.55(2)(c) and 310 CMR 10.54(2), respectively. Resource area boundaries are shown on in Appendix A and on the Project Drawings in Appendix B.

2.3 Summary of Jurisdictional Wetland Resource Areas Existing on Site

The following wetland Resource Areas identified within the Project Locus and immediate vicinity of the Project Site are subject to jurisdiction under the MAWPA and its implementing regulations as well as Sturbridge Wetland Bylaw and its implementing regulations:

- Bank (Inland)
- Bordering Vegetated Wetlands (BVW)
- Land Under Waterbodies and Waterways (LUWW)
- Bordering Land Subject to Flooding (BLSF)
- Isolated Land Subject to Flooding (ILSF)
    - Certified Vernal Pool
- Riverfront Area

A summary of delineated resource areas by flag series is presented in Table 2-1.

TABLE 2-1
Wetland Flag Series

Flag Series	Flag Numbers	Resource Area Type
1A/1B	1A-1 through 1A-13 1B-1 through 1B-19	BVW
1A3	1A3-1 through 1A3-18	BVW
1C/1D	1C-1 through 1C-4 1D-1 through 1D-4	Intermittent Stream
2A/2B	2A-1 through 2A-17 2B-1 through 2B-17	Inland Bank/MAHW (Quinebaug River)
3A	3A-1 through 3A-33	BVW
3B	3B-1 through 3B-44 3B-1 through 3B-17 3A-17 through 3A-30	BVW
4B	4B-1 through 4B-6	BVW
5B	5B-1 through 5B-4	Intermittent Stream

2.3.1 Bank / Mean Annual High-Water Line

Bank is defined at 310 CMR 10.54(2)(a) as *"…the portion of the land surface which normally abuts and confines a water body. It occurs between a water body and a vegetated*

bordering wetland and adjacent floodplain, or, in the absence of these, it occurs between a water body and an upland."

The Mean Annual High-Water Line (MAHWL) was identified using "*the first observable break in slope, visible markings or changes in the character of soils or vegetation due to prolonged presence of water and that distinguishes between predominantly aquatic and predominantly terresTrail land."*

1C/1D Series – Intermittent Stream

Flag series 1C defines the eastern Bank and 1D defines the western Bank of an unnamed intermittent stream. The unnamed stream was approximately three-feet wide and four-inches deep, originating from a six-inch culvert from the vegetated wetland defined by flag series 1B. The streambed was observed to be primarily sand and gravel with small cobbles. Shallow banks bounded the stream and were bordered by upland and/or floodplain that primarily consisted of mountain laurel (*Kalmia latifolia;* FACU) and northern red oak (*Quercus rubra*; FACU).

2A/2B Series – Perennial Stream

Flag series 2A defines the northern Bank and 2B defines the southern Bank of the Quinebaug River. The Quinebaug River is approximately 50-feet wide, with a water depth ranging from one to six feet. The riverbed is primarily sand and silt with small to large boulders. Shallow banks bounded the river, and the riverbank vegetation primarily consisted of red maple (*Acer rubrum*; FAC) silky dogwood (*Cornus amomum;* FACW) and sweet pepperbush (*Clethra alnifolia;* FAC). Vegetation observed in the bordering upland and/or floodplain areas primarily consisted of eastern hemlock (*Tsuga canadensis*; FACU), white pine (*Pinus strobus*; FACU), northern red oak (FACU), mountain laurel (FACU), and Japanese knotweed (*Fallopia japonica;* FACU).

5B Series – Intermittent Stream

Flag series 5B defines the center line of an unnamed intermittent stream (or drainage ditch) south of Main Street jurisdictional under the MAWPA and the Sturbridge Bylaw. Flows within the channel are dependent on stormwater discharge from Main Street or direct rainfall. The stream is approximately three-feet wide and generally two-inches deep apart from a six-inch-deep plunge pool at the culvert outlet, which feeds the stream. The streambed was observed to be primarily sand and gravel with some small cobbles. Steep cut banks bounded the stream and transitioned into shallow banks with vegetation consisting of primarily common red raspberry (*Rubus idaeus*; FACU) and Asiatic bittersweet (*Celastrus orbiculatus*; UPL).

2.3.2 Bordering Vegetated Wetlands (BVW)

Bordering Vegetated Wetlands (BVW) are defined at 310 CMR 10.55(2)(a) as "*…freshwater wetlands which border on creeks, rivers, streams, ponds and lakes. The types of freshwater wetlands are wet meadows, marshes, swamps and bogs. Bordering Vegetated Wetlands are areas where the soils are saturated and/or inundated such that they support a predominance of wetland indicator plants. The ground and surface water regime and the vegetation community which occur in each type of freshwater wetland are specified in*

M.G.L. c 131 sec.40." The following five (5) BVW systems were observed and delineated within the vicinity of the Site.

1A/1B Series

Flag series 1A defines the boundary of a BVW south of the "River Walk" trail which is south of the Quinebaug River. The wetland is classified under the *Classification of Wetlands and Deepwater Habitats of the United States* – updated August 2013 – as a palustrine scrub/shrub temporarily flooded/saturated system (PSS1A). Vegetation observed within this wetland included red maple, speckled alder (*Alnus incana*; FACW), common winterberry (*Ilex verticillata*; FACW), highbush blueberry (*Vaccinium corymbosum*; FACW), interrupted fern (*Osmunda claytoniana,* FAC), and trace Pennsylvania sedge (*Carex pensylvanica*; UPL). Soils were observed to a depth of thirteen (13) inches, at which refusal was met. The soil profile consisted of a Depleted Below Dark Surface (A11), with 90% zero (0) to eleven (11) inches at 10YR 2/2 with 10% distinct redoximorphic concentrations at nine (9) to eleven (11) inches at 10YR 5/4 underlain by two (2) inches, from eleven (11) inches to thirteen (13) inches, at 10YR 3/3. The texture was observed to be muck. Wetland hydrology indicators were observed to be standing water, a high-water table, and saturated soils.

Flag series 1B (which is a continuation of system 1A) defines the boundary of a BVW which abuts the existing "River Walk" trail that supplies the intermittent stream defined by flag series 1C and 1D. The wetland is classified as a PSS1A system. Vegetation observed within the wetland primarily included sweet pepperbush (FAC), as this portion of the BVW was sparsely comprised of vegetation. Soils were observed to a depth of twenty (20) inches. The soil profile consisted of zero (0) to five (5) inches at 10YR 3/2 underlain by a Sandy Gleyed Matrix (S4) fifteen (15) inches, from five (5) to twenty (20), at GLEY2 7/5pb. Wetland hydrology indicators were standing water, a high-water table, and saturated soils.

1A3 Series

Flag series 1A3 defines the boundary of a BVW adjacent to the southern bank of the Quinebaug River. The wetland is classified as a palustrine scrub/shrub temporarily flooded/saturated system (PSS1A) system that is temporarily flooded/saturated. The vegetation within the wetland consisted of a canopy of eastern hemlock (FACU), northern red oak (FCAU) (only in small upland islands throughout the wetland), red maple (FAC), and ironwood (*Ostrya virginiana*; FACU). Shrubs observed included sweet pepperbush (FAC), common winterberry (FACW), and speckled alder (FACW). Herbaceous species included cinnamon fern (*Osmundastrum cinnamomeum*; FACW) and skunk-cabbage (*Symplocarpus foetidus*; OBL). The soils were observed to a depth of twenty (20) inches. The soil profile consisted of a Histic Epipedon (A2), with zero (0) to twelve (12) at 90% 10YR 2/2 with 10% 10YR 5/4 concentrations from eight (8) to twelve (12) inches underlain by eight (8) inches, from twelve (12) to twenty (20), at 10YR 3/3. The texture of the soil observed was mucky. Wetland hydrology was observed to be saturated soils.

3A Series

Flag series 3A defines the boundary of a BVW north of the Quinebaug River. The wetland is classified as a palustrine emergent persistent seasonally flooded/ saturated system (PEM1E). Vegetation observed within the wetland consisted of red maple (FAC), white meadowsweet (*Spirea alba*; FACW), joe-pye-weed (*Eutrochium purpureum*; FAC), and

sensitive fern (*Onoclea sensibilis*; FACW). Soils were observed to a depth of twenty (20) inches. The soil profile consisted of Depleted Below Dark Surface (A11), with zero (0) to nine (9) inches at 10YR 4/2 underlain by eleven (11) inches, from nine (9) to twenty (20) at 90% 10YR 3/2 with 20% red/orange 10YR 5/6 redoximorphic concentrations. Wetland hydrology was observed to be saturated soils.

3B Series

Flag series 3B defines the boundary of a BVW bordering the parking area south of the National Grid electric transmission substation and an apartment building. The wetland is classified as a palustrine emergent persistent seasonally flooded/ saturated system (PEM1E) and transitions to a palustrine scrub/shrub temporarily flooded/saturated system (PSS1A) farther south. Vegetation observed within the wetland consisted of red maple (FAC), grey birch (*Betula populifolia*; FAC), coastal sweet pepperbush (FAC), winterberry (OBL), and skunk cabbage (OBL). Soils were observed to a depth of twenty (20) inches. The soil profile consisted a of Histosol (A1), with zero (0) inches to three (3) inches at 10YR 2/1 underlain by five (5) inches, from three (3) to eight (8), at 10YR 2/2 underlain by six (6) inches, from eight (8) to fourteen (14), at 10YR 3/2 underlain by six (6) inches, from fourteen (14) to twenty (20), at 95% 10YR 3/2 with 15% redoximorphic concentrations at 10YR 5/6. The soil texture observed was muck. Wetland hydrology indicators were standing water, a high-water table, and saturated soils.

4B Series

Flag series 4B is a BVW, classified as a palustrine emergent persistent seasonally flooded/ saturated system (PEM1E) is located to the east of the Site and is characterized by a steep grade down into the wetland. Evidence of high energy flows by heavy rain events have created a channel within the wetland characterized by a sandy/gravely substrate. There is little vegetation within the BVW itself and almost none in the channel. Vegetation within the wetland consisted of red maple (FAC), winter berry (FACW), red osier dogwood (*Cornus sericea* FACW); sensitive fern (FAC), and interrupted fern (FAC). Soils were observed to a depth of twenty (20) inches. The soil profile consisted of a Depleted Below Dark Surface (A11), with zero (0) to four (4) inches at 10YR 3/2 underlain by six (6) inches, from four (4) to ten (10), at 10YR 5/2 underlain by six (6) inches, from ten (10) to sixteen (16), at 70% 10YR 5/2 sand with 30% redoximorphic concentrations at 10YR 5/6 underlain by four (4) inches, from sixteen (16) to twenty (20), at 70% 10YR 5/2 with 30% redoximorphic concentrations at 10YR 5/6. The Wetland hydrology indicator was a high-water table.

2.3.3 Land Under Water Bodies and Waterways (LUWW)

As defined at 310 CMR 10.56(2), as "*…the land beneath any creek, river, stream pond or lake."*

LUWW within the Site includes land within the delineated Inland Bank of the Quinebaug River demarcated by flag series 2A-1 through 2A-17 and 2B-1 through 2B-17. The riverbed of the Quinebaug River is primarily sand and silt with small to large rocks and is devoid of observable vegetation. There are some tree species present within the bank, although sparse, and included eastern hemlock (FACU) and red maple (FAC).

2.3.4 Bordering Land Subject to Flooding (BLSF)

Bordering Land Subject to Flooding (BLSF) is defined at 310 CMR 10.57(2)(a)1. as "*…an area with low, flat topography adjacent to and inundated by flood waters rising from creeks, rivers, streams, ponds or lakes. It extends from the banks of these waterways and water bodies; where a bordering vegetated wetland occurs, it extends from said wetland*." And at 310 CMR 10.57(2)(a)3. as "*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*."

BLSF is present at the Site as the 1% Annual Chance Storm Event. The Federal Emergency Management Agency's (FEMA) Flood Insurance Rate Map (FIRM) Panel Numbers 25027C0926F, effective June 21, 2023, depict Zone A (1% annual chance flood event) and Zone AE (1% annual chance flood event) with a base flood elevation ranging from 579.9 to 574.8 feet within the Project Site associated with the ponds abutting the site. The floodplain is depicted as BLSF on Project Drawings in Appendix B. Isolated Land Subject to Flooding is present to the south and east of the proposed work area, where a certified vernal pool is present.

The limits of BLSF are depicted on Sheet 4 in Appendix B.

2.3.5 Isolated Land Subject to Flooding (ILSF)

Isolated Land Subject to Flooding (ILSF) is defined at 310 CMR 10.57(2)(a)1. as "*…an isolated depression or a closed basin which serves as a ponding area for run-off or high ground water which has risen above the ground surface. Such areas are likely to be locally significant to flood control and storm damage prevention. In addition, where such areas are underlain by pervious material they are likely to be significant to public or private water supply and to ground water supply. Where such areas are underlain by pervious material covered by a mat of organic peat and muck, they are also likely to be significant to the prevention of pollution. Finally, where such areas are vernal pool habitat, they are significant to the protection of wildlife habitat*."

A small depression of ILSF is located to the south and east of the proposed trail improvement. At this location, an NHESP Certified Vernal Pool has been identified. The Vernal Pool/ILSF location consists of ¼ acre-feet of water six inches deep enduring 2 or more months in the spring of each year. The limits of ILSF are depicted on Sheet 4 in Appendix B.

2.3.6 Riverfront Area

Riverfront Area is defined at 310 CMR 10.58 (2)(a) as "*… the area of land between a rover's mean annual highwater line and a parallel line measured horizontally. The riverfront area may include or overlap other resource areas or their buffer zones."*

The Quinebaug River has a 200-foot Riverfront Area. Riverfront Area within the Project Site is comprised of maintained scrub/shrub wetland within the utility right-of-way to the north of the Quinebaug River and maintained gravel and dirt shared use "River Walk" trail to the south of the river as shown on Sheets 2, 3, and 4 in Appendix B. Vegetation commonly observed within the Riverfront Area included red maple (FAC), eastern hemlock

(FACU), northern red oak (FACU), Asiatic bittersweet (UPL), sweet pepperbush (FAC), and common winterberry (FACW).

2.3.7 Certified Vernal Pool

Vernal Pool is defined at the Town of Sturbridge Wetlands Protection Bylaw (Chapter 268-9 Definitions) as "…*a confined basin depression which, at least in most years, holds water for a minimum of two continuous months during the spring and/or summer, and which is free of adult fish populations, regardless of whether the site has been certified by the Massachusetts Division of Fisheries and Wildlife*."

The Town implements a 200-foot buffer on all Potential and Certified Vernal Pools regardless of whether or not they have been mapped and/or certified by Massachusetts Natural Heritage and Endangered Species Program (NHESP). There is one Certified Vernal Pool (CVP) (CVP number: 7458) and one Potential Vernal Pool (PVP) (PVP number: 287) within the vicinity of the Site as depicted on Figure 3 in Appendix B. The Certified Vernal Pool is located within ISLF and the Potential Vernal Pool is located in BVW series 1B.

2.4 Rare Species

The Project Area does not fall within Priority Habitats of Rare Species or Estimated Habitats of Rare Wildlife based on a review of the Massachusetts Natural Heritage and Endangered Species Program (NHESP) Atlas (15th edition; August 1, 2021) and NHESP data available on MassGIS online (August 2021).

Tighe&Bond

SECTION 3

Section 3
Project Description

3.1 Proposed Activities

Subsurface exploratory geotechnical borings will be conducted on either side of the proposed pedestrian bridge crossing and one of the proposed boardwalk locations to evaluate the suitability of the subsurface conditions to support the proposed piles. All three (3) of the geotechnical borings will be drilled in Buffer Zone/Riverfront Area/BLSF. The borings are temporary in nature and will not permanently impact any Resource Areas or their relative Buffer Zones. Construction activities associated with the Project will have a Limit of Work (LOW) of approximately 1.4 acres inclusive of access, staging/laydown, and work areas.

3.1.1 Site Preparation and Access

Access to Boring 1 will be achieved from the parking lot at 501 Main Street that is currently under construction. This boring will be located within Buffer Zone. Access to Boring 2 will be achieved via the existing National Grid easement that runs to the river from the substation located at 483 Main Street. Access at this location will require temporary timber matting across BVW 3A and BVW 3B. Access to Boring 3 will come via the existing "River Walk" trail south of the river.

Geotechnical borings will be performed with a rubber-tracked ATV trill rig which will potentially cause temporary impacts to surface vegetation. Selective trimming of overhead branches will be required at the Boring #3 location in order to provide clearance for the drill rig's mast to raise, this will be performed by the Town. The trimming of vegetation will consist of removing branches and trimming small shrubs as necessary but will not include grubbing or removal of vegetation.

Access to Boring 2 will require timber matting. While an upland location is available to the west of the chosen path, this area will require mature tree clearing, which would not otherwise be necessary for the construction phase of the Project. Timber matting, while impacting the wetland temporarily, was selected to avoid overall impact to the ecosystem in general at the Site.

For more information, please refer to the Project Drawings in Appendix B.

3.1.2 Exploration Layout and Coordination

Tighe & Bond will mark the proposed exploration locations in the field using a hand-help sub-meter EOS Aero GPS unit and painted wooden stakes. The required "Dig Safe" utility clearance notification will be completed prior to construction activities.

3.1.3 Test Borings

Figure 1: Diedrich D-50 Track Mounted ATV, Geotechnical Boring Rig; Machine Proposed to be Used to Collect Data.

The borings will be completed within the proposed pedestrian bridge and boardwalk footprint. A Geotechnical Boring Rig[1], as seen in Figure 1, will be advanced to each boring location. Each boring will be advanced with hollow-stem augers or flush joint casing using drive and wash methods. A boring is proposed near each abutment of the proposed pedestrian bridge (Borings 2 & 3) and will be advanced to a target depth of approximately 40-feet below ground surface, or refusal, whichever is shallower. Boring 1 is proposed within the footprint of the proposed boardwalk and will be advanced to target depths of approximately 30-feet below ground surface, or refusal, whichever is shallower. Each boring location will have an approximate 30 SF footprint, totaling 90 SF of temporary impacts.

Split-spoon samples[2] using Standard Penetration Test (SPT) will be collected continuously to a maximum depth of 12-feet and at 5-foot intervals thereafter. A 5-foot rock core will be collected in one of the borings if refusal is encountered within the target depths. Each boring will take approximately one (1) day to complete, totaling three days for each boring.

Boreholes will be backfilled with spoils, if there is an insufficient amount of spoils to fill the hole it will be topped with sand. No other surface repair is proposed at this time. Any cuttings unable to be returned to their hole will be spread near the boring location in a vegetated upland area.

3.2 Construction Period BMPs

The following Best Management Practices (BMPs) will be implemented during construction to minimize the potential for erosion and sedimentation of wetland resource areas. Typical erosion control details are indicated on the Project Drawings in Appendix B.

[1] https://www.boartlongyear.com/wp-content/uploads/drilling_equipment_geo_technical_LX4_main_3.jpg

[2] "Split Spoon Sampling, also sometimes referred to as standard penetration testing or SPT—is a method of measuring the load-bearing capabilities of the subsurface. Using a drill rig, the split spoon tooling is driven into the soil. The tooling is marked at six-inch intervals to measure how many blows it takes to drive the tooling to a specific depth. The number of blow counts indicates how compacted or hard the soil is and provides engineers with the ability to calculate the load-bearing capability of the subsurface and safely design their structures." https://www.cascade-env.com/site-characterization-technologies/split-spoon-sampling/

3.2.1 Timber Matting

3.2.1.1 Advantages of Timber Mats

Working in wetlands causes great difficulty maneuvering heavy machinery across rugged and swampy terrains. In these situations, timber mats are best to gain traction and reduce the chance of getting stuck in the mud. Another advantage of using timber mats in wetlands is the flexibility and convenience of being able to cross swamps, mud, and unstable ground without having to build a permanent structure.

3.2.1.2 Heavy Equipment and Timber Mats

Built of hardwood timber 8-, 10-, or 12-inches thick and 8- to 40-feet long, these mats are made to support heavy machinery. Common equipment ideal for use with mats includes cranes for timber harvesting equipment and most track equipment.

3.2.1.3 Installation/Removal of Timber Mats

Installation and removal is streamlined when dealing with high quality timber mats. Any new or slightly used mats (grade A or B) will have two good pick points to help with removal. When dealing with grade C used mats, they will be slightly more difficult to remove, however they should still have one good pick point to use for removing the timber mat.

3.2.1.4 Impacts from Timber Mats on the Environment

Timber mats are a great alternative to building permanent structures when planning a construction or maintenance project in wetlands. Often, in timber harvesting situations, one may need to get your equipment across a stream or a wetland. If one does not use timber mats as a temporary stream crossing, there can be direct as well as indirect consequences on fisheries and water quality such as destruction of habitat, channel changes, vegetation removal, and land clearing that could lead to erosion and sedimentation in the waterway. These can be minimized with the use of timber mats when installed and removed correctly after geotechnical explorations are completed.

3.2.2 Project Site Cleanup

During site walks and wetland delineation activities, trash and debris were observed at the Site. During construction activities, any and all trash observed will be cleaned up from the Site.

Tighe&Bond

SECTION 4

Section 4
Regulatory Compliance

This section summarizes the Project's relationship to and compliance with the Massachusetts Wetlands Protection Act (WPA) and its implementing regulations (310 CMR 10.00) and the City of Sturbridge's Wetlands Protection Ordinance (Chapter 365 & 286) and implementing rules and regulations, as well as other pertinent state and federal regulatory programs are provided in the following sections.

4.1 Massachusetts Wetlands Protection Act Jurisdiction

Work associated with the geotechnical borings for the design and planning of the expansion of the Grand Trunk trail will occur within Riverfront Area, within BVW, BLSF, 100-foot Buffer Zone to Bank and BVW, and adjacent to ILSF. Table 4-1 presents a summary of anticipated temporary impacts to MAWPA jurisdictional areas relative to the proposed Project.

TABLE 4-1
Summary of WPA Jurisdictional Temporary Alteration

Resource Area	Timber Matting Impacts (SF)	Geotechnical Borings Temporary Impacts (SF)	Total Temporary Impacts (Sf)	Restoration
Riverfront Area	0 SF	3,686 SF	3,686 SF	3,686 SF
Bordering Vegetated Wetland	862 SF	0 SF	862 SF	862 SF
Bordering Land Subject to Flooding	0 SF	781 SF	781 SF	781 SF
	0 CF	0 CF	0 CF	0 CF
100-foot Buffer Zone	0 SF	3,686 SF	3,686 SF	3,686 SF

Work in Phase I is temporary in nature, drilling within wetland Resource Areas will require the removal of shrubby vegetation to access the boring locations. Temporary timber matting will be required to ford the BVW's safely and reduce overall impact.

4.2 WPA Performance Standards

As noted in Table 4-1, the proposed Project will result in 3,686 SF of temporary impacts to Riverfront Area, BVW, BLSF, and 100-foot Buffer Zone to Bank and BVW. The following

sections summarize the Project's compliance with the General Performance Standards (provided in italics) of established in the WPA regulations for the proposed impacts.

4.2.1 Bordering Vegetated Wetlands

As noted in Table 4-1, approximately 862 SF of temporary impacts to BVW are anticipated due to the installation of timber matting to access locations for exploratory geotechnical borings. No loss of BVW is anticipated as a result of this Project. The Performance Standards for Bordering Vegetated Wetlands are set forth at 310 CMR 10.55(4)(a).

(a) *Where the presumption set forth in 310 CMR 10.55(3) is not overcome, any proposed work in a Bordering Vegetated Wetland shall not destroy or otherwise impair any portion of said area.*

The access route to each boring location is temporary in nature, including the use of timber matting in BVW, which will be installed and removed once the boring work is complete. Such temporary disturbance in BVW will be restored *in situ* after timber mat removal by smoothing any depressed areas by hand. No vegetation will be installed, but rather the wetland will be allowed to restore naturally from seedbank. All proposed activities (timber matting and geotechnical borings) are temporary in nature and will not have permanent impacts to BVW.

(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");*
2. *the ground water and surface elevation of the replacement area shall be 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;*
4. *the replacement area shall have an unrestricted hydraulic connection to the same water body or waterway associated with the lost area;*
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;*
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

7. *the replacement area shall be provided in a manner which is consistent with all other General Performance Standards for each resource area in Part III of 310 CMR 10.*00.

The proposed Project will not result in any loss in Bordering Vegetated Wetlands, all activities will be temporary in nature. As such, BVW in situ restoration will take place and there the need for replication it not necessary.

In the exercise of this discretion, the issuing authority shall consider the magnitude of the alteration and the significance of the project Site to the interests identified in M.G.L. c. 131, § 40, the extent to which adverse impacts can be avoided, 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 in M.G.L. c. 131, § 40.

(c) *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 a portion of Bordering Vegetated Wetland when;*

1. *said portion has a surface area less than 500 square feet;*

2. *said portion extends in a distinct linear configuration ("finger-like") into adjacent uplands; and*

3. *in the judgment of the issuing authority it is not reasonable to scale down, redesign or otherwise change the proposed work so that it could be completed without loss of said wetland.*

The proposed Project will not result in any loss in Bordering Vegetated Wetlands, all activities will be temporary in nature. As such, a replication or restoration of a BVW is not required.

(d) *Notwithstanding the provisions of 310 CMR 10.55(4)(a),(b) and (c), no project may be permitted which will have any adverse effect on specified habitat Sites of rare vertebrate or invertebrate species, as identified by procedures established under 310 CMR 10.59.*

There are no NHESP Estimated or Priority Habitats present at the Project Locus.

(e) *Any proposed work shall not destroy or otherwise impair any portion of a Bordering Vegetated Wetland that is within an Area of Critical Environmental Concern designated by the Secretary of Energy and Environmental Affairs under M.G.L. c. 21A, § 2(7) and 301 CMR 12.00: Areas of Critical Environmental Concern. 310 CMR 10.55(4)(e):*

1. *supersedes the provisions of 310 CMR 10.55(4)(b) and (c);*
2. *shall not apply if the presumption set forth at 310 CMR 10.55(3) is overcome;*
3. *shall not apply to work proposed under 310 CMR 10.53(3)(l); and*
4. *shall not apply to maintenance of stormwater detention, retention, or sedimentation ponds, or to maintenance of stormwater energy dissipating structures, that have been constructed in accordance with a valid order of conditions.*

The Project Locus is not located within an ACEC.

4.2.2 Bordering Land Subject to Flooding

As noted in Table 4-1, approximately 781 SF of temporary impacts to BLSF are anticipated due to the installation of temporary timber mapping and geotechnical boring activities. There will not be a loss of flood storage capacity resulting from the proposed Project. The Performance Standards for Bordering Land Subject to Flooding are set forth at 310 CMR 10.57(4).

1. *Compensatory flood storage shall be provided for all flood storage volume that will be lost as the result of a proposed project within Bordering Land Subject to Flooding, when in the judgment of the issuing authority said loss will cause an increase or will contribute incrementally to an increase in the horizontal extent and level of flood water during peak flows. Compensatory flood storage shall mean a volume not previously used for flood storage and shall be incrementally equal to the theoretical volume of flood water at each elevation, up to and including the 100-year flood elevation, which would be displaced by the proposed project. Such compensatory volume shall have an unrestricted hydraulic connection to the same waterway or water body. Further, with respect to waterways, such compensatory volume shall be provided within the same reach of the river, stream or creek.*

Impacts to BLSF are limited to temporary installation of timber matting and exploratory geotechnical borings. Due to the temporary nature of the proposed activities, no flood storage loss is anticipated as a result of the Project. Therefore, creation of compensatory flood storage is not required.

2. *Work within Bordering Land Subject to Flooding, including work required to provide the above-specified compensatory flood storage, shall not restrict flows so as to cause an increase in flood stage or velocity.*

The activities proposed within BLSF will not restrict flows or cause any increase in flood stage or velocity. As noted above, the Project will not result in any loss of flood storage and compensatory flood storage creation is not required.

3. *Work in those portions of bordering land subject to flooding found to be significant to the protection of wildlife habitat shall not impair its capacity to provide important wildlife habitat functions. Except for work which would adversely affect vernal pool habitat, a project or projects on a single lot, for which Notice(s) of Intent is filed on or after November 1, 1987, that*

(cumulatively) alter(s) up to 10% or 5,000 square feet (whichever is less) of land in this resource area found to be significant to the protection of wildlife habitat, shall not be deemed to impair its capacity to provide important wildlife habitat functions. Additional alterations beyond the threshold, or altering vernal pool habitat, may be permitted if they will have no adverse effects on wildlife habitat, as determined by procedures contained in 310 CMR 10.60.

The proposed Project will result in less than 5,000 sf of alteration of BLSF. As such, a Wildlife Habitat Evaluation is not required.

4.2.3 Riverfront Area

Approximately 3,686 SF of temporary impacts will occur within the Riverfront Area of the Quinebaug River. Proposed activities in Riverfront Area consist of temporary installation of timber matting to facilitate equipment access and exploratory geotechnical borings to aid in the planning and design phase of the expansion of the Grand Trunk trail.

(a) At a minimum, proposed work shall result in an improvement over existing conditions of the capacity of the riverfront area to protect the interests identified in M.G.L. c. 131 § 40. When a lot is previously developed but no portion of the riverfront area is degraded, the requirements of 310 CMR 10.58(4) shall be met.

The proposed Project activities are temporary in nature and will not have a permanent impact on Riverfront Area and therefore are not altering the existing conditions.

(b) Stormwater management is provided according to standards established by the Department.

The proposed Project will not generate additional stormwater runoff, increase impervious area, or create a new point source discharge.

(c) Within 200-foot riverfront area, proposed work shall not be located closer to the river than existing conditions or 100 feet, whichever is less, or not closer than existing conditions within 25-foot riverfront areas, except in accordance with 310 CMR 10.58(5)(f) or (g).

The geotechnical borings will be within 50-feet of the river as that is where the proposed pedestrian bridge is anticipated to be located. Work within Riverfront Area is unavoidable to gather geotechnical information but will also not encroach closer than necessary to gather the needed information.

(d) Proposed work, including expansion of existing structures, shall be located outside the riverfront area or toward the riverfront area boundary and away from the river, except in accordance with 310 CMR 10.58(5)(f) or (g).

As stated above, the proposed work within Riverfront Area is unavoidable in order to gather geotechnical data for the design and planning purposes of the expansion of the Grand Trunk Trail.

(e) The area of proposed work shall not exceed the amount of degraded area, provided that the proposed work may alter up to 10% if the degraded area is less than 10% of the riverfront area, except in accordance with 310 CMR 10.58(5)(f) or (g).

The proposed Project will not alter Riverfront Area permanently, but rather all activities will be temporary in nature.

(f) When an applicant proposed restoration on-site of degraded riverfront area, alteration may be allowed notwithstanding the criteria of 310 CMR 10.58(c), (d) and (e) at a ratio in square feet of at least 1:1 of restored area to area of alteration not conforming to the criteria. Areas immediately along the river shall be selected for restoration. Alteration not conforming to the criteria shall begin at the riverfront area boundary. Restoration shall include

- *a. removal of all debris, but retaining any trees or other mature vegetation;*
- *b. grading to a topography which reduces runoff and increases infiltration;*
- *c. coverage by topsoil at a depth consistent with natural conditions at the site; and*
- *d. seeding and planting with an erosion control seed mixture, followed by plantings of herbaceous and woody species appropriate to the site.*

Upon completion of construction activities, impacted areas within the footprint of the proposed access road will be restored in-kind.

(g) When an applicant proposes mitigation either on-site or in the riverfront area within the same general area of the river basin, alteration may be allowed notwithstanding the criteria of 310 CMR 10.58(c), (d), or (e) at a ratio in square feet of at least 2:1 mitigation area to area of alteration not conforming to the criteria or an equivalent level of environmental protection where square footage is not a relevant measure. Alteration not conforming to the criteria shall begin at the riverfront area boundary. Mitigation may include off-site restoration of riverfront areas, conservation restrictions under M.G.L. c. 184 §§ 31 to 33 to preserve undisturbed riverfront area that could otherwise be altered under 310 CMR 10.00, the purchase of development rights within the riverfront area, the restoration of bordering vegetated wetland, projects to remedy an existing adverse impact on the interests identified in M.G.L. c. 131 § 40 for which the applicant is not legally responsible, or similar activities undertaken voluntarily by the applicant which will support a determination by the issuing authority of no significant adverse impact. Preference shall be given to potential mitigation projects, if any, identified in a River Basin Plan approved by the Secretary of the Executive Office of Environmental Affairs.

Mitigation is not proposed given the temporary nature of the proposed activities under Phase I.

4.3 Stormwater Management

The proposed Project will not generate additional stormwater runoff, increase impervious area, or create a new point source discharge.

4.4 Sturbridge Wetlands Regulations and Bylaw Jurisdictions

The proposed activities are subject to the Town of Sturbridge Wetland Protection Bylaw (SWPB) and its implementing regulations. The proposed work under Phase I will occur in the regulated 25-Foot No Disturb Buffer, the 50-Foot No Structure Buffer, the 100-Foot Buffer, the 200-Foot Buffer, the 200-Foot Riverfront Resource Area, and the 100-Foot (minimum) Vernal Pool Buffer.

TABLE 4-2
Summary of Sturbridge Wetland Protection Bylaw Regulated Area Impacts

Resource Area	Timber Matting Impacts (SF)	Geotechnical Borings Impacts (SF)	Total Impacts (SF)	Restoration (SF)
25-Foot No Disturb Buffer	3,305 SF	2,841 SF	6,146 SF	6,146 SF
50-Foot No Structure Buffer	0 SF	566 SF	566 SF	566 SF
100-Foot Buffer	0 SF	3,686 SF	3,686 SF	3,686 SF
200-Foot Riverfront Resource Area	0 SF	3,686 SF	3,686 SF	3,686 SF
Bordering Vegetated Wetland	862 SF	0 SF	862 SF	862 SF
Land Subject to Flooding	0 SF	781 SF	781 SF	781 SF
Riverfront Area	0 SF	3,686 SF	3,686 SF	3,686 SF

All activities within the proposed Project will be temporary in nature and are unavoidable but have been minimized to the maximum extent practicable.

4.4.1 § 365-5.2 Vegetated wetlands

As noted in Table 4-2, approximately 862 SF of temporary impacts to BVW are anticipated due to the installation of timber mapping and exploratory geotechnical borings. No loss of BVW is anticipated as a result of this Project.

1. *Refer to MA Wetlands Protection Act Regulations, 310 CMR 10.56, Land Under Water Bodies and Waterways (Under any Creek, River, Stream, Pond or Lake), Subsection (4), General Performance Standards.*
2. *In addition to being required to conform to the general performance standards listed in the Wetlands Protection Act, these regulations also require compliance with the following additional general performance standards:*
   (a) Wetland replication is to be considered as an absolute last resort in situations where all potential alternatives have been explored and no other feasible options exist. Recent UMass Amherst studies have shown that replication has only been successful in 35% to 40% of the cases reviewed over the past 15 years.

As stated above in 4.2.1, there will be no loss of BVW as a result of the Project activities so no wetland replication will be needed.

(b) Work which results in the loss of up to 5,000 square feet of vegetated wetland may be allowed at the discretion of the Commission under extreme conditions on a case-by-case basis when no other alternatives are possible. Such work would require 2:1 wetland replication, and any additional specific conditions the Commission deems necessary to ensure that the replication area will function in a manner similar to the area lost. Wetland replication regulations are detailed in Article VIII of these regulations.

As stated above in 4.2.1, the proposed Project will not result in the loss of any wetland. Therefore, no wetland replication will result from the activities of the proposed Project.

(c) Alterations or loss of wetlands will not be permitted in situations where the owner or applicant has created their own hardship.

There will be no permanent alterations or loss of wetlands, all proposed activities will be temporary in nature.

(d) No project may be permitted which will have any adverse effect on specified habitat sites of rare or state-listed species, as identified by procedures established under 310 CMR 10.59, Estimated Habitat for Rare Wildlife.

There are no habitats of rare or state listed species within the vicinity of the Project Area.

(e) Any proposed work shall not destroy or otherwise impair any portion of a vegetated wetland that is within an area of critical environmental concern designated by the Secretary of Environmental Affairs.

The proposed activities will not destroy or otherwise impair any portion of a vegetated wetland. All activities associated with the Project will be temporary in nature.

4.4.2 § 365-5.4 Land Subject to Flooding

As noted in Table 4-2, approximately 781 SF of temporary impacts to Land Subject to Flooding are anticipated due to the installation of temporary timber mapping. No loss of flood storage is anticipated as a result of this Project.

D. General Performance Standards

(1) Bordering land subject to flooding. Refer to MA Wetlands Protection Act 1Regulations, 310 CMR 10.57, Land Subject to Flooding (Bordering and Isolated Areas), Subsection (4)(a), General Performance Standards: Bordering Land Subject to Flooding. In addition to the general performance standards listed in the Wetlands Protection Act, these regulations also require compliance with the following additional general performance standards:

(a) Compensatory storage shall be provided for all flood storage volume that will be lost as the result of a proposed project within bordering land subject to flooding, when in the judgment of the Commission said loss will cause an increase or will contribute incrementally to an increase in the horizontal extent and level of floodwaters during peak flows. "Compensatory storage" shall mean a volume not previously used for flood storage and shall be incrementally equal to the theoretical volume of floodwater at each elevation, up to and including the 100-year flood elevation, which would be displaced by the proposed project. Such compensatory volume shall have an unrestricted hydraulic connection to the same waterway or water body. Further, with respect to waterways, such compensatory volume shall be provided within the same reach of the river, stream or creek. The minimum storage requirement will be at the discretion of the Conservation Commission, as it may require compensatory flood storage of greater volume.

The proposed Project activities will not result in the loss of any flood storage. All Project activities are temporary in nature.

(b) Work within bordering land subject to flooding, including that work required to provide the above-specified compensatory storage, shall not restrict flows so as to cause an increase in flood stage or velocity.

The proposed Project will not restrict flows to increase flood stage or velocity. The proposed work is anticipated to be completed during a short period during the summer months when the risk of flooding is at its lowest percentage occurrence.

(c) Work in those portions of bordering land subject to flooding found to be significant to the protection of wildlife habitat

shall not impair its capacity to provide important wildlife habitat functions, including altering vernal pool habitat.

All activities for the Project are temporary in nature and will not inhibit wildlife functions or alter vernal pool habitat.

4.4.3 § 365-5.5 Riverfront Area

Approximately 3,686 SF of temporary impacts will occur within the Riverfront Area of the Quinebaug River. Proposed activities in Riverfront Area consist of temporary installation of timber matting to facilitate equipment access and exploratory geotechnical borings to aid in the planning and design phase of the expansion of the Grand Trunk trail.

D. General Performance Standards

(1) No project may be permitted within the riverfront area which will have any adverse effect on specified habitat sites of rare or state- or federally listed species, or which will have any adverse effect on vernal pool habitat, whether certified or identified by the Commission prior to or during the public hearing.

All activities for the Project are temporary in nature and will not inhibit wildlife functions or alter vernal pool habitat.

(2) Practicable alternative. There must be no practicable and substantially equivalent economic alternative to the proposed project with less adverse effects on the interests identified.

The proposed activities have been designed to reduce temporary impacts to Riverfront Area to the extent practicable.

(3) When an applicant proposes restoration on-site of degraded riverfront area, alteration may be allowed at a ratio in square feet of at least 2:1 of restored area to area of alteration not conforming to the performance standards. Restoration shall include:

(a) Removal of all debris, but retaining any noninvasive trees or other mature noninvasive vegetation.
(b) Grading to a topography which reduces runoff and increases infiltration;
(c) Coverage by topsoil at a depth consistent with natural conditions at the site; and
(d) Seeding and planting with an erosion control seed mixture, followed by plantings of herbaceous and woody species appropriate to the site.

The Project does not have any proposed mitigation as all activities will be temporary in nature and will not degrade Riverfront Area.

(4) When an applicant proposes mitigation either on-site or in the riverfront area within the same general area of the river basin, alteration may be allowed at a

ratio in square feet of at least 2:1 of mitigation area to area of alteration for previously disturbed sites.

The Project does not have any proposed mitigation as all activities will be temporary in nature and will not permanently alter the Riverfront Area.

(5) The following may be allowed in the riverfront area and requires the filing of a notice of intent and prior review and approval of the Commission:

- *(a) Fencing, stonewalls or stacks of cordwood, provided they will not constitute a barrier to wildlife movement;*
- *(b) Vista pruning, provided the activity is located more than 100 feet from the mean annual high water line within a riverfront area or from bordering vegetated wetland, whichever is farther;*
- *(c) Plantings of native species of trees, shrubs or groundcover, but excluding turf lawns;*
- *(d) The conversion of lawn to uses accessory to existing single-family houses in existence on August 7, 1996, such as decks, sheds, patios and pools, provided the activity is located more than 50 feet from the mean annual high-water line within the riverfront area or from bordering vegetated wetland, whichever is farther, and erosion and sedimentation controls are implemented during construction;*
- *(e) The conversion of impervious to vegetated surfaces, provided erosion and sedimentation controls are implemented during construction;*
- *(f) The repair or upgrade of existing septic systems in compliance with Sturbridge Board of Health regulations.*

The Project activities will not include any of the listed items (a-f).

4.5 Chapter § 365-5.6 Vernal Pools, Certified, Potential and Identified

No temporary impacts will occur within the vicinity of the vernal pools located south of the "River Walk" trail.

E. General performance standards. Any work with in the 200-foot buffer zone to a vernal pool shall not cause a significant adverse impact to any function of a vernal pool. It shall not result in a measurable decrease in extant wildlife populations or biological community composition, structure and species richness of the site or in the vicinity, exclusive of the present or future state of adjacent or nearby property, or impair, damage or reduce in value for wildlife purposes identified specific habitat features. The Commission shall take into account indirect effects, including but not limited to effects of nearby human activities, on a case-by-case basis.

The proposed Project activities will be temporary in nature and will not impact any function of the vernal pools within the vicinity of the site. The equipment will be accessing Boring 3 via the partially paved/gravel "River Walk" trail. While equipment will pass along the

existing cleared path, no new cutting of vegetation is anticipated within the Vernal Pool Buffer Zone.

4.6 Chapter 365-5.7 Estimated habitats of rare wildlife.

There are no mapped estimated or priority habitats on Site.

> *C. General performance standards. Work within areas identified as habitat for rare and endangered species shall not result in a measurable decrease in extant wildlife populations or biological community compositions, structure and species richness of the site or in the vicinity, exclusive of the present or future state of adjacent or nearby property, or impair, damage or reduce in value for wildlife purposes identified specific habitat features. The Commission shall take into account indirect effects, including but not limited to effects of nearby human activities, on a case-by-case basis.*

There are no mapped estimated or priority habitats on Site and the work will not impact wildlife populations or biological community compositions.

4.7 Abutter Notification

Abutters have been notified in accordance with the MAWPA and Sturbridge Wetlands Protection Bylaw/Regulations requirements. The abutter notification form, a copy of the certified list of abutters prepared by the Sturbridge Assessors' office, and an Affidavit of Service declaration are provided in Appendix D.

APPENDIX A

FIGURE 1
SITE LOCATION

Main Street Trail
& Bridge Project
469A Main Street
Sturbridge, Massachusetts

April 2024

Tighe&Bond

Based on USGS Topographic Map for
Warren, East Brookfield,
Wales, & Southbridge, MA Revised 1982.
Contour Interval Equals 3 m.
Circles indicate 500-foot and half-mile radii.

1:24,000

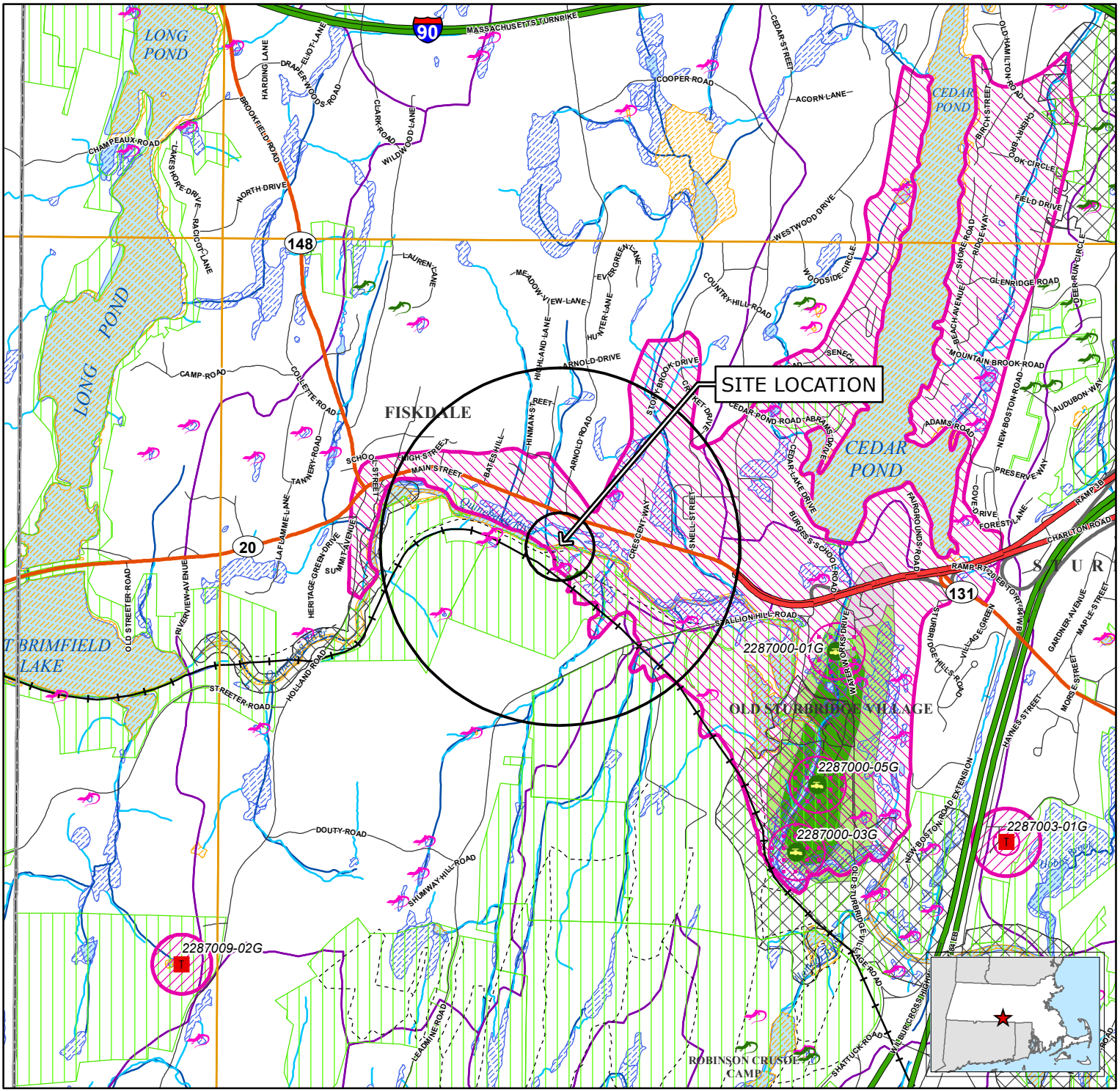
0 1,000 2,000

Feet

N

G:\GIS\MA\SiteLocus\Sturbridge\469A_Main_St_Trail_Bridge\Figure1_MainStreet_SturbridgeMA.mxd [Exported By: JLyle, 4/9/2024, 4:08:29 PM]

S-5052



Legend

- NHESP Certified Vernal Pools
- NHESP Potential Vernal Pools
- Non-Landfill Solid Waste Sites
- Proposed Well
- Emergency Surface Water
- Community Public Water Supply - Surface Water
- Community Public Water Supply - Groundwater
- Non-Community Non-Transient Public Water Supply
- Non-Community Transient Public Water Supply
- Limited Access Highway
- Multi-Lane Highway, NOT Limited Access
- Other Numbered Route
- Major Road - Arterials and Collectors
- Minor Street or Road
- Aqueducts
- Hydrologic Connections
- Stream/Intermittent Stream
- Powerline
- Pipeline
- Track or Trail
- Trains
- Public Surface Water Supply Protection Area (Zone A)
- DEP Approved Wellhead Protection Area (Zone I)
- DEP Approved Wellhead Protection Area (Zone II)
- DEP Interim Wellhead Protection Area (IWPA)
- Protected and Recreational Open Space
- Solid Waste Landfill
- Area of Critical Environmental Concern (ACEC)
- NHESP Priority Habitats for Rare Species
- NHESP Estimated Habitats for Rare Wildlife
- EPA Designated Sole Source Aquifer
- Major Drainage Basin
- Sub Drainage Basin
- MassDEP Open Water
- MassDEP Inland Wetlands
- MassDEP Coastal Wetlands
- MassDEP Not Interpreted Wetlands
- Public Surface Water Supply (PSWS)
- Water Bodies
- Non-Potential Drinking Water Source Area - High Yield
- Non-Potential Drinking Water Source Area - Medium Yield
- Potentially Productive Medium Yield Aquifer
- Potentially Productive High Yield Aquifer
- County Boundary
- Municipal Boundary
- USGS Quadrangle Sheet Boundary

1:24,000

0 1,000 2,000

Feet

N

FIGURE 2
PRIORITY RESOURCES

Main Street Trail
& Bridge Project
469A Main Street
Sturbridge, Massachusetts

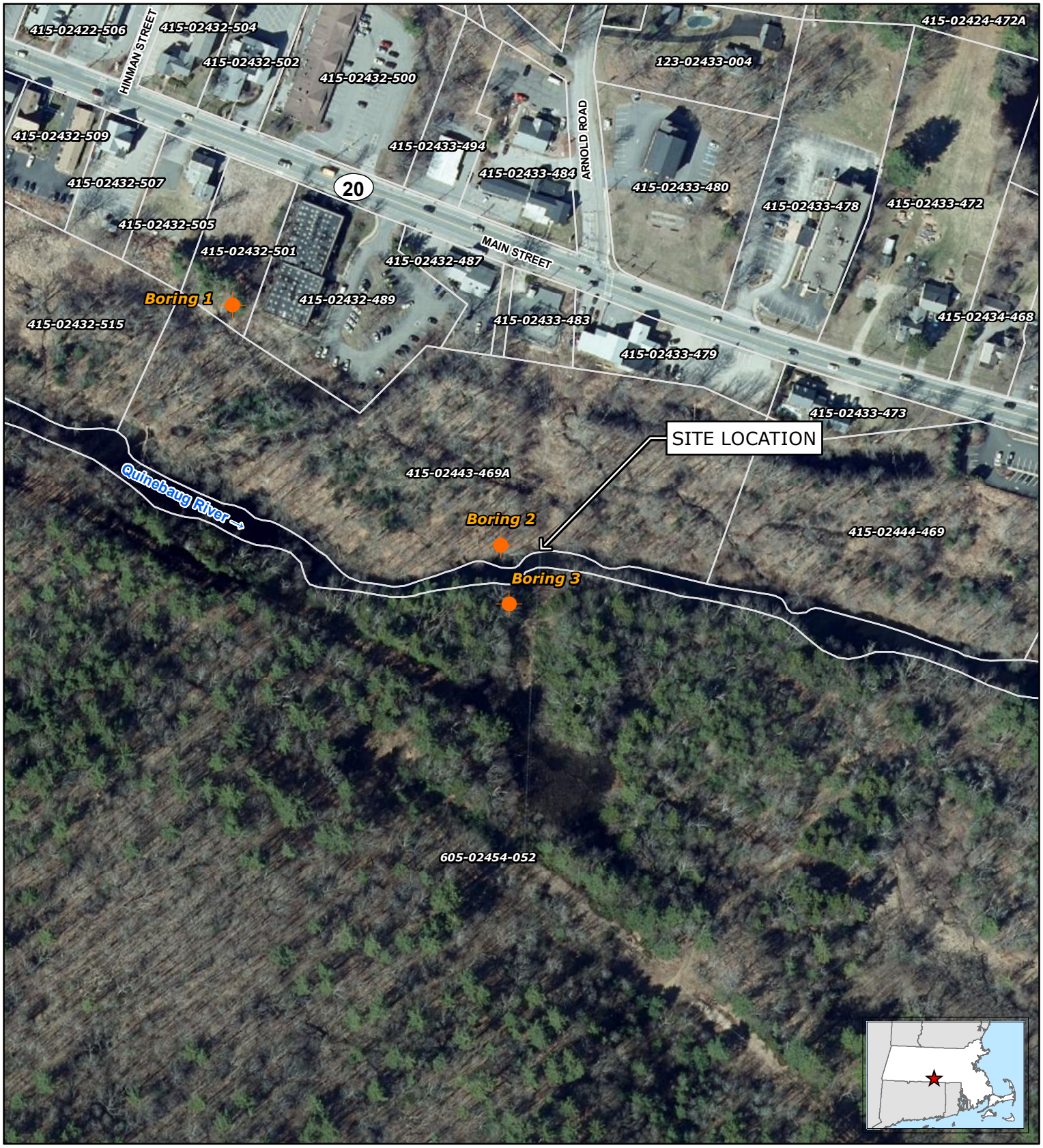
Data source: Bureau of Geographic Information (MassGIS), Commonwealth of Massachusetts, Executive Office of Technology.
Circles indicate 500-foot and half-mile radii.
Data valid as of April 2024.

April 2024

Tighe&Bond

G:\GIS\MA\SiteLocus\Sturbridge\469A_Main_St_Trail_Bridge\Figure2_MainStreet_SturbridgeMA.mxd [Exported By: JLyle, 4/9/2024, 4:51:54 PM]

S-5052



Legend

- Geotechnical Boring
- Approximate Parcel Boundary

Tighe&Bond

Based on MassGIS Color Orthophotography (2021)
Parcel boundaries (FY 24) were downloaded from MassGIS and are approximate.

1:2,400

0 100 200

Feet

N

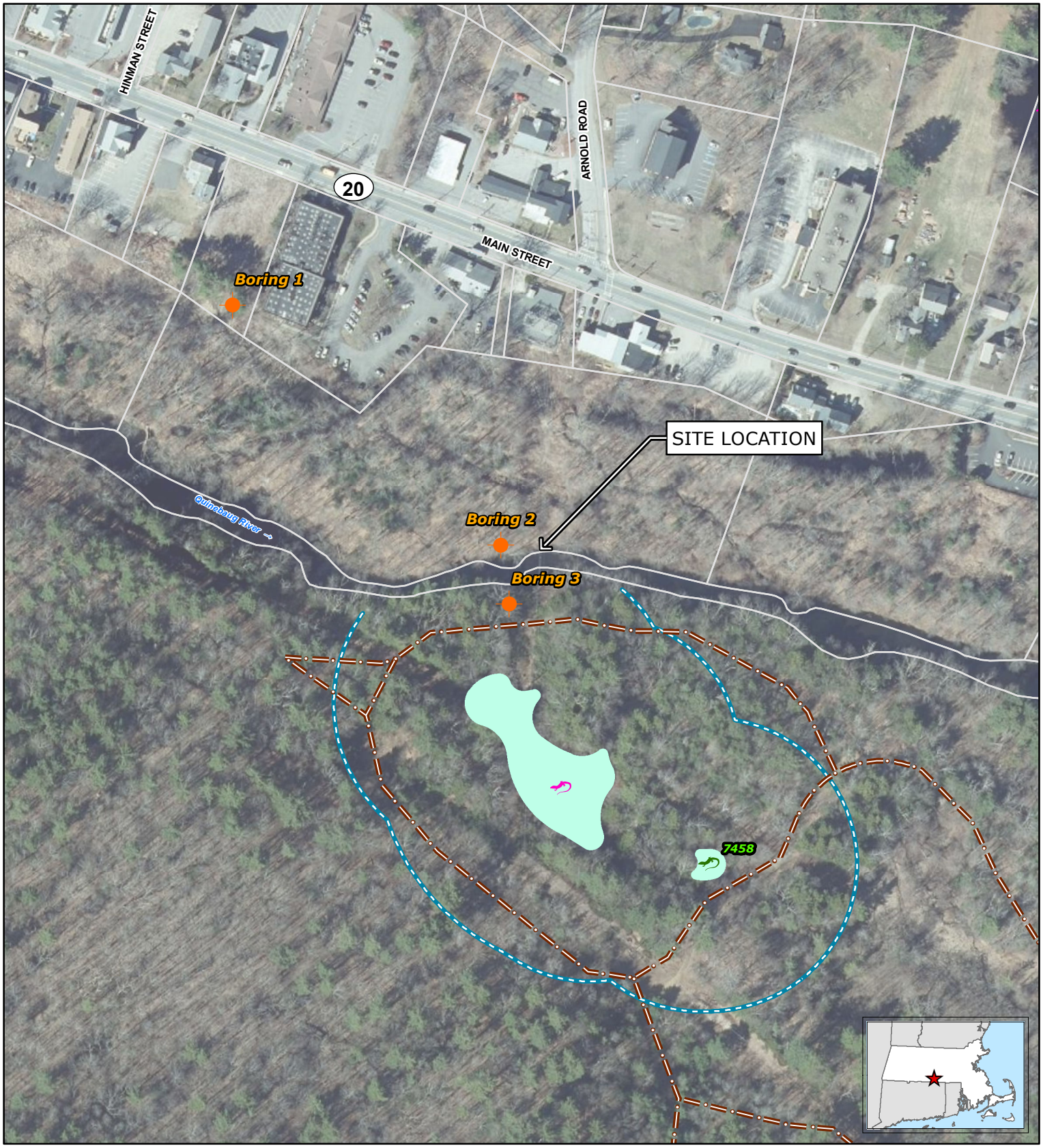
FIGURE 3
ORTHOPHOTOGRAPH

Main Street Trail
& Bridge Project
469A Main Street
Sturbridge, Massachusetts

April 2024

G:\GIS\MA\SiteLocus\Sturbridge\469A_Main_St_Trail_Bridge\Figure3_MainStreet_SturbridgeMA.mxd [Exported By: JLyle, 4/17/2024, 11:50:47 AM]

S-5052



Legend

- Geotechnical Boring
- NHESP Certified Vernal Pools
- NHESP Potential Vernal Pools
- 200-Foot Vernal Pool Bylaw Buffer Zone
- Existing Path
- Approximate Parcel Boundary
- Approximate Vernal Pool Boundary

Tighe&Bond

Parcel boundaries (FY 24) downloaded from MassGIS and are approximate. Vernal Pool boundaries digitized from NearMap imagery and LiDAR Shaded Relief image, and are approximate.
Based on MassGIS Color Orthophotography (2021)

1:2,400
0 100 200
Feet

N

FIGURE 4
VERNAL POOLS

Main Street Trail
& Bridge Project
469A Main Street
Sturbridge, Massachusetts

April 2024

G:\GIS\MA\SiteLocus\Sturbridge\469A_Main_St_Trail_Bridge\469A_Main_St_Trail_Bridge_Sturbridge_VernalPoolBuffer.mxd [Exported By: JLyle, 4/17/2024, 12:54:24 PM]

S-5052

Legend

- Soils
- Approximate Parcel Boundary
- Approximate Limit of Work

Tighe&Bond

Based on MassGIS Color Orthophotography (2021).
Sturbridge Parcels (FY24) downloaded from MassGIS and are appxoximate.

1:1,800

0 75 150

Feet

N

FIGURE 5
NRCS SOIL MAP UNIT

Trail and Bridge Project
469A Main Street
Sturbridge, Massachusetts

February 2024

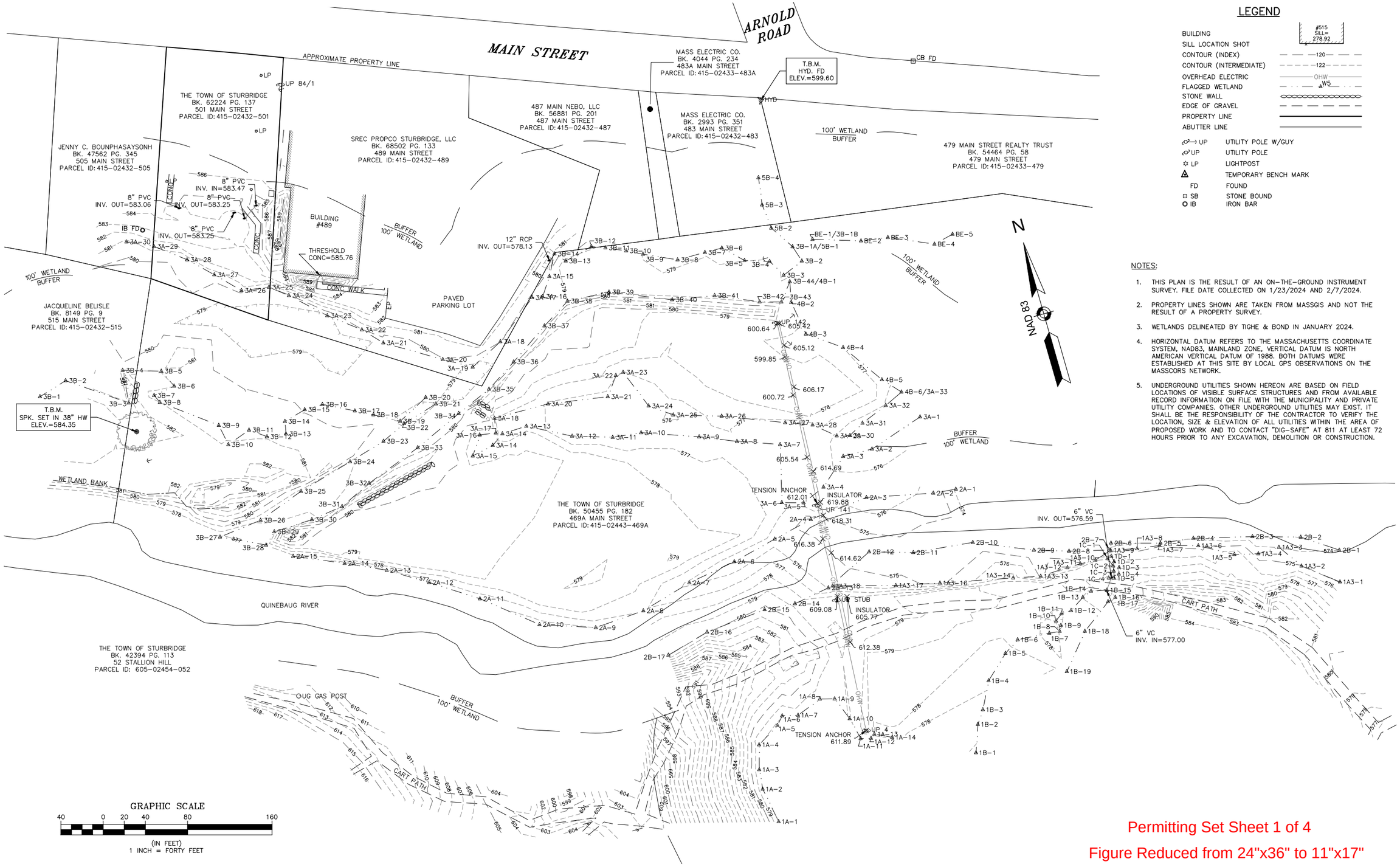
G:\GIS\MA\SiteLocus\Sturbridge\469A_Main_St_Trail_Bridge_Soils\469A_MainSt_Trail_Bridge_Sturbridge_Soils.mxd [Exported By: JLyle, 2/28/2024, 2:25:54 PM]

S-5052

Tighe&Bond

APPENDIX B

5-5480



LEGEND

BUILDING	#515 SILL= 278.92
SILL LOCATION SHOT	
CONTOUR (INDEX)	120
CONTOUR (INTERMEDIATE)	122
OVERHEAD ELECTRIC	OHW
FLAGGED WETLAND	W5
STONE WALL	
EDGE OF GRAVEL	
PROPERTY LINE	
ABUTTER LINE	
UP	UTILITY POLE W/GUY
UP	UTILITY POLE
LP	LIGHTPOST
	TEMPORARY BENCH MARK
FD	FOUND
SB	STONE BOUND
IB	IRON BAR

GRAPHIC SCALE
40 0 20 40 80 160
(IN FEET)
1 INCH = FORTY FEET

NOTES:

1. THIS PLAN IS THE RESULT OF AN ON-THE-GROUND INSTRUMENT SURVEY. FILE DATE COLLECTED ON 1/23/2024 AND 2/7/2024.
2. PROPERTY LINES SHOWN ARE TAKEN FROM MASSGIS AND NOT THE RESULT OF A PROPERTY SURVEY.
3. WETLANDS DELINEATED BY TIGHE & BOND IN JANUARY 2024.
4. HORIZONTAL DATUM REFERS TO THE MASSACHUSETTS COORDINATE SYSTEM, NAD83, MAINLAND ZONE, VERTICAL DATUM IS NORTH AMERICAN VERTICAL DATUM OF 1988. BOTH DATUMS WERE ESTABLISHED AT THIS SITE BY LOCAL GPS OBSERVATIONS ON THE MASSCORS NETWORK.
5. UNDERGROUND UTILITIES SHOWN HEREON ARE BASED ON FIELD LOCATIONS OF VISIBLE SURFACE STRUCTURES AND FROM AVAILABLE RECORD INFORMATION ON FILE WITH THE MUNICIPALITY AND PRIVATE UTILITY COMPANIES. OTHER UNDERGROUND UTILITIES MAY EXIST. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE LOCATION, SIZE & ELEVATION OF ALL UTILITIES WITHIN THE AREA OF PROPOSED WORK AND TO CONTACT "DIG-SAFE" AT 811 AT LEAST 72 HOURS PRIOR TO ANY EXCAVATION, DEMOLITION OR CONSTRUCTION.

Permitting Set Sheet 1 of 4

Figure Reduced from 24"x36" to 11"x17"

NO.	DATE	BY	REVISIONS

SHERMAN & FRYDRYK
Land Surveying, Engineering & Scientists
A DIVISION OF HANCOCK SURVEY ASSOCIATES, INC.
3 Converse Street, Suite 203
Palmer, MA 01069

FIELD WORK: KRP/ESJ
COMPS: AMT
DRAFTING: AMT
CHECKED: TRF
APPROVED: GGG

SCALE:
HORZ: 1"=40'
VERT: N/A
DATE: 02/16/2024

EXISTING CONDITONS PLAN

501 MAIN STREET
PROGRESS PRINT - February 16, 2024

PLAN OF LAND IN
STURBRIDGE, MA
PREPARED FOR
TIGHE & BOND

PROJECT NUMBER
23211

SHEET NUMBER
1 OF 1

23211-EC.DWG
5-5480

Sheet 2 of 4
Wetland Resource Areas

415-02433-484
415-02432-505
415-02432-501
ARNOLD ROAD
415-02433-480
415-02433-478
415-02432-487
415-02433-472
415-02432-489
Boring 1
415-02432-515
415-02433-483
MAIN STREET
20
415-02433-479
3B-1
3B-5
3B-8
3B-6
TEMPORARY WORK PAD
WETLAND IMPACT
±316.5 SF
415-02433-473
3A-22
3A-16
415-02443-469A
3B-26
3A-11
EXISTING CLEARED AREA
WITHIN NATIONAL GRID R.O.W.
TO BE UTILIZED BY
TOWN OF STURBRIDGE
3A-8
3A-1
Quinebaug River
3A-3
TEMPORARY WORK PAD
WETLAND IMPACT
±593.8 SF
3A-6
415-02444-469
Boring 2
1A3-18
Boring 3
1A3-16
PROPOSED
TREE CLEARING AREA
BY TOWN OF STURBRIDGE
1A3-12
1B-6
1A3-2
1A-6
1B-19
1A3-1
1A-11
1A-2
605-02454-052
1B-1

LEGEND

- NHESP Potential Vernal Pool
- NHESP Certified Vernal Pool
- Geotechnical Boring
- Delineated Intermittent Watercourse
- Delineated Perennial Watercourse
- Field Delineted Wetland Boundary
- Limit of Work
- Existing Path
- Wetland Matting for Boring
- Approximate Route of Future Trail/Boardwalk
- Approximate Location of Future Pedestrian Bridge
- Proposed Limit of Clearing
- Field Delineated Wetland
- Estimated Vernal Pool
- Approximate Parcel Boundary

LOCUS MAP

N

0 50 100
Feet
1:1,200

NOTES

1. Based on Nearmap Color Orthophotography (2023).
2. Vernal Pool boundary downloaded from MassGIS: "MassDEP Wetlands" layer.
3. Parcel boundaries (FY 24) were downloaded from MassGIS and are approximate.

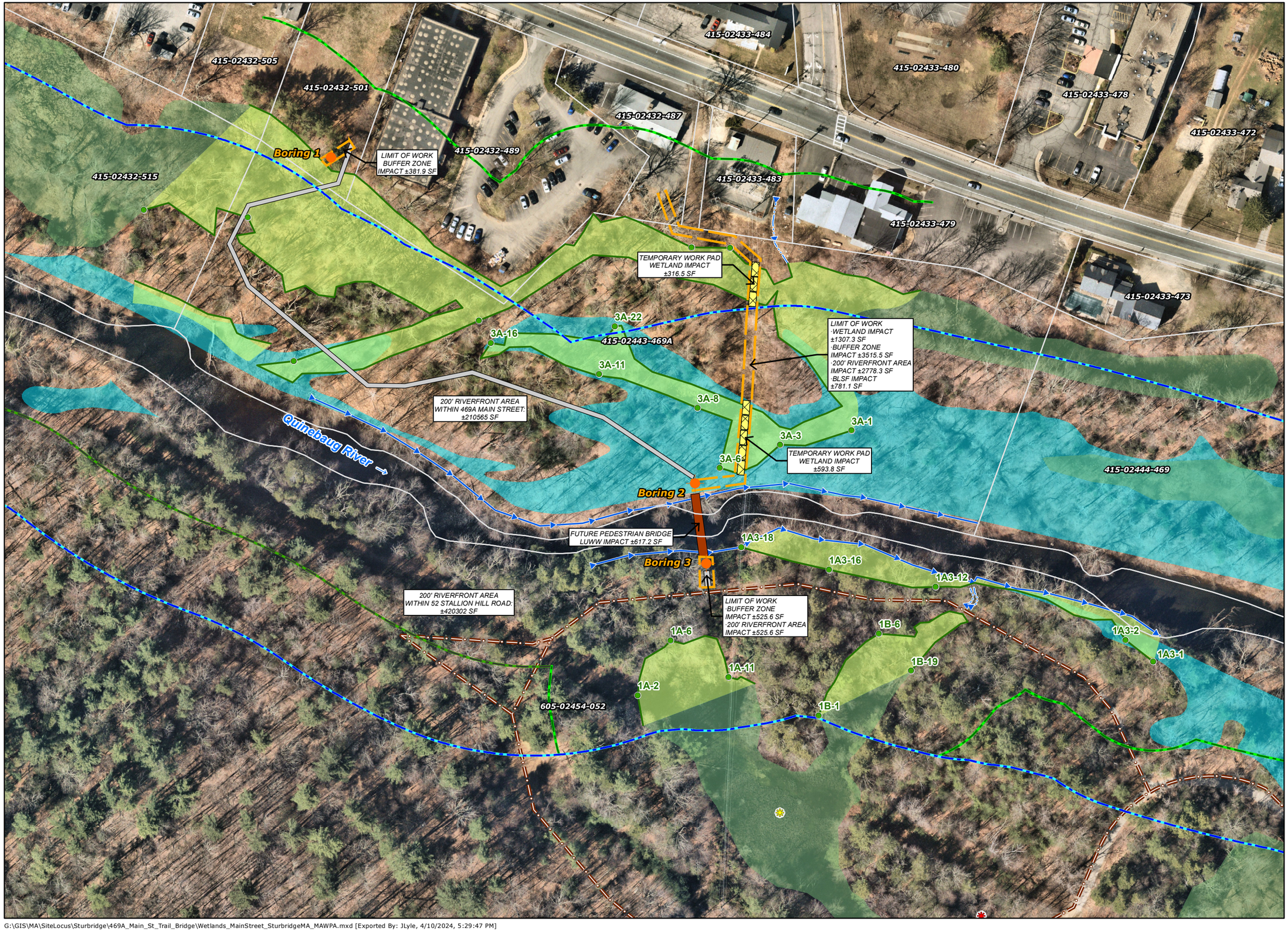
Main Street Trail
& Bridge Project
469A Main Street
Sturbridge, Massachusetts

April 2024

Tighe&Bond

G:\GIS\MA\SiteLocus\Sturbridge\469A_Main_St_Trail_Bridge\WetlandsResourceAreas_MainStreet_SturbridgeMA.mxd [Exported By: JLyle, 4/17/2024, 12:41:27 PM]

S-5052

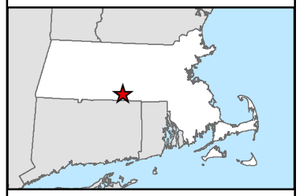


Sheet 3 of 4
Wetland Resource Areas
MAWPA

LEGEND

- NHESP Potential Vernal Pool
- NHESP Certified Vernal Pool
- Geotechnical Boring
- Delineated Intermittent Stream
- Delineated Perennial Stream
- Field Delineted Wetland Boundary
- 100-Foot MA WPA Buffer Zone
- Estimated 100-Foot MA WPA Buffer Zone
- 200-Foot Riverfront
- Limit of Work
- Existing Path
- Wetland Matting for Boring
- Approximate Route of Future Trail/Boardwalk
- Approximate Location of Future Pedestrian Bridge
- Field Delineated Wetland
- Isolated Land Subject to Flooding
- Bordering Land Subject to Flood
- Approximate Parcel Boundary

LOCUS MAP



N

0 50 100
Feet
1:1,200

NOTES

1. Based on Nearmap Color Orthophotography (2023).
2. Isolated Land Subject to Flooding downloaded from MassGIS: "MassDEP Wetlands" layer.
3. Parcel boundaries (FY 24) were downloaded from MassGIS and are approximate.

Main Street Trail
& Bridge Project
469A Main Street
Sturbridge, Massachusetts

April 2024

Tighe&Bond

G:\GIS\MA\SiteLocus\Sturbridge\469A_Main_St_Trail_Bridge\Wetlands_MainStreet_SturbridgeMA_MAWPA.mxd [Exported By: JLyle, 4/10/2024, 5:29:47 PM]

S-5052

Sheet 4 of 4
Wetland Resource Areas
Local Bylaw

LIMIT OF WORK
25' NO DISTURBANCE ZONE IMPACT ±265.9 SF
50' NO STRUCTURE ZONE IMPACT ±116.0 SF

Boring 1

TEMPORARY WORK PAD
WETLAND IMPACT
±316.5 SF
25' NO DISTURBANCE ZONE IMPACT ±83.5 SF

LIMIT OF WORK
·WETLAND IMPACT ±1307.3 SF
·25' NO DISTURBANCE ZONE IMPACT ±2574.9 SF
·50' NO STRUCTURE ZONE IMPACT ±227.3 SF
·200' RIVERFRONT AREA IMPACT ±2778.3 SF

200' RIVERFRONT AREA
WITHIN 469A MAIN STREET:
±210565 SF

TEMPORARY WORK PAD
WETLAND IMPACT
±593.8 SF
25' NO DISTURBANCE ZONE IMPACT ±78.2 SF

Boring 2

LIMIT OF WORK
·25' NO DISTURBANCE ZONE IMPACT ±302.2 SF
·50' NO STRUCTURE ZONE IMPACT ±223.3 SF
·200' RIVERFRONT AREA IMPACT ±525.6 SF

FUTURE PEDESTRIAN BRIDGE
LUWW IMPACT ±617.2 SF

Boring 3

200' RIVERFRONT AREA
WITHIN 52 STALLION HILL ROAD:
±420302 SF

ARNOLD ROAD
MAIN STREET
20
Quinebaug River

3B-1, 3B-5, 3B-8, 3B-6, 3B-26, 3A-22, 3A-16, 3A-11, 3A-8, 3A-1, 3A-3, 3A-6, 1A3-18, 1A3-16, 1A3-12, 1A3-2, 1A3-1, 1A-6, 1A-11, 1A-2, 1B-6, 1B-19, 1B-1

LEGEND

- NHESP Potential Vernal Pool
- NHESP Certified Vernal Pool
- Geotechnical Boring
- Delineated Intermittent Stream
- Delineated Perennial Stream
- Field Delineated Wetland Boundary
- 25-Foot No Disturbance Zone
- 50-Foot No Structure Zone
- 100-Foot Bylaw Buffer Zone
- 200-Foot Bylaw Buffer Zone
- 200-Foot Riverfront Area
- 200-Foot Vernal Pool Bylaw Buffer Zone
- Limit of Work
- Existing Path
- Approximate Route of Future Trail/Boardwalk
- Wetland Matting for Boring Access
- Approximate Location of Future Pedestrian Bridge
- Field Delineated Wetland
- Approximate Wetland (not delineated)
- Approximate Vernal Pool Boundary

LOCUS MAP

N

0 50 100
Feet
1:1,200

NOTES

1. Based on Nearmap Color Orthophotography (2023).
2. Vernal Pool boundaries digitized from NearMap imagery and LiDAR Shaded Relief image, and are approximate.
3. Approximate wetlands (not-delineated) downloaded from MassGIS and are approximate.

Main Street Trail
& Bridge Project
469A Main Street
Sturbridge, Massachusetts

April 2024

Tighe&Bond

G:\GIS\MA\SiteLocus\Sturbridge\469A_Main_St_Trail_Bridge\Wetlands_MainStreet_SturbridgeMA_Local.mxd [Exported By: JLyle, 4/10/2024, 5:23:31 PM]

S-5052

Tighe&Bond

APPENDIX C

Photographic Log

Client: Town of Sturbridge **Job Number:** S-5052-034

Site: 469A Main Street Trail and Bridge Project (Sturbridge, Massachusetts)

Photograph No.: 1	**Date:** 12/21/2023	**Direction Taken:** West

Description: Representative view of the "River Walk" trail to be used for access to Boring Location 3.

Photograph No.: 2	**Date:** 12/21/2023	**Direction Taken:** East

Description: End of Wetland 1A in the general area where Boring 3 will be completed. Taken at Flag 1A-18 facing the wetland.

Photographic Log

Client: Town of Sturbridge **Job Number:** S-5052-034

Site: 469A Main Street Trail and Bridge Project (Sturbridge, Massachusetts)

Photograph No.: 3	**Date:** 12/21/2023	**Direction Taken:** West
Description: Western end of Wetland 1A in the general area where Boring 3 will be completed. Taken at Flag 1A-18 facing west. Boring 3 to be taken to the upper left of this photo.		

Photograph No.: 4	**Date:** 12/21/2023	**Direction Taken:** Southeast
Description: Intermittent stream northeast of Wetland Flag 3B-6.		

Photographic Log

Client: Town of Sturbridge **Job Number:** S-5052-034

Site: 469A Main Street Trail and Bridge Project (Sturbridge, Massachusetts)

Photograph No.: 5	**Date:** 01/04/2024	**Direction Taken:** South

Description: Representative view of access in Wetland 3B from the parking lot at 501 Main Street

Photograph No.: 6	**Date:** 01/04/2024	**Direction Taken:** Northeast

Description: Representative view of Wetland 3B, Boring 1 will be taken to the right of this photo.

Client: Town of Sturbridge **Job Number:** S-5052-034

Site: 469A Main Street Trail and Bridge Project (Sturbridge, Massachusetts)

Photograph No.: 7	**Date:** 12/21/2023	**Direction Taken:** East

Description: Representative view of Wetland 3A.

Photograph No.: 8	**Date:** 12/01/2023	**Direction Taken:** North

Description: Photo of 501 Main Street, newly constructed parking lot.

Photographic Log

Client: Town of Sturbridge **Job Number:** S-5052-034

Site: 469A Main Street Trail and Bridge Project (Sturbridge, Massachusetts)

Photograph No.: 9	**Date:** 12/01/2023	**Direction Taken:** South
Description: View from 501 Main Street parking lot of wetland where boardwalk is proposed.		

Photograph No.: 10	**Date:** 12/01/2023	**Direction Taken:** East
Description: View from 501 Main Street parking lot of Wetland 3B where boardwalk is proposed.		

Client: Town of Sturbridge **Job Number:** S-5052-034

Site: 469A Main Street Trail and Bridge Project (Sturbridge, Massachusetts)

Photograph No.: 11	**Date:** 12/01/2023	**Direction Taken:** North

Description: View of National Grid easement, view towards transmission substation along Main Street; Boring 2 proposed to the left of this photo.

Photograph No.: 12	**Date:** 01/04/2024	**Direction Taken:** East

Description: View of Quinnebaug River, at crossing where proposed bridge will be installed. Geotechnical borings 2 & 3, to be located on northern and southern shores.

APPENDIX D

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, **Seth R. Taylor, MS**, hereby certify under the pains and penalties of perjury that on **May 1, 2024**, 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:

X 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 **Sturbridge DPW** with the Sturbridge Conservation Commission on **April 23, 2024,** for the property located at **501, 469A, and 483A Main Street; and 52 Stallion Hill Road.**

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) 4/22/24 (date)

Heather Blakeley for Town of Sturbridge
(name of applicant-printed or typed)

Town Hall
308 Main Street
Sturbridge, MA 01566

508-347-2506
(f) 508-347-5886

Town of Sturbridge

Conservation Commission

Notification to Abutters

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

(certificates of mailing, certified mail, or hand-delivery with abutter signature required as proof of notification)

In accordance with the second paragraph of Massachusetts General Laws, Chapter 131, § 40, as well as the Town of Sturbridge Wetland Bylaws, 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: Town of Sturbridge, DPW

B. The address of the lot(s) where the activity is proposed is: 501, 483A, 469A Main St. & 52 Stallion Hill Rd

C. The nature of the activity proposed includes: Exploratory Geotechnical Borings

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-_____

E. Copies of the application may be examined at the Sturbridge Conservation Department, 301 Main Street, Center Office Building, Sturbridge, MA between the hours of **9:00 a.m. – 3:30 p.m. Monday through Friday.** Additional times may available by appointment. Please call ahead to check for availability. (508) 347-2506

F. Copies of the application may be obtained from either ☒ the applicant: Town of Sturbridge, DPW
or ☐ the applicant's representative: Seth Taylor of Tighe & Bond Inc., by calling telephone # (413) 562-1600
on the following days of the week: M-F between the hours of 8:30 am and 5:00 pm.

The Public Hearing for this application will be held in the Center Office Building, 301 Main Street, 2nd Floor on May 9, 2024 **at** 6:00 **pm.**

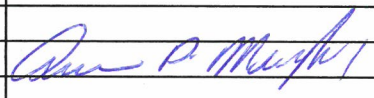
PLEASE NOTE: Notice of this Public Hearing will be published as follows:

- In The Southbridge Evening News at least five days in advance of the hearing
- In the Town Hall at the Town Clerks office, not less than 48 hours in advance of the hearing
- On the Town's Meeting Calendar not less than 48 hours in advance of the hearing (www.town.sturbridge.ma.us)
- On the Conservation Commission webpage not less than 48 hours in advance of the hearing

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 Notice of Intent application process or the Wetlands Protection Act.

Parcel ID	Owner	Owner Address	Owner City	State	Zip	Property Address
415-02444-453	453 MAIN STREET LLC	309 PARK AVENUE	WORCESTER	MA	01609	453 MAIN STREET
605-02813-078	ALGER CHRISTOPHER	78 STALLION HILL ROAD	FISKDALE	MA	01518	78 STALLION HILL ROAD
415-02445-421	ARLAND TOOL MFG CO	P O BOX 207	STURBRIDGE	MA	01566	421 MAIN STREET
348-02717-053	BELANGER MARY JANE	PO BOX 801	HONAUNAU	HI	96726	53 HOLLAND ROAD
415-02432-515	BELISLE JACQUELINE	P O BOX 148	FISKDALE	MA	01518	515 MAIN STREET
605-02814-064	CABRERA JACOB R	64 STALLION HILL ROAD	FISKDALE	MA	01518	64 STALLION HILL ROAD
605-02454-056	PAUL JEFFREY & LAILANI	56 STALLION HILL ROAD	STURBRIDGE	MA	01566	56 STALLION HILL ROAD
605-02813-076	CARMONA ERICK OMAR	76 STALLION HILL ROAD	FISKDALE	MA	01518	76 STALLION HILL ROAD
605-02813-072	CASEY JACQUELINE M	72 STALLION HILL ROAD	FISKDALE	MA	01518	72 STALLION HILL ROAD
605-02812-084	HENNESSEY JENNIFER M	84 STALLION HILL ROAD	FISKDALE	MA	01518	84 STALLION HILL ROAD
415-02444-441	JEL ASSOCIATES LIMITED PARTNERSHIP	P.O. BOX 517	STURBRIDGE	MA	01566	441 MAIN STREET
491-02455-001	OLD STURBRIDGE VILLAGE	1 OLD STURBRIDGE VILLAGE RD	STURBRIDGE	MA	01566	1 OLD STURBRIDGE VILLAGE RD
605-02454-060	SIVULA AARON R	69 STALLION HILL ROAD	FISKDALE	MA	01518	60 STALLION HILL ROAD
605-02812-092	SOPER PAMELA A TRUSTEE OF THE PAMELA	BOX 134	STURBRIDGE	MA	01566	92 STALLION HILL ROAD
415-02443-469A	TOWN OF STURBRIDGE	308 MAIN STREET	STURBRIDGE	MA	01566	469A MAIN STREET
348-02716-055	TOWN OF STURBRIDGE	308 MAIN STREET	STURBRIDGE	MA	01566	55 HOLLAND ROAD
415-02444-469	TWO DONUTS REALTY LLC	PO BOX 544	FISKDALE	MA	01518	469 MAIN STREET
605-02813-070	ZAFIRIS CHRISTOPHER J	70 STALLION HILL ROAD	FISKDALE	MA	01518	70 STALLION HILL 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: 52 STALLION HILL ROAD						
Certified Copy						
Assessor:						
Date:	3-26-24					

Parcel ID	Owner	Owner Address	Owner City	State	Zip	Property Address
415-02432-487	487 MAIN NEBO LLC	124 HIGH ROCKS ROAD	EAST BROOKFIELD	MA	01515	487 MAIN STREET
415-02432-500	ATM ASSOCIATES LLC	P.O. BOX 775	STURBRIDGE	MA	01566	500 MAIN STREET
415-02433-494	BOUSQUET FRANCIS L & MARY M	34 COUNTRY CLUB PLACE	SOUTHBRIDGE	MA	01550	494 MAIN STREET
415-02433-479	CHAU HO, SON VO & THUC	5640 N FEDERAL HIGHWAY SUITE 3	FORT LAUDERDALE	FL	33308	479 MAIN STREET
415-02433-484	M R MAIN PROPERTIES LLC	3 CHARLTON ROAD	DUDLEY	MA	01571	484 MAIN STREET
415-02433-483	MASS ELECTRIC CO	40 SYLVAN ROAD	WALTHAM	MA	02451	483 MAIN STREET
415-02432-489	SREC PROPCO STURBRIDGE LLC	1700 WEST PARK DRIVE	WESTBOROUGH	MA	01581	489 MAIN STREET
415-02433-480	TOWN OF STURBRIDGE	308 MAIN STREET	STURBRIDGE	MA	01566	480 MAIN STREET
415-02443-469A	TOWN OF STURBRIDGE	308 MAIN STREET	STURBRIDGE	MA	01566	469A MAIN STREET
	BOARD OF ASSESSORS					
Above persons listed are record owners as they appear on the most recent applicable tax list.						
Assessors are not responsible for errors or omissions. RE: M.G.L. - Chapter 40A, Section 11						
Abutters List -	Conservation Commission - 200'					
RE: 483A MAIN STREET						
Certified Copy						
Assessor:	James P. Murphy					
Date:	3-26-24					

Parcel ID	Owner	Owner Address	Owner City	State	Zip	Property Address
415-02432-487	487 MAIN NEBO LLC	124 HIGH ROCKS ROAD	EAST BROOKFIELD	MA	01515	487 MAIN STREET
415-02432-507	ADVANT & BAPTISTE SOCIETY	507 MAIN STREET	FISKDALE	MA	01518	507 MAIN STREET
415-02432-515	BELISLE JACQUELINE	P O BOX 148	FISKDALE	MA	01518	515 MAIN STREET
415-02432-505	STL505 LLC	75 WALES ROAD	HOLLAND	MA	01581	505 MAIN STREET
415-02433-479	CHAU HO, SON VO & THUC	5640 N FEDERAL HIGHWAY SUITE 3	FORT LAUDERDALE	MA	33308	479 MAIN STREET
415-02433-473	GILL AMARJEET SINGH	473 MAIN STREET	FISKDALE	MA	01518	473 MAIN STREET
415-02433-484	M R MAIN PROPERTIES LLC	3 CHARLTON ROAD	DUDLEY	MA	01571	484 MAIN STREET
415-02433-483	MASS ELECTRIC CO	40 SYLVAN ROAD	WALTHAM	MA	02451	483 MAIN STREET
415-02433-483A	MASS ELECTRIC CO	40 SYLVAN ROAD	WALTHAM	MA	02451	483A MAIN STREET
415-02433-472	MORSE GREGORY H	472 MAIN STREET	FISKDALE	MA	01518	472 MAIN STREET
415-02432-489	SREC PROPCO STURBRIDGE LLC	1700 WEST PARK DRIVE SUITE 110	WESTBOROUGH	MA	01581	489 MAIN STREET
415-02433-478	BALIYADEV LLC	775 PROVIDENCE HIGHWAY	SHARON	MA	02067	478 MAIN STREET
415-02433-480	TOWN OF STURBRIDGE	308 MAIN STREET	STURBRIDGE	MA	01566	480 MAIN STREET
605-02454-052	TOWN OF STURBRIDGE	308 MAIN STREET	STURBRIDGE	MA	01566	52 STALLION HILL ROAD
415-02432-501	TOWN OF STURBRIDGE	308 MAIN STREET	STURBRIDGE	MA	01566	501 MAIN STREET
415-02444-469	TWO DONUTS REALTY LLC	PO BOX 544	FISKDALE	MA	01518	469 MAIN STREET
	BOARD OF ASSESSORS					
Above persons listed are record owners as they appear on the most recent applicable tax list.						
Assessors are not responsible for errors or omissions. RE: M.G.L. - Chapter 40A, Section 11						
Abutters List -	Conservation Commission - 200'					
RE: 469A MAIN STREET						
Certified Copy						
Assessor:						
Date:	3 26 24					

Parcel ID	Owner	Owner Address	Owner City	State	Zip	Property Address
415-02432-487	487 MAIN NEBO LLC	124 HIGH ROCKS ROAD	EAST BROOKFIELD	MA	01515	487 MAIN STREET
415-02432-507	ADVANT & BAPTISTE SOCIETY	507 MAIN STREET	FISKDALE	MA	01518	507 MAIN STREET
415-02432-500	ATM ASSOCIATES LLC	P.O. BOX 775	STURBRIDGE	MA	01566	500 MAIN STREET
415-02432-515	BELISLE JACQUELINE	P O BOX 148	FISKDALE	MA	01518	515 MAIN STREET
415-02432-505	STL505 LLC	75 WALES ROAD	HOLLAND	MA	01581	505 MAIN STREET
415-02433-494	BOUSQUET FRANCIS L & MARY M	34 COUNTRY CLUB PLACE	SOUTHBRIDGE	MA	01550	494 MAIN STREET
415-02432-504	CORMIER GREGORY S	107 CENTRAL STREET	SOUTHBRIDGE	MA	01550	504 MAIN STREET
415-02432-509	GEORGE ROBERT A & GEORGE GIOVINA FERRANTE	PO BOX 199	STURBRIDGE	MA	01566	509 MAIN STREET
415-02432-502	PORCHLIGHT INVESTMENTS I LLC	PO BOX 562	STURBRIDGE	MA	01566	502 MAIN STREET
415-02432-489	SREC PROPCO STURBRIDGE LLC	1700 WEST PARK DR UNIT #110	WESTBOROUGH	MA	01581	489 MAIN STREET
415-02443-469A	TOWN OF STURBRIDGE	308 MAIN STREET	STURBRIDGE	MA	01566	469A MAIN STREET
	BOARD OF ASSESSORS					
Above persons listed are record owners as they appear on the most recent applicable tax list.						
Assessors are not responsible for errors or omissions. RE: M.G.L. - Chapter 40A, Section 11						
Abutters List -	Conservation Commission - 200'					
RE: 501 MAIN STREET						
Certified Copy						
Assessor:	Ann P. Murphy					
Date:	3-26-24					

Tighe&Bond

APPENDIX E

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: 469A Main Street Trail and Bridge Project City/County: Sturbridge Sampling Date: 12/21/2023

Applicant/Owner: Tighe & Bond, Inc. State: MA Sampling Point: 1A-8

Investigator(s): Seth Taylor and Carlene Eaton Section, Township, Range:

Landform (hillside, terrace, etc.): Local relief (concave, convex, none): Convex Slope (%): 4

Subregion (LRR or MLRA): LRR R, MLRA 144A Lat: 42.112399 Long: -72.107767 Datum: WGS 84

Soil Map Unit Name: Pits, gravel NWI classification: PSS1A

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

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No ____	**Is the Sampled Area**	
Hydric Soil Present?	Yes X	No ____	**within a Wetland?**	**Yes** X **No** ____
Wetland Hydrology Present?	Yes X	No ____	If yes, optional Wetland Site ID:	

Remarks: (Explain alternative procedures here or in a separate report.)
Two days prior (12/18/2023-12/19/2023) to the the wetland delineation (12/21/2023) the area received approximately 3.26 inches of rain within two days. The heavy precipitation flooded the surrounding area and took multiple days to discharge and return to "normal" conditions.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- X Surface Water (A1)
- X High Water Table (A2)
- X Saturation (A3)
- ____ Water Marks (B1)
- ____ Sediment Deposits (B2)
- ____ Drift Deposits (B3)
- ____ Algal Mat or Crust (B4)
- ____ Iron Deposits (B5)
- ____ Inundation Visible on Aerial Imagery (B7)
- ____ Sparsely Vegetated Concave Surface (B8)
- ____ Water-Stained Leaves (B9)
- ____ Aquatic Fauna (B13)
- ____ Marl Deposits (B15)
- ____ Hydrogen Sulfide Odor (C1)
- ____ Oxidized Rhizospheres on Living Roots (C3)
- ____ Presence of Reduced Iron (C4)
- ____ Recent Iron Reduction in Tilled Soils (C6)
- ____ Thin Muck Surface (C7)
- ____ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ____ Surface Soil Cracks (B6)
- ____ Drainage Patterns (B10)
- ____ Moss Trim Lines (B16)
- ____ Dry-Season Water Table (C2)
- ____ Crayfish Burrows (C8)
- ____ Saturation Visible on Aerial Imagery (C9)
- ____ Stunted or Stressed Plants (D1)
- ____ Geomorphic Position (D2)
- ____ Shallow Aquitard (D3)
- ____ Microtopographic Relief (D4)
- ____ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes X	No ____	Depth (inches): 0	
Water Table Present?	Yes X	No ____	Depth (inches): 0	
Saturation Present? (includes capillary fringe)	Yes X	No ____	Depth (inches): 0	**Wetland Hydrology Present?** **Yes** X **No** ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION – Use scientific names of plants. Sampling Point: 1A-8

Tree Stratum (Plot size: 30 feet)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Acer rubrum*	15	Yes	FAC
2.			
3.			
4.			
5.			
6.			
7.			
	15	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15 feet)			
1. *Alnus incana*	10	Yes	FACW
2. *Ilex verticillata*	10	Yes	FACW
3. *Vaccinium corymbosum*	5	Yes	FACW
4.			
5.			
6.			
7.			
	25	=Total Cover	
Herb Stratum (Plot size: 5 feet)			
1. *Osmunda claytoniana*	1	No	FAC
2. *Carex pensylvanica*	1	No	UPL
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	2	=Total Cover	
Woody Vine Stratum (Plot size:)			
1.			
2.			
3.			
4.			
		=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	25	x 2 =	50
FAC species	16	x 3 =	48
FACU species	0	x 4 =	0
UPL species	1	x 5 =	5
Column Totals:	42 (A)		103 (B)
Prevalence Index = B/A =			2.45

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

X 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes** X **No** ___

Remarks: (Include photo numbers here or on a separate sheet.)
Due to it being winter months, much of the vegetation has died back and only persistent vegetation was present at the time of the delineation.

SOIL

Sampling Point: 1A-8

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-11	10YR 2/2	90					Muck	Mucky Mineral
9-11			10YR 5/4	10	C	M	Muck	Distinct redox concentrations
11-13	10YR 3/3	100					Muck	Mucky Mineral

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- X Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ High Chroma Sands (S11) (**LRR K, L)**
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) (**LRR K, L**)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: Unknown

Depth (inches): 13

Hydric Soil Present? **Yes** X **No** ___

Remarks:

Refusal encountered at 13 inches. This data form is revised from Northcentral and Northeast Regional Supplement Version 2.0 to reflect the NRCS Field Indicators of Hydric Soils version 7.0 March 2013 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: 469A Main Street Trail and Bridge Project City/County: Sturbridge Sampling Date: 12/21/2023

Applicant/Owner: Tighe & Bond State: MA Sampling Point: 1A-8

Investigator(s): Seth Taylor and Carlene Eaton Section, Township, Range:

Landform (hillside, terrace, etc.): Local relief (concave, convex, none): Convex Slope (%): 4

Subregion (LRR or MLRA): LRR R, MLRA 144A Lat: 42.112399 Long: -72.107767 Datum: WGS 84

Soil Map Unit Name: Pits, gravel NWI classification: Upland

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

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area**		
Hydric Soil Present?	Yes ____	No X	**within a Wetland?**	**Yes** ____	**No** X
Wetland Hydrology Present?	Yes ____	No X	If yes, optional Wetland Site ID:		

Remarks: (Explain alternative procedures here or in a separate report.)
Two days prior (12/18/2023-12/19/2023) to the the wetland delineation (12/21/2023) the area received approximately 3.26 inches of rain within two days. The heavy precipitation flooded the surrounding area and took multiple days to discharge and return to "normal" conditions.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches): ____
Water Table Present?	Yes ____	No X	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No X	Depth (inches): ____

Wetland Hydrology Present? **Yes** ____ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION – Use scientific names of plants. Sampling Point: 1A-8

Tree Stratum (Plot size: 30 feet)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Acer rubrum*	35	Yes	FAC
2. *Tsuga canadensis*	15	Yes	FACU
3. *Quercus rubra*	10	No	FACU
4.			
5.			
6.			
7.			
	60	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15 feet)			
1. *Tsuga canadensis*	25	Yes	FACU
2. *Pinus strobus*	5	No	FACU
3. *Kalmia latifolia*	2	No	FACU
4.			
5.			
6.			
7.			
	32	=Total Cover	
Herb Stratum (Plot size: 5 feet)			
1. *Kalmia latifolia*	2	No	FACU
2. *Juniperus communis*	2	No	FACU
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	4	=Total Cover	
Woody Vine Stratum (Plot size:)			
1.			
2.			
3.			
4.			
		=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 33.3% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	35	x 3 =	105
FACU species	61	x 4 =	244
UPL species	0	x 5 =	0
Column Totals:	96 (A)		349 (B)
Prevalence Index = B/A =			3.64

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes** ___ **No** X

Remarks: (Include photo numbers here or on a separate sheet.)
Due to it being winter months, much of the vegetation has died back and only persistent vegetation was present at the time of the delineation.

SOIL

Sampling Point: 1A-8

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-3	10YR 2/2	100						Fine Silty Sand
3-4	10YR 4/4	100						Silty Loam
4-5	10YR 2/1	100						Fine Sandy Loam
5-20	7.5YR 3/4	100						Silty Sand

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ High Chroma Sands (S11) (**LRR K, L)**
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) (**LRR K, L**)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ___ **No** X

Remarks:

This data form is revised from Northcentral and Northeast Regional Supplement Version 2.0 to reflect the NRCS Field Indicators of Hydric Soils version 7.0 March 2013 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: 469A Main Street Trail and Bridge Project City/County: Sturbridge Sampling Date: 12/21/2023

Applicant/Owner: Tighe & Bond, Inc. State: MA Sampling Point: 1B-6

Investigator(s): Seth Taylor and Carlene Eaton Section, Township, Range: Sturbridge

Landform (hillside, terrace, etc.): Local relief (concave, convex, none): Convex Slope (%): 3

Subregion (LRR or MLRA): LRR R, MLRA 144A Lat: 42.112134 Long: -72.106815 Datum: WGS 84

Soil Map Unit Name: Pits, gravel NWI classification: PSS1A

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

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area**		
Hydric Soil Present?	Yes X	No ____	**within a Wetland?**	**Yes** X	**No** ____
Wetland Hydrology Present?	Yes X	No ____	If yes, optional Wetland Site ID:		

Remarks: (Explain alternative procedures here or in a separate report.)
Two days prior (12/18/2023-12/19/2023) to the the wetland delineation (12/21/2023) the area received approximately 3.26 inches of rain within two days. The heavy precipitation flooded the surrounding area and took multiple days to discharge and return to "normal" conditions.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- X Surface Water (A1)
- X High Water Table (A2)
- X Saturation (A3)
- ____ Water Marks (B1)
- ____ Sediment Deposits (B2)
- ____ Drift Deposits (B3)
- ____ Algal Mat or Crust (B4)
- ____ Iron Deposits (B5)
- ____ Inundation Visible on Aerial Imagery (B7)
- ____ Sparsely Vegetated Concave Surface (B8)
- ____ Water-Stained Leaves (B9)
- ____ Aquatic Fauna (B13)
- ____ Marl Deposits (B15)
- ____ Hydrogen Sulfide Odor (C1)
- ____ Oxidized Rhizospheres on Living Roots (C3)
- ____ Presence of Reduced Iron (C4)
- ____ Recent Iron Reduction in Tilled Soils (C6)
- ____ Thin Muck Surface (C7)
- ____ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ____ Surface Soil Cracks (B6)
- ____ Drainage Patterns (B10)
- ____ Moss Trim Lines (B16)
- ____ Dry-Season Water Table (C2)
- ____ Crayfish Burrows (C8)
- X Saturation Visible on Aerial Imagery (C9)
- ____ Stunted or Stressed Plants (D1)
- ____ Geomorphic Position (D2)
- ____ Shallow Aquitard (D3)
- ____ Microtopographic Relief (D4)
- ____ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes X	No ____	Depth (inches): 0	
Water Table Present?	Yes X	No ____	Depth (inches): 0	
Saturation Present? (includes capillary fringe)	Yes X	No ____	Depth (inches): 0	**Wetland Hydrology Present?** **Yes** X **No** ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION – Use scientific names of plants. Sampling Point: 1B-6

Tree Stratum (Plot size: 30 feet)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
		=Total Cover	
Sapling/Shrub Stratum (Plot size: 15 feet)			
1. *Clethra alnifolia*	10	Yes	FAC
2.			
3.			
4.			
5.			
6.			
7.			
	10	=Total Cover	
Herb Stratum (Plot size: 5 feet)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
		=Total Cover	
Woody Vine Stratum (Plot size:)			
1.			
2.			
3.			
4.			
		=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	10	x 3 =	30
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	10 (A)		30 (B)

Prevalence Index = B/A = 3.00

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

X 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes** X **No** ___

Remarks: (Include photo numbers here or on a separate sheet.)
Due to it being winter months, much of the vegetation has died back and only persistent vegetation was present at the time of the delineation.

SOIL

Sampling Point: 1B-6

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-5	10YR 3/2	100						Sandy Loam
5-20	N 7/5pb	100						Gleyed Fine Sand

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- X Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ High Chroma Sands (S11) (**LRR K, L)**
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) (**LRR K, L**)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** X **No** ___

Remarks:

This data form is revised from Northcentral and Northeast Regional Supplement Version 2.0 to reflect the NRCS Field Indicators of Hydric Soils version 7.0 March 2013 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: 469A Main Street Trail and Bridge Project City/County: Sturbridge Sampling Date: 12/21/2023

Applicant/Owner: Tighe & Bond, Inc. State: MA Sampling Point: 1B-6

Investigator(s): Seth Taylor and Carlene Eaton Section, Township, Range:

Landform (hillside, terrace, etc.): Local relief (concave, convex, none): Convex Slope (%): 3

Subregion (LRR or MLRA): LRR R, MLRA 144A Lat: 42.112134 Long: -72.106815 Datum: WGS 84

Soil Map Unit Name: Pits, gravel NWI classification: Upland

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

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area**		
Hydric Soil Present?	Yes ____	No X	**within a Wetland?**	**Yes** ____	**No** X
Wetland Hydrology Present?	Yes ____	No X	If yes, optional Wetland Site ID:		

Remarks: (Explain alternative procedures here or in a separate report.)
Two days prior (12/18/2023-12/19/2023) to the the wetland delineation (12/21/2023) the area received approximately 3.26 inches of rain within two days. The heavy precipitation flooded the surrounding area and took multiple days to discharge and return to "normal" conditions.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): ____

Water Table Present? Yes ____ No X Depth (inches): ____

Saturation Present? Yes ____ No X Depth (inches): ____

(includes capillary fringe)

Wetland Hydrology Present? **Yes** ____ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION – Use scientific names of plants. Sampling Point: 1B-6

Tree Stratum (Plot size: 30 feet)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Quercus rubra*	35	Yes	FACU
2. *Tsuga canadensis*	15	Yes	FACU
3.			
4.			
5.			
6.			
7.			
	50	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15 feet)			
1. *Tsuga canadensis*	10	Yes	FACU
2.			
3.			
4.			
5.			
6.			
7.			
	10	=Total Cover	
Herb Stratum (Plot size:)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
		=Total Cover	
Woody Vine Stratum (Plot size:)			
1.			
2.			
3.			
4.			
		=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	60	x 4 =	240
UPL species	0	x 5 =	0
Column Totals:	60 (A)		240 (B)
Prevalence Index = B/A =			4.00

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes** ___ **No** X

Remarks: (Include photo numbers here or on a separate sheet.)
Due to it being winter months, much of the vegetation has died back and only persistent vegetation was present at the time of the delineation.

SOIL Sampling Point: 1B-6

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-4	10YR 3/4	100						Fine Silty Sand
4-6	10YR 4/4	100						Silty Loam
6-20	7.5YR 3/4	100						Silty Sand

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ High Chroma Sands (S11) (**LRR K, L)**
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) (**LRR K, L**)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ___ **No** X

Remarks:

This data form is revised from Northcentral and Northeast Regional Supplement Version 2.0 to reflect the NRCS Field Indicators of Hydric Soils version 7.0 March 2013 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: 469A Main Street Trail and Bridge Project City/County: Sturbridge Sampling Date: 01/04/2023

Applicant/Owner: Tighe & Bond, Inc. State: MA Sampling Point: 1A3-6

Investigator(s): Seth Taylor and Carlene Eaton Section, Township, Range:

Landform (hillside, terrace, etc.): Local relief (concave, convex, none): Convex Slope (%): 1

Subregion (LRR or MLRA): LRR R, MLRA 144A Lat: 42.113051 Long: -72.106212 Datum: WGS 84

Soil Map Unit Name: Pootatuck fine sandy loam, 0 to 3 percent slopes,occasionally flooded NWI classification: PSS1A

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

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No ____	**Is the Sampled Area**	
Hydric Soil Present?	Yes X	No ____	**within a Wetland?**	**Yes** X **No** ____
Wetland Hydrology Present?	Yes X	No ____	If yes, optional Wetland Site ID:	

Remarks: (Explain alternative procedures here or in a separate report.)
Two days prior (12/18/2023-12/19/2023) to the the wetland delineation (12/21/2023) the area received approximately 3.26 inches of rain within two days. The heavy precipitation flooded the surrounding area and took multiple days to discharge. The following week (12/25/2023-12/31/2023) the area recieved approximately one inch of rain resulting in prolonged inundation of the wetland areas and took several days to return to "normal" conditions.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- X Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches):	
Water Table Present?	Yes X	No ____	Depth (inches):	4
Saturation Present? (includes capillary fringe)	Yes X	No ____	Depth (inches):	0

Wetland Hydrology Present? **Yes** X **No** ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION – Use scientific names of plants. Sampling Point: 1A3-6

Tree Stratum (Plot size: 30 feet)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Tsuga canadensis*	15	Yes	FACU
2. *Acer rubrum*	10	Yes	FAC
3. *Quercus rubra*	5	No	FACU
4.			
5.			
6.			
7.			
	30	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15 feet)			
1. *Clethra alnifolia*	15	Yes	FAC
2. *Alnus incana*	10	Yes	FACW
3. *Osmundastrum cinnamomeum*	10	Yes	FACW
4. *Ilex verticillata*	5	No	FACW
5.			
6.			
7.			
	40	=Total Cover	
Herb Stratum (Plot size: 5 feet)			
1. *Symplocarpus foetidus*	5	Yes	OBL
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	5	=Total Cover	
Woody Vine Stratum (Plot size:)			
1.			
2.			
3.			
4.			
		=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 5 (A)

Total Number of Dominant Species Across All Strata: 6 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 83.3% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	5	x 1 =	5
FACW species	25	x 2 =	50
FAC species	25	x 3 =	75
FACU species	20	x 4 =	80
UPL species	0	x 5 =	0
Column Totals:	75 (A)		210 (B)

Prevalence Index = B/A = 2.80

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

X 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes** X **No** ___

Remarks: (Include photo numbers here or on a separate sheet.)
Due to it being winter months, much of the vegetation has died back and only persistent vegetation was present at the time of the delineation.

SOIL

Sampling Point: 1A3-6

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-12	10YR 2/2	90					Muck	Mucky Mineral
8-12			10YR 5/4	10	C	M	Muck	Distinct Redox Concentrations
12-20	10YR 3/3	100					Muck	Mucky Mineral

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- X Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ High Chroma Sands (S11) (**LRR K, L)**
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) (**LRR K, L**)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** X **No** ___

Remarks:

This data form is revised from Northcentral and Northeast Regional Supplement Version 2.0 to reflect the NRCS Field Indicators of Hydric Soils version 7.0 March 2013 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: 469A Main Street Trail and Bridge Project City/County: Sturbridge Sampling Date: 01/04/2023

Applicant/Owner: Tighe & Bond, Inc. State: MA Sampling Point: 1A3-6

Investigator(s): Seth Taylor and Carlene Eaton Section, Township, Range:

Landform (hillside, terrace, etc.): Local relief (concave, convex, none): Convex Slope (%): 3

Subregion (LRR or MLRA): LRR R, MLRA 144A Lat: 42.113051 Long: -72.106212 Datum: WGS 84

Soil Map Unit Name: Pootatuck fine sandy loam, 0 to3 percent slopes,occasionally flooded NWI classification: Upland

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

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area**		
Hydric Soil Present?	Yes ____	No X	**within a Wetland?**	**Yes** ____	**No** X
Wetland Hydrology Present?	Yes ____	No X	If yes, optional Wetland Site ID:		

Remarks: (Explain alternative procedures here or in a separate report.)
Two days prior (12/18/2023-12/19/2023) to the the wetland delineation (12/21/2023) the area received approximately 3.26 inches of rain within two days. The heavy precipitation flooded the surrounding area and took multiple days to discharge. The following week (12/25/2023-12/31/2023) the area recieved approximately one inch of rain resulting in prolonged inundation of the wetland areas and took several days to return to "normal" conditions.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____ No X	Depth (inches): ____	
Water Table Present?	Yes ____ No X	Depth (inches): ____	
Saturation Present? (includes capillary fringe)	Yes ____ No X	Depth (inches): ____	**Wetland Hydrology Present?** **Yes** ____ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION – Use scientific names of plants.

Sampling Point: 1A3-6

Tree Stratum (Plot size: 30 feet)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Pinus strobus*	35	Yes	FACU
2. *Quercus rubra*	10	Yes	FACU
3. *Betula papyrifera*	5	No	FACU
4.			
5.			
6.			
7.			
	50	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15 feet)			
1. *Pinus strobus*	25	Yes	FACU
2.			
3.			
4.			
5.			
6.			
7.			
	25	=Total Cover	
Herb Stratum (Plot size: 5 feet)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
		=Total Cover	
Woody Vine Stratum (Plot size: 15)			
1. *Celastrus orbiculatus*	15	Yes	UPL
2.			
3.			
4.			
	15	=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	75	x 4 =	300
UPL species	15	x 5 =	75
Column Totals:	90 (A)		375 (B)

Prevalence Index = B/A = 4.17

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes** ___ **No** X

Remarks: (Include photo numbers here or on a separate sheet.)
Due to it being winter months, much of the vegetation has died back and only persistent vegetation was present at the time of the delineation.

SOIL

Sampling Point: 1A3-6

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-4	10YR 2/2	100						Fine Silty Sand
4-6	10YR 4/4	100						Silty Loam
6-7	10YR 2/1	100						Fine Sandy Loam
7-20	7.5YR 3/4	100						Silty Sand

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ High Chroma Sands (S11) (**LRR K, L)**
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) (**LRR K, L**)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ___ **No** X

Remarks:

This data form is revised from Northcentral and Northeast Regional Supplement Version 2.0 to reflect the NRCS Field Indicators of Hydric Soils version 7.0 March 2013 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: 469A Main Street Trail and Bridge Project City/County: Sturbridge Sampling Date: 12/21/2023

Applicant/Owner: Tighe & Bond, Inc. State: MA Sampling Point: 3A-4

Investigator(s): Seth Taylor and Carlene Eaton Section, Township, Range:

Landform (hillside, terrace, etc.): Local relief (concave, convex, none): Convex Slope (%): 3

Subregion (LRR or MLRA): LRR R, MLRA 144A Lat: 42.113674 Long: -72.107338 Datum: WGS 84

Soil Map Unit Name: Pootatuck fine sandy loam, 0 to 3 percent slopes,occasionally flooded NWI classification: PEM1E

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

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area**		
Hydric Soil Present?	Yes X	No ____	**within a Wetland?**	**Yes** X	**No** ____
Wetland Hydrology Present?	Yes X	No ____	If yes, optional Wetland Site ID:		

Remarks: (Explain alternative procedures here or in a separate report.)
Two days prior (12/18/2023-12/19/2023) to the the wetland delineation (12/21/2023) the area received approximately 3.26 inches of rain within two days. The heavy precipitation flooded the surrounding area and took multiple days to discharge and return to "normal" conditions.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ____ Surface Water (A1)
- ____ High Water Table (A2)
- X Saturation (A3)
- ____ Water Marks (B1)
- ____ Sediment Deposits (B2)
- ____ Drift Deposits (B3)
- ____ Algal Mat or Crust (B4)
- ____ Iron Deposits (B5)
- ____ Inundation Visible on Aerial Imagery (B7)
- ____ Sparsely Vegetated Concave Surface (B8)
- ____ Water-Stained Leaves (B9)
- ____ Aquatic Fauna (B13)
- ____ Marl Deposits (B15)
- ____ Hydrogen Sulfide Odor (C1)
- ____ Oxidized Rhizospheres on Living Roots (C3)
- ____ Presence of Reduced Iron (C4)
- ____ Recent Iron Reduction in Tilled Soils (C6)
- ____ Thin Muck Surface (C7)
- ____ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ____ Surface Soil Cracks (B6)
- ____ Drainage Patterns (B10)
- ____ Moss Trim Lines (B16)
- ____ Dry-Season Water Table (C2)
- ____ Crayfish Burrows (C8)
- ____ Saturation Visible on Aerial Imagery (C9)
- ____ Stunted or Stressed Plants (D1)
- ____ Geomorphic Position (D2)
- ____ Shallow Aquitard (D3)
- ____ Microtopographic Relief (D4)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches): ____
Water Table Present?	Yes ____	No X	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No X	Depth (inches): ____

Wetland Hydrology Present? **Yes** ____ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION – Use scientific names of plants.

Sampling Point: 3A-4

Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	=Total Cover		
Sapling/Shrub Stratum (Plot size: 15 feet)			
1. *Acer rubrum*	2	No	FAC
2.			
3.			
4.			
5.			
6.			
7.			
	2 =Total Cover		
Herb Stratum (Plot size: 5 feet)			
1. *Spirea alba*	25	Yes	FACW
2. *Eutrochium purpureum*	20	Yes	FAC
3. *Onoclea sensibilis*	5	No	FACW
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	50 =Total Cover		
Woody Vine Stratum (Plot size:)			
1.			
2.			
3.			
4.			
	=Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	30	x 2 =	60
FAC species	22	x 3 =	66
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	52 (A)		126 (B)

Prevalence Index = B/A = 2.42

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

X 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes** X **No** ___

Remarks: (Include photo numbers here or on a separate sheet.)
Due to it being winter months, much of the vegetation has died back and only persistent vegetation was present at the time of the delineation.

SOIL

Sampling Point: 3A-4

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-9	10YR 4/2	100						Sandy Loam
9-20	10YR 3/2	80	10YR 5/6	20	C	M		Loamy Sand

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- X Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ High Chroma Sands (S11) (**LRR K, L)**
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) (**LRR K, L**)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** X **No** ___

Remarks:

This data form is revised from Northcentral and Northeast Regional Supplement Version 2.0 to reflect the NRCS Field Indicators of Hydric Soils version 7.0 March 2013 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: 469A Main Street Trail and Bridge Project City/County: Sturbridge Sampling Date: 12/21/2023

Applicant/Owner: Tighe & Bond, Inc. State: MA Sampling Point: 3A-4

Investigator(s): Seth Taylor and Carlene Eaton Section, Township, Range:

Landform (hillside, terrace, etc.): Local relief (concave, convex, none): Convex Slope (%): 3

Subregion (LRR or MLRA): LRR R, MLRA 144A Lat: 42.113674 Long: -72.107338 Datum: WGS 84

Soil Map Unit Name: Pootatuck fine sandy loam, 0 to 3 percent slopes,occasionally flooded NWI classification: Upland

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

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area**		
Hydric Soil Present?	Yes ____	No X	**within a Wetland?**	**Yes** ____	**No** X
Wetland Hydrology Present?	Yes ____	No X	If yes, optional Wetland Site ID:		

Remarks: (Explain alternative procedures here or in a separate report.)
Two days prior (12/18/2023-12/19/2023) to the the wetland delineation (12/21/2023) the area received approximately 3.26 inches of rain within two days. The heavy precipitation flooded the surrounding area and took multiple days to discharge and return to "normal" conditions.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches): ____
Water Table Present?	Yes ____	No X	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No X	Depth (inches): ____

Wetland Hydrology Present? **Yes** ____ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION – Use scientific names of plants. Sampling Point: 3A-4

Tree Stratum (Plot size: 30 feet)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Pinus strobus*	40	Yes	FACU
2.			
3.			
4.			
5.			
6.			
7.			
	40	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15 feet)			
1. *Pinus strobus*	25	Yes	FACU
2.			
3.			
4.			
5.			
6.			
7.			
	25	=Total Cover	
Herb Stratum (Plot size:)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
		=Total Cover	
Woody Vine Stratum (Plot size:)			
1.			
2.			
3.			
4.			
		=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	65	x 4 =	260
UPL species	0	x 5 =	0
Column Totals:	65 (A)		260 (B)
Prevalence Index = B/A =			4.00

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes** ___ **No** X

Remarks: (Include photo numbers here or on a separate sheet.)
Due to it being winter months, much of the vegetation has died back and only persistent vegetation was present at the time of the delineation.

SOIL

Sampling Point: 3A-4

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-4	10YR 3/2	100						Sandy Loam
4-16	10YR 4/4	100						Sandy Loam
16-20	10YR 4/3	100						Sandy Loam

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ High Chroma Sands (S11) (**LRR K, L)**
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) (**LRR K, L**)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ___ **No** X

Remarks:

This data form is revised from Northcentral and Northeast Regional Supplement Version 2.0 to reflect the NRCS Field Indicators of Hydric Soils version 7.0 March 2013 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: 469A Main Street Trail and Bridge Project City/County: Sturbridge Sampling Date: 12/21/2023

Applicant/Owner: Tighe & Bond, Inc. State: MA Sampling Point: 3B-16

Investigator(s): Seth Taylor and Carlene Eaton Section, Township, Range:

Landform (hillside, terrace, etc.): Local relief (concave, convex, none): Convex Slope (%): 3

Subregion (LRR or MLRA): LRR R, MLRA 144A Lat: 42.113674 Long: -72.107338 Datum: WGS 84

Soil Map Unit Name: Pootatuck fine sandy loam, 0 to 3 percent slopes,occasionally flooded NWI classification: PEM1E

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

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No ____	**Is the Sampled Area**	
Hydric Soil Present?	Yes X	No ____	**within a Wetland?**	**Yes** X **No** ____
Wetland Hydrology Present?	Yes X	No ____	If yes, optional Wetland Site ID:	

Remarks: (Explain alternative procedures here or in a separate report.)
Two days prior (12/18/2023-12/19/2023) to the the wetland delineation (12/21/2023) the area received approximately 3.26 inches of rain within two days. The heavy precipitation flooded the surrounding area and took multiple days to discharge. The following week (12/25/2023-12/31/2023) the area recieved approximately one inch of rain resulting in prolonged inundation of teh wetland areas and took several days to return to "normal" conditions.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- X Surface Water (A1)
- X High Water Table (A2)
- X Saturation (A3)
- ____ Water Marks (B1)
- ____ Sediment Deposits (B2)
- ____ Drift Deposits (B3)
- ____ Algal Mat or Crust (B4)
- ____ Iron Deposits (B5)
- ____ Inundation Visible on Aerial Imagery (B7)
- ____ Sparsely Vegetated Concave Surface (B8)
- ____ Water-Stained Leaves (B9)
- ____ Aquatic Fauna (B13)
- ____ Marl Deposits (B15)
- ____ Hydrogen Sulfide Odor (C1)
- ____ Oxidized Rhizospheres on Living Roots (C3)
- ____ Presence of Reduced Iron (C4)
- ____ Recent Iron Reduction in Tilled Soils (C6)
- ____ Thin Muck Surface (C7)
- ____ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ____ Surface Soil Cracks (B6)
- ____ Drainage Patterns (B10)
- ____ Moss Trim Lines (B16)
- ____ Dry-Season Water Table (C2)
- ____ Crayfish Burrows (C8)
- ____ Saturation Visible on Aerial Imagery (C9)
- ____ Stunted or Stressed Plants (D1)
- ____ Geomorphic Position (D2)
- ____ Shallow Aquitard (D3)
- ____ Microtopographic Relief (D4)
- ____ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes X	No ____	Depth (inches):	0"
Water Table Present?	Yes X	No ____	Depth (inches):	0"
Saturation Present? (includes capillary fringe)	Yes X	No ____	Depth (inches):	0"

Wetland Hydrology Present? **Yes** X **No** ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION – Use scientific names of plants.

Sampling Point: 3B-16

Tree Stratum (Plot size: 30 feet)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Betula populifolia*	15	Yes	FAC
2. *Acer rubrum*	10	Yes	FAC
3.			
4.			
5.			
6.			
7.			
	25	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15 feet)			
1. *Ilex verticillata*	25	Yes	FACW
2. *Clethra alnifolia*	15	Yes	FACW
3.			
4.			
5.			
6.			
7.			
	40	=Total Cover	
Herb Stratum (Plot size: 5 feet)			
1. *Symplocarpus foetidus*	25	Yes	OBL
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	25	=Total Cover	
Woody Vine Stratum (Plot size:)			
1.			
2.			
3.			
4.			
		=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 5 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	25	x 1 =	25
FACW species	40	x 2 =	80
FAC species	25	x 3 =	75
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	90 (A)		180 (B)

Prevalence Index = B/A = 2.00

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

X 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes** X **No** ___

Remarks: (Include photo numbers here or on a separate sheet.)
Hummocks were present throughout the wetland are. Due to it being winter months, much of the vegetation has died back and only persistent vegetation was present at the time of the delineation.

SOIL

Sampling Point: 3B-16

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-3	10YR 2/1	100					Muck	Muck
3-8	10YR 2/2	100					Muck	Mucky Mineral
8-14	10YR 3/2	100					Muck	Mucky Mineral
14-20	10YR 3/2	85	10YR 5/6	15	C	M		Prominent redox concentrations

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- X Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ High Chroma Sands (S11) (**LRR K, L)**
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) (**LRR K, L**)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** X **No** ___

Remarks:

This data form is revised from Northcentral and Northeast Regional Supplement Version 2.0 to reflect the NRCS Field Indicators of Hydric Soils version 7.0 March 2013 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: 469A Main Street Trail and Bridge Project City/County: Sturbridge Sampling Date: 12/21/2023

Applicant/Owner: Tighe & Bond, Inc. State: MA Sampling Point: 3B-16

Investigator(s): Seth Taylor and Carlene Eaton Section, Township, Range:

Landform (hillside, terrace, etc.): Local relief (concave, convex, none): Convex Slope (%): 3

Subregion (LRR or MLRA): LRR R, MLRA 144A Lat: 42.113674 Long: -72.107338 Datum: WGS 84

Soil Map Unit Name: Pootatuck fine sandy loam, 0 to 3 percent slopes,occasionally flooded NWI classification: Upland

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

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area**		
Hydric Soil Present?	Yes ____	No X	**within a Wetland?**	**Yes** ____	**No** X
Wetland Hydrology Present?	Yes ____	No X	If yes, optional Wetland Site ID:		

Remarks: (Explain alternative procedures here or in a separate report.)
Two days prior (12/18/2023-12/19/2023) to the the wetland delineation (12/21/2023) the area received approximately 3.26 inches of rain within two days. The heavy precipitation flooded the surrounding area and took multiple days to discharge. The following week (12/25/2023-12/31/2023) the area recieved approximately one inch of rain resulting in prolonged inundation of teh wetland areas and took several days to return to "normal" conditions.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches): ____
Water Table Present?	Yes ____	No X	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No X	Depth (inches): ____

Wetland Hydrology Present? **Yes** ____ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION – Use scientific names of plants.

Sampling Point: 3B-16

Tree Stratum (Plot size: 30 feet)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Betula papyrifera*	40	Yes	FACU
2. *Pinus strobus*	20	Yes	FACU
3. *Tsuga canadensis*	10	No	FACU
4. *Quercus rubra*	5	No	FACU
5.			
6.			
7.			
	75	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15 feet)			
1. *Kalmia latifolia*	25	Yes	FACU
2. *Acer rubrum*	10	Yes	FAC
3.			
4.			
5.			
6.			
7.			
	35	=Total Cover	
Herb Stratum (Plot size:)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
		=Total Cover	
Woody Vine Stratum (Plot size: 15)			
1. *Celastrus orbiculatus*	15	Yes	UPL
2. *Vitis riparia*	10	Yes	FAC
3.			
4.			
	25	=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 6 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 33.3% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	20	x 3 =	60
FACU species	100	x 4 =	400
UPL species	15	x 5 =	75
Column Totals:	135 (A)		535 (B)

Prevalence Index = B/A = 3.96

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes** ___ **No** X

Remarks: (Include photo numbers here or on a separate sheet.)
Due to it being winter months, much of the vegetation has died back and only persistent vegetation was present at the time of the delineation.

SOIL

Sampling Point: 3B-16

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-5	10YR 4/3	100						Sandy Loam
5-20	10YR 6/4	100						Sandy Loam

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ High Chroma Sands (S11) (**LRR K, L)**
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) (**LRR K, L**)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ___ **No** X

Remarks:

This data form is revised from Northcentral and Northeast Regional Supplement Version 2.0 to reflect the NRCS Field Indicators of Hydric Soils version 7.0 March 2013 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: 469A Main Street Trail and Bridge Project City/County: Sturbridge Sampling Date: 01/22/2024

Applicant/Owner: Tighe & Bond, Inc. State: MA Sampling Point: 4B-3

Investigator(s): Seth Taylor and Carlene Eaton Section, Township, Range:

Landform (hillside, terrace, etc.): Local relief (concave, convex, none): Convex Slope (%): 3

Subregion (LRR or MLRA): LRR R, MLRA 144A Lat: 42.113862 Long: -72.106459 Datum: WGS 84

Soil Map Unit Name: Pootatuck fine sandy loam, 0 to 3 percent slopes,occasionally flooded NWI classification: PEM1E

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

Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes X No

Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No	**Is the Sampled Area**	
Hydric Soil Present?	Yes X	No	**within a Wetland?**	**Yes** X **No**
Wetland Hydrology Present?	Yes X	No	If yes, optional Wetland Site ID:	

Remarks: (Explain alternative procedures here or in a separate report.)

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- X High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes	No X	Depth (inches):
Water Table Present?	Yes X	No	Depth (inches): 6
Saturation Present? (includes capillary fringe)	Yes	No X	Depth (inches):

Wetland Hydrology Present? **Yes** X **No**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION – Use scientific names of plants. Sampling Point: 4B-3

Tree Stratum (Plot size: 30 feet)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Acer rubrum*	30	Yes	FAC
2.			
3.			
4.			
5.			
6.			
7.			
	30	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15 feet)			
1. *Cornus sericea*	20	Yes	FACW
2. *Ilex verticillata*	15	Yes	FACW
3. *Acer rubrum*	2	No	FAC
4.			
5.			
6.			
7.			
	37	=Total Cover	
Herb Stratum (Plot size: 5 feet)			
1. *Onoclea sensibilis*	5	Yes	FACW
2. *Osmunda claytoniana*	5	Yes	FAC
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	10	=Total Cover	
Woody Vine Stratum (Plot size:)			
1.			
2.			
3.			
4.			
		=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 5 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	40	x 2 =	80
FAC species	37	x 3 =	111
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	77 (A)		191 (B)
Prevalence Index = B/A =			2.48

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

X 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes** X **No** ___

Remarks: (Include photo numbers here or on a separate sheet.)
Due to it being winter months, much of the vegetation has died back and only persistent vegetation was present at the time of the delineation.

SOIL

Sampling Point: 4B-3

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-4	10YR 3/2	100					Sandy	Sand
4-10	10YR 5/2	100					Sandy	Sand
10-16	10YR 5/2	70	10YR 5/6	30	C	M	Sandy	Predominant Redox Concentrations
16-20	10YR 5/2	70	10YR 5/6	30	C	M	Sandy	Coarse Sand

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- X Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ High Chroma Sands (S11) (**LRR K, L)**
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) (**LRR K, L**)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** X **No** ___

Remarks:

This data form is revised from Northcentral and Northeast Regional Supplement Version 2.0 to reflect the NRCS Field Indicators of Hydric Soils version 7.0 March 2013 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: 469A Main Street Trail and Bridge Project City/County: Sturbridge Sampling Date: 01/22/2024

Applicant/Owner: Tighe & Bond, Inc. State: MA Sampling Point: 4B-3

Investigator(s): Seth Taylor and Carlene Eaton Section, Township, Range:

Landform (hillside, terrace, etc.): Local relief (concave, convex, none): Convex Slope (%): 3

Subregion (LRR or MLRA): LRR R, MLRA 144A Lat: 42.113862 Long: -72.106459 Datum: WGS 84

Soil Map Unit Name: Pootatuck fine sandy loam, 0 to 3 percent slopes,occasionally flooded NWI classification: Upland

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

Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes X No

Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	No X	**Is the Sampled Area**	
Hydric Soil Present?	Yes	No X	**within a Wetland?**	**Yes** **No** X
Wetland Hydrology Present?	Yes	No X	If yes, optional Wetland Site ID:	

Remarks: (Explain alternative procedures here or in a separate report.)
Two days prior (12/18/2023-12/19/2023) to the the wetland delineation (12/21/2023) the area received approximately 3.26 inches of rain within two days. The heavy precipitation flooded the surrounding area and took multiple days to discharge and return to "normal" conditions.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1)
- Sediment Deposits (B2)
- Drift Deposits (B3)
- Algal Mat or Crust (B4)
- Iron Deposits (B5)
- Inundation Visible on Aerial Imagery (B7)
- Sparsely Vegetated Concave Surface (B8)
- Water-Stained Leaves (B9)
- Aquatic Fauna (B13)
- Marl Deposits (B15)
- Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres on Living Roots (C3)
- Presence of Reduced Iron (C4)
- Recent Iron Reduction in Tilled Soils (C6)
- Thin Muck Surface (C7)
- Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- Surface Soil Cracks (B6)
- Drainage Patterns (B10)
- Moss Trim Lines (B16)
- Dry-Season Water Table (C2)
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Stunted or Stressed Plants (D1)
- Geomorphic Position (D2)
- Shallow Aquitard (D3)
- Microtopographic Relief (D4)
- FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes	No X	Depth (inches):
Water Table Present?	Yes	No X	Depth (inches):
Saturation Present? (includes capillary fringe)	Yes	No X	Depth (inches):

Wetland Hydrology Present? **Yes** **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION – Use scientific names of plants. Sampling Point: 4B-3

Tree Stratum (Plot size: 30 feet)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Pinus strobus*	10	Yes	FACU
2. *Quercus rubra*	10	Yes	FACU
3. *Betula populifolia*	5	Yes	FAC
4.			
5.			
6.			
7.			
	25	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15 feet)			
1. *Pinus strobus*	25	Yes	FACU
2. *Rosa multiflora*	10	Yes	FACU
3.			
4.			
5.			
6.			
7.			
	35	=Total Cover	
Herb Stratum (Plot size:)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
		=Total Cover	
Woody Vine Stratum (Plot size: l)			
1. *Celastrus orbiculatus*	5	Yes	UPL
2. *Vitis riparia*	5	Yes	FAC
3.			
4.			
	10	=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 7 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 28.6% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	10	x 3 =	30
FACU species	55	x 4 =	220
UPL species	5	x 5 =	25
Column Totals:	70 (A)		275 (B)
Prevalence Index = B/A =			3.93

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes** ___ **No** X

Remarks: (Include photo numbers here or on a separate sheet.)
Due to it being winter months, much of the vegetation has died back and only persistent vegetation was present at the time of the delineation.

SOIL

Sampling Point: 4B-3

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-4	10YR 3/2	100					Sandy	Sand
4-16	10YR 5/2	100					Sandy	Sand
16-20	10YR 5/2	100					Sandy	Coarse Sand

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ High Chroma Sands (S11) (**LRR K, L)**
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) (**LRR K, L**)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ___ **No** X

Remarks:

This data form is revised from Northcentral and Northeast Regional Supplement Version 2.0 to reflect the NRCS Field Indicators of Hydric Soils version 7.0 March 2013 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)

Tighe&Bond

APPENDIX F

501 MAIN STREET

Location	501 MAIN STREET	**Mblu**	415-/0 2432/- 501/ /
Acct#	415-02432-501	**Owner**	TOWN OF STURBRIDGE
Assessment	$97,800	**Appraisal**	$97,800
PID	2187	**Building Count**	1

Current Value

Appraisal			
Valuation Year	**Improvements**	**Land**	**Total**
2024	$0	$97,800	$97,800
Assessment			
Valuation Year	**Improvements**	**Land**	**Total**
2024	$0	$97,800	$97,800

Owner of Record

Owner	TOWN OF STURBRIDGE	**Sale Price**	$244,000
Co-Owner		**Certificate**	
Address	308 MAIN STREET STURBRIDGE, MA 01566	**Book & Page**	62224/137
		Sale Date	04/17/2020
		Instrument	1E

Ownership History

Ownership History					
Owner	**Sale Price**	**Certificate**	**Book & Page**	**Instrument**	**Sale Date**
TOWN OF STURBRIDGE	$244,000		62224/137	1E	04/17/2020
30 SWIFT LLC	$172,500		59787/180	1U	12/07/2018
BOARDWALK GROUP LLC	$310,000		44491/0142	1C	06/28/2009
GEORGE RICHARD C	$396,000		33859/0022	00	06/14/2004
GRESENZ JON B & NANCY L	$0		08071/0066		01/31/1984

Building Information

Building 1 : Section 1

Year Built:
Living Area: 0
Replacement Cost: $0
Building Percent Good:
Replacement Cost Less Depreciation: $0

Building Attributes	
Field	**Description**
Style:	Vacant Land
Model	
Grade:	
Stories:	
Occupancy	
Exterior Wall 1	
Exterior Wall 2	
Roof Structure:	
Roof Cover	
Interior Wall 1	
Interior Wall 2	
Interior Flr 1	
Interior Flr 2	
Heat Fuel	
Heat Type:	
AC Type:	
Total Bedrooms:	
Total Bthrms:	
Total Half Baths:	
Total Xtra Fixtrs:	
Total Rooms:	
Bath Style:	
Kitchen Style:	
Num Kitchens	

Building Photo

(https://images.vgsi.com/photos/SturbridgeMAPhotos//default.jpg)

Building Layout

(https://images.vgsi.com/photos/SturbridgeMAPhotos//Sketches/2187_226

Building Sub-Areas (sq ft)	Legend
No Data for Building Sub-Areas	

Extra Features

Extra Features	Legend
No Data for Extra Features	

Land

Land Use

Use Code 9300

Land Line Valuation

Size (Acres) 0.53

Description	Town of Sturbridge V	**Frontage**	
Zone	CTD	**Depth**	
Neighborhood	CM2	**Assessed Value**	$97,800
Alt Land Appr	No	**Appraised Value**	$97,800
Category			

Outbuildings

Outbuildings	Legend
No Data for Outbuildings	

Valuation History

Appraisal			
Valuation Year	**Improvements**	**Land**	**Total**
2024	$0	$97,800	$97,800
2023	$0	$85,100	$85,100
2022	$0	$77,200	$77,200
2021	$0	$77,200	$77,200
2020	$104,500	$77,200	$181,700

Assessment			
Valuation Year	**Improvements**	**Land**	**Total**
2024	$0	$97,800	$97,800
2023	$0	$85,100	$85,100
2022	$0	$77,200	$77,200
2021	$0	$77,200	$77,200
2020	$104,500	$77,200	$181,700

52 STALLION HILL ROAD

Location	52 STALLION HILL ROAD	**Mblu**	605-/0 2454/- 052/ /
Acct#	605-02454-052	**Owner**	TOWN OF STURBRIDGE
Assessment	$334,100	**Appraisal**	$334,100
PID	3548	**Building Count**	1

Current Value

Appraisal			
Valuation Year	**Improvements**	**Land**	**Total**
2024	$4,000	$330,100	$334,100
Assessment			
Valuation Year	**Improvements**	**Land**	**Total**
2024	$4,000	$330,100	$334,100

Owner of Record

Owner	TOWN OF STURBRIDGE	**Sale Price**	$850,000
Co-Owner		**Certificate**	
Address	308 MAIN STREET STURBRIDGE, MA 01566	**Book & Page**	42394/0113
		Sale Date	02/08/2008
		Instrument	1V

Ownership History

Ownership History					
Owner	**Sale Price**	**Certificate**	**Book & Page**	**Instrument**	**Sale Date**
TOWN OF STURBRIDGE	$850,000		42394/0113	1V	02/08/2008
JACQUES PETER	$100		41147/0355	1G	05/15/2007
WESTVILLE DEVELOPMENT CORP	$473,000		32646/0372	00	01/14/2004
J & W COMPANY	$170,000		20155/0132	00	07/07/1998
KACAVICH CLAIRE A	$0		03440/0474		08/15/1952

Building Information

Building 1 : Section 1

Year Built:
Living Area: 0
Replacement Cost: $0
Building Percent Good:
Replacement Cost Less Depreciation: $0

Building Attributes	
Field	**Description**
Style:	Outbuildings
Model	
Grade:	
Stories:	
Occupancy	
Exterior Wall 1	
Exterior Wall 2	
Roof Structure:	
Roof Cover	
Interior Wall 1	
Interior Wall 2	
Interior Flr 1	
Interior Flr 2	
Heat Fuel	
Heat Type:	
AC Type:	
Total Bedrooms:	
Total Bthrms:	
Total Half Baths:	
Total Xtra Fixtrs:	
Total Rooms:	
Bath Style:	
Kitchen Style:	
Num Kitchens	

Building Photo

(https://images.vgsi.com/photos/SturbridgeMAPhotos/\01\01\11\02.jpg)

Building Layout

Building Layout
(https://images.vgsi.com/photos/SturbridgeMAPhotos//Sketches/3548_379

Building Sub-Areas (sq ft)	Legend
No Data for Building Sub-Areas	

Extra Features

Extra Features	Legend
No Data for Extra Features	

Land

Land Use

Use Code 9300

Land Line Valuation

Size (Acres) 71.66

Description	Town of Sturbridge V	**Frontage**	
Zone	RR	**Depth**	
Neighborhood		**Assessed Value**	$330,100
Alt Land Appr	No	**Appraised Value**	$330,100
Category			

Outbuildings

Outbuildings						Legend
Code	**Description**	**Sub Code**	**Sub Description**	**Size**	**Value**	**Bldg #**
SHD1	SHED FRAME			120.00 S.F.	$1,000	1
SHD1	SHED FRAME			190.00 S.F.	$1,500	1
SHD1	SHED FRAME			192.00 S.F.	$1,500	1

Valuation History

Appraisal			
Valuation Year	**Improvements**	**Land**	**Total**
2024	$4,000	$330,100	$334,100
2023	$4,000	$319,200	$323,200
2022	$4,000	$312,200	$316,200
2021	$4,000	$309,200	$313,200
2020	$4,000	$309,200	$313,200

Assessment			
Valuation Year	**Improvements**	**Land**	**Total**
2024	$4,000	$330,100	$334,100
2023	$4,000	$319,200	$323,200
2022	$4,000	$312,200	$316,200
2021	$4,000	$309,200	$313,200
2020	$4,000	$309,200	$313,200

469A MAIN STREET

Location	469A MAIN STREET	**Mblu**	415-/0 2443/- 469A/ /
Acct#	415-02443-469A	**Owner**	TOWN OF STURBRIDGE
Assessment	$21,400	**Appraisal**	$21,400
PID	2221	**Building Count**	1

Current Value

Appraisal			
Valuation Year	**Improvements**	**Land**	**Total**
2024	$0	$21,400	$21,400
Assessment			
Valuation Year	**Improvements**	**Land**	**Total**
2024	$0	$21,400	$21,400

Owner of Record

Owner	TOWN OF STURBRIDGE	**Sale Price**	$0
Co-Owner		**Certificate**	
Address	308 MAIN STREET STURBRIDGE, MA 01566	**Book & Page**	53491/0374
		Sale Date	03/20/2015

Ownership History

Ownership History				
Owner	**Sale Price**	**Certificate**	**Book & Page**	**Sale Date**
TOWN OF STURBRIDGE	$0		53491/0374	03/20/2015
O & Z COMPANY INC	$14,000		19236/0309	10/07/1997
MCCURDY ANN M	$0		08952/0345	09/25/1985

Building Information

Building 1 : Section 1

Year Built:	
Living Area:	0
Replacement Cost:	$0
Building Percent Good:	

Replacement Cost
Less Depreciation: $0

Building Attributes	
Field	**Description**
Style:	Vacant Land
Model	
Grade:	
Stories:	
Occupancy	
Exterior Wall 1	
Exterior Wall 2	
Roof Structure:	
Roof Cover	
Interior Wall 1	
Interior Wall 2	
Interior Flr 1	
Interior Flr 2	
Heat Fuel	
Heat Type:	
AC Type:	
Total Bedrooms:	
Total Bthrms:	
Total Half Baths:	
Total Xtra Fixtrs:	
Total Rooms:	
Bath Style:	
Kitchen Style:	
Num Kitchens	

Building Photo

(https://images.vgsi.com/photos/SturbridgeMAPhotos/\01\01\74\08.jpg)

Building Layout

(https://images.vgsi.com/photos/SturbridgeMAPhotos//Sketches/2221_231

Building Sub-Areas (sq ft)	Legend
No Data for Building Sub-Areas	

Extra Features

Extra Features	Legend
No Data for Extra Features	

Land

Land Use

Use Code	9300
Description	Town of Sturbridge V
Zone	CTD
Neighborhood	
Alt Land Appr	No

Land Line Valuation

Size (Acres)	6.11
Frontage	
Depth	
Assessed Value	$21,400
Appraised Value	$21,400

Category

Outbuildings

Outbuildings	Legend
No Data for Outbuildings	

Valuation History

Appraisal			
Valuation Year	**Improvements**	**Land**	**Total**
2024	$0	$21,400	$21,400
2023	$0	$21,400	$21,400
2022	$0	$21,400	$21,400
2021	$0	$21,400	$21,400
2020	$0	$21,400	$21,400

Assessment			
Valuation Year	**Improvements**	**Land**	**Total**
2024	$0	$21,400	$21,400
2023	$0	$21,400	$21,400
2022	$0	$21,400	$21,400
2021	$0	$21,400	$21,400
2020	$0	$21,400	$21,400

483A MAIN STREET

Location	483A MAIN STREET	**Mblu**	415-/0 2433/- 483A/ /
Acct#	415-02433-483A	**Owner**	MASS ELECTRIC CO
Assessment	$93,000	**Appraisal**	$93,000
PID	2209	**Building Count**	1

Current Value

Appraisal			
Valuation Year	**Improvements**	**Land**	**Total**
2024	$0	$93,000	$93,000
Assessment			
Valuation Year	**Improvements**	**Land**	**Total**
2024	$0	$93,000	$93,000

Owner of Record

Owner	MASS ELECTRIC CO	**Sale Price**	$0
Co-Owner	C/O PROPERTY TAX DEPARTMENT	**Certificate**	
Address	40 SYLVAN ROAD WALTHAM, MA 02451-2286	**Book & Page**	04044/0234
		Sale Date	07/01/1959

Ownership History

Ownership History				
Owner	**Sale Price**	**Certificate**	**Book & Page**	**Sale Date**
MASS ELECTRIC CO	$0		04044/0234	07/01/1959

Building Information

Building 1 : Section 1

Year Built:	
Living Area:	0
Replacement Cost:	$0
Building Percent Good:	
Replacement Cost Less Depreciation:	$0

Building Attributes	
Field	**Description**
Style:	Vacant Land
Model	
Grade:	
Stories:	
Occupancy	
Exterior Wall 1	
Exterior Wall 2	
Roof Structure:	
Roof Cover	
Interior Wall 1	
Interior Wall 2	
Interior Flr 1	
Interior Flr 2	
Heat Fuel	
Heat Type:	
AC Type:	
Total Bedrooms:	
Total Bthrms:	
Total Half Baths:	
Total Xtra Fixtrs:	
Total Rooms:	
Bath Style:	
Kitchen Style:	
Num Kitchens	

Building Photo

(https://images.vgsi.com/photos/SturbridgeMAPhotos//default.jpg)

Building Layout

(https://images.vgsi.com/photos/SturbridgeMAPhotos//Sketches/2209_229

Building Sub-Areas (sq ft)	Legend
No Data for Building Sub-Areas	

Extra Features

Extra Features	Legend
No Data for Extra Features	

Land

Land Use

Use Code	4240
Description	Electric Substation
Zone	CTD
Neighborhood	CM2
Alt Land Appr	No
Category	

Land Line Valuation

Size (Acres)	0.07
Frontage	
Depth	
Assessed Value	$93,000
Appraised Value	$93,000

Outbuildings

Outbuildings	Legend
No Data for Outbuildings	

Valuation History

Appraisal			
Valuation Year	**Improvements**	**Land**	**Total**
2024	$0	$93,000	$93,000
2023	$0	$80,800	$80,800
2022	$0	$73,300	$73,300
2021	$0	$73,300	$73,300
2020	$0	$73,300	$73,300

Assessment			
Valuation Year	**Improvements**	**Land**	**Total**
2024	$0	$93,000	$93,000
2023	$0	$80,800	$80,800
2022	$0	$73,300	$73,300
2021	$0	$73,300	$73,300
2020	$0	$73,300	$73,300

www.tighebond.com

100% Recyclable