

Residential Gas Service Installation Project  
27 Pye Brook Lane, Boxford, Massachusetts

# REQUEST FOR DETERMINATION OF APPLICABILITY

Boston Gas Company

November 2020

**Tighe & Bond**

WO #1303615  
N5068-051  
November 18, 2020

Ross Povenmire, Director  
Boxford Conservation Commission  
7A Spofford Lane  
Boxford, Massachusetts 01921

Re: **Request for Determination of Applicability  
Residential Gas Service Installation Project  
Boston Gas Company  
27 Pye Brook Lane, Boxford, Massachusetts**

Dear Mr. Povenmire and the Members of the Boxford Conservation Commission:

On behalf of the Boston Gas Company, Tighe & Bond respectfully submits this Request for Determination of Applicability (RDA) for a proposed residential gas service installation project at 27 Pye Brook Lane in Boxford, Massachusetts. The proposed project consists of the installation of approximately 144 linear feet of plastic gas service line from the existing main within Pye Brook Lane to the tie-in point at the residence. This proposed gas service will extend to the northwest from the existing main within the road, along the western edge of the driveway, where it will connect into the southwestern side of the residence.

This RDA is being filed because the proposed work will occur within the 200-foot Riverfront Area to Pye Brook, a perennial stream. This area is regulated under the Massachusetts Wetlands Protection Act (WPA, M.G.L. c. 131 § 40) and the Town of Boxford Wetlands Protection Bylaw (Town Code Chapter 192) and implementing regulations. All of the proposed work will occur within previously disturbed areas with no anticipated impacts to the surrounding wetland resources. Please note, the proposed work is considered an exempt buffer zone minor activity under 310 CMR 10.02(2)(b)(2)(i), as it consists of the "*installation of underground utilities (e.g., electric, gas, water) within existing paved or unpaved roadways and private roadways/driveways, provided that all work is conducted within the roadway or driveway and that all trenches are closed at the completion of each workday.*" This project is being filed as an RDA at the request of the Boxford Conservation Director, as the Boxford Wetlands Protection Bylaw does not recognize the above exemption.

Tighe & Bond respectfully requests that the Boxford Conservation Commission make a Negative Determination confirming that the proposed work does not require the filing of a Notice of Intent under the WPA or the Town of Boxford Wetlands Protection Bylaw and Regulations.

This RDA application includes the following items:

- Attachment A – WPA Form 1
- Attachment B – Figures
- Attachment C – Site Photographs
- Attachment D – Abutter Information
- Attachment E – National Grid Best Management Practice Details



The following text discusses the wetland resource areas, proposed activities, and proposed protective measures.

## Wetland Resource Areas

Site reconnaissance and wetland resource area investigations of the project area were conducted by a Tighe & Bond Professional Wetland Scientist (PWS) on November 17, 2020. The reconnaissance was conducted in accordance with the Massachusetts Department of Environmental Protection (MassDEP) guidelines, 310 CMR 10.00, and the Town of Boxford Wetlands Protection Bylaw (Town Code Chapter 192). The resource area boundaries were surveyed using a Global Positioning System (GPS) unit with sub-meter accuracy. Please refer to Figure 4 in Attachment B for a figure illustrating the wetland locations.

### Bordering Vegetated Wetlands

A large emergent marsh with ponded areas surrounds the northern portion of the property and is located approximately 100 feet northwest and 150 feet northeast of the location where the proposed gas service line will tie into the residence. This wetland system is assumed to be a result of the damming of Pye Brook. This wetland is best classified as palustrine, emergent, and persistent, with a semipermanently flooded hydroperiod (PEM1F). Hydrologic indicators observed during the site visit included standing water, water marks, sediment and drift deposits, inundation visible on aerial imagery, a sparsely vegetated concave surface, water stained leaves, drainage patterns, and geomorphic position. The soils observed were a very thin saturated layer of hemic organic matter (10YR 2/2) overlaying a very deep and poorly drained mass of black sapric organic matter (N 2/0, 10YR 2/1). Common vegetation observed included white pine (*Pinus strobus*), red maple (*Acer rubrum*), red oak (*Quercus rubra*), various sedges (*Carex* spp.), rough-stemmed goldenrod (*Solidago rugosa*), buttonbush (*Cephalanthus occidentalis*), cattail (*Typha* sp.), purple loosestrife (*Lythrum salicaria*), winterberry (*Ilex verticillata*), steeplebush (*Spiraea tomentosa*), and eastern hemlock (*Tsuga canadensis*).

A portion of this wetland system continues to the southern side of Pye Brook Lane via a culvert, and is located approximately 245 feet northeast of the location where the proposed gas service line will tie into the existing main within the roadway. This portion of the wetland system is best classified as palustrine, emergent, and persistent, with a seasonally flooded/saturated hydroperiod (PEM1E); it also contained the same vegetation, hydrologic indicators, and hydric soils as seen on the northern side of Pye Brook Lane.

### Bordering Land Subject to Flooding

The Federal Emergency Management Agency (FEMA) flood map (Panel No. 25009C0261F, effective July 3, 2012) was consulted to evaluate the presence of jurisdictional Land Subject to Flooding on the property. No portion of the proposed project area falls within any area subject to flooding and/or inundation by a 100-year flood.

## Rare Species

The Massachusetts Natural Heritage and Endangered Species Program (NHESP) Atlas (14th edition, effective August 2017) was reviewed during the preparation of this RDA. According to these sources, no Priority Habitats of Rare Species (PH) or Estimated Habitats of Rare Wildlife (EH) occur in any portion of the proposed project area.

## Proposed Activities

The proposed project consists of the installation of approximately 144 linear feet (lf) of plastic gas service line from the existing main within Pye Brook Lane to the residence tie-in. This proposed gas service will extend to the northwest from the existing main within the road, along the western edge of the driveway, where it will connect into the southwestern side of the residence.

Construction of the new gas service line will require the excavation of an approximately two-foot wide trench for safe installation. The trench bottom will be excavated and graded so that the pipe will be supported for its entire length on undisturbed bottom at a depth of approximately three feet below surface grade. Upon the completion of work, the trench will be backfilled and the site will be restored to pre-existing conditions. Work will be conducted by conventional construction equipment mobilized on the existing roadway and residential lawn.

The proposed work will result in approximately 288 square feet (sf) of temporary impacts to the 200-foot Riverfront Area. The areas where the work is proposed consists of existing paved roadway/driveway and residential lawn. The proposed work will not change the general characteristics of the area, as the entire project is contained within previously disturbed areas.

## Protective Measures

The proposed installation will be completed within the roadway of Pye Brook Lane and along the existing driveway and residential lawn. Prior to the commencement of work, appropriate erosion control measures will be installed at the downgradient limit-of-work as deemed necessary. The erosion controls will be maintained throughout the duration of work and will be removed after disturbed areas have been stabilized. Following the completion of construction activities, any disturbed soils will be restored in-kind. Attachment E of this submittal includes details of standard erosion control measures that have been used in past projects of similar scope.

## Application Requirements

As required by the Boxford Wetlands Protection Bylaw, a check made payable to the Town for the application filing fee (\$100) has been submitted under separate cover. Abutters to the project area will be notified via Certificate of Mailing in accordance with the abutter notification requirements. Copies of the abutter notification form and the certified list of abutters have been enclosed in Attachment D.

## Summary

We look forward to having the opportunity to discuss this project with the Boxford Conservation Commission at the next available public hearing. We anticipate these materials are sufficient for the Commission to issue a Negative Determination confirming the proposed project may proceed without the filing of an NOI.

Should you have any questions regarding this application or require any additional information, please do not hesitate to contact me at (508) 304-6354 or via email at AJHoule@tighebond.com.

Thank you in advance for your attention to this matter.

Respectfully,



Amanda J. Houle, PWS, CERP  
Senior Environmental Scientist

Enclosures

Copy: MassDEP NERO  
Andrew Shelby, National Grid  
Caroline O'Connell, property owner

\\tighebond.com\data\Data\Projects\N\N5068 National Grid 2020 L&P\051 Pye Brook Lane, Boxford\RDA\Archive\27 Pye Brook Lane RDA Cover Letter - Final.docx

**ATTACHMENT A**

WPA FORM 1





# WPA Form 1- Request for Determination of Applicability

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

## A. General Information

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



1. Applicant:

<u>Boston Gas Company</u> Name	<u>drew.shelby@nationalgrid.com</u> E-Mail Address	
<u>40 Sylvan Road</u> Mailing Address		
<u>Waltham</u> City/Town	<u>MA</u> State	<u>02451</u> Zip Code
<u>781.907.1867</u> Phone Number	<u>N/A</u> Fax Number (if applicable)	

2. Representative (if any):

<u>Tighe &amp; Bond</u> Firm		
<u>Amanda Houle</u> Contact Name	<u>ajhoule@tighebond.com</u> E-Mail Address	
<u>4 Barlows Landing Road</u> Mailing Address		
<u>Pocasset</u> City/Town	<u>MA</u> State	<u>02559</u> Zip Code
<u>508.304.6354</u> Phone Number	<u>N/A</u> Fax Number (if applicable)	

## B. Determinations

1. I request the Boxford Conservation Commission make the following determination(s). Check any that apply:

- a. whether the **area** depicted on plan(s) and/or map(s) referenced below is an area subject to jurisdiction of the Wetlands Protection Act.
- b. whether the **boundaries** of resource area(s) depicted on plan(s) and/or map(s) referenced below are accurately delineated.
- c. whether the **work** depicted on plan(s) referenced below is subject to the Wetlands Protection Act.
- d. whether the area and/or work depicted on plan(s) referenced below is subject to the jurisdiction of any **municipal wetlands ordinance** or **bylaw** of:

Boxford  
Name of Municipality

- e. whether the following **scope of alternatives** is adequate for work in the Riverfront Area as depicted on referenced plan(s).



# WPA Form 1- Request for Determination of Applicability

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

## C. Project Description

1. a. Project Location (use maps and plans to identify the location of the area subject to this request):

<u>27 Pye Brook Lane</u>	<u>Boxford</u>
Street Address	City/Town
<u>Tax Map 30</u>	<u>Block 2 / Lot 3</u>
Assessors Map/Plat Number	Parcel/Lot Number

- b. Area Description (use additional paper, if necessary):

A full description of the proposed project area is attached in the cover letter to this application.

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- c. Plan and/or Map Reference(s):

<u>Site Location Map &amp; Priority Resources Map (Figures 1 &amp; 2, Attachment B)</u>	<u>11/17/2020</u>
Title	Date
<u>Orthophotograph (Figure 3, Attachment B)</u>	<u>11/18/2020</u>
Title	Date
<u>Site Plan (Figure 4, Attachment B)</u>	<u>11/18/2020</u>
Title	Date

2. a. Work Description (use additional paper and/or provide plan(s) of work, if necessary):

A full description of work to be completed is attached in the cover letter to this application.

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## WPA Form 1- Request for Determination of Applicability

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

### C. Project Description (cont.)

b. Identify provisions of the Wetlands Protection Act or regulations which may exempt the applicant from having to file a Notice of Intent for all or part of the described work (use additional paper, if necessary).

310 CMR 10.02(2)(b)(2)(i)

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3. a. If this application is a Request for Determination of Scope of Alternatives for work in the Riverfront Area, indicate the one classification below that best describes the project.

- Single family house on a lot recorded on or before 8/1/96
- Single family house on a lot recorded after 8/1/96
- Expansion of an existing structure on a lot recorded after 8/1/96
- Project, other than a single family house or public project, where the applicant owned the lot before 8/7/96
- New agriculture or aquaculture project
- Public project where funds were appropriated prior to 8/7/96
- Project on a lot shown on an approved, definitive subdivision plan where there is a recorded deed restriction limiting total alteration of the Riverfront Area for the entire subdivision
- Residential subdivision; institutional, industrial, or commercial project
- Municipal project
- District, county, state, or federal government project
- Project required to evaluate off-site alternatives in more than one municipality in an Environmental Impact Report under MEPA or in an alternatives analysis pursuant to an application for a 404 permit from the U.S. Army Corps of Engineers or 401 Water Quality Certification from the Department of Environmental Protection.

b. Provide evidence (e.g., record of date subdivision lot was recorded) supporting the classification above (use additional paper and/or attach appropriate documents, if necessary.)

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# WPA Form 1- Request for Determination of Applicability

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

## D. Signatures and Submittal Requirements

I hereby certify under the penalties of perjury that the foregoing Request for Determination of Applicability and accompanying plans, documents, and supporting data are true and complete to the best of my knowledge.

I further certify that the property owner, if different from the applicant, and the appropriate DEP Regional Office were sent a complete copy of this Request (including all appropriate documentation) simultaneously with the submittal of this Request to the Conservation Commission.

Failure by the applicant to send copies in a timely manner may result in dismissal of the Request for Determination of Applicability.

Name and address of the property owner:

Caroline O'Connell  
Name

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27 Pye Brook Lane  
Mailing Address

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Boxford  
City/Town

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MA  
State

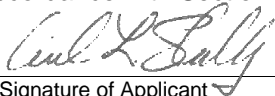
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01921  
Zip Code

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Signatures:

I also understand that notification of this Request will be placed in a local newspaper at my expense in accordance with Section 10.05(3)(b)(1) of the Wetlands Protection Act regulations.

  
Signature of Applicant

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11/18/2020  
Date

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Signature of Representative (if any)

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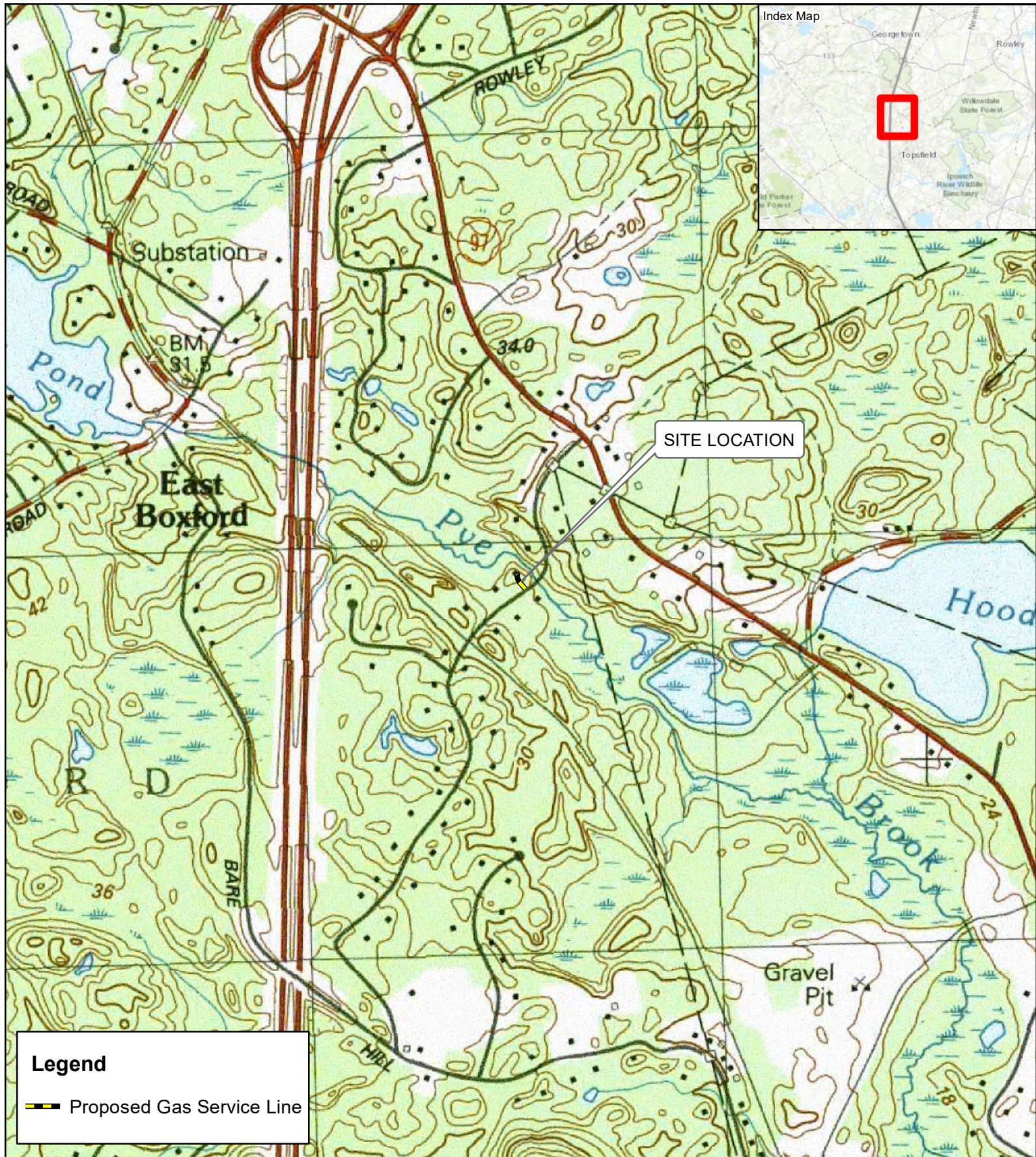
11/18/2020  
Date

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**ATTACHMENT B**

FIGURES





### GAS SERVICE INSTALLATION PROJECT

#### Site Location

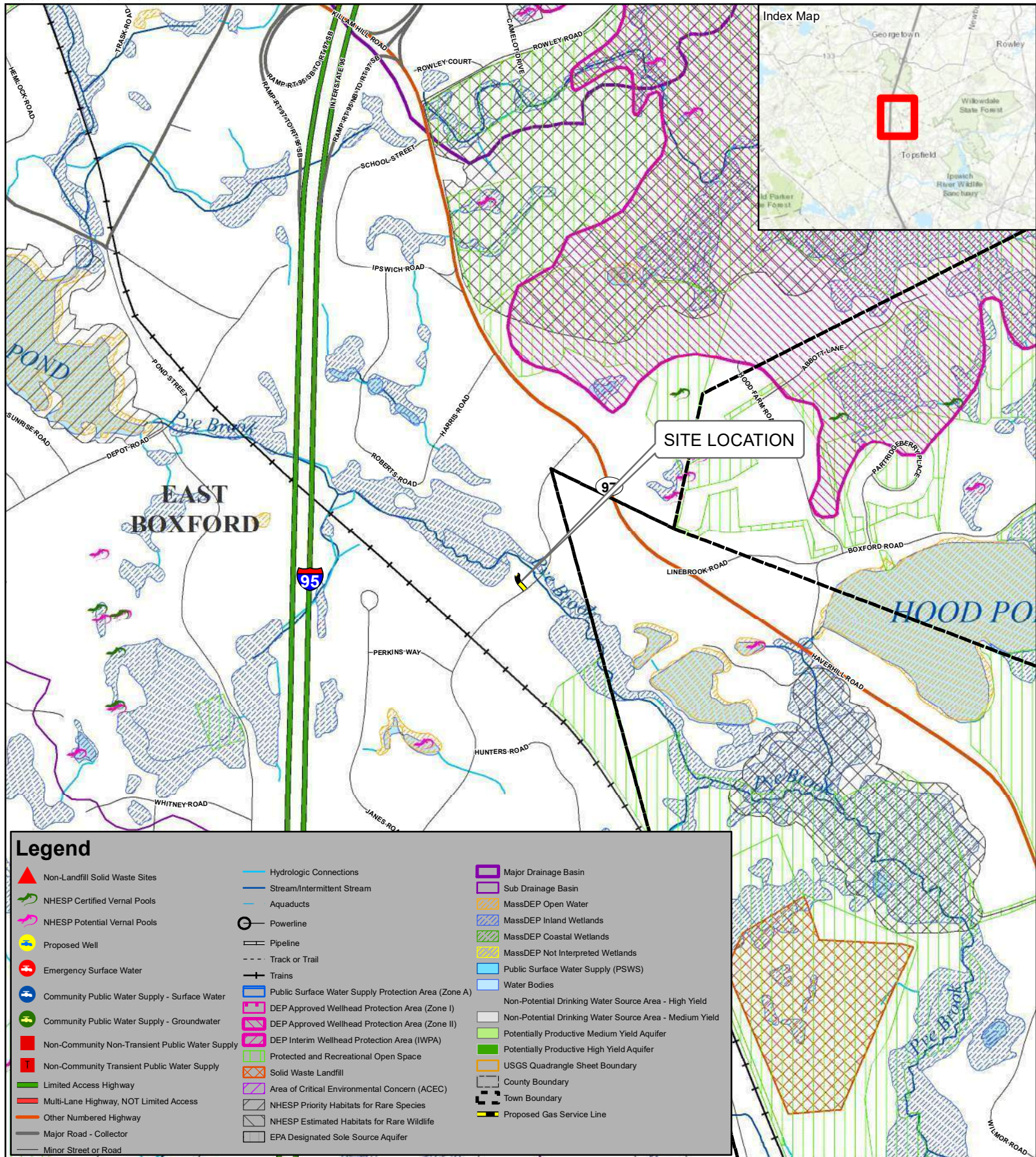
27 Pye Brook Lane  
Boxford, Massachusetts

Figure 1

Based on USGS Topographic Map for Georgetown, MA Revised 1985. Contour Interval Equals 3 meters.

**nationalgrid**  
**Tighe&Bond**





### Legend

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

1 inch = 1,000 feet

## GAS SERVICE INSTALLATION PROJECT

### Priority Resources

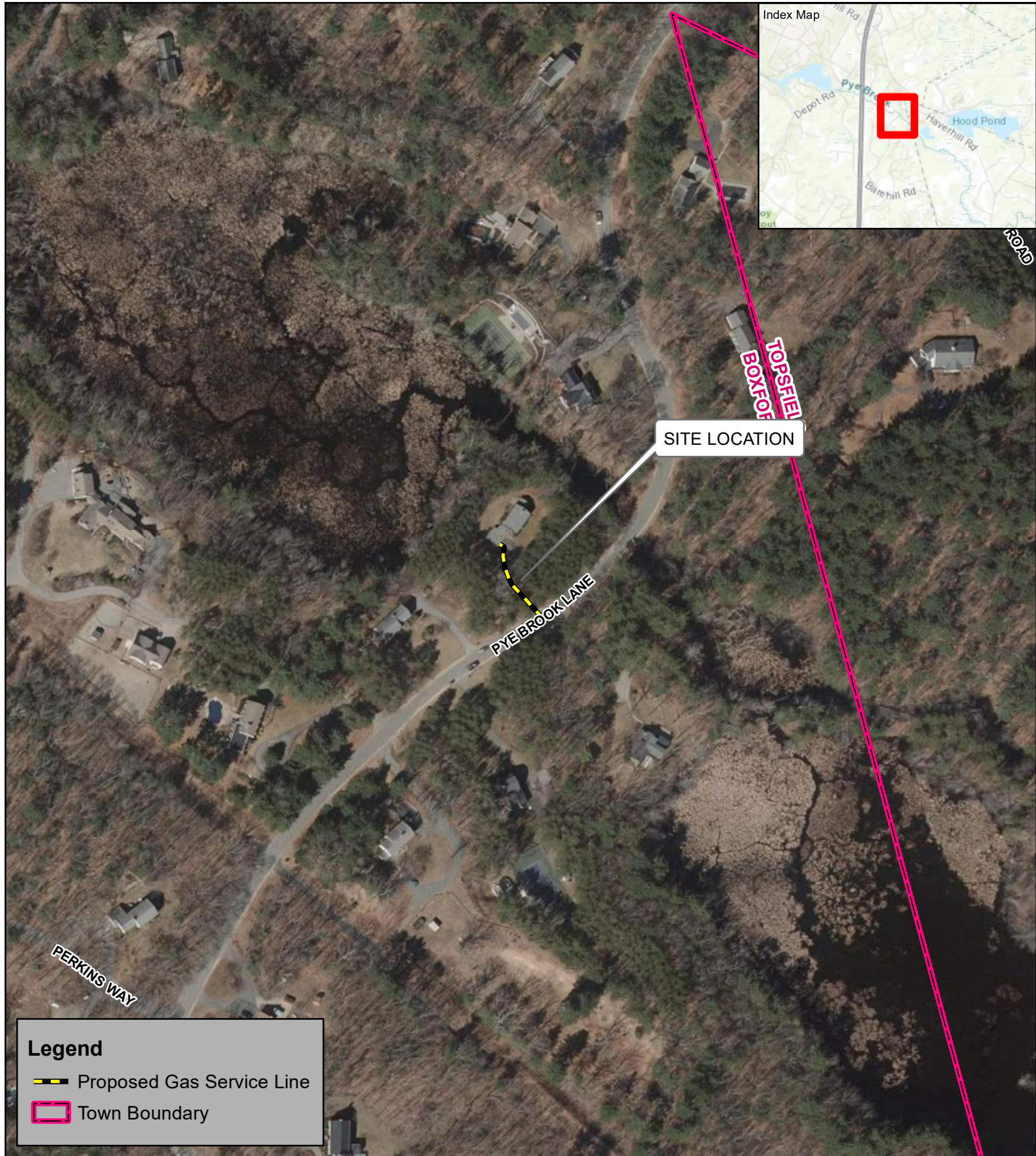
27 Pye Brook Lane  
 Boxford, Massachusetts

Figure 2

Data source: Bureau of Geographic Information (MassGIS), Commonwealth of Massachusetts, Executive Office of Technology, Data valid as of November 2020.







**Legend**

- Proposed Gas Service Line
- Town Boundary

N

1 inch = 200 feet

0 100 200  
Feet

**GAS SERVICE INSTALLATION PROJECT**

**Orthophotograph**

27 Pye Brook Lane  
Boxford, Massachusetts

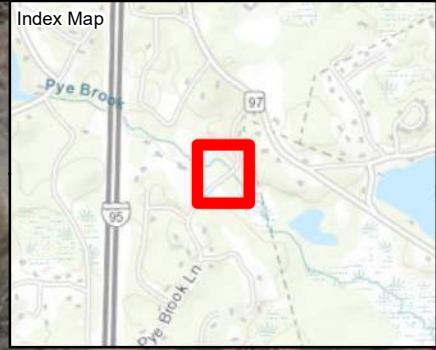
Based on MassGIS Color  
Orthophotography (2019).

Figure 3

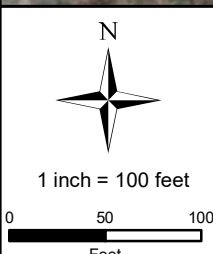


Total Length of Gas Service: 144 lf  
 Total Trench Area: 288 sf

**Resource Area Impacts:**  
 200-foot Riverfront Area: 288 sf



<b>Legend</b>	Proposed Gas Service Line	Wetland Area*
	100-foot to BVW/Inland Bank	Bordering Land Subject to Flooding (BLSF)*
	200-foot Riverfront Area	Town Boundary
	Delineated BVW Boundary	
	Mean Annual High Water	



**GAS SERVICE INSTALLATION PROJECT**

**Site Plan**

27 Pye Brook Lane  
 Boxford, Massachusetts

Figure 4

Data source: Bureau of Geographic Information (MassGIS), Commonwealth of Massachusetts, Executive Office of Technology.





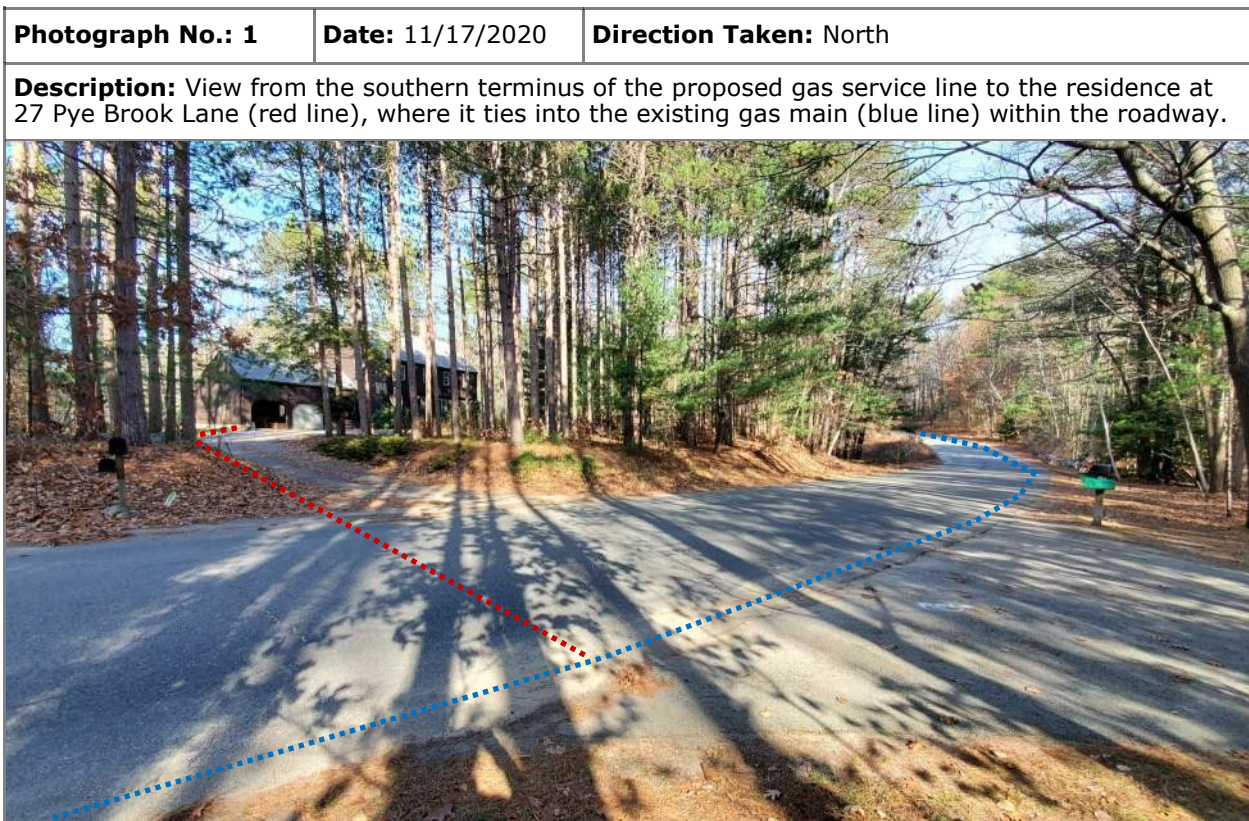
**ATTACHMENT C**  
SITE PHOTOGRAPHS

# Photographic Log

**Client:** Boston Gas Company

**Job Number:** N5068-051

**Site:** Residential Gas Service Installation Project, 27 Pye Brook Lane, Boxford, Massachusetts





# Photographic Log

**Client:** Boston Gas Company

**Job Number:** N5068-051

**Site:** Residential Gas Service Installation Project, 27 Pye Brook Lane, Boxford, Massachusetts

<b>Photograph No.:</b> 3	<b>Date:</b> 11/17/2020	<b>Direction Taken:</b> Northwest
<b>Description:</b> Overview of the portion of the marsh wetland (PEM1F) located approximately 150 feet northeast of where the proposed service line will tie into the residence at 27 Pye Brook Lane.		
		

<b>Photograph No.:</b> 4	<b>Date:</b> 11/17/2020	<b>Direction Taken:</b> West
<b>Description:</b> Overview of the ponded wetland (PEM1E) located on the south side of Pye Brook Road, approximately 245 feet northeast of where the proposed service line will tie into the existing main.		
		

**ATTACHMENT D**  
ABUTTER INFORMATION

30-02-03 - 27 PYE BROOK LANE, BOXFORD ABUTTERS LIST  
 CONSERVATION 250'

Map/Lot	Location	Owner	Owner2	Owner Address	Owner City/Town	Owner State	Zip Code
30-01-10	PYE BROOK LN	MYLES HAMILTON	ALLISON/BENJAMIN MOSHO	216 HAVERHILL RD	TOPSFIELD	MA	01983
30-01-11	12 PYE BROOK LN	KORIS NICHOLAS D	KORIS LISA	12 PYE BROOK LN	BOXFORD	MA	01921
30-01-05-A	37A PYE BROOK LN	BARBAS STEVEN J	BARBAS BELINDA	232 ASH ST	READING	MA	01860
30-01-06-3	36 PYE BROOK LN	LIN TONY TZUPING	HUANG YAM NEE	36 PYE BROOK LN	BOXFORD	MA	01921
30-01-06-4	32 PYE BROOK LN	DIBELLA CHRISTOPHER TE	DIBELLA DENISE B	32 PYE BROOK LN	BOXFORD	MA	01921
30-01-09	28 PYE BROOK LN	DONOHUE PAUL J TE	DONOHUE MARCIA I	28 PYE BROOK LN	BOXFORD	MA	01921
30-02-01	13 PYE BROOK LN	WOODRUFF DAVID A	WOODRUFF DENISE C S	13 PYE BROOK LN	BOXFORD	MA	01921
30-02-02	17 PYE BROOK LN	OVANES MATTHEW T TE	OVANES STACEY L	17 PYE BROOK LN	BOXFORD	MA	01921
30-02-03	27 PYE BROOK LN	OCONNELL CAROLINE		27 PYE BROOK LN	BOXFORD	MA	01921
30-02-04-A	31 PYE BROOK LN	WHEADON AMY C		31 PYE BROOK LN	BOXFORD	MA	01921
30-02-05-A	37B PYE BROOK LN	MILLER MICHAEL G JR TE	MILLER LAUREN L	37B PYE BROOK LN	BOXFORD	MA	01921

*Kristin Hanlon*

CERTIFIED COPY  
 11/18/20

**ATTACHMENT E**

NATIONAL GRID BEST MANAGEMENT PRACTICES

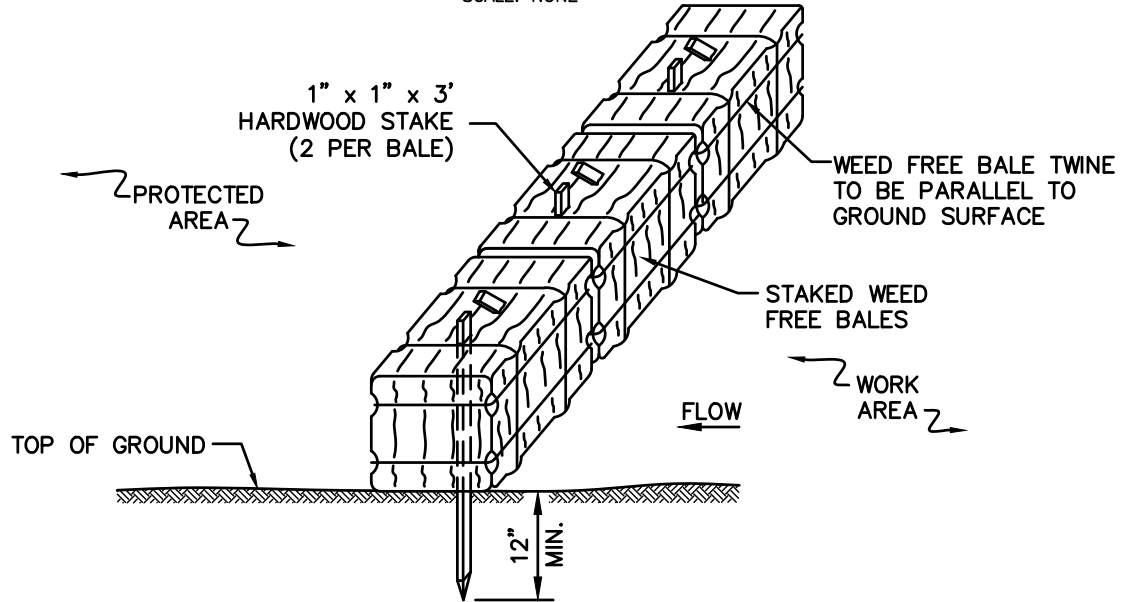


**SUBJECT**  
Access, Maintenance and Construction  
Best Management Practices

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**



File: BALE\_BARRIER.DWG

**APPROVED BY: VICE PRESIDENT, ENVIRONMENTAL SERVICES**  
PRINTED COPIES ARE NOT DOCUMENT CONTROLLED. FOR LATEST AUTHORIZED  
VERSION PLEASE REFER TO THE NATIONAL GRID ENVIRONMENTAL INFONET SITE.

**SEC-1**  
**WEED FREE BALE BARRIER**



**SUBJECT**

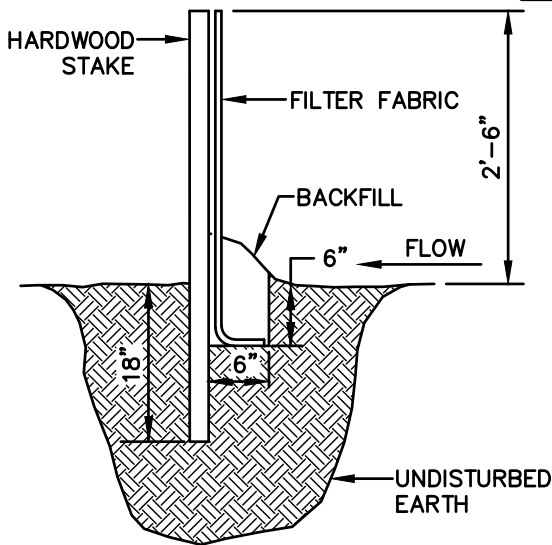
Access, Maintenance and Construction  
Best Management Practices

**Reference**

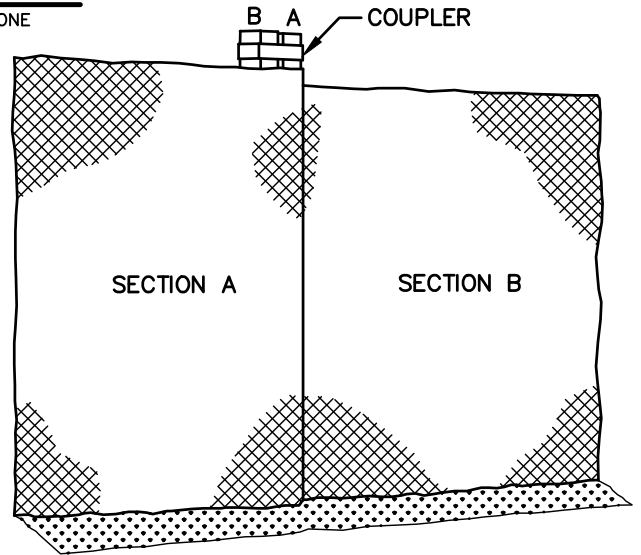
EP No. 3 - Natural Resource  
Protection (Chapter 6)

**BMP DETAIL**

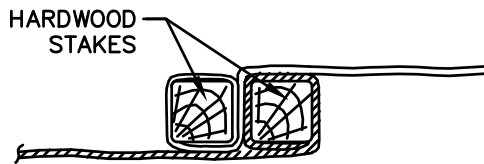
SCALE: NONE



PROFILE



SECTION



PLAN

**BMP PICTURE**



File: Sediment\_Fence.dwg

**APPROVED BY: VICE PRESIDENT, ENVIRONMENTAL SERVICES**  
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VERSION PLEASE REFER TO THE NATIONAL GRID ENVIRONMENTAL INFONET SITE.

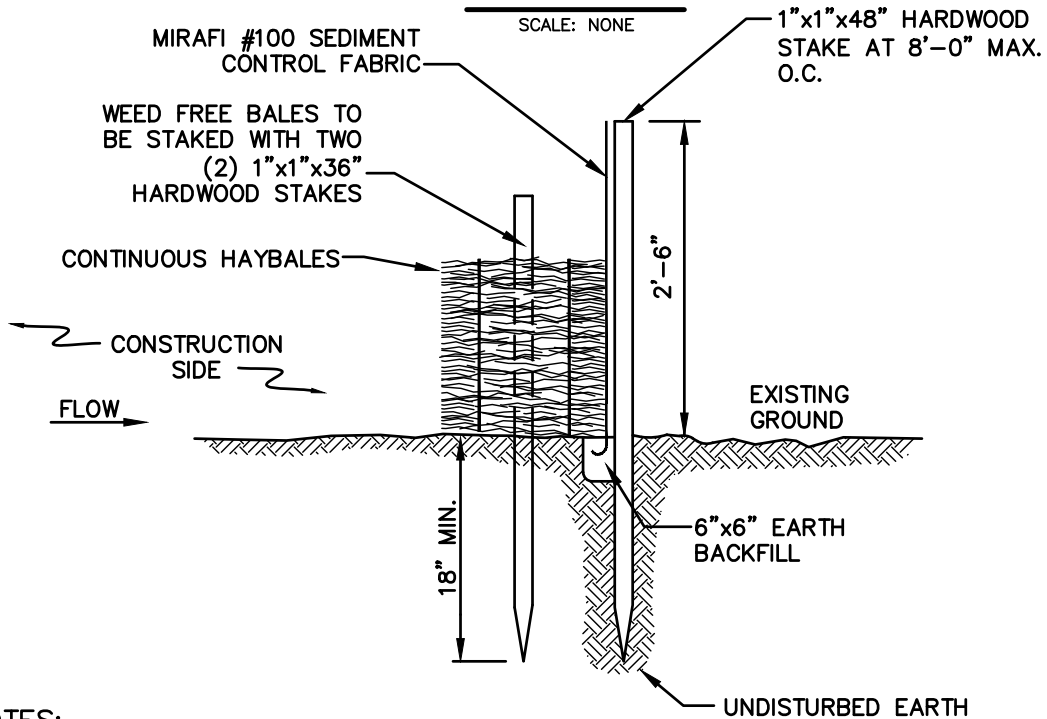
**SEC-2**  
**SEDIMENT CONTROL FENCE**

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**



File: Silt\_Fence\_&\_Barrier.dwg

**APPROVED BY: VICE PRESIDENT, ENVIRONMENTAL SERVICES**  
PRINTED COPIES ARE NOT DOCUMENT CONTROLLED. FOR LATEST AUTHORIZED  
VERSION PLEASE REFER TO THE NATIONAL GRID ENVIRONMENTAL INFONET SITE.

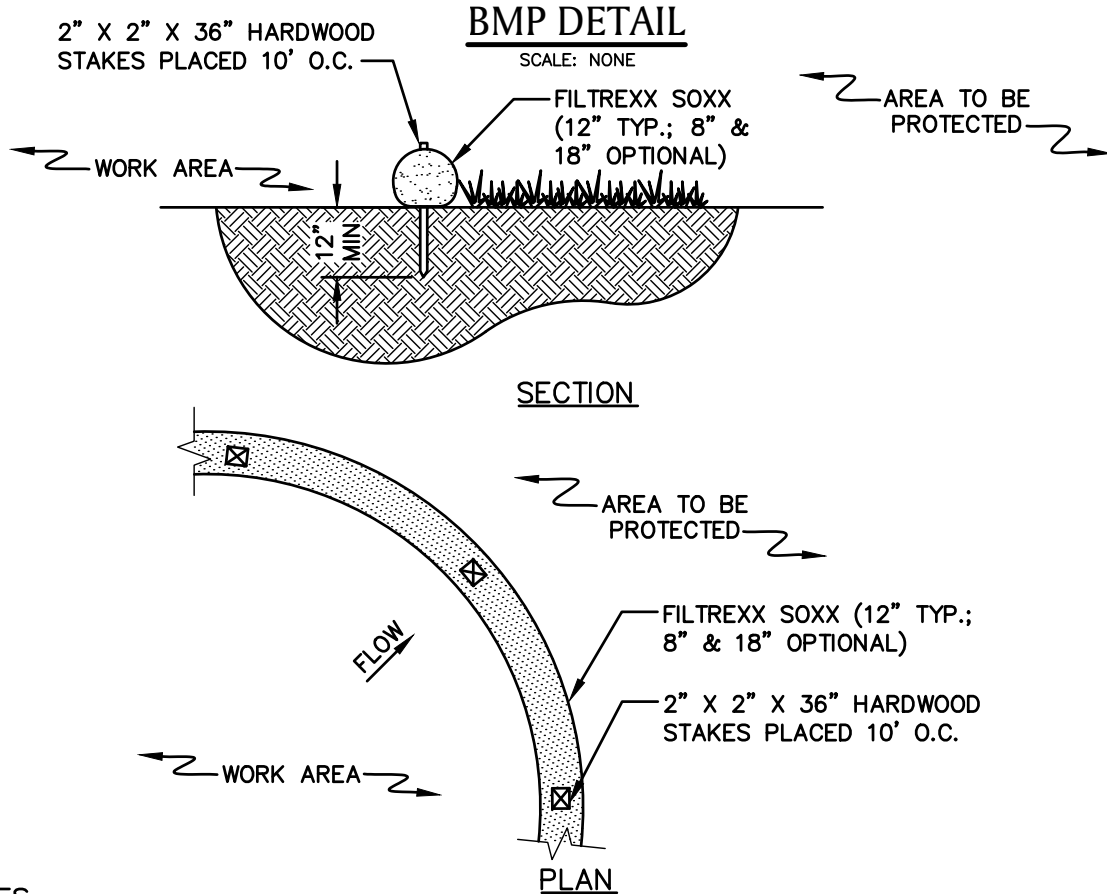
**SEC-3**  
**SILT FENCE /**  
**WEED FREE BARRIER**

**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  
APPROVED BY: VICE PRESIDENT, ENVIRONMENTAL SERVICES  
PRINTED COPIES ARE NOT DOCUMENT CONTROLLED. FOR LATEST AUTHORIZED  
VERSION PLEASE REFER TO THE NATIONAL GRID ENVIRONMENTAL INFONET SITE.

SEC-4  
SILT SOXX \*

**SUBJECT**

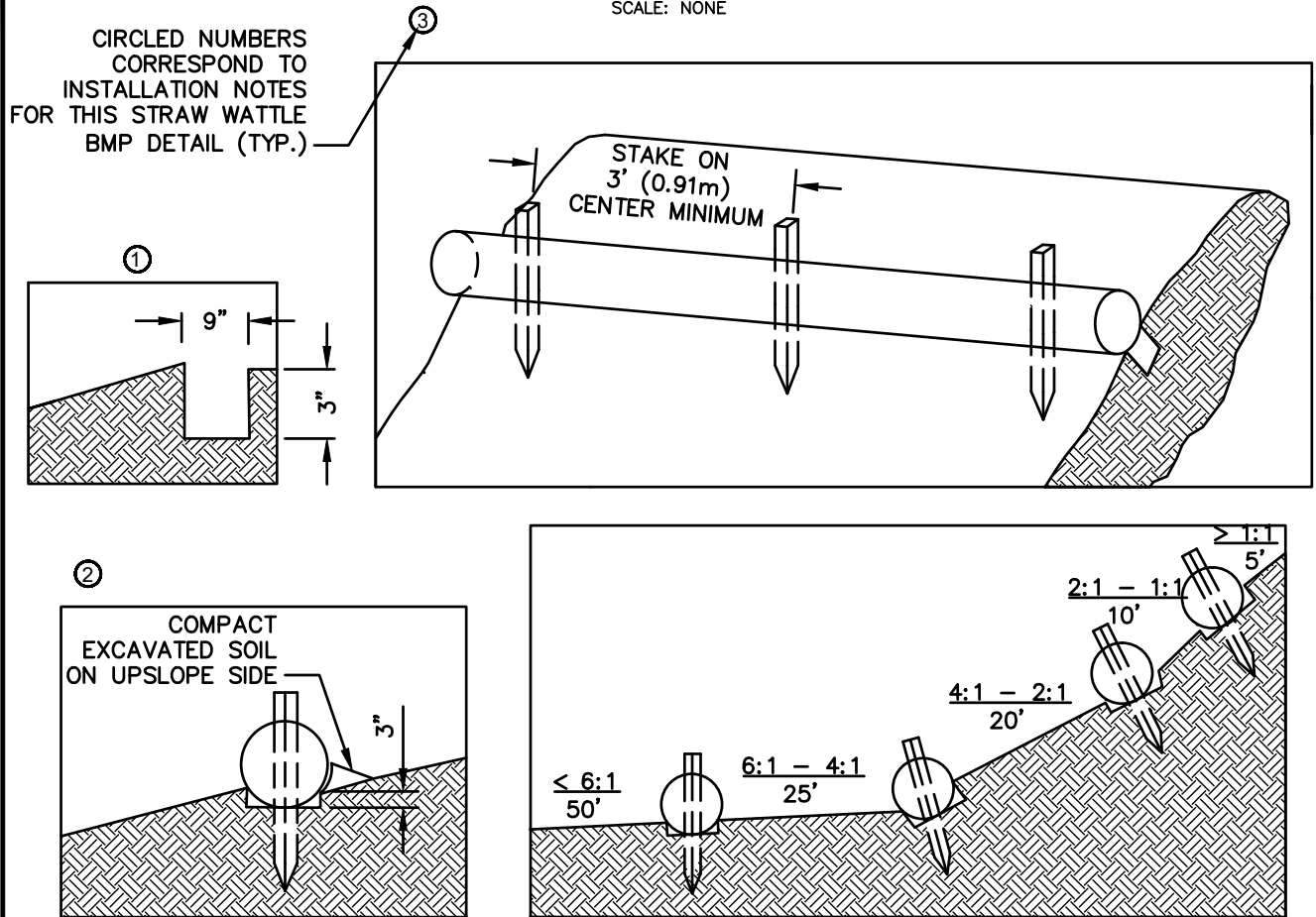
Access, Maintenance and Construction  
Best Management Practices

**Reference**

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

**BMP DETAIL**

SCALE: NONE



TYPICAL WATTLE SPACING DETAIL

**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.

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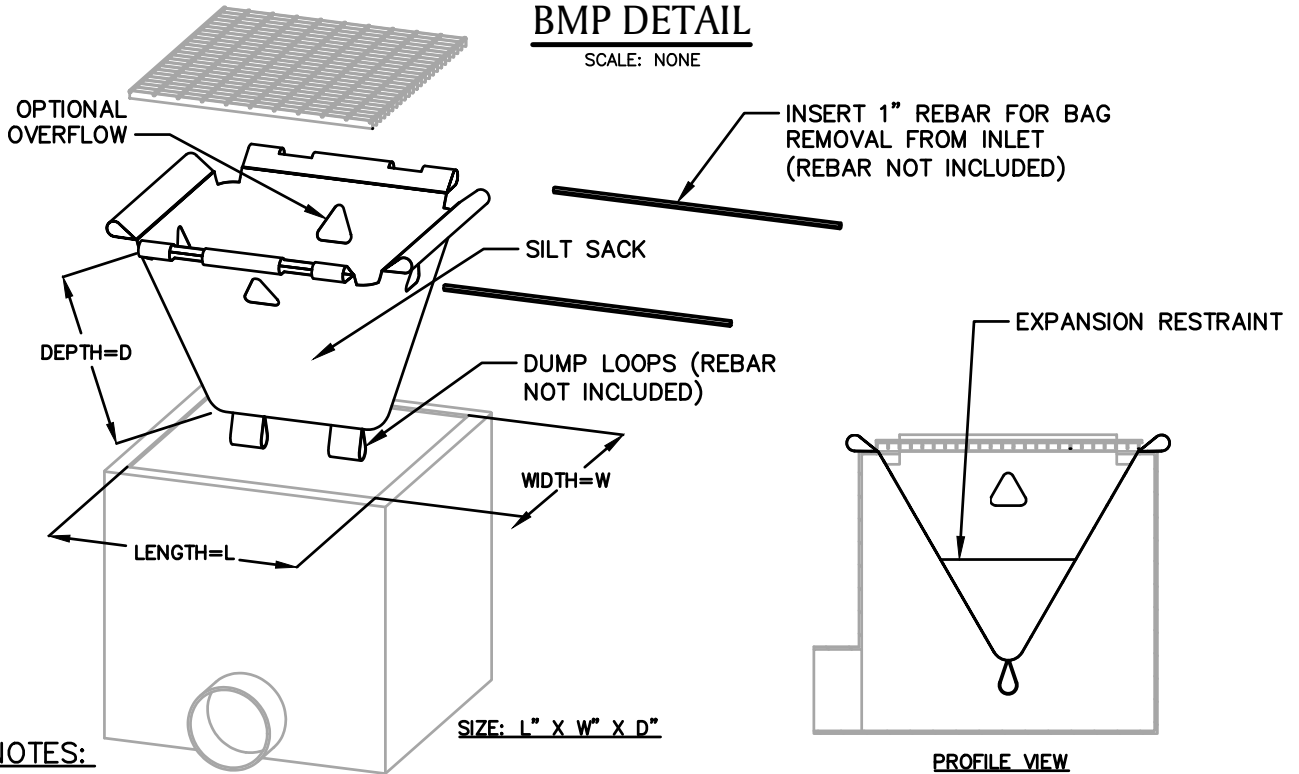
**SEC-5  
STRAW WATTLE \* (2 OF 2)**

**SUBJECT**  
Access, Maintenance and Construction  
Best Management Practices

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

**BMP DETAIL**

SCALE: NONE



**NOTES:**

1. PRODUCT TO BE SILT SACK OR APPROVED EQUAL BY NATIONAL GRID ENVIRONMENTAL SCIENTIST.
2. THE USE OF A SILT SACK OPTIONAL OVERFLOW AND OVERALL DIMENSIONS ARE TO BE COORDINATED WITH A NATIONAL GRID ENVIRONMENTAL SCIENTIST.

**BMP PICTURE**



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AA-20  
 SILT SACK \*

