NOTICE OF INTENT

Transportation Improvement Project Parker Street Bridge Replacement over Fort Pond Brook (Bridge No. A-02-010)

Acton, Massachusetts

PREPARED FOR

Town of Acton, Department of Engineering
472 Main Street
Acton, MA 01720
978.929.6620

PREPARED BY

101 Walnut Street
PO Box 9151
Watertown, MA 02471
617.924.1770

www.vhb.com

March 23, 2016

Ref: 13016.00

Acton Conservation Commission
472 Main Street
Acton, MA 01720

ATTN: Tom Tidman, Director

Re: Notice of Intent
Bride No. A-02-010
Acton, Massachusetts

Dear Commission Members:

On behalf of Acton Department of Engineering Department (the applicant), Vanasse Hangen Brustlin, Inc. (VHB) respectfully submits the attached Notice of Intent (NOI) for the proposed replacement of Bridge No. A-02-010 over Fort Pond Brook on Parker Street in Acton, Massachusetts. This NOI is filed under the Massachusetts Wetlands Protection Act (WPA) and the Town of Acton Wetlands Bylaw (the Bylaw). The proposed project will temporarily and permanently alter wetland resource areas subject to jurisdiction pursuant to the WPA and the Bylaw as described in the attached Notice of Intent Narrative.

The project has been designed to minimize impacts to wetland resources including diverting stream flows during construction to allow work to be done in the dry. During construction erosion controls will be installed to protect adjacent resources. To facilitate construction and help to expedite the work, Parker Street will be closed to traffic during the construction.

The proposed work include construction activities within the 50-foot natural vegetative setback and the 75-foot no-build setback pursuant to the Action Wetlands Projection Bylaw. The nature of the work and location requires work within these setbacks. On behalf of the Town, we respectfully request a variance from the setback provisions of the Bylaw in accordance with Section F4.6 of the Bylaw, to allow the project to proceed as described in the attached NOI. The existing bridge is in a deteriorated condition and if the proposed work is not completed, the bridge will likely be close due to public safety concerns. If the bridge is closed, Parker Street, an important north/south route in Acton, will be impacted and traffic will need to be detoured.

In compliance with the WPA and the Bylaw, notification to abutters regarding this NOI has been made by certified return receipt mail on this date. Copies of the abutter notification form and a certified list of abutters are enclosed with the NOI.

Engineers | Scientists | Planners | Designers

101 Walnut Street
PO Box 9151
Watertown, Massachusetts 02471
P 617.924.1770
F 617.924.2286

As a municipal applicant, the Town of Acton is exempt from the local and state filing fees.

Please advertise this matter for public hearing at the Commission's next scheduled meeting. Should you have any questions concerning this submittal, or require additional information please contact me at 617.607.2783.

Sincerely,

Gene F. Crouch
Senior Environmental Scientist

Attachment: Notice of Intent (4 copies and 1 electronic copy)

CC: DEP Central Region Office (filed electronically via eNOI)
Acton Department of Engineering

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Acton, Massachusetts

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March 2016

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Notice of Intent Forms

- WPA Form 3
- Fee Transmittal Form

Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands
WPA Form 3 - Notice of Intent
Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Provided by MassDEP:
MassDEP File #:
eDEP Transaction #:813664
City/Town:ACTON

A.General Information

1. Project Location:

a. Street Address	PARKER STREET		
b. City/Town	ACTON	c. Zip Code	
d. Latitude	42.45804N	e. Longitude	71.43362W
f. Map/Plat #	N/A	g.Parcel/Lot #	N/A

2. Applicant:

ė Individual ь Organization

a. First Name	COREY		b.Last Name	YORK	
c. Organization	ACTON DEPARTMENT OF ENGINEERING				
d. Mailing Address	472 MAIN STREET				
e. City/Town	ACTON	f. State	MA	g. Zip Code	01720
h. Phone Number		i. Fax		j. Email	

3.Property Owner:

ė more than one owner

a. First Name			b. Last Name		
c. Organization	TOWN OF ACTON				
d. Mailing Address	472 MAIN STREET				
e. City/Town	ACTON	f.State	MA	g. Zip Code	01720
h. Phone Number	978-929-6630	i. Fax	978-929-6340	j.Email	

4.Representative:

a. First Name	GENE		b. Last Name	CROUCH	
c. Organization	VANASSE HANGEN BRUSTLIN, INC.				
d. Mailing Address	101 WALNUT STREET				
e. City/Town	WATERTOWN	f. State	MA	g. Zip Code	02471
h.Phone Number	617-924-1770	i.Fax	617-924-2286	j.Email	gcrouch@vhb.com

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

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

6.General Project Description:

REPLACEMENT OF THE FORT POND BROOK BRIDGE ON PARKER STREET IN ACTON, MA. THE EXISTING BRIDGE WILL BE REPLACED IN KIND WITH A SECTIONAL OPEN BOTTOM BOX CULVERT. DURING CONSTRUCTION A BY PASS CHANNEL WILL DIVERT FLOWS AROUND THE WORK AREA.

7a.Project Type:

1. ė Single Family Home	2. ė Residential Subdivision
3. ė Limited Project Driveway Crossing	4. ė Commercial/Industrial
5. ė Dock/Pier	6. ė Utilities
7. ė Coastal Engineering Structure	8. ė Agriculture (eg., cranberries, forestry)
9. ь Transportation	10. ė Other

7b.Is any portion of the proposed activity eligible to be treated as a limited project subject to 310 CMR 10.24 (coastal) or 310 CMR

10.53 (inland)?

1. ☐ Yes ☐ No If yes, describe which limited project applies to this project:
2. Limited Project 310 CMR 10.53(F) MAINTENANCE AND IMPROVEMENT OF AN EXISTING PUBLIC ROADWAY.

8.Property recorded at the Registry of Deeds for:

a.County:	b.Certificate:	c.Book:	d.Page:
SOUTHERN MIDDLESEX			

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

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

☐ This is a Buffer Zone only project - Check if the project is located only in the Buffer Zone of a Bordering Vegetated Wetland, Inland Bank, or Coastal Resource Area.

2.Inland Resource Areas: (See 310 CMR 10.54 - 10.58, if not applicable, go to Section B.3. Coastal Resource Areas)

Resource Area	Size of Proposed Alteration	Proposed Replacement (if any)
a. ☐ Bank	329 1. linear feet	329 2. linear feet
b. ☐ Bordering Vegetated Wetland	1. square feet	2. square feet
c. ☐ Land under Waterbodies and Waterways	4844 1. Square feet	4844 2. square feet
	3. cubic yards dredged	
d. ☐ Bordering Land Subject to Flooding	5966 1. square feet	5966 2. square feet
	3. cubic feet of flood storage lost	4. cubic feet replaced
e. ☐ Isolated Land Subject to Flooding	1. square feet	
	2. cubic feet of flood storage lost	3. cubic feet replaced

f. ☐ Riverfront Area 12504
1. Name of Waterway (if any)

2. Width of Riverfront Area (check one)
- ☐ 25 ft. - Designated Densely Developed Areas only
- ☐ 100 ft. - New agricultural projects only
- ☐ 200 ft. - All other projects

3. Total area of Riverfront Area on the site of the proposed project 12504 square feet

4. Proposed Alteration of the Riverfront Area:

12504 a. total square feet	12504 b. square feet within 100 ft.	0 c. square feet between 100 ft. and 200 ft.

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

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

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

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

4.Restoration/Enhancement

☐ Restoration/Replacement

If the project is for the purpose of restoring or enhancing a wetland resource area in addition to the square footage that has been entered in Section B.2.b or B.3.h above, please entered the additional amount here.

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

5.Projects Involves Stream Crossings

☐ Project Involves Streams Crossings

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

1

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

C. Other Applicable Standards and Requirements

Streamlined Massachusetts Endangered Species Act/Wetlands Protection Act Review

1. Is any portion of the proposed project located in **Estimated Habitat of Rare Wildlife** as indicated on the most recent Estimated Habitat Map of State-Listed Rare Wetland Wildlife published by the Natural Heritage of Endangered Species program (NHESP)?

a. ¢ Yes ƀ No

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

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

b. Date of map:FROM MAP VIEWER

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

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

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

(a) within Wetland Resource Area percentage/acreage

(b) outside Resource Area percentage/acreage

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

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

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

b. ¢ Photographs representative of the site

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

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

d. ¢ Vegetation cover type map of site

e. ¢ Project plans showing Priority & Estimated Habitat boundaries

d. OR Check One of the following

1. ¢ Project is exempt from MESA review. Attach applicant letter indicating which MESA exemption applies. (See 321 CMR 10.14, http://www.mass.gov/eea/agencies/dfg/dfw/laws-regulations/cmr/321-cmr-1000-massachusetts-endangered-species-act.html#10.14; the NOI must still be sent to NHESP if the project is within estimated habitat pursuant to 310 CMR 10.37 and 10.59.)

2. ¢ Separate MESA review ongoing.

a. NHESP Tracking Number

b. Date submitted to NHESP

3. ¢ Separate MESA review completed.
Include copy of NHESP "no Take" determination or valid Conservation & Management Permit with approved plan.

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

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

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

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

   Division of Marine Fisheries - Southeast Marine Fisheries Station
   Attn: Environmental Reviewer
   1213 Purchase street - 3rd floor
   New Bedford, MA 02740-6694

   North Shore - Hull to New Hampshire:

   Division of Marine Fisheries - North Shore Office
   Attn: Environmental Reviewer
   30 Emerson Avenue
   Gloucester, MA 01930

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

3. Is any portion of the proposed project within an Area of Critical Environmental Concern (ACEC)?

   a. ☐ Yes ☐ No

   If yes, provide name of ACEC (see instructions to WPA Form 3 or DEP Website for ACEC locations).
   Note: electronic filers click on Website.

   b. ACEC Name

4. Is any portion of the proposed project within an area designated as an Outstanding Resource Water (ORW) as designated in the Massachusetts Surface Water Quality Standards, 314 CMR 4.00?
   a. ☐ Yes ☐ No

5. Is any portion of the site subject to a Wetlands Restriction Order under the Inland Wetlands Restriction Act (M.G.L.c. 131, § 40A) or the Coastal Wetlands Restriction Act (M.G.L.c. 130, § 105)?
   a. ☐ Yes ☐ No

6. Is this project subject to provisions of the MassDEP Stormwater Management Standards?
   a. ☐ Yes, Attach a copy of the Stormwater Report as required by the Stormwater Management Standards per 310 CMR 10.05 (6)(k)-(q) and check if:
      1. ☐ Applying for Low Impact Development (LID) site design credits (as described in Stormwater Management Handbook Vol.2, Chapter 3)
      2. ☐ A portion of the site constitutes redevelopment
      3. ☐ Proprietary BMPs are included in the Stormwater Management System
   b. ☐ No, Explain why the project is exempt:
      1. ☐ Single Family Home
      2. ☐ Emergency Road Repair
      3. ☐ Small Residential Subdivision (less than or equal to 4 single-family houses or less than or equal to 4 units in multi-family housing project) with no discharge to Critical Areas.

D. Additional Information

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

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

1. b 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. b Plans identifying the location of proposed activities (including activities proposed to serve as a Bordering Vegetated Wetland [BVW] replication area or other mitigating measure) relative to the boundaries of each affected resource area.
3. e 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. b List the titles and dates for all plans and other materials submitted with this NOI.

a. Plan Title: **b. Plan Prepared By:** **c. Plan Signed/Stamped By:** **c. Revised Final Date:** **e. Scale:**

5. e If there is more than one property owner, please attach a list of these property owners not listed on this form.
6. e Attach proof of mailing for Natural Heritage and Endangered Species Program, if needed.
7. e Attach proof of mailing for Massachusetts Division of Marine Fisheries, if needed.
8. b Attach NOI Wetland Fee Transmittal Form.
9. b Attach Stormwater Report, if needed.

E.Fees

1.

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

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

2. Municipal Check Number	3. Check date
4. State Check Number	5. Check date
6. Payer name on check: First Name	7. Payer name on check: Last Name

F.Signatures and Submittal Requirements

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

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

1. Signature of Applicant	3/22/16 2. Date
3. Signature of Property Owner(if different)	4. Date
5. Signature of Representative (if any)	3/22/16 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 Section C, Items 1-3, above, refer to that section and the Instructions for additional submittal requirements.

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

Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands
WPA Form 3 - Notice of Wetland FeeTransmittal Form
Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Provided by MassDEP:
MassDEP File #:
eDEP Transaction #:813664
City/Town:ACTON

A. Applicant Information

1. Applicant:

a. First Name	COREY		b.Last Name	YORK	
c. Organization	ACTON DEPARTMENT OF ENGINEERING				
d. Mailing Address	472 MAIN STREET				
e. City/Town	ACTON	f. State	MA	g. Zip Code	01720
h. Phone Number		i. Fax		j. Email	

2.Property Owner:(if different)

a. First Name			b. Last Name		
c. Organization	TOWN OF ACTON				
d. Mailing Address	472 MAIN STREET				
e. City/Town	ACTON	f.State	MA	g. Zip Code	01720
h. Phone Number	9789296630	i. Fax	9789296340	j.Email	

3. Project Location:

a. Street Address	PARKER STREET	b. City/Town	ACTON

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

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

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

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

B. Fees

Activity Type	Activity Number	Activity Fee	RF Multiplier	Sub Total
	City/Town share of filling fee		State share of filing fee	Total Project Fee
	$0.00		$0.00	$0.00

AFFIDAVIT OF SERVICE

Under the Massachusetts Wetlands Protection Act

(to be submitted to the Massachusetts Department of Environmental Protection and the Conservation Commission when filing a Notice of Intent)

I, Gene F. Crouch, hereby certify under the pains and penalties of perjury that on March 24, 2016 (*date*) I gave notification to abutters in compliance with the second paragraph of Massachusetts General Laws Chapter 131, Section 40, and the DEP Guide to Abutter Notification dated April 8, 1994, in connection with the following matter:

A Notice of Intent filed under the Massachusetts Wetlands Protection Act by Acton Engineeing Dept. with the Acton Conservation Commission on March 23, 2016 (*date*) for property located at Parker Street (*project location*), Acton.

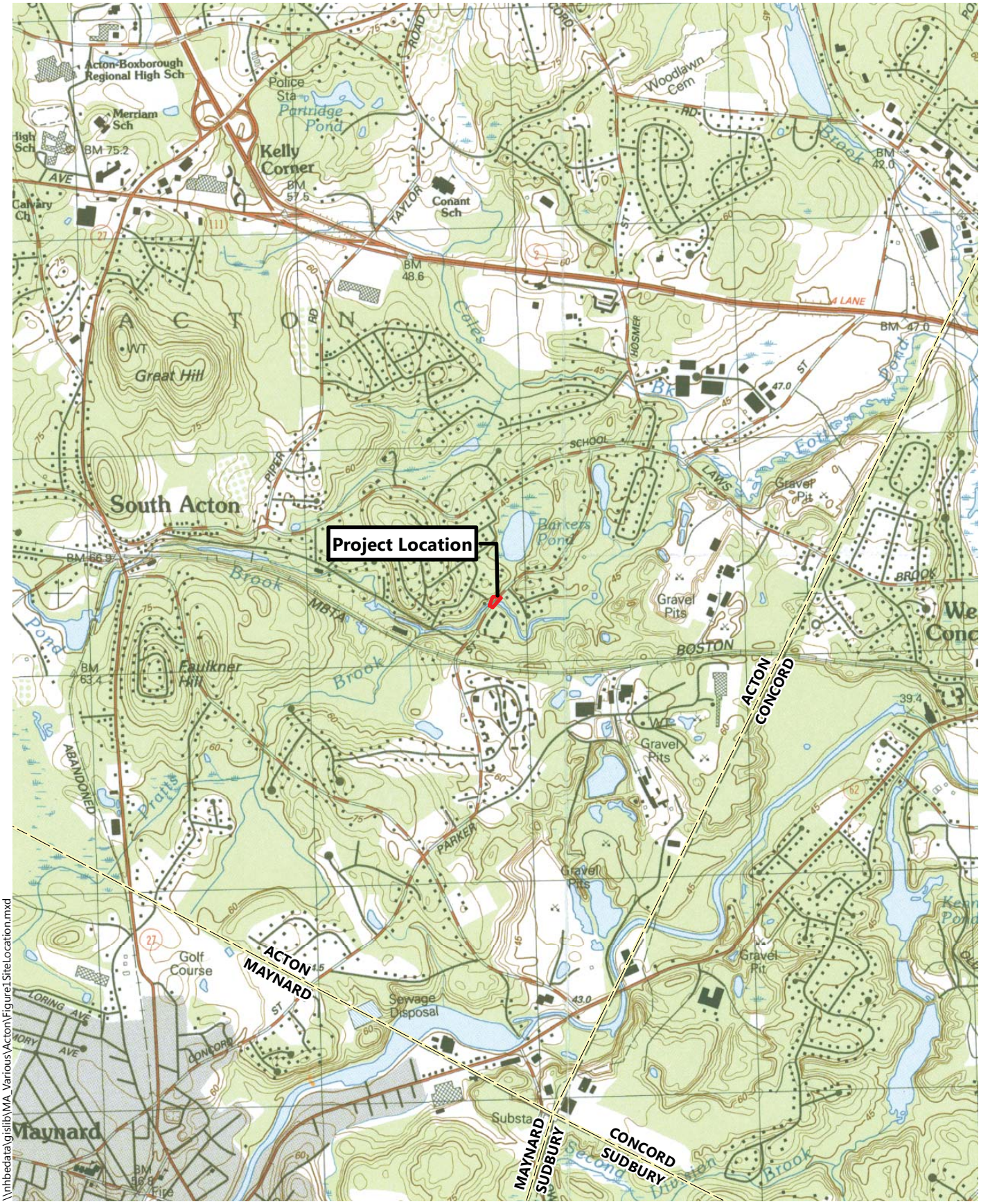
The form of the notification, and a list of the abutters to whom it was given and their addresses, are attached to this Affidavit of Service.

Gene F. Crouch
Name

3/23/2016
Date

Notice of Intent Figures

- Figure 1 – USGS Locus Map
- Figure 2 – Aerial Map
- Figure 3 –NHESP Map
- Figure 4 – FEMA Map



\\nhbedata\gislib\MA_Various\Acton\Figure1SiteLocation.mxd

0 1000 2000 4000 Feet

Legend

Project Location

Town Boundaries

Bridge Replacement | Acton, Massachusetts

Site Location Map

Clover Hill Rd and Parker St

Source: MassGIS,ArcGIS Online,VHB

\\nhbedata\gislib\MA_Various\Acton\Figure2Aerial.mxd

0 50 100 200 Feet

Legend

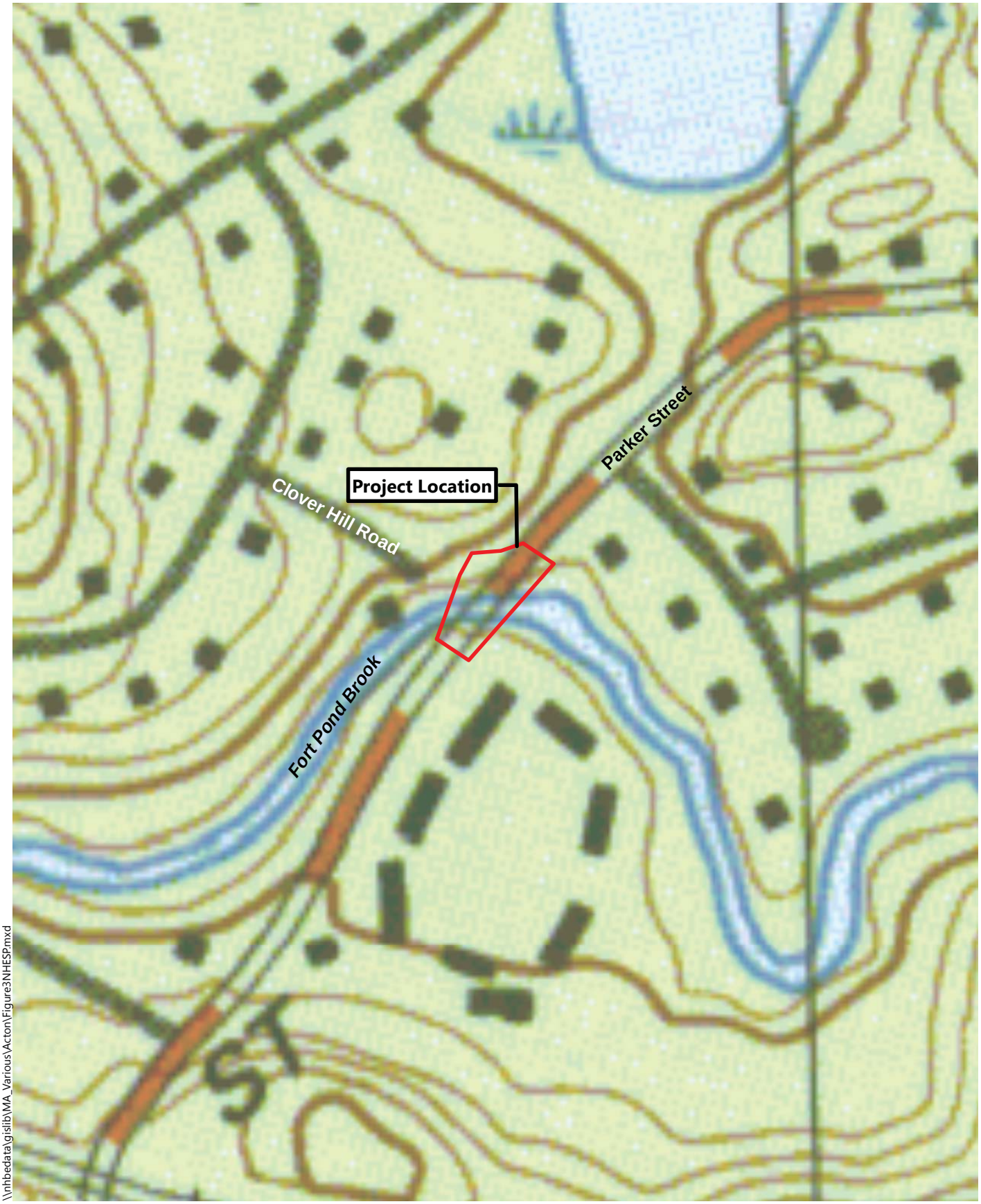
Project Location

Bridge Replacement | Acton, Massachusetts

Aerial Map

Clover Hill Rd and Parker St

Source: MassGIS,ArcGIS Online,VHB



\\nhbedata\gislib\MA_Various\Acton\Figure3NHESP.mxd

0 100 200 400 Feet

Bridge Replacement | Acton, Massachusetts

Legend

- Project Location
- Certified Vernal Pool (None Present)
- NHESP Priority & Estimated Habitat (None Present)

NHESP Map

Clover Hill Rd and Parker St

Source: MassGIS,ArcGIS Online,VHB

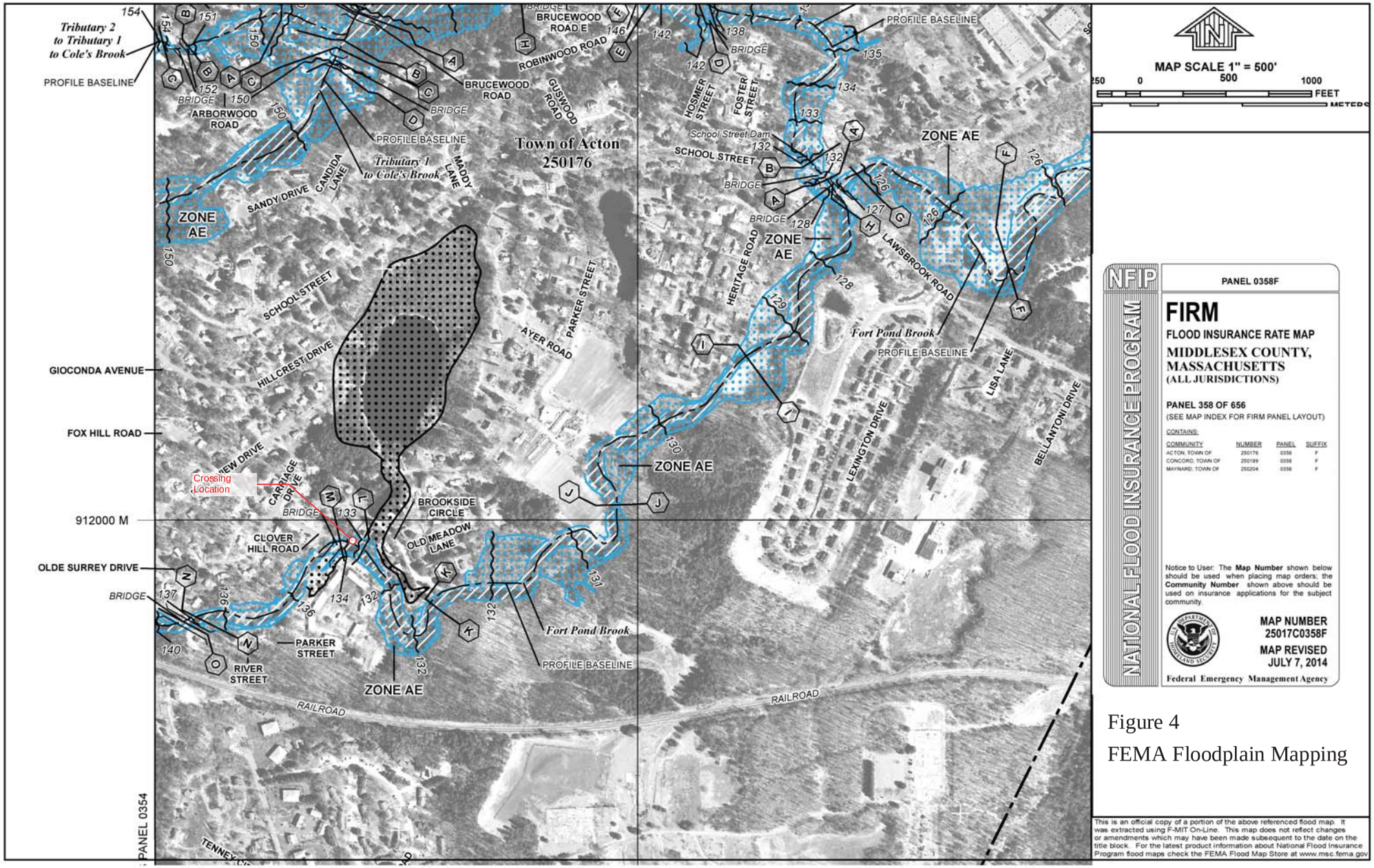


Figure 4

FEMA Floodplain Mapping

Attachment A
Notice of Intent Narrative

Attachment A - Notice of Intent Narrative

On behalf of the Town of Acton, Vanasse Hangen Brustlin, Inc. (VHB) respectfully submits this Notice of Intent (NOI) pursuant to the Massachusetts Wetlands Protection Act (WPA) (MGL Chapter 131, Section 40) and its implementing regulations (310 CMR 10.00) and the Town of Acton Wetlands Protection Bylaw (Chapter F) and its implementing rules and regulations.

Introduction

The Town of Acton, Department of Engineering is proposing the replacement of Bridge No. A-02-010, which carries Parker Street over Fort Pond Brook in the Town of Acton, Massachusetts (Figures 1 and 2, USGS Locus Map and Aerial Map, respectively). The overall project involves the replacement of the existing single corrugated steel arch bridge with a precast concrete arch structure that is approximately 17 feet wide and 40 feet long. Replacement of the bridge will be the same size and will include reconstruction of approximately 400 linear feet of Parker Street, 50 linear feet of Clover Hill Road and 200 linear feet of Fort Pond Brook are encompassed in the project.

The proposed work will occur within a jurisdictional area of the Massachusetts Wetlands Protection Act and the Acton Wetlands Protection Bylaw ("the Bylaw"). The Proposed Project is a "limited project" as it involves the reconstruction of a bridge structure on a public roadway (310 CMR 10.53(3)(f)). Although the project qualifies for limited project status, all applicable performance standards listed in the Wetlands Protection Act Regulations will be met to maximum extent practicable.

The proposed improvements to the Project are necessary in order to facilitate public safety and to repair the existing deteriorated bridge, which is at risk of being closed to public use.

Wetland resource areas will be protected from impacts during construction through the implementation of an erosion and sedimentation control program. This program includes provisions to minimize areas of disturbance through phasing and sequencing, limit erosion through stabilization, and prevent sediment from leaving the site by installing structural controls. Runoff generated from the project will be collected and treated in accordance with design guidelines[1] developed by Department of Environmental Protection (DEP) and standards contained in the WPA Regulations.

The project consists of replacement of a bridge carrying a public roadway across Fort Pond Brook. Replacement of the bridge requires that work be conducted within the 50-foot natural vegetative setback

[1] DEP, 2008. *Massachusetts Stormwater Handbook.*

and the 75-foot no-build setback regulated pursuant to the Bylaw. The project cannot be completed and avoid these setbacks. As part of this Notice of Intent, we respectfully request a waiver from the provisions of the Acton Wetland Protection Bylaw to allow alterations within these setbacks and allow the bridge to be replaced. If not replaced, the bridge will continue to deteriorate and will eventually be close due to public safety issues.

Site Description

The proposed project area is located along Parker Street in Acton, Massachusetts. The project extent includes approximately 400 linear feet along Parker Street centered on the bridge, 200 linear feet of Fort Pond Brook centered on the bridge and 50 linear feet of Clover Hill Road. The Limit of paving runs from Sta. 2+50.00 through Sta. 4+33.00 on Parker Street and extends on Clover Hill Road to Sta. 0+75.00. Existing conditions and resource area boundaries within the project site are illustrated on the site plans in Attachment B.

The work is planned along a segment of Parker Street that is bordered by residential housing throughout the entire extent of the Project. Heading south southwest on Parker Street provides access to Concord Street in Maynard, MA which connects to Brown Street/ Rte. 27. Heading north northeast on Parker Street connects to School Street in Acton, MA.

According to the regional Natural Resources Conservation Service (NRCS) soil survey[2], soils mapped at the site are predominantly Saco mucky silt loam. Elevations range from approximately 138.70 feet at Sta. 4+33.00 to Sta. 136.75 feet at Sta. 2+50.00 (NAVD 88). The roadsides consist of mowed lawn, undeveloped trees, shrubs, driveways, and paved parking areas.

According to the most recent edition of the Massachusetts Natural Heritage Atlas[3] (October 2008), there are no mapped polygons of state listed estimated habitats of rare wildlife or priority habitat of rare species (Figure 3: NHESP Mapping). The work area is not located within an Area of Critical Environmental Concern (ACEC) or any areas designated as Outstanding Resource Water[4].

The Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM)[5] produced for Middlesex County, Massachusetts indicates that Fort Pond Brook at the Project location falls within a base flood area and was mapped as Zone AE (NAVD 1988) (Figure 4: FEMA Mapping).

[2] USDA Natural Resources Conservation Service - Web Soil Survey September 28, 2015. *Soil Survey of Plymouth County, Massachusetts.*
[3] NHESP, 2008. *Massachusetts Natural Heritage Atlas.* 13th Edition.
[4] Designated Outstanding Resource Waters of Massachusetts; MassDEP 1990.
[5] Federal Emergency Management Agency, 1982. *FIRM, Worcester County, Massachusetts.* Map Number 2503150004B.

Wetland Resource Areas

VHB wetland scientists investigated the Project and adjacent properties on April 8, 2015 in accordance with methods developed by the DEP[6] and the U.S. Army Corps of Engineers[7]. The following sections of this narrative describe the findings of the resource areas that are regulated under the WPA Regulations and the Bylaw. Resource areas within the project site are mapped on the site plans located in Attachment B.

The state-regulated wetland resource areas identified within the project area include Bank, Land Under Waterbodies and Waterways (LUWW), Bordering Land Subject to Flooding (BLSF), Riverfront Area (RA) and Buffer Zone (BZ) (Table 1). These wetland resource areas are defined under the WPA Regulations (310 CMR 10.00) as follows:

- **Bank**: As defined by 310 CMR 10.54 (2), a Bank is the portion of the land surface, which normally abuts and confines a water body. The upper boundary of Bank is the first observable break in slope.
- **Land Under Waterbodies and Waterways:** As defined by 310 CMR 10.56 (2), LUWW is the land beneath any creek, river, stream, pond or lake. The boundary of LUWW is the mean annual low water level.
- **Bordering Land Subject to Flooding:** As defined by 310 CMR 10.57(2)(a), BLSF is "an area with low, flat topography adjacent to and inundated by flood waters rising from creeks, rivers, streams, ponds or lakes. It extends from the banks of these waterways and water bodies; where a bordering vegetated wetland occurs, it extends from said wetland." The boundary of BLSF is the estimated maximum lateral extent of flood water which will theoretically result from the statistical 100-year frequency storm. Areas identified by FEMA to be within the 100 year floodplain are regulated as BLSF.
- **Riverfront Area**: As defined by 310 CMR 10.58 (a)(3), RF is "the area of land between a river's mean annual high-water line measured horizontally outward from the river and a parallel line located 200 feet away." The Bylaw also establishes a 200-foot buffer zone from perennial rivers and streams.
- **Buffer Zone**: As defined by 310 CMR 10.02 (b), BZ is the area 100-foot measured from areas subject under protection under M.G.L. C. 131 & 40.

Table 1 – Resource Areas

Wetland	*Type*	*Resource Areas*
1	Perennial Stream	Bank, LUWW, BLSF, RFA and BZ

Bank (310 CMR 10.54(2))

VHB scientists identified and delineated the bank of Fort Pond Brook which runs through the Project area. Fort Pond Brook (the Stream) is perennial and flows through the current single corrugated steel arch bridge. The Stream on the west side of Parker Street approaches the existing structure with a parallel orientation to Parker Street and the Banks have a steep grade. The Stream passes under Parker Street through the current

[6] DEP, 1995. *Delineating Bordering Vegetated Wetlands Under the Massachusetts Wetlands Protection Act.*
[7] USACE, 2012. *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region, Version 2.0.*

structure and continues west away from Parker Street. The banks of the Stream east of Parker Street are more gradual and the stream widens noticeably.

Land Under Waterways & Waterbodies (LUWW) (310 CMR 10.56(2))

Land Under Water Bodies and Waterways consists of the stream channel between the Banks. The stream channel is a moderate gradient channel with a boulder, cobble and gravel substrate. Water is generally less than one foot deep, but during storms can over top the roadway with several feet of water depth. The edge of water as located by survey was assumed to be mean low water and the limit of LUWW.

Bordering Land Subject to Flooding (310 CMR 10.57)

The FEMA FIRM produced for Middlesex County indicates that Fort Pond Brook, has been mapped as a Special Flood Hazard Areas (SFHAs) and supports a 100-year floodplain. Fort Pond Brook also has been mapped with a floodway through the project area (Figure 4). The base flood elevation for the 100-year floodplain at the project site is approximately 134 feet (NAVD). Although depicted as overtopping the road on FEMA floodplain mapping, the floodplain elevation will pass through the bridge, based on FEMA floodplain elevations.

Riverfront Area (310 CMR 10.58(2))

The Riverfront Area was identified for Fort Pond Brook within the Project area, measured from the delineated bank flags. All of the proposed work area is within 100 feet of the Bank of the Fort Pond Brook and therefore the entire work area is within the 0 to 100-foot Riverfront Area. The Riverfront Area consists of paved roadways Parker Street and the intersection with Clover Hill Road, mowed roadway shoulders, and vegetated steep slopes leading down to the stream channel.

Buffer Zone (310 CMR 10.02(2)(b))

The entire Project's limit of disturbance falls within the Buffer Zone of Fort Pond Brook, a perennial stream which passes under the bridge being reconstructed. The segments of construction activities within the buffer zone involve the bridge replacement, temporary diversion channel, stormwater improvements, grading and paving followed by final site stabilization.

Work Description

The project involves the replacement of the existing metal arch bridge with a pre-cast concrete box culvert. The existing bridge is in poor condition and is in urgent need of repair. Replacement of the bridge will require closing the roadway for several weeks and demolishing the existing bridge, preparing the bed of

the Brook, placing pre-cast concrete open bottom culvert sections and constructing the headwall and a retaining wall on the downstream side. The reconstructed bridge will be approximately 17 feet wide and 40 feet long similar to the original bridge. The culvert sections will sit on concrete footings on each side. Additional stone riprap will be placed along the Banks of the brook to provide added protection of the new bridge structure.

Replacement of the bridge will require work within the stream channel. To minimize impacts, a 13-foot wide temporary bypass channel will be constructed to the south of the existing stream channel. Stream flows will be diverted to the temporary channel and a sand bag dams will across the channel upstream and downstream of the bridge will allow dewatering of the work area. Temporary support of excavation consisting of steel sheeting will be installed along both sides of the channel to limit the extent of excavation and to facilitate removal of the existing bridge and placement of the new bridge.

Within the project limits, the work will include the following construction activities:

- Road closure and detour;
- Construction of a 13-foot temporary diversion channel;
- Temporary utility relocation;
- Removal of the existing corrugated steel arch bridge;
- Construction of footings, and installation of new precast culvert and retaining;
- Installation of rip-rap for added stormwater control and stabilization throughout channel;
- Installation of new stormwater management devices which will tie into the existing stormwater system;
- Grading and surfacing a new roadway;
- Installation of guardrail with associated rip rap slopes and road shoulders, where appropriate;
- Restriping of pavement markings; and
- Placement of loam and seed along project extents where necessary for final stabilization.

The total limit of disturbance is 17,896 square feet. The Project components are illustrated on the project plans in Attachment B. Construction will occur within areas under the jurisdiction of the WPA including the Bank, LUWW, BLSF and RFA associated with Fort Pond Brook. These activates are described below and all work has been designed to comply with applicable regulations to the furthest extent practicable.

Bank (310 CMR 10.54(2))

The Banks of the Brook will altered by excavation, filling, grading, placement of riprap and replacement of the bridge. The existing field stone wing walls are deteriorated and an in-kind replacement is planned during the construction of the new bridge. The total impact to the Bank is approximately 329 linear feet, with 169 linear feet that consist of the existing bridge abutments, headwalls and field stone wing walls. Overall there will be 239 linear feet of permanent impacted Bank and 90 linear feet of temporarily impacted Bank. Permanently altered Bank will include replacement of the bridge, reconstruction of head walls and wing

walls and placement of stone stabilization upstream and downstream of the bridge. Construction of the bypass channel to convey stream flows during the replacement of the bridge represents the majority of the temporary alteration to Bank.

Land Under Waterbodies and Waterways (310 CMR 10.56(2))

The Project involves 1,417 square feet of permanent impact and 3,427 square feet of temporary impact to LUWW of Fort Pond Brook. These impacts are stabilization efforts through the installment of rip-rap along the wing walls for added stabilization, as well as rip-rap across the channel under the new structure. Activities within this jurisdiction are subject to performance standards under the WPA. Riprap will be placed in the stream bed below the new bridge and will be infilled with natural sediments previously removed from the work area. Riprap will be placed to ensure stabilization, and native stream bed materials placed on top will restore the stream bed characteristics.

Bordering Land Subject to Flooding (310 CMR 10.57)

Since most work is above the floodplain elevation, flood storage capacity will not be reduced long term and the construction of the temporary diversion channel will handle stream flow during the active construction. In total 5,965.5 square feet of BLSF area will be involved in the limits of disturbance of the project.

Riverfront Area (310 CMR 10.58(2))

Work associated with limits of pavement will result in 6,573 square feet of permanent impact. The total temporary impacts to the Riverfront will be 12,504 square feet. The temporary diversion channel will result in 762 square feet of temporary impact within the Riverfront Area. This area excludes the road surface area.

The permanent and temporary impacts to the wetland resources is provided in Table 2.

Table 2 – Impact Areas

Resource Area	***Total Impact Area***	***Permanent Impact***	***Temporary Impact***
Bank	329 ln. ft.	239 ln. ft.	90 ln. ft.
Land Under Waterbodies and Waterways	4,844 sq. ft.	1,417 sq. ft.	3,427 sq. ft.
Bordering Land Subject to Flooding	5,966 sq. ft.	0 sq. ft.	5,966 sq. ft.
Riverfront Area 0-100	12,504 sq. ft.	6,573 sq. ft.	5,931 sq. ft.

Source: VHB

Work in Buffer Zone

The segments of construction activities within the buffer zone involve the bridge replacement, temporary diversion channel, stormwater improvements, grading and paving followed by final site stabilization. Work within the buffer zone will include the 13 foot temporary diversion channel. The installation of Support of Excavation (SOE) structures will be implemented for structural support of the temporary channel. Other buffer zone work will include reconstruction of a granite block wing wall, extending existing drainage pipes through the reconstructed wing walls.

Following completion of the structural components above, backfill activities and compaction around the new structure will take place. Installation of rip-rap along the wing-walls and within the channel is proposed for additional stabilization and long term protection of the structure. Flow will be returned to the original channel and the temporary channel will be filled, compacted and the temporary steel sheeting removed. Grading and filling of the road surface as needed to meet final grade will occur and paving, re-striping and installation of guardrails will be completed. Slopes disturbed by the construction activities will be loamed and seeded to meet final stabilization requirements.

The reconstruction of Bridge No. A-02-010 on Parker Street, an existing and well established roadway without impacts to buffer zones is not possible or practical for this project. Re-alignment of the existing roadway or bridge would result in significantly higher impact to resources. Relocation of the roadway would also be considerably more costly to obtain the necessary new right-of-way and the cost to construct a new roadway. A new roadway on new alignment would also have a significant impact on abutting landowners that would become disconnected from the roadway and potentially isolated. Therefore, any alternative to avoid resource impacts beyond those incorporated in the plan was not a practicable alternative.

Work within Acton Bylaw Setbacks

Since the project area crosses a stream channel, work will be conducted within the 50-foot natural vegetative setback and the 75-foot no-build setback. The project consists of replacement of a bridge carrying a public roadway across Fort Pond Brook. Replacement of the bridge requires that work be conducted within the 50-foot natural vegetative setback and the 75-foot no-build setback. The project could not be completed and avoid these setbacks. We respectfully request a waiver from the provisions of the Acton Wetland Protection Bylaw to allow alterations within these setbacks and allow the bridge to be replaced. If not replaced, the bridge will continue to deteriorate and will eventually be close due to public safety issues.

Mitigation Measures

The Applicant is proposing a suite of mitigation measures to prevent short- and long-term impacts to the wetland resources within the Project limits and in the immediate area. Proposed mitigation measures include sediment and erosion controls, structural practices and non-structural practices as described below.

Erosion and Sediment Control

During construction an erosion and sedimentation control program will be used to minimize temporary impacts to wetland resource areas. The program incorporates Best Management Practices (BMPs) specified in guidelines developed by the DEP[8] and the U.S. Environmental Protection Agency (EPA)[9]. Erosion and sediment controls are mapped in the site plans located in Attachment B.

Proper implementation of the erosion and sedimentation control program will:

- minimize exposed soil areas through sequencing and temporary stabilization;
- place structures to manage stormwater runoff and erosion; and,
- establish a permanent vegetative cover or other forms of stabilization as soon as practicable.

The following sections describe the controls that will be used and practices that will be followed during construction. These practices comply with criteria contained in the NPDES General Permit for Discharges from Large and Small Construction Activities issued by the EPA.

Non-Structural Practices

Non-structural practices to be used during construction may include temporary stabilization, permanent seeding, pavement sweeping and dust control. These practices will be initiated as soon as practicable in appropriate areas at the site additional details are below.

Temporary Stabilization
Any areas of exposed soil or stockpiles that will remain inactive for more than 14 days will be protected with a mulch stabilization product. Steeper slopes (greater than 10 percent) will be covered with a bonded fiber matrix according to the recommendations provided by the manufacturer.

In the event that heavy rain is forecast (more than 2 inches over a 24 hour period), slopes that are not stabilized may be treated with a polyacrylamide (PAM), a non-toxic substance that promotes soil bonding. The PAM shall be applied in powder or liquid form in accordance with the recommendations provided by the manufacturer.

Temporary Seeding
If conditions allow, a temporary vegetative cover will be established on areas of exposed soils (including stockpiles) that remain un-stabilized for a period of more than 60 days. The seeded surfaces will be covered with a mulch or bonded fiber matrix as described above. The seed mix shall include a blend of rapid germinating grasses that are indigenous to central Massachusetts.

[8] DEP, 1997. *Massachusetts Erosion and Sediment Control Guidelines for Urban and Suburban Areas: A Guide for Planners, Designers, and Municipal Officials.*
[9] EPA, 2007. *Interim Developing Your Stormwater Pollution Prevention Plan: A Guide for Construction Sites*. Office of Water. Report EPA 833-R-060-04.

Permanent Seeding
Upon completion of final grading, any areas not covered by pavement, other forms of stabilization, or other methods of landscaping will be seeded. The mix will be covered with mulch or bonded fiber matrix as described above.

Pavement Sweeping
Parker Street from both directions leading to the site and Clover Street shall be swept as needed during construction. The sweeping program will remove sediment and other contaminants directly from paved surfaces before their release into stormwater runoff. Pavement sweeping has been demonstrated to be an effective initial treatment for reducing pollutant loading into stormwater[10]. Once construction has been completed, sweeping at the Project site will occur as required under the Operation and Maintenance Plan.

Dust Control
The erosion and sediment control program includes provisions to minimize the generation of dust during dry and windy conditions. When necessary, larger areas of exposed soil will be wetted to prevent wind-borne transport of fine grained sediment. Enough water shall be applied to wet the upper 0.5 inches of soil. The water will be applied as a fine spray in order to prevent erosion.

Structural Practices

Structural erosion and sedimentation controls to be used on the site include barriers, catch basin inlet protection as needed and rip rap stabilization techniques.

Erosion Control Barriers
Prior to any ground disturbance, an approved erosion control barrier will be installed at the down gradient limit of work as specified in the attached drawings. As construction progresses, additional barriers may be installed around the base of stockpiles and other erosion prone areas, as needed. The barriers will be entrenched into the substrate to prevent underflow.

If sediment has accumulated to a depth which impairs proper functioning of the barrier, it will be removed by hand or by machinery operating upslope of the barriers. This material will be either reused in the Project area or disposed of at a suitable offsite location. Any damaged sections of the barrier will be repaired or replaced immediately upon discovery.

Catch Basin Inlet Protection
The inlets of existing and proposed catch basins will be protected from sediment inflow during the work period by surrounding them with a barrier of staked straw bales or by installing Silt Sacks®. If straw bales are used, a layer of non-woven filter fabric shall be placed beneath the grate of each basin. If sediment has collected behind the barrier or in the Silt Sack® to a point where it impairs proper functioning, it will be removed and will be either reused onsite or disposed of at a suitable offsite location.

[10] U.S. Environmental Protection Agency, 1979. *Demonstration of Nonpoint Pollution Abatement Through Improved Street Cleaning Practices.*

Maintenance of Erosion & Sedimentation Control Devices

- The contractor or subcontractor will be responsible for implementing and maintaining each control shown on the Construction Plan Sheets;
- The onsite contractor will inspect all sediment and erosion control structures periodically and after each rainfall event. Records of the inspections will be prepared and maintained on-site by the contractor;
- Sediment shall be removed from behind barriers if greater than 6-inches deep or as needed;
- Damaged or deteriorated items will be repaired immediately upon discovery

Construction Sequencing Measures

The Project will be sequenced in two stages (Stage 1 and 2, respectively). The following staging notes are as follows:

Stage 1

1. Implement full roadway closure;
2. Install erosion control measures;
3. Remove and reset utility poles;
4. Temporary relocate the utility lines;
5. Install sand bags along bank for excavation of proposed temporary diversion channel;
6. Install temporary support of excavation (SOE) along proposed temporary channel and behind northern headwall of existing bridge;
7. Excavate material from the temporary diversion channel;
8. Set up sedimentation basin and dewatering measures; and
9. Maintain temporary drainage during construction staging.

Stage 2

1. Retain roadway closure;
2. Install temporary diversion sand bags at upstream and downstream ends of culvert and redirect stream flow;
3. Use dewatering pumps and sedimentation basin to keep work zone dry;
4. Excavate and demolish existing bridge structure;
5. Excavate and install proposed culvert, wing walls and footings; and

6. Remove the temporary diversion sand bags at upstream and downstream ends and allow stream flow through the newly constructed culvert, followed be backfilling the temporary channel and removing the SOE.

Stormwater Management

The existing stormwater management system within Parker Street will be maintained. An existing catch basin in the western side of the Clover Hill Road intersection will be replaced and connected to the existing piping system and a new manhole will be installed on the southeastern side of Parker Street will be installed along an existing drain pipe. The existing outfall to the stream south of the bridge on the downstream side will be replaced with a new 18-inch pipe, and the existing outfall on the north side of the stream, downstream of the bridge will be replaced with a new 15-inch pipe. During construction silt sacks or the equivalent will be installed in catch basins within the vicinity of the work. Full details and compliance with the 10 stormwater management standards cited in Section 310 CMR 10.05(6)(k) of the WPA Regulations are provided in the Stormwater Management Memorandum in Attachment D.

Regulatory Compliance

Proposed construction activities will occur within Bank, Land Under Water Bodies and Waterways, Bordering Land Subject to Flooding, Riverfront Area and Buffer Zone. The proposed construction activities include replacement of an existing bridge structure with a pre-cast concrete open bottom culvert of similar size to the existing structure on Parker Street over Fort Pond Brook. Due to the location and nature of the project, work in resource areas is unavoidable. Erosion and sedimentation controls are proposed to reduce the risk of adverse impacts to adjacent resource areas. The project qualifies as a limited project under WPA regulations at 310 CMR 10.53(4)(f) for the roadway maintenance activities.

Limited Project

The bridge replacement and associated work meets the requirements of a limited project allowing maintenance of a public way under 310 CMR 10.53(4)(f) *Maintenance and improvement of existing public roadways, but limited to widening less than a single lane, adding shoulders, correcting substandard intersections, and improving inadequate drainage systems*. The proposed bridge is part of the roadway system and repair of the bridge constitutes maintenance of the roadway. Without the proposed repairs to the bridge, the structure will continue to degrade and will eventually need to be taken out of service in consideration of public safety and the road closed.

Bank

The bridge replacement will impact 329 linear feet of bank which includes both headwalls and wing walls of the new structure. Permanent impacts to Bank will alter 239 linear feet, of which, 169 linear feet consists

of altered Bank from the existing bridge abutments, and wing walls/retaining wall along the stream bank. As demonstrated below, work proposed in Bank complies with the requirements contained in 310 CMR 10.54(4) as follows.

310 CMR 10.54(4)(a):*Where the presumption set forth in 310 CMR 10.54(3) is not overcome, any proposed work on a Bank shall not impair the following:*

1. *The physical stability of the Bank;*

   The Bank to be altered will be stabilized by wing walls, retaining walls, placement of loam and seed or placement of riprap. The protection placed along the Banks on either side of the new bridge is intended to keep the Banks stabilized to prevent erosion and protect the new bridge.

2. *The water carrying capacity of the existing channel with the Bank;*

   The original hydraulic opening of the previous structure will not be reduced, so that the same water carrying capacity of the stream is maintained.

3. *Ground water and surface water quality;*

   All impacts to ground water and surface water will be temporary. During construction a temporary diversion channel will convey stream flows around the work area to avoid impacts to water quality. Any dewatering will use a stabilized intake and discharge to a constructed dewatering stilling basin to contain velocity of discharged water and to collect any discharged sediment. Erosion controls will also be installed around the work area to contain any construction related impacts.

4. *The capacity of the Bank to provide breeding habitat, escape cover and food for fisheries;*

   The bridge replacement and the Bank stabilization measures will not alter the Banks' capacity for breeding, cover or food for the aquatic life. The installation of rip rap will provide some diversity of cover along the Banks and add to the present cover and breeding capacities of the stream.

5. *The capacity of the Bank to provide important wildlife habitat functions. A project or projects on a single lot, for which Notice(s) of Intent is filed on or after November 1, 1987, that (cumulatively) alter(s) up to 10% or 50 feet (whichever is less) of the length of the bank found to be significant to the protection of wildlife habitat, shall not be deemed to impair its capacity to provide important wildlife habitat functions. Additional alterations beyond the above threshold may be permitted if they will have no adverse effects on wildlife habitat, as determined by procedures contained in 310 CMR 10.60.*

   The project will alter 329 linear feet of Bank. Approximately 169 feet of the Bank is already altered by the field stone wing walls and retaining walls and the interior structure of the existing bridge. An additional 90 linear feet of Bank will be temporarily altered and restored by the bypass channel. Only approximately 70 linear feet of new Bank area will be altered by the project in close proximity to the bridge and Parker Street.

Land Under Water Bodies and Waterways

As demonstrated below, work proposed in Land Under Water Bodies and Waterways complies with the requires contained in 310 CMR 10.56(4).

1. *The water carrying capacity within the defined channel, which is provided by said land in conjunction with the banks*

   The cross sectional area of the stream channel will not be reduced. Therefore, the water carrying capacity of the stream will not be diminished.

2. *Ground and surface water quality*

   All impacts to ground water and surface water will be temporary. During construction a temporary diversion channel will convey stream flows around the work area to avoid impacts to water quality. Any dewatering will use a stabilized intake and discharge to a constructed dewatering stilling and filter basin to contain velocity of discharged water and to collect any discharged sediment. Erosion controls will also be installed around the work area to contain any construction related impacts.

3. *The capacity of said land to provide breeding habitat, escape cover and food for fisheries; and*

   Installation of the new bridge footings will require significant alteration to the stream bed. Restoration of the stream bottom will consist of placing rip-rap in the channel underneath the bridge to provide scour protection to protect the new bridge structure. The riprap will be overtopped with native stream bed material to restore the existing stream bed character. Work will occur during the summer months during low flow to limit all potential impacts to wildlife habitat.

4. *The capacity of said land to provide important wildlife habitat functions. A project or projects on a single lot, for which Notice(s) of intent is filed on or after November 1, 1987, that (cumulatively) alter(s) up to 10% or 5,000 square feet (whichever is less) of land in this resource area found to be significant to the protection of wildlife habitat, shall not be deemed to impair its capacity to provide important wildlife habitat functions. Additional alterations beyond the above threshold may be permitted if they will have no adverse effects on wildlife habitat, as determined by procedures established under 310 CMR 10.60.*

   The project will alter 1,417 square feet of impact to Land Under Water Bodies and Waterways, which is under the area threshold found to be significant to the protection of wildlife habitat.

   310 CMR 10.56(4)(b):Notwithstanding the provisions of 310 CMR 10.56(4)(a), the issuing authority may issue an Order in accordance with M.G.L. c. 131, § 40 to maintain or improve boat channels within Land Under Water Bodies and Waterways when said work is designed and carried out using the best practical measures so as to minimized adverse effects such as the

   The project does not involve the maintenance or improvement of a boat channel.

310 CMR 10.56(4)(c):Notwithstanding the provisions of 310 CMR 10.56(4)(a) or (b), no project may be permitted which will have any adverse effect on specified habitat sites of rare vertebrate or invertebrate species, as identified by procedures established under 310 CMR 10.59.

There are no polygons of state-listed protected species, or estimated habitat or priority habitat in the project vicinity according to the Natural Heritage and Endangered Species Program MassGIS datalayer.

Bordering land Subject to Flooding

As demonstrated below, work proposed in BLSF complies with the requirements contained in 310 CMR 10.57(4)1.

1. *Compensatory storage shall be provided for all flood storage volume that will be lost as the result of a proposed project with Bordering Land Subject to Flooding, when in the judgment of the issuing authority said loss will cause an increase or will contribute incrementally to an increase in the horizontal extent and level of flood waters during peak flows.*

   Compensatory storage shall mean a volume not previously used for flood storage and shall be incrementally equal to the theoretical volume of flood water at each elevation, up to and including the 100-year flood elevation, which would be displaced by the proposed project. Such compensatory volume shall have an unrestricted hydraulic connection to the same waterway or water body. Further, with respect to waterways, such compensatory volume shall be provided within the same reach of the river, stream or creek.

   No loss to the flood storage volume is anticipated from the proposed construction. The replacement bridge will be established at the same elevation as the existing bridge and the roadway approaches to the bridge will also be at the same elevation. Work on the slopes above the Banks of the stream channel will match existing elevations so there will be no loss of flood storage volume from the project.

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

   The work required in BLSF will not restrict flows or cause an increase in flood storage or velocity. The new bridge structure will have the same opening cross section and the same capacity to pass floodwaters as the existing bridge.

3. *Work in those portions of bordering land subject to flooding found to be significant to the protection of wildlife habitat shall not impair its capacity to provide important wildlife habitat functions. Except for the work which would adversely affect vernal pool habitat, a project or projects on a single lot, for which Notice(s) of Intent is filed on or after November 1, 1987, that (cumulatively) alter(s) up to 10% or 5,000 square feet (whichever is less) of land in this resource area found to be significant to the protection of wildlife habitat, shall not be deemed to impair its capacity to provide important wildlife*

habitat functions. Additional alterations beyond the above threshold, or altering vernal pool habitat, may be permitted if they will have no adverse effects on wildlife habitat, as determined by procedures contained in 310

The project is not within Priority Habitat or Rare Species and Estimated Habitat of Rare Wildlife according to the Natural Heritage and Endangered Species Program MassGIS datalayer.

Riverfront Area

The proposed project includes work within previously developed Riverfront Area (disturbed before August 7, 1996) associated with the Fort Pond Brook at Bridge A-02-010. Proposed work in Riverfront Area consists of replacing an existing bridge with minor roadway improvements to match the new bridge. Compliance with the Riverfront Area performance standards is provided below. The proposed work complies with the WPA regulations for Riverfront Area redevelopment (310 CMR 10.58(4)) as follows.

1. *Protection of other Resource Areas. The work shall meet the performance standards for all other resource areas within the Riverfront Area, as identified in 310 CMR 10.30 (coastal bank), 10.32 (salt marsh), 10.55 (bordering vegetated wetland), and 10.57 (Land Subject to Flooding).*

   Work will be conducted within Bank, LUWW and BLSF. Disturbed areas of these resource areas will be restored as documented above. During construction, measures such as erosion and sedimentation controls will also be undertaken to contain work activities and protect other nearby resource areas.

2. *Protection of Rare Species. No project may be permitted within the riverfront area which will have any adverse effect on specified habitat sites of rare wetland or upland, vertebrate or invertebrate species, as identified by the procedures established under 310 CMR 10.59 or 10.37, or which will have any adverse effect on vernal pool habitat certified prior to the filing of the Notice of Intent.*

   The bridge replacement project is not within any protected habitat areas mapped by NHESP.

(5) Redevelopment Within Previously Developed Riverfront Area: Restoration and Mitigation. Notwithstanding the provisions of 310 CMR 10.58(4)(c) and (d), the issuing authority may allow work to redevelop a previously developed riverfront area, provided the proposed work improves existing site conditions. Redevelopment means replacement, rehabilitation or expansion of existing structures, improvement of existing roads, or reuse of degraded or previously developed areas. A previously developed riverfront area contains areas degraded prior to August 7, 1996 by impervious surfaces from existing structures or pavement, absence of topsoil, junkyards, or abandoned dumping grounds. Work to redevelop previously developed riverfront area shall conform to the following.

(a.) At a minimum, proposed work shall result in an improvement over existing conditions of the capacity of the riverfront area to protect the interests identified in M.G.L. c. 131 § 40.

The project area is within the previous alignment of Parker Street and the original bridge footprint. The work associated with the replacement bridge will temporarily alter the Riverfront

Area but will be restored. Additionally, the design of the new bridge will improve stabilization within the Riverfront Area.

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

All stormwater management facilities within the roadway will be maintained as currently installed. A single catch basin will be replaced with a deep sump design and an existing 15-inch outfall pipe will be extended on the north side of the stream. A new man-hole and 18-inch outfall pipe will be replaced on the south side of the bridge. See Attachment C – Stormwater Management Plan for a more detailed summary.

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

The proposed work on the roadway and bridge replacement will occur within areas that are previously disturbed as a result of the existing roadway and historic land uses in the project vicinity. Work will have to be conducted up to the inner edge of the Riverfront Area to facilitate replacement of the existing bridge.

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

The bridge replacement project is being undertaken to address public safety through roadway improvements and correct a deficient bridge structure. The bridge is being replaced in the same footprint and will not expand additional area of the Riverfront. However, work will is being done within the 0 to 100-foot Riverfront Area and will extend to the Bank of the stream.

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

The proposed work in Riverfront Area will be 12,504 square feet of impact roughly 0.3 acres. The work will occur entirely within the 0-100' Riverfront Area. The Riverfront area is degraded by the existing paved roadway, the existing bridge and prior land uses. The paved roadway encompasses 6,573 square feet or approximately 53% of the overall impact area. Additionally, 265 square feet of the Riverfront will be temporarily impacted by the diversion channel, but will be restored to the original grade and condition following the bridge replacement.

(f.) When an applicant proposes restoration on-site of degraded riverfront area, alteration may be allowed notwithstanding the criteria of 310 CMR 10.58(5)(c), (d), and (e) at a ratio in square feet of at least 1:1 of restored area to area of alteration not conforming to the criteria. Areas immediately along the river

shall be selected for restoration. Alteration not conforming to the criteria shall begin at the riverfront area boundary. Restoration shall include:

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

The project consists of a bridge replacement in the same footprint. Temporarily disturbed portions of the Riverfront Area will be restored at the completion of the bridge work.

(g.) When an applicant proposes mitigation either on-site or in the riverfront area within the same general area of the river basin, alteration may be allowed notwithstanding the criteria of 310 CMR 10.58(5)(c), (d), or (e) at a ratio in square feet of at least 2:1 of mitigation area to area of alteration not conforming to the criteria or an equivalent level of environmental protection where square footage is not a relevant measure.

No off site mitigation is proposed in conjunction with the proposed project.

Buffer Zone

As identified in 310 CMR 10.53(1) of the WPA regulations, *"the issuing authority should consider the characteristics of the buffer zone, such as the presence of steep slopes, that may increase the potential for adverse impacts on resource areas. Conditions may include limitations on the scope and location of work in the buffer zone as necessary to avoid alteration of resource areas. The issuing authority may require erosion and sedimentation controls during construction, a clear limit of work, and the preservation of natural vegetation adjacent to the resource area and/or other measures commensurate with the scope and location of the work within the buffer zone to protect the interests of the Act."*

The proposed project has been designed to address these requirements. In general, work within buffer zones is permissible when said work has been designed, or can be conditioned, such that there will be no impact on the downgradient resource areas being buffered. Riprap slopes are designed to minimize the disturbance footprint associated with the roadway work and to provide stabilization. As identified in the Mitigation Measures section of this attachment, an erosion and sedimentation control program will be implemented to prevent erosion and siltation impacts to the adjacent jurisdictional resources during construction of the project.

Stream Crossing Standards

1. *Spans (bridges, 3-sided box culverts, open-bottom culverts or arches) that preserve the natural stream channel are strongly preferred.*

The proposed replacement bridge will be a three-sided box culvert with an open bottom.

2. *If a culvert, then it should be embedded:*
    a. *a minimum of 2 feet for all culverts,*
    b. *a minimum of 2 feet and at least 25 percent for round pipe culverts*
    c. *When embedment material includes elements > 15 inches in diameter, embedment depths should be at least twice the D84 (particle width larger than 84 % of particles) of the embedment material*

    As noted, the replacement bridge will be a three-sided box culvert. Embedding is not required.

3. *Spans channel width (a minimum of 1.2 times the bankfull width)*

    The proposed span will be 17 feet, same as the existing bridge structure. The existing natural channel varies between 17 to 24 feet wide. The proposed channel width of the bridge will equal the lower bankfull width of the channel. The existing bridge provides a slight modification of the floodplain, backing water up on the upstream side during the 100-year storm event. To widen the span, additional flood water would be released to downstream areas, potentially causing flooding problems. By matching the existing bridge opening, the impact to the floodplain is also matched to maintain existing flood conditions.

4. *Natural bottom substrate within the structure*

    Natural stream channel material will be placed on top of the riprap to restore the existing characteristics of the stream bed after the bridge has been replaced.

5. *Designed with appropriate bed forms and streambed characteristics so that water depths and velocities are comparable to those found in the natural channel at a variety of flows.*

    The natural bed material will be placed to provide a surface similar to the existing channel characteristics.

6. *Openness > 0.82 feet (0.25 meters)*

    The replacement bridge will be 17 feet wide and 7 feet tall or 119 square feet. The longest proposed length of the new bridge will be 54 feet and will have an openness ratio of 2.2 feet, well exceed the required openness ratio.

7. *Banks should be present on each side of the stream matching the horizontal profile of the existing stream and banks*

    Restoration of the banks and stream bed will be conducted to match the horizontal profile of the existing stream and banks.

Summary

The proposed project is a reconstruction project designed to replace a deficient bridge structure at Park Street and Fort Pond Road in Acton, Massachusetts. Work will need to be conducted within Bank, LUWW, BLSF, Riverfront Area and the buffer zone. Impacts to resource areas will be restored at the end of construction and long term impacts are anticipated to be minimal. There will be minor revisions to stormwater management with the addition of a catch basin and manhole and extension of two existing outfalls. Erosion and sedimentation controls will be employed throughout construction to prevent temporary impacts.

The applicant respectfully requests that the Acton Conservation Commission find these measures adequately protective of the interests identified in the WPA and the bylaw and issue an Order of Conditions approving the work described in this NOI and shown on the accompanying plans.

Attachment B – Abutter Information

- *Abutter Notification*
- *List of Abutters*

NOTIFICATION TO ABUTTERS
UNDER THE MASSACHUSETTS WETLANDS PROTECTION ACT
AND THE TOWN OF ACTON WETLANDS BYLAW

In accordance with the second paragraph of Massachusetts General Laws Chapter 131, Section 40 and the Town of Acton Bylaws, you are hereby notified of the following:

The Applicant: The Town of Acton Engineering Department

Address 472 Main Street Phone 978-929-6630

has filed a Notice of Intent with the Acton Conservation Commission seeking permission to remove, fill, dredge or alter an Area Subject to Protection under the Wetlands Protection Act.

Applicant's Representative: Gene Crouch (Vanasse Hangen Brustlin, Inc.)

Address 101 Walnut St. Watertown Phone 617-924-1770

The address of the property where the activity is proposed Parker Street at Fort Pond Brook

Town Atlas Plate/Map _____ Parcel/Lot _____

Project Description Replacement of the existing bridge with a new pre-cast open bottom culvert, with minor roadway repairs.

For more information please contact the Conservation Office at 978-929-6634 or email NR@acton-ma.gov. Copies of the Notice of Intent may be examined at the Conservation Office, Acton Town Hall, 472 Main Street, Acton between the hours of 9:00 A.M. and 4:30 P.M. Monday through Friday.

A Public Hearing will be held at the Acton Town Hall, 472 Main Street, on Wednesday, April 6, 2016 (date) at 8:00 P.M.

The notice of the public hearing will be published at least five (5) days in advance in the Acton edition of the *Beacon* newspaper or *Metrowest Daily News*.

NOTE: You may also contact your local conservation commission or the nearest Department of Environmental Protection Regional Office* for the information about this application or, the Wetlands Protection Act. Acton is in the Central Region. To contact DEP, call:

***DEP Central Region: 508-792-7650**
627 Main Street, Worcester MA 01608

Town of Acton
472 Main Street
Acton, MA 01720
Telephone (978) 929-6621
Fax (978) 929-6340

Brian McMullen
Principal Assessor

Parcel Location PARKER ST BRIDGE
Parcel I.D.:

Parcel ID	Location	Owner	Co-Owner	Mailing Address	City ST Zip
I3-3	95 PARKER ST	AVERETT FRANK I	C/O STEPHEN F AVERETT	95 PARKER ST	ACTON, MA 01720
H3-149	15 HILLCREST DR	STACKHOUSE JONATHAN J	STACKHOUSE MAGGIE	15 HILLCREST DR	ACTON, MA 01720
H3-150	17 HILLCREST DR	CARVALHO ANDREW J	SAYKIN ALYSON B	17 HILLCREST DR	ACTON, MA 01720
H3-151-1	6 POND VIEW DR	TOWN OF ACTON		472 MAIN STREET	ACTON, MA 01720
H3-151-2	8 POND VIEW DR	TOWN OF ACTON		472 MAIN STREET	ACTON, MA 01720
H3-151	4 POND VIEW DR	TOWN OF ACTON		472 MAIN STREET	ACTON, MA 01720
H3-152	21 HILLCREST DR	TOWN OF ACTON		472 MAIN STREET	ACTON, MA 01720
H3-159	12 GIOCONDA AV	BOCCIO ANNA J		12 GIOCONDA AVE	ACTON, MA 01720
H3-160	4 FOX HILL RD	MARBLE JUSTIN	WICKHAM ANN P	4 FOX HILL ROAD	ACTON, MA 01720
H3-163	9 POND VIEW DR	STARK DEBRA		9 POND VIEW DR	ACTON, MA 01720
H3-164	7 POND VIEW DR	BARRY RICHARD L		7 POND VIEW DR	ACTON, MA 01720
H3-174	14 GIOCONDA AV	KIRBY PATRICK J	KIRBY LISA M	14 GIOCONDA AV	ACTON, MA 01720
H3-175	3 FOX HILL RD	PRASAD ROHIT	PRASAD NEELAM	3 FOX HILL RD	ACTON, MA 01720
H3-181	35 PARKER ST	KIRSHNER LUCY H	PAULEY KENNETH E	35 PARKER ST	ACTON, MA 01720
H3-182	27 PARKER ST	YING CHAO MING	ZHOU JINGHUA	39 LEXINGTON DRIVE	ACTON, MA 01720
H3-193	55 PARKER ST	KRONGELB MALCOLM S	JUDITH A	55 PARKER ST	ACTON, MA 01720
H3-194	53 PARKER ST	KRONGELB JUDITH	KRONGELB MALCOLM	53 PARKER ST	ACTON, MA 01720
H3-195	49 PARKER ST	SUGRUE TERESA ZARBA	SUGRUE FRANK LESLIE	282 BELKNAT RD	FRAMINGHAM, MA 01701
H3-196	47 PARKER ST	ENGLISH JOHN G		47 PARKER ST	ACTON, MA 01720
H3-197	45 PARKER ST	LY VANNARIN	LY ELIZABETH	45 PARKER ST	ACTON, MA 01720
H3-198	41 PARKER ST	PRADHAN VIVEKANANDA	SARKAR KAKALI	41 PARKER ST	ACTON, MA 01720
H3-199	31 PARKER ST	RIETHEIMER ALBERT R TRUSTEE	RIETHEIMER ANGELA V TRUSTEE	31 PARKER ST	ACTON, MA 01720
H3-200	29 PARKER ST	MALO RENE	MALO KARIN	29 PARKER ST	ACTON, MA 01720
H3-215-11	2 CLOVER HILL RD	CROOK LAURA M		2 CLOVER HILL RD	ACTON, MA 01720
I3-9-C11	118 PARKER ST #11	GEREMIAS REJANE		118 PARKER ST #11	ACTON, MA 01720
I3-9-C12	118 PARKER ST #12	NICOL SARAH E		118 PARKER ST #12	ACTON, MA 01720

Town of Acton
472 Main Street
Acton, MA 01720
Telephone (978) 929-6621
Fax (978) 929-6340

Brian McMullen
Principal Assessor

Parcel Location PARKER ST BRIDGE
Parcel I.D.:

Parcel ID	Location	Owner	Co-Owner	Mailing Address	City ST Zip
I3-9-C13	118 PARKER ST #13	LOBOSCO JOHN	O'BRIEN MARGARET	90 FAWCETT ST #339	CAMBRIDGE, MA 01238
I3-9-C14	118 PARKER ST #14	WILLOUGHBY BONNIE		29 PINE RIDGE RD	STOW, MA 01775
I3-9-C15	118 PARKER ST #15	PERANI JEFFREY W		118 PARKER STREET #15	ACTON, MA 01720
I3-9-C16	118 PARKER ST #16	HARPELL DIANE POULOS + GEORGE F		626 MAIN ST	ACTON, MA 01720
I3-9-C21	118 PARKER ST #21	YOUNG LIH KUNG E	LIU ADELINE C	62 WOODLAND RD	BEDFORD, MA 01730
I3-9-C22	118 PARKER ST #22	RAMIREZ TOMAS		7 DOUGLAS AVE	MAYNARD, MA 01754
I3-9-C23	118 PARKER ST #23	MILLETT KENNETH G	MILLETT JOANNE D	21 FOREST ROAD	ACTON, MA 01720
I3-9-C24	118 PARKER ST #24	WU YANPING		118 PARKER ST #24	ACTON, MA 01720
I3-9-C25	118 PARKER ST #25	GOETEMANN UNJU S + MARK D		30 OLD SUDBURY RD	LINCOLN, MA 01773
I3-9-C26	118 PARKER ST #26	SHEA J TIMOTHY	ZHAO LIAN H	118 PARKER ST #26	ACTON, MA 01720
I3-9-C31	118 PARKER ST #31	RIHANI GHALEB		118 PARKER ST #31	ACTON, MA 01720
I3-9-C32	118 PARKER ST #32	GEEZIL EDWARD J		PO BOX 2365	LITTLETON, MA 01460
I3-9-C33	118 PARKER ST #33	KAVULA RAYMOND P		118 PARKER ST #33	ACTON, MA 01720
I3-9-C34	118 PARKER ST #34	BAKER AMR H	BAKER CHARLENE A	118 PARKER ST #34	ACTON, MA 01720
I3-9-C35	118 PARKER ST #35	BRICENO HELEN		118 PARKER ST #35	ACTON, MA 01720
I3-9-C36	118 PARKER ST #36	SANTORO PATRICIA	BAKER ANTHONY	118 PARKER ST #36	ACTON, MA 01720
H3-216	3 CLOVER HILL RD	GOODMAN HERBERT A JR	CHARI N GOODMAN	3 CLOVER HILL ROAD	ACTON, MA 01720
H3-217	63 PARKER ST	MINOR TRAVIS	MINOR REBECCA M	63 PARKER ST	ACTON, MA 01720
H3-218	57 PARKER ST	ROBBERTZ ANTHONY L	ROBBERTZ JANE F	57 PARKER ST	ACTON, MA 01720
H3-219	2 BROOKSIDE CIR	GARRITY JUDITH A TR	J.A. GARRITY NOM TR #1	2 BROOKSIDE CIR	ACTON, MA 01720
H3-220	48 PARKER ST	GUARINO SEAN L	LUONG SAMANTHA	48 PARKER ST	ACTON, MA 01720
H3-221	46 PARKER ST	HORTON HOLLY M	SAVARY RICHARD	46 PARKER ST	ACTON, MA 01720
H3-222	44 PARKER ST	KHALIN ANDREW	KHALINA ELENA	44 PARKER ST	ACTON, MA 01720
H3-223	40 PARKER ST	THANGASAMY RENGARAJAN		40 PARKER ST	ACTON, MA 01720
H3-224	34 PARKER ST	PYLE SONJA		34 PARKER ST	ACTON, MA 01720
H3-225	32 PARKER ST	NELSON ALLEN H TRUSTEE	NELSON THELMA A TRUSTEE	32 PARKER ST	ACTON, MA 01720

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Brian McMullen
Principal Assessor

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Parcel I.D.:

Parcel ID	Location	Owner	Co-Owner	Mailing Address	City ST Zip
H3-228	2 OLDE SURREY DR	LAKSHMAN PRASANNA KUMAR	SIDDARAMAIAH LAVANYA	2 OLDE SURREY DR	ACTON, MA 01720
H3-233	4 BROOKSIDE CIR	BHATNAGAR RAJIV	BHATNAGAR RACHNA	4 BROOKSIDE CIR.	ACTON, MA 01720
H3-234	4 OLD MEADOW LN	STANDLEY ROBERT T	STANDLEY JENNIFER J	4 OLD MEADOW LN	ACTON, MA 01720
H3-235	6 OLD MEADOW LN	JANUS PHILIP J	GAIL M	6 OLD MEADOW LANE	ACTON, MA 01720
H3-236	8 OLD MEADOW LN	ZHU SHUNSHAN	DING YUEYUN	8 OLD MEADOW LN	ACTON, MA 01720
H3-238-1	129-133 RIVER ST	ACTON TOWN OF		472 MAIN ST	ACTON, MA 01720
H3-238	133 RIVER ST	TOWN OF ACTON		472 MAIN STREET	ACTON, MA 01720
H3-239-1	81 PARKER ST	KOIRALA RANJEET	KOIRALA BANDANA GHIMIRA	81 PARKER ST	ACTON, MA 01720
H3-239-2	83 PARKER ST	PAGE ANDREW E		83 PARKER STREET	ACTON, MA 01720
H3-239	140 RIVER ST	CAVAGNUOLO JARED T + STEPHANIE A		140 RIVER ST	ACTON, MA 01720
H3-240	68 PARKER ST	PARKER STREET TRUST	C/O DFI	63 ATLANTIC AVE	BOSTON, MA 02110
H3-241-1	7 BROOKSIDE CIR	YORK LOUIS	EILEEN	7 BROOKSIDE CIRCLE	ACTON, MA 01720
H3-242	3 BROOKSIDE CIR	DEWIRE JANET M		3 BROOKSIDE CIRCL	ACTON, MA 01720
H3-243	5 BROOKSIDE CIR	HOGANSON DIANA		5 BROOKSIDE CIR	ACTON, MA 01720
H3-244	6 BROOKSIDE CIR	RANKIS AUSTRIS ARTHUR	SOLVEIGA SANDRA	6 BROOKSIDE CIRCLE	ACTON, MA 01720
H3-245	3 OLD MEADOW LN	WRIGHT ETHAN A	NEWMAN ARIEL N	3 OLD MEADOW LN	ACTON, MA 01720
H3-246	5 OLD MEADOW LN	ZHANG RUN	TIAN YI	5 OLD MEADOW LN	ACTON, MA 01720
H3-247	7 OLD MEADOW LN	WHITE ROBERT W	DORIS E	7 OLD MEADOW LANE	ACTON, MA 01720
H3-248	7 BROOKSIDE CIR	YORK LOUIS	EILEEN	7 BROOKSIDE CIR	ACTON, MA 01720
H3-249	8 BROOKSIDE CIR	MO RUNGANG	TANG XIYUAN TANG	8 BROOKSIDE CIR	ACTON, MA 01720
H3-250-1	7 BROOKSIDE CIR REAR	YORK LOUIS	EILEEN	7 BROOKSIDE CIRCLE	ACTON, MA 01720
H3-250-2	10 BROOKSIDE CIR	STOUCH DANIEL W	STOUCH HEATHER	10 BROOKSIDE CIR	ACTON, MA 01720
H3-250-3	10 BROOKSIDE CIR REAR	STOUCH DANIEL W	STOUCH HEATHER	10 BROOKSIDE CIR	ACTON, MA 01720
H3-250	9 BROOKSIDE CIR	NORDIC CONSTRUCTION CORP	C/O JAMES ANDERSEN	19 OLD FALLS RD	SANFORD, ME 04073
H3-251	88 PARKER ST	WR GRACE & CO	ATTN TAX DEPT	62 WHITTEMORE AVE	CAMBRIDGE, MA 02140
H4-116-2	20 PARKER ST	NELSON ALLEN H TRUSTEE	NELSON THELMA A TRUSTEE	20 PARKER ST	ACTON, MA 01720

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Principal Assessor

Parcel Location PARKER ST BRIDGE
Parcel I.D.:

Parcel ID	Location	Owner	Co-Owner	Mailing Address	City ST Zip
H4-150	34-36 INDEPENDENCE RD	WR GRACE & CO	ATTN TAX DEPT	62 WHITTEMORE AVE	CAMBRIDGE, MA 02140
I3-4K0-1	21 MEETINGHOUSE RD	DUNDERDALE DOROTHY A		21 MEETINGHOUSE ROAD #K1	ACTON, MA 01720
I3-4K0-2	19 MEETINGHOUSE RD	SOBEL MATTHEW T	SOBEL GWEN N	19 MEETINGHOUSE RD	ACTON, MA 01720
I3-4K0-3	17 MEETINGHOUSE RD	KESARLA SREEDHAR + VENKATA NEERAJA		17 MEETINGHOUSE LANE	ACTON, MA 01720
I3-4K0-4	15 MEETINGHOUSE RD	TWENTE CHARLENE E TRUSTEE	15 MEETINGHOUSE RD NOM TRUST	15 MEETINGHOUSE RD	ACTON, MA 01720
I3-4L0-1	29 MEETINGHOUSE RD	KOWAL MAURICE JR	MARY M	29 MEETINGHOUSE RD	ACTON, MA 01720
I3-4L0-2	27 MEETINGHOUSE RD	LITTLEFIELD CHARLES W		27 MEETINGHOUSE RD #L2	ACTON, MA 01720
I3-4L0-3	25 MEETINGHOUSE RD	BOUGHRUM CAROL		25 MEETINGHOUSE RD	ACTON, MA 01720
I3-4L0-4	23 MEETINGHOUSE RD	COMEAU BARBARA F TRUSTEE	23 MEETINGHOUSE RD REALTY TRU	23 MEETINGHOUSE RD	ACTON, MA 01720
I3-4M0-1	48 DRUMMER RD	MANI CHARU		48 DRUMMER RD	ACTON, MA 01720
I3-4M0-2	50 DRUMMER RD	SCOTTEN DOROTHY D		50 DRUMMER RD	ACTON, MA 01720
I3-4M0-3	52 DRUMMER RD	PETRANTO TIFFANY		52 DRUMMER RD	ACTON, MA 01720
I3-4M0-4	54 DRUMMER RD	GRABAREK ZENON	GRABAREK JADWIGA	54 DRUMMER RD	ACTON, MA 01720
I3-4N0-1	73 DRUMMER RD	KUSH NADINE Z		73 DRUMMER RD	ACTON, MA 01720
I3-4N0-2	71 DRUMMER RD	SAO SANJAY B	SAO SINDHU S	71 DRUMMER RD	ACTON, MA 01720
I3-4N0-3	69 DRUMMER RD	NIKOLAYEV DMITRY	TUROVA NATALYA	69 DRUMMER RD	ACTON, MA 01720
I3-4N0-4	67 DRUMMER RD	MARASH MURAT + LUCELLE		67 DRUMMER RD	ACTON, MA 01720
I3-4O0-1	81 DRUMMER RD	PEIRCE ALLAN W	PEIRCE SANDRA J	81 DRUMMER RD	ACTON, MA 01720
I3-4O0-2	79 DRUMMER RD	BURTSEV SERGEI	BOURTSEV ELENA	79 DRUMMER RD	ACTON, MA 01720
I3-4O0-3	77 DRUMMER RD	AYDINLIK MEHMET		77 DRUMMER RD	ACTON, MA 01720
I3-4O0-4	75 DRUMMER RD	POOLE SHANNON M	POOLE CAITLIN M	75 DRUMMER RD	ACTON, MA 01720
I3-4P0-1	89 DRUMMER RD	HAN LIQUN	JI XIAOSHEN	89 DRUMMER RD	ACTON, MA 01720
I3-4P0-2	87 DRUMMER RD	HUANG SAMUEL P + PEI-CHEN LAI		16 WINTER ST APT 28A	WALTHAM, MA 02451
I3-4P0-3	85 DRUMMER RD	GUAN RUI		85 DRUMMER RD	ACTON, MA 01720
I3-4P0-4	83 DRUMMER RD	MEYLIKHOV YURY M	IRINA V	83 DRUMMER RD.	ACTON, MA 01720
I3-4R0-1	97 DRUMMER RD	BLAKE TIMOTHY R	BLAKE JENNIFER J	97 DRUMMER RD	ACTON, MA 01720

Town of Acton
472 Main Street
Acton, MA 01720
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Brian McMullen
Principal Assessor

Parcel Location PARKER ST BRIDGE
Parcel I.D.:

Parcel ID	Location	Owner	Co-Owner	Mailing Address	City ST Zip
I3-4R0-2	95 DRUMMER RD	CARLSON MARCIA L	ALSUD THOMAS	95 DRUMMER RD	ACTON, MA 01720
I3-4R0-3	93 DRUMMER RD	LEAV ROSS B	JIANG YE	93 DRUMMER RD	ACTON, MA 01720
I3-4R0-4	91 DRUMMER RD	LOCKE CHRISTINE		91 DRUMMER RD	ACTON, MA 01720
I3-4S0-1	105 DRUMMER RD	REPUCCI STEVEN T	REPUCCI MARY LOU	105 DRUMMER RD	ACTON, MA 01720
I3-4S0-2	103 DRUMMER RD	SUN XIAOLE	TAN HONGGANG	103 DRUMMER RD	ACTON, MA 01720
I3-4S0-3	101 DRUMMER RD	BUTMAN JR WILLIAM ET UX TR	BUTMAN WILLIAM +JOANNE INV TR	101 DRUMMER ROAD	ACTON, MA 01720
I3-4S0-4	99 DRUMMER RD	RZASA CHRISTINE F TRUSTEE	HEDLUND ELIZABETH A TRUSTEE	99 DRUMMER RD	ACTON, MA 01720
I3-4T0-1	22 MEETINGHOUSE RD	US BANK NATIONAL AS TRUSTEE		3476 STATEVIEW BLVD	FORT MILL, SC 29715
I3-4T0-2	24 MEETINGHOUSE RD	MCCARTHY PAUL	C/O NANCY D LEWIS	24 MEETINGHOUSE RD	ACTON, MA 01720
I3-4T0-3	26 MEETINGHOUSE RD	HAN JUNG HO		26 MEETINGHOUSE RD	ACTON, MA 01720
I3-4T0-4	28 MEETINGHOUSE RD	BURKE JULIANNA	BURKE DENNIS S	28 MEETINGHOUSE RD	ACTON, MA 01720
I3-4U0-1	14 MEETINGHOUSE RD	SUNDBERG JESSICA		14 MEETINGHOUSE RD	ACTON, MA 01720
I3-4U0-2	16 MEETINGHOUSE RD	STEGEMAN JAMES CARL		16 MEETINGHOUSE RD	ACTON, MA 01720
I3-4U0-3	18 MEETINGHOUSE RD	ZOLOTUSKY GALINA		18 MEETINGHOUSE RD	ACTON, MA 01720
I3-4U0-4	20 MEETINGHOUSE RD	KUNDY MARY ANN		20 MEETINGHOUSE RD	ACTON, MA 01720
I3-4	38 INDEPENDENCE RD BH	WR GRACE & CO	ATTN TAX DEPT	62 WHITTEMORE AVE	CAMBRIDGE, MA 02140

Abutters and owners of land directly opposite on any public or private street or way and abutters to the abutt abutters within 1000 ft of the property line all as they appear on the most recent applicable tax list.

Town of Acton
472 Main Street
Acton, MA 01720
Telephone (978) 929-6621
Fax (978) 929-6340

Brian McMullen
Principal Assessor

Parcel Location PARKER ST BRIDGE
Parcel I.D.:

Parcel ID	Location	Owner	Co-Owner	Mailing Address	City	ST	Zip

HEARING NOTICES FOR ALL SPECIAL PERMITS MUST BE SENT TO THE PLANNING BOARD, TOWN HALL IN THE FOLLOWING TOWNS:

Boxborough, MA 01729	Maynard, MA 01754	Concord, MA 01742	Littleton, MA 01460
Carlisle, MA 01741	Stow, MA 01775	Westford, MA 01886	Sudbury, MA 01776

Brian Mcmullen 2/29/2016
Prinipal Assessors
Acton Assessors Office

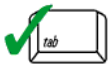
Attachment C – Stormwater Management Memorandum

Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands Program

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 8[2]
- 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.

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[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.

Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands Program

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

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 Field[1]

☐ 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.

Attachment C
Stormwater Management Report

The proposed project consists of replacement of a bridge structure and minor resurfacing of existing public roadway. The project qualifies as a redevelopment project since the project area is fully developed and consists of the maintenance of an existing public roadway. The project will rehabilitate the existing roadway surface without widening the roadway so there will be no increase in impervious area so no runoff rate calculations have been prepared. Furthermore, since there will be no increase in impervious surface, there will be no increase in rate of runoff.

The proposed project area is within a restricted roadway right-of-way in a residential area in close proximity to a regulated waterway. The well-developed nature of the corridor and adjacent resource areas eliminates opportunity to incorporate stormwater management features such as detention basins or water quality swales in the project design.

Roadway improvements will include the installation of a single detention basin and manhole and extending two existing outfall pipes. Most of the piping of the existing stormwater collection system will be reused for the project. All known stormwater collection and piping of the existing system is for street drainage only. During the construction, existing piping will be investigated for potential unknown and illicit sanitary connections.

The following lists the Stormwater Management Standards, and how this project complies with the maximum extent possible.

Standard 1: No New Untreated Discharges
No new stormwater conveyances (e.g., outfalls) may discharge untreated stormwater directly to or cause erosion in wetlands or waters of the Commonwealth.
Same rule applies for new developments and redevelopments.

No new stormwater discharges are proposed. All existing discharges are routed through catch basins, and one new deep sump catch basin will be installed. No untreated stormwater runoff will be discharged by the project.

Standard 2: Peak Rate Control and Flood Prevention
Stormwater management systems must be designed so that post-development peak discharge rates do not exceed pre-development peak discharge rates. This Standard may be waived for land subject to coastal storm flowage.
Full compliance for any component that is not a redevelopment.

The project does not include creation of additional impervious surfaces so the post-construction rates of runoff is anticipated to remain the same as existing rates.

Standard 3: Recharge to Ground Water
Loss of annual recharge to ground water shall be eliminated or minimized through the use of infiltration measures, including environmentally sensitive site design, low impact development techniques, 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 the 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.
Full compliance for any component that is not a redevelopment.

The limited right-of-way and developed nature of the surrounding land use do not allow the incorporation of infiltration facilities in the project. Furthermore, since there is no increase in impervious surfaces, the rate of infiltration will not change.

Standard 4: 80% TSS Removal
Stormwater management systems must 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. Stormwater BMPs 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.
Full compliance for any component that is not a redevelopment.
Full compliance with the long-term pollution plan requirement for new developments and redevelopments.

The project will improve existing TSS removal rates by the installation of a deep sump catch basin. However, 80 percent TSS removal rate will not be achieved. Additional measures such as detention basins and water quality swales cannot be constructed within the limited ROW and developed corridor. Maintenance of the catch basins will be conducted in accordance with the Town of Acton standard roadway maintenance practices.

Standard 5 Higher Potential Pollutant Loads (HPPL
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. If through source control and/or pollution prevention, all land uses with higher potential pollutant loads cannot be completely protected from exposure to rain, snow, snow melt and stormwater runoff, the proponent shall use the specific stormwater BMPs determined by the Department to be suitable for such use as provided in the Massachusetts Stormwater Handbook. Stormwater discharges from land uses with higher potential pollutant loads shall also comply with the requirements of the Massachusetts Clean Waters Act, M.G.L. c. 21, §§ 26-53, and the regulations promulgated thereunder at 314 CMR 3.00, 314 CMR 4.00 and 314 CMR 5.00.
Full compliance for any component that is not a redevelopment.
Full compliance with pollution prevention requirements for new developments and redevelopments.

The project area is not identified as a land use of higher potential pollutant load.

Standard 6 Critical Areas
Stormwater discharges to a Zone II or Interim Wellhead Protection Area of a public water supply and stormwater discharges near or any other critical area require the use of the specific source control and pollution prevention measures and the specific stormwater best management practices determined by the Department to be suitable for managing discharges to such area, as provided in the Massachusetts Stormwater Handbook. A discharge is near a critical area if there is a strong likelihood of a significant impact occurring to said area, taking into account site-specific factors. Stormwater discharges to Outstanding Resource Waters or Special Resource Waters shall be set back from the receiving water and receive the highest and best practical method of treatment. A "stormwater discharge," as defined in 314 CMR 3.04(2)(a)1. or (b), to an Outstanding Resource Water or Special Resource Water shall comply with 314 CMR 3.00 and 314 CMR 4.00. Stormwater discharges to a Zone I or Zone A are prohibited unless essential to the operation of the public water supply.
Full compliance for component of project that is not a redevelopment.
Full compliance with pollution prevention requirements for new developments and redevelopments.

Fort Pond Brook is a Class B water and not classified as a critical area.

Standard 7: Redevelopment
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 stormwater best management practice requirements of Standards 4, 5, and 6. Existing stormwater discharges shall comply with Standard 1 only to the maximum extent practicable. A redevelopment project shall also comply with all other requirements of the Stormwater Management Standards and improve existing conditions.
Redevelopment is defined to include maintenance and improvement of existing roadways, including widening less than a single lane, adding shoulders, correcting substandard intersections, improving existing drainage systems, and repaving;

This project consists of the replacement of an existing bridge structure and minor resurfacing around the bridge work area (with no widening). This project qualifies as a redevelopment project and complies with Standard 1 and addresses the remaining Standards to the extent possible.

Standard 8: Erosion, Sediment Control
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), must be developed and implemented.
All redevelopment projects shall fully comply with Standard 8.

An erosion and sediment control plan has been prepared, with the proposed erosion controls illustrated on the project plans.

Standard 9: Operation and Maintenance
A long-term operation and maintenance plan must be developed and implemented to ensure that stormwater management systems function as designed.
All redevelopment projects shall fully comply with Standard 9.

The Town of Acton has developed a long-term operations and maintenance plan for the roadway facilities in town. Operation and maintenance of this portion of Parker Street will be conducted in compliance with the existing maintenance plan.

Standard 10: Illicit Discharges
All illicit discharges to the stormwater management system are prohibited.
All redevelopment projects shall fully comply with Standard 10.

There will be minor improvements to the existing stormwater management system. A new catch basin will be installed, a man hole installed and two existing outfalls will be extended. The existing system services the public roadway only and is unlike to have any illicit connections. However, the existing piping systems will be checked and verified that there are no unknown or illicit connections by the contractor as part of the construction activities.

Summary

The Town of Acton, Department of Engineering is proposing the replacement of Bridge No. A-02-010, which carries Parker Street over Fort Pond Brook in the Town of Acton, Massachusetts. The overall project involves the replacement of the existing single corrugated steel arch bridge with a precast concrete arch structure that is approximately 17 feet wide and 54 feet long. Replacement of the bridge will be the same size and will include reconstruction of approximately 400 linear feet of Parker Street, 50 linear feet of Clover Hill Road and 200 linear feet of Fort Pond Brook are encompassed in the project.

No new impervious area will be created so runoff rates will remain similar to pre-construction conditions. Minor improvements will be made to the existing stormwater collection system, including installing a new catch basin, new manhole and extended two existing outfall pipes. The limited right-of-way, developed corridor and proximity to wetland resources do not allow the installation of infiltration systems or

detention basins and water quality swales. The project is classified as a redevelopment project and addresses the Massachusetts Stormwater Management Standards to the maximum extent possible.