

NEW ENGLAND POWER COMPANY

394 Transmission Line and B154/C155 King Street Tap Line Asset Condition Refurbishment Project

Notice of Intent

Haverhill, MA
Conservation Commission
September 2025

Prepared for:

nationalgrid

New England Power Company
170 Data Drive
Waltham, MA 02451

Prepared by:

BSC GROUP 
BUILD | SUPPORT | CONNECT

BSC Group, Inc.
1 Mercantile Street, Suite 610
Worcester, MA 01608

SEPTEMBER 22, 2025

www.bscgroup.com

Haverhill Conservation Commission
Haverhill City Hall
4 Summer Street, Room 300
Haverhill, MA 01830

**RE: Notice of Intent
394 Transmission Line and B154/C155 King Street Tap Line
Asset Condition Refurbishment Project
Haverhill, Massachusetts
New England Power Company**

Dear Members of the Haverhill Conservation Commission:

BSC Group, Inc. (BSC) is filing this Notice of Intent (NOI) on behalf of the New England Power Company (NEP) for maintenance and improvement activities associated with the Line 394 and B154/C155 King Street Tap Line Asset Condition Refurbishment (ACR) Project in Haverhill, Massachusetts (the Project). The Project will involve targeted structure replacements, installation of Optical Ground Wire (OPGW), and reconductoring of the B154 and C155 King Street Tap Lines. In order to support the work, NEP is proposing improvements to structure work pads and the existing access network, with access widening and construction of temporary access in some locations. This NOI is being submitted in accordance with the Massachusetts Wetlands Protection Act (WPA) (*M.G.L. Ch. 131, S.40*), its implementing regulations (*310 CMR 10.00*), and the Town of Haverhill Wetlands Ordinance (*Chapter 253*).

Activities proposed as part of the Project in Haverhill include maintenance and improvement activities at 9 existing structures along the 394 Line, 4 of which are located within jurisdictional Wetland Resource Areas or Buffer Zones. Work is proposed within 100-ft Buffer Zone to Bordering Vegetated Wetlands (BVW) including within the 25-ft No-Disturb Zone, the 50-ft No Build Zone, and within Bordering Vegetated Wetlands (BVW).

Activities will include exempt utility maintenance¹ (structure replacements and overhead work), as well as ancillary activities subject to the Haverhill Conservation Commission's review (including access and work pad improvements/construction). The placement of temporary construction matting for access and work pads in BVW will also be necessary and will be permitted under an Individual Water Quality Certification (WQC) through the Massachusetts Department of Environmental Protection (MassDEP).

This NOI serves as both notification of exempt utility maintenance activities (as described within the main narrative), and a request for an Order of Conditions (OOC) for non-exempt portions of the proposed work. NEP has designed the Project to meet all applicable General Performance

¹ 310 CMR 10.02(2)(a)(2). Activities conducted to maintain, repair, or replace, but not substantially change or enlarge an existing lawfully located structure or facility used in the service of the public to provide electric...services...

Standards of the WPA and the Haverhill Wetlands Protection Bylaw through avoidance, minimization, and mitigation measures as described in further detail in the Project Narrative.

This Project also qualifies as a Limited Project in accordance with the WPA regulations (*310 CMR 10.53(3)(d)*), which allow for “*construction, reconstruction, operation and maintenance of... overhead public utilities...*” provided there are no alternatives, best available measures are used to minimize adverse effects during construction, and that vegetation and existing grades are restored. Best Management Practices (BMPs), including sediment and erosion controls, will be implemented during construction. NEP has performed an analysis of all possible alternatives, and the Project has been designed to avoid and minimize the potential for adverse impacts to wetland resource areas to the greatest extent practicable.

We respectfully request that this matter be heard at the next scheduled Conservation Commission hearing. A copy of this application has been sent to the Northeast Regional Office of the Department of Environmental Protection (NERO) and emailed the Conservation Commission at marsenault@haverhillma.gov.

If you have any questions regarding the enclosed information, please contact me at 617-896-4584 or via email at HRaddatz@bscgroup.com or Andrew Cole of NEP at 508-948-9376 or via email at Andrew.Cole@nationalgrid.com. Thank you for your consideration in this matter.

Truly yours,



Hannah Raddatz
BSC Group, Inc.

Associate, Ecologist

cc: Andrew Cole, NEP
Timothy Sullivan, NEP
NERO

WPA Form 3	Notice of Intent, Schedule 1A, Local Forms
Attachment A	Project Narrative
Attachment B	USGS Locus Map, ER Map
Attachment C	Representative Site Photographs
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Attachment F	Stormwater Checklist

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Attachment B	USGS Site Locus Map Environmental Resources Map
Attachment C	Site Photographs
Attachment D	Certified Abutters List Abutter Notification Letter
Attachment E	National Grid's Best Management Practices
Attachment F	Stormwater Checklist

394 Transmission Line and B154/C155 King Street Tap Line
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WPA Form 3 - Notice of Intent Form
Supplemental Page
Local Forms



Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

WPA Form 3 – Notice of Intent

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

Provided by MassDEP:

MassDEP File Number

Document Transaction Number

Haverhill

City/Town

Important:

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



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

A. General Information

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

394 and B154/C155 Tap Transmission Line
ROW

Haverhill

01835

b. City/Town

c. Zip Code

42.743635, -
71.113905

42.735432, -
71.101157

Latitude and Longitude:

Various - See Attached Supplemental Page

f. Assessors Map/Plat Number

g. Parcel /Lot Number

2. Applicant:

Andrew

Cole

a. First Name

b. Last Name

New England Power Company (NEP)

c. Organization

170 Data Drive

d. Street Address

Waltham

MA

02451

e. City/Town

f. State

g. Zip Code

508-948-9376

h. Phone Number

i. Fax Number

Andrew.Cole@nationalgrid.com

j. Email Address

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

NEP has easement rights - see attached Section
1A

b. Last Name

c. Organization

d. Street Address

e. City/Town

f. State

g. Zip Code

h. Phone Number

i. Fax Number

j. Email address

4. Representative (if any):

Hannah

Raddatz

a. First Name

b. Last Name

BSC Group, Inc.

c. Company

1 Mercantile Street, Suite 610

d. Street Address

Worcester

MA

01608

e. City/Town

f. State

g. Zip Code

617-896-4584

h. Phone Number

i. Fax Number

hraddatz@bscgroup.com

j. Email address

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

\$500.00

\$262.50

\$237.50

a. Total Fee Paid

b. State Fee Paid

c. City/Town Fee Paid



Massachusetts Department of Environmental Protection
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A. General Information (continued)

6. General Project Description:

NEP is proposing to conduct general maintenance & improvement activities along the 394 and B154/C155 King Street Tap transmission lines, including structure replacements, access road improvements, and overhead work. The work is necessary to extend asset life & provide high speed communications between substations.

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

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

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

1. ☒ Yes ☐ No If yes, describe which limited project applies to this project. (See 310 CMR 10.24 and 10.53 for a complete list and description of limited project types)
310 CMR 10.53(3)(d) which allows the "...construction, reconstruction, operation and maintenance of underground and overhead public utilities..."

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

8. Property recorded at the Registry of Deeds for:

Essex South - ROW Easement

a. County

b. Certificate # (if registered land)

See Attached Section 1A

c. Book

d. Page Number

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

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

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



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

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

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

Resource Area	Size of Proposed Alteration	Proposed Replacement (if any)
d. <input type="checkbox"/> Bordering Land Subject to Flooding	1. square feet 3. cubic feet of flood storage lost	2. square feet 4. cubic feet replaced
e. <input type="checkbox"/> Isolated Land Subject to Flooding	1. square feet 2. cubic feet of flood storage lost	3. cubic feet replaced
f. <input type="checkbox"/> Riverfront Area	1. Name of Waterway (if available) - specify coastal or inland	

2. Width of Riverfront Area (check one):

- ☐ 25 ft. - Designated Densely Developed Areas only
- ☐ 100 ft. - New agricultural projects only
- ☐ 200 ft. - All other projects

3. Total area of Riverfront Area on the site of the proposed project: _____ square feet

4. Proposed alteration of the Riverfront Area:

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

5. Has an alternatives analysis been done and is it attached to this NOI? ☒ Yes ☐ No

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

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

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



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

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

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

<u>Resource Area</u>	<u>Size of Proposed Alteration</u>	<u>Proposed Replacement (if any)</u>
a. <input type="checkbox"/> Designated Port Areas	Indicate size under Land Under the Ocean, below	
b. <input type="checkbox"/> Land Under the Ocean	1. square feet _____ 2. cubic yards dredged _____	
c. <input type="checkbox"/> Barrier Beach	Indicate size under Coastal Beaches and/or Coastal Dunes below	
d. <input type="checkbox"/> Coastal Beaches	1. square feet _____	2. cubic yards beach nourishment _____
e. <input type="checkbox"/> Coastal Dunes	1. square feet _____	2. cubic yards dune nourishment _____
	<u>Size of Proposed Alteration</u>	<u>Proposed Replacement (if any)</u>
f. <input type="checkbox"/> Coastal Banks	1. linear feet _____	
g. <input type="checkbox"/> Rocky Intertidal Shores	1. square feet _____	
h. <input type="checkbox"/> Salt Marshes	1. square feet _____	2. sq ft restoration, rehab., creation _____
i. <input type="checkbox"/> Land Under Salt Ponds	1. square feet _____	
	2. cubic yards dredged _____	
j. <input type="checkbox"/> Land Containing Shellfish	1. square feet _____	
k. <input type="checkbox"/> Fish Runs	Indicate size under Coastal Banks, inland Bank, Land Under the Ocean, and/or inland Land Under Waterbodies and Waterways, above	
	1. cubic yards dredged _____	
l. <input type="checkbox"/> Land Subject to Coastal Storm Flowage	1. square feet _____	
4. <input type="checkbox"/> Restoration/Enhancement		
If the project is for the purpose of restoring or enhancing a wetland resource area in addition to the square footage that has been entered in Section B.2.b or B.3.h above, please enter the additional amount here.		
a. square feet of BVW _____	b. square feet of Salt Marsh _____	

5. ☐ Project Involves Stream Crossings

a. number of new stream crossings _____

b. number of replacement stream crossings _____



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C. Other Applicable Standards and Requirements

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

Streamlined Massachusetts Endangered Species Act/Wetlands Protection Act Review

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

a. ☐ Yes ☒ No

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

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

NHESP 2021

b. Date of map

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

- c. Submit Supplemental Information for Endangered Species Review*

1. ☐ Percentage/acreage of property to be altered:

(a) within wetland Resource Area

percentage/acreage

(b) outside Resource Area

percentage/acreage

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

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

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

(b) ☐ Photographs representative of the site

* Some projects **not** in Estimated Habitat may be located in Priority Habitat, and require NHESP review (see <http://www.mass.gov/eea/agencies/dfg/dfw/natural-heritage/regulatory-review/>). Priority Habitat includes habitat for state-listed plants and strictly upland species not protected by the Wetlands Protection Act.

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



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

- (c) ☐ MESA filing fee (fee information available at http://www.mass.gov/dfwele/dfw/nhosp/regulatory_review/ mesa/ mesa_fee_schedule.htm).
Make check payable to "Commonwealth of Massachusetts - NHESP" and **mail to NHESP** at above address

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

- (d) ☐ Vegetation cover type map of site
- (e) ☐ Project plans showing Priority & Estimated Habitat boundaries
- (f) OR Check One of the Following
1. ☐ Project is exempt from MESA review.
Attach applicant letter indicating which MESA exemption applies. (See 321 CMR 10.14, http://www.mass.gov/dfwele/dfw/nhosp/regulatory_review/ mesa/ mesa_exemptions.htm; the NOI must still be sent to NHESP if the project is within estimated habitat pursuant to 310 CMR 10.37 and 10.59.)
 2. ☐ Separate MESA review ongoing. a. NHESP Tracking # _____ b. Date submitted to NHESP _____
 3. ☐ Separate MESA review completed.
Include copy of NHESP "no Take" determination or valid Conservation & Management Permit with approved plan.
3. For coastal projects only, is any portion of the proposed project located below the mean high water line or in a fish run?
- a. ☒ Not applicable – project is in inland resource area only b. ☐ Yes ☐ No

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

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

Division of Marine Fisheries -
Southeast Marine Fisheries Station
Attn: Environmental Reviewer
1213 Purchase Street – 3rd Floor
New Bedford, MA 02740-6694
Email: DMF.EnvReview-South@state.ma.us

North Shore - Hull to New Hampshire border:

Division of Marine Fisheries -
North Shore Office
Attn: Environmental Reviewer
30 Emerson Avenue
Gloucester, MA 01930
Email: DMF.EnvReview-North@state.ma.us

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



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Haverhill

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

Online Users:

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

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

D. Additional Information

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

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

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

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



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D. Additional Information (cont'd)

3. ☒ Identify the method for BVW and other resource area boundary delineations (MassDEP BVW Field Data Form(s), Determination of Applicability, Order of Resource Area Delineation, etc.), and attach documentation of the methodology.
4. ☒ List the titles and dates for all plans and other materials submitted with this NOI.
- | | |
|---|--------------------------|
| 394 Transmission Line and B154/C155 King Street Tap Line Asset Condition Refurbishment Project - Environmental Resource Map | |
| BSC Group, Inc. | N/A |
| b. Prepared By | c. Signed and Stamped by |
| 08/25/2025 | 1" = 100' |
| d. Final Revision Date | e. Scale |
| USGS Site Locus Map | 08/19/2025 |
| f. Additional Plan or Document Title | g. Date |
5. ☐ If there is more than one property owner, please attach a list of these property owners not listed on this form.
6. ☐ Attach proof of mailing for Natural Heritage and Endangered Species Program, if needed.
7. ☐ Attach proof of mailing for Massachusetts Division of Marine Fisheries, if needed.
8. ☒ Attach NOI Wetland Fee Transmittal Form
9. ☒ Attach Stormwater Report, if needed.

E. Fees

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

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

- | | |
|------------------------------------|-----------------------------------|
| 4209 | 9/23/2025 |
| 2. Municipal Check Number | 3. Check date |
| eDEP filing | N/A |
| 4. State Check Number | 5. Check date |
| BSC Companies, Inc. | |
| 6. Payor name on check: First Name | 7. Payor name on check: Last Name |



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F. Signatures and Submittal Requirements

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

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

Andrew Cole

9/19/2025

1. Signature of Applicant

2. Date

3. Signature of Property Owner (if different)

Donald P. Duff

4. Date

9/22/2025

5. Signature of Representative (if any)

6. Date

For Conservation Commission:

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

For MassDEP:

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

Other:

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

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



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

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



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

A. Applicant Information

1. Location of Project:

394 and B154/C155 Tap Transmission Line
ROW

eDEP Payment

c. Check number

Haverhill

b. City/Town

\$237.50

d. Fee amount

2. Applicant Mailing Address:

Andrew

a. First Name

Cole

b. Last Name

New England Power Company (NEP)

c. Organization

170 Data Drive

d. Mailing Address

Waltham

e. City/Town

MA

f. State

02451

g. Zip Code

508-948-9376

h. Phone Number

i. Fax Number

Andrew.Cole@nationalgrid.com

j. Email Address

3. Property Owner (if different):

NEP has easement rights - See Schedule 1A

a. First Name

b. Last Name

c. Organization

d. Mailing Address

e. City/Town

f. State

g. Zip Code

h. Phone Number

i. Fax Number

j. Email Address

B. Fees

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

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

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

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

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

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

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



Step 1/Type of Activity	Step 2/Number of Activities	Step 3/Individual Activity Fee	Step 4/Subtotal Activity Fee
Category 2(e)	1	\$500.00	\$500.00
Step 5/Total Project Fee:			\$500.00
Step 6/Fee Payments:			
Total Project Fee:			\$500.00
State share of filing Fee:			\$237.50
City/Town share of filling Fee:			\$262.50
			a. Total Fee from Step 5
			b. 1/2 Total Fee less \$12.50
			c. 1/2 Total Fee plus \$12.50

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

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

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

No.	Property Address (City/Town), MA	Parcel/Lot No.	Property Interest Owner Name	Legal File #	Book	Page
1	1160 Boston Road Haverhill, MA	771-779-66	NEW ENGLAND POWER COMPANY 170 Data Drive, Waltham, MA 02451	10 HAVEMA SH-WH 00181A	6381	608
2	1200 Boston Road, Haverhill, MA	771-779-66A	NEW ENGLAND POWER COMPANY 170 Data Drive, Waltham, MA 02451	10 HAVEMA SH-WH 00182	3916	529
3	0 Farrwood Drive Haverhill, MA	770-779-68	NEW ENGLAND POWER COMPANY 170 Data Drive, Waltham, MA 02451	10 HAVEMA T-A 00045	6574	294
4	390 Farrwood Drive, Haverhill, MA 0 Farrwood Drive Haverhill, MA Farrwood Drive Haverhill, MA	770-779E-390 770-779-74 770-779-74E	NEW ENGLAND POWER COMPANY 170 Data Drive, Waltham, MA 02451	10 HAVEMA SH-WH 00176	4092	489



City of Haverhill Conservation Commission

HCC Local Application Form 3 Notice of Intent

A. STATUTE APPLICABILITY

This application is being filed with the Commission in accordance with the following (check all that apply):

- ☒ Massachusetts Wetlands Protection Act, M.G.L. Chapter 131, Section 40
- ☒ Haverhill Municipal Ordinance Chapter 253

B. GENERAL INFORMATION

Applicant Andrew Cole- New England Power Company (NEP)
Property Owner NEP has easement rights – see attached Schedule 1A
Representative Hannah Raddatz - BSC Group, Inc.
Location (Street Address) 394 and B154/C155 Transmission Line ROW
Assessor's Parcel Identification Various- See attached Supplemental Page

C. APPLICATION CHECKLIST

The Commission requires the submittal of this original, completed Form; one (1) paper copy of site plans; and one (1) paper copy of all other materials. Additionally, the Commission requires the submittal of individual PDFs of this Form and all listed application materials. If practical, related items may be combined into a single PDF. PDFs should not mix larger format sheets (e.g. site plans) with smaller sheets (e.g. letters). These submittal requirements also apply to supplemental information provided during the public hearing. The following materials shall be submitted with this form:

- ☒ Completed, current WPA Form 3, 3A, or 4 and NOI Wetland Fee Transmittal Form
- ☒ Project Narrative with description of resource areas & delineation methodology and demonstration of compliance with pertinent Performance Standards
- ☐ Construction Period Pollution Prevention and Erosion and Sedimentation Control Plan
- ☒ Site Plans clearly describing the location and nature of the work, including such information as site boundaries, wetlands, topography, existing and proposed conditions, vegetation cover, soils, erosion & sedimentation controls, Title 5 compliance, flood storage calculations...(24" x 36" max. sheet size)
- ☐ MassDEP Bordering Vegetated Wetland Delineation Field Data Forms, as appropriate
- ☐ Wetland Resource Area Impact Mitigation Plan prepared in accordance with MA Inland Wetland Replication Guidelines, if applicable
- ☐ Demonstration of compliance with MA River & Stream Crossing Standards, if applicable (The HCC applies the General Standards to all resource area crossings for wildlife passage.)
- ☐ Simplified or Detailed Wildlife Habitat Evaluation (Appendix A or B), if applicable (See "MA Wildlife Habitat Protection Guidance for Inland Wetlands")
- ☒ Demonstration of compliance with MA Stormwater Management Standards, including but not limited to
 - ☐ Stormwater Report with pertinent calculations based on NOAA Atlas 14 rainfall data
 - ☒ Checklist for Stormwater Report
 - ☐ Long-Term Pollution Prevention Plan
 - ☐ Operation and Maintenance Plan
 - ☐ Illicit Discharge Compliance Statement

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City of Haverhill Conservation Commission

HCC Local Application Form 3

Notice of Intent

- ☒ 8½" x 11" sections of the following maps with project location clearly identified
- ☐ USGS Quadrangle
 - ☐ MassGIS Orthophoto
 - ☐ City of Haverhill Parcel ID Map, also identifying properties within 300' of subject property
 - ☐ NRCS Soils Map and Resource Report
 - ☐ FEMA Flood Insurance Rate Map, if applicable
 - ☐ MA NHESP Estimated Habitats of Rare Wildlife and Priority Habitats of Rare Species, if applicable
 - ☐ MassDEP/UMass-Amherst Habitat of Potential Regional or Statewide Importance, if applicable
 - ☐ Proof of NOI filing with the MA Natural Heritage & Endangered Species Program, if applicable
 - ☒ Appropriate Filing Fees, payable to the City of Haverhill, under the Act and Ordinance
 - ☐ Other: _____

D. LOCAL PERMIT DOCUMENTATION

In accordance with 310 CMR 10.05(4)(e), list all obtainable permits, variances, and approvals required by local ordinance with respect to the proposed activity and status of same: _____

E. APPLICATION CERTIFICATION

I have read the Department of Environmental Protection's "Instructions for Completing Application" and the City's Municipal Ordinance under Chapter 253, with all applicable regulations and policies, for the filing of this application with the Haverhill Conservation Commission and agree to its terms and conditions, as amended. I understand the submitted NOI, its plans, and all its supporting materials are public records and may be uploaded to the City's website for public review. As required by the Commission, the wetland resource area(s) are flagged, the corners of proposed structures are staked, and the centerline of proposed roadway(s) and/or driveway(s) are marked, as appropriate, to facilitate site inspections by Commissioners and Conservation Staff.

Signed: _____

(APPLICANT)

9/4/2025

(DATE)

F. SITE ACCESS ACKNOWLEDGEMENT

I hereby grant the Haverhill Conservation Commission and its officials permission to enter upon my property at 394 Utility ROW - See Supplemental Page to review the filed Notice of Intent and

(STREET ADDRESS AND ASSESSOR'S PARCEL ID)

future site conditions for compliance with the issued Order of Conditions. The sole purpose of this acknowledgement is to allow the Commission and its officials to perform their duties under the Massachusetts Wetlands Protection Act and the City's wetlands protection ordinance.

Signed: _____

(PROPERTY OWNER)

9/19/2025

(DATE)

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City of Haverhill Conservation Commission


HCC Local Application Form 3 Notice of Intent

G. AFFIDAVIT OF SERVICE FOR ABUTTER NOTIFICATION

I, Hannah Raddatz, hereby certify under the pains and penalties of perjury that on
(NAME OF PERSON MAKING AFFIDAVIT)
(or before) 10/2/2025 I gave notification to all abutters pursuant to the requirements of the second
(DATE)
paragraph of Massachusetts General Laws Chapter 131, Section 40, the DEP Guide to Abutter Notification dated April 8, 1994, and Haverhill Municipal Ordinance Chapter 253, Section 5 in connection with the following matter:

A Notice of Intent filed under the Massachusetts Wetlands Protection Act and said ordinance by
Hannah Raddatz with the Haverhill Conservation Commission on
(NAME OF APPLICANT)
9/25/2025 for property located at 394 Transmission Right-of-Way, see Supplemental Page for all locations
(DATE) (STREET ADDRESS AND ASSESSOR'S PARCEL ID)

The list of the abutters to whom the Abutter Notification Form sent, with their addresses and Assessor's parcel identification information that corresponds with the submitted map section, are attached to this application.

Signed:  9/22/2025
(NAME OF PERSON MAKING AFFIDAVIT) (DATE)



City of Haverhill Conservation Commission

HCC Local Application Form 3 Notice of Intent

I. LOCAL ORDINANCE FEE CALCULATION FORM

ACTIVITY	LOCAL ORDINANCE FEE	# of Activities or Measurement	Subtotal
*Abbrev. Notice of Resource Area Delineation (ANRAD)			
Single Family House Project	\$1/linear foot, first 100'; \$0.50/lf, second 100'; \$0.10/lf, each additional foot		
All Other Projects	***\$1/linear foot, first 1000'; \$0.50/lf, second 1000'; \$0.10/lf, each additional foot		
***Notices of Intent (NOI)			
Category 1 Activity	\$100		
Category 2 Activity	\$250	1	\$250.00
Category 3 Activity	\$525		
Category 4 Activity	\$725		
Category 5 Activity	\$2/foot		
Category 6 Activity - If no ANRAD was filed for the project site, then a local Cat. 6 fee must be paid in accordance with the ANRAD fee schedule	See ANRAD fee schedule		
Resource Area Alterations			
Buffer Zone, 75'-100' from resource area boundary	\$0.05 / square foot	8,251	\$412.55
Buffer Zone, 35'-75' from resource area boundary	\$0.10 / square foot	8,978	\$897.80
Buffer Zone, 0'-35' from resource area boundary	\$0.25 / square foot	2,152	\$538.00
Bordering Vegetated Wetland	\$0.50 / square foot		
Bank	\$5 / linear foot		
Land Under Water	\$0.50 / square foot		
Land Subject to Flooding	\$0.05 / square foot		
Riverfront Area	\$0.05 / square foot		
Riverfront Area with the watershed of a potable water supply	\$0.50 / square foot		
Land within 100' of a Certified Vernal Pool	\$0.25 / square foot		
Local-only Jurisdictional Resource Area	\$0.25 / square foot		
Land within 200' of a potable water supply	\$0.50 / square foot		
ADVERTISING FEE*			\$45
LOCAL ORDINANCE FEE TOTAL			\$2,098.35
For filings resulting from enforcement action, double the Local Ordinance Fee Total			
NOTES:			
*Application is subject to an additional \$45 Local Advertising Fee payable to the City of Haverhill prior to EACH advertising			
***Local Ordinance Fee maximum of \$100 for applications exceeding 1000'. Commission requires review by outside consultant under M.G.L. Ch. 44, sec. 53G for projects exceeding 1000'. Applicant shall post escrow in accordance with HCC Rules for Hiring Outside Consultants. Cap passed by a 5-0 vote of the Commission on March 7, 2019.			
%Local Ordinance Fees for RDA, NOI, & RMOC increase 50% when project is also proposed within a Riverfront Area			
Local Ordinance Fees passed by a 7 – 0 vote of the Commission on October 28, 2010, effective January 1, 2011			

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Attachment A

394 Transmission Line and B154/C155 King Street Tap Line
Asset Condition Refurbishment Project
Haverhill, MA
Notice of Intent

Project Narrative

1 Introduction

BSC Group, Inc. (BSC) is filing this Notice of Intent (NOI) on behalf of the New England Power Company (NEP) for maintenance and improvement activities associated with the Line 394 and B154/C155 King Street Tap Line Asset Condition Refurbishment (ACR) Project in Haverhill, Massachusetts (the Project). The purpose of the Project is to conduct general maintenance and system improvements along the 394 and B154/C155 King Street Tap transmission line Right-of-Ways (ROWs), including targeted structure replacements, installation of Optical Ground Wire (OPGW), and reconductoring of the B154 and C155 King Street Tap Lines¹. It should be noted that the portion of the Project within Haverhill does not contain the B154/C155 King St Tap Line. Only the 394 Line occurs within the Project route in Haverhill. This NOI is being submitted in accordance with the Massachusetts Wetlands Protection Act (WPA) (*M.G.L. Ch.131, S.40*), its implementing regulations (*310 CMR 10.00*), and the Town of Haverhill Wetlands Protection Ordinance (Chapter 253) and associated Regulations (hereafter collectively referred to as the “Haverhill Ordinance”).

Within Haverhill, the Project extends for approx. 1 mile along the 394 Line, between the Ward Hill Substation in the north (west of South Main Street, Haverhill), and the Haverhill/Boxford Town border in the south (east of Bradford Street, Haverhill). Activities proposed as part of the Project in Haverhill include maintenance and improvement activities at 9 existing structures along Line 394, 4 of which are located within jurisdictional Wetland Resource Areas or Buffer Zones. NEP is also proposing to maintain or improve structure work pads and the existing access network, and construction of temporary access in some locations. No tree removals are required for this Project. Work will occur within Bordering Vegetated Wetlands (BVW), 100-ft Buffer Zone (BZ) to BVW, and the locally regulated 50-ft No Build Zone (50ft BZ) and 25-ft No-Disturb Zone (25ft BZ) to all wetland resource areas.

This NOI is being submitted in accordance with the WPA and the Haverhill Ordinance, seeking the Commission’s review and approval for jurisdictional activities subject to this NOI (**Table 1-1**), and providing written notice to the Commission of non-jurisdictional or exempt utility maintenance activities (**Table 1-2**). Additionally, this Project qualifies as a Limited Project in accordance with the WPA regulations (*310 CMR 10.53(3)(d)*) which allows for the “*construction, reconstruction, operation and maintenance of... overhead public utilities...*” provided there are no alternatives, best available measures are used to minimize adverse effects during construction, and that vegetation and existing grades are substantially restored. The Haverhill Ordinance does not recognize the Limited Project provisions of the WPA and furthermore regulates a 50-ft No Build Zone and 25-ft No-Disturb Zone.

Table 1-1: Activities Subject to the Commission’s Review

Activity	Wetland resource areas impacted
Improved Work Pads*	BZ, 50ft BZ, 25ft BZ
Temporary Access**	BZ, 50ft BZ

* Includes new work pads where new stone/gravel will be applied.

¹ Tap Lines, in terms of utility infrastructure, refer to transmission lines that serve as a connection between a primary utility transmission line (i.e., the Mainline) and a substation facility.

*** Within some regulated upland areas, matting and/or temporary stone will be applied to establish temporary access. Where required, grading will be conducted to provide a level surface area. These areas will be restored post construction through the removal of matting, removal of stone, loaming and seeding of graded areas to restore vegetation and stabilize disturbed soils.*

Table 1-2: Exempt and Non-Jurisdictional Activities

Exemption	Activity	Resource Area	Area
Temporary work pads and access	Use of construction matting for temporary access and work pads	BVW, BZ, 25ft BZ, 50ft BZ	BVW: 0.7 acres 25ft: 0.3 acres 50ft: 0.6 acres BZ: 0.7 acres
Structure Replacements†	Structure Removals	BZ	1 Structure
	Structure Installations	BZ	1 Structure
Type R Access	Minor access repair, including mowing, filling ruts and placing stone within the limits of existing access	BZ, 50ft BZ, 25ft BZ	BZ: 1,179 lf 50ft: 691 lf 25ft: 398 lf

† Note – “structure replacement” activities involve the installation of the new structure, followed by the removal of the old structure – in some cases, this may occur across a resource area boundary. As such, structure removal and structure installation are presented here as separate activities.

Temporary construction matting will also be required within wetlands and for temporary stream spans, to provide access and work pads at existing structures within these resource areas. Temporary construction mats associated with utility maintenance projects are exempt under the WPA, and will be permitted under an Individual Water Quality Certification (WQC) through the Massachusetts Department of Environmental Protection (MassDEP). As such (and at the request of MassDEP), the area of temporary construction matting is not included on WPA Form 3, but has been included within this narrative for the Commission’s information. Best Management Practices (BMPs), including sediment and erosion controls, will be implemented during construction, further minimizing the likelihood of adverse impacts to resource areas.

NEP has performed an analysis of all possible alternatives, and the Project has been designed to avoid and minimize the potential for adverse impacts to wetland resource areas to the greatest extent practicable. Due to the configuration of the existing transmission line infrastructure, it is not feasible to avoid all work within resource areas. Therefore, NEP is requesting a waiver for work within resource areas including the 100-ft BZ to BVW/Inland Bank, the 25 and 50 foot locally regulated Buffer Zones, and respectfully requests that the Haverhill Conservation Commission issue an Order of Conditions to allow the proposed Project activities to proceed as described herein.

2 Existing Conditions

The Project occurs entirely within an existing, actively maintained utility ROW, where vegetation is regularly managed for compatibility with the facilities. Both upland and wetland areas are dominated by early successional scrub-shrub/herbaceous communities. Dominant land uses adjacent to the ROW include low to medium density residential and agriculture.

2.1 Resource Area Summary

BSC conducted both a desktop analysis (using MassGIS data layers and publicly available data) and field investigations of the proposed Project area to assess permitting requirements pursuant to the WPA and Haverhill Ordinance. Wetlands were delineated in June 2023, in accordance with the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region, ed. J.S. Wakely, R.W. Lichvar, and C. C. Noble. ERDC/EL TR-12-1. Vicksburg, MS: U.S. Army Engineer Research and Development Center (Version 2.0) and methodology described in the Massachusetts Department of Environmental Protection's (MassDEP) *Handbook on Delineating Bordering Vegetated Wetlands* (Published in March 1995). A description of each wetland where permanent impacts are proposed is provided in the following sections.

Existing conditions, wetland resource areas, and buffer zones in relation to the proposed activities are shown on the ER Map in **Attachment B**. Representative Photographs are provided in **Attachment C**.

2.1.1 Bordering Vegetated Wetlands (BVW)

Wetlands within the ROW predominantly consists of palustrine emergent (PEM) and palustrine scrub/shrub (PSS) wetlands, typical of those found within managed ROWs. Dominant species within the wetlands of Haverhill include: speckled alder (*Alnus incana*), grey willow (*Salix cinerea*), Multiflora Rose (*Rosa multiflora*), honeysuckle (*Lonicera*), European beech (*Fagus sylvatica*), soft rush (*Juncus effusus*), dark green bulrush (*Scirpus atrovirens*), swan sedge (*Carex swanii*), fox sedge (*Carex vulpinoidea*), flat top golden rod (*Euthamia graminifolia*), rough stem goldenrod (*Solidago rugosa*), skunk cabbage (*Symplocarpus foetidus*), shallow sedge (*Carex lurida*).

2.1.2 Buffer Zone (BZ)

The Haverhill Ordinance includes the 100-ft BZ to wetland resource areas as a jurisdictional resource area in its own right. In addition, the Haverhill Ordinance regulates a 100-ft BZ to BLSF. All BZ within the Project area is within the active transmission line ROW, and has been historically managed/disturbed during routine vegetation management, as well as during past maintenance/emergency repair Projects on the lines. Existing vegetation within BZ is dominated by early-successional herbaceous and scrub-shrub communities, including species such as: quaking aspen (*Populus tremuloides*), staghorn sumac (*Rhus typhina*), grey alder (*Alnus incana*), black cherry (*Prunus serotina*), raspberry (*Rubus idaeus*), rough stem goldenrod (*Solidago gigantea*), Canada goldenrod (*Solidago canadensis*), bull thistle (*Cirsium vulgare*), Virginia creeper (*Parthenocissus quinquefolia*), fescue (*Festuca ovina*), common vetch (*Vicia sativa*).

2.1.3 Other Resource Areas

Two potential vernal pools (PVP) were identified during field investigations. Both PVP are associated with wetland HA-W5. These PVP were noted to be large, mucky pools with heavy algae and poor water quality when surveyed in March 2020. No indicator species were observed within the delineated pool envelope of either PVP.

No other resource areas were identified within the Project area, including Riverfront Area (RA), Areas of Environmental Concern (ACEC), Natural Heritage Endangered Species Program (NHESP) Estimated or Priority Habitats.

3 Proposed Activities and Impacts

3.1 Proposed Project Activities

Project activities are anticipated to begin in Summer 2027, and the entire Project will take approximately two (2) years to complete. Construction is anticipated to proceed in the following sequence:

- Re-delineation and re-flagging of wetlands and sensitive resource areas within the ROW.
- Vegetation management within work areas, including mowing of access and work areas sequentially as work progresses.
- Installation of sediment and erosion controls sequentially as work progresses.
- Reestablish existing access and construct temporary access (where required) to safely access structures, including the installation of construction matting access and work pads
- Grading to provide adequate workspace for Project activities and future maintenance.
- Replace selected narrow based H-frame structures with new steel H-frame structures.
- Install OPGW along the entire 394 Line (overhead work).
- Restore the ROW (as necessary), including removal of construction matting, stabilization and revegetation of disturbed areas, restoration of temporary access, and disposal of existing line components and non-biodegradable sediment and erosion controls.
- Conduct follow-up inspections post restoration, as required.

A discussion of the Project's conformance with the performance standards established by the WPA and Haverhill Wetlands Ordinance is provided in Sections 5 and 6, respectively.

3.2 Summary of Project Impacts

Table 3-1 provides a summary of jurisdictional Project impacts to wetland resource areas. A description of each impact type is provided below. Impacts to upland resource areas are associated with the grading/stoning of access and work pads. A summary of the Project's

conformance with the performance standards established by the WPA and the Haverhill's Bylaw is provided in **Section 5** of this Project Narrative.

Table 3-1: Summary of Project Impacts (in sf)

Wetland Resource Area/Buffer Zone	Temporary Access (sf) (Improve as Necessary)	Graded Work Pads (sf)
100 ft BZ to BVW and Bank	3,046	16,281
50-ft No Build Zone	668	4,419
25-ft No Disturb Zone	0	990

“Improve As Necessary (IAN) Access” – temporary access, to be utilized in areas where that installation of permanent access is not viable. Such access will consist of improving the existing surface with aggregate to the minimum extent necessary to allow safe access along the ROW. Upon completion of construction, aggregate will be removed to the extent that there are no continuous impermeable surfaces and soil will be decompacted. Minor modifications to topography will generally remain as long as there are no adverse impacts to the existing hydrology within the limits of disturbance. Placement of fill shall be limited to the least practical amount to ensure a traversable alignment and aggregate size shall be restricted to that which can be reasonably scarified without introducing significant rework and disturbance during the restoration phase of a Project.

Gravel Work Pads – Upland area areas where a workpad or pull pad area here stone will be applied. In areas of uneven terrain, grading will be conducted to provide a level surface area.

3.3 Detailed Project Activities

3.3.1 Site Preparation and Installation of BMPs

Prior to construction, the boundaries of wetlands will be clearly marked to prohibit unauthorized vehicular encroachment. Once resource areas have been clearly marked with flagging (or by other appropriate means), access and work pads will be mowed. No tree removals are required for the Project, but selective trimming of branches may be required in some locations. Young saplings/shrubs will be cut at the base with the stumps retained. All vegetation management will be in line with historic management practices within the ROW. Following the ROW vegetation mowing activities, sediment and erosion controls will be installed, as depicted on the ER Map in **Attachment B**. Sediment and erosion control will perform the dual function of protecting wetland resource areas, and delineating the limit of disturbance for equipment. Temporary erosion and sediment control BMPs will be installed in accordance with National Grid's BMPs (refer to **Attachment E**), and as described in Section 7. NEP contractors, supervisors, and environmental monitors will regularly monitor and maintain installed controls, and these will remain in place until final site stabilization has been achieved.

3.3.2 Access within ROW

In some locations, a temporary access (or “IAN”, Improve as Necessary) will be installed to facilitate the installation of underslung (underslung means affixed to the towers below the overhead conductors) OPGW. Because the existing access is too far from the circuit that runs between structures in some locations, temporary access will be necessary to safely pull the wire from the ground between structures. This IAN access will either be comprised of construction matting, mowed access (in areas where the terrain is largely flat), or stone

placed atop geotextile fabric, with minor grading as needed to create a stable travel surface. The wire will be pulled via equipment along these IAN access ways or pulled by foot or via a low PSI vehicle. Following the completion of work in the area, the IAN access will be removed, and the impacted area will be restored to their previous condition.

3.3.3 Construction and Improvement of Work Pads and Pull Pads

Work pads will be constructed to provide a safe and level work pad at each structure, with adequate space for construction. In general, work pads for structure replacements will be at maximum approximately 125 x 125 feet, with some variation due to site-specific topography, resource areas, and work/equipment requirements. Where work pads are required for structure removals or overhead maintenance work only, these can be smaller (approximately 50 x 50 feet), as less work space is required than for structure installation.

Work pads will be mowed, and upland work pads will be constructed by grading and/or adding gravel or crushed stone to provide a stabilized work surface. These temporary work pads will minimize impacts to vegetation and wildlife habitat within resource areas. Within agricultural areas and wetlands, work pads will consist of temporary construction matting placed on top of existing vegetation (where feasible).

Construction of wire stringing and pulling sites will be required along the line and are demarcated by a blue polygon on the resource mapping. Pull pads will require mowing and grading. Sites in agricultural areas, as well as some upland resource areas (and all wetlands), will be matted. Disturbance within these temporary wire stringing and pulling sites will be stabilized with straw mulch, seeded and allowed to revegetate following construction.

3.3.4 Restoration and Stabilization of ROW

Restoration efforts, including removal of construction debris, final grading, and stabilization of disturbed soil will be completed systematically as construction is completed along the line. Generally, full restoration will not occur until the conductor is transferred, then cleanup of the pads and road will occur including seeding and stabilizing disturbed soils on road should and around work pads if vegetation is sparse. Temporary sediment control BMPs will be removed following the stabilization of disturbed areas.

4 Alternatives Analysis

As noted in Section 1, this Project consists of refurbishment activities on the existing Line 394 ROW. NEP's overriding goal throughout the planning and design process has been to select the Project alternative that meets the identified Project need (improved electrical reliability), addresses the various regulatory and permitting objectives, minimizes environmental impacts, and provides a cost-effective solution.

Given the nature of the Project (maintenance and improvements on an existing transmission line ROW), few suitable alternatives are available. A **No Build alternative** would not address the continued deterioration of the line, and would lead to increasing outages, poor electrical reliability, and potential safety risks to the public and NEP personnel. No suitable **Alternative Project Locations** are available, as they would require extensive disturbance and/or construction of a new ROW, and would also need to be tied into the

existing transmission line system.

Given these limitations, NEP considered alternatives within the existing ROW, including **Targeted Asset Repair** and **Structure Design Alternatives**. For Line 394, asset condition assessments found that while the majority of wood pole structures are in need of replacement, more modern steel pole structures can remain in use with only minor maintenance (including painting). As such, a target asset repair approach was chosen, minimizing both costs and environmental disturbance. Where structure replacements are necessary, direct embedded engineered steel poles will be used. While the cost of materials is greater than wood poles, the steel poles will improve reliability and will have a longer service life as they are not susceptible to woodpecker damage, which is very common on these lines.

5 Conformance with the Performance Standards of the WPA

5.1 Limited Project Status

The Project meets the criteria to be considered a Limited Project, as outlined in 310 CMR 10.53(3)(d) which allows for the construction, reconstruction, operation and maintenance of overhead public utilities that may, under certain circumstances, be permitted without meeting the performance standards of the WPA. Nevertheless, in accordance with general condition 310 CMR 10.53(3)(d)2, the proposed project will implement BMPs to ensure the adjacent resource areas are adequately protected, and impacts to the surrounding area are reduced, minimized, and restored to the maximum extent practicable. Project-specific BMPs are further discussed in Section 7.0.

5.1.1 *Massachusetts Stormwater Standards*

As construction will disturb more than one (1) acre of land, coverage under the United States Environmental Protection Agency's (EPA) National Pollutant Discharge Elimination System (NPDES) Construction General Permit (CGP) is required. NEP will submit an NOI and prepare a Stormwater Pollution Prevention Plan (SWPPP) for the Project. The Project will comply with all requirements of the NPDES CGP, and will meet the MA Stormwater Standards to the extent practicable. Refer to the Project Stormwater Report in Attachment E.

6 Conformance with the Performance Standards of the Haverhill Wetland Regulations

6.1.1 Waiver Provisions

As a maintenance Project within an active transmission line ROW, impacts within buffer zones cannot be entirely avoided. NEP has aimed to meet the performance standards of the Haverhill Wetland Regulations as far as practicably possible, but due to the nature of the Project, is requesting a waiver from certain requirements - namely, the restoration of buffer zone vegetation (which is required to be managed for compatibility with the overhead lines).

252-6.D.0(d) Buffer Zone

(1) The Commission is empowered to require a twenty-five-foot no-build-no-disturbance zone extending from the edge of all wetland resource areas and a fifty-foot no-build zone. No activity is allowed in the no-disturbance zone except as allowed by the Commission or this chapter. Building construction of any kind, except as allowed by the Commission or this chapter, is prohibited in the no-building zone..

As described in Section 4, alternative locations for Project activities which further avoid/minimize impacts to wetland resource areas (including buffer zones), are limited – as a maintenance Project on existing transmission line structures, some impacts within buffer zones are unavoidable. Section 7 describes proposed mitigation measures which NEP will employ to avoid, minimize, and mitigate for impacts to resource areas, including buffer zones.

2) Any work done within the buffer zones or a wetland area which has had a detrimental or negative effect on any conditions stated in the purpose section of this chapter. (§ [253-1](#)).

Activities proposed in the 100-ft buffer zone include activities such structure replacements, overhead utility maintenance, placement of construction matting, Type R access improvements. Per section 253-3(1), as stated by the Haverhill Conservation Commission, these activities are considered exempt. For activities that are not considered as exempt maintenance activities such as IAN access (establishment of temporary access to be restored) and work pad improvements through grading and placement of stone, these activities are unavoidable, but have been limited to the greatest extent practicable during the design of the project. Because there are limited alternatives to accessing these structures establishing work pads for structure replacement and maintenance, it is not possible to relocate this work outside of the Resource Areas and associated Buffer Zones.

7 Construction Best Management Practices and Proposed Mitigation Techniques

NEP has established procedures that are to be followed by all employees and its contractors for accessing sites and performing construction activities on transmission line ROWs. These procedures ensure that NEP's projects are completed in accordance with all applicable environmental laws and regulations as well as with NEP policies and compliance objectives. NEP has an Environmental Department with full-time staff responsible for ensuring company procedures are implemented in the field. Additionally, NEP contracts environmental

monitors to oversee the project execution and ensure permit compliance through restoration. The following sections provide a summary of BMPs that will be implemented for this Project. See **Attachment E** for an excerpt of National Grid's Environmental Guidance Document, Access, Maintenance and Construction Best Management Practices.

7.1 Avoidance, Minimization and Mitigation

The Project has undertaken extensive measures to avoid and minimize impacts to wetland resource areas. Where impacts are unavoidable, best management practices are proposed.

An extensive alternatives analysis was conducted for the Project, both in Haverhill and along the entire Project ROW. Once the complete list of needs at each structure was identified, NEP and their consultants reviewed the structure locations and subsequently proposed shifts or reconfigurations to some of the work pads to avoid wetland resource areas. Wherever feasible, and in accordance with engineering and safety requirements, these shifts were made to avoid or reduce resource area impacts. The use of existing upland access will avoid the need for new land disturbance to access structures. Although resource area impacts could not be avoided in all cases, several design alternatives were implemented to reduce impacts to the extent practicable. In many locations, the footprint of the proposed work reflects the maximum amount of space needed to create the work area. Thus, in some locations, the actual impact area will be much less than what is depicted.

The next key evaluation criterion of the alternatives analyses was to minimize adverse impacts to environmental resources where impacts could not be avoided. The Project provides the best solution for maintaining and improving existing transmission line assets while avoiding and/or minimizing adverse environmental impacts. Due to the existing configuration of transmission line infrastructure, for the majority of impacts, there is little alternative to the location or scope of the proposed activities. In summary, there is no practicable alternative to the Project that would have less adverse impacts on the aquatic environment.

7.2 Best Management Practices (BMPs)

7.2.1 Sediment and Erosion Controls

Erosion and sediment control measures will be installed systematically as the Project's earth disturbance evolves. Initially, erosion controls will be installed following vegetation management along access and as the work pads are constructed erosion controls will be amended commiserate with the disturbance. These controls will function to mitigate work-related erosion and sedimentation, and to serve as a physical boundary to delineate work areas to contain construction activities within approved locations.

Erosion and sediment controls will be inspected on a regular basis, typically on a weekly interval or following a ½ inch rain event. The controls are maintained in working order until all disturbed areas are stabilized. Refer to **Attachment E** for erosion and sediment control details. The locations of proposed sediment controls are depicted on the Environmental Resource Map in **Attachment B**.

7.2.2 Construction Access

Existing and historically utilized access routes are present within the ROW, and these will be used to the greatest extent practicable, as shown on the Environmental Resources Map in

Attachment B. Temporary construction mats will be used to provide a work platform and access within BVW. Construction mats are a BMP used by NEP to protect the wetland substrate from impacts and to protect the root systems/seed bank of existing vegetation. Construction mats will be placed on top of existing vegetation and will be removed upon completion of work. If necessary, the wetland area will be restored through seeding and stabilization.

7.2.3 Vehicle and Equipment Refueling and Maintenance

To prevent impacts from hazardous materials, if refueling and maintenance in the field are necessary, the primary location where vehicles and equipment will be brought to refuel will be greater than 100-ft away from sensitive environmental features and all reasonable environmental precautions will be taken during refueling to prevent inadvertent spills. A paved area, such as a parking lot or roadway, is preferred to minimize the possibility of spill or release to the environment. Refueling precautions will include frequent checks for fuel spills, drips or seeps during the refueling operation. Vehicles are also equipped with spill kits to provide immediate response action, if needed. If it is not feasible to move equipment to a suitable area, special precautions will be employed to prevent oil or hazardous material release to the environment. These precautions include, but are not limited to, deployment of portable basins or similar secondary containment devices or the use of ground covers such as plastic tarpaulins.

7.2.4 Materials Stockpiling

Soil stockpile areas will be surrounded by appropriate sediment and erosion controls and will be stabilized if unused for more than 14 days (see **Attachment F**). During work within wetlands, any excavated material will be temporarily stockpiled next to the excavation but will not be placed directly into resource areas. Additional sediment and erosion controls will be used for saturated stockpile management in work areas in wetlands. Once a structure is complete native soils from excavation will be used to conduct restoration, prior to the removal of construction mats within wetlands. Following the backfilling operations, excess soil will be spread over upland areas or removed from the site in accordance with NEP policy.

Excavated material will be stockpiled near work areas and used as backfill where possible. When working in or close to resource areas, soils will be surrounded with sediment controls to prevent any sediment migration or inadvertent discharge into resource areas. Should materials need to be stored for an extended period of time stockpiles will be seeded and stabilized with straw mulch or other equivalent BMP to reduce erosion and sedimentation.

7.2.5 Invasive Species Management

NEP has developed a set of procedures that will be implemented during the Project to minimize the spread of invasive species in wetlands within the Project ROWs during construction when the above-described circumstances are present. Invasive species control measures are provided in **Attachment E** (EG-303NE Documentation).

8 Conclusion

Although portions of the Project will occur within wetland resource areas, the proposed Project will:

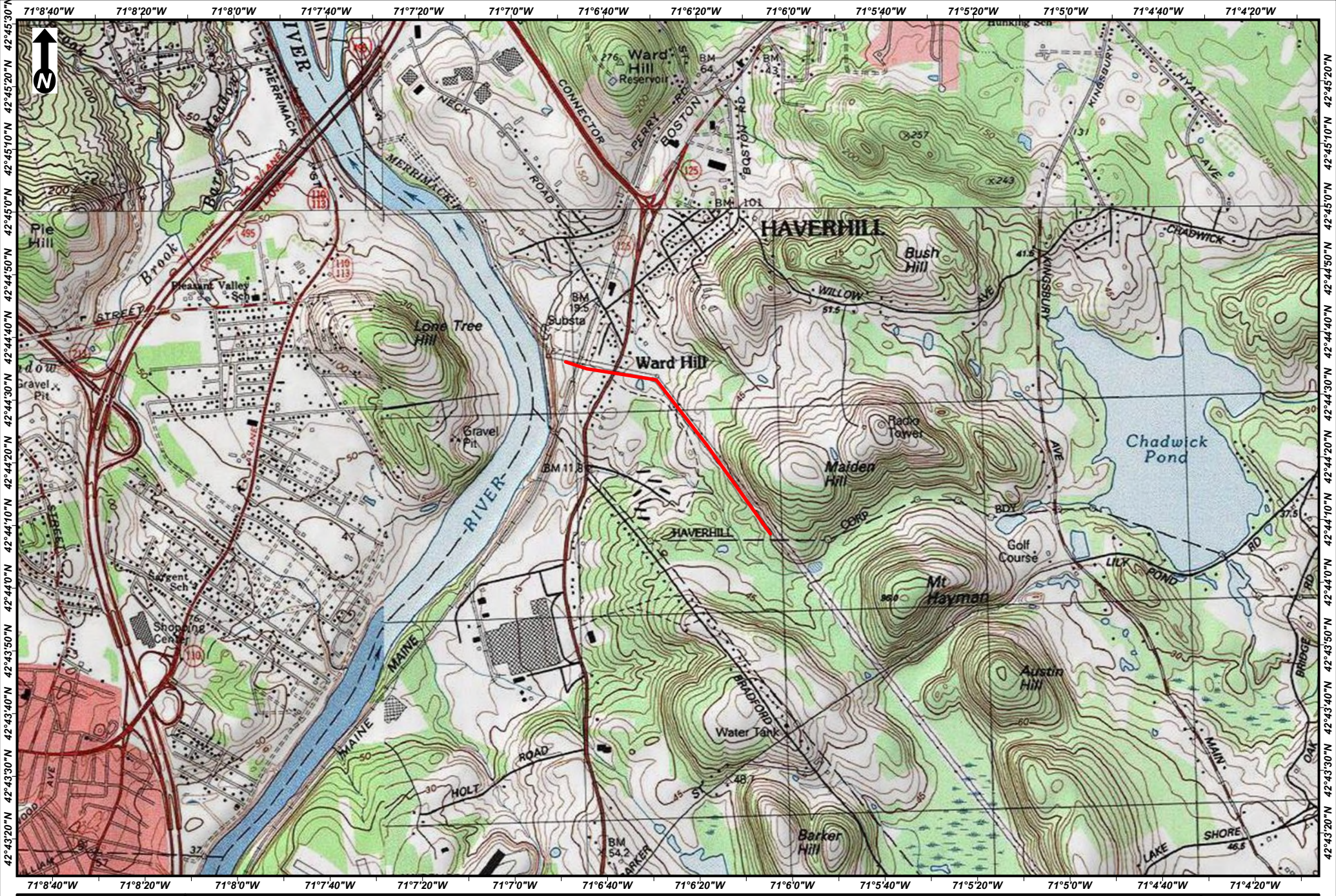
- Minimize disturbance by utilizing an existing disturbed ROW;
- Maximize use of upland access to the greatest extent practicable;
- Utilize appropriate BMPs to protect wetland resource areas from sedimentation and soil disturbance during Project activities;
- Provide appropriate mitigation for unavoidable impacts to wetland resource areas; and,
- Qualify as a Limited Project under the WPA provisions for public utilities [310 CMR 10.53(3)(d)].

Therefore, NEP respectfully requests the Haverhill Conservation Commission find the proposed project adequately protective of the public interests of the WPA and Haverhill Ordinance, and issue an Order of Conditions for the proposed Project as currently designed.

Attachment B

394 Transmission Line and B154/C155 King Street Tap Line
Asset Condition Refurbishment Project
Haverhill, MA
Notice of Intent

**USGS Site Locus Map
Environmental Resources Map**

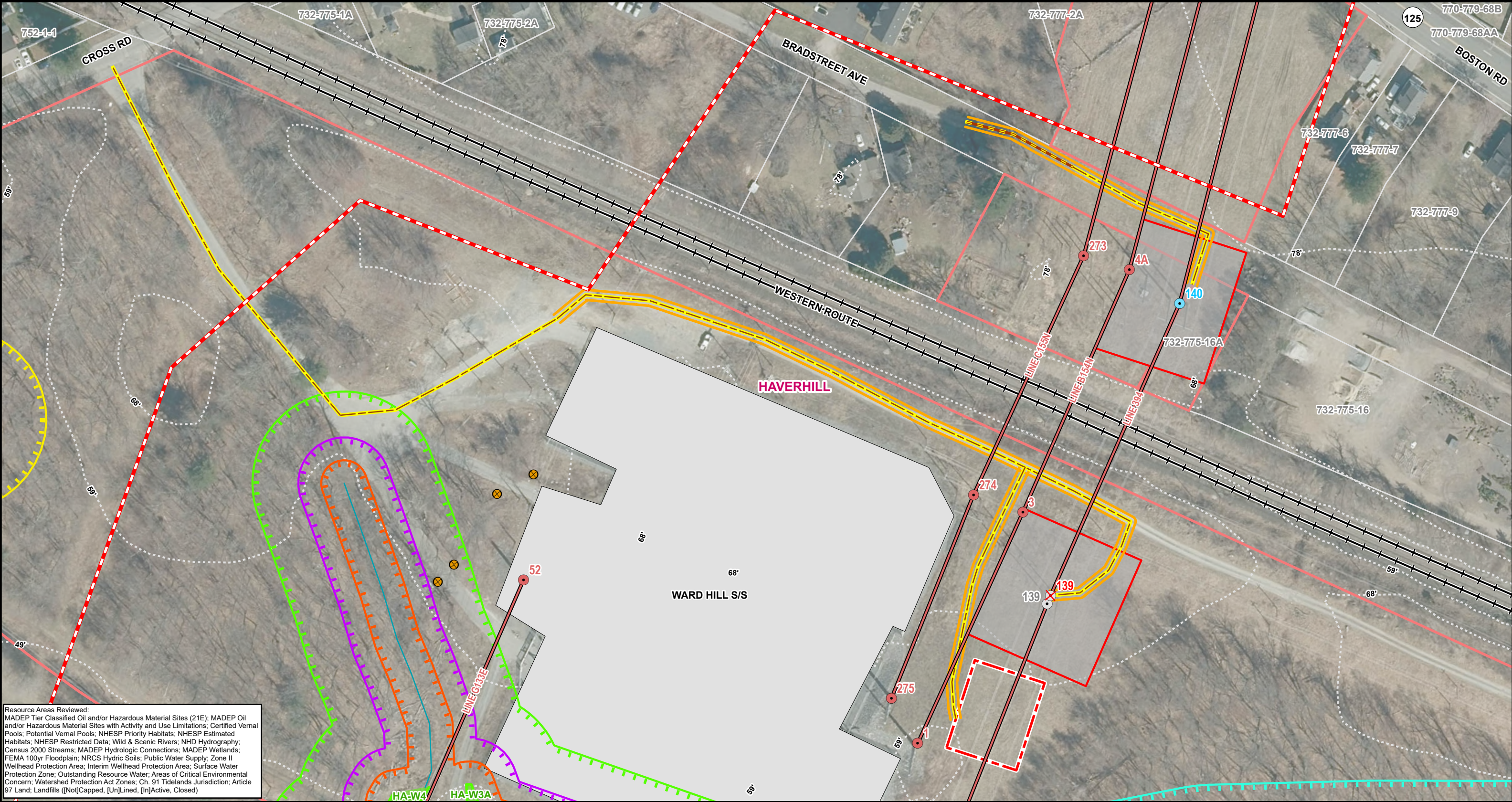


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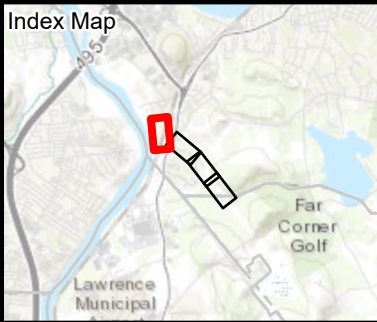
394 TRANSMISSION LINE AND B154/C155 KING STREET TAP LINE ASSET CONDITION REFURBISHMENT PROJECT

**USGS Site Location Map
Haverhill, MA**

Source:
USA Topo Maps:
Copyright: © 2013
National Geographic
nationalgrid
BSC GROUP



Resource Areas Reviewed:
MADEP Tier Classified Oil and/or Hazardous Material Sites (21E); MADEP Oil and/or Hazardous Material Sites with Activity and Use Limitations; Certified Vernal Pools; Potential Vernal Pools; NHESP Priority Habitats; NHESP Estimated Habitats; NHESP Restricted Data; Wild & Scenic Rivers; NHD Hydrography; Census 2000 Streams; MADEP Hydrologic Connections; MADEP Wetlands; FEMA 100yr Floodplain; NRCS Hydric Soils; Public Water Supply; Zone II Wellhead Protection Area; Interim Wellhead Protection Area; Surface Water Protection Zone; Outstanding Resource Water; Areas of Critical Environmental Concern; Watershed Protection Act Zones; Ch. 91 Tidelands Jurisdiction; Article 97 Land; Landfills ([Not]Capped, [Un]Lined, [In]Active, Closed)



Legend

- Existing Structure
- General Maintenance
- Replace Structure (Direct Embed)
- Remove Structure
- Sleeve to be Removed
- Access Road Type**
- Preferred
- OffROW Preferred
- Access Road Work**
- Type R
- Improve as Necessary

- Sediment Controls
- Temporary Construction Matting
- Work Envelope (Mat ONLY)*
- Work Envelope (Grading)*
- Pull Pad Work Envelope (Mat ONLY)
- Pull Pad Work Envelope (Grading)
- Existing Transmission Centerline
- Edge of ROW
- Field Delineated Wetland Lines
- Field Delineated Vernal Pool*
- Field Delineated Wetlands*

- MADEP Hydrologic Connections
- MADEP Wetlands*
- 100ft Buffer to Wetlands & Streams
- 200ft Riverfront Area
- Public Water Supply
- Potential Vernal Pools
- Approximate Pipeline
- Railroad
- Stonewall
- 10ft Elevation Contours
- Access Gate

- Culvert
- National Grid Property
- Parcel Boundary
- Town Boundary

Municipal Jurisdiction Buffers

- 100ft Buffer to Vernal Pools (Haverhill)
- 25ft No-Disturb Zone (Haverhill)
- 50ft No Build Zone (Haverhill)

1 inch = 100 feet

0 50 100 Feet

*Indicates Layers Set to Transparency

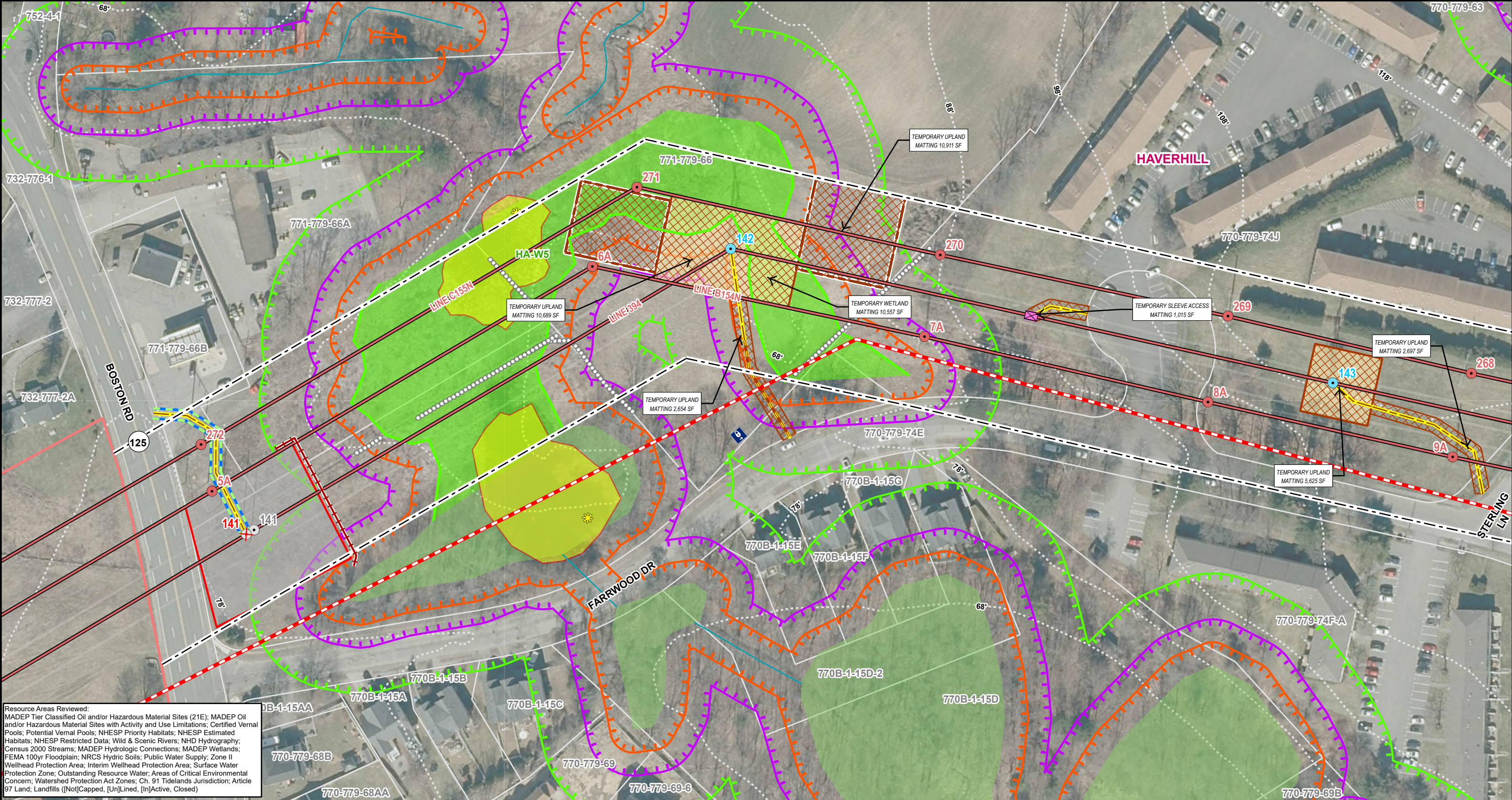
394 TRANSMISSION LINE AND B154/C155 KING STREET TAP LINE ASSET CONDITION REFURBISHMENT PROJECT

Environmental Resources Map

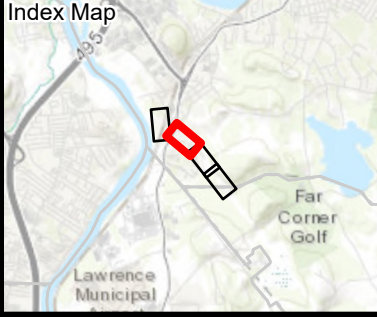
Haverhill, MA
Page 1 of 4

Massachusetts 2023 Aerial Imagery
(Tile Service): MassGIS
World_Topo_Map: Sources: Esri,
HERE, Garmin, Intermap, increment P
Corp., GEBCO, USGS, FAO, NPS,
NRCAN, GeoBase, IGN, Kadaster NL,
Ordnance Survey, Esri Japan, METI,
Esri China (Hong Kong), (c)
OpenStreetMap contributors, and the
GIS User Community





Resource Areas Reviewed:
MADEP Tier Classified Oil and/or Hazardous Material Sites (21E); MADEP Oil and/or Hazardous Material Sites with Activity and Use Limitations; Certified Vernal Pools; Potential Vernal Pools; NHESP Priority Habitats; NHESP Estimated Habitats; NHESP Restricted Data; Wild & Scenic Rivers; NHD Hydrography; Census 2000 Streams; MADEP Hydrologic Connections; MADEP Wetlands; FEMA 100yr Floodplain; NRCS Hydric Soils; Public Water Supply; Zone II Wellhead Protection Area; Interim Wellhead Protection Area; Surface Water Protection Zone; Outstanding Resource Water; Areas of Critical Environmental Concern; Watershed Protection Act Zones; Ch. 91 Tidelands Jurisdiction; Article 97 Land; Landfills ([Not]Capped, [Un]Lined, [In]Active, Closed)



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- Stonewall
- 10ft Elevation Contours
- Access Gate
- Culvert
- National Grid Property
- Parcel Boundary
- Town Boundary
- Municipal Jurisdiction Buffers**
 - 25ft No-Disturb Zone (Haverhill)
 - 50ft No Build Zone (Haverhill)

1 inch = 100 feet

0 50 100 Feet

*Indicates Layers Set to Transparency

394 TRANSMISSION LINE AND B154/C155 KING STREET TAP LINE ASSET CONDITION REFURBISHMENT PROJECT

Environmental Resources Map

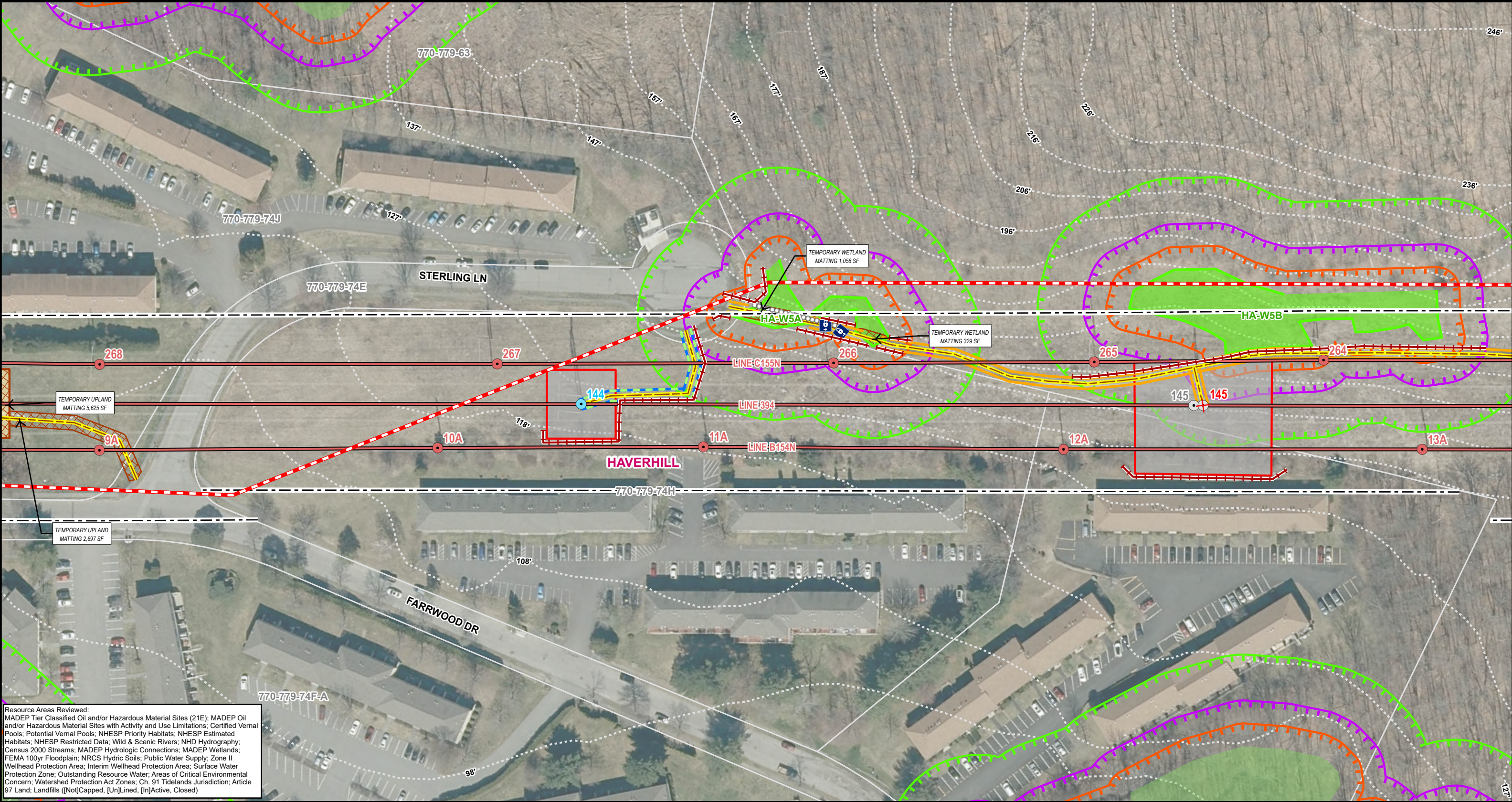
Haverhill, MA

Page 2 of 4

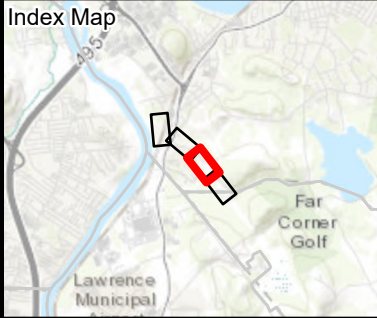
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- Access Gate
- Culvert
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- Parcel Boundary
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- 25ft No-Disturb Zone (Haverhill)
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1 inch = 100 feet

0 50 100 Feet

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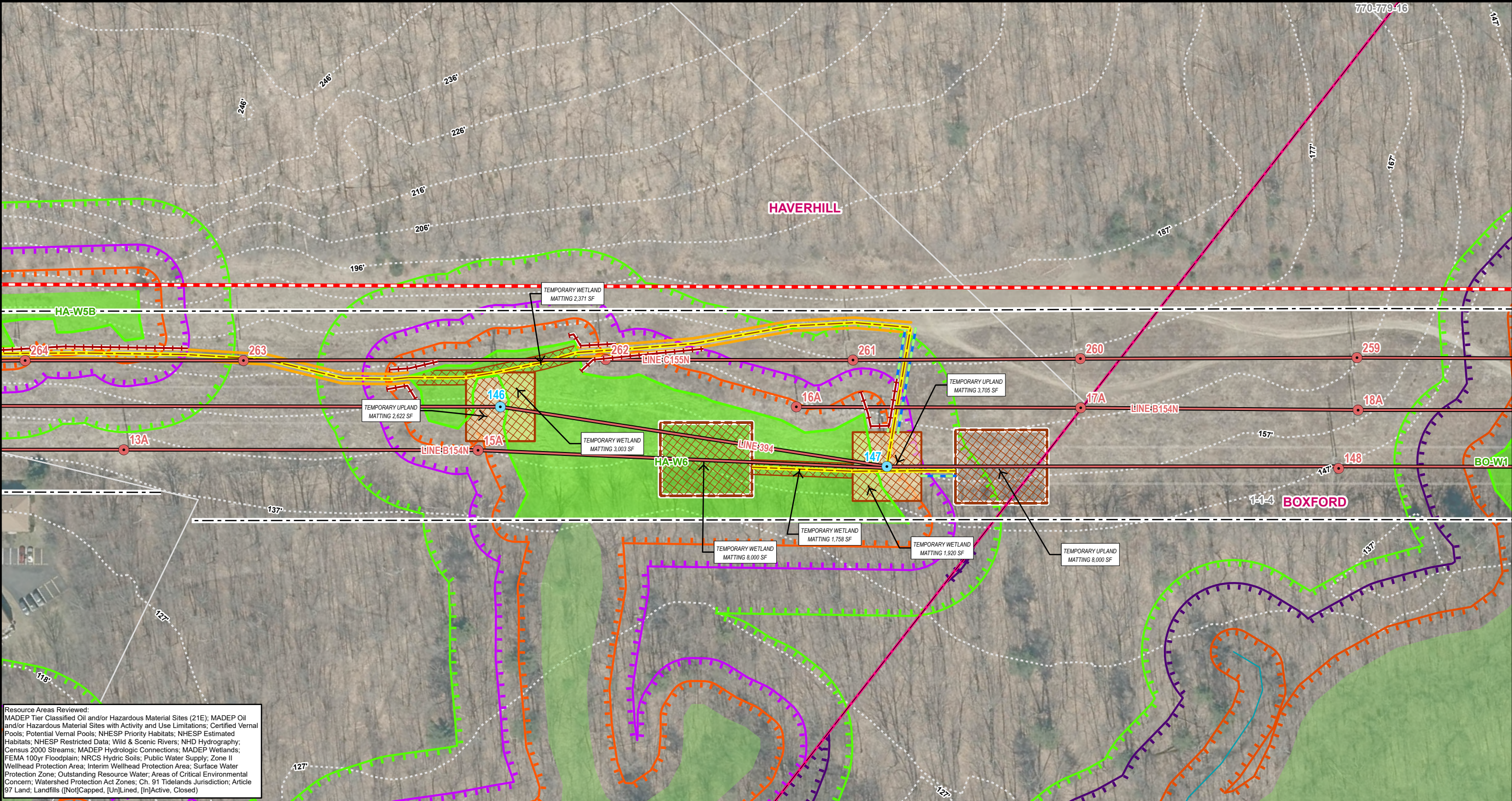
**394 TRANSMISSION LINE AND
B154/C155 KING STREET
TAP LINE ASSET CONDITION
REFURBISHMENT PROJECT**

Environmental Resources Map

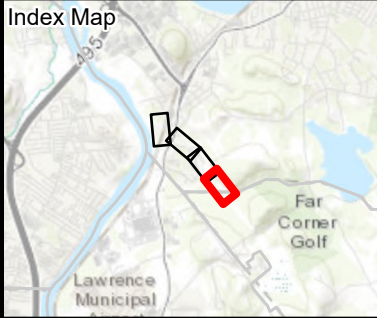
Haverhill, MA
Page 3 of 4

Massachusetts 2023 Aerial Imagery
(Tile Service): MassGIS
World_Topo_Map: Sources: Esri,
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OpenStreetMap contributors, and the
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- Access Road Work**
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- Railroad
- Stonewall
- Access Gate
- Culvert
- National Grid Property
- Parcel Boundary
- Town Boundary
- Municipal Jurisdiction Buffers**
- 25ft No-Disturb Zone (Haverhill)
- 25ft No-Disturb Zone (Boxford)
- 50ft No Build Zone (Haverhill)
- 75ft No Build Zone (Boxford)

1 inch = 100 feet

0 50 100 Feet

*Indicates Layers Set to Transparency

**394 TRANSMISSION LINE AND
B154/C155 KING STREET
TAP LINE ASSET CONDITION
REFURBISHMENT PROJECT**

Environmental Resources Map

Haverhill & Boxford, MA

Page 4 of 4

Massachusetts 2023 Aerial Imagery
(Tile Service): MassGIS
World_Topo_Map: Sources: Esri,
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Attachment C

394 Transmission Line and B154/C155 King Street Tap Line
Asset Condition Refurbishment Project
Haverhill, MA
Notice of Intent

Site Photographs



Photo #1: View of wetland HA-W5, between structures 141 and 142 on the 394 Line. *Facing southeast.*



Photo #2: View of wetland HA-W5A, shown with view of access to structure 144 from Sterling Lane. *(Facing west).*



Photo #3: View of Wetland HA-W5B. Shown in the background is the access road to structure 145. *Facing southeast.*



Photo #4: View of wetland HA-W6 near structure 146 on the 395 Line.

Attachment D

394 Transmission Line and B154/C155 King Street Tap Line
Asset Condition Refurbishment Project
Haverhill, MA
Notice of Intent

Certified Abutters List
Abutters Notification Letter



City of Haverhill Conservation Commission

HCC Local Application Form 3

Notice of Intent

H. ABUTTER NOTIFICATION FORM

In accordance with the second paragraph of Massachusetts General Laws Chapter 131, Section 40 (the Wetlands Protection Act) and Haverhill Municipal Ordinance Chapter 253, Section 5, you are hereby notified of the following:

1. The name of the applicant is New England Power Company (NEP)
2. Brief Project Description: NEP is proposing to conduct general maintenance & improvement activities along the 394 and B154/C154 transmission lines, including structure replacement, access road improvements and overhead work. All work will be confined to the existing electric transmission right-of-way (ROW).
3. The applicant has filed a Notice of Intent ("NOI") with the Haverhill Conservation Commission seeking permission to remove, fill, dredge or alter an Area Subject to Protection Under the Wetlands Protection Act and/or Haverhill Municipal Ordinance Chapter 253 and/or to perform work within the buffer zone of such an Area.
4. The address of the lot where the activity is proposed is existing ROW between the Ward Hill Substation and areas southeast of Farrwood Drive/east of Bradford St.
(INCLUDE ASSESSOR'S MAP/BLOCK/LOT)
5. Copies of the NOI may be examined at *the Haverhill Conservation Department Office* between the hours of *8am and 4pm* from *Monday through Friday*. Contact information is below. You may also find helpful application materials on the "Projects Under Review" section of the Commission's website.
6. Copies of the NOI may be obtained from either (check one) the applicant , or the applicant's representative X, by calling this telephone number (617)-896-4584 between the hours of 8 AM and 5PM on the following days of the week Monday-Friday
7. Information regarding the *date, time, and place* of the public hearing may be obtained from the *Haverhill Conservation Department Office* between the hours of *8am and 4pm* from *Monday through Friday*. Contact information is below. You may also consult the "Agenda" section of the Commission's website.

NOTE: Notice of the public hearing, including its date, time and place, will be published at least five (5) days in advance in the *Haverhill Gazette newspaper*.

NOTE: Notice of the public hearing, including its date, time, and place, will be posted in Haverhill City Hall not less than forty-eight (48) hours in advance.

NOTE: You may contact the Haverhill Conservation Department for more information about this application, the Wetlands Protection Act, and Haverhill Municipal Ordinance Chapter 253. Please note the Department has only one staff person; every effort will be made to assist you in a timely manner.

Website: http://www.cityofhaverhill.org/departments/conservation_commission/index.php.

Email: conservation@cityofhaverhill.com

Phone: 978.374.2334

NOTE: For additional information about this application and the Act, you may contact the MA Department of Environmental Protection Northeast Regional Office Service Center.

Website: <http://www.mass.gov/eea/agencies/massdep/about/contacts/northeast-region.html>

Phone: 978.694.3200

City Hall Room 300 • 4 Summer Street • Haverhill, MA 01830 • www.cityofhaverhill.org

ParcelID	Street#	AltStreet#	StreetName	LocCity	Owner1	BillingAddress	City	State	Zip
					VICTORIA A BRADLEY				
732-777-11	1239	1241	BOSTON RD	HAVERHILL	REALTY TR	1239 BOSTON RD	WARD HILL	MA	01835
732-777-2A	1197		BOSTON RD	HAVERHILL	SAVVAS VLAIFOS ETAL	187 EAST BROADWAY	HAVERHILL	MA	01830
					NEW ENGLAND POWER				
732-777-3			BOSTON RD	HAVERHILL	CO	40 SYLVAN ROAD	WALTHAM	MA	02451
732-777-30	1261		BOSTON RD	HAVERHILL	VISTA FARMS, INC	133 NECK RD	WARD HILL	MA	01835
					BARBARA J. ROGERS-				
732-777-6	1223		BOSTON RD	HAVERHILL	SCHARNECK TR	46 NECK RD	WARD HILL	MA	01835
732-777-7	1227		BOSTON RD	HAVERHILL	COLCAI LLC	46 NECK ROAD	WARD HILL	MA	01835
732-777-9	1235		BOSTON RD	HAVERHILL	BRADSHAW NICHOLAS	161 NECK RD	WARD HILL	MA	01835
					1345 BOSTON ROAD				
732-778-2	1345		BOSTON RD	HAVERHILL	REALTY TRUST	1780 OSGOOD ST	NORTH ANDOVE	MA	01845
732-778-2A			BOSTON RD	HAVERHILL	TROPEANO JAMES A	1780 OSGOOD ST	NORTH ANDOVE	MA	01845
732-778-7	1281		BOSTON RD	HAVERHILL	SINGH BARJINDER	1281 BOSTON RD	WARD HILL	MA	01835
770-11A-405	405		FARRWOOD DR	HAVERHILL	CONNOR DONNA MARIE	405 FARRWOOD DR	BRADFORD	MA	01835
					HROMADA W MATTHEW-				
770-11A-406	406		FARRWOOD DR	HAVERHILL	ETUX	406 FARRWOOD DRIVE	BRADFORD	MA	01835
770-11A-407	407		FARRWOOD DR	HAVERHILL	AVILES LUCIA I GUAMBO	407 FARRWOOD DRIVE	BRADFORD	MA	01835
770-11A-408	408		FARRWOOD DR	HAVERHILL	MARTIN NANCY ANN	408 FARRWOOD DRIVE	BRADFORD	MA	01835
770-11A-409	409		FARRWOOD DR	HAVERHILL	LOGAN SAMANTHA LYNNE	409 FARRWOOD DR	BRADFORD	MA	01835
770-11A-410	410		FARRWOOD DR	HAVERHILL	ROLLKA RICHARD	410 FARRWOOD DRIVE	BRADFORD	MA	01835
						411 FARRWOOD DRIVE			
770-11A-411	411		FARRWOOD DR	HAVERHILL	HEALY CAITLIN	UNIT #411	BRADFORD	MA	01835
770-11A-412	412		FARRWOOD DR	HAVERHILL	MARGIOTTA DARCY H	412 FARRWOOD DRIVE	BRADFORD	MA	01835
770-11A-413	413		FARRWOOD DR	HAVERHILL	NOVA FRANCIS	413 FARRWOOD DR	BRADFORD	MA	01835
770-11A-414	414		FARRWOOD DR	HAVERHILL	CHANDLER JENNIFER	414 FARRWOOD DR	BRADFORD	MA	01835
770-11A-415	415		FARRWOOD DR	HAVERHILL	FUOCO RICHARD J	415 FARRWOOD DR	BRADFORD	MA	01835
770-11A-416	416		FARRWOOD DR	HAVERHILL	STREMPEL ALEXANDER	416 FARRWOOD DR	BRADFORD	MA	01835
770-11A-417	417		FARRWOOD DR	HAVERHILL	NYAMWAYA DOLLY	417 FARRWOOD DR	HAVERHILL	MA	01835
770-11A-418	418		FARRWOOD DR	HAVERHILL	YAMIN SHERWIN	2 WALKER RD, Unit 9	NORTH ANDOVE	MA	01845
770-11A-419	419		FARRWOOD DR	HAVERHILL	KINGMAN MARK D-ETUX	419 FARRWOOD DR	BRADFORD	MA	01835

770-11A-420	420	FARRWOOD DR HAVERHILL MACDUFF SCOTT	420 FARRWOOD DR	BRADFORD	MA	01835
770-11B-437	437	FARRWOOD DR HAVERHILL SALAMEH RAMI A-ETUX	437 FARRWOOD DR	BRADFORD	MA	01835
770-11B-438	438	FARRWOOD DR HAVERHILL COURCY JOY MICHON	438 FARRWOOD DR	BRADFORD	MA	01835
770-11B-439	439	FARRWOOD DR HAVERHILL JONES STEPHEN	439 FARRWOOD DRIVE	BRADFORD	MA	01835
770-11B-440	440	FARRWOOD DR HAVERHILL RIEHLE CHARLES	440 FARRWOOD DR	BRADFORD	MA	01835
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770-11B-445	445	FARRWOOD DR HAVERHILL ETUX	445 FARRWOOD DR	BRADFORD	MA	01835
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770-11B-447	447	FARRWOOD DR HAVERHILL ROUHANA DIANA	30 LITTLEFIELD COURT	HAVERHILL	MA	01832
		FONSECA STEPHEN D				
770-11B-448	448	FARRWOOD DR HAVERHILL ETUX	448 FARRWOOD DRIVE	BRADFORD	MA	01835
		PERRILLO ANTHONY L-				
770-11B-449	449	FARRWOOD DR HAVERHILL ETUX	449 FARRWOOD DRIVE	BRADFORD	MA	01835
770-11B-450	450	FARRWOOD DR HAVERHILL MORIN BRENDAN C	450 FARRWOOD DR	BRADFORD	MA	01835
770-11B-451	451	FARRWOOD DR HAVERHILL TUTRONE ROSALIE J	32A WEST MEADOW RD	HAVERHILL	MA	01832
		CATHERINE J PETZOLD				
770-11B-452	452	FARRWOOD DR HAVERHILL REVOCABLE OF 2022	452 FARRWOOD DRIVE	BRADFORD	MA	01835
770-11C-421	421	FARRWOOD DR HAVERHILL MOORE JOHN W-ETUX	421 FARRWOOD DR	BRADFORD	MA	01835
770-11C-422	422	FARRWOOD DR HAVERHILL KING JEFFREY	422 FARRWOOD DR	HAVERHILL	MA	01830
770-11C-423	423	FARRWOOD DR HAVERHILL YOUNGER CARMEN M	423 FARRWOOD DR	BRADFORD	MA	01835
770-11C-424	424	FARRWOOD DR HAVERHILL WILLIAMS LORI A ETUX	424 FARRWOOD DR	BRADFORD	MA	01835
		425 FARRWOOD DRIVE				
770-11C-425	425	FARRWOOD DR HAVERHILL REALTY TR	425 FARRWOOD DR	BRADFORD	MA	01835
		MCDONOUGH PATRICK J-				
770-11C-426	426	FARRWOOD DR HAVERHILL ETAL	426 FARRWOOD DRIVE	BRADFORD	MA	01835
770-11C-427	427	FARRWOOD DR HAVERHILL MEYETTE GEMMA-ETAL	427 FARRWOOD DRIVE	BRADFORD	MA	01835
770-11C-428	428	FARRWOOD DR HAVERHILL MANDELL BRADLEY	428 FARRWOOD DR	BRADFORD	MA	01835
770-11C-429	429	FARRWOOD DR HAVERHILL JABLONSKI NATHAN J-ETAL	525 MERRILL LANE #112	DRACUT	MA	01826

770-11C-430	430	FARRWOOD DR	HAVERHILL	YUMIGUANO CECILIA	430 FARRWOOD DR	BRADFORD	MA	01835
770-11C-431	431	FARRWOOD DR	HAVERHILL	SEXTON BARBARA ETUX	431 FARRWOOD DRIVE	BRADFORD	MA	01835
770-11C-432	432	FARRWOOD DR	HAVERHILL	SALVO GINA	432 FARRWOOD DR	BRADFORD	MA	01835
770-11C-433	433	FARRWOOD DR	HAVERHILL	PATEL TIRTH P	433 FARRWOOD DR	BRADFORD	MA	01835
770-11C-434	434	FARRWOOD DR	HAVERHILL	FITZGERALD JACLYN MARY	434 FARRWOOD DR	BRADFORD	MA	01835
770-11C-435	435	FARRWOOD DR	HAVERHILL	LACOLLA MARC V	435 FARRWOOD DR	BRADFORD	MA	01835
770-11C-436	436	FARRWOOD DR	HAVERHILL	NAULT MAUREEN T WARD	436 FARRWOOD DR	HAVERHILL	MA	01835
770-6A-1	1	STERLING LN	HAVERHILL	GEORGES GAMIL F-ETAL	1 STERLING LANE	BRADFORD	MA	01835
770-6A-10	10	STERLING LN	HAVERHILL	MALONEY JOHN K-ETALI	5 CROSS ST	DANVERS	MA	01923
770-6A-11	11	STERLING LN	HAVERHILL	GLYNN DIANE L	11 STERLING LANE	BRADFORD	MA	01835
					1 RIVERVIEW BLVD #2-			
770-6A-12	12	STERLING LN	HAVERHILL	DESMET ROBIN	107	METHUEN	MAH	01844
770-6A-13	13	STERLING LN	HAVERHILL	FISHER JULIE LYNN	30 ARCHIBALD AV	METHUEN	MA	01844
770-6A-14	14	STERLING LN	HAVERHILL	SANTORO ANGELO ETUX	14 STERLING LN	BRADFORD	MA	01835
				STERLING LANE 2022				
770-6A-15	15	STERLING LN	HAVERHILL	IRREVOCABLE TRUST	15 STERLING LANE	BRADFORD	MA	01835
770-6A-16	16	STERLING LN	HAVERHILL	STERLING REALTY TRUST II	16 STERLING LN	BRADFORD	MA	01835
770-6A-2	2	STERLING LN	HAVERHILL	TU PHUNG M	2 STERLING LANE	BRADFORD	MA	01835
770-6A-3	3	STERLING LN	HAVERHILL	LUNDQUIST SARAH	3 STERLING LN	HAVERHILL	MA	01835
770-6A-4	4	STERLING LN	HAVERHILL	FREEMAN CHERRY L	4 STERLING LANE	BRADFORD	MA	01835
770-6A-5	5	STERLING LN	HAVERHILL	ZANNINI JAY SCOTT-ETAL	5 STERLING LN	BRADFORD	MA	01835
770-6A-6	6	STERLING LN	HAVERHILL	SHEEHAN ANDREW R	6 STERLING LANE	BRADFORD	MA	01835
770-6A-7	7	STERLING LN	HAVERHILL	HARDEN MARJORIE O	7 STERLING LANE	BRADFORD	MA	01835
770-6A-8	8	STERLING LN	HAVERHILL	DICESARE MICHAEL J	8 STERLING LN	BRADFORD	MA	01835
770-6A-9	9	STERLING LN	HAVERHILL	WERUNGA ROBAI NASABA	9 STERLING LANE	BRADFORD	MA	01835
770-6B-17	17	STERLING LN	HAVERHILL	ROBBINS LESLIE D	17 STERLING LANE	BRADFORD	MA	01835
770-6B-18	18	STERLING LN	HAVERHILL	CASTILLO MARCIA	18 STERLING LANE	BRADFORD	MA	01835
770-6B-19	19	STERLING LN	HAVERHILL	MARZIOLI BEVERLY A	19 STERLING LN	BRADFORD	MA	01835
770-6B-20	20	STERLING LN	HAVERHILL	SHIPLEY BRIANNA	20 STERLING LANE	BRADFORD	MA	01835
770-6B-21	21	STERLING LN	HAVERHILL	CIOFFI JOSEPH	21 STERLING LN	BRADFORD	MA	01835

770-6B-22	22	STERLING LN	HAVERHILL ST. AMAND NICOLE M-ETAL	22 STERLING LANE	BRADFORD	MA	01835
770-6B-23	23	STERLING LN	HAVERHILL ADAMS GIDEON F	23 STERLING LANE	BRADFORD	MA	01835
			24 STERLING LANE REALTY				
770-6B-24	24	STERLING LN	HAVERHILL TRUST	24 STERLING LANE	BRADFORD	MA	01835
			LABBE RAYMOND P-LIFE				
770-6B-25	25	STERLING LN	HAVERHILL EST	35 COLBY ROAD	DANVILLE	NH	03819
770-6B-26	26	STERLING LN	HAVERHILL FRIEDRICHS EMMETT	26 STERLING LANE	BRADFORD	MA	01835
770-6B-27	27	STERLING LN	HAVERHILL SUMMA MICHAEL J	27 STERLING LN	BRADFORD	MA	01835
770-6B-28	28	STERLING LN	HAVERHILL KRAMER K ROBERT ETUX	28 STERLING LANE	BRADFORD	MA	01835
770-6B-29	29	STERLING LN	HAVERHILL SPENCER DAVID	29 STERLING LANE	BRADFORD	MA	01835
770-6B-30	30	STERLING LN	HAVERHILL FRANCISCO MICHELLE	30 STERLING LN	BRADFORD	MA	01835
			GA DOWLING STERLING				
770-6B-31	31	STERLING LN	HAVERHILL TRUST	31 STERLING LANE	BRADFORD	MA	01835
770-6B-32	32	STERLING LN	HAVERHILL JENNINGS JULIE M	32 STERLING LN	BRADFORD	MA	01835
770-6C-33	33	STERLING LN	HAVERHILL PERNICE ANN	33 STERLING LANE	BRADFORD	MA	01835
			34 STERLING LANE				
			REVOCABLE REAL ESTATE				
770-6C-34	34	STERLING LN	HAVERHILL TRUST	34 STERLING LN	BRADFORD	MA	01835
770-6C-35	35	STERLING LN	HAVERHILL DORANDI KELLY ANN	35 STERLING LN	HAVERHILL	MA	01835
770-6C-36	36	STERLING LN	HAVERHILL S3 REALTY, LLC	46 LAMOILLE AV	BRADFORD	MA	01835
770-6C-37	37	STERLING LN	HAVERHILL WILSON CHARLES-ETUX	37 STERLING LANE	BRADFORD	MA	01835
770-6C-38	38	STERLING LN	HAVERHILL ADAMS JAKE A-ETAL	38 STERLING LANE	BRADFORD	MA	01835
770-6C-39	39	STERLING LN	HAVERHILL BARRY LYNNE	39 STERLING LANE	BRADFORD	MA	01835
770-6C-40	40	STERLING LN	HAVERHILL LYNCH WILLIAM F-ETUX	40 STERLING LN	BRADFORD	MA	01835
770-6C-41	41	STERLING LN	HAVERHILL McLENNAN SAMUEL M	41 STERLING LANE	BRADFORD	MA	01835
770-6C-42	42	STERLING LN	HAVERHILL PHIRI COLLEN	6 ELMWOOD AVE	BRADFORD	MA	01835
770-6C-43	43	STERLING LN	HAVERHILL COOKE DEREK R	43 STERLING LANE	BRADFORD	MA	01835
770-6C-44	44	STERLING LN	HAVERHILL O` NEIL CAROL ANN	44 STERLING LANE	BRADFORD	MA	01835
770-6C-45	45	STERLING LN	HAVERHILL WESLEY LINDA	45 STERLING LN	BRADFORD	MA	01835
770-6C-46	46	STERLING LN	HAVERHILL BROWN PETER E ETUX	46 STERLING LANE	BRADFORD	MA	01835
			LANNON WILLIAM A JR-				
770-6C-47	47	STERLING LN	HAVERHILL ETUX	47 STERLING LANE	BRADFORD	MA	01835

				RICHARD W PEARL SUPP				
770-6C-48	48	STERLING LN	HAVERHILL	NEEDS TRUST	48 STERLING LANE	BRADFORD	MA	01835
					50 SOUTH COGSWELL			
770-6D-49	49	STERLING LN	HAVERHILL	POJOY WILMER V-ETAL	ST	BRADFORD	MA	01835
770-6D-50	50	STERLING LN	HAVERHILL	STERLING REALTY TRUST	50 STERLING LANE	BRADFORD	MA	01835
770-6D-51	51	STERLING LN	HAVERHILL	IANNINO PETER	51 STERLING LN	BRADFORD	MA	01835
770-6D-52	52	STERLING LN	HAVERHILL	DESMOND WILLIAM J JR	52 STERLING LN	BRADFORD	MA	01835
770-6D-53	53	STERLING LN	HAVERHILL	BELLINI KATHLEEN-ETAL	53 STERLING LANE	BRADFORD	MA	01835
770-6D-54	54	STERLING LN	HAVERHILL	ALLEN COREY J-ETUX	54 STERLING LN	BRADFORD	MA	01835
770-6D-55	55	STERLING LN	HAVERHILL	SITEK JAKUB M-ETUX	55 STERLING LANE	BRADFORD	MA	01835
770-6D-56	56	STERLING LN	HAVERHILL	WILLIAMS PAULA	56 STERLING LANE	BRADFORD	MA	01835
770-6D-57	57	STERLING LN	HAVERHILL	FOSTER SARAH E	57 STERLING LN	BRADFORD	MA	01835
770-6D-58	58	STERLING LN	HAVERHILL	GAUTHIER KRYSTAL	58 STERLING LANE	BRADFORD	MA	01835
770-6D-59	59	STERLING LN	HAVERHILL	MISRA NETANT	59 STERLING LANE	BRADFORD	MA	01835
				DICKINSON STEVEN C-				
770-6D-60	60	STERLING LN	HAVERHILL	ETUX	60 STERLING LN	BRADFORD	MA	01835
770-6D-61	61	STERLING LN	HAVERHILL	MURPHY BRITTANY	61 STERLING LN	BRADFORD	MA	01835
770-6D-62	62	STERLING LN	HAVERHILL	CORREA PROPERTIES, LLC	4 PROCTOR RD	LAWRENCE	MA	01840
				CORONA-ARREOLA				
770-6D-63	63	STERLING LN	HAVERHILL	ABELARDO	63 STERLING LN	BRADFORD	MA	01835
				BARTLETT ROBERT J ETUX				
770-6D-64	64	STERLING LN	HAVERHILL	LIFE ESTATE	64 STERLING LN	BRADFORD	MA	01835
770-6E-65	65	STERLING LN	HAVERHILL	CHAGNON ALISA M	65 STERLING LN	BRADFORD	MA	01835
770-6E-66	66	STERLING LN	HAVERHILL	MILLER JOHN R	66 STERLING LN	HAVERHILL	MA	01835
770-6E-67	67	STERLING LN	HAVERHILL	PATEL KRUPA	67 STERLING LANE	HAVERHILL	MA	01835
770-6E-68	68	STERLING LN	HAVERHILL	STOBBS ANN-ETAL	68 STERLING LANE	BRADFORD	MA	01835
770-6E-69	69	STERLING LN	HAVERHILL	STICKNEY SCOTT	69 STERLING LN	BRADFORD	MA	01835
770-6E-70	70	STERLING LN	HAVERHILL	SCALLY PATRICK J ET UX	70 STERLING LANE	BRADFORD	MA	01835
770-6E-71	71	STERLING LN	HAVERHILL	SHARMA TEJ-ETUX	10 WEDGEWOOD DRIVE	ANDOVER	MA	01810
				COUILLARD FAMILY				
770-6E-72	72	STERLING LN	HAVERHILL	IRREVOCABLE TRUST	72 STERLING LANE	BRADFORD	MA	01835

770-6E-73	73	STERLING LN	HAVERHILL	HASHWAY PHILIP ELIDRISSI SOUFIANE	4007 CALLE SONORA OESTE, UNIT 1G	LAGUNA WOODS CA	92637
770-6E-74	74	STERLING LN	HAVERHILL	BERAMI	74 STERLING LANE	BRADFORD MA	01835
770-6E-75	75	STERLING LN	HAVERHILL	BROWN AMY L KATHLEEN J PIKUS & MARIANNE B PATCH	75 STERLING LANE	BRADFORD MA	01835
770-6E-76	76	STERLING LN	HAVERHILL	LIVING TRUST	76 STERLING LANE	BRADFORD MA	01835
770-6E-77	77	STERLING LN	HAVERHILL	ADAIR CANDY	77 STERLING LANE	BRADFORD MA	01835
770-6E-78	78	STERLING LN	HAVERHILL	LUCIA MICHELLE	78 STERLING LANE	BRADFORD MA	01835
770-6E-79	79	STERLING LN	HAVERHILL	MACMILLAN JANICE A-ETAL	79 STERLING LANE	BRADFORD MA	01835
770-6E-80	80	STERLING LN	HAVERHILL	GONZALES DANIEL ETAL	80 STERLING LN	BRADFORD MA	01835
770-6F-81	81	STERLING LN	HAVERHILL	FALTAS HANY	379 NORTH MAIN ST	ANDOVER MA	01810
770-6F-82	82	STERLING LN	HAVERHILL	CASCIO LISA MARIE	82 STERLING LANE	BRADFORD MA	01835
770-6F-83	83	STERLING LN	HAVERHILL	ENRIQUEZ ROBIN L	83 STERLING LN	BRADFORD MA	01835
770-6F-84	84	STERLING LN	HAVERHILL	SOLOVIEV VIKTOR ETUX CADETTE IGNATIUS J JR-	53 LILAK DR	AUBURN NH	03032
770-6F-85	85	STERLING LN	HAVERHILL	ETAL DALLAIRE CLIFFORD R-	85 STERLING LN	BRADFORD MA	01835
770-6F-86	86	STERLING LN	HAVERHILL	ETUX	86 STERLING LANE	BRADFORD MA	01835
770-6F-87	87	STERLING LN	HAVERHILL	SCOTT MICHELLE E	87 STERLING LANE	BRADFORD MA	01835
770-6F-88	88	STERLING LN	HAVERHILL	TARR AMY TYCYNski 89 STERLING LANE REALTY	88 STERLING LN	BRADFORD MA	01835
770-6F-89	89	STERLING LN	HAVERHILL	TRUST	89 STERLING LN	HAVERHILL MA	01835
770-6F-90	90	STERLING LN	HAVERHILL	DESAI JAYMEEN REMEZ ZINAIDA D ETALI	23211 INGOMAR ST	CANOGA PARK CA	91304
770-6F-91	91	STERLING LN	HAVERHILL	LIFE EST	91 STERLING LANE	BRADFORD MA	01835
770-6F-92	92	STERLING LN	HAVERHILL	ELLIOTT ROBERT P JR ETAL GALLAGHER DANIEL	92 STERLING LN	BRADFORD MA	01835
770-6F-93	93	STERLING LN	HAVERHILL	FRANCIS	93 STERLING LN	BRADFORD MA	01835
770-6F-94	94	STERLING LN	HAVERHILL	SHEPPARD KATELYNN M	94 STERLING LANE	BRADFORD MA	01835

				POMERLEAU GREGG				
770-6F-95	95	STERLING LN	HAVERHILL	ROBERT	95 STERLING LN	BRADFORD	MA	01835
770-6F-96	96	STERLING LN	HAVERHILL	GUEVARA JORGE	96 STERLING LN	BRADFORD	MA	01835
770-779-63		BOSTON RD	HAVERHILL	BRIAR FOX REALTY, LLC	46 NECK RD	WARD HILL	MA	01835
770-779-68		FARRWOOD DR	HAVERHILL	FARRWOOD LOTS, INC.	66 PARK ST	ANDOVER	MA	01810
770-779-68A-	1232	BOSTON RD	HAVERHILL	MWAURA MARGARET	1232 BOSTON RD	WARD HILL	MA	01835
				TWELVE THIRTY-FOUR BOSTON RD NOMINEE				
770-779-68A-	1234	BOSTON RD	HAVERHILL	REALTY TRUST	1234 BOSTON RD	WARD HILL	MA	01835
770-779-68B	1226	BOSTON RD	HAVERHILL	HAMDI THAER	1226 BOSTON RD	HAVERHILL	MA	01835
770-779-69	12	O` LEARY WAY	HAVERHILL	O` LEARY DAVID W-ETUX	1240 BOSTON RD	BRADFORD	MA	01835
770-779-69-1	1	O` LEARY WAY	HAVERHILL	MCVEY EVAN GREGORY	1 O'LEARY WAY, Unit 1	HAVERHILL	MA	null
770-779-69-1-	3	O` LEARY WAY	HAVERHILL	ARENCIBIA ANTHONY-ETAL	3 O` LEARY WAY	BRADFORD	MA	01835
770-779-69-1-	5	O` LEARY WAY	HAVERHILL	TOUSSAINT JASMINE	5 O` LEARY WAY	BRADFORD	MA	01835
					11 O` LEARY WAY, UNIT			
770-779-69-2-	11	O` LEARY WAY	HAVERHILL	GICHANA DENNIS O-ETAL	11	BRADFORD	MA	01835
770-779-69-2-	7	O` LEARY WAY	HAVERHILL	BENAICHA BOUCHAIB	7 O` LEARY WAY	HAVERHILL	MA	01835
770-779-69-2-	9	O` LEARY WAY	HAVERHILL	IACONO PAMELA J	9 O` LEARY WAY	BRADFORD	MA	01835
770-779-69-3-	13	O` LEARY WAY	HAVERHILL	MORGAN KATIE	13 O` LEARY WAY	HAVERHILL	MA	01835
770-779-69-3-	15	O` LEARY WAY	HAVERHILL	BLACK JUDITH	15 O` LEARY WAY	BRADFORD	MA	01835
					17 O` LEARY WAY, UNIT			
770-779-69-3-	17	O` LEARY WAY	HAVERHILL	FLYNN CHARLES T-ETUX	17	BRADFORD	MA	01835
					71 COMMERCIAL ST,			
770-779-69-4	19 21,23,	O` LEARY WAY	HAVERHILL	O WAY, LLC	UNIT 263	BOSTON	MA	02109
					71 COMMERCIAL ST,			
770-779-69-5	20 22,24,	O` LEARY WAY	HAVERHILL	O WAY, LLC	UNIT 263	BOSTON	MA	02109
770-779-69-6-	14	O` LEARY WAY	HAVERHILL	CROWE DANIELLE F	14 O` LEARY WAY	HAVERHILL	MA	01835
770-779-69-6-	16	O` LEARY WAY	HAVERHILL	DENARO DAVID-ETAL	16 O` LEARY WAY	HAVERHILL	MA	01835
770-779-69-6-	18	O` LEARY WAY	HAVERHILL	KHAN ROZA	18 O` LEARY WAY	BRADFORD	MA	01835
				DONALDSONS				
770-779-69B	1272	BOSTON RD	HAVERHILL	DEVELOPMENT TRUST	P O BOX 11	NEWBURYPORT	MA	01950

				HOLY CROSS ARMENIAN				
770-779-70	1280	BOSTON RD	HAVERHILL	CHURCH	P O BOX 8069	WARD HILL	MA	01835
770-779-70A	1300	BOSTON RD	HAVERHILL	SOUCY JEAN NOEL ETAL	1300 BOSTON RD	WARD HILL	MA	01835
				WINTERVALE REALTY				
770-779-74		FARRWOOD DR	HAVERHILL	TRUST	66 PARK ST	ANDOVER	MA	01810
770-779-74E		FARRWOOD DR	HAVERHILL	FARRWOOD DRIVE, INC.	66 PARK ST	ANDOVER	MA	01810
				1-42 ISLINGTON				
770-779-74F	1	42 ISLINGTON X-IN	HAVERHILL	CROSSING, LLC	P.O. BOX 81013	WELLESLEY	MA	02481
770-779A-1	1	FARRWOOD DR	HAVERHILL	SASSO JENNY M	1 FARRWOOD DR	BRADFORD	MA	01835
770-779A-10	10	FARRWOOD DR	HAVERHILL	RAMPULLA JOHN C-ETUX	10 FARRWOOD DR	BRADFORD	MA	01835
770-779A-11	11	FARRWOOD DR	HAVERHILL	BOYNTON TANIA GIL	11 FARRWOOD DR	BRADFORD	MA	01835
770-779A-12	12	FARRWOOD DR	HAVERHILL	MCCARTHY JEAN	12 FARRWOOD DRIVE	BRADFORD	MA	01835
770-779A-13	13	FARRWOOD DR	HAVERHILL	ABORN THOMAS	13 FARRWOOD DR	BRADFORD	MA	01835
770-779A-14	14	FARRWOOD DR	HAVERHILL	BAILLARGEON ROBERT L	14 FARRWOOD DR	BRADFORD	MA	01835
770-779A-15	15	FARRWOOD DR	HAVERHILL	BREAULT MITCHELL GENE	15 FARRWOOD DRIVE	BRADFORD	MA	01835
770-779A-16	16	FARRWOOD DR	HAVERHILL	LOPEZ ODALIS	16 FARRWOOD DR	BRADFORD	MA	01835
770-779A-17	17	FARRWOOD DR	HAVERHILL	ROUHANA AIDA N	54 WILMOT ST	LAWRENCE	MA	01841
770-779A-18	18	FARRWOOD DR	HAVERHILL	GERLACH DYLAN	18 FARRWOOD DR	BRADFORD	MA	01835
770-779A-19	19	FARRWOOD DR	HAVERHILL	PARIS DIANE M	19 FARRWOOD DR	BRADFORD	MA	01835
770-779A-2	2	FARRWOOD DR	HAVERHILL	SENECA BRADY J-ETUX	2 FARRWOOD DR	BRADFORD	MA	01835
770-779A-20	20	FARRWOOD DR	HAVERHILL	JILLSON CHERYL	20 FARRWOOD DRIVE	BRADFORD	MA	01835
				THE JOSEPH H SAMPSON				
770-779A-21	21	FARRWOOD DR	HAVERHILL	LIVING TRUST	21 FARRWOOD DR	BRADFORD	MA	01835
770-779A-22	22	FARRWOOD DR	HAVERHILL	RIZZO BARBARA J	22 FARRWOOD DR	BRADFORD	MA	01835
770-779A-23	23	FARRWOOD DR	HAVERHILL	DARLING CHRISTINE H	23 FARRWOOD DR	BRADFORD	MA	01835
770-779A-24	24	FARRWOOD DR	HAVERHILL	FONTAINE RYAN M	24 FARRWOOD DRIVE	BRADFORD	MA	01835
				JUDITH ANN FARGNOLI				
770-779A-25	25	FARRWOOD DR	HAVERHILL	REVOCABLE	25 FARRWOOD DRIVE	BRADFORD	MA	01835
770-779A-26	26	FARRWOOD DR	HAVERHILL	HENNESSY MICHAEL	26 FARRWOOD DR #26	BRADFORD	MA	01835
770-779A-27	27	FARRWOOD DR	HAVERHILL	STAMOS AMANDA-ETUX	27 FARRWOOD DRIVE	BRADFORD	MA	01835
				THE ANASTAS FAMILY				
				REVOCABLE TRUST OF				
770-779A-28	28	FARRWOOD DR	HAVERHILL	2013	334A EXETER RD	HAMPTON FALLS NH		03844

WELCH JOHN J-ETUX-LF

770-779A-29	29	FARRWOOD DR HAVERHILL EST	29 FARRWOOD DR	BRADFORD	MA	01835
770-779A-3	3	FARRWOOD DR HAVERHILL CHANAJ JOANNA	3 FARRWOOD DRIVE	BRADFORD	MA	01835
770-779A-30	30	FARRWOOD DR HAVERHILL ELWELL CATHERINE E	30 FARRWOOD DRIVE	HAVERHILL	MA	01835
770-779A-31	31	FARRWOOD DR HAVERHILL DEMARCO TARA	31 FARRWOOD DRIVE	BRADFORD	MA	01835
770-779A-32	32	FARRWOOD DR HAVERHILL JELLEY ANDREA	32 FARRWOOD DRIVE	BRADFORD	MA	01835
770-779A-33	33	FARRWOOD DR HAVERHILL HAYDEN GAIL P	33 FARRWOOD DR	BRADFORD	MA	01835
770-779A-34	34	FARRWOOD DR HAVERHILL MULFORD JANET L	50 DEVANT DR EAST	BLUFFTON	SC	29909
770-779A-35	35	FARRWOOD DR HAVERHILL FRASER JONATHAN J	35 FARRWOOD DRIVE	BRADFORD	MA	01835
770-779A-36	36	FARRWOOD DR HAVERHILL PARR MAURICE	36 FARRWOOD DR	BRADFORD	MA	01835
770-779A-37	37	FARRWOOD DR HAVERHILL BERNARD SEAN A-ETUX	37 FARRWOOD DR	HAVERHILL	MA	01835
770-779A-38	38	FARRWOOD DR HAVERHILL REGALADO JOEL-ETUX	38 FARRWOOD DR	BRADFORD	MA	01835
770-779A-39	39	FARRWOOD DR HAVERHILL ALVARADO VICTOR	39 FARRWOOD DR	BRADFORD	MA	01835
770-779A-4	4	FARRWOOD DR HAVERHILL WOOLF KERI ANN	4 FARRWOOD DR	BRADFORD	MA	01835
770-779A-40	40	FARRWOOD DR HAVERHILL HAJJAR WENDY	40 FARRWOOD DR	BRADFORD	MA	01835
770-779A-41	41	FARRWOOD DR HAVERHILL PETRYCKI EDWARD	41 FARRWOOD DR	BRADFORD	MA	01835
770-779A-42	42	FARRWOOD DR HAVERHILL LONG JOAN-ETAL	42 FARRWOOD DR	BRADFORD	MA	01835
MACDONALD CAITLYN A-						
770-779A-43	43	FARRWOOD DR HAVERHILL ETUX	43 FARRWOOD DR	BRADFORD	MA	01835
770-779A-44	44	FARRWOOD DR HAVERHILL KHAN IDRIS-ETUX	44 FARRWOOD DR	BRADFORD	MA	01835
MERRIMACK VALLEY						
770-779A-45	45	FARRWOOD DR HAVERHILL HOMES & INTERIORS LLC	674 TURNPIKE ST	NORTH ANDOVE	MA	01845
770-779A-46	46	FARRWOOD DR HAVERHILL FELIX LEYDA S	46 FARRWOOD DR	BRADFORD	MA	01835
770-779A-47	47	FARRWOOD DR HAVERHILL WOODS AUDREY HASE	47 FARRWOOD DR	BRADFORD	MA	01835
770-779A-48	48	FARRWOOD DR HAVERHILL PUMPHREY DONNA M	199 LAKE ST, Unit 27	EAST WEYMOUTH	MA	02189
770-779A-5	5	FARRWOOD DR HAVERHILL ROWTON ROBERT S-ETAL	5 FARRWOOD DR	BRADFORD	MA	01835
770-779A-6	6	FARRWOOD DR HAVERHILL ARCHIBALD SHANNON	6 FARRWOOD DR	BRADFORD	MA	01835
770-779A-7	7	FARRWOOD DR HAVERHILL MARCZAK CHERYL A	7 FARRWOOD DRIVE	BRADFORD	MA	01835
770-779A-8	8	FARRWOOD DR HAVERHILL WITTS NICHOLAS A-ETUX	8 FARRWOOD DR	BRADFORD	MA	01835
770-779A-9	9	FARRWOOD DR HAVERHILL SILVEIRA RICARDO B	9 FARRWOOD DR	BRADFORD	MA	01835
MATOMBO HUMPHREY-						
770-779B-100	100	FARRWOOD DR HAVERHILL ETUX	100 FARRWOOD DR	BRADFORD	MA	01835
770-779B-101	101	FARRWOOD DR HAVERHILL ROBBINS ERIN FRANCES	101 FARRWOOD DR	BRADFORD	MA	01835

770-779B-102	102	FARRWOOD DR HAVERHILL GARVILLES MELINDA J P	102 FARRWOOD DR	BRADFORD	MA	01835
770-779B-103	103	FARRWOOD DR HAVERHILL HARVEY DEBRA M	103 FARRWOOD DRIVE	BRADFORD	MA	01835
770-779B-104	104	FARRWOOD DR HAVERHILL TORRES JUAN G-ETUX	104 FARRWOOD DR	HAVERHILL	MA	01835
770-779B-105	105	FARRWOOD DR HAVERHILL PAIZ SANDRA	105 FARRWOOD DR	BRADFORD	MA	01835
		FIORILLA FAMILY				
770-779B-106	106	FARRWOOD DR HAVERHILL REVOCABLE TRUS	13 MAPLE AVE	ATKINSON	NH	03811
770-779B-107	107	FARRWOOD DR HAVERHILL RILLAHAN DEBRA	107 FARRWOOD DR	BRADFORD	MA	01835
770-779B-108	108	FARRWOOD DR HAVERHILL NELSON ROBERTA L	108 FARRWOOD DR	BRADFORD	MA	01835
770-779B-109	109	FARRWOOD DR HAVERHILL SAAL MICHAEL	109 FARRWOOD DR	BRADFORD	MA	01835
		THE ANN L. HART				
770-779B-110	110	FARRWOOD DR HAVERHILL IRREVOCABLE TRUST	110 FARRWOOD DR	BRADFORD	MA	01835
770-779B-111	111	FARRWOOD DR HAVERHILL BLOOM HOWARD	111 FARRWOOD DR	BRADFORD	MA	01835
770-779B-112	112	FARRWOOD DR HAVERHILL COLBY ALISON B	112 FARRWOOD DRIVE	BRADFORD	MA	01835
770-779B-113	113	FARRWOOD DR HAVERHILL SHEEHAN IAN ETAL	35 MONUMENT SQUARE	CHARLESTOWN	MA	02129
770-779B-114	114	FARRWOOD DR HAVERHILL STAVISH BARBARJEANNE L	114 FARRWOOD DRIVE	BRADFORD	MA	01835
770-779B-115	115	FARRWOOD DR HAVERHILL DELONG LINDA J	115 FARRWOOD DR	BRADFORD	MA	01835
770-779B-116	116	FARRWOOD DR HAVERHILL SMITH GAIL	116 FARRWOOD DR	HAVERHILL	MA	01835
770-779B-117	117	FARRWOOD DR HAVERHILL DRISCOLL MATTHEW B	117 FARRWOOD DR	BRADFORD	MA	01835
770-779B-118	118	FARRWOOD DR HAVERHILL TAYLOR KATHLEEN P	118 FARRWOOD DRIVE	BRADFORD	MA	01835
770-779B-119	119	FARRWOOD DR HAVERHILL NEWELL LAURA	119 FARRWOOD DR	BRADFORD	MA	01835
		ASTACIO MARIA				
770-779B-120	120	FARRWOOD DR HAVERHILL ALTAGRACIA-ETALI	120 FARRWOOD DR	BRADFORD	MA	01835
770-779B-121	121	FARRWOOD DR HAVERHILL ARAI EMILY	121 FARRWOOD DRIVE	BRADFORD	MA	01835
770-779B-122	122	FARRWOOD DR HAVERHILL OAKES FRED	122 FARRWOOD DRIVE	BRADFORD	MA	01835
770-779B-123	123	FARRWOOD DR HAVERHILL O` HEARN JOSEPH E	123 FARRWOOD DR	BRADFORD	MA	01835
770-779B-124	124	FARRWOOD DR HAVERHILL ROCKWELL LYNN M	124 FARRWOOD DRIVE	BRADFORD	MA	01835
770-779B-125	125	FARRWOOD DR HAVERHILL VAUGHN ELIZABETH M	125 FARRWOOD DR	BRADFORD	MA	01835
770-779B-126	126	FARRWOOD DR HAVERHILL MUISE KENNETH C	126 FARRWOOD DR	BRADFORD	MA	01835
770-779B-127	127	FARRWOOD DR HAVERHILL DEVNEY PETER	127 FARRWOOD DR	BRADFORD	MA	01835
770-779B-128	128	FARRWOOD DR HAVERHILL ANGERHOFER TIMOTHY	128 FARRWOOD DR	BRADFORD	MA	01835

770-779B-129	129	FARRWOOD DR HAVERHILL KEATING BRANDON T-ETUX	129 FARRWOOD DR	BRADFORD	MA	01835
		130 FARRWOOD DRIVE				
770-779B-130	130	FARRWOOD DR HAVERHILL UNIT #130 REALTY TRUST	130 FARRWOOD DR	BRADFORD	MA	01835
770-779B-131	131	FARRWOOD DR HAVERHILL SIVA KIRUBAKARAN	131 FARRWOOD DRIVE	BRADFORD	MA	01835
770-779B-132	132	FARRWOOD DR HAVERHILL MIRANDA DANIEL	132 FARRWOOD DR	HAVERHILL	MA	01835
770-779B-133	133	FARRWOOD DR HAVERHILL QUAN PETER ETUX	133 FARRWOOD DR	BRADFORD	MA	01835
770-779B-134	134	FARRWOOD DR HAVERHILL LAUREN REALTY TRUST	600 OSGOOD ST	NORTH ANDOVE	MA	01845
770-779B-135	135	FARRWOOD DR HAVERHILL RITZER LAURA	135 FARRWOOD DR	BRADFORD	MA	01835
		CAROL J HALUPOWSKI				
770-779B-136	136	FARRWOOD DR HAVERHILL REVOCABLE TRUST	136 FARRWOOD DR	HAVERHILL	MA	01835
770-779B-137	137	FARRWOOD DR HAVERHILL ADU EBENEZER-ETUX	137 FARRWOOD DRIVE	BRADFORD	MA	01835
770-779B-138	138	FARRWOOD DR HAVERHILL LIMA LINAISE	138 FARRWOOD DR	HAVERHILL	MA	01835
770-779B-139	139	FARRWOOD DR HAVERHILL LIU ELSA	PO BOX 4017	ANDOVER	MA	01810
770-779B-140	140	FARRWOOD DR HAVERHILL HERNANDEZ OSCAR D	140 FARRWOOD DR	BRADFORD	MA	01835
770-779B-141	141	FARRWOOD DR HAVERHILL DINATALE ROBERTA J	141 FARRWOOD DR	BRADFORD	MA	01835
770-779B-142	142	FARRWOOD DR HAVERHILL CAPO ASHLEY	142 FARRWOOD DR	BRADFORD	MA	01835
770-779B-143	143	FARRWOOD DR HAVERHILL HILTON LESLIE E	143 FARRWOOD DR	BRADFORD	MA	01835
770-779B-144	144	FARRWOOD DR HAVERHILL PISCATELLI MICHAEL-ETUX	144 FARRWOOD DR	HAVERHILL	MA	01835
770-779B-145	145	FARRWOOD DR HAVERHILL ROUHANA DAVID N	30 LITTLEFIELD CT #39E	HAVERHILL	MA	01832
770-779B-146	146	FARRWOOD DR HAVERHILL EBRAHIM MICHAEL F	146 FARRWOOD DR	BRADFORD	MA	01835
770-779B-147	147	FARRWOOD DR HAVERHILL DELUCA DEBORAH A	147 FARRWOOD DR	BRADFORD	MA	01835
770-779B-148	148	FARRWOOD DR HAVERHILL DEMARTINO CHRISTINE	148 FARRWOOD DR	BRADFORD	MA	01835
		GRIFFIN ALYSSA VICTORIA-				
770-779B-149	149	FARRWOOD DR HAVERHILL ETAL	71 MARBLEHEAD ST	NORTH ANDOVE	MA	01845
770-779B-150	150	FARRWOOD DR HAVERHILL HODGDON PRISCILLA D	150 FARRWOOD DRIVE	BRADFORD	MA	01835
770-779B-151	151	FARRWOOD DR HAVERHILL BRIEN DANIEL R-ETUX	151 FARRWOOD DR	BRADFORD	MA	01835
770-779B-152	152	FARRWOOD DR HAVERHILL NASSER NAHID ETUX	152 FARRWOOD DR	BRADFORD	MA	01835
770-779B-153	153	FARRWOOD DR HAVERHILL MUELLER PEGGY	153 FARRWOOD DR	BRADFORD	MA	01835
770-779B-154	154	FARRWOOD DR HAVERHILL DRAGANI PRISCILLA L	154 FARRWOOD DR	BRADFORD	MA	01835
770-779B-155	155	FARRWOOD DR HAVERHILL BIRD SARA S	155 FARRWOOD DR	BRADFORD	MA	01835
770-779B-156	156	FARRWOOD DR HAVERHILL SAMPIETRO ANTHONY	156 FARRWOOD DR	BRADFORD	MA	01835

770-779B-157	157	FARRWOOD DR HAVERHILL	CRONIN DARLENE E BOGOSIAN ANDREW	157 FARRWOOD DR	BRADFORD	MA	01835
770-779B-158	158	FARRWOOD DR HAVERHILL	WILLIAM	158 FARRWOOD DR	BRADFORD	MA	01835
770-779B-159	159	FARRWOOD DR HAVERHILL	SADOWAY DAVID-ETAL THOMAS FAMILY	159 FARRWOOD DR	BRADFORD	MA	01835
770-779B-160	160	FARRWOOD DR HAVERHILL	REVOCABLE TRUST	160 FARRWOOD DR	BRADFORD	MA	01835
770-779B-161	161	FARRWOOD DR HAVERHILL	KAHN CHELSEA L LABSOLU TRUST OF JUNE	161 FARRWOOD DRIVE	BRADFORD	MA	01835
770-779B-162	162	FARRWOOD DR HAVERHILL	2018	162 FARRWOOD DR	BRADFORD	MA	01835
770-779B-163	163	FARRWOOD DR HAVERHILL	HEROOK DAVID ETAL	163 FARRWOOD DRIVE	BRADFORD	MA	01835
770-779B-164	164	FARRWOOD DR HAVERHILL	GIORDANO MARK D D & G REALTY	164 FARRWOOD DR	BRADFORD	MA	01835
770-779B-165	165	FARRWOOD DR HAVERHILL	DEVELOPMENT, LLC	PO BOX 3	SALEM	NH	03079
770-779B-166	166	FARRWOOD DR HAVERHILL	ROUHANA DAVID N	30 LITTLEFIELD CT #39E	HAVERHILL	MA	01832
770-779B-167	167	FARRWOOD DR HAVERHILL	YOPCHICK STEPHEN ETUX	167 FARRWOOD DR	BRADFORD	MA	01835
770-779B-168	168	FARRWOOD DR HAVERHILL	KHAN SHAN-ETUX	168 FARRWOOD DRIVE	BRADFORD	MA	01835
770-779B-169	169	FARRWOOD DR HAVERHILL	WILLETT WHITE TRUST LAVERDURE ANTHONY E	8 FERNWOOD AV	BRADFORD	MA	01835
770-779B-170	170	FARRWOOD DR HAVERHILL	ETUX	170 FARRWOOD DR	BRADFORD	MA	01835
770-779B-171	171	FARRWOOD DR HAVERHILL	RUSSELL KLAUS P ETUX	171 FARRWOOD DR	BRADFORD	MA	01835
770-779B-172	172	FARRWOOD DR HAVERHILL	BURNS THOMAS M ETUX	172 FARRWOOD DRIVE	BRADFORD	MA	01835
770-779B-173	173	FARRWOOD DR HAVERHILL	GOCHEZ JASON	806 SOUTH MAIN ST	BRADFORD	MA	01835
770-779B-174	174	FARRWOOD DR HAVERHILL	ASHTON JENNIFER J	174 FARRWOOD DR	BRADFORD	MA	01835
770-779B-175	175	FARRWOOD DR HAVERHILL	DEPETRILLO JOSEPH R	175 FARRWOOD DR	BRADFORD	MA	01835
770-779B-176	176	FARRWOOD DR HAVERHILL	VONG LINH HOAI-ETALI ELIZABETH A RADFORD	176 FARRWOOD DRIVE	BRADFORD	MA	01835
770-779B-49	49	FARRWOOD DR HAVERHILL	LIVING TRUST PAUL F DOWLING FAMILY	49 FARRWOOD DR	BRADFORD	MA	01835
770-779B-50	50	FARRWOOD DR HAVERHILL	TRUST	187 OLD CART WAY	NORTH ANDOVE	MA	01845
770-779B-51	51	FARRWOOD DR HAVERHILL	LEARY JAMES J III ETUX OCAMPO-HERRERA	51 FARRWOOD DR	BRADFORD	MA	01835
770-779B-52	52	FARRWOOD DR HAVERHILL	YUDIRA	52 FARRWOOD DR	BRADFORD	MA	01835

770-779B-53	53	FARRWOOD DR HAVERHILL PAKENHAM WILLIAM-ETAL	53 FARRWOOD DR	BRADFORD	MA	01835
770-779B-54	54	FARRWOOD DR HAVERHILL HARRISON DANIEL J	54 FARRWOOD DR	BRADFORD	MA	01835
770-779B-55	55	FARRWOOD DR HAVERHILL MELKONIAN NAIRI	55 FARRWOOD DR	BRADFORD	MA	01835
770-779B-56	56	FARRWOOD DR HAVERHILL CUMMINGS TRACY ETAL	56 FARRWOOD DR	BRADFORD	MA	01835
770-779B-57	57	FARRWOOD DR HAVERHILL LOPEZ YARITZA	57 FARRWOOD DR	BRADFORD	MA	01835
770-779B-58	58	FARRWOOD DR HAVERHILL GAKURU SHIRLEY R	58 FARRWOOD DR	BRADFORD	MA	01835
770-779B-59	59	FARRWOOD DR HAVERHILL TEDESCO KEVIN N-ETAL	59 FARRWOOD DR	BRADFORD	MA	01835
770-779B-60	60	FARRWOOD DR HAVERHILL VOYER DAVID J	60 FARRWOOD DR	HAVERHILL	MA	01835
770-779B-61	61	FARRWOOD DR HAVERHILL GIOIOSO NICHOLAS J	61 FARRWOOD DRIVE	BRADFORD	MA	01835
770-779B-62	62	FARRWOOD DR HAVERHILL EMANOUIL KIMBERLY	62 FARRWOOD DR	BRADFORD	MA	01835
770-779B-63	63	FARRWOOD DR HAVERHILL YUSKA JOSEPH J ETUX	63 FARRWOOD DRIVE	BRADFORD	MA	01835
770-779B-64	64	FARRWOOD DR HAVERHILL JALBERT TIMOTHY M	64 FARRWOOD DR	BRADFORD	MA	01835
770-779B-65	65	FARRWOOD DR HAVERHILL CLARK FREDERICK IV GEORGE J BROUDER	65 FARRWOOD DR	BRADFORD	MA	01835
770-779B-66	66	FARRWOOD DR HAVERHILL TRUST	13570 CROFT DR N	LARGO	FL	33774
770-779B-67	67	FARRWOOD DR HAVERHILL GRIFFIN REALTY TRUST	67 FARRWOOD DR	BRADFORD	MA	01835
770-779B-68	68	FARRWOOD DR HAVERHILL MWESIGWA SUSAN	68 FARRWOOD DRIVE	BRADFORD	MA	01835
770-779B-69	69	FARRWOOD DR HAVERHILL TURNER JOAN	69 FARRWOOD DR	BRADFORD	MA	01835
770-779B-70	70	FARRWOOD DR HAVERHILL KIRTLAND STEVEN B	23 MEMORIAL PARK DR	LYNN	MA	01902
770-779B-71	71	FARRWOOD DR HAVERHILL ZAHOS HOPE M	71 FARRWOOD DR	HAVERHILL	MA	01835
770-779B-72	72	FARRWOOD DR HAVERHILL RICHARDSON DOROTHY J	72 FARRWOOD DR	BRADFORD	MA	01835
770-779B-73	73	FARRWOOD DR HAVERHILL ADAMS DEBORAH J WILDER REVOCABLE	73 FARRWOOD DR	BRADFORD	MA	01835
770-779B-74	74	FARRWOOD DR HAVERHILL LIVING TRUST SIEGAL-BOTTI EIRIAN	35 CYPRUS CREEK LANE	HENDERSONVIL NC		28791
770-779B-75	75	FARRWOOD DR HAVERHILL LEIGH	75 FARRWOOD DRIVE	BRADFORD	MA	01835
770-779B-76	76	FARRWOOD DR HAVERHILL JACKSON ERIC R-ETUX	76 FARRWOOD DR	BRADFORD	MA	01835
770-779B-77	77	FARRWOOD DR HAVERHILL MAHEUX JESSE	77 FARRWOOD DRIVE	BRADFORD	MA	01835
770-779B-78	78	FARRWOOD DR HAVERHILL WRENN STEPHEN P PETRONI FAMILY	78 FARRWOOD DR	BRADFORD	MA	01835
770-779B-79	79	FARRWOOD DR HAVERHILL REVOCABLE TRUST	79 FARRWOOD DR	BRADFORD	MA	01835

UJIMA LEGACY
REVOCABLE TRUST OF

770-779B-80	80	FARRWOOD DR HAVERHILL	2022	48 BRICKETT HILL CR	HAVERHILL	MA	01830
770-779B-81	81	FARRWOOD DR HAVERHILL	BELLIS MARK J	81 FARRWOOD DRIVE	BRADFORD	MA	01835
770-779B-82	82	FARRWOOD DR HAVERHILL	DELEO JOSEPH A	82 FARRWOOD DR	BRADFORD	MA	01835
770-779B-83	83	FARRWOOD DR HAVERHILL	HASHEM RENEE M	83 FARRWOOD DRIVE	BRADFORD	MA	01835
770-779B-84	84	FARRWOOD DR HAVERHILL	MCLAUGHLIN LISA D	84 FARRWOOD DRIVE	BRADFORD	MA	01835
770-779B-85	85	FARRWOOD DR HAVERHILL	CATAGENA BRAYAN	85 FARRWOOD DR	HAVERHILL	MA	01835
770-779B-86	86	FARRWOOD DR HAVERHILL	SAZ REVOCABLE TRUST	86 FARRWOOD DR	BRADFORD	MA	01835
770-779B-87	87	FARRWOOD DR HAVERHILL	SMILEY THOMAS E	87 FARRWOOD DR	BRADFORD	MA	01835
770-779B-88	88	FARRWOOD DR HAVERHILL	LOBANOV VLADIMIR	88 FARRWOOD DR	BRADFORD	MA	01835
770-779B-89	89	FARRWOOD DR HAVERHILL	BOTAISH MARK FARIS	89 FARRWOOD DR	BRADFORD	MA	01835
770-779B-90	90	FARRWOOD DR HAVERHILL	LIEVENS SUSAN B	90 FARRWOOD DR	BRADFORD	MA	01835
770-779B-91	91	FARRWOOD DR HAVERHILL	COOK ANDREW	91 FARRWOOD DR	HAVERHILL	MA	01835
770-779B-92	92	FARRWOOD DR HAVERHILL	ROUHANA AIDA	54 WILMOT ST	LAWRENCE	MA	01841
770-779B-93	93	FARRWOOD DR HAVERHILL	LEUCHTER JOHN A	93 FARRWOOD DR	BRADFORD	MA	01835
770-779B-94	94	FARRWOOD DR HAVERHILL	WEI JIANMING	94 FARRWOOD DR	BRADFORD	MA	01835
770-779B-95	95	FARRWOOD DR HAVERHILL	CIARAMITARO MARIE	95 FARRWOOD DR	BRADFORD	MA	01835
770-779B-96	96	FARRWOOD DR HAVERHILL	PAGEAU MICHAEL	96 FARRWOOD DR	HAVERHILL	MA	01835
770-779B-97	97	FARRWOOD DR HAVERHILL	COLLETTI DANIEL	97 FARRWOOD DR	BRADFORD	MA	01835
770-779B-98	98	FARRWOOD DR HAVERHILL	ZAGARELLA JOHN D ETUX	98 FARRWOOD DR	BRADFORD	MA	01835
THE DALE L PERKINS							
770-779B-99	99	FARRWOOD DR HAVERHILL	IRREVOCABLE TRUST	99 FARRWOOD DR	HAVERHILL	MA	01835
770-779C-177	177	FARRWOOD DR HAVERHILL	JOYAL ANDREW J	177 FARRWOOD DR	BRADFORD	MA	01835

THE MARIA LUISA PEREIRA

770-779C-178	178	FARRWOOD DR HAVERHILL	IRREVOCABLE TRUST	178 FARRWOOD DRIVE	BRADFORD	MA	01835
PIERCE ZACHARY MICA							
770-779C-179	179	FARRWOOD DR HAVERHILL	ETUX	179 FARRWOOD DR	BRADFORD	MA	01835
770-779C-180	180	FARRWOOD DR HAVERHILL	GASPAR JR AURINO	7 MILL RD	KINGSTON	NH	03038
770-779C-181	181	FARRWOOD DR HAVERHILL	O` DONNELL GAIL-ETAL	181 FARRWOOD DRIVE	BRADFORD	MA	01835
770-779C-182	182	FARRWOOD DR HAVERHILL	MARCOTTE WILLIAM G JR	182 FARRWOOD DR	BRADFORD	MA	01835
770-779C-183	183	FARRWOOD DR HAVERHILL	CARLSON ROBERT R-ETAL	183 FARRWOOD DR	BRADFORD	MA	01835

770-779C-184	184	FARRWOOD DR HAVERHILL CORREIA CHRISTINE	184 FARRWOOD DR	BRADFORD	MA	01835
770-779C-185	185	FARRWOOD DR HAVERHILL HARDENBROOK CHONG O	185 FARRWOOD DR	BRADFORD	MA	01835
770-779C-186	186	FARRWOOD DR HAVERHILL STANDLEY JENNIFER L	186 FARRWOOD DR	BRADFORD	MA	01835
		PASAKINSKAS RICHARD J				
770-779C-187	187	FARRWOOD DR HAVERHILL ETUX	187 FARRWOOD DR	BRADFORD	MA	01835
		CROWE-DENONCOURT				
770-779C-188	188	FARRWOOD DR HAVERHILL JESSICA	188 FARRWOOD DR	BRADFORD	MA	01835
770-779C-189	189	FARRWOOD DR HAVERHILL LAVENIA MARYANN S	189 FARRWOOD DRIVE	BRADFORD	MA	01835
		MICHAEL GRAMMONT				
770-779C-190	190	FARRWOOD DR HAVERHILL TRUST	190 FARRWOOD DR	BRADFORD	MA	01835
		WORMALD ROBERT R-				
770-779C-191	191	FARRWOOD DR HAVERHILL ETALI	122 ORCHARD HILL RD	BRADFORD	MA	01835
770-779C-192	192	FARRWOOD DR HAVERHILL GENDI SAMEH S-ETUX	192 FARRWOOD DR	BRADFORD	MA	01835
770-779C-193	193	FARRWOOD DR HAVERHILL MUKUNA FAUSTIN	193 FARRWOOD DRIVE	BRADFORD	MA	01835
770-779C-194	194	FARRWOOD DR HAVERHILL CARRABINO JOSEPH C	194 FARRWOOD DR	BRADFORD	MA	01835
770-779C-195	195	FARRWOOD DR HAVERHILL ROUHANA DAVID N	30 LITTLEFIELD CT #39E	HAVERHILL	MA	01832
770-779C-196	196	FARRWOOD DR HAVERHILL TREBBE MAUREEN L	196 FARRWOOD DR	BRADFORD	MA	01835
770-779C-197	197	FARRWOOD DR HAVERHILL CLARK MICHAEL T ETUX	197 FARRWOOD DRIVE	BRADFORD	MA	01835
770-779C-198	198	FARRWOOD DR HAVERHILL WHOLLEY ANN B	198 FARRWOOD DRIVE	BRADFORD	MA	01835
770-779C-199	199	FARRWOOD DR HAVERHILL DECOLOGERO ELAINE M	199 FARRWOOD DRIVE	BRADFORD	MA	01835
770-779C-200	200	FARRWOOD DR HAVERHILL ABOU-EZZI RACHELLE	55 SHERWOOD DR	NORTH ANDOVE	MA	01845
770-779C-201	201	FARRWOOD DR HAVERHILL BUONANNO SUSAN L	201 FARRWOOD DR	BRADFORD	MA	01835
		ALISON NAFTAL 2025				
770-779C-202	202	FARRWOOD DR HAVERHILL REVOCABLE TRUST	202 FARRWOOD DR	HAVERHILL	MA	01835
770-779C-203	203	FARRWOOD DR HAVERHILL TOROSSIAN NICOLE M	203 FARRWOOD DRIVE	BRADFORD	MA	01835
770-779C-204	204	FARRWOOD DR HAVERHILL BASKIN JENNIFER L	204 FARRWOOD DR	BRADFORD	MA	01835
770-779C-205	205	FARRWOOD DR HAVERHILL BUTLER TRICIA ANN	205 FARRWOOD DRIVE	BRADFORD	MA	01835
770-779C-206	206	FARRWOOD DR HAVERHILL COSKREN FAMILY TRUST	206 APPLETON ST	NORTH ANDOVE	MA	01845
770-779C-207	207	FARRWOOD DR HAVERHILL ROUHANA AIDA N	54 WILMOT ST	LAWRENCE	MA	01841
		ZUCCARELLO JOSEPH K				
770-779C-208	208	FARRWOOD DR HAVERHILL ETUX	208 FARRWOOD DR	BRADFORD	MA	01835
770-779C-209	209	FARRWOOD DR HAVERHILL GAKURU PETER T	209 FARRWOOD DRIVE	BRADFORD	MA	01835

770-779C-210	210	FARRWOOD DR HAVERHILL LANE THOMAS S ETUX	14 PINEDALE AVE	HAVERHILL	MA	01830
770-779C-211	211	FARRWOOD DR HAVERHILL COTTON JEAN M-LIFE EST	211 FARRWOOD DRIVE	BRADFORD	MA	01835
770-779C-212	212	FARRWOOD DR HAVERHILL SWENSON DEBORAH J	212 FARRWOOD DR	BRADFORD	MA	01835
770-779C-213	213	FARRWOOD DR HAVERHILL LOW ELLEN S	213 FARRWOOD DR	BRADFORD	MA	01835
770-779C-214	214	FARRWOOD DR HAVERHILL ROSARIO PEDRO SR-ETUX	214 FARRWOOD DR	BRADFORD	MA	01835
770-779C-215	215	FARRWOOD DR HAVERHILL PICARDI ERNESTINE	215 FARRWOOD DR	BRADFORD	MA	01835
770-779C-216	216	FARRWOOD DR HAVERHILL BERNARD EVELYN A	216 FARRWOOD DR	BRADFORD	MA	01835
770-779C-217	217	FARRWOOD DR HAVERHILL STEVENS DEBORAH H	4 DEVONSHIRE LANE	BRADFORD	MA	01835
770-779C-218	218	FARRWOOD DR HAVERHILL GRAZIANO KATHLEEN M	218 FARRWOOD DR	BRADFORD	MA	01835
770-779C-219	219	FARRWOOD DR HAVERHILL WALSH, JOANNE E.	219 FARRWOOD DR	BRADFORD	MA	01835
770-779C-220	220	FARRWOOD DR HAVERHILL GAGNON RACHEL	220 FARRWOOD DR	BRADFORD	MA	01835
770-779C-221	221	FARRWOOD DR HAVERHILL RUDELL REBECCA PERL	221 FARRWOOD DR	BRADFORD	MA	01835
770-779C-222	222	FARRWOOD DR HAVERHILL FARID UZAIR M	222 FARRWOOD DRIVE	BRADFORD	MA	01835
770-779C-223	223	FARRWOOD DR HAVERHILL NJAI HOPE	223 FARRWOOD DR	BRADFORD	MA	01835
770-779C-224	224	FARRWOOD DR HAVERHILL MAZZA JONATHAN-ETAL	224 FARRWOOD DR	BRADFORD	MA	01835
770-779C-225	225	FARRWOOD DR HAVERHILL GASPAR AURINO JR	225 FARRWOOD DR	BRADFORD	MA	01835
770-779C-226	226	FARRWOOD DR HAVERHILL MOLLOY LYNNSEY	226 FARRWOOD DR	BRADFORD	MA	01835
770-779C-227	227	FARRWOOD DR HAVERHILL ONG CARLA JOY	227 FARRWOOD DRIVE	BRADFORD	MA	01835
770-779C-228	228	FARRWOOD DR HAVERHILL MOTTRAM CAROL A ETAL	228 FARRWOOD DR	BRADFORD	MA	01835
		LABEDZ-MAENPAA				
770-779C-229	229	FARRWOOD DR HAVERHILL MARGARET	229 FARRWOOD DR	BRADFORD	MA	01835
770-779C-230	230	FARRWOOD DR HAVERHILL FLAGG STEPHEN ETUX	230 FARRWOOD DR	BRADFORD	MA	01835
770-779C-231	231	FARRWOOD DR HAVERHILL SMITH BRANDON-ETUX	231 FARRWOOD DR	BRADFORD	MA	01835
770-779C-232	232	FARRWOOD DR HAVERHILL HARPER JOY-ETAL	232 FARRWOOD DR	BRADFORD	MA	01835
770-779C-233	233	FARRWOOD DR HAVERHILL RASO LISA M	233 FARRWOOD DR	BRADFORD	MA	01835
770-779C-234	234	FARRWOOD DR HAVERHILL CHANG JESSICA	784 E NORTHCREST DR	SALT LAKE CITY	UT	84103
770-779C-235	235	FARRWOOD DR HAVERHILL ROSS-TUNCOK KAREN	235 FARRWOOD DR	BRADFORD	MA	01835
770-779C-236	236	FARRWOOD DR HAVERHILL WELCH JANNA P	236 FARRWOOD DR	BRADFORD	MA	01835
770-779C-237	237	FARRWOOD DR HAVERHILL MACKEY FAYE A	237 FARRWOOD DR	BRADFORD	MA	01835
770-779C-238	238	FARRWOOD DR HAVERHILL JOAQUIN EMMA M	238 FARRWOOD DRIVE	BRADFORD	MA	01835
770-779C-239	239	FARRWOOD DR HAVERHILL DREESEN ROBERT	239 FARRWOOD DR	BRADFORD	MA	01835
770-779C-240	240	FARRWOOD DR HAVERHILL RANEY KAREN M	240 FARRWOOD DR	BRADFORD	MA	01835
770-779C-241	241	FARRWOOD DR HAVERHILL DIAZ PABLO CAMILO	241 FARRWOOD DR	BRADFORD	MA	01835

770-779C-242	242	FARRWOOD DR HAVERHILL KOHUT LEO R	242 FARRWOOD DR	BRADFORD	MA	01835
770-779C-243	243	FARRWOOD DR HAVERHILL DONNA L PRINS TRUST ZINGARIELLO MARCO R-	243 FARRWOOD DRIVE	BRADFORD	MA	01835
770-779C-244	244	FARRWOOD DR HAVERHILL ETAL	244 FARRWOOD DR	BRADFORD	MA	01835
770-779C-245	245	FARRWOOD DR HAVERHILL ROPIAK JEFFREY S	245 FARRWOOD DR	HAVERHILL	MA	01835
770-779C-246	246	FARRWOOD DR HAVERHILL DELANO ANNE	246 FARRWOOD DR	BRADFORD	MA	01835
770-779C-247	247	FARRWOOD DR HAVERHILL FONTAINE LUANN LORETTE F POULIN IRREV	247 FARRWOOD DR	BRADFORD	MA	01835
770-779C-248	248	FARRWOOD DR HAVERHILL TRUST BRADFORD CONDO	461 YACHT HARBOR DR	OSPREY	FL	34229
770-779C-249	249	FARRWOOD DR HAVERHILL IRREVOCABLE TRU	249 FARRWOOD DR	BRADFORD	MA	01835
770-779C-250	250	FARRWOOD DR HAVERHILL CADAVID JAIME ETUX	250 FARRWOOD DR	BRADFORD	MA	01835
770-779C-251	251	FARRWOOD DR HAVERHILL CAFFREY ELLEN T	251 FARRWOOD DR	BRADFORD	MA	01835
770-779C-252	252	FARRWOOD DR HAVERHILL BRITTON MICHAEL	252 FARRWOOD DR	BRADFORD	MA	01835
770-779C-253	253	FARRWOOD DR HAVERHILL MATIAS ISMAEL-ETUX VALENCIA SANDRA	253 FARRWOOD DR	BRADFORD	MA	01835
770-779C-254	254	FARRWOOD DR HAVERHILL MARCELA LONDON	254 FARRWOOD DR	BRADFORD	MA	01835
770-779C-255	255	FARRWOOD DR HAVERHILL NGUYEN TRUNG D	255 FARRWOOD DRIVE	BRADFORD	MA	01835
770-779C-256	256	FARRWOOD DR HAVERHILL TAKACH AMANDA	256 FARRWOOD	HAVERHILL	MA	01835
770-779C-257	257	FARRWOOD DR HAVERHILL BRIGGS JILL	60 WATER ST, Unit 3016	NORTH ANDOVE	MA	01845
770-779C-258	258	FARRWOOD DR HAVERHILL WILLIAMS LAURIE A McCONAGHY	258 FARRWOOD DR	BRADFORD	MA	01835
770-779C-259	259	FARRWOOD DR HAVERHILL CHRISTOPHER	259 FARRWOOD DR	BRADFORD	MA	01835
770-779C-260	260	FARRWOOD DR HAVERHILL LAVALLEE LAUREEN M	260 FARRWOOD DR	BRADFORD	MA	01835
770-779C-261	261	FARRWOOD DR HAVERHILL MOFFETT CINDY-ETAL	261 FARRWOOD DR	BRADFORD	MA	01835
770-779C-262	262	FARRWOOD DR HAVERHILL STROGNEY TRACI	262 FARRWOOD DR	BRADFORD	MA	01835
770-779C-263	263	FARRWOOD DR HAVERHILL HOWLAND KAROLE A	263 FARRWOOD DRIVE	BRADFORD	MA	01835
770-779C-264	264	FARRWOOD DR HAVERHILL BEJLERI GAJTIS-ETAL	264 FARRWOOD DR	BRADFORD	MA	01835
770-779C-265	265	FARRWOOD DR HAVERHILL MEIER JESSICA	265 FARRWOOD DR	BRADFORD	MA	01835
770-779C-266	266	FARRWOOD DR HAVERHILL GRIFFIN TIMOTHY-ETUX ALICIA M FARR LIVING	266 FARRWOOD DR	BRADFORD	MA	01835
770-779C-267	267	FARRWOOD DR HAVERHILL TRUST	267 FARRWOOD DR	BRADFORD	MA	01835
770-779C-268	268	FARRWOOD DR HAVERHILL GALLO MARCELLO C ETAL	268 FARRWOOD DR	BRADFORD	MA	01835

770-779C-266	269	FARRWOOD DR HAVERHILL	GIAMPA ANN	269 FARRWOOD DR	BRADFORD	MA	01835
770-779C-270	270	FARRWOOD DR HAVERHILL	SHAL VICTORIA	270 FARRWOOD DR	BRADFORD	MA	01835
			DOUCETTE KRISTINA				
770-779C-271	271	FARRWOOD DR HAVERHILL	LEIGH	271 FARRWOOD DRIVE	BRADFORD	MA	01835
770-779C-272	272	FARRWOOD DR HAVERHILL	CARRUCINI LUIS E-ETUX	272 FARRWOOD DR	BRADFORD	MA	01835
770-779E-357	357	FARRWOOD DR HAVERHILL	TYCZYNSKI EMMA	357 FARRWOOD DRIVE	BRADFORD	MA	01835
			GALICIA ANDREW				
770-779E-358	358	FARRWOOD DR HAVERHILL	CIPRIANO	358 FARRWOOD DR	BRADFORD	MA	01835
770-779E-359	359	FARRWOOD DR HAVERHILL	ROUHANA AIDA	30 LITTLEFIELD COURT	HAVERHILL	MA	01832
770-779E-360	360	FARRWOOD DR HAVERHILL	AV REALTY TRUST	11 STRATHMORE LANE	LYNN	MA	01902
770-779E-361	361	FARRWOOD DR HAVERHILL	TARR AMY TYCZYNSKI	361 FARRWOOD DR	BRADFORD	MA	01835
770-779E-362	362	FARRWOOD DR HAVERHILL	REESE JOHN-ETUX	362 FARRWOOD DR	HAVERHILL	MA	01835
770-779E-363	363	FARRWOOD DR HAVERHILL	STIEHL LINDSAY-ETAL	105 MILK ST	METHUEN	MA	01844
770-779E-364	364	FARRWOOD DR HAVERHILL	BESTERMAN SCOTT	364 FARRWOOD DR	BRADFORD	MA	01835
770-779E-365	365	FARRWOOD DR HAVERHILL	HARTNETT THERESE A	365 FARRWOOD DRIVE	BRADFORD	MA	01835
770-779E-366	366	FARRWOOD DR HAVERHILL	PISTORINO GINA	366 FARRWOOD DR	BRADFORD	MA	01835
			APPELBAUM FAMILY				
770-779E-367	367	FARRWOOD DR HAVERHILL	REVOCABLE TRUST	11 COT HILL RD	BEDFORD	MA	01730
770-779E-368	368	FARRWOOD DR HAVERHILL	BYRNES TIMOTHY-ETAL	368 FARRWOOD DRIVE	BRADFORD	MA	01835
770-779E-369	369	FARRWOOD DR HAVERHILL	MONROE REALTY TRUST	22 RAILROAD ST, #404	ANDOVER	MA	01810
			CZAJKOWSKI EDWARD J-				
770-779E-370	370	FARRWOOD DR HAVERHILL	ETUX	370 FARRWOOD DR	BRADFORD	MA	01835
770-779E-371	371	FARRWOOD DR HAVERHILL	LY KIA THI	371 FARRWOOD DRIVE	BRADFORD	MA	01835
770-779E-372	372	FARRWOOD DR HAVERHILL	QUADRI SYED M ETUX	372 FARRWOOD DRIVE	BRADFORD	MA	01835
770-779E-373	373	FARRWOOD DR HAVERHILL	RIVERA JOSE-ETUX	373 FARRWOOD DR	BRADFORD	MA	01835
770-779E-374	374	FARRWOOD DR HAVERHILL	EMMETT VIRGINIA L	374 FARRWOOD DRIVE	BRADFORD	MA	01835
770-779E-375	375	FARRWOOD DR HAVERHILL	OLIO MADELINE M	375 FARRWOOD DR	BRADFORD	MA	01835
770-779E-376	376	FARRWOOD DR HAVERHILL	ELHOLOUI ABDOU	376 FARRWOOD DR	BRADFORD	MA	01835
770-779E-377	377	FARRWOOD DR HAVERHILL	MORKOS HAIDY M	377 FARRWOOD DR	BRADFORD	MA	01835
770-779E-378	378	FARRWOOD DR HAVERHILL	AVEY BERNARD R JR-ETUX	378 FARRWOOD DR	BRADFORD	MA	01835
770-779E-379	379	FARRWOOD DR HAVERHILL	BENOIT RICHARD A	70 BLOOMFIELD ST	DORCHESTER	MA	02124
770-779E-380	380	FARRWOOD DR HAVERHILL	SARGENT JEAN	380 FARRWOOD DR	HAVERHILL	MA	01835
770-779E-381	381	FARRWOOD DR HAVERHILL	NAKRA JAHANGIR ETUX	39 PARK LAKE AVE	TITUSVILLE	NJ	08560

770-779E-382	382	FARRWOOD DR HAVERHILL BASHABE BARBARA	382 FARRWOOD DR	BRADFORD	MA	01835
770-779E-383	383	FARRWOOD DR HAVERHILL ROBERTS MICHAEL ETUX	383 FARRWOOD DR	BRADFORD	MA	01835
770-779E-384	384	FARRWOOD DR HAVERHILL COTTER ASHLEY M CONNOR JR CHARLES F	384 FARRWOOD DRIVE	BRADFORD	MA	01835
770-779E-385	385	FARRWOOD DR HAVERHILL ETUX	385 FARRWOOD DR	BRADFORD	MA	01835
770-779E-386	386	FARRWOOD DR HAVERHILL KIMANI CAROLINE	386 FARRWOOD DR	BRADFORD	MA	01835
770-779E-387	387	FARRWOOD DR HAVERHILL CHAPLICK GAIL A	387 FARRWOOD DRIVE	BRADFORD	MA	01835
770-779E-388	388	FARRWOOD DR HAVERHILL BATTERMAN LAURA	388 FARRWOOD DR	BRADFORD	MA	01835
770-779E-389	389	FARRWOOD DR HAVERHILL GOKARN RAVIKIRAN	389 FARRWOOD DR	BRADFORD	MA	01835
770-779E-390	390	FARRWOOD DR HAVERHILL HARRISON DANIELLE J	390 FARRWOOD DR	BRADFORD	MA	01835
770-779E-391	391	FARRWOOD DR HAVERHILL ROUHANA DAVID N	30 LITTLEFIELD CT #39E	HAVERHILL	MA	01832
770-779E-392	392	FARRWOOD DR HAVERHILL BEVERIDGE BRIAN B	392 FARRWOOD DR	BRADFORD	MA	01835
770-779E-393	393	FARRWOOD DR HAVERHILL CABRERA VICTOR	393 FARRWOOD DR	BRADFORD	MA	01835
770-779E-394	394	FARRWOOD DR HAVERHILL PESCATORE CHRISTINE M	394 FARRWOOD DR	BRADFORD	MA	01835
770-779E-395	395	FARRWOOD DR HAVERHILL MOUSSA NAJWA	7 SEAVEY RD	WINDHAM	NH	03087
770-779E-396	396	FARRWOOD DR HAVERHILL TINEY DONALD JR.	396 FARRWOOD DRIVE	BRADFORD	MA	01835
770-779E-397	397	FARRWOOD DR HAVERHILL TAYLOR ROBIN B	397 FARRWOOD DR	BRADFORD	MA	01835
770-779E-398	398	FARRWOOD DR HAVERHILL ON MICHAEL CHOI	398 FARRWOOD DR	BRADFORD	MA	01835
770-779E-399	399	FARRWOOD DR HAVERHILL KING MELANIE-ETAL	399 FARRWOOD DR	BRADFORD	MA	01835
770-779E-400	400	FARRWOOD DR HAVERHILL YAMIN MOHAMMED	674 TURNPIKE ST	NORTH ANDOVE	MA	01845
770-779E-401	401	FARRWOOD DR HAVERHILL JAHAN JASMIN DISTEFANO JEFFREY E-	401 FARRWOOD DRIVE	BRADFORD	MA	01835
770-779E-402	402	FARRWOOD DR HAVERHILL ETAL 403 FARRWOOD DRIVE	402 FARRWOOD DR	BRADFORD	MA	01835
770-779E-403	403	FARRWOOD DR HAVERHILL RLTY TR	P.O. BOX 481	NEWBURYPORT	MA	01950
770-779E-404	404	FARRWOOD DR HAVERHILL ALEXANDER COREY-ETUX	404 FARRWOOD DR	BRADFORD	MA	01835
770A-1-13A-2	2	BRADFORD ST H. HAVERHILL BRUSH WILLIAM H III-ETUX	2 BRADFORD ST	WARD HILL	MA	01835
770A-1-13A-4	4	BRADFORD ST H. HAVERHILL GIANGREGORIO GINA M	4 BRADFORD ST	WARD HILL	MA	01835
770A-1-13B	8	BRADFORD ST H. HAVERHILL LAM TONY-ETUX	8 BRADFORD ST	WARD HILL	MA	01835
770A-1-13C	14	BRADFORD ST H. HAVERHILL HAMLIN MARK-ETUX MOUALEU LEOLEIN P-	14 BRADFORD ST	WARD HILL	MA	01835
770A-1-13D	20	BRADFORD ST H. HAVERHILL ETALI	20 BRADFORD ST	WARD HILL	MA	01835

770A-1-13E	26	BRADFORD ST H. HAVERHILL HILL DANIEL-ETUX RUBY L. PITTMAN LIVING	26 BRADFORD ST	WARD HILL	MA	01835
770A-1-13F	32	BRADFORD ST H. HAVERHILL TRUST	32 BRADFORD ST	WARD HILL	MA	01835
770A-1-13G	38	BRADFORD ST H. HAVERHILL NJUGUNA MARY W BRADFORD STREET REALTY	38 BRADFORD ST	WARD HILL	MA	01835
770A-1-13H	44	BRADFORD ST H. HAVERHILL TRUST	44 BRADFORD ST	WARD HILL	MA	01835
770A-1-13I	50	BRADFORD ST H. HAVERHILL POLANCO KENIA	50 BRADFORD ST	HAVERHILL	MA	01835
770A-1-13J	56	BRADFORD ST H. HAVERHILL NESBITT JULIA MARIE-ETUX NORTH AVENUE REALTY	56 BRADFORD ST	WARD HILL	MA	01835
770A-1-13M		FARRWOOD DR HAVERHILL TRUST NORTH AVENUE REALTY	198 SACO AV	OLD ORCHARD I ME		04064
770A-1-14A-1		FARRWOOD PL HAVERHILL TRUST	198 SACO AVE	OLD ORCHARD I ME		04064
770A-1-14A-1	18	FARRWOOD PL HAVERHILL DE SOUSA EGIL A.-ETALI	18 FARRWOOD PLACE	BRADFORD	MA	01835
770A-1-14A-2	20	FARRWOOD PL HAVERHILL LE BINH Q-ETAL	20 FARRWOOD PLACE	BRADFORD	MA	01835
770A-1-14B-2	22	FARRWOOD PL HAVERHILL GALINDEZ RYAN-ETAL	22 FARRWOOD PLACE	BRADFORD	MA	01835
770A-1-14B-2	24	FARRWOOD PL HAVERHILL INCO ELIZABETH M 30 FARRWOOD PL, Unit	24 FARRWOOD PLACE	BRADFORD	MA	01835
770A-1-14C-1	30	FARRWOOD PL HAVERHILL VALDEZ MARIO	1	HAVERHILL	MA	01835
770A-1-14C-2	32	FARRWOOD PL HAVERHILL BUCUZZO LINDA A CARPENTIER MICHAEL J-	32 FARRWOOD PLACE	BRADFORD	MA	01835
770A-1-26	26	FARRWOOD PL HAVERHILL ETAL O` BRIEN MARIELLE	26 FARRWOOD PL	BRADFORD	MA	01835
770A-1-28	28	FARRWOOD PL HAVERHILL THERESE GYOZALYAN KHACHATUR-	14 ROBERT RD	HAVERHILL	MA	01835
770B-1-15A-1	319	FARRWOOD DR HAVERHILL ETUX	319 FARRWOOD DR	BRADFORD	MA	01835
770B-1-15A-2	321	FARRWOOD DR HAVERHILL LAWS DEBORAH M NORTH AVENUE REALTY	321 FARRWOOD DR	BRADFORD	MA	01835
770B-1-15AA		FARRWOOD DR HAVERHILL TRUST	198 SACO AV	OLD ORCHARD I ME		04064
770B-1-15B-1	315	FARRWOOD DR HAVERHILL YAMIN NIKKA MACINTOSH JENNIFER	674 TURNPIKE ST	NORTH ANDOVE MA		01845
770B-1-15B-2	317	FARRWOOD DR HAVERHILL LYNN	317 FARRWOOD DR	HAVERHILL	MA	01835

NORTH AVENUE REALTY								
770B-1-15D		FARRWOOD DR	HAVERHILL TRUST	198 SACO AV	OLD ORCHARD FME	04064		
770B-1-15E-1	303	FARRWOOD DR	HAVERHILL WILLIS ELIZABETH J	303 FARRWOOD DR	BRADFORD	MA	01835	
770B-1-15E-2	305	FARRWOOD DR	HAVERHILL PARKER TERRENCE-ETUX	305 FARRWOOD DR	BRADFORD	MA	01835	
770B-1-15F-1	299	FARRWOOD DR	HAVERHILL TYLUS LISA	299 FARRWOOD DR	BRADFORD	MA	01835	
			DAYLE H SMITH 2009					
770B-1-15F-2	301	FARRWOOD DR	HAVERHILL REVOCABLE TRUST	301 FARRWOOD DRIVE	BRADFORD	MA	01835	
770B-1-15G-1	295	FARRWOOD DR	HAVERHILL SACCO JASMIN C	295 FARRWOOD DR	BRADFORD	MA	01835	
			MONTOYA ORLANDO A-					
770B-1-15G-2	297	FARRWOOD DR	HAVERHILL ETUX	297 FARRWOOD DR	BRADFORD	MA	01835	
770B-1-291	291	FARRWOOD DR	HAVERHILL MITRANO ALLYSSA A-ETUX	291 FARRWOOD DR	BRADFORD	MA	01835	
770B-1-293	293	FARRWOOD DR	HAVERHILL COUGHLIN MICHAEL-ETUX	293 FARRWOOD DR	BRADFORD	MA	01835	
770B-1-309	309	FARRWOOD DR	HAVERHILL ORTIZ JONATHAN-ETALI	309 FARRWOOD DR	BRADFORD	MA	01835	
			LABOUCH NISRINE PEREZ-					
770B-1-311	311	FARRWOOD DR	HAVERHILL ETUX	311 FARRWOOD DR	BRADFORD	MA	01835	
770B-1-313	313	FARRWOOD DR	HAVERHILL HOUSTON TIMOTHY	313 FARRWOOD DR	BRADFORD	MA	01835	
771-779-66	1160	BOSTON RD	HAVERHILL BRIAR FOX REALTY, LLC	46 NECK RD	WARD HILL	MA	01835	
771-779-66A	1200	BOSTON RD	HAVERHILL NEXT GENERATION LLC	1200 BOSTON RD	HAVERHILL	MA	01835	
771-779-66B	1208	BOSTON RD	HAVERHILL SAVVAS REALTY LLC	1208 BOSTON RD	WARD HILL	MA	01835	
770-779-32		BOSTON R	HAVERHILL WALLYWOR 75 WILLOW AVE	BRADFORD	MA		01835	
770-779-32A		WILLOW A	BRADFORD WALLYWOR 75 WILLOW AVE	BRADFORD	MA		01835	
770-779-35		WILLOW A	BRADFORD CODYCAM F 75 WILLOW AVE	BRADFORD	MA		01835	
770-779-40		WILLOW A	BRADFORD WALLYWOR 75 WILLOW AVE	BRADFORD	MA		01835	
732-776-1	1179	BOSTON RD	HAVERHILL RAWDING JUDITH DENNIS	P.O. BOX 8215	WARD HILL	MA	01835	
732-776-2-1	2	CROSS RD	HAVERHILL FORMAN EVAN	2 CROSS RD UNIT 1	WARD HILL	MA	01835	
732-776-2-10	2	CROSS RD	HAVERHILL SMITH KASEY	2 CROSS RD UNIT 10	WARD HILL	MA	01835	
732-776-2-2	2	CROSS RD	HAVERHILL VAUGHN NICHOLAS J	2 CROSS RD UNIT 2	WARD HILL	MA	01835	
732-776-2-3	2	CROSS RD	HAVERHILL GENTILE DANIEL	2 CROSS RD., UNIT 3	WARD HILL	MA	01835	
			THE MELISSA ROUSSELLE					
732-776-2-4	2	CROSS RD	HAVERHILL LIVING T	2 CROSS RD UNIT 4	BRADFORD	MA	01835	
732-776-2-5	2	CROSS RD	HAVERHILL SOLANO DONNA-ETUX	2 CROSS RD UNIT 5	BRADFORD	MA	01835	

732-776-2-6	2	CROSS RD	HAVERHILL HAMMOUTI MIMOUN	2 CROSS RD, UNIT 6	BRADFORD	MA	01835
732-776-2-7	2	CROSS RD	HAVERHILL STEVENS KATHLEEN	2 CROSS RD UNIT 7	WARD HILL	MA	01835
732-776-2-8	2	CROSS RD	HAVERHILL PETTI BRIANA M	2 CROSS RD UNIT 8	WARD HILL	MA	01835
732-776-2-9	2	CROSS RD	HAVERHILL BALBONI ELISA D	128 HIGH ST, UNIT 1	EVERETT	MA	02149
732-776-3	14	CROSS RD	HAVERHILL JANBY REALTY TRUST 1181 BOSTON ROAD	P.O. BOX 8181	WARD HILL	MA	01835
732-777-2	1181	BOSTON RD	HAVERHILL REALTY TRUST ELEVEN CROSS REALTY	1181 BOSTON RD	WARD HILL	MA	01835
752-3-6	11	19 CROSS RD	HAVERHILL TRUST	56 NECK RD	WARD HILL	MA	01835
752-4-1	32	KNIPE RD	HAVERHILL ROGERS DALE F JR	211 FERRY RD	WARD HILL	MA	01835
771-779-66C	1148	BOSTON RD	WARD HILL BURRILL JASON D ETUX	1148 BOSTON RD	BRADFORD	MA	01835
752-4-10	8	KNIPE RD	HAVERHILL GABEEG REALTY LLC	8 KNIPE RD	BRADFORD	MA	01835
752-4-2	1147	BOSTON RD	HAVERHILL O`CONNELL JOHN P	1147 BOSTON RD	WARD HILL	MA	01835
752-4-3A	1141	BOSTON RD	HAVERHILL ROSEMARY RAFUSE	1141 BOSTON RD	HAVERHILL	MA	01835
752-4-3B-113	1135	BOSTON RD	HAVERHILL PARENT ALEX	1135 BOSTON RD	HAVERHILL	MA	01835
752-4-3B-25	25	WALDO CT	HAVERHILL BLANCHARD MICHAEL	25 WALDO COURT	HAVERHILL	MA	01835
752-4-4	21	WALDO CT	HAVERHILL FIORENTINO JESSE-ETAL	21 WALDO COURT	BRADFORD	MA	01835
770-779-45		BOSTON RD	HAVERHILL WALLYWORLD TRUST	75 WILLOW AVE	BRADFORD	MA	01835
771-779-58		BOSTON RD	HAVERHILL WALLYWORLD TRUST	75 WILLOW AVE	BRADFORD	MA	01835
771-779-59		BOSTON RD	HAVERHILL WALLYWORLD TRUST ROGERS FAMILY REALTY,	75 WILLOW AVE	BRADFORD	MA	01835
771-779-62	1136	BOSTON RD	HAVERHILL LLC	93 NECK RD	WARD HILL	MA	01835
771-779-62-A	1144	BOSTON RD	HAVERHILL LILLY MELODY 1146 BOSTON ROAD	1144 BOSTON ROAD	WARD HILL	MA	01835
771-779-62-A	1146	BOSTON RD	HAVERHILL REALTY TRUST	1146 BOSTON ROAD	HAVERHILL	MA	01835
771-779-62-B	1126	BOSTON RD	HAVERHILL LU STEPHEN S. JR	1126 BOSTON RD	BRADFORD	MA	01835
771-779-62-B	1128	BOSTON RD	HAVERHILL HENRIQUEZ LUIS-ETUX	1128 BOSTON RD	BRADFORD	MA	01835
771-779-62A-5		BOSTON RD	HAVERHILL LIGHTNING HILL, LLC	93 NECK RD	WARD HILL	MA	01835

Attachment E

394 Transmission Line and B154/C155 King Street Tap Line
Asset Condition Refurbishment Project
Haverhill, MA
Notice of Intent

National Grid's Best Management Practices

SUBJECT

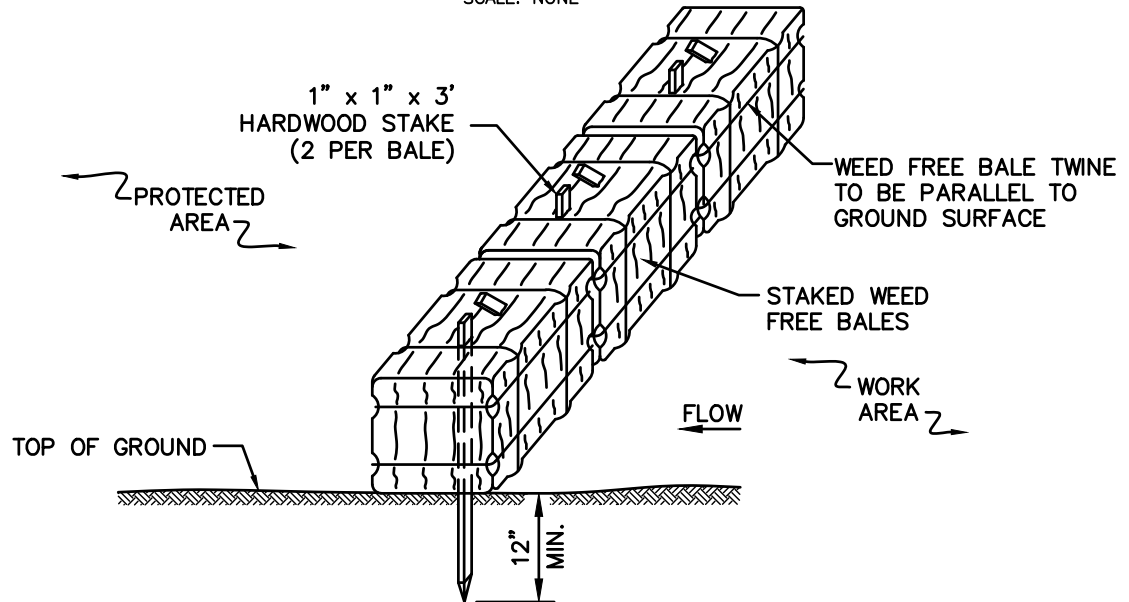
Access, Maintenance and Construction
Best Management Practices

Reference

EP No. 3 - Natural Resource
Protection (Chapter 6)

BMP DETAIL

SCALE: NONE

**NOTES:**

1. THE GROUND SHALL BE PREPARED TO PROVIDE COMPLETE CONTACT WITH THE BALES.

BMP PICTURE**APPROVED BY: VICE PRESIDENT, ENVIRONMENTAL SERVICES**

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SEC-1

WEED FREE BALE BARRIER

SUBJECT

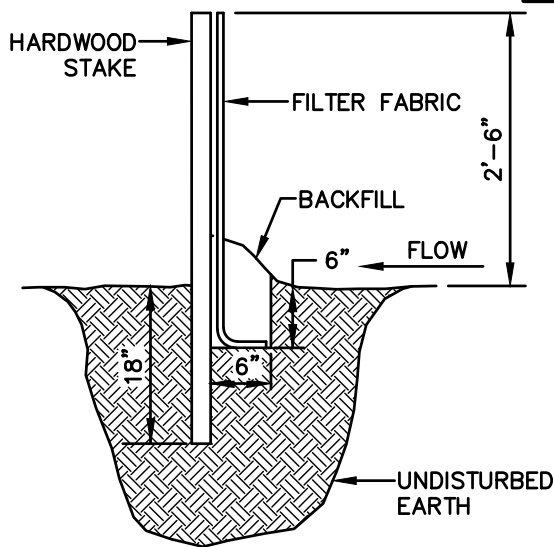
Access, Maintenance and Construction
Best Management Practices

Reference

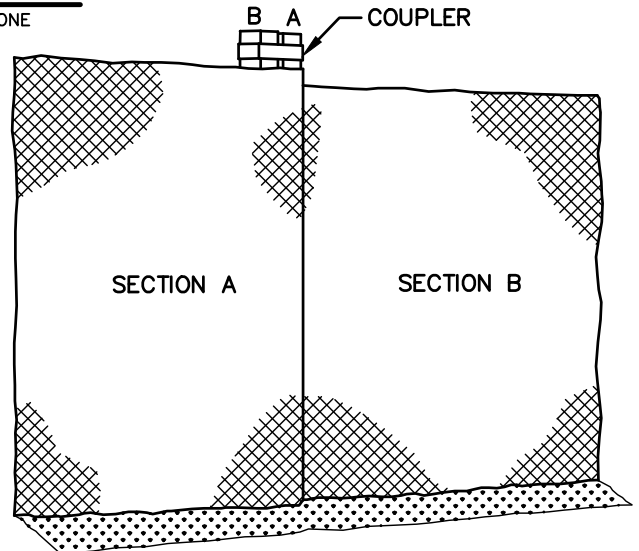
EP No. 3 - Natural Resource
Protection (Chapter 6)

BMP DETAIL

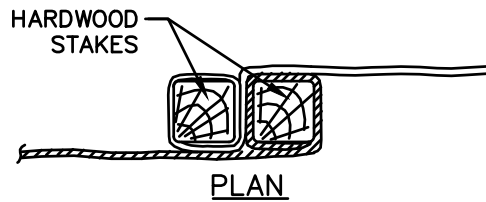
SCALE: NONE



PROFILE



SECTION



PLAN

BMP PICTURE



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SEC-2
SEDIMENT CONTROL FENCE

SUBJECT

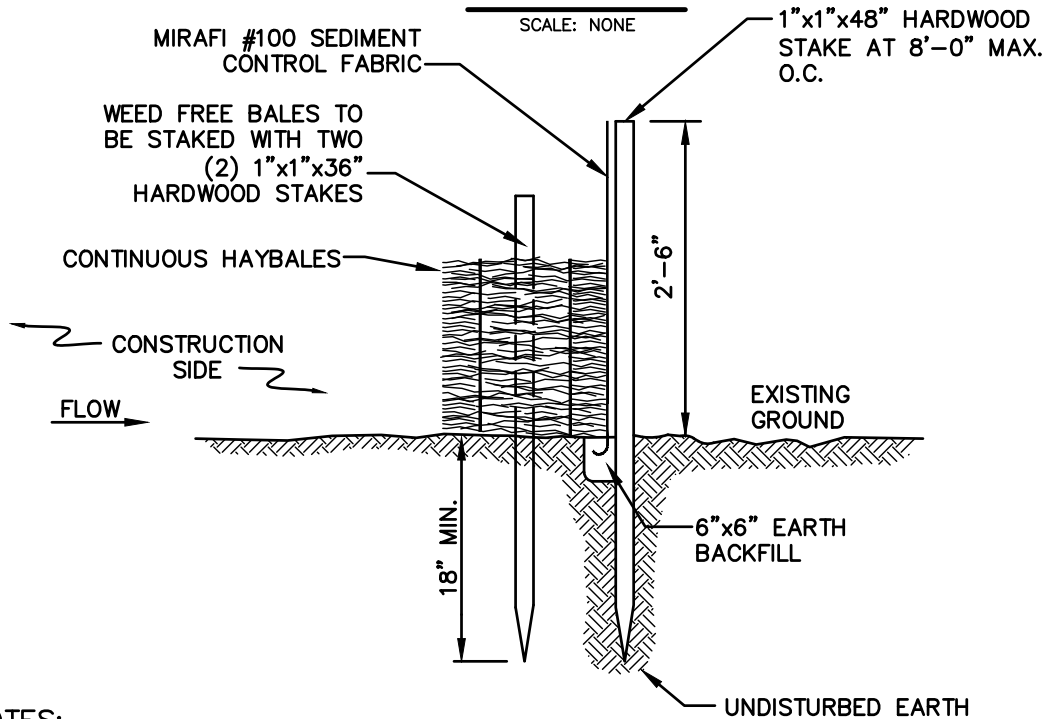
Access, Maintenance and Construction
Best Management Practices

Reference

EP No. 3 - Natural Resource
Protection (Chapter 6)

BMP DETAIL

SCALE: NONE

**NOTES:**

1. BALES SHALL BE PLACED IN A ROW WITH THE ENDS TIGHTLY ABUTTING THE ADJACENT BALES.
2. BALES SHALL BE SECURELY ANCHORED IN PLACE BY TWO (2) 1"x1"x36" HARDWOOD STAKES DRIVEN THROUGH THE BALES. THE FIRST STAKE IN EACH BALE SHALL BE ANGLED TOWARD PREVIOUSLY LAID BALE TO FORCE BALES TOGETHER.
3. INSPECTION SHALL BE FREQUENT AND REPAIR OR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED.
4. BALES SHALL BE REMOVED AND REPLACED WHEN THEY BECOME FILLED WITH SEDIMENT AND BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.
5. BALES SHALL BE REMOVED WHEN THE EMBANKMENTS STABILIZE.
6. BALES TO BE TWINE BOUND.

BMP PICTURE

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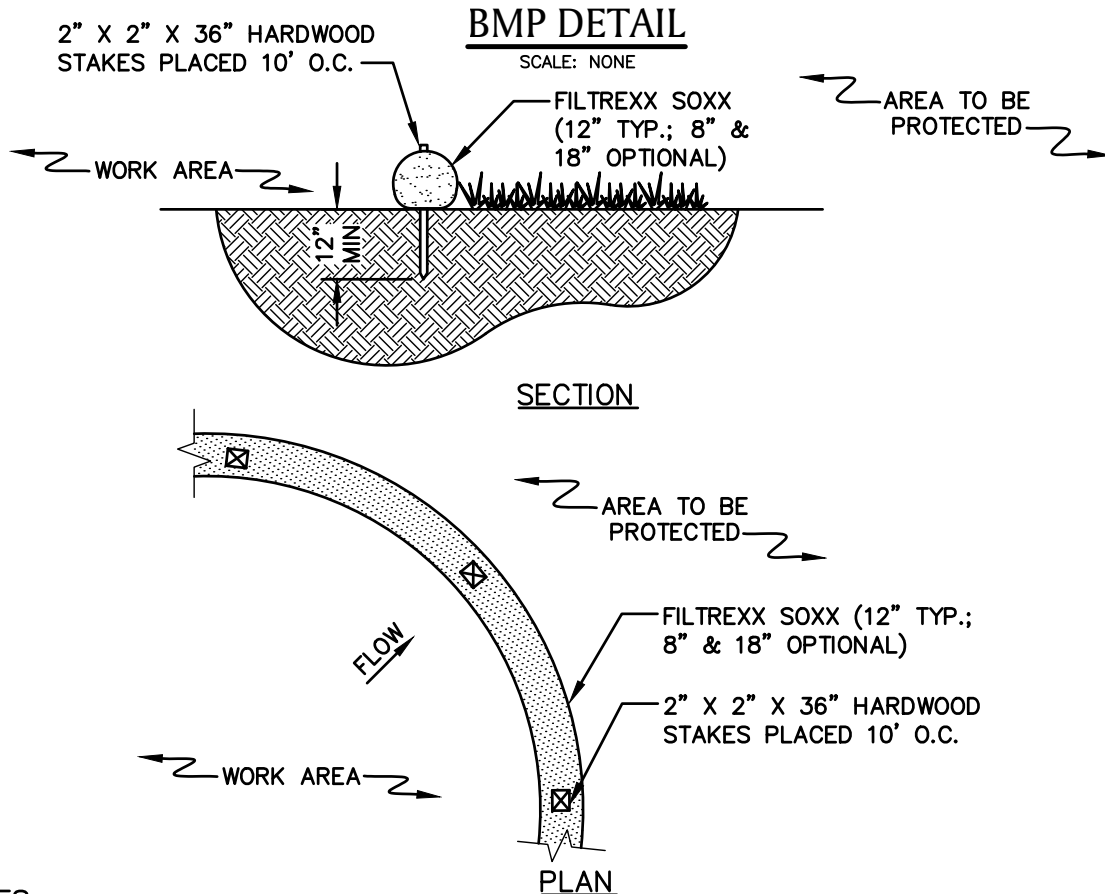
SEC-3
SILT FENCE /
WEED FREE BARRIER

SUBJECT

Access, Maintenance and Construction
Best Management Practices

Reference

EP No. 3 - Natural Resource
Protection (Chapter 6)

NOTES

1. PRODUCT TO BE FILTREXX SILT SOXX OR APPROVED EQUAL BY NATIONAL GRID ENVIRONMENTAL SCIENTIST.
2. ALL MATERIAL TO MEET FILTREXX SPECIFICATIONS.
3. FILTER MEDIA FILL TO MEET APPLICATION REQUIREMENTS.
4. MESH CONTAINMENT MATERIAL SHOULD BE KNITTED PHOTODEGRADABLE OR BIODEGRADABLE MATERIAL, WITH OPENING SIZES BETWEEN 1/8" – 3/8".
5. COMPOST MEDIA SHOULD HAVE PARTICLE SIZE WHERE 99% < 2", 50% > 1/2".
6. COMPOST MATERIAL TO BE DISPERSED ON SITE, AS DETERMINED BY NATIONAL GRID ENVIRONMENTAL SCIENTIST.

BMP PICTURE

* PICTURE AND DETAIL PROVIDED BY FILTREXX LAND IMPROVEMENT SYSTEMS
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SEC-4
SILT SOXX *

SUBJECT

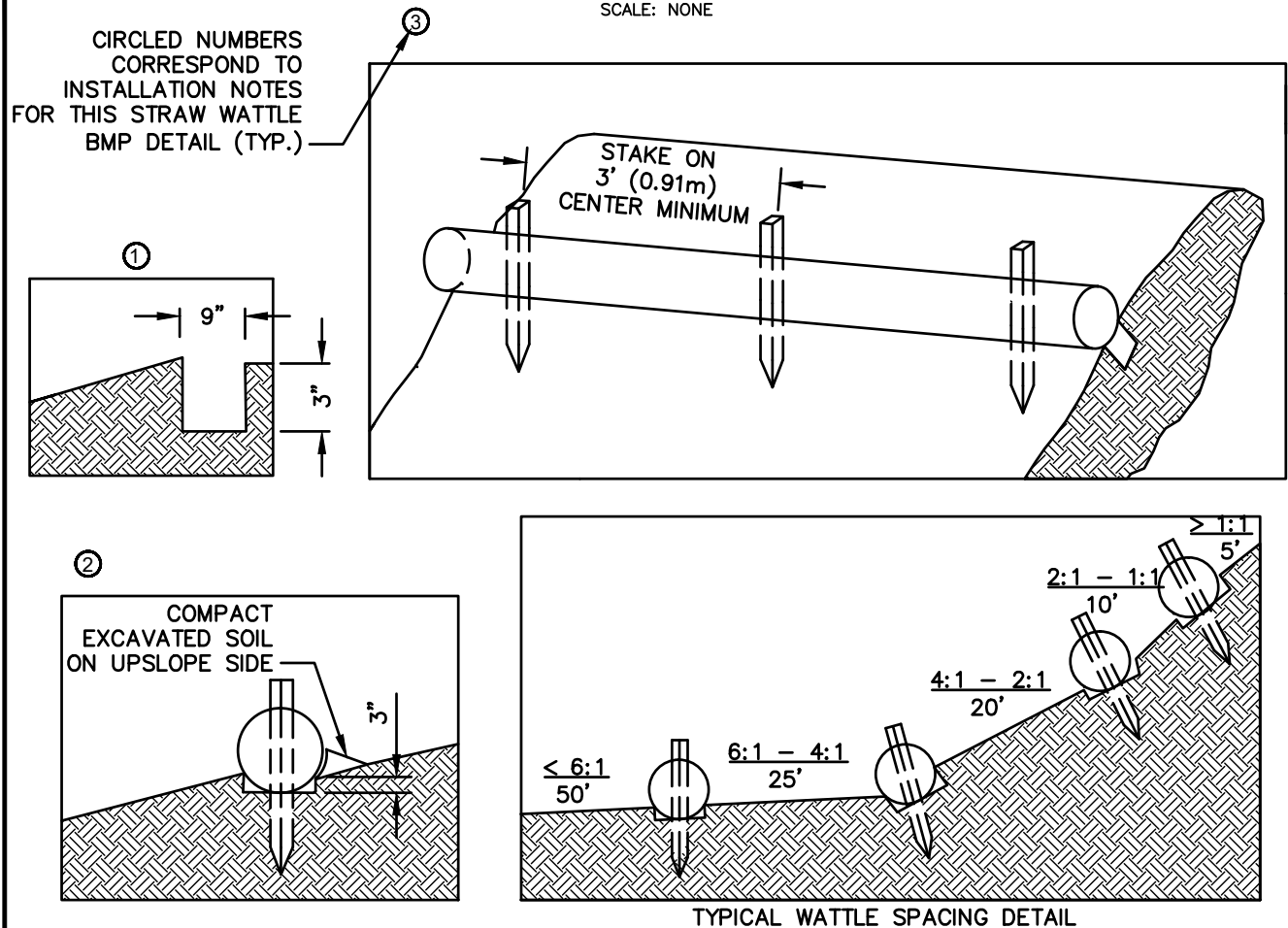
Access, Maintenance and Construction
Best Management Practices

Reference

EP No. 3 - Natural Resource
Protection (Chapter 6)

BMP DETAIL

SCALE: NONE

**NOTES:**

1. PRODUCT TO BE TENSAR NORTH AMERICAN GREEN STRAW WATTLE OR APPROVED EQUAL BY NATIONAL GRID ENVIRONMENTAL SCIENTIST.
2. TYPICAL WATTLE SPACING BASED ON SLOPE GRADIENT. COORDINATE SPACING AND LOCATION WITH NATIONAL GRID ENVIRONMENTAL SCIENTIST.
3. MINIMUM 12" DIAMETER WATTLES SHOULD BE USED FOR HIGHLY DISTURBED AREAS (I.E., HEAVILY USED ACCESS ROAD WITH ADJACENT WETLAND) AND MINIMUM 9-10" WATTLES SHOULD BE USED FOR LESS DISTURBED SOILS.

INSTALLATION NOTES:

1. BEGIN AT THE LOCATION WHERE THE WATTLE IS TO BE INSTALLED BY EXCAVATING A 2-3" DEEP X 9" WIDE TRENCH ALONG THE CONTOUR OF THE SLOPE. EXCAVATED SOIL SHOULD BE PLACED UPSLOPE FROM THE ANCHOR TRENCH.
2. PLACE THE WATTLE IN THE TRENCH SO THAT IT CONTOURS TO THE SOIL SURFACE. COMPACT SOIL FROM THE EXCAVATED TRENCH AGAINST THE WATTLE ON THE UPHILL SIDE. ADJACENT WATTLES SHOULD TIGHTLY ABUT.
3. SECURE THE WATTLE WITH 18-24" HARDWOOD STAKES EVERY 3-4' AND WITH A STAKE ON EACH END. STAKES SHOULD BE DRIVEN THROUGH THE MIDDLE OF THE WATTLE LEAVING AT LEAST 2-3" OF STAKE EXTENDING ABOVE THE WATTLE. STAKES SHOULD BE DRIVEN PERPENDICULAR TO THE SLOPE FACE.

* DETAIL AND PICTURE PROVIDED BY TENSAR NORTH AMERICAN GREEN
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SEC-5
STRAW WATTLE * (1 OF 2)

SUBJECT

Access, Maintenance and Construction
Best Management Practices

Reference

EP No. 3 - Natural Resource
Protection (Chapter 6)

BMP PICTURE

STRAW WATTLE – SHALLOW SLOPE ($\leq 4:1$)
(ALTERNATE STAKING)

ALTERNATE STAKING INSTALLATION NOTES:

1. ON SHALLOW SLOPES ($\leq 4:1$), STRAW WATTLE MAY BE SECURED WITH 18–24" HARDWOOD STAKES DRIVEN AGAINST THE SIDES OF THE WATTLE INSTEAD OF THROUGH. STAKES SHALL ALTERNATE SIDES, AND BE SPACED 3–4' MAX.
2. TWINE SHALL BE TIED FROM STAKE TO STAKE, CRISS-CROSSING THE STRAW WATTLE. TIE TWINE TO STAKES BELOW THE HEIGHT OF THE WATTLE.

SUBJECT

Access, Maintenance and Construction
Best Management Practices

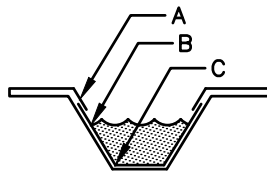
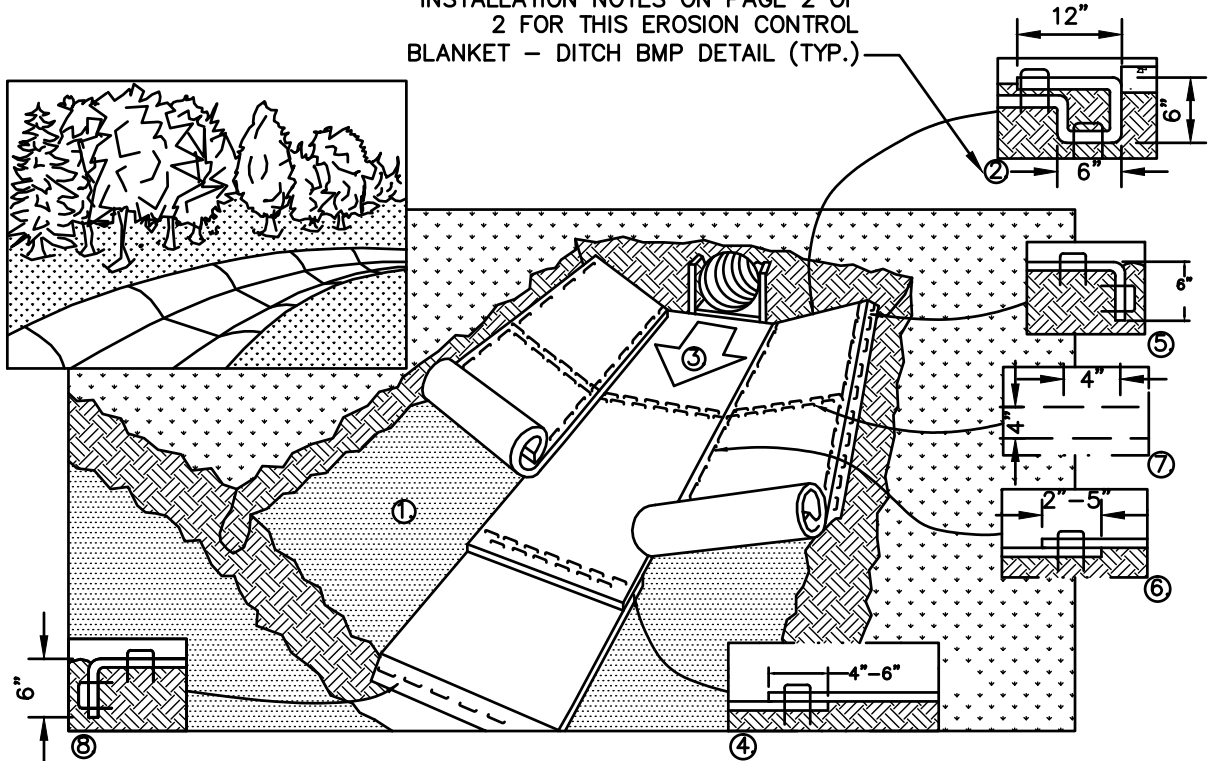
Reference

EP No. 3 - Natural Resource
Protection (Chapter 6)

BMP DETAIL

SCALE: NONE

CIRCLED NUMBERS CORRESPOND TO
INSTALLATION NOTES ON PAGE 2 OF
2 FOR THIS EROSION CONTROL
BLANKET - DITCH BMP DETAIL (TYP.)



CRITICAL POINTS

- A. OVERLAPS AND SEAMS
- B. PROJECTED WATER LINE
- C. CHANNEL BOTTOM/SIDE SLOPE VERTICES

NOTES:

1. PRODUCT TO BE NORTH AMERICAN GREEN EROSION CONTROL BLANKET OR APPROVED EQUAL BY NATIONAL GRID ENVIRONMENTAL SCIENTIST.
2. HORIZONTAL STAPLE SPACING SHOULD BE ALTERED IF NECESSARY TO ALLOW STAPLES TO SECURE THE CRITICAL POINTS ALONG THE CHANNEL SURFACE.
3. IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" (15 CM) MAY BE NECESSARY TO PROPERLY ANCHOR THE ROLLED EROSION CONTROL PRODUCTS (RECP's).

* PICTURE AND DETAIL PROVIDED BY TENSAR NORTH AMERICAN GREEN
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SEC-6
EROSION CONTROL BLANKET -
DITCH * (1 OF 2)

SUBJECT

Access, Maintenance and Construction
Best Management Practices

Reference

EP No. 3 - Natural Resource
Protection (Chapter 6)

BMP DETAIL**INSTALLATION NOTES:**

1. PREPARE SOIL BEFORE INSTALLING ROLLED EROSION CONTROL PRODUCTS (RECP's), INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED. NOTE: WHEN USING CELL-O-SEED DO NOT SEED PREPARED AREA. CELL-O-SEED MUST BE INSTALLED WITH PAPER SIDE DOWN.
2. BEGIN AT THE TOP OF THE CHANNEL BY ANCHORING THE RECP's IN A 6" (15 CM) DEEP X 6" (15 CM) WIDE TRENCH WITH APPROXIMATELY 12" (30 CM) OF RECP's EXTENDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH. ANCHOR THE RECP's WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" (30 CM) APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12" (30 CM) PORTION OF RECP's BACK OVER SEED AND COMPACTED SOIL. SECURE RECP's OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12" (30 CM) ACROSS THE WIDTH OF THE RECP's.
3. ROLL CENTER RECP's IN DIRECTION OF WATER FLOW IN BOTTOM OF CHANNEL. RECP's WILL UNROLL WITH APPROPRIATE SIDE AGAINST THE SOIL SURFACE. ALL RECP's MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS AS SHOWN IN THE STAPLE PATTERN GUIDE. WHEN USING THE DOT SYSTEM, STAPLES/STAKES SHOULD BE PLACED THROUGH EACH OF THE COLORED DOTS CORRESPONDING TO THE APPROPRIATE STAPLE PATTERN.
4. PLACE CONSECUTIVE RECP's END OVER END (SHINGLE STYLE) WITH A 4" – 6" (10 CM –15 CM) OVERLAP. USE A DOUBLE ROW OF STAPLES STAGGERED 4" (10 CM) APART AND 4" (10 CM) ON CENTER TO SECURE RECP's.
5. FULL LENGTH EDGE OF RECP's AT TOP OF SIDE SLOPES MUST BE ANCHORED WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" (30 CM) APART IN A 6" (15 CM) DEEP X 6" (15 CM) WIDE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.
6. ADJACENT RECP's MUST BE OVERLAPPED APPROXIMATELY 2" – 5" (5 CM –12.5 CM) (DEPENDING ON RECP's TYPE) AND STAPLED.
7. IN HIGH FLOW CHANNEL APPLICATIONS, A STAPLE CHECK SLOT IS RECOMMENDED AT 30 TO 40 FOOT (9 M – 12 M) INTERVALS. USE A DOUBLE ROW OF STAPLES STAGGERED 4" (10 CM) APART AND 4" (10 CM) ON CENTER OVER ENTIRE WIDTH OF THE CHANNEL.
8. THE TERMINAL END OF THE RECP's MUST BE ANCHORED WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" (30 CM) APART IN A 6" (15 CM) DEEP X 6" (15 CM) WIDE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.

BMP PICTURE

* PICTURE AND DETAIL PROVIDED BY TENSAR NORTH AMERICAN GREEN
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SEC-6
EROSION CONTROL BLANKET -
DITCH * (2 OF 2)

SUBJECT

Access, Maintenance and Construction
Best Management Practices

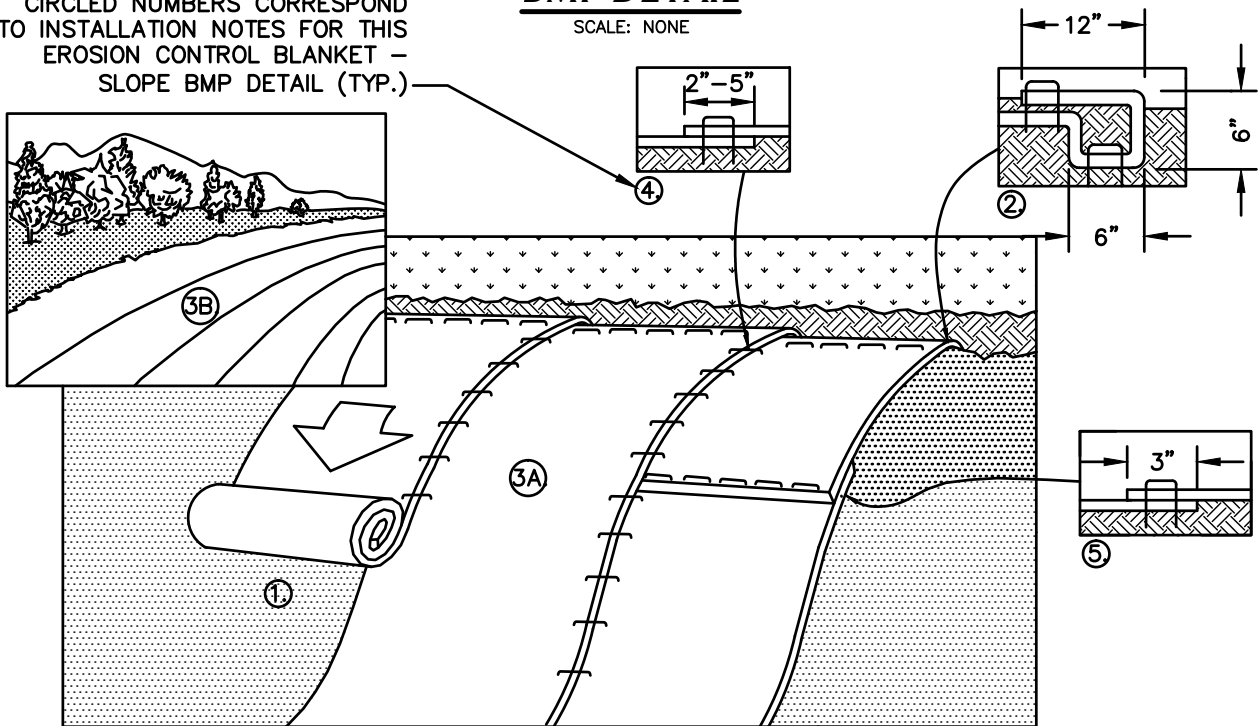
Reference

EP No. 3 - Natural Resource
Protection (Chapter 6)

CIRCLED NUMBERS CORRESPOND
TO INSTALLATION NOTES FOR THIS
EROSION CONTROL BLANKET –
SLOPE BMP DETAIL (TYP.)

BMP DETAIL

SCALE: NONE

**NOTES:**

1. PRODUCT TO BE NORTH AMERICAN GREEN EROSION CONTROL BLANKET OR APPROVED EQUAL BY NATIONAL GRID ENVIRONMENTAL SCIENTIST.
2. IN LOOSE SOIL CONDITIONS, THE USE OF STAPLES OR STAKE LENGTHS GREATER THAN 6" (15 CM) MAY BE NECESSARY TO PROPERLY SECURE THE RECP's.

INSTALLATION NOTES:

1. PREPARE SOIL BEFORE INSTALLING ROLLED EROSION CONTROL PRODUCTS (RECP's), INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED. NOTE: WHEN USING CELL-O-SEED DO NOT SEED PREPARED AREA. CELL-O-SEED MUST BE INSTALLED WITH PAPER SIDE DOWN.
2. BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE RECP's IN A 6" (15 CM) DEEP X 6" (15 CM) WIDE TRENCH WITH APPROXIMATELY 12" (30 CM) OF RECP's EXTENDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH. ANCHOR THE RECP's WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" (30 CM) APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12" (30 CM) PORTION OF RECP's BACK OVER SEED AND COMPACTED SOIL. SECURE RECP's OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12" (30 CM) APART ACROSS THE WIDTH OF THE RECP's.
3. ROLL THE RECP's (A.) DOWN OR (B.) HORIZONTALLY ACROSS THE SLOPE. RECP's WILL UNROLL WITH APPROPRIATE SIDE AGAINST THE SOIL SURFACE. ALL RECP's MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS AS SHOWN IN THE STAPLE PATTERN GUIDE. WHEN USING THE DOT SYSTEM, STAPLES/STAKES SHOULD BE PLACED THROUGH EACH OF THE COLORED DOTS CORRESPONDING TO THE APPROPRIATE STAPLE PATTERN.
4. THE EDGES OF PARALLEL RECP's MUST BE STAPLED WITH APPROXIMATELY 2" – 5" (5 CM – 12.5 CM) OVERLAP DEPENDING ON RECP's TYPE.
5. CONSECUTIVE RECP's SPLICED DOWN THE SLOPE MUST BE PLACED END OVER END (SHINGLE STYLE) WITH AN APPROXIMATE 3" (7.5 CM) OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" (30 CM) APART ACROSS ENTIRE RECP's WIDTH.

* PICTURE AND DETAIL PROVIDED BY TENSAR NORTH AMERICAN GREEN
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SEC-7
EROSION CONTROL BLANKET -
SLOPE * (1 OF 2)

SUBJECT

Access, Maintenance and Construction
Best Management Practices

Reference

EP No. 3 - Natural Resource
Protection (Chapter 6)

BMP PICTURE

File: Erosion_Blanket_Slope.dwg

* PICTURE AND DETAIL PROVIDED BY TENSAR NORTH AMERICAN GREEN
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SEC-7
EROSION CONTROL BLANKET -
SLOPE * (2 OF 2)

SUBJECT

Access, Maintenance and Construction
Best Management Practices

Reference

EP No. 3 - Natural Resource
Protection (Chapter 6)

BMP**Definition**

Applying coarse plant residue or chips, or other suitable materials, to cover the soil surface.

Purpose

The primary purpose is to provide initial erosion control while a seeding or shrub planting is establishing. Mulch will conserve moisture and modify the surface soil temperature and reduce fluctuation of both. Mulch will prevent soil surface crusting and aid in weed control. Mulch is also used alone for temporary stabilization in non-growing months.

Conditions Where Practice Applies

On soils subject to erosion and on new seedings and shrub plantings. Mulch is useful on soils with low infiltration rates by retarding runoff.

Criteria

Site preparation prior to mulching requires the installation of necessary erosion control or water management practices and drainage systems.

Slope, grade and smooth the site to fit needs of selected mulch products.

Remove all undesirable stones and other debris to meet the needs of the anticipated land use and maintenance required.

Apply mulch after soil amendments and planting is accomplished or simultaneously if hydroseeding is used.

Select appropriate mulch material and application rate or material needs. Determine local availability.

Select appropriate mulch anchoring material.

NOTE: The best combination for grass/legume establishment is straw (cereal grain) mulch applied at 2 ton/acre (90 lbs./1000sq.ft.) and anchored with wood fiber mulch (hydromulch) at 500 – 750 lbs./acre (11 – 17 lbs./1000 sq. ft.). The wood fiber mulch must be applied through a hydroseeder immediately after mulching.

**NOTE:**

1. PICTURE DEPICTS STRAW MULCH APPLICATION (FROM MULCH SPREADER) ON STEEP SLOPE WITH AN IMPROVED DRAINAGE SWALE.
2. COORDINATE MULCH MATERIALS AND RATES WITH NATIONAL GRID ENVIRONMENTAL SCIENTIST.

* BMP INFORMATION FROM "NEW YORK STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL (AUGUST, 2005)." INFORMATION OBTAINED VIA WEBSITE: <http://www.dec.ny.gov/chemical/29086.html>
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SEC-9

MULCH MATERIALS, RATES AND
USES (FROM NY) *

SUBJECT

Access, Maintenance and Construction
Best Management Practices

Reference

EP No. 3 - Natural Resource
Protection (Chapter 6)

UPLAND ROW RESTORATION MIX – GENERAL

Species Composition Options:

- Andropogon gerardii; Niagra Big Bluestem
- Schizachyrium scoparium; Little Bluestem
- Elymus Canadensis; Canada Wild Rye
- Elymus virginicus; Virginia Wildrye
- Lolium multiflorum; Annual Ryegrass
- Sorghastrum nutans; Indiangrass
- Chamaecrista fasciculata; Partridge Pea
- Desmodium canadense; Showy Tick Trefoil
- Heliopsis helianthoides; Ox-Eye Sunflower
- Panicum virgatum; Switchgrass
- Rudbeckia hirta; Black Eyed Susan
- Poa palustris; Fowl Bluegrass
- Agrostis perennans; Upland Bentgrass
- Agrostis alba; Redtop
- Festuca rubra; Red Fescue
- Lotus corniculatus; Birds-Foot Trefoil
- Chrysanthemum leucanthem; Ox-Eye Daisy
- Aster novae-angliae; New England Aster

Example Seed Mixes:

1. Native Upland wildlife forage and Cover Meadow Mix – Ernst Conservation Seeds (ERNMX-123)
2. Eastern Ecotype Native Grass Mix– Ernst Conservation Seeds (ERNMX-177)
3. New England Native Warm Season Grass Mix – New England Wetland Plants, Inc.
4. New England Logging Road Mix – New England Wetland Plants, Inc.
5. Northeast Upland Wildflower/Restoration Erosion Mix – Southern Tier Consulting (STCMX-2)

UPLAND ROW RESTORATION MIX – DRY/ROCKY SITES

Species Composition Options:

- Festuca rubra; Red Fescue
- Schizachyrium scoparium; Little Bluestem
- Elymus Canadensis; Canada Wild Rye
- Bouteloua gracilis; Blue Grama
- Lolium multiflorum; Annual Ryegrass
- Lolium perenne; Perennial Ryegrass
- Agrostis scabra; Rough Bentgrass
- Agrostis perennans; Upland Bentgrass
- Sorghastrum nutans; Indiangrass

Example Seed Mixes:

1. New England Erosion Control/ Restoration Mix for Dry Sites – New England Wetland Plants, Inc.
2. Ernst Conservation Seeds and similar companies can create a custom seed mix matching the composition above (with site specific additions if necessary).

SUBJECT

Access, Maintenance and Construction
Best Management Practices

Reference

EP No. 3 - Natural Resource
Protection (Chapter 6)

WETLAND ROW RESTORATION MIXSpecies Composition Options:

- Agrostis stolonifera; Creeping Bentgrass
- Poa trivialis; Rough Bluegrass
- Alopecurus arundinaceus; Creeping Meadow Foxtail
- Lolium multiflorum; Annual Ryegrass
- Festuca rubra; Creeping Red Fescue
- Elymus virginicus; Virginia Wildrye
- Schizachyrium scoparium; Little Bluestem
- Andropogon gerardii; Niagra Big Bluestem
- Carex vulpinoidea; Fox sedge
- Panicum virgatum; Switchgrass
- Agrostis scabra; Rough Bentgrass
- Aster novae-angliae; New England Aster
- Eupatorium perfoliatum; Boneset
- Euthamia graminifolia; Grass Leaved Goldenrod
- Scirpus atrovirens; Green Bulrush
- Verbena hastata; Blue Vervain
- Juncus effusus; Soft Rush
- Scirpus cyperinus; Wool Grass
- Panicum clandestinum; Deertongue

Example Seed Mixes

1. New England Erosion Control/Restoration Mix for Detention Basins and Moist Sites – New England Wetland Plants, Inc.
2. Northeast Wetland Grass Seed Mix – Southern Tier Consulting (STCMX-7)
3. Ernst Conservation Seeds and similar companies can create a custom seed mix matching the composition above (with site specific additions if necessary).

GERNERAL NOTES:

1. Seed mixes described herein are intended to cover a variety of typical new england landscapes. However, site specific seed mixes will need to be evaluated in coastal or mountainous regions.
2. Seed mixes described herein are intended for general ROW restoration. Site specific wetland seed mixes may be required by local, state and/or federal regulators for certain impacts to wetlands.
3. All seed mixes are to be approved by National Grid Environmental Scientist prior to construction and must conform with all project permits.
4. Seedbed preparation and maintenance as well as temporary erosion and sediment controls are crucial to the establishment of newly seeded areas. Coordinate with National Grid Environmental Scientist on seed bed preparation and maintenance as well as temporary erosion and sediment controls prior to construction.

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SEC-11

SEEDING OPTIONS -
WETLAND SEED MIX

SUBJECT

Access, Maintenance and Construction
Best Management Practices

Reference

EP No. 3 - Natural Resource
Protection (Chapter 6)

BMP PICTURE

SCALE: NONE

**NOTES:**

1. PRODUCT TO BE ALTURNAMATS' PREFABRICATED MATS OR APPROVED EQUAL BY NATIONAL GRID ENVIRONMENTAL SCIENTIST.
2. PRODUCT AVAILABLE IN 4X8' UNITS.
3. IF MATS ARE INSTALLED IN A WETLAND AREA, INSTALL EROSION CONTROLS TO CONTAIN MATERIAL UTILIZED IN THE MAT TRANSITIONS.

* PICTURE PROVIDED BY ALTURNAMATS

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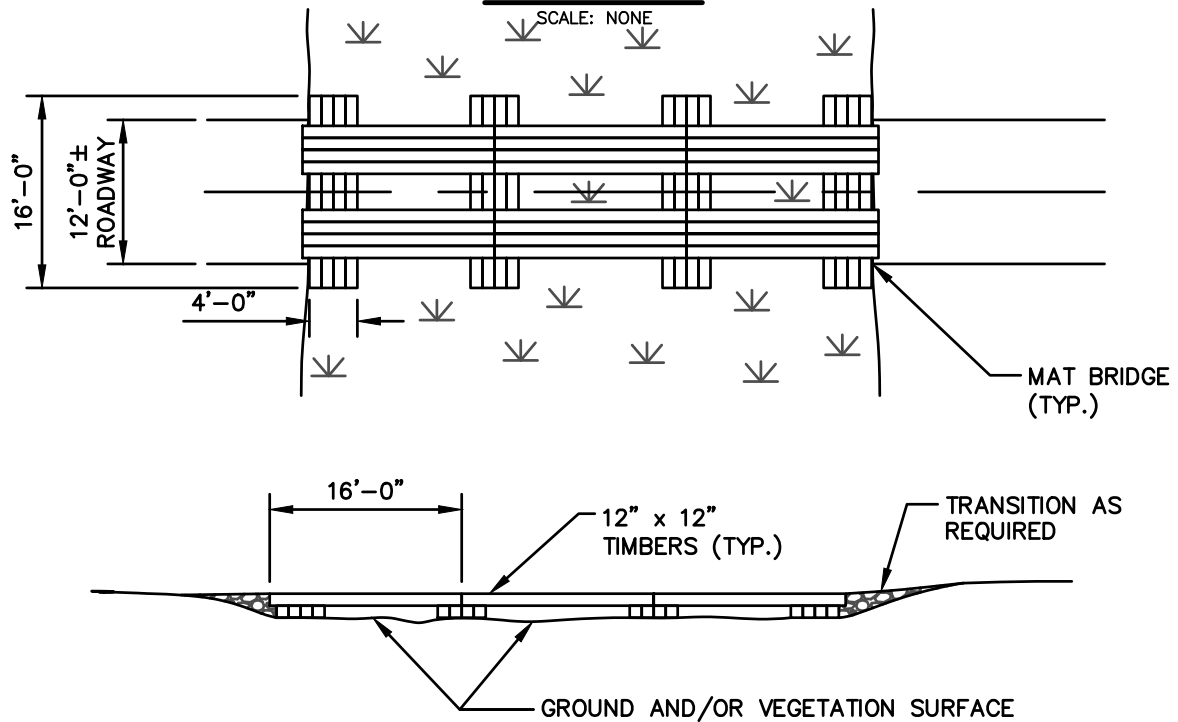
CM-1
PREFABRICATED MATS *

SUBJECT

Access, Maintenance and Construction
Best Management Practices

Reference

EP No. 3 - Natural Resource
Protection (Chapter 6)

BMP DETAIL**NOTES:**

1. IF MATS ARE INSTALLED IN A WETLAND AREA, INSTALL EROSION CONTROLS TO CONTAIN MATERIAL UTILIZED IN THE MAT TRANSITIONS.

BMP PICTURE

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CM-2
CONSTRUCTION MAT BRIDGE
(1 OF 2)

SUBJECT

Access, Maintenance and Construction
Best Management Practices

Reference

EP No. 3 - Natural Resource
Protection (Chapter 6)

BMP PICTURE - SINGLE SPAN

SCALE: NONE

**NOTES:**

1. WHERE STREAM WIDTH ALLOWS, INSTALL CONSTRUCTION MATS TO SPAN THE WATERCOURSE IN ITS ENTIRETY WITHOUT STRINGER PLACEMENT IN THE WATER OR ANY RESTRICTION OF STREAM FLOW.
2. INSTALLATION OF THE CONSTRUCTION MAT BRIDGE SHALL NOT DAMAGE THE STREAM BED AND BANKS. WHERE POSSIBLE, FOOTERS SHALL BE PLACED PARALLEL TO THE TOP OF THE STREAM BANKS, WITH ACCESS MATTING PLACED ACROSS THE TOP OF THE STRINGERS DISTRIBUTING THE WEIGHT OF THE CONSTRUCTION EQUIPMENT.
3. AT STREAM CROSSINGS THAT CANNOT BE SPANNED BY A SINGLE SECTION OF CONSTRUCTION MATTING, AND WHERE PERMITS ALLOW, STRINGERS SHALL BE PLACED ATOP THE STREAM BED PARALLEL TO THE FLOW OF WATER.

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CM-2
CONSTRUCTION MAT BRIDGE
(2 OF 2)

SUBJECT

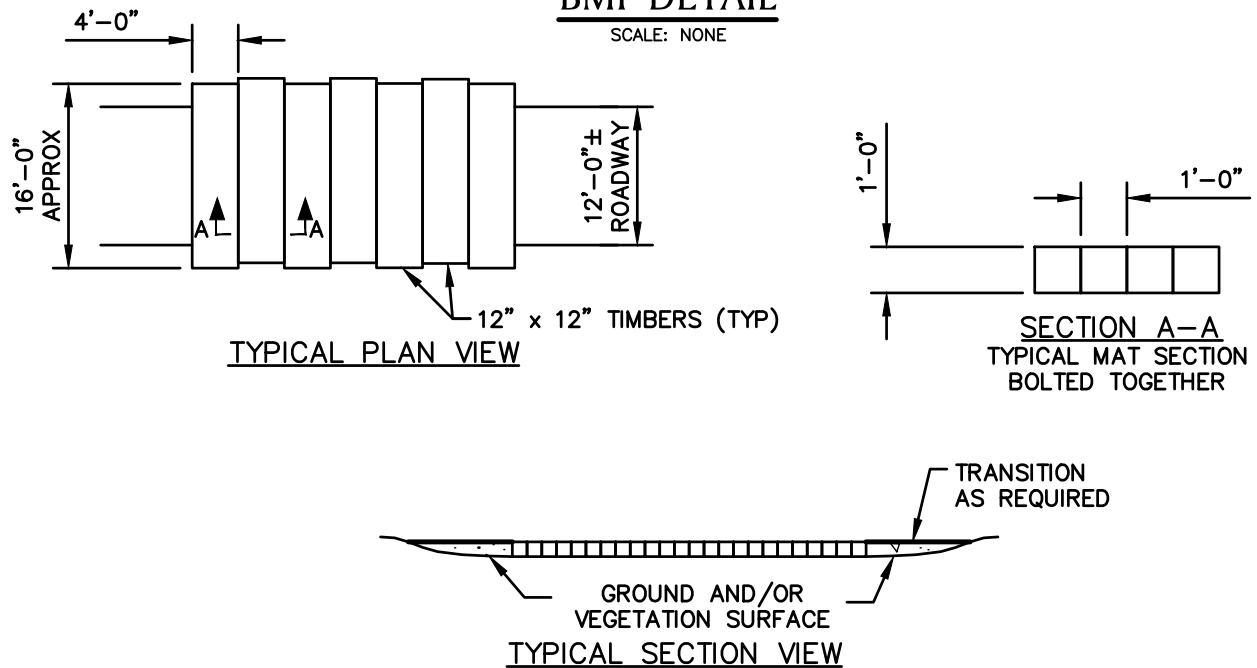
Access, Maintenance and Construction
Best Management Practices

Reference

EP No. 3 - Natural Resource
Protection (Chapter 6)

BMP DETAIL

SCALE: NONE

**NOTES:**

1. TO BE INSTALLED IF NECESSARY TO PREVENT RUTTING, TO ACCESS STRUCTURES.
2. THIS DETAIL SHOWS TYPICAL DIMENSIONS. SOME CONTRACTOR'S CONSTRUCTION MATS ARE DIMENSIONALLY DIFFERENT FROM WHAT IS SHOWN HERE.
3. DEPENDENT ON SITE CONDITIONS, MULTIPLE LAYERS OF CONSTRUCTION MATS MAY BE INSTALLED.

BMP PICTURE

CM-3

CONSTRUCTION MAT LAYOUT
(WITH TRANSITION)

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SUBJECT

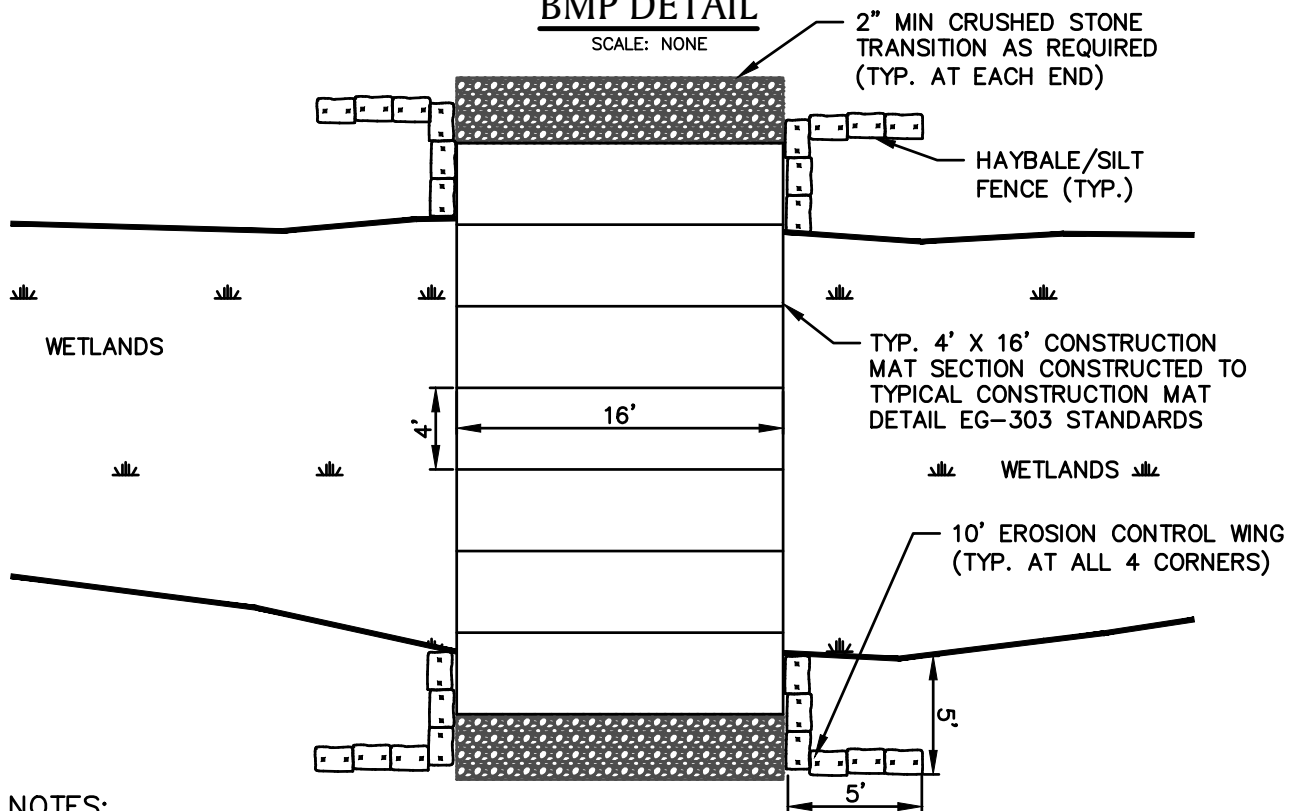
Access, Maintenance and Construction
Best Management Practices

Reference

EP No. 3 - Natural Resource
Protection (Chapter 6)

BMP DETAIL

SCALE: NONE

**NOTES:**

1. ADD FILTER FABRIC AS NEEDED UNDER STONE TRANSITION RAMPS.
2. ALL MEASUREMENTS AND LOCATIONS ARE APPROXIMATE.

BMP PICTURE

CM-4

CONSTRUCTION MAT LAYOUT
(WITH TRANSITION AND BMPs)

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SUBJECT

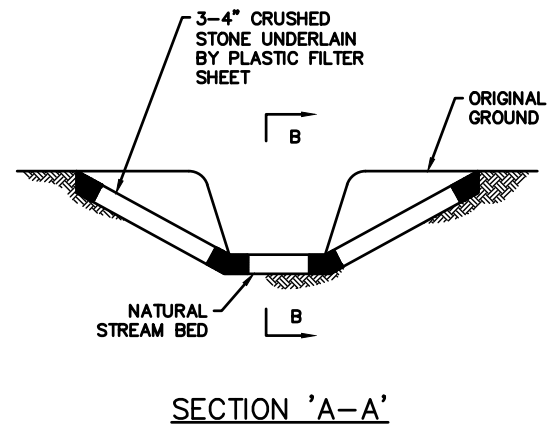
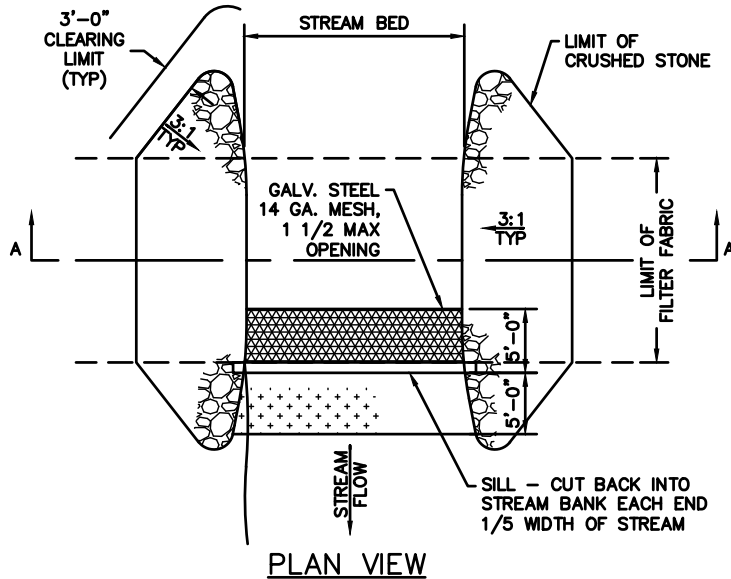
Access, Maintenance and Construction
Best Management Practices

Reference

EP No. 3 - Natural Resource
Protection (Chapter 6)

BMP DETAIL

SCALE: NONE

**BMP PICTURE****APPROVED BY: VICE PRESIDENT, ENVIRONMENTAL SERVICES**

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CM-7
ROCK FORD

SUBJECT

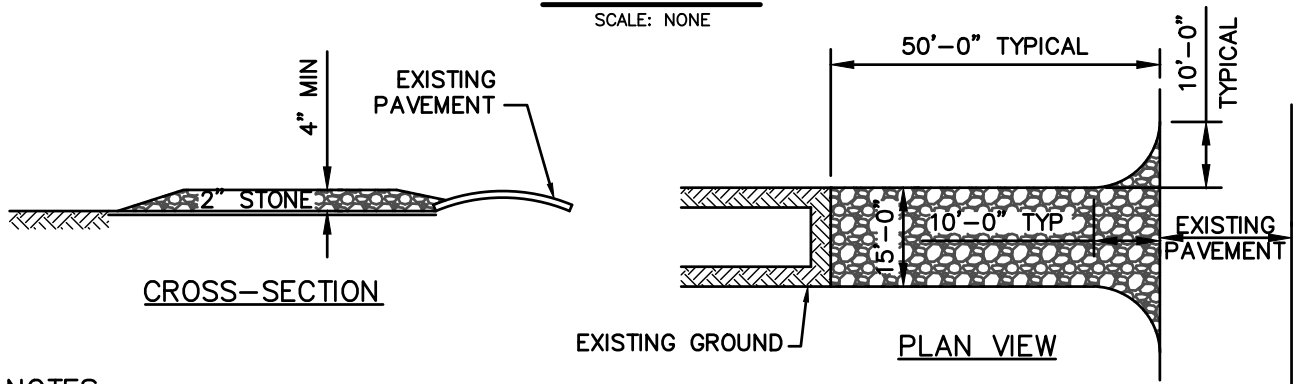
Access, Maintenance and Construction
Best Management Practices

Reference

EP No. 3 - Natural Resource
Protection (Chapter 6)

BMP DETAIL

SCALE: NONE

**NOTES:**

1. STONE SIZE – USE 2" STONE (MINIMUM) TO 6" STONE (MAXIMUM)
2. LENGTH – GREATER THAN OR EQUAL TO 50 FEET
3. THICKNESS – 4"
4. WIDTH – FIFTEEN (15) FOOT TYP., BUT NOT LESS THAN FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS.
5. SURFACE WATER – ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED ACROSS ENTRANCE. IF PIPING IS IMPRACTICAL, MOUNTABLE BERM SHALL BE PERMITTED.
6. MAINTENANCE – THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH SHALL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY.
7. PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED.
8. THE CLEAN STONE SHOULD BE INSTALLED OVER A GEOTEXTILE FABRIC. GEOTEXTILE FABRIC MAY BE OMITTED FOR PERMANENT CONSTRUCTION ENTRANCES/EXITS ON A CASE-BY-CASE BASIS WITH THE APPROVAL OF THE NATIONAL GRID ENVIRONMENTAL SCIENTIST.
9. FOLLOWING CONSTRUCTION, THE CONSTRUCTION ENTRANCE/EXIT SHALL BE REMOVED AND THE AREA GRADED, SEEDED, AND MULCHED AS NEEDED. ENTRANCE/EXITS MAY REMAIN DEPENDING UPON FUTURE ACCESS NEEDS AND/OR PROJECT-SPECIFIC APPROVALS BUT REQUIRES APPROVALS FROM THE NATIONAL GRID ENVIRONMENTAL SCIENTIST AND PROPERTY LEGAL.

BMP PICTURE

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CM-8
TEMPORARY CONSTRUCTION
ENTRANCE/ EXIT

SUBJECT

Access, Maintenance and Construction
Best Management Practices

Reference

EP No. 3 - Natural Resource
Protection (Chapter 6)

BMP PICTURENOTE:

1. PICTURE SHOWS VIEW OF ACCESS WAY STABILIZATION ADJACENT TO A WETLAND.
2. COORDINATE STABILIZATION DESIGN AND PRODUCT WITH NATIONAL GRID ENVIRONMENTAL SCIENTIST.

SUBJECT

Access, Maintenance and Construction
Best Management Practices

Reference

EP No. 3 - Natural Resource
Protection (Chapter 6)

BMP PICTURE

NO ACCESS – WETLAND/STREAM CROSSING MATS REQUIRED



NO ACCESS – A.) PROJECT LIMITS E.G. ROW LIMITS
B.) HISTORICAL/CULTURAL
C.) ENVIRONMENTALLY SENSITIVE E.G. THREATENED & ENDANGERED
D.) OTHER



APPROVED ACCESS

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CM-11
CONSTRUCTION SIGNAGE

SUBJECT

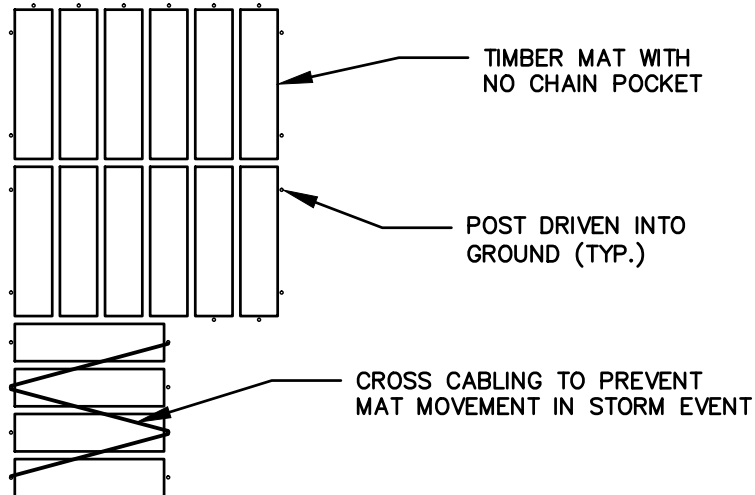
Access, Maintenance and Construction
Best Management Practices

Reference

EP No. 3 - Natural Resource
Protection (Chapter 6)

BMP DETAIL 1

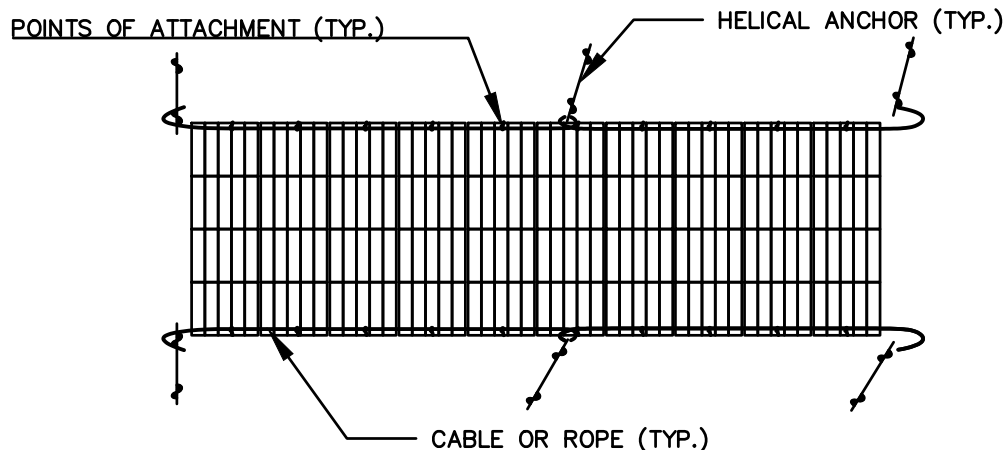
SCALE: NONE

TYPICAL PLAN VIEWNOTES:

1. EXAMPLES OF ANCHORING ONLY. MATTING CONTRACTOR SHALL PROPOSE THE METHOD OF ANCHORING BASED ON FIELD CONDITIONS.
2. ANCHORING METHOD TO BE APPROVED BY THE NATIONAL GRID ENVIRONMENTAL SCIENTIST AND TRANSMISSION LINE CONSTRUCTION SUPERVISOR.

BMP DETAIL 2NOTES:

1. TYPICAL HELICAL ANCHOR AND CABLE CONFIGURATION FOR MAT CONTAINMENT IN FLOODPLAINS/LAND SUBJECT TO FLOODING.
2. TYPICAL POINTS OF ATTACHMENT HEAVY STAPLES, EYE BOLTS OR OTHER SUITABLE HARDWARE TO SECURE ATTACHMENT OF MAT TO LINEAR CABLE. IF CHAIN POCKETS ARE PRESENT IN THE MATS CABLE OR ROPE CAN BE LOOPED THROUGH RODS.

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CM-12
EXAMPLE OF CONSTRUCTION MAT
ANCHORING (1 OF 2)

SUBJECT

Access, Maintenance and Construction
Best Management Practices

Reference

EP No. 3 - Natural Resource
Protection (Chapter 6)

BMP PICTURE 1BMP PICTURE 2CM-12

EXAMPLE OF CONSTRUCTION MAT
ANCHORING (2 OF 2)

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SUBJECT

Access, Maintenance and Construction
Best Management Practices

Reference

EP No. 3 - Natural Resource
Protection (Chapter 6)

BMP DETAIL

SCALE: NONE

WIRE BACKED SILT FENCE

**MUTUAL INDUSTRIES WIRE BACKED SILT FENCE**

PART # 1776-14-24

36" X 100'

36" MISF 1776 FABRIC

24" 14GA WIRE MESH

OPENING OF MESH 2" X 4"

FABRIC HOG RINGED EVERY 12"-18" ALONG THE TOP OF THE FENCE

ROLL WEIGHT 40 LBS

32 ROLLS PER PALLET

NOTES:

1. PRODUCT TO BE MUTUAL INDUSTRIES' WIRE BACKED SILT FENCE OR APPROVED EQUAL BY NATIONAL ENVIRONMENTAL SCIENTIST.
2. COORDINATE INSTALLATION METHOD AND LOCATION WITH NATIONAL GRID ENVIRONMENTAL SCIENTIST.

* PICTURE AND DETAIL PROVIDED BY MUTUAL INDUSTRIES

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AA-1

REINFORCED SILT FENCE *

SUBJECT

Access, Maintenance and Construction
Best Management Practices

Reference

EP No. 3 - Natural Resource
Protection (Chapter 6)

BMP PICTURENOTE:

1. PICTURE SHOWS SEDIMENT FILTER WITHIN A WETLAND.

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AA-2
SEDIMENT FILTER

SUBJECT

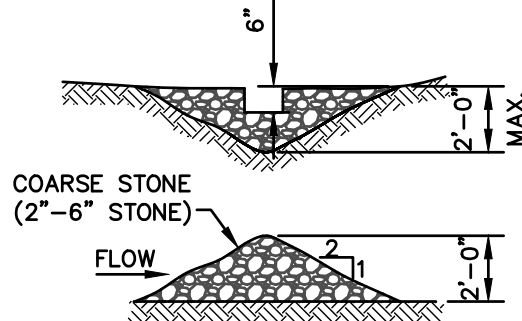
Access, Maintenance and Construction
Best Management Practices

Reference

EP No. 3 - Natural Resource
Protection (Chapter 6)

BMP DETAIL

SCALE: NONE

**STONE CHECK DAM****NOTES:**

1. USE CHECK DAMS TO SLOW WATER FLOWS AND AS SMALL SEDIMENT TRAPS IN DITCHES ALONG ACCESS ROADS.
2. CLEAN SEDIMENT AND REPLACE DAMS AS NECESSARY.
3. THE CENTER OF THE CHECK DAM MUST BE AT LEAST 6" LOWER THAN THE OUTER EDGES.
4. COORDINATE SPACING WITH NATIONAL GRID ENVIRONMENTAL SCIENTIST.
5. MAX. SPACING: TOE OF THE UPSTREAM DAM IS SAME ELEVATION AS TOP OF DOWNSTREAM DAM.
6. STONE SHALL BE FREE OF FINE PARTICLES TO PREVENT TURBID DISCHARGES.

BMP PICTURE

NOTE: A SMALLER STONE SIZE IS SHOWN IN THIS PICTURE.

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AA-3
STONE CHECK DAMS

SUBJECT

Access, Maintenance and Construction
Best Management Practices

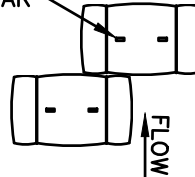
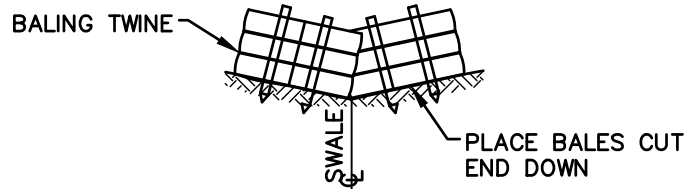
Reference

EP No. 3 - Natural Resource
Protection (Chapter 6)

BMP DETAIL

SCALE: NONE

3' HARDWOOD
STAKES OR
Ø5/8" REBAR

PLAN VIEWSECTION VIEWNOTES:

1. USE CHECK DAMS TO SLOW WATER FLOWS AND AS SMALL SEDIMENT TRAPS IN DITCHES ALONG ACCESS ROADS.
2. CLEAN SEDIMENT AND REPLACE DAMS AS NECESSARY.
3. COORDINATE SPACING WITH NATIONAL GRID ENVIRONMENTAL SCIENTIST.

BMP PICTURE**APPROVED BY: VICE PRESIDENT, ENVIRONMENTAL SERVICES**

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AA-4

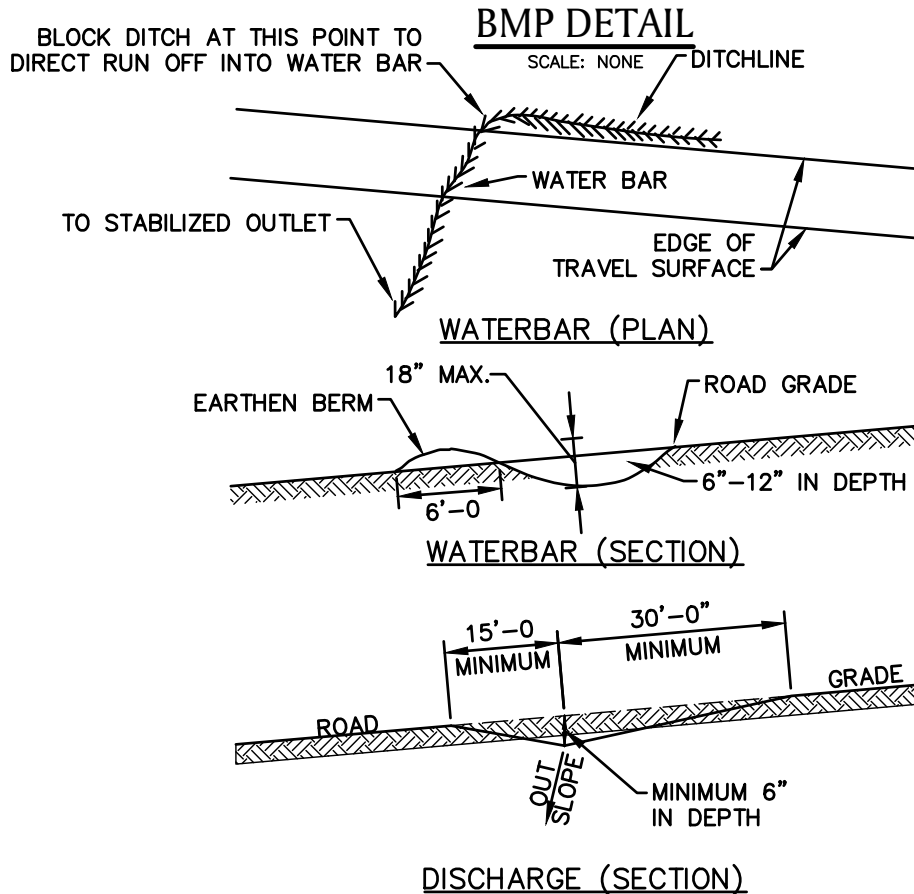
STRAW / HAYBALE CHECK DAM

SUBJECT

Access, Maintenance and Construction
Best Management Practices

Reference

EP No. 3 - Natural Resource
Protection (Chapter 6)

**NOTE:**

1. LINE WITH 2"-6" STONE UNDERLAIN BY GEOTEXTILE FILTER FABRIC, KEYED INTO ROAD SURFACE AT LEAST 10 FEET EACH SIDE OF WATERBAR.
2. COORDINATE SPACING WITH NATIONAL GRID ENVIRONMENTAL SCIENTIST.

BMP PICTURE

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AA-5
WATERBAR

SUBJECT

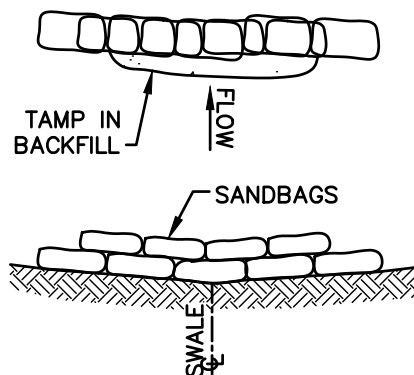
Access, Maintenance and Construction
Best Management Practices

Reference

EP No. 3 - Natural Resource
Protection (Chapter 6)

BMP DETAIL

SCALE: NONE

**SANDBAG
CHECK DAM****NOTES:**

1. USE CHECK DAMS TO SLOW WATER FLOWS AND AS SMALL SEDIMENT TRAPS IN DITCHES ALONG ACCESS ROADS.
2. CLEAN SEDIMENT AND REPLACE DAMS AS NECESSARY.
3. COORDINATE SPACING WITH NATIONAL GRID ENVIRONMENTAL SCIENTIST.

BMP PICTURE**NOTE:**

1. PICTURE DOES NOT DEPICT "TAMP IN BACKFILL"

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AA-6
SANDBAG CHECK DAM

SUBJECT

Access, Maintenance and Construction
Best Management Practices

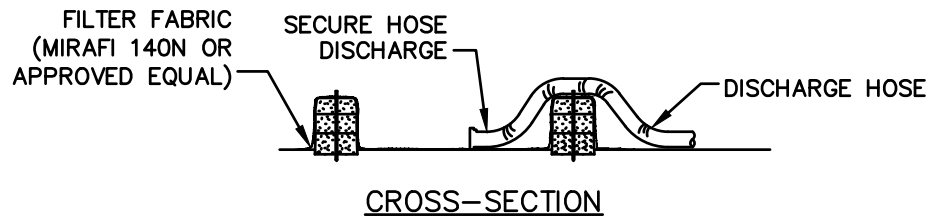
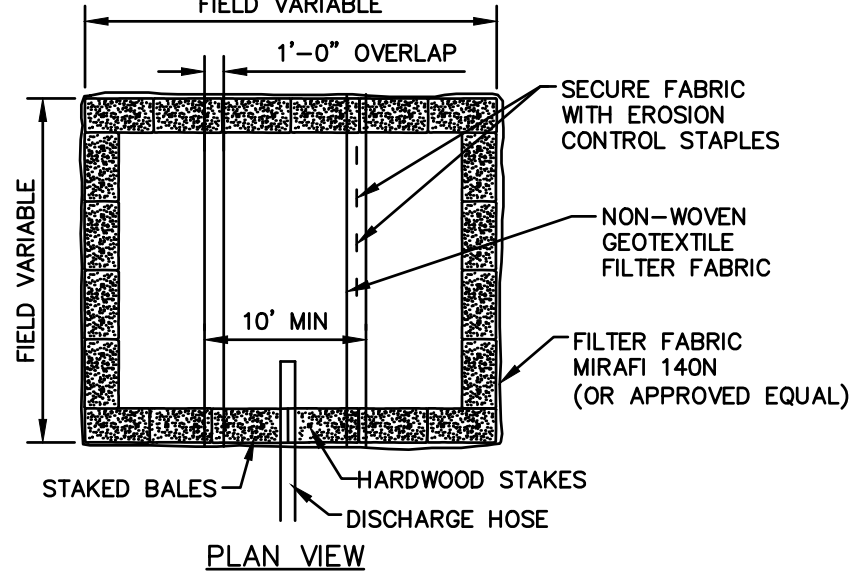
Reference

EP No. 3 - Natural Resource
Protection (Chapter 6)

BMP DETAIL

SCALE: NONE

FIELD VARIABLE

**NOTES:**

1. NUMBER OF BALES MAY VARY DEPENDING ON SITE CONDITIONS,
2. THE BASIN TO BE SIZED TO PREVENT DISCHARGE WATER FROM OVERTOPPING BASIN.
3. KEEP AS FAR FROM WETLANDS AS PRACTICAL.
4. CLEAN AND REMOVE AS SOON AS DEWATERING IS COMPLETE.

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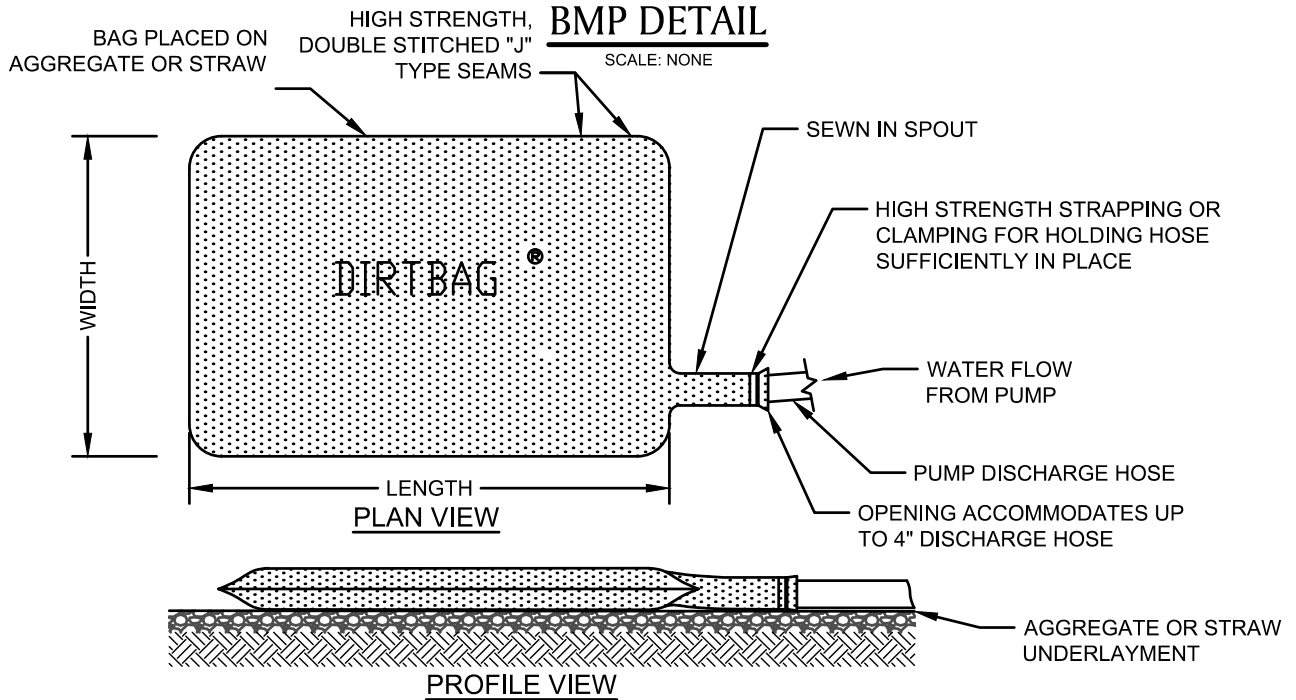
AA-10
DEWATERING BASIN
(SMALL SCALE)

SUBJECT

Access, Maintenance and Construction
Best Management Practices

Reference

EP No. 3 - Natural Resource
Protection (Chapter 6)

**NOTE:**

ONCE PUMPING COMMENCES, THE DIRT BAG SHALL BE MONITORED FREQUENTLY TO ASSURE THAT THE CONNECTIONS ARE SECURELY FASTENED AND THE RATE OF WATER DELIVERY TO THE STRUCTURE IS LOW ENOUGH TO PREVENT UNFILTERED WATER FROM FLOWING FROM THE HOSE CONNECTIONS OR BAG.

BMP PICTURE

* PICTURE AND DETAIL PROVIDED BY ACF ENVIRONMENTAL

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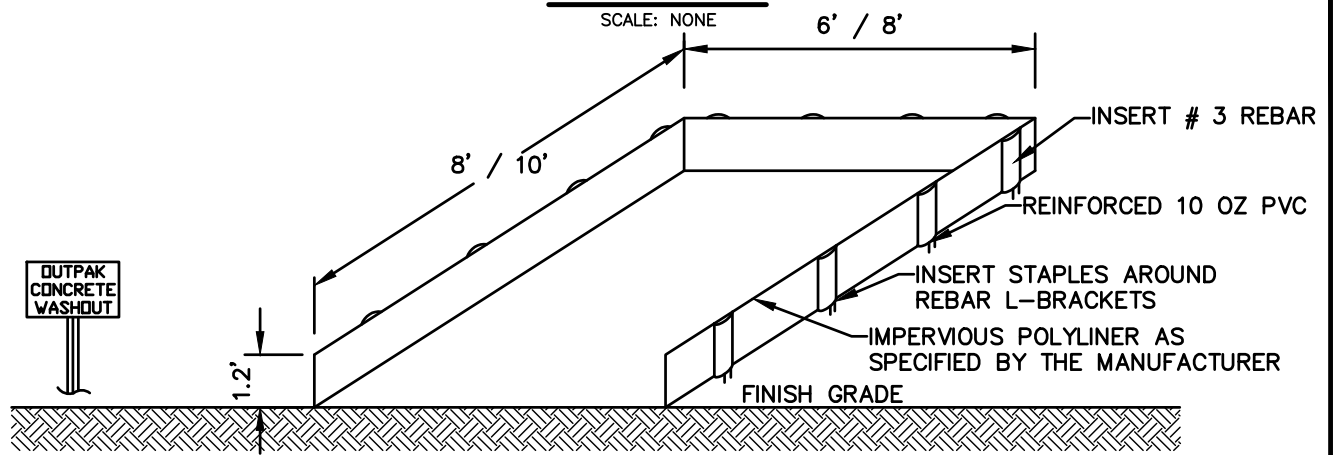
AA-12
DIRTBAG *

SUBJECT

Access, Maintenance and Construction
Best Management Practices

Reference

EP No. 3 - Natural Resource
Protection (Chapter 6)

BMP DETAIL**NOTES:****CROSS SECTION**

1. PRODUCT TO BE OUTPAK PVC CONCRETE WASHOUT OR APPROVED EQUAL BY NATIONAL GRID ENVIRONMENTAL SCIENTIST.
2. THE CONCRETE WASHOUT AREA SHALL BE INSTALLED PRIOR TO ANY CONCRETE PLACEMENT.
3. SIGNS SHALL BE PLACED AS NECESSARY TO CLEARLY INDICATE THE LOCATION OF THE CONCRETE WASHOUT.
4. THE CONCRETE WASHOUT AREA WILL BE REPLACED AS NECESSARY TO MAINTAIN CAPACITY FOR WASTE CONCRETE AND OTHER LIQUID WASTE.
5. WASHOUT RESIDUE SHALL BE REMOVED FROM THE SITE AND DISPENSED OF AT AN APPROVED WASTE SITE.
6. DO NOT MIX EXCESS AMOUNTS OF FRESH CONCRETE OR CEMENT ON-SITE.
7. DO NOT WASH OUT CONCRETE TRUCKS INTO STORM DRAINS, OPEN DITCHES, STREETS, OR STREAMS.
8. AVOID DUMPING EXCESS CONCRETE IN NON-DESIGNATED DUMPING AREAS.
9. LOCATE WASHOUT AREA AT LEAST 50' FROM STORM DRAIN, OPEN DITCHES, OR WATERBODIES. COORDINATE LOCATION WITH NATIONAL GRID ENVIRONMENTAL SCIENTIST.
10. WASH OUT WASTES INTO THE OUTPAK WASHOUT WHERE THE CONCRETE CAN SET, BE BROKEN UP, AND THEN DISPOSED OF PROPERLY.
11. A SECURE, NON-COLLAPSING, NON-WATER COLLECTING COVER MUST BE PLACED OVER CONCRETE WASHOUT PRIOR TO PREDICTED WET WEATHER TO PREVENT ACCUMULATION AND OVERFLOW OF PRECIPITATION.

BMP PICTURE

* PICTURE AND DETAIL PROVIDED BY OUTPAK WASHOUT
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AA-14
OUTPAK CONCRETE WASHOUT *

SUBJECT

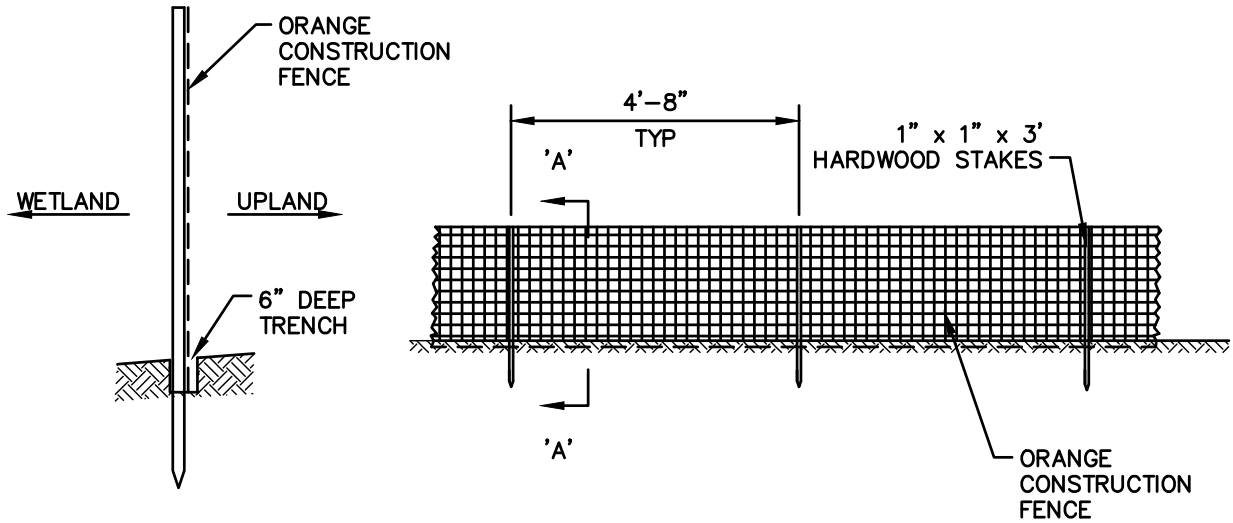
Access, Maintenance and Construction
Best Management Practices

Reference

EP No. 3 - Natural Resource
Protection (Chapter 6)

BMP DETAIL

SCALE: NONE



SECTION A-A

BMP PICTURE



AA-15

**BARRIER FENCE
(CONSTRUCTION FENCE)**

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SUBJECT

Access, Maintenance and Construction
Best Management Practices

Reference

EP No. 3 - Natural Resource
Protection (Chapter 6)

BMP

**Definition**

The control of dust resulting from land-disturbing activities.

Purpose

To prevent surface and air movement of dust from disturbed soil surfaces that may cause off-site damage, health hazards, and traffic safety problems.

Conditions Where Practice Applies

On construction roads, access points, and other disturbed areas subject to surface dust movement and dust blowing where off-site damage may occur if dust is not controlled.

Design Criteria

Construction operations should be scheduled to minimize the amount of area disturbed at one time. Buffer areas of vegetation should be left where practical. Temporary or permanent stabilization measures shall be installed. No specific design criteria is given; see construction specifications below for common methods of dust control.

Water quality must be considered when materials are selected for dust control. Where there is a potential for the material to wash off to a stream, ingredient information must be provided to the local permitting authority.

Construction Specifications

A. Non-driving Areas – These areas use products and materials applied or placed on soil surfaces to prevent airborne migration of soil particles.

* BMP INFORMATION FROM "NEW YORK STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL (AUGUST, 2005)." INFORMATION OBTAINED VIA WEBSITE: <http://www.dec.ny.gov/chemical/29086.html>
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Vegetative Cover – For disturbed areas not subject to traffic, vegetation provides the most practical method of dust control (see Section 3).

Mulch (including gravel mulch) – Mulch offers a fast effective means of controlling dust. This can also include rolled erosion control blankets.

Spray adhesives – These are products generally composed of polymers in a liquid or solid form that are mixed with water to form an emulsion that is sprayed on the soil surface with typical hydroseeding equipment. The mixing ratios and application rates will be in accordance with the manufacturer's recommendations for the specific soils on the site. In no case should the application of these adhesives be made on wet soils or if there is a probability of precipitation within 48 hours of its proposed use. Material Safety Data Sheets will be provided to all applicators and others working with the material.

B. Driving Areas – These areas utilize water, polymer emulsions, and barriers to prevent dust movement from the traffic surface into the air.

Sprinkling – The site may be sprayed with water until the surface is wet. This is especially effective on haul roads and access routes.

Polymer Additives – These polymers are mixed with water and applied to the driving surface by a water truck with a gravity feed drip bar, spray bar or automated distributor truck. The mixing ratios and application rates will be in accordance with the manufacturer's recommendations. Incorporation of the emulsion into the soil will be done to the appropriate depth based on expected traffic. Compaction after incorporation will be by vibratory roller to a minimum of 95%. The prepared surface shall be moist and no application of the polymer will be made if there is a probability of precipitation within 48 hours of its proposed use. Material Safety Data Sheets will be provided to all applicators working with the material.

Barriers – Woven geotextiles can be placed on the driving surface to effectively reduce dust throw and particle migration on haul roads. Stone can also be used for construction roads for effective dust control.

Windbreak – A silt fence or similar barrier can control air currents at intervals equal to ten times the barrier height. Preserve existing wind barrier vegetation as much as practical.

SUBJECT

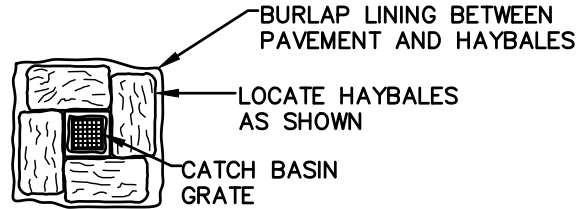
Access, Maintenance and Construction
Best Management Practices

Reference

EP No. 3 - Natural Resource
Protection (Chapter 6)

BMP DETAIL

SCALE: NONE



TIE HAYBALES TOP &
BOTTOM WITH 14
GAUGE WIRE

**NOTES:**

1. SURROUND STREET DRAINAGE STRUCTURE INLET WITH HAY BALES PRIOR TO CONSTRUCTION AND MAINTAIN UNTIL CONSTRUCTION IS COMPLETED. ACCUMULATED SEDIMENTS SHALL BE REMOVED.
2. HAYBALES PLACED ON PAVEMENT SHALL HAVE BURLAP PLACED BETWEEN PAVEMENT AND HAYBALE

BMP PICTURE**APPROVED BY: VICE PRESIDENT, ENVIRONMENTAL SERVICES**

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AA-19

CATCH BASIN INLET PROTECTION

SUBJECT

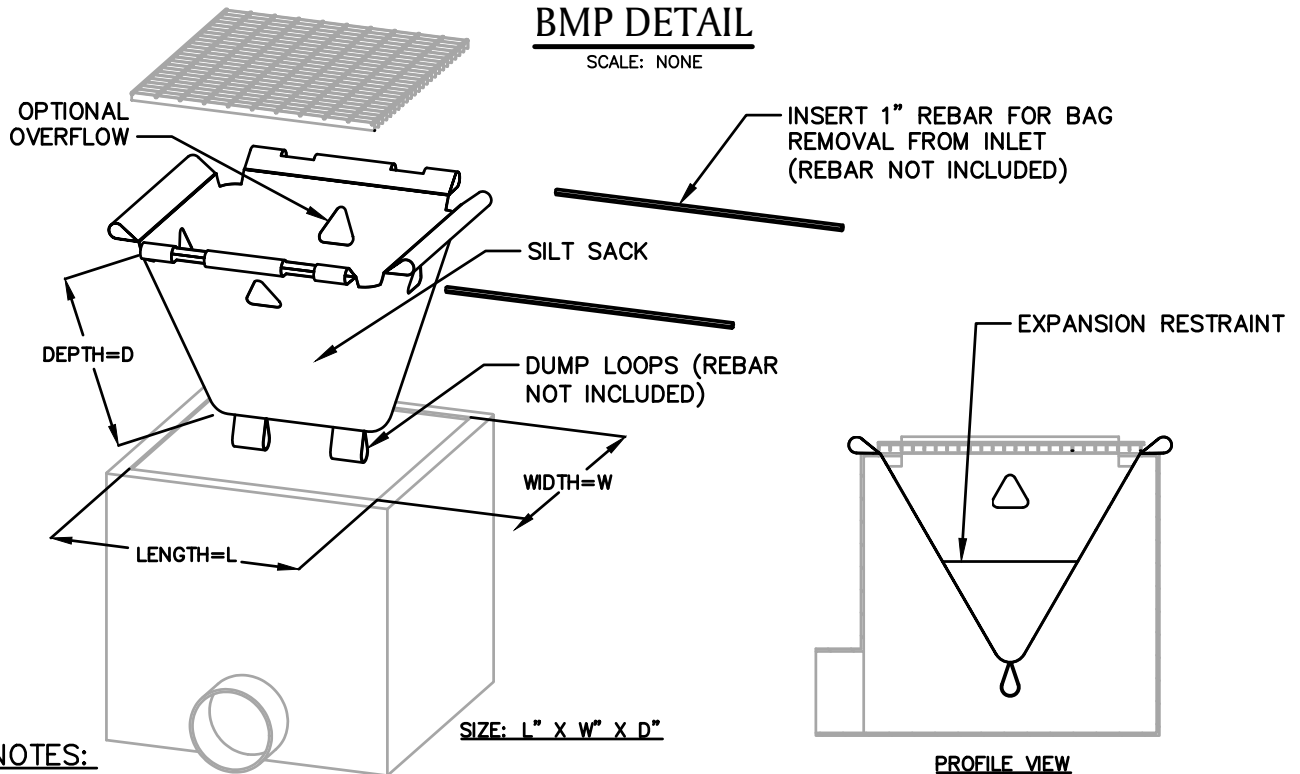
Access, Maintenance and Construction
Best Management Practices

Reference

EP No. 3 - Natural Resource
Protection (Chapter 6)

BMP DETAIL

SCALE: NONE

**BMP PICTURE**

* DETAIL PROVIDED BY ACF ENVIRONMENTAL

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AA-20
SILT SACK *

SUBJECT

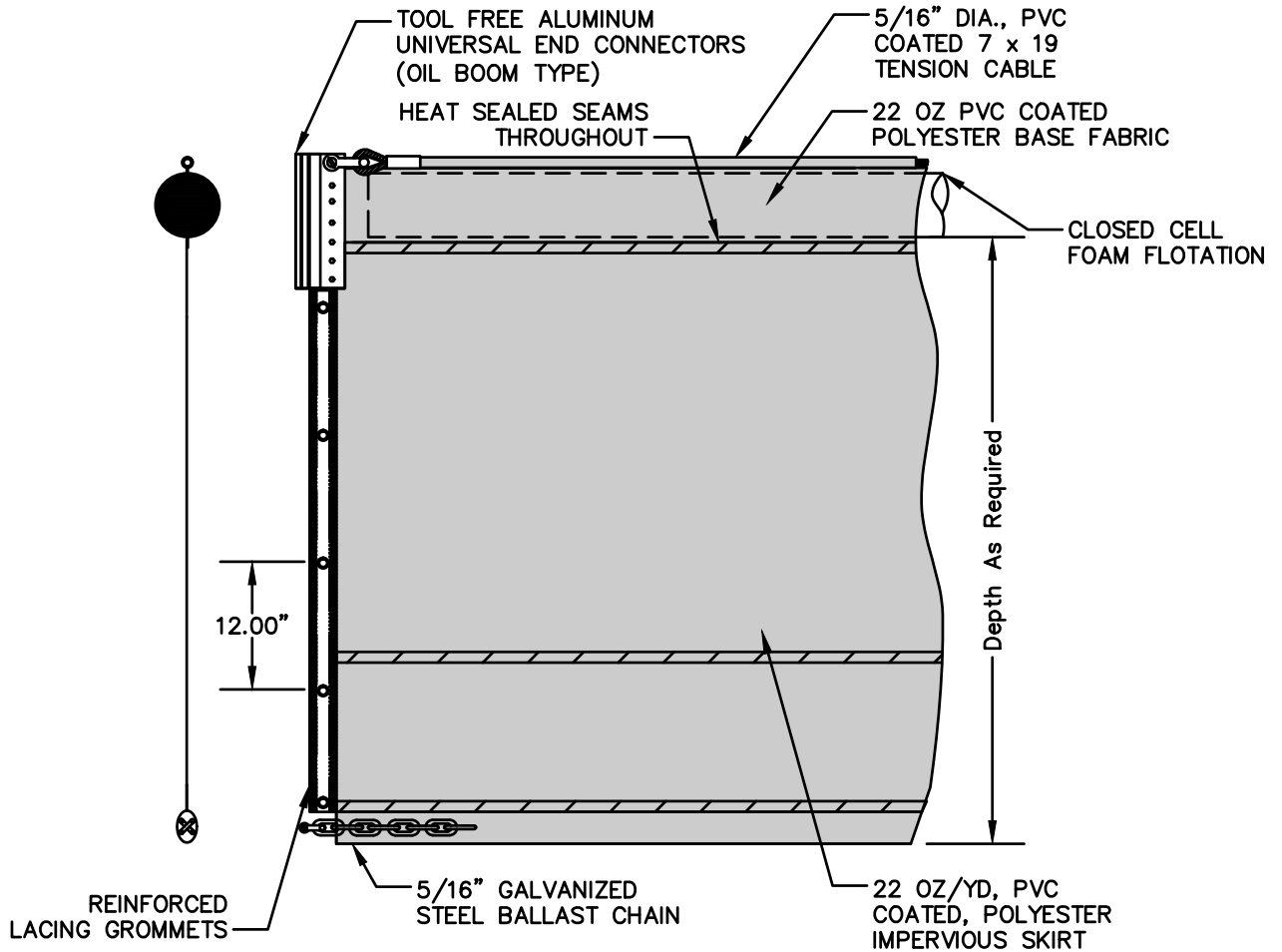
Access, Maintenance and Construction
Best Management Practices

Reference

EP No. 3 - Natural Resource
Protection (Chapter 6)

BMP DETAIL

SCALE: NONE


**BMP PICTURE**

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AA-21
TURBIDITY CURTAIN *

 National Grid Environmental Guidance	Doc No.:	EG-303NE
	Rev. No.:	13
	Page No.:	48 of 49
	Date:	04/13/2020
SUBJECT ROW Access, Maintenance and Construction Best Management Practices for New England		REFERENCE EP-3; Natural Resource Protection

APPENDIX 5
CERTIFICATION FORM FOR INVASIVE SPECIES CONTROL

Certain permit conditions, therefore a Condition of Contracts for the Prime Contractor, any Subcontractors, and any equipment or mat vendors for **National Grid Projects** shall be required to Certify their equipment⁷ {each piece of equipment used on site} as 'clean'⁸.

_____ (name of firm) hereby Certifies that

_____ (make, model, and/or type)

_____ (equipment ID tag or #) meets the following

1. before entry on to the job site, has been sufficiently cleaned to remove all accumulated mud, debris, plant fragments, and detritus that could harbor seeds, roots, or plant fragments of so-called invasive plant species; and
2. that the above piece of equipment has neither been off-loaded nor operated in the interval between cleaning and delivery to the jobsite.
3. that equipment deployed in areas of invasive species (as identified in project plans) shall be cleaned prior to redeployment.

_____ (signed) _____ (dated)

_____ (printed name) _____ (title)

_____ (Firm)

The signed original of this form {one for each piece of equipment (or lot⁹ of mats)} is to be given to the NG Construction Supervisor assigned to the project.


⁷ Equipment may include, but is not limited to bulldozers, excavators, backhoes, bucket trucks (tracked or wheeled), pulling equipment, concrete trucks, compressors, drilling equipment, and mats (composite, wood, or other materials).

⁸ With regard to invasive species, the definition of clean means free of accumulated mud, debris, plant fragments, and detritus that could harbor seeds, roots, or plant fragments of so-called invasive plant species.

⁹ Lot of mats is the number of mats that may be transported by one forwarder/truck at a time.

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 National Grid Environmental Guidance		Doc No.:	EG-303NE_App6
		Rev. No.:	1
		Page No.:	1 of 2
		Date:	04/13/2020
SUBJECT ROW Access, Maintenance and Construction Best Management Practices for New England		REFERENCE EP-3; Natural Resource Protection	

APPENDIX 6

SNOW DISPOSAL GUIDELINES

Finding a place to dispose of collected snow poses a challenge. While we are all aware of the threats to public safety caused by snow, collected snow that is contaminated with road salt, sand, litter, and automotive pollutants such as oil also threatens public health and the environment.

As snow melts, road salt, sand, litter, and other pollutants are transported into surface water or through the soil where they may eventually reach the groundwater. Road salt and other pollutants can contaminate water supplies and are toxic to aquatic life at certain levels. Sand washed into water bodies can create sand bars or fill in wetlands and ponds, impacting aquatic life, causing flooding, and affecting our use of these resources.

There are several steps that should be taken to minimize the impacts of snow disposal on public health and the environment.


- **DO NOT** dump snow into any water body, including rivers, the ocean, reservoirs, ponds, or wetlands. In fact, a buffer of at least 50 feet between any snow disposal area and any the high-water mark of any surface water should be kept. A silt fence or equivalent barrier should be securely placed between the snow storage area and the high-water mark. In addition to water quality impacts and flooding, snow disposed in surface waters can cause navigational hazards when it freezes into ice blocks.
- **DO NOT** dump snow within a wellhead protection area (e.g., a Zone II), in a high or medium-yield aquifer, or within 75 feet of a private well, where road salt may contaminate water supplies. **Ask an Environmental Department representative for guidance in determining if a proposed disposal area is located within one of these sensitive areas.**
- Avoid disposing of snow on top of storm drain catch basins or in storm water drainage swales or ditches. Snow combined with sand and debris may block a storm drainage system, causing localized flooding. A high volume of sand, sediment, and litter released from melting snow also may be quickly transported through the system into surface water.
- All debris in a snow storage area should be cleared from the site and properly disposed of no later than May 15 of each year the area is used for snow storage.

Under extraordinary conditions, when all land-based snow disposal options are exhausted, disposal of snow that is not obviously contaminated with road salt, sand, and other pollutants may be allowed near (within 50 feet) or even in certain water bodies under certain conditions.

In these dire situations, **notify the Environmental Department** so that the local Conservation Commission and the appropriate MassDEP Regional Service Center (in MA), RI DEM Office of Water Resources – RIPDES

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 National Grid Environmental Guidance		Doc No.:	EG-303NE_App6
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SUBJECT ROW Access, Maintenance and Construction Best Management Practices for New England		REFERENCE EP-3; Natural Resource Protection	

Program (in RI), NH Department of Environmental Services – NHDES (in NH) and VT Department of Environmental Conservation - VT DEC (in VT) can be contacted before disposing of snow in a water body.

In emergency situations and after consulting an Environmental Department representative the following guidance should be followed:

- Dispose of snow in open water with adequate flow and mixing to prevent ice dams from forming.
- Do not dispose of snow in saltmarshes, vegetated wetlands, certified vernal pools, shellfish beds, mudflats, drinking water reservoirs and their tributaries, wellhead protection areas, or other environmentally sensitive areas.
- Do not dispose of snow where trucks may cause shoreline or stream bank damage or erosion.

Attachment F

394 Transmission Line and B154/C155 King Street Tap Line
Asset Condition Refurbishment Project
Haverhill, MA
Notice of Intent

Stormwater Checklist

To:	Andrew Cole, National Grid	Date:	August 20, 2025
From:	Bryan Wentworth, P.E.	Proj. No.	0101660.00
Re:	394 Transmission Line and B154/C155 King Street Tap Line ACR Project – Stormwater Report		

Pursuant to the Massachusetts Stormwater Standards, BSC Group, Inc. (BSC) is providing this memorandum detailing the applicability and compliance with the Standards given the Project location, scope of work, and proximal resource areas related to the New England Power Company's (NEP) 394 Transmission Line and B154/C155 King Street Tap Line Asset Conditions Refurbishment (ACR) Project located in the Towns of Amesbury, Boxford, Georgetown, Groveland, Haverhill, Merrimac, and West Newbury, Massachusetts..

NEP is proposing a refurbishment of the 345 kilovolt (kV) 394 Transmission Line and the 115 kV B154/C155 King Street Tap Lines (the Tap Lines), referred to as the 394 Transmission Line and B154/C155 King Street Tap Lines Asset Condition Refurbishment (ACR) Project (the Project). The Lines are located within an existing Right-of-Way (ROW) corridor which begins at Ward Hill Substation in Haverhill and runs through the towns of Boxford, Groveland, Georgetown, West Newbury, Merrimack, and Amesbury, Massachusetts before transitioning ownership to Eversource at the Massachusetts/New Hampshire state line in Amesbury. The total length of the Lines, including the B154/C155 King Street Tap Lines, which is collocated with the 394 Line, is approximately 17.1 miles.

NEP has identified physical issues in many structures on the Lines, contributing to the Lines' poor performance. Inspections revealed that 83 wood structures on the 394 Line ranged from fair to poor condition, and over 100 wood structures on the C154/B155 King Street Tap Lines had woodpecker damage, pole top rot, cracked crossarms, splitting poles, and other decay. Affected King Street Tap Line structures also average 30 years of age and are reaching the end of the typical useful life for natural wood structures. The affected assets must be replaced to allow NEP to continue to meet regional demands for a reliable supply of electricity and improve asset resiliency in the future. Proposed Project activities will involve the refurbishment of the Lines to address the poor asset condition, mitigate potential risks of electrical failure, and will provide long-term reliable delivery of electrical service and maintenance of the Lines.

Activities will include the removal of existing wooden structures (varying types) to be replaced with steel structures (varying types); upgrading foundations for various structures (including converting from direct embed to caisson or special foundation); the replacement of existing shield wire with OPGW; replacement of conductor hardware; reconductoring of the Tap Lines; the construction and improvement of access and work areas, including grading and the addition of stone to access roads and graded work pads centered on the structure for future maintenance work access.

NEP is proposing to improve or re-establish access throughout the ROW. Where existing access is in generally good condition, these areas will not require significant grading or excavation, and improvements will consist of leveling/smoothing existing rutting and top dressing with gravel. In areas where historic access has deteriorated to a state which is insufficient to support the reconstruction of the Lines, access improvements will consist of minor grading activities, vegetation management, and placement of imported gravel. NEP will perform access construction in compliance with the conditions and approvals of the appropriate federal, state, and local regulatory agencies. As needed based on site conditions, NEP crews will use water for dust suppression during road construction. Crews will install clean stone aprons at construction entrances to the ROW to reduce sediment tracking into public roadways.

The associated maintenance and re-establishment of access roads and work areas along the Lines will not have a significant impact on the overall hydrology of the watersheds along the Project ROW. The addition of gravel access alignments and work areas is similar in nature, from a hydrologic perspective, to the development of single-family detached dwellings, which are exempt from compliance with the Stormwater Standards. BSC has conducted hydrological modeling of several example watersheds along similar transmission line ROWs to evaluate the changes to peak discharge rates from the work but has not modeled this Project specifically. Access and work areas are generally buffered by densely vegetated land which promotes recharge of runoff back to groundwater and protection of water quality. Gravel work pads

constructed to support structure replacement will be allowed to passively revegetate over time; therefore, the minor impact to hydrology will diminish further over time. Areas that will be impacted temporarily (e.g., mowed access and work areas, access for OPGW underslung wire rope pulling, or matted access and work areas) will be loamed and seeded following construction to promote active revegetation or will be topped with straw to protect soils (if alternative restoration is required under other permits), ruts will be filled, and changes to grade will be restored where needed.

The Project will comply with the applicable Massachusetts Stormwater Management Standards to the maximum extent practicable and will be subject to the standards and conditions of the NPDES Stormwater Construction General Permit (“CGP”). The project will not have a significant impact on hydrology along the ROW. By controlling the run-on to and runoff from the constructed access and work areas and allowing that stormwater to recharge into the ROW ground surface in a controlled manner, the Project is meeting the intent of the Massachusetts Stormwater Handbook and the provisions of 310 CMR 10.05(6)(k) through (q).

The potential for impacts from stormwater along the ROW will be associated with the potential for erosion and/or washout of the gravel access during and following construction. NEP will employ construction-phase BMPs for stormwater management including sediment and erosion controls. Additionally, during the construction of the Project, NEP’s contractor will evaluate the need to construct stormwater management features such as swales, water bars, plunge pools, and/or check dams to promote stability of the constructed access improvements, reduce the potential for significant erosion and/or washout, and protect sensitive resource areas. These features will be further evaluated during construction to consider site-specific constraints and/or drainage patterns.

NEP notes that the roughly 1,353 square feet (SF) of impervious area proposed by the concrete caissons is spread along 17.1 miles and 426 acres of ROW. An individual concrete caisson occupies approximately 50 SF. Runoff associated with the additional impervious surfaces in each watershed will be negligible and does not warrant specific measures for removal of total suspended solids (TSS). Runoff from the concrete caissons and surrounding access is also generally buffered by shrubby and/or forested vegetation where recharge will occur naturally.

In accordance with the requirements of 310 CMR 10.05, the following summarizes how the Project meets the Massachusetts Stormwater Standards to the maximum extent practicable.

Standard 1: No new stormwater conveyances (e.g. outfalls) may discharge untreated stormwater directly to or cause erosion in wetlands or waters of the Commonwealth.

No new outfalls are proposed as part of the Project. By controlling the run-on to and runoff from the constructed access and work areas and allowing that stormwater to recharge into the ROW ground surface in a controlled manner, the Project will prevent erosion and sedimentation to wetlands or waters of the Commonwealth.

Standard 2: Stormwater management systems shall be designed so that post-development peak discharge rates do not exceed pre-development peak discharge rates. This Standard may be waived for discharges to land subject to coastal storm flowage as defined in 310 CMR 10.04.

The access improvements proposed will result in minimal impacts on post-development peak discharge rates and the proposed access and work areas will typically be buffered by densely vegetated lands within and surrounding the utility ROW.

As detailed in the narrative above, NEP has conducted assessments to evaluate construction of gravel access, and 1,353 SF of impervious surfaces due to installation of concrete caissons to replace existing structure foundations. By allowing the gravel work areas to revegetate over time, the minimal impact to hydrology will be further reduced. As the additional impervious area added by concrete caissons is spread over exceptionally large areas with each caisson consisting of a very small area, this will not result in an increase in peak flow rates from the Project.

Standard 3: Loss of annual recharge to groundwater shall be eliminated or minimized through the use of infiltration measures including environmentally sensitive site design, low impact development techniques, stormwater best management practices, and good operation and maintenance. At a minimum, the annual recharge from the post-development site shall approximate the annual recharge from pre-development conditions based on soil type. This Standard is met when the stormwater management system is designed to infiltrate the required recharge volume as determined in accordance with the Massachusetts Stormwater Handbook.

While gravel work areas beneath structures on graded pads and improvements to access alignments will change cover type within the ROW, stormwater will still be able to recharge through the proposed gravel areas and within the surrounding undisturbed and vegetated areas within the ROW. The total area that will be occupied by proposed concrete caisson foundations will consist of a small amount of impervious area spread out over a very large area along the ROW. Therefore, the proposed work will not result in a loss to annual recharge for the ROW or surrounding areas.

Standard 4: Stormwater management systems shall be designed to remove 80% of the average annual post-construction load of Total Suspended Solids (TSS). This Standard is met when:

- a. Suitable practices for source control and pollution prevention are identified in a long-term pollution prevention plan, and thereafter are implemented and maintained;*
- b. Structural stormwater best management practices are sized to capture the required water quality volume determined in accordance with the Massachusetts Stormwater Handbook; and*
- c. Pretreatment is provided in accordance with the Massachusetts Stormwater Handbook.*

The proposed construction of gravel access and work areas, and *de minimis* impervious area will not generate the pollutant loading typical of commercial and industrial development. As such, a long-term pollution prevention plan is not warranted. The construction of stormwater management features such as swales, water bars, plunge pools, and/or check dams will promote stability of the constructed access improvements, reducing the potential for significant erosion and/or washout, and protecting sensitive resource areas. As each concrete caisson is approximately 50 SF, runoff associated with the additional impervious surfaces in each watershed will be negligible and does not warrant specific measures for removal of TSS.

Standard 5: For land uses with higher potential pollutant loads, source control and pollution prevention shall be implemented in accordance with the Massachusetts Stormwater Handbook to eliminate or reduce the discharge of stormwater runoff from such land uses to the maximum extent practicable.

This site is not considered a land use with higher potential pollutant loads (LUHPPL), therefore, Standard 5 does not apply.

Standard 6: Stormwater discharges within the Zone II or Interim Wellhead Protection Area of a public water supply, and stormwater discharges near or to any other critical area, require the use of the specific source control and pollution prevention measures and the specific structural stormwater best management practices determined by the Department to be suitable for managing discharges to such areas, as provided in the Massachusetts Stormwater Handbook

While portions of the Project include areas which are associated with Outstanding Resource Waters or public water supplies, no impervious surfaces are proposed which would require stormwater treatment and no new stormwater discharges are proposed in these locations.

Standard 7: A redevelopment project is required to meet the following Stormwater Management Standards only to the maximum extent practicable: Standard 2, Standard 3, and the pretreatment and structural best management practice requirements of Standards 4, 5, and 6.

The project is not a redevelopment, therefore Standard 7 does not apply.

Standard 8: A plan to control construction-related impacts including erosion, sedimentation and other pollutant sources during construction and land disturbance activities (construction period erosion, sedimentation, and pollution prevention plan) shall be developed and implemented.

As construction will disturb more than one acre of land, coverage under the EPA's NPDES CGP is required. NEP will submit a Notice of Intent (NOI) and prepare a Stormwater Pollution Prevention Plan (SWPPP) for the Project. During construction, NEP will employ stormwater BMPs, including sediment and erosion controls.

Standard 9: A long-term operation and maintenance plan shall be developed and implemented to ensure that stormwater management systems function as designed.

No new stormwater management systems will be proposed that require long-term operation and maintenance for this project. Standard 9 is not applicable.

Standard 10: All illicit discharges to the stormwater management system are prohibited.

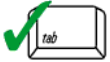
There are no known illicit discharges from the Project area and no new illicit discharges will be created.



Checklist for Stormwater Report

A. Introduction

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



A Stormwater Report must be submitted with the Notice of Intent permit application to document compliance with the Stormwater Management Standards. The following checklist is NOT a substitute for the Stormwater Report (which should provide more substantive and detailed information) but is offered here as a tool to help the applicant organize their Stormwater Management documentation for their Report and for the reviewer to assess this information in a consistent format. As noted in the Checklist, the Stormwater Report must contain the engineering computations and supporting information set forth in Volume 3 of the [Massachusetts Stormwater Handbook](#). The Stormwater Report must be prepared and certified by a Registered Professional Engineer (RPE) licensed in the Commonwealth.

The Stormwater Report must include:

- The Stormwater Checklist completed and stamped by a Registered Professional Engineer (see page 2) that certifies that the Stormwater Report contains all required submittals.¹ This Checklist is to be used as the cover for the completed Stormwater Report.
- Applicant/Project Name
- Project Address
- Name of Firm and Registered Professional Engineer that prepared the Report
- Long-Term Pollution Prevention Plan required by Standards 4-6
- Construction Period Pollution Prevention and Erosion and Sedimentation Control Plan required by Standard 8²
- Operation and Maintenance Plan required by Standard 9

In addition to all plans and supporting information, the Stormwater Report must include a brief narrative describing stormwater management practices, including environmentally sensitive site design and LID techniques, along with a diagram depicting runoff through the proposed BMP treatment train. Plans are required to show existing and proposed conditions, identify all wetland resource areas, NRCS soil types, critical areas, Land Uses with Higher Potential Pollutant Loads (LUHPPL), and any areas on the site where infiltration rate is greater than 2.4 inches per hour. The Plans shall identify the drainage areas for both existing and proposed conditions at a scale that enables verification of supporting calculations.

As noted in the Checklist, the Stormwater Management Report shall document compliance with each of the Stormwater Management Standards as provided in the Massachusetts Stormwater Handbook. The soils evaluation and calculations shall be done using the methodologies set forth in Volume 3 of the Massachusetts Stormwater Handbook.

To ensure that the Stormwater Report is complete, applicants are required to fill in the Stormwater Report Checklist by checking the box to indicate that the specified information has been included in the Stormwater Report. If any of the information specified in the checklist has not been submitted, the applicant must provide an explanation. The completed Stormwater Report Checklist and Certification must be submitted with the Stormwater Report.

¹ The Stormwater Report may also include the Illicit Discharge Compliance Statement required by Standard 10. If not included in the Stormwater Report, the Illicit Discharge Compliance Statement must be submitted prior to the discharge of stormwater runoff to the post-construction best management practices.

² For some complex projects, it may not be possible to include the Construction Period Erosion and Sedimentation Control Plan in the Stormwater Report. In that event, the issuing authority has the discretion to issue an Order of Conditions that approves the project and includes a condition requiring the proponent to submit the Construction Period Erosion and Sedimentation Control Plan before commencing any land disturbance activity on the site.



Checklist for Stormwater Report

B. Stormwater Checklist and Certification

The following checklist is intended to serve as a guide for applicants as to the elements that ordinarily need to be addressed in a complete Stormwater Report. The checklist is also intended to provide conservation commissions and other reviewing authorities with a summary of the components necessary for a comprehensive Stormwater Report that addresses the ten Stormwater Standards.

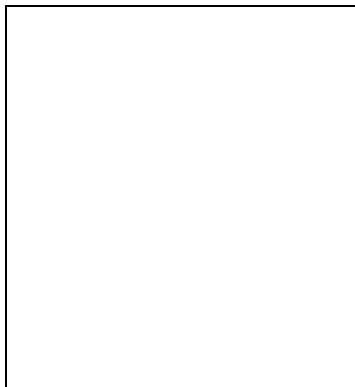
Note: Because stormwater requirements vary from project to project, it is possible that a complete Stormwater Report may not include information on some of the subjects specified in the Checklist. If it is determined that a specific item does not apply to the project under review, please note that the item is not applicable (N.A.) and provide the reasons for that determination.

A complete checklist must include the Certification set forth below signed by the Registered Professional Engineer who prepared the Stormwater Report.

Registered Professional Engineer's Certification

I have reviewed the Stormwater Report, including the soil evaluation, computations, Long-term Pollution Prevention Plan, the Construction Period Erosion and Sedimentation Control Plan (if included), the Long-term Post-Construction Operation and Maintenance Plan, the Illicit Discharge Compliance Statement (if included) and the plans showing the stormwater management system, and have determined that they have been prepared in accordance with the requirements of the Stormwater Management Standards as further elaborated by the Massachusetts Stormwater Handbook. I have also determined that the information presented in the Stormwater Checklist is accurate and that the information presented in the Stormwater Report accurately reflects conditions at the site as of the date of this permit application.

Registered Professional Engineer Block and Signature



05/06/2025

Signature and Date

Checklist

Project Type: Is the application for new development, redevelopment, or a mix of new and redevelopment?

- ☒ New development
- ☐ Redevelopment
- ☐ Mix of New Development and Redevelopment



Checklist for Stormwater Report

Checklist (continued)

LID Measures: Stormwater Standards require LID measures to be considered. Document what environmentally sensitive design and LID Techniques were considered during the planning and design of the project:

- ☐ No disturbance to any Wetland Resource Areas
- ☐ Site Design Practices (e.g. clustered development, reduced frontage setbacks)
- ☐ Reduced Impervious Area (Redevelopment Only)
- ☐ Minimizing disturbance to existing trees and shrubs
- ☐ LID Site Design Credit Requested:
 - ☐ Credit 1
 - ☐ Credit 2
 - ☐ Credit 3
- ☒ Use of "country drainage" versus curb and gutter conveyance and pipe
- ☐ Bioretention Cells (includes Rain Gardens)
- ☐ Constructed Stormwater Wetlands (includes Gravel Wetlands designs)
- ☐ Treebox Filter
- ☐ Water Quality Swale
- ☐ Grass Channel
- ☐ Green Roof
- ☐ Other (describe): _____

Standard 1: No New Untreated Discharges

- ☒ No new untreated discharges
- ☒ Outlets have been designed so there is no erosion or scour to wetlands and waters of the Commonwealth
- ☐ Supporting calculations specified in Volume 3 of the Massachusetts Stormwater Handbook included.



Checklist for Stormwater Report

Checklist (continued)

Standard 2: Peak Rate Attenuation

- ☐ Standard 2 waiver requested because the project is located in land subject to coastal storm flowage and stormwater discharge is to a wetland subject to coastal flooding.
- ☐ Evaluation provided to determine whether off-site flooding increases during the 100-year 24-hour storm.
- ☐ Calculations provided to show that post-development peak discharge rates do not exceed pre-development rates for the 2-year and 10-year 24-hour storms. If evaluation shows that off-site flooding increases during the 100-year 24-hour storm, calculations are also provided to show that post-development peak discharge rates do not exceed pre-development rates for the 100-year 24-hour storm.

Standard 3: Recharge

- ☐ Soil Analysis provided.
- ☐ Required Recharge Volume calculation provided.
- ☐ Required Recharge volume reduced through use of the LID site Design Credits.
- ☐ Sizing the infiltration, BMPs is based on the following method: Check the method used.
 - ☐ Static
 - ☐ Simple Dynamic
 - ☐ Dynamic Field¹
- ☐ Runoff from all impervious areas at the site discharging to the infiltration BMP.
- ☐ Runoff from all impervious areas at the site is *not* discharging to the infiltration BMP and calculations are provided showing that the drainage area contributing runoff to the infiltration BMPs is sufficient to generate the required recharge volume.
- ☐ Recharge BMPs have been sized to infiltrate the Required Recharge Volume.
- ☐ Recharge BMPs have been sized to infiltrate the Required Recharge Volume *only* to the maximum extent practicable for the following reason:
 - ☐ Site is comprised solely of C and D soils and/or bedrock at the land surface
 - ☐ M.G.L. c. 21E sites pursuant to 310 CMR 40.0000
 - ☐ Solid Waste Landfill pursuant to 310 CMR 19.000
 - ☐ Project is otherwise subject to Stormwater Management Standards only to the maximum extent practicable.
- ☐ Calculations showing that the infiltration BMPs will drain in 72 hours are provided.
- ☐ Property includes a M.G.L. c. 21E site or a solid waste landfill and a mounding analysis is included.

¹ 80% TSS removal is required prior to discharge to infiltration BMP if Dynamic Field method is used.



Checklist for Stormwater Report

Checklist (continued)

Standard 3: Recharge (continued)

- ☐ The infiltration BMP is used to attenuate peak flows during storms greater than or equal to the 10-year 24-hour storm and separation to seasonal high groundwater is less than 4 feet and a mounding analysis is provided.
- ☐ Documentation is provided showing that infiltration BMPs do not adversely impact nearby wetland resource areas.

Standard 4: Water Quality

The Long-Term Pollution Prevention Plan typically includes the following:

- Good housekeeping practices;
 - Provisions for storing materials and waste products inside or under cover;
 - Vehicle washing controls;
 - Requirements for routine inspections and maintenance of stormwater BMPs;
 - Spill prevention and response plans;
 - Provisions for maintenance of lawns, gardens, and other landscaped areas;
 - Requirements for storage and use of fertilizers, herbicides, and pesticides;
 - Pet waste management provisions;
 - Provisions for operation and management of septic systems;
 - Provisions for solid waste management;
 - Snow disposal and plowing plans relative to Wetland Resource Areas;
 - Winter Road Salt and/or Sand Use and Storage restrictions;
 - Street sweeping schedules;
 - Provisions for prevention of illicit discharges to the stormwater management system;
 - Documentation that Stormwater BMPs are designed to provide for shutdown and containment in the event of a spill or discharges to or near critical areas or from LUHPPL;
 - Training for staff or personnel involved with implementing Long-Term Pollution Prevention Plan;
 - List of Emergency contacts for implementing Long-Term Pollution Prevention Plan.
- ☐ A Long-Term Pollution Prevention Plan is attached to Stormwater Report and is included as an attachment to the Wetlands Notice of Intent.
 - ☐ Treatment BMPs subject to the 44% TSS removal pretreatment requirement and the one inch rule for calculating the water quality volume are included, and discharge:
 - ☐ is within the Zone II or Interim Wellhead Protection Area
 - ☐ is near or to other critical areas
 - ☐ is within soils with a rapid infiltration rate (greater than 2.4 inches per hour)
 - ☐ involves runoff from land uses with higher potential pollutant loads.
 - ☐ The Required Water Quality Volume is reduced through use of the LID site Design Credits.
 - ☐ Calculations documenting that the treatment train meets the 80% TSS removal requirement and, if applicable, the 44% TSS removal pretreatment requirement, are provided.



Checklist for Stormwater Report

Checklist (continued)

Standard 4: Water Quality (continued)

- ☐ The BMP is sized (and calculations provided) based on:
 - ☐ The ½" or 1" Water Quality Volume or
 - ☐ The equivalent flow rate associated with the Water Quality Volume and documentation is provided showing that the BMP treats the required water quality volume.
- ☐ The applicant proposes to use proprietary BMPs, and documentation supporting use of proprietary BMP and proposed TSS removal rate is provided. This documentation may be in the form of the propriety BMP checklist found in Volume 2, Chapter 4 of the Massachusetts Stormwater Handbook and submitting copies of the TARP Report, STEP Report, and/or other third party studies verifying performance of the proprietary BMPs.
- ☐ A TMDL exists that indicates a need to reduce pollutants other than TSS and documentation showing that the BMPs selected are consistent with the TMDL is provided.

Standard 5: Land Uses With Higher Potential Pollutant Loads (LUHPPLs)

- ☐ The NPDES Multi-Sector General Permit covers the land use and the Stormwater Pollution Prevention Plan (SWPPP) has been included with the Stormwater Report.
- ☐ The NPDES Multi-Sector General Permit covers the land use and the SWPPP will be submitted **prior to** the discharge of stormwater to the post-construction stormwater BMPs.
- ☒ The NPDES Multi-Sector General Permit does **not** cover the land use.
- ☐ LUHPPLs are located at the site and industry specific source control and pollution prevention measures have been proposed to reduce or eliminate the exposure of LUHPPLs to rain, snow, snow melt and runoff, and been included in the long term Pollution Prevention Plan.
- ☐ All exposure has been eliminated.
- ☐ All exposure has **not** been eliminated and all BMPs selected are on MassDEP LUHPPL list.
- ☐ The LUHPPL has the potential to generate runoff with moderate to higher concentrations of oil and grease (e.g. all parking lots with >1000 vehicle trips per day) and the treatment train includes an oil grit separator, a filtering bioretention area, a sand filter or equivalent.

Standard 6: Critical Areas

- ☒ The discharge is near or to a critical area and the treatment train includes only BMPs that MassDEP has approved for stormwater discharges to or near that particular class of critical area.
- ☒ Critical areas and BMPs are identified in the Stormwater Report.



Checklist for Stormwater Report

Checklist (continued)

Standard 7: Redevelopments and Other Projects Subject to the Standards only to the maximum extent practicable

- ☐ The project is subject to the Stormwater Management Standards only to the maximum Extent Practicable as a:
 - ☐ Limited Project
 - ☐ Small Residential Projects: 5-9 single family houses or 5-9 units in a multi-family development provided there is no discharge that may potentially affect a critical area.
 - ☐ Small Residential Projects: 2-4 single family houses or 2-4 units in a multi-family development with a discharge to a critical area
 - ☐ Marina and/or boatyard provided the hull painting, service and maintenance areas are protected from exposure to rain, snow, snow melt and runoff
 - ☐ Bike Path and/or Foot Path
 - ☐ Redevelopment Project
 - ☐ Redevelopment portion of mix of new and redevelopment.
- ☐ Certain standards are not fully met (Standard No. 1, 8, 9, and 10 must always be fully met) and an explanation of why these standards are not met is contained in the Stormwater Report.
- ☐ The project involves redevelopment and a description of all measures that have been taken to improve existing conditions is provided in the Stormwater Report. The redevelopment checklist found in Volume 2 Chapter 3 of the Massachusetts Stormwater Handbook may be used to document that the proposed stormwater management system (a) complies with Standards 2, 3 and the pretreatment and structural BMP requirements of Standards 4-6 to the maximum extent practicable and (b) improves existing conditions.

Standard 8: Construction Period Pollution Prevention and Erosion and Sedimentation Control

A Construction Period Pollution Prevention and Erosion and Sedimentation Control Plan must include the following information:

- Narrative;
 - Construction Period Operation and Maintenance Plan;
 - Names of Persons or Entity Responsible for Plan Compliance;
 - Construction Period Pollution Prevention Measures;
 - Erosion and Sedimentation Control Plan Drawings;
 - Detail drawings and specifications for erosion control BMPs, including sizing calculations;
 - Vegetation Planning;
 - Site Development Plan;
 - Construction Sequencing Plan;
 - Sequencing of Erosion and Sedimentation Controls;
 - Operation and Maintenance of Erosion and Sedimentation Controls;
 - Inspection Schedule;
 - Maintenance Schedule;
 - Inspection and Maintenance Log Form.
- ☒ A Construction Period Pollution Prevention and Erosion and Sedimentation Control Plan containing the information set forth above has been included in the Stormwater Report.



Checklist for Stormwater Report

Checklist (continued)

Standard 8: Construction Period Pollution Prevention and Erosion and Sedimentation Control (continued)

- ☐ The project is highly complex and information is included in the Stormwater Report that explains why it is not possible to submit the Construction Period Pollution Prevention and Erosion and Sedimentation Control Plan with the application. A Construction Period Pollution Prevention and Erosion and Sedimentation Control has **not** been included in the Stormwater Report but will be submitted **before** land disturbance begins.
- ☐ The project is **not** covered by a NPDES Construction General Permit.
- ☐ The project is covered by a NPDES Construction General Permit and a copy of the SWPPP is in the Stormwater Report.
- ☒ The project is covered by a NPDES Construction General Permit but no SWPPP been submitted. The SWPPP will be submitted BEFORE land disturbance begins.

Standard 9: Operation and Maintenance Plan

- ☒ The Post Construction Operation and Maintenance Plan is included in the Stormwater Report and includes the following information:
 - ☒ Name of the stormwater management system owners;
 - ☒ Party responsible for operation and maintenance;
 - ☐ Schedule for implementation of routine and non-routine maintenance tasks;
 - ☒ Plan showing the location of all stormwater BMPs maintenance access areas;
 - ☐ Description and delineation of public safety features;
 - ☐ Estimated operation and maintenance budget; and
 - ☒ Operation and Maintenance Log Form.
- ☐ The responsible party is **not** the owner of the parcel where the BMP is located and the Stormwater Report includes the following submissions:
 - ☐ A copy of the legal instrument (deed, homeowner's association, utility trust or other legal entity) that establishes the terms of and legal responsibility for the operation and maintenance of the project site stormwater BMPs;
 - ☐ A plan and easement deed that allows site access for the legal entity to operate and maintain BMP functions.

Standard 10: Prohibition of Illicit Discharges

- ☐ The Long-Term Pollution Prevention Plan includes measures to prevent illicit discharges;
- ☐ An Illicit Discharge Compliance Statement is attached;
- ☒ NO Illicit Discharge Compliance Statement is attached but will be submitted **prior to** the discharge of any stormwater to post-construction BMPs.