

October 19, 2015

Mr. Ben Lynch, Program Chief Waterways/Chapter 91  
Massachusetts Department of Environmental Protection  
1 Winter Street  
Boston, MA 02108



Re: Application Chapter 91 Waterways License (BRP WW 01)  
Bridge No. C-19-031 over the Assabet River Replacement  
Concord, Massachusetts  
Transmittal Number X266755

Dear Mr. Lynch:

Greenman-Pedersen, Inc. (GPI), on behalf of the Massachusetts Department of Transportation – Highway Division (MassDOT), respectfully submits the attached application for a Chapter 91 Waterways License for the placement of a pedestrian bridge over the Assabet River. There was a bridge in this location at one time but the superstructure was removed. The abutments remain in place today. This work is presumed to qualify as a water-dependent activity.

MassDOT proposes to construct the Bruce Freeman Rail Trail (BFRT) from the Sudbury/Concord town line north along the former Lowell Secondary Track of the New Haven Railroad owned by the Commonwealth of Massachusetts through West Concord Center ultimately ending just northwest of Commonwealth Avenue but south of Route 2. Since the existing superstructure over the Assabet River was removed, a new pedestrian bridge will be required in order to accommodate the rail trail.

Draft paper plans have been enclosed with the application. Final mylar plans will be prepared once your review is complete and all plan revisions have been made. A copy of this application has been submitted to the Town of Concord Planning Board for their review in accordance with 310 CMR 9.11(3)(c)(3).

The Environmental Notification Form (ENF) is currently undergoing final review by MassDOT Environmental and will be filed in the near future. The Notice of Intent for the project has been filed and GPI presented the project to the Concord Natural Resources Commission on October 7, 2015. One more hearing is anticipated prior to the issuance of an Order of Conditions. Permitting documentation will be provided to the Massachusetts Department of Environmental Protection when available.

As required a check for \$330 has been sent to the DEP Lock Box for the application filing fee.



Mr. Ben Lynch  
October 19, 2015  
Page 2 of 2

Please review the application and enclosed materials. Should you have any questions concerning this submittal or require additional information, please contact me at 978-570-2980 (rwilliamson@gpinet.com) or MassDOT Environmental Analyst, Vicky Parsons at 857-368-8818 (victoria.parsons@state.ma.us).

Very truly yours,

**GREENMAN – PEDERSEN, INC.**



Rebecca S. Williamson, P.E.  
Senior Project Manager

Enclosure(s)

c. D. Shedd, MassDOT Project Manager (via email)  
MassDOT – Boston Environmental (via email)  
Town of Concord Planning Board  
Marcia Rasmussen, Director of Planning and Land Management, Town of Concord (via email)





Enter your transmittal number

X266755  
Transmittal Number

Your unique Transmittal Number can be accessed online: <http://mass.gov/dep/service/online/trasmfrm.shtml>  
**Massachusetts Department of Environmental Protection**  
**Transmittal Form for Permit Application and Payment**

1. Please type or print. A separate Transmittal Form must be completed for each permit application.

2. Make your check payable to the Commonwealth of Massachusetts and mail it with a copy of this form to: DEP, P.O. Box 4062, Boston, MA 02211.

3. Three copies of this form will be needed.

Copy 1 - the original must accompany your permit application. Copy 2 must accompany your fee payment. Copy 3 should be retained for your records

4. Both fee-paying and exempt applicants must mail a copy of this transmittal form to:

MassDEP  
P.O. Box 4062  
Boston, MA  
02211

\* Note:  
For BWSC Permits, enter the LSP.

**A. Permit Information**

BRP WW01 Chapter 91 Waterways License Application  
1. Permit Code: 7 or 8 character code from permit instructions 2. Name of Permit Category  
Construction of a pedestrian bridge over the Assabet River to accommodate shared use path  
3. Type of Project or Activity

**B. Applicant Information – Firm or Individual**

MassDOT Highway Division  
1. Name of Firm - Or, if party needing this approval is an individual enter name below:  
McArthur Susan  
2. Last Name of Individual 3. First Name of Individual 4. MI  
10 Park Plaza, Room 4260  
5. Street Address  
Boston MA 02116 857-368-8807  
6. City/Town 7. State 8. Zip Code 9. Telephone # 10. Ext. #  
Victoria Parsons victoria.parsons@state.ma.us  
11. Contact Person 12. e-mail address (optional)

**C. Facility, Site or Individual Requiring Approval**

Bridge Construction and construction of the Bruce Freeman Rail Trail  
1. Name of Facility, Site Or Individual  
former Lowell Secondary Railroad Line  
2. Street Address  
Concord MA 01742  
3. City/Town 4. State 5. Zip Code 6. Telephone # 7. Ext. #  
8. DEP Facility Number (if Known) 9. Federal I.D. Number (if Known) 10. BWSC Tracking # (if Known)

**D. Application Prepared by (if different from Section B)\***

Greenman-Pedersen, Inc.  
1. Name of Firm Or Individual  
181 Ballardvale Street, Suite 202  
2. Address  
Wilmington MA 01887 978-570-2980  
3. City/Town 4. State 5. Zip Code 6. Telephone # 7. Ext. #  
Rebecca Williamson, P.E.  
8. Contact Person 9. LSP Number (BWSC Permits only)

**E. Permit - Project Coordination**

1. Is this project subject to MEPA review?  yes  no  
If yes, enter the project's EOE file number - assigned when an Environmental Notification Form is submitted to the MEPA unit:  
EOEA File Number

**F. Amount Due**

**Special Provisions:**

- 1.  Fee Exempt (city, town or municipal housing authority)(state agency if fee is \$100 or less).  
*There are no fee exemptions for BWSC permits, regardless of applicant status.*
- 2.  Hardship Request - payment extensions according to 310 CMR 4.04(3)(c).
- 3.  Alternative Schedule Project (according to 310 CMR 4.05 and 4.10).
- 4.  Homeowner (according to 310 CMR 4.02).

DEP Use Only

Permit No:

Rec'd Date:

Reviewer:

1708717 \$330.00 10/16/15  
Check Number Dollar Amount Date



**GREENMAN - PEDERSEN, INC.**  
 Consulting Engineers, Architects & Planners  
 325 West Main Street, Babylon, NY 11702  
 Ph. 631/587-5060

Signature Bank  
 Everett, MA 02149  
 53-292/13

**1708717**  
 CHECK DATE

October 16, 2015

PAY Three Hundred Thirty and 00/100 Dollars  
 TO Department of Environmental Protection

AMOUNT 330.00

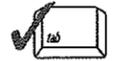
*[Handwritten Signature]*  
 AUTHORIZED SIGNATURE



⑆ 1708717⑆ ⑆011302920⑆ ⑆743240⑆

VOID AFTER 180 DAYS

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



For assistance in completing this application, please see the "Instructions".

**A. Application Information (Check one)**

**NOTE: For Chapter 91 Simplified License application form and information see the Self Licensing Package for BRP WW06.**

Name (Complete Application Sections)	Check One	Fee	Application #
<b>WATER-DEPENDENT -</b>			
<b>General (A-H)</b>	<input type="checkbox"/> Residential with ≤ 4 units	\$215.00	BRP WW01a
	<input checked="" type="checkbox"/> Other	\$330.00	BRP WW01b
	<input type="checkbox"/> Extended Term	\$3,350.00	BRP WW01c
<b>Amendment (A-H)</b>	<input type="checkbox"/> Residential with ≤ 4 units	\$100.00	BRP WW03a
	<input type="checkbox"/> Other	\$125.00	BRP WW03b
<b>NONWATER-DEPENDENT -</b>			
<b>Full (A-H)</b>	<input type="checkbox"/> Residential with ≤ 4 units	\$665.00	BRP WW15a
	<input type="checkbox"/> Other	\$2,005.00	BRP WW15b
	<input type="checkbox"/> Extended Term	\$3,350.00	BRP WW15c
<b>Partial (A-H)</b>	<input type="checkbox"/> Residential with ≤ 4 units	\$665.00	BRP WW14a
	<input type="checkbox"/> Other	\$2,005.00	BRP WW14b
	<input type="checkbox"/> Extended Term	\$3,350.00	BRP WW14c
<b>Municipal Harbor Plan (A-H)</b>	<input type="checkbox"/> Residential with ≤ 4 units	\$665.00	BRP WW16a
	<input type="checkbox"/> Other	\$2,005.00	BRP WW16b
	<input type="checkbox"/> Extended Term	\$3,350.00	BRP WW16c
<b>Joint MEPA/EIR (A-H)</b>	<input type="checkbox"/> Residential with ≤ 4 units	\$665.00	BRP WW17a
	<input type="checkbox"/> Other	\$2,005.00	BRP WW17b
	<input type="checkbox"/> Extended Term	\$3,350.00	BRP WW17c
<b>Amendment (A-H)</b>	<input type="checkbox"/> Residential with ≤ 4 units	\$530.00	BRP WW03c
	<input type="checkbox"/> Other	\$1,000.00	BRP WW03d
	<input type="checkbox"/> Extended Term	\$1,335.00	BRP WW03e

**B. Applicant Information Proposed Project/Use Information**

Note: Please refer to the "Instructions"

1. Applicant:

MassDOT Highway Division  
 Name  
 10 Park Plaza, Room 4260  
 Mailing Address  
 Boston  
 City/Town  
 857-368-8818  
 Telephone Number

victoria.parsons@state.ma.us  
 E-mail Address

MA  
 State  
 02116  
 Zip Code

Fax Number

2. Authorized Agent (if any):

Rebecca Williamson, P.E., Greenman-Pedersen, Inc.  
 Mailing Address  
 181 Ballardvale Street, Suite 202  
 Mailing Address  
 Wilmington  
 City/Town  
 9785702980  
 Telephone Number

rwilliamson@gpinet.com  
 E-mail Address

MA  
 State  
 01887  
 Zip Code

978-658-3044  
 Fax Number

**C. Proposed Project/Use Information**

1. Property Information (all information must be provided):

Town of Concord  
 Owner Name (if different from applicant)  
 N/A  
 Tax Assessor's Map and Parcel Numbers  
 Concord  
 Street Address and City/Town

N42d27'16.92"  
 Latitude  
 MA  
 State

E71d23'27.4"  
 " (Longitude)  
 01742  
 Zip Code

2. Registered Land  Yes  No

3. Name of the water body where the project site is located:

Assabet River

4. Description of the water body in which the project site is located (check all that apply):

<u>Type</u>	<u>Nature</u>	<u>Designation</u>
<input checked="" type="checkbox"/> Nontidal river/stream	<input checked="" type="checkbox"/> Natural	<input type="checkbox"/> Area of Critical Environmental Concern
<input type="checkbox"/> Flowed tidelands	<input type="checkbox"/> Enlarged/dammed	<input type="checkbox"/> Designated Port Area
<input type="checkbox"/> Filled tidelands	<input type="checkbox"/> Uncertain	<input type="checkbox"/> Ocean Sanctuary
<input type="checkbox"/> Great Pond		<input type="checkbox"/> Uncertain
<input type="checkbox"/> Uncertain		

**C. Proposed Project/Use Information (cont.)**

Select use(s) from  
 Project Type Table  
 on pg. 2 of the  
 "Instructions"

5. Proposed Use/Activity description  
 Construction of a pedestrian bridge over the Assabet River utilizing existing bridge abutments to accommodate a 10 foot wide path with two (2) foot shoulders for non-motorized bicycle and pedestrian use.

6. What is the estimated total cost of proposed work (including materials & labor)?  
 \$346,000

7. List the name & complete mailing address of each abutter (attach additional sheets, if necessary). An abutter is defined as the owner of land that shares a common boundary with the project site, as well as the owner of land that lies within 50' across a waterbody from the project.

see attached

Name Address

Name Address

Name Address

**D. Project Plans**

1. I have attached plans for my project in accordance with the instructions contained in (check one):

Appendix A (License plan)       Appendix B (Permit plan)

2. Other State and Local Approvals/Certifications

401 Water Quality Certificate      TBD

Date of Issuance

Wetlands      TBD

File Number

Jurisdictional Determination      JD-

File Number

MEPA

File Number

EOEA Secretary Certificate      TBD

Date

21E Waste Site Cleanup

RTN Number

**E. Certification**

All applicants, property owners and authorized agents must sign this page. All future application correspondence may be signed by the authorized agent alone.

"I hereby make application for a permit or license to authorize the activities I have described herein. Upon my signature, I agree to allow the duly authorized representatives of the Massachusetts Department of Environmental Protection and the Massachusetts Coastal Zone Management Program to enter upon the premises of the project site at reasonable times for the purpose of inspection."

"I hereby certify that the information submitted in this application is true and accurate to the best of my knowledge."

<u>Susan McArthur</u> Applicant's signature	<u>10/19/2015</u> Date
<u>[Signature]</u> Property Owner's signature (if different than applicant)	<u>10/19/15</u> Date
<u>Michael Williams</u> Agent's signature (if applicable)	<u>10/19/15</u> Date

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## F. Waterways Dredging Addendum

1. Provide a description of the dredging project

Maintenance Dredging (include last dredge date & permit no.)  Improvement Dredging

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Purpose of Dredging

2. What is the volume (cubic yards) of material to be dredged?

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3. What method will be used to dredge?

Hydraulic  Mechanical  Other

4. Describe disposal method and provide disposal location (include separate disposal site location map)

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5. Provide copy of grain size analysis. If grain size is compatible for beach nourishment purposes, the Department recommends that the dredged material be used as beach nourishment for public beaches. **Note:** In the event beach nourishment is proposed for private property, pursuant to 310 CMR 9.40(4)(a)1, public access easements below the existing high water mark shall be secured by applicant and submitted to the Department.

**G. Municipal Zoning Certificate**

MassDOT Highway Division

Name of Applicant

former Lowell Secondary Railroad Line

Assabet River

Concord

Project street address

Waterway

City/Town

Description of use or change in use:

Water dependent shared use path crossing facility (Bruce Freeman Rail Trail Phase 2C over the Assabet River)

**To be completed by municipal clerk or appropriate municipal official:**

"I hereby certify that the project described above and more fully detailed in the applicant's waterways license application and plans is not in violation of local zoning ordinances and bylaws."

Marcia Rasmussen

Printed Name of Municipal Official

10/19/15

Date

Marcia Rasmussen

Signature of Municipal Official

Director Plan. & Land

Title management

Concord

City/Town

**H. Municipal Planning Board Notification**

Notice to Applicant:

Section H should be completed and submitted along with the original application material.

MassDOT Highway Division  
Name of Applicant

former Lowell Secondary Railroad Line      Assabet River      Concord  
Project street address      Waterway      City/Town

Description of use or change in use:  
Water dependent shared use path crossing facility (Bruce Freeman Rail Trail Phase 2C over the Assabet River)

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**To be completed by municipal clerk or appropriate municipal official:**

"I hereby certify that the project described above and more fully detailed in the applicant's waterways license application and plans have been submitted by the applicant to the municipal planning board."

Marcia Rasmussen      10/19/15  
Printed Name of Municipal Official      Date

Marcia Rasmussen      Director P&LM      Concord  
Signature of Municipal Official      Title      City/Town

**Note:** Any comments, including but not limited to written comments, by the general public, applicant, municipality, and/or an interested party submitted after the close of the public comment period pertaining to this Application shall not be considered, and shall not constitute a basis for standing in any further appeal pursuant to 310 CMR 9.13(4) and/or 310 CMR 9.17.

## Appendix A: License Plan Checklist

### General View

- PE or RLS, as deemed appropriate by the Department, stamped and signed, in ink, each sheet within 8 1/2 inch by 11 inch border
- Format and dimensions conform to "Sample Plan" (attached)
- Minimum letter size is 1/8 of an inch if freehand lettering, 1/10 of an inch if letter guides are used
- Sheet number with total number in set on each sheet
- Title sheet contains the following in lower left: Plans accompanying Petition of [Applicant's name, structures and/or fill or change in use, waterway and municipality]
- North arrow
- Scale is suitable to clearly show proposed structures and enough of shoreline, existing structures and roadways to define its exact location
- Scale is stated & shown by graphic bar scale on each sheet
- Initial plans may be printed on bond; final plans due before License issuance must be on 3mil Mylar.

### Structures and Fill

- All Structures and Fill shown in full BLACK lines, clearly labeling which portions are existing, which are Proposed and indicating Existing Waterways Licenses
- Cross Section Views* show MHW\* and MLW\* and structure finish elevations
- Dredge or Fill*, actual cubic yardage must be stated and typical cross sections shown
- All Structures and Fill shown in full BLACK lines, clearly labeling which portions are existing, which are Proposed and indicating Existing Waterways Licenses
- Cross Section Views* show MHW\* and MLW\* and structure finish elevations
- Dredge or Fill*, actual cubic yardage must be stated and typical cross sections shown
- Actual dimensions of structures(s) and or fill and the distance which they extend beyond MHW\* or OHW\*
- Change in Use of any structures on site must be stated

\* See 310 CMR 9.02, Waterways Regulations definitions of High Water Mark, Historic High Water Mark, Historic Low Water Mark, and Low Water Mark. *Note:* DEP may, at its discretion, accept appropriately scaled preliminary plans in lieu of the plans described above. In general, DEP will accept preliminary plans only for non-water dependent projects and projects covered by MEPA to address site design components such as visual access, landscaping & site coverage. *Anyone wishing to submit preliminary plans must obtain prior approval of the DEP Waterways Program before submitting them with their application.*

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## Appendix A: License Plan Checklist (cont.)

### Boundaries

- Property lines, full black lines, \_\_\_\_\_, along with abutters' names and addresses
- Mean High Water (MHW)\* or Ordinary High Water (OHW)\*, full black line \_\_\_\_\_
- Mean Low Water (MLW)\*, black dotted line, (.....)
- Historic MHW\* or OHW\* (— — — —)
- Historic MLW\* (... ..)
- State Harbor Lines, black dot-dash line ( - . - . - ) with indication of Chapter & Act establishing them (Ch. , Acts of )
- Reference datum is National Geodetic Vertical Datum (NGVD) or (NAVD).
- Floodplain Boundaries according to most recent FEMA maps
- Proposed & Existing Easements described in metes & bounds

### Water-Dependent Structures

- Distance from adjacent piers, ramps or floats (minimum distance of 25' from property line, where feasible)
- Distance from nearest opposite shoreline
- Distance from outside edge of any Navigable Channel
- Access stairs at MHW for lateral public passage, or 5 feet of clearance under structure at MHW.

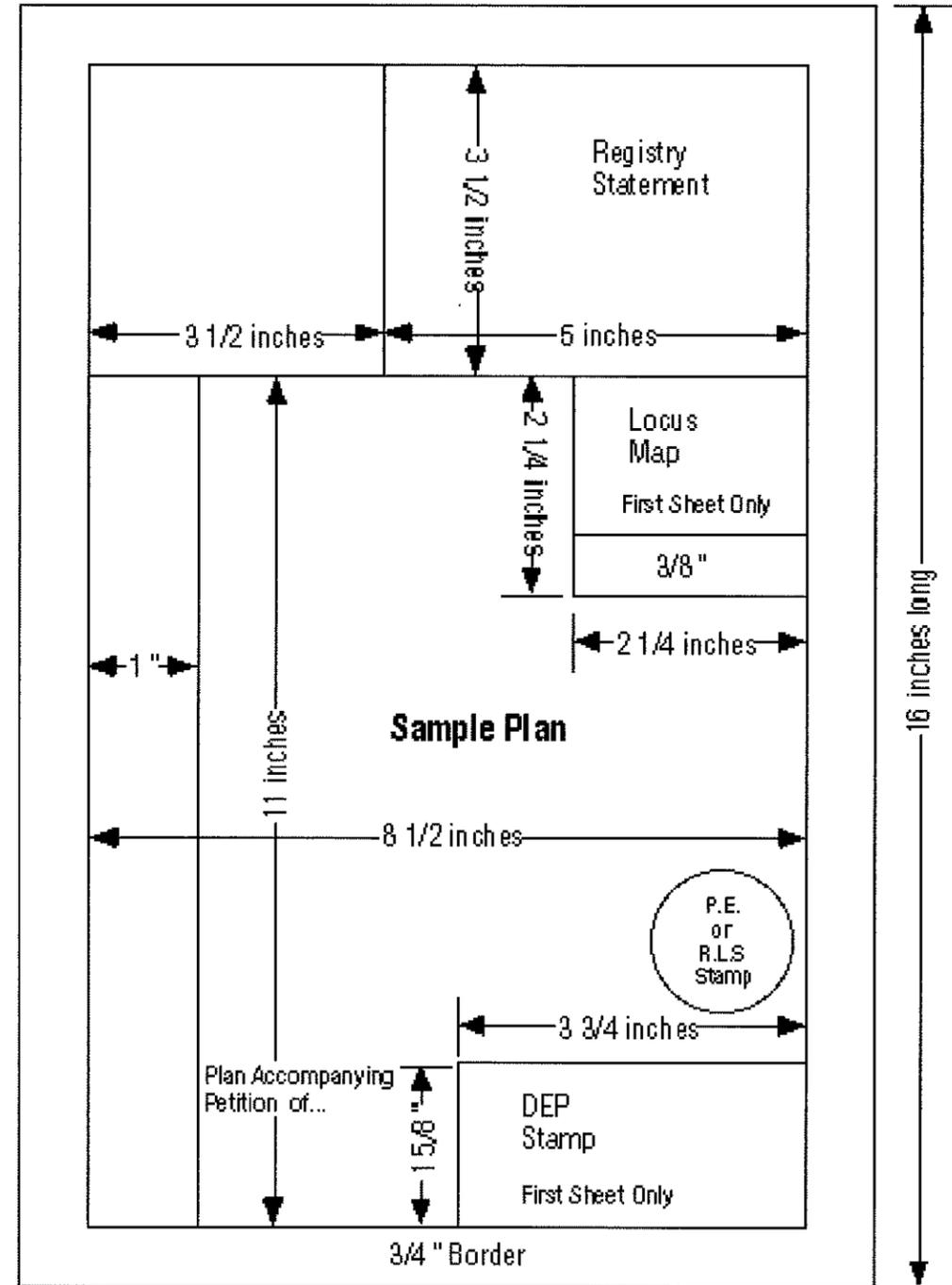
### Non Water-Dependent Structures

- Depict extent of "Water-dependent Use Zone".

*See Waterways Regulations at 310 CMR 9.51-9.53 for additional standards for non water-dependent use projects.*

**Note:** Final Mylar project site plans will be required upon notice from the Department, prior to issuance of the Chapter 91 Waterways License.

**Appendix A: License Plan Checklist Cont.**



## Appendix B: Dredging Permit Plan Checklist

*For projects applying for dredging permits only, enclose drawings with the General Waterways Application that include the following information:*

### General View

- Submit one original of all drawings. Submit the fewest number of sheets necessary to adequately illustrate the project on 8-1/2 inch X 11 inch paper.
- A 1-inch margin should be left at the top edge of each drawing for purposes of reproduction and binding. A 1/2 inch margin is required in the three other edges.
- A complete title block on each drawing submitted should identify the project and contain: the name of the waterway; name of the applicant; number of the sheet and total number of sheets in the set; and the date the drawing was prepared.
- Use only dot shading, hatching, and dashed or dotted line to show or indicate particular features of the site on the drawings.
- If deemed appropriate by the Department, certification by the Registered Professional Engineer or Land Surveyor is included.

### Plan View

- North Arrow
- Locus Map
- Standard engineering scale.
- Distances from channel lines and structures if appropriate.
- Mean high water and mean low water shorelines (see definitions of "High Water Mark" and "Low Water Mark" at 310 CMR 9.02, C. 91 Regulations).
- Dimensions of area proposed to be dredged or excavated.
- Notation or indication of disposal site.
- Volume of proposed dredging or excavation.
- Ordinary high water, proposed drawdown level, and natural (historic) high water (for projects lowering waters of Great Ponds).

### Section Views

- Existing bottom and bank profiles.
- Vertical and/or horizontal scales.
- Proposed and existing depths relative to an indicated datum.
- Elevation and details of control structure (for projects lowering waters of Great Ponds).

## Appendix C: Application Completeness Checklist

Please answer all questions in the General Waterways Application form. If a question does not apply to your project write "not applicable" (n/a) in that block. Please print or type all information provided on the form. Use black ink (blue ink or pencil are not easily reproducible, therefore, neither will be accepted). If additional space is needed, attach extra 8-1/2" x 11" sheets of paper.

- Proper Public Purpose:** For nonwater-dependent projects, a statement must be included that explains how the project serves a proper public purpose that provides greater benefit than detriment to public rights in tidelands or great ponds and the manner in which the project meets the applicable standards. If the project is a nonwater-dependent project located in the coastal zone, the statement should explain how the project complies with the standard governing consistency of the policies of the Massachusetts Coastal Zone Management Program, according to 310 CMR 9.54. If the project is located in an area covered by a Municipal Harbor Plan, the statement should describe how the project conforms to any applicable provisions of such plan pursuant to 310 CMR 9.34(2).
- Plans:** Prepared in accordance with the applicable instructions contained in Appendix A-B of this application. For initial filing, meet the requirements of 310 CMR 9.11(2)(b)(3).
- Applicant Certification:** All applications must be signed by "the landowner if other than the applicant. In lieu of the landowner's signature, the applicant may provide other evidence of legal authority to submit an application for the project site." If the project is entirely on land owned by the Commonwealth (e.g. most areas below the current low water mark in tidelands and below the historic high water mark of Great Ponds), you may simply state this in lieu of the "landowner's signature".
- Municipal Zoning Certification:** If required, applicants must submit a completed and signed Section E of this application by the municipal clerk or appropriate municipal official or, for the initial filing, an explanation of why the form is not included with the initial application. If the project is a public service project subject to zoning but will not require any municipal approvals, submit a certification to that effect pursuant to 310 CMR 9.34(1).
- Municipal Planning Board Notification:** Applicants must submit a copy of this application to the municipal planning board for the municipality where the project is located. Submittal of the complete application to DEP must include Section H signed by the municipal clerk, or appropriate municipal official for the town where the work is to be performed, except in the case of a proposed bridge, dam, or similar structure across a river, cove, or inlet, in which case it must be certified by every municipality into which the tidewater of said river, cove, or inlet extends.
- Final Order of Conditions:** A copy of one of the following three documents is required with the filing of a General Waterways Application: (1) the Final Order of Conditions (with accompanying plan) under the Wetlands Protection Act; (2) a final Determination of Applicability under that Act stating that an Order of Conditions is not required for the project; or (3) the Notice of Intent for the initial filing (if the project does not trigger review under MEPA).
- Massachusetts Environmental Protection Act (MEPA):** MGL 30, subsections 61-61A and 301 CMR 11.00, submit as appropriate: a copy of the Environmental Notification Form (ENF) and a Certificate of the Secretary of Environmental Affairs thereon, or a copy of the final Environmental Impact Report (EIR) and Certificate of the Secretary stating that it adequately and properly complies with MEPA; and any subsequent Notice of Project change and any determination issued thereon in accordance with MEPA. For the initial filing, only a copy of the ENF and the Certificate of the Secretary thereon must be submitted.

**Note:** If the project is subject to MEPA, the Chapter 91 Public Notice must also be submitted to MEPA for publication in the "Environmental Monitor". MEPA filing deadlines are the 15<sup>th</sup> and 30<sup>th</sup> of each month.

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**Appendix C: Application Completeness Checklist (cont.)**

- Water Quality Certificate:** if applicable, pursuant to 310 CMR 9.33, is included.
- Other Approvals:** as applicable pursuant to 310 CMR 9.33 or, for the initial filing, a list of such approvals which must be obtained.

**Projects involving dredging:**

- The term "dredging" means the removal of materials including, but not limited to, rocks, bottom sediments, debris, sand, refuse, plant or animal matter, in any excavating, clearing, deepening, widening or lengthening, either permanently or temporarily, of any flowed tidelands, rivers, streams, ponds or other waters of the Commonwealth. Dredging includes improvement dredging, maintenance dredging, excavating and backfilling or other dredging and subsequent refilling. Included is a completed and signed copy of Part F of the application.

**Filing your Completed General Waterways Application:**

- For all Water-Dependent applications** – submit a completed General Waterways Application and all required documentation with a *photocopy* of both payment check and DEP's *Transmittal Form for Permit Application & Payment* to the appropriate DEP Boston or regional office (please refer to Pg. 10 of the "Instructions" for the addresses of DEP Regional Offices).
- For all Non Water-Dependent applications** – submit a completed General Waterways Application and all required documentation with a *photocopy* of both payment check and DEP's *Transmittal Form for Permit Application & Payment* to DEP's Boston office.

Department of Environmental Protection  
Waterways Regulation Program  
One Winter Street  
Boston, MA 02108

- Application Fee Payment for ALL Waterways Applications:** Send the appropriate Application fee\* (please refer to Page 1 of the "Application"), in the form of a check or money order, along with DEP's *Transmittal Form for Permit Application & Payment*.

Department of Environmental Protection  
P.O. Box 4062  
Boston, MA 02211

\* Under extreme circumstances, DEP grants extended time periods for payment of license and permit application fees. If you qualify, check the box entitled "Hardship Request" on the *Transmittal Form for Permit Application & Payment*. See 310 CMR 4.04(3)(c) to identify procedures for making a hardship request. Send hardship request and supporting documentation to the above address.

**NOTE:** You may be subject to a **double application fee** if your application for Chapter 91 authorization results from an enforcement action by the Department or another agency of the Commonwealth or its subdivisions, or if your application seeks authorization for an existing unauthorized structure or use.



**Bruce Freeman Rail Trail over Assabet River – Bridge Construction and  
Transportation Improvements  
Concord, Massachusetts  
Project File No. 605189 – MassDEP Transmittal X266755**

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1.0 Project Description  
Introduction  
Existing Conditions  
Proposed Project  
Anticipated Construction Sequence

2.0 Jurisdiction

3.0 Basic License Requirements

4.0 Summary

Attachments

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**Bruce Freeman Rail Trail over Assabet River – Bridge Construction and Transportation Improvements  
Concord, Massachusetts  
Project File No. 605189 – MassDEP Transmittal X266755**

**1.0 Project Description**

**Introduction**

The Massachusetts Department of Transportation (MassDOT) Highway Division is proposing to construct a bridge over the Assabet River along the former Lowell Secondary railroad line. The project also includes the construction of approximately 3.08 miles of the Bruce Freeman Rail Trail (BFRT) through Concord. The work generally extends from just north of Commonwealth Avenue to the Sudbury Town Line along the former railroad right-of-way.

The purpose of the project is to construct a multi-use trail through Concord. The bridge will require reconstruction to accommodate the trail. The project will continue construction of the BFRT. The BFRT is a multi-use recreational trail through the communities of Lowell, Chelmsford, Westford, Carlisle, Acton, Concord, Sudbury and Framingham, Massachusetts. The sections through Lowell, Chelmsford and most of Westford are complete. Construction of the remaining section of Westford, Carlisle and Acton began in June 2015. This project will construct the BFRT through Concord from just north of Commonwealth Avenue to the Sudbury Town Line.

**Existing Conditions**

**Project Location and Limits:** Phase 2C of the BFRT begins 380 feet north of Commonwealth Avenue in Concord and continues southerly to cross Commonwealth Avenue and the Nashoba Brook to the West Concord MBTA Commuter Rail parking lot. The trail then follows an abandoned railroad spur owned by the Executive Office of Transportation and Construction (EOTC) to the west side of the Commuter Rail parking lot and crosses the lot to a new railroad crossing at the active Fitchburg Commuter Rail line. From the new crossing, the trail will head east behind Woods Hill Table (the former West Concord Supermarket) and around the Club Car Café to Junction Park. The trail then crosses Main Street to get back onto the former Lowell Secondary Line right of way. The trail continues south along the right of way, across the proposed bridge over the Assabet River, and crossing Old Marlboro Road, Williams Road and under Powder Mill Road to end at the Sudbury Town Line.

**Ownership:** The trail traverses former railroad right-of-way which is owned by the MassDOT Rail Division and the Town of Concord. Temporary and permanent easements will be needed from private property for work outside these areas.

**Land Use:** Within the project limits, the Framingham and Lowell Railroad right-of-way is 66 feet for most of its length and is owned by the Massachusetts Department of Transportation (MassDOT) Rail Division. Other sections are 99' and 115.5' in width. The majority of the rail corridor is lined with varying depths of woodland vegetation which provides some screening

between adjacent properties and the corridor. In the immediate commercial/industrial area of West Concord Center, there is limited vegetation.

The majority of the railroad corridor travels through areas characterized by residential, open space and farmland uses. Many of these parcels are owned by the Town of Concord or Commonwealth of Massachusetts. There is a high concentration of commercial / industrial uses between Commonwealth Avenue and the crossing of the Assabet River, along a 0.70 mile section of corridor through the West Concord area.

**Assabet River Crossing:** The assumed date of construction of the original railroad bridge over the Assabet River is 1919, based upon a known date of construction for a similar nearby abutment construction on the rail line. The crossing over the Assabet River consisted of a single span bridge with granite block abutments having mortared joints. The bridge structure has been previously removed, while the abutments remain in place. The centerline of the bridge would have been oriented roughly perpendicular to water flow. The span length is approximated to be 86'-7". Vertical clearance over the observed water would have been approximately 16 feet. The approach path of the rail right-of-way follows a tangent alignment.

Although the superstructure has been previously removed, the abutments remain in place. The abutments are constructed of ashlar stone masonry and are proposed to remain in their existing configuration and be reused. A field assessment was conducted on August 18, 2014 and concluded that the granite block abutments appeared to be in good condition with no indications of settlement at the surface or horizontal bulge of the blocks.

Access to the abutments and proposed bridge structure will be through the proposed trail ROW. Existing approach at both ends of the bridge continues along a tangent alignment. The approaches are currently overgrown with vegetation. A 6-foot chain link fence is installed atop each abutment to restrict access over the abutments.

There are no utilities, buried or overhead, known to be within the railroad right-of-way at the bridge approaches.

**Assabet River:** The Assabet River is one of two major rivers that converges in Concord at the Concord River. The Concord River then flows into the Merrimack River in Lowell and into the ocean at Plum Island. The Rivers fall within the Sudbury-Assabet-Concord (SuAsCo) Watershed which encompasses a large network of tributaries that ultimately flows into the Merrimack River. The watershed has a total drainage area of approximately 377 square miles and encompasses all or part of 36 municipalities and supports a population of 365,000 people. Twenty-nine free-flowing miles of the three major rivers in the SuAsCo Watershed were designated as Wild & Scenic on April 9, 1999. The rivers were recognized for their outstanding ecological, historical, scenic and recreational values, as well as their lasting place in American literature. The project is located in a portion of the Assabet River which has been designated as Wild & Scenic.

**Wetlands and Resource Areas:** The wetland resource area boundaries along the BFRT Phase 2C were delineated in the field by Vanasse Hangen Brustlin, Inc. (VHB) and were confirmed

through issuance of a Superseding Order of Resource Area Delineation (SORAD) from MassDEP Northeast Regional Office on June 26, 2008. MassDEP has extended the SORAD to June 26, 2018.

Resource areas within and adjacent to the footprint of the proposed trail include Bordering Vegetated Wetlands (BVW), Bordering Land Subject to Flooding (BLSF), Riverfront Area (RA), Bank, and Land Under Water (LUW).

BVW/Vegetated Wetlands associated with this section of the BFRT are divided into multiple areas within the Town of Concord that are ultimately hydraulically connected to the Assabet River, Nashoba Brook, Dugan Brook, or White's Pond.

In proximity to the BFRT trail crossing with the Assabet River, palustrine forested deciduous vegetated wetland bordering on the Assabet River lies at the toe of slope on each side of the historic rail bed. Dominant vegetation includes glossy buckthorn, jewelweed (*Impatiens capensis*), poison ivy (*Toxicodendron radicans*), and red maple.

The bridge is located in a National Flood Insurance Program (NFIP) Special Flood Hazard Area (SFHA) Zone AE and spans the regulatory floodway.

Bank boundary identified and delineated within or directly adjacent to the rail ROW is associated with the Assabet River.

A portion of the work in the Concord stretch of the BFRT is within areas Subject to Protection or Jurisdiction. Portions of the project area are within the 100-foot Buffer Zone to BVW and bank or the 200-foot RFA.

A small linear portion of the project is situated within NHESP-mapped Priority Habitat of Rare Species requiring MassDOT-Highway to submit this application to NHESP for Massachusetts Endangered Species Act (321 CMR 10.00) project review. According to the 2008 public mapping, a 1,100 linear foot section of the existing rail ROW is through a NHESP Priority Habitat of Rare Species (PH 126). In 2007, the Town of Concord commissioned VHB to evaluate the natural resources within and adjacent to the entire BFRT LOW. VHB concluded that PH126 supports two threatened plant species – Engelmann's Umbrella-sedge (*Cyperus engelmannii*) and Resupinate Bladderwort (*Utricularia resupinata*), both of which are aquatic plants. The BFRT remains in the ROW in this location and does not involve work in the nearby wetlands. Therefore, the project expects to receive a No Take determination from the NHESP.

**Stormwater:** The existing rail bed is drained by swales and several existing cross culverts.

**Proposed Project**

**Purpose and Need:** The purpose of the project is to construct a non-motorized, ADA-accessible, multi-use trail through the Town of Concord which will serve as a historical, recreational and alternative transportation resource for residents and visitors of all ages and abilities. The bridge will require construction to accommodate the trail.

This project will provide important links both locally and regionally. Development of the rail trail will be a strong addition to the communities' transportation network and will support future bicycle path connections to adjacent communities. The bicycle path will connect the MBTA Commuter Rail facility in West Concord to northern towns along the trail route. The southernmost segment of the trail in Concord will eventually extend south to Sudbury and possibly connect to the Central Mass Rail Trail via the unused railroad right-of-way between Sudbury and Framingham Center. The northernmost segment in Concord will connect to the Phase 2B segment running over Route 2 and ultimately connect to the Phase 1 segment through Chelmsford and Lowell which has already been constructed. In the future, the bicycle path will possibly connect to Framingham Center, thus providing an important link within the regional intermodal transportation network.

The trail will bring recreational users to retail centers and encourage use of existing businesses in these communities. In addition studies have shown that the addition of a trail such as this increases the value of residential property along the path.

The need for alternative transportation modes and corridors, especially in Boston urban and suburban areas has been well documented. This proposed Concord segment of the BFRT provides rail transit access for residents and workers in Concord and surrounding communities. The reduced number of vehicles and reduced congestion will provide an environmental benefit by reducing emissions from these vehicles.

**Improvements:** The proposed trail will consist of a 10 foot paved surface, with two-foot wide stone dust shoulders. The shoulders on the bridges will be paved. The proposed trail is approximately 3.08 miles in length. There will be four (4) locations where the trail crosses existing roadways and vehicle traffic – signage, pavement marking and treatments, and Rectangular Rapid Flashing Beacons will be provided based upon conditions at each crossing. There will be one (1) location where the trail crosses beneath an existing roadway through a tunnel, and one (1) location where the trail crosses an active railroad utilized by the Fitchburg Commuter Rail line.

The Trail will incorporate proposed landscaping and enhance existing landscaping creating a natural trail user experience. At 5 locations where there is a change from developed trail sections to wooded trail sections, a trail head raised splitter island will be placed to define and separate the trail from the standard sidewalks.

Three (3) parking lots are proposed along the trail alignment. The first is located off Commonwealth Avenue near the trail commencement and provides twenty-one (21) parking spaces. The second proposed parking area is an extension of the existing parking lot located approximately 300 feet south of the Nashoba Brook crossing in West Concord Center and provides an additional seventeen (17) parking spaces. The final proposed parking area is located parallel to Beharrel Street in West Concord Center and provides thirty-three (33) parking spaces.

The project will also include the rehabilitation of the existing three span built-up deck girder bridge over Nashoba Brook (Bridge C-19-032). The existing structural steel framing will be

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**CHAPTER 91 WATERWAYS LICENSE APPLICATION**

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Bruce Freeman Rail Trail Phase 2C, Concord, Massachusetts

retained, cleaned, and painted. The concrete deck will remain in place and receive repairs. The proposed trail, rest area, and timber railings will be constructed on the existing bridge.

**Description of Proposed Assabet River Bridge (Bridge C-19-031):** The bridge is proposed to be a prefabricated arched top chord steel truss structure with an 87'-0" span. The pedestrian bridge will consist of welded tube steel (painted) supporting an 8" cast in place reinforced concrete deck with 2" of Superpave wearing surface at 1/16" per foot cross slope. The deck will be supported by stringers and transverse floor beams. Steel pedestrian handrails will be attached to both sides of the truss members.

The superstructure will be supported by the existing stone masonry abutments to remain in place. Partial removal of these existing abutments will be required to allow for construction of the proposed reinforced concrete abutment caps, which will be doveled into the existing stone.

The bridge will be designed in accordance with AASHTO LRFD Guide Specifications for the Design of Pedestrian Bridges for pedestrian and H-10 vehicular loading.

Vertical clearance over the Assabet River shall match the previous bridge closely considering the remaining bridge seats on the abutments will be reused. The vertical clearance from the Assabet River is expected to provide approximately 2 feet above the 100 year flood elevation.

**Stormwater Management:** The existing flow patterns will not be altered with the construction of the bike trail. All existing drainage will be upgraded according to MassDOT criteria. The proposed rail trail is classified as a redevelopment project under the Stormwater Management Standards established in the Massachusetts Wetland Regulations, 310 CMR 10.00. As such, the Project is required to meet the Stormwater Management Standards to the maximum extent practicable. Several types of stormwater Best Management Practices (BMPs) are proposed to be constructed in proximity to the Nashoba Brook Bridge and Warners Pond at the north end of the project. Stormwater BMPs will include the following:

- an infiltration trench adjacent to the multi-use path in the vicinity of the existing Executive Office of Transportation Railroad Spur;
- leaching structures associated with catch basins at proposed parking areas;
- a bioretention area adjacent to the proposed parking area at Nashoba Brook;
- pervious pavers for rest areas on their side of the Nashoba Brook Bridge; and
- an infiltration basin with a sediment forebay at the northernmost parking lot off of Commonwealth Avenue.

**Waterways Impacts:**

The BFRT 2C Project does not propose any permanent BVW impacts within the town of Concord. BFRT Phase 2C will result in a total of 273 sf of temporary BVW impact to accommodate work associated with the replacement of an existing 30" RCP and headwalls.

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Bruce Freeman Rail Trail Phase 2C, Concord, Massachusetts

No impacts to BLSF will occur in Concord as a result of the BFRT 2C Project. The bridge construction over the Assabet River will not necessitate any filling of FEMA Flood Zones. The low chord of the bridge is above the 100 year flood plain.

Riverfront Area (RA) exists within the proposed project site in association with Dugan Brook, the Assabet River and Nashoba Brook. Since historic railroads typically followed rivers, rail trail linear projects routinely result in quantifiable impacts to Degraded and in limited amounts, undisturbed RA. A total of 36,664 sf or approximately 28% of the total 128,069 sf of RA within project limits will be impacted as a result of this public project. All of the impacts are within Previously Degraded RA. Additionally, a portion of the impacts will be considered temporary, as the improvements will result in installation of compost topsoil and seed, restoring the previously degraded RA in these locations. Approximately 8,882 sf of the RA impacts are temporary in nature.

The BFRT Phase 2C project has been designed to minimize impacts to RA to the extent possible. The BFRT is centered on the existing rail ballast, containing all construction impacts on Previously Degraded land and the proposed horizontal and vertical alignments were established to minimize impacts. Since historic railroads typically followed rivers, rail trail projects routinely involve quantifiable impacts to degraded, Previously Developed and urban developed RA.

Bank boundary identified and delineated within or directly adjacent to the rail ROW is associated with the Assabet River, Dugan Brook, Nashoba Brook, White Pond, and unnamed intermittent streams. Some Bank boundaries directly adjacent to the ROW/rail bed have been confirmed under the SORAD process. The proposed work will not result in any temporary or permanent impacts to Bank.

Land Under Water (LUW) is located in and adjacent to the linear project locus and is generally associated with White Pond, Dugan Brook, the Assabet River, Nashoba Brook, and intermittent streams. Some LUW boundary directly adjacent to the ROW/rail bed have been confirmed under the SORAD process.

The project as proposed results in 112 sf of temporary alteration to LUW to accommodate work associated with the replacement of an existing 30" RCP and headwalls at Dugan Brook. There will also be a gain in LUW due to the increased size of the proposed culvert in an effort to meet Stream Crossing Standards to the maximum extent practicable. Flow within the stream will be bypassed if necessary but it is expected that permit conditions will require that culvert replacement will be conducted during low or now flow conditions. Temporary impacts will be fully restored in place.

The July 7, 2014 FEMA Flood Insurance Rate Maps (FIRM) for the BFRT Phase 2C project limits are designated as map numbers 25017C0367F and 25017C0359F. The Base Flood Elevation (BFE) for the Nashoba Brook and the Assabet River at the location of the BFRT crossing is 123.8 and 124.0 feet NAVD, respectively. All BFRT Phase 2C work will occur above the BFE.

## CHAPTER 91 WATERWAYS LICENSE APPLICATION

Bruce Freeman Rail Trail Phase 2C, Concord, Massachusetts

The FIRM maps indicate the proposed trail traversing Special Flood Hazard Areas: Zone AE and Floodway Areas in Zone AE. Zone AE are areas subject to inundation by the 1% annual chance flood (100-year flood) with the flood elevation determined. The floodway is the channel of the stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 100-year flood can be carried without substantial increases in flood heights.

The bridge work will occur entirely above the FEMA Zone AE Flood Zone BFE and therefore will not result in temporary or permanent impacts to BLSF or the placement of fill below the 100-year floodplain.

**Waterways Mitigation:** BFRT design and construction plans were developed to avoid, minimize and mitigate impacts to wetland resource areas, wildlife habitat, and other sensitive areas. Mitigation measures provided for unavoidable impacts allow the project to be conditioned to comply with the General Performance Standards in the Wetland Regulations to contribute to the interests found in the Massachusetts Wetland Protection Act. Impacts to areas subject to protection including LUW have been compensated for through in-place restoration of the proposed temporary impact areas.

As no impacts to BLSF are proposed, no floodplain compensation will be provided.

**Construction Phase Soil Erosion/Sediment Control:** Erosion and sedimentation controls will be installed and maintained where activities are proposed within 100-feet of BVW, RFA, or LUW. They will provide a limit of work barrier while preventing silt and sediments from migrating into or towards the wetland resource areas. Inspectors will assess conditions and identify problems in the field during and after construction activities.

Erosion controls shall consist straw bales, compost filter tubes or silt fence. No hay bales shall be used at any time on this project. The erosion and sedimentation control measures will be constructed in accordance with the Massachusetts Erosion and Sediment Control Guidelines for Urban and Suburban Areas, March 1997 and the U.S.D.A. SCS's Erosion and Sediment control in the Site Development, Massachusetts Conservation Guide, September - 1983. The areas will be seeded with a seed mix that provides wildlife habitat as designed by NHESP and MassDOT. Best management practices for erosion and sedimentation control will be adhered to for all phases of construction to minimize potential impacts to wetland resource areas and wildlife habitat.

As per the standard, the contractor will be responsible for obtaining the NPDES Construction General Permit. A Stormwater Pollution Prevention Plan (SWPPP) will be submitted prior to any land disturbance.

### Anticipated Construction Sequence

Construction of Phase 2C of the Bruce Freeman Rail Trail is expected to commence in the spring of 2017. The contractor will be responsible for selecting the means and methods to be used in the construction execution of the project in accordance with the contract documents. However, this permit application includes a listing of the anticipated construction sequence.

**Site Preparation**

- Mobilize equipment, materials and personnel;
- Install erosion and sedimentation control measures to protect downgradient resource areas and demarcate the limit of work;
- Install turbidity screens prior to any in-water construction activities to contain debris and sediment;
- Employ standard control measures during bridge demolition activities to ensure debris is not released into the waterway;
- Compliance with any pre-construction conditions outlined in the Order of Conditions and any other required permits;

**Demolition**

- Installation of a shielding system to prevent debris from falling into the water;
- Clearing and grubbing of existing vegetation within proposed project limits;
- Removal of chain link fencing installed above existing abutments;
- Excavation behind the existing stone abutment walls to a depth of 2 to 3 feet to allow for minor abutment construction and site grading.

**Construction**

- Placement of concrete at the proposed abutment seats to allow for the bridge to be installed at the correct geometry;
- Installation of prefabricated truss bridge using a crane based on land behind the abutments;
- Backfill of soil behind the existing abutments;
- Construction of approach slabs;
- Installation of bridge railing;
- Approach path construction and sideslope grading;
- Pavement marking;

**Project Close-Out**

- Restore the work area, including seeding of all disturbed vegetated areas (e.g. upland slopes), and install erosion control measures as needed to prevent erosion during the establishment of vegetation.
- Remove erosion control measures once vegetated areas are stabilized, restore property and infrastructure disturbed during work, and demobilize.
- Monitor the site and, if necessary, re-seed areas where vegetation has not established and/or repair areas of erosion.

**2.0 Jurisdiction**

The bridge proposed as part of this project is located over the Assabet River where no bridge exists currently. The project is subject to M.G.L. Chapter 91 and 310 CMR 9.00 jurisdiction due to the proposed structure.

Pursuant to regulation 310 CMR 9.12 (2)(a)4 in the case of a pedestrian facility located in inland waters, it is assumed that the bridge construction is water-dependent. The existing railroad corridor crosses the Assabet River. In order to utilize the railroad corridor for construction of the project, a crossing must be constructed. The construction of this structure over the Assabet River is presumed to provide a greater benefit than detriment to the rights of the public and is therefore in compliance with Chapter 91 and its regulations at 310 CMR 9.31(2).

**3.0 Basic License Requirements**

In accordance with the requirements of 310 CMR 9.31(1), the project exceeds compliance with the basic requirements for license issuance. The proposed project:

- a) includes only structures for uses that have been categorically determined to be eligible for a license, according to the provisions of 310 CMR 9.32(a)1 and 310 CMR 9.32(a)2;
- b) complies with applicable environmental regulatory programs of the Commonwealth, according to the provisions of 310 CMR 9.33:
  - An Environmental Notification Form (ENF) will be filed under the Massachusetts Environmental Policy Act (MEPA) Regulations in July of 2015, due to the alteration of one half or more acres of any other wetlands (e.g., Riverfront) [301 CMR 11.03(3)(b)1f]. After review of the ENF, pursuant to the Massachusetts Environmental Policy Act (MEPA) (G.L.c.30,ss.61-62I and Section 11.06 of the MEPA regulations (301 CMR 11.00), it is anticipated that the Secretary of Energy and Environmental Affairs will issue a Certificate stating that the proposed project does not require the preparation of an Environmental Impact Report (EIR).
  - Notice of Intent will be filed with the Concord Natural Resources Commission in August of 2015.
  - The proposed project will require more than one acre of earth disturbance and, therefore, a Stormwater Construction General Permit in accordance with Phase II of the Environmental Protection Agency's National Pollutant Discharge Elimination System (NPDES) program will be filed prior to construction.
  - It is anticipated that the project will be issued a no adverse effect finding under Section 106.

**CHAPTER 91 WATERWAYS LICENSE APPLICATION**

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Bruce Freeman Rail Trail Phase 2C, Concord, Massachusetts

- c) the project area is not part of a municipal harbor plan, and is exempt from local zoning law, and therefore is in compliance with the provisions of 310 CMR 9.34;
- d) complies with applicable standards governing the preservation of water-related public rights, according to the provisions of 310 CMR 9.35. Proposed vertical and horizontal bridge clearances approximately match that of the existing prior to its removal and exceed the minimum size necessary to achieve the intended use. Construction of the bridge and the BFRT will improve pedestrian access over the Assabet River;
- e) complies with applicable standards governing the protection of water-dependent uses, according to the provisions of 310 CMR 9.36. The project will have no impacts to private access to littoral or riparian areas. The project does not include any non-water-dependent uses, and will not displace any existing or former water-dependent uses on the site. The project is not located in a Designated Port Area and will not permanently interfere with any water-dependent uses currently in operation or previously occurring within the Assabet River;
- f) complies with applicable standards governing engineering and construction of structures, according to the provisions of 310 CMR 9.37;
- g) the project will not interfere with public recreational or commercial boating facilities, and is in compliance with the provisions of 310 CMR 9.38 and 9.39.
- h) does not deny access to its services and facilities to any person in a discriminatory manner, as determined in accordance with the constitution of the Commonwealth of Massachusetts, of the United States of America, or with any statute, regulation, or executive order governing the prevention of discrimination.

This water-dependent project also serves a proper public purpose, providing a multi-use trail through Concord.

**4.0 Summary**

The proposed construction of the bridge over the Assabet River and associated transportation improvements are water-dependent activities, pursuant to 310 CMR 9.12(2)(a)4. No additional structures or fill will be placed in the channel that will interfere with the public rights of free passage over and through the water. Work will not adversely affect the depth or width of the existing channel and the MassDOT Hydraulic Study indicates the floodway and flood elevation will not be impacted as a result of this project. There are no proposed measures that would significantly restrict access to the River. The new bridge structure, multiuse path, and stormwater improvements will provide greater benefit than detriment to the public and therefore qualifies for licensure under M.G.L. Chapter 91 and its regulations (310 CMR 9.00).

**CHAPTER 91 WATERWAYS LICENSE APPLICATION**

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Bruce Freeman Rail Trail Phase 2C, Concord, Massachusetts

**Bruce Freeman Rail Trail over Assabet River – Bridge Construction and  
Transportation Improvements  
Concord, Massachusetts  
Project File No. 605189 – MassDEP Transmittal X266755**

**List of Attachments**

ATTACHMENT A	License Plans
ATTACHMENT B	Project Abutters
ATTACHMENT C	FEMA Flood Map
ATTACHMENT D	Mass DEP Bureau of Waste Site Cleanup MCP Numerical Ranking System Map
ATTACHMENT E	Site Photographs
ATTACHMENT F	Hydraulic Study
ATTACHMENT G	MEPA Environmental Notification Form

**Additional Items to be Forwarded to DEP Upon Receipt**

Final Order of Conditions for Project Construction  
EOEA Secretary Certificate

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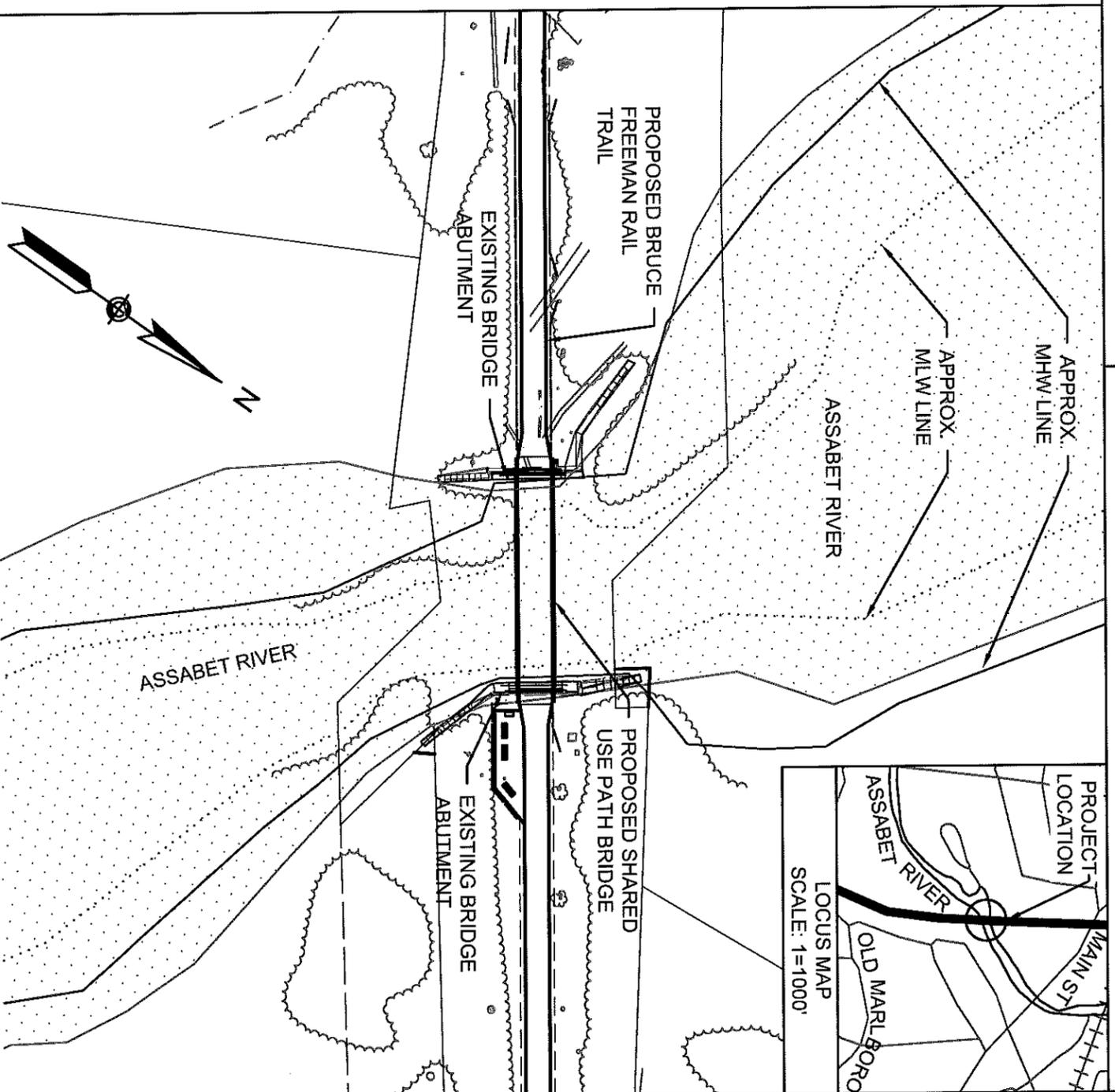
**ATTACHMENT A**  
**License Plans**

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- Sheet 1: Vicinity Plan
- Sheet 2: Existing Plan
- Sheet 3: Proposed Plan
- Sheet 4: Transverse and Longitudinal Bridge  
Sections

I CERTIFY, THIS PLAN, AS PREPARED,  
CONFORMS TO THE RULES AND  
REGULATIONS OF THE REGISTRY OF DEEDS

PROFESSIONAL ENGINEER      DATE



**GENERAL NOTES**

1. ALL ELEVATIONS ARE REFERENCED TO NAVD88
2. APPROXIMATE BASE FLOOD ELEVATION (BFE) AT 126.00 (FROM FEMA PANEL 0359 MIDDLESEX COUNTY, MA 7/7/2014)
3. APPROXIMATE MEAN HIGH WATER (MHW) AT 120.00
4. APPROXIMATE MEAN LOW WATER (MLW) AT 112.00

**VICINITY PLAN**



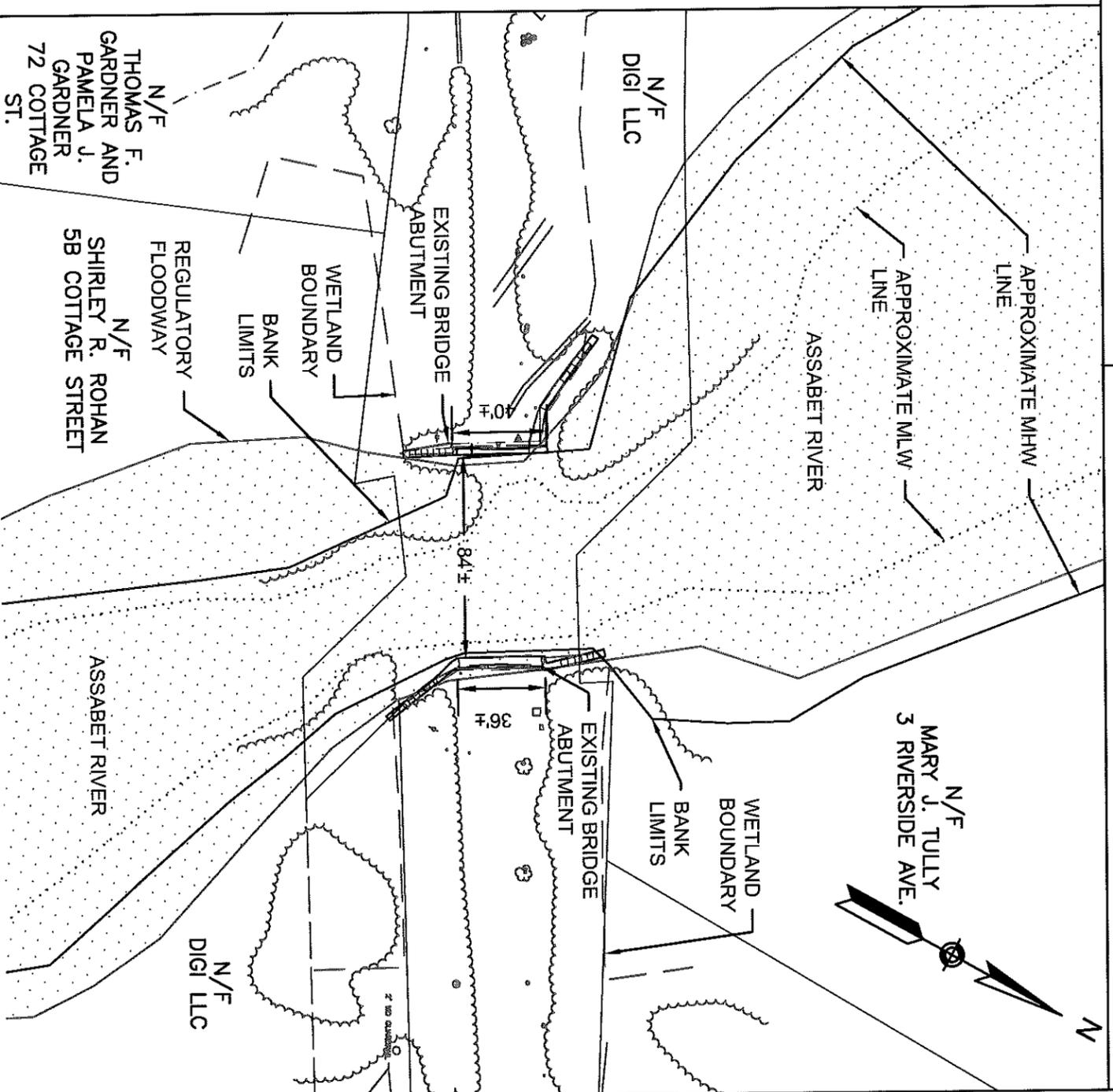
SHEET 1 OF 4

PLAN ACCOMPANYING PETITION OF  
MASSDOT PROPOSED REPLACEMENT  
OF THE BRIDGE OVER THE ASSABET  
RIVER, CONCORD, MIDDLESEX COUNTY,  
MASSACHUSETTS



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NOTES  
1. SEE SHEET 1 FOR  
GENERAL NOTES

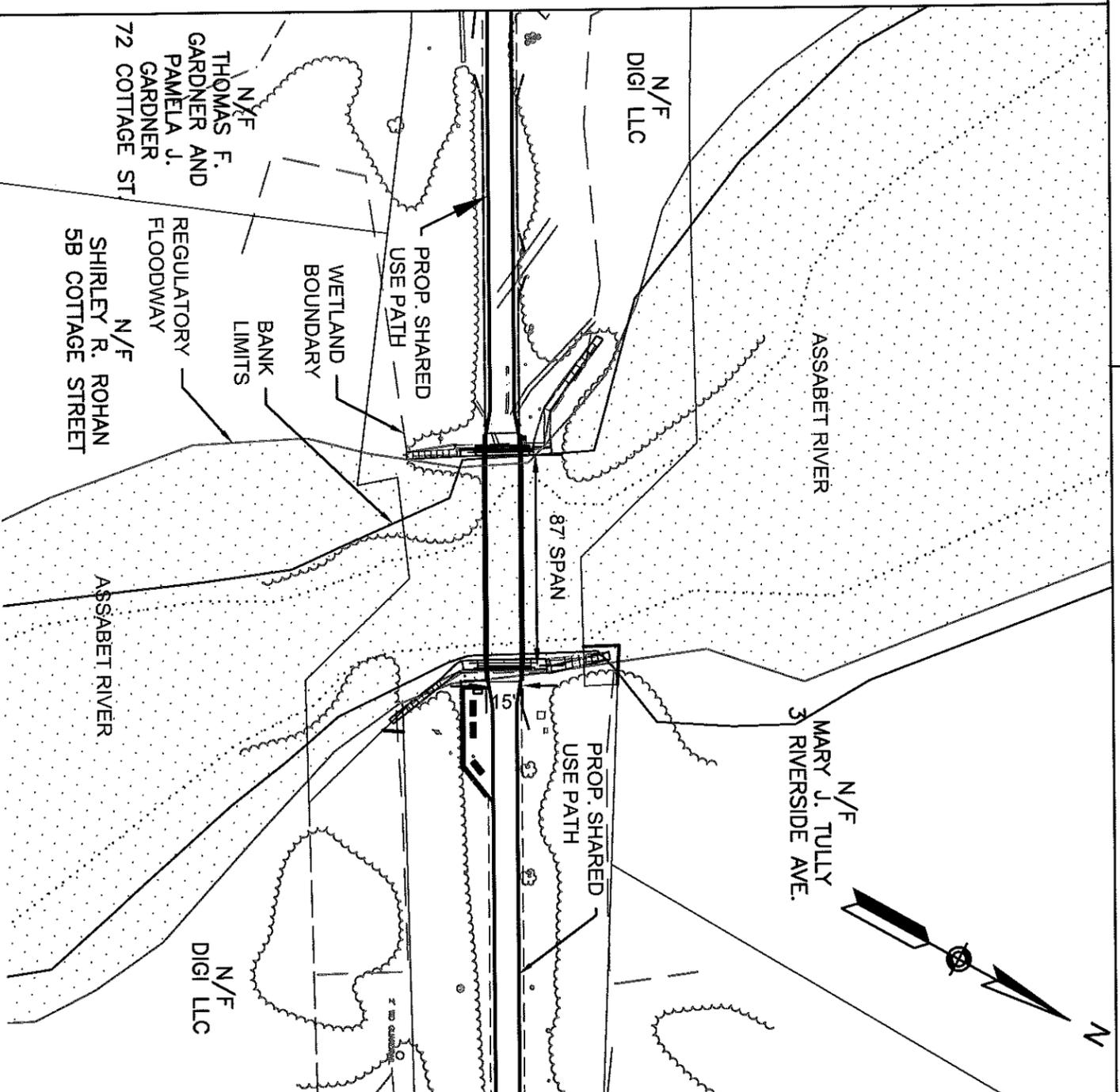


PLAN ACCOMPANYING PETITION OF  
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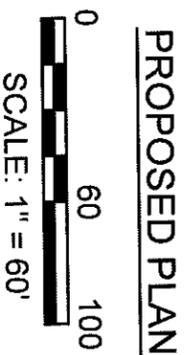


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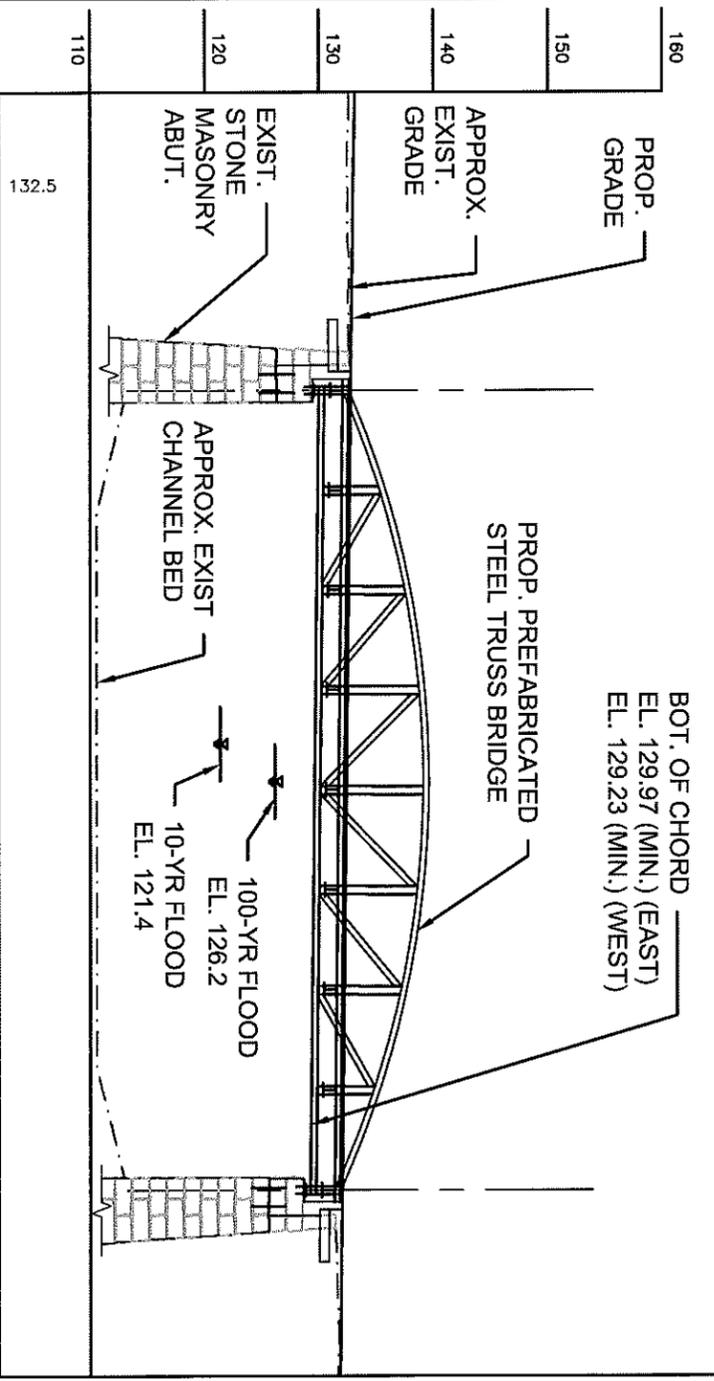
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SHEET 3 OF 4

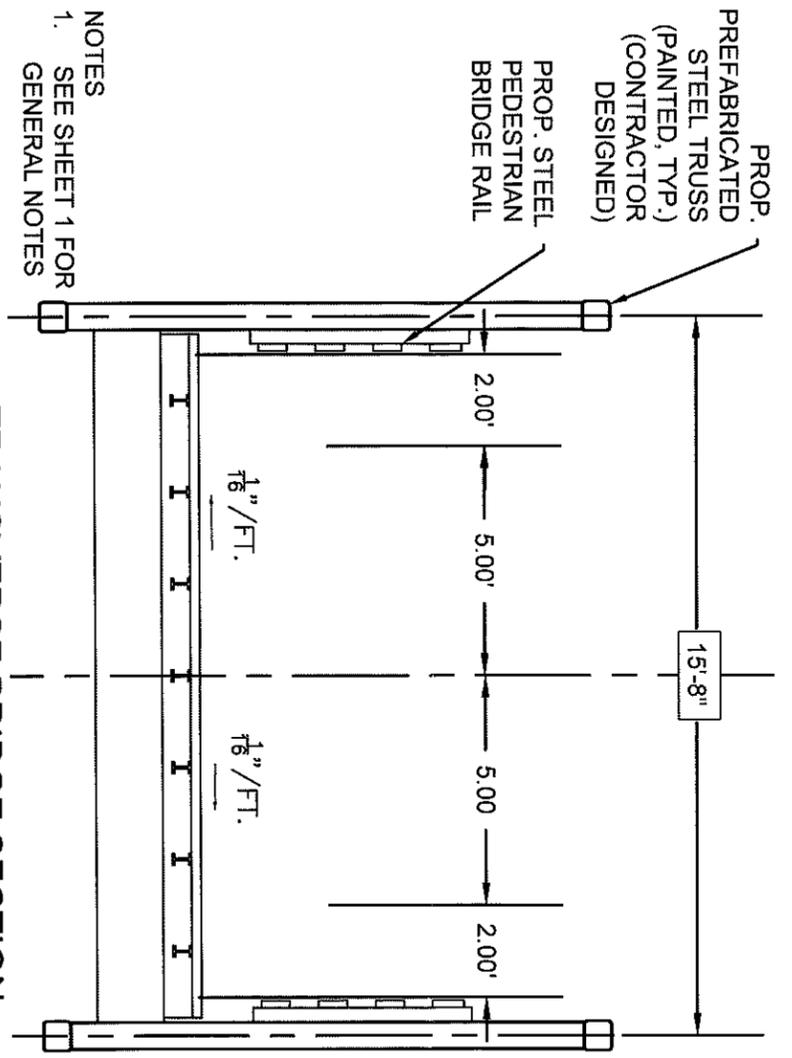


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PROFESSIONAL ENGINEER \_\_\_\_\_ DATE \_\_\_\_\_



**LONGITUDINAL BRIDGE SECTION**  
 SCALE: 1"=20'



**TRANSVERSE BRIDGE SECTION**  
 SCALE: 1/4"=1'-0"

NOTES  
 1. SEE SHEET 1 FOR  
 GENERAL NOTES

PLAN ACCOMPANYING PETITION OF  
 MASSDOT PROPOSED REPLACEMENT  
 OF THE BRIDGE OVER THE ASSABET  
 RIVER, CONCORD, MIDDLESEX COUNTY,  
 MASSACHUSETTS

