



# Transmittal

75 State Street  
Suite 701  
Boston, MA 02019  
Tel: 617.542.6000  
Fax: 617.345.3901

**To:** Nicholas Moreno, Assist. Conservation Agent **From:** Robert Musci, P.E.  
**Organization/ Address:** City of Boston Environmental Dept  
1 City Hall Square **Date:** August 23, 2019  
Suite 709  
Boston, MA 02201

**Re:** Spectacle Island Notice of Intent for Water Fountain/Bottle Filling Station

**Job #:** [Click and type here]

**Transmittal #:** [Click and type here]

**Via:**  Mail:  Overnight:  Courier:  
 Email:  FTP:  Cloud Delivery.

**Enclosed please find:**

- For your information
- Approved
- For your review
- Approved as noted
- For your signature
- Returned to you for correction

**Message:**

Per your most recent email with Maggie Lofstedt from CDM Smith regarding the Spectacle Island Notice of Intent for the Water Fountain/ Bottle Filling Station, I am sending over a courier with the following:

1. An updated NOI document with a narrative including a discussion on the 100ft buffer to coastal beach. This includes the revised abutter letter
  - a. Two hard copies.
  - b. An Electronic Copy – (Attached)
2. Copies of the updated water bottle/ filling station drawing. Includes existing vs. proposed grades with the resource areas (LSCSF, Coastal Beach, Coastal Bank and buffer zone) delineated on all sheets. Note – Proposed grades will NOT change from existing. This is noted on the drawings.
  - a. Two hard copies.

August 23, 2019

- b. An Electronic Copy – (Attached)
3. Copies of the updated stormwater redevelopment checklist.
  - a. Two hard copies.
  - b. An Electronic Copy – (Attached)

Electronic copies will also be included on a USB stick via the courier.  
The courier should arrive at your offices before 5:00 today.

Please place us on the agenda for September 4<sup>th</sup> and call me if you have any questions.

Sincerely,



---

Rob Musci, P.E.  
CDM Smith  
617.452.6642

# Notice of Intent

## Water Fountain/Bottle Filling Station on Spectacle Island

**City of Boston**

August 2019

Updated August 23, 2019



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**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 #:1123921

City/Town:BOSTON

**A.General Information**

1. Project Location:

a. Street Address	SPECTACLE ISLAND		
b. City/Town	BOSTON	c. Zip Code	02128
d. Latitude	42.32250N	e. Longitude	70.98748W
f. Map/Plat #	0107074000	g.Parcel/Lot #	0107074000

2. Applicant:

Individual  Organization

a. First Name	SUSAN	b.Last Name	KANE
c. Organization	MASS DEPARTMENT OF CONSERVATION AND RECREATION		
d. Mailing Address	30 SHIPYARD DRIVE		
e. City/Town	HINGHAM	f. State	MA
g. Zip Code	02043	j. Email	susan.kane@state.ma.us
h. Phone Number	781-740-1605	i. Fax	

3.Property Owner:

more than one owner

a. First Name	SUSAN	b. Last Name	KANE
c. Organization	MASS DEPARTMENT OF CONSERVATION AND RECREATION		
d. Mailing Address	30 SHIPYARD DRIVE		
e. City/Town	HINGHAM	f.State	MA
g. Zip Code	02043	j.Email	susan.kane@state.ma.us
h. Phone Number	781-740-1605	i. Fax	

4.Representative:

a. First Name	MAGDALENA	b. Last Name	LOFSTEDT
c. Organization	.CDM SMITH INC.		
d. Mailing Address	75 STATE STREET, SUITE 701		
e. City/Town	BOSTON	f. State	MA
g. Zip Code		j.Email	lofstedtmh@cdmsmith.com
h.Phone Number	617-452-6597	i.Fax	617-345-3901

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
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6.General Project Description:

INSTALL WATER FOUNTAIN/WATER BOTTLE FILLING STATION AND NECESSARY UTILITIES ON SPECTACLE ISLAND NEAR THE VISITORS CENTER

7a.Project Type:

- |                                                               |                                                                      |
|---------------------------------------------------------------|----------------------------------------------------------------------|
| 1. <input type="checkbox"/> Single Family Home                | 2. <input type="checkbox"/> Residential Subdivision                  |
| 3. <input type="checkbox"/> Limited Project Driveway Crossing | 4. <input type="checkbox"/> Commercial/Industrial                    |
| 5. <input type="checkbox"/> Dock/Pier                         | 6. <input checked="" type="checkbox"/> Utilities                     |
| 7. <input type="checkbox"/> Coastal Engineering Structure     | 8. <input type="checkbox"/> Agriculture (eg., cranberries, forestry) |
| 9. <input type="checkbox"/> Transportation                    | 10. <input type="checkbox"/> 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

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CMR 10.53 (inland)?

1.  Yes  No If yes, describe which limited project applies to this project:  
 2. Limited Project

8. Property recorded at the Registry of Deeds for:

<b>a. County:</b>	<b>b. Certificate:</b>	<b>c. Book:</b>	<b>d. Page:</b>
SUFFOLK		40919	281

**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. <input type="checkbox"/> Bank	1. linear feet	2. linear feet
----------------------------------	----------------	----------------

b. <input type="checkbox"/> Bordering Vegetated Wetland	1. square feet	2. square feet
---------------------------------------------------------	----------------	----------------

c. <input type="checkbox"/> Land under Waterbodies and Waterways	1. Square feet	2. square feet
	3. cubic yards dredged	

d. <input type="checkbox"/> Bordering Land Subject to Flooding	1. square feet	2. square feet
	3. cubic feet of flood storage lost	4. cubic feet replaced

e. <input type="checkbox"/> Isolated Land Subject to Flooding	1. square feet	
	2. cubic feet of flood storage lost	3. cubic feet replaced

f.  Riverfront Area

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 \_\_\_\_\_ square feet

4. Proposed Alteration of the Riverfront Area:

a. total square feet	b. square feet within 100 ft.	c. square feet between 100 ft. and 200 ft.
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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. <input type="checkbox"/> Designated Port Areas	Indicate size under	Land under the ocean below,
b. <input type="checkbox"/> Land Under the Ocean	1. square feet	
	2. cubic yards dredged	
c. <input type="checkbox"/> Barrier Beaches	Indicate size under Coastal Beaches and/or Coastal Dunes, below	
d. <input type="checkbox"/> Coastal Beaches	1. square feet	2. cubic yards beach nourishment
e. <input type="checkbox"/> Coastal Dunes	1. square feet	2. cubic yards dune nourishment
f. <input type="checkbox"/> Coastal Banks	1. linear feet	
g. <input type="checkbox"/> Rocky Intertidal Shores	1. square feet	
h. <input type="checkbox"/> Salt Marshes	1. square feet	2. sq ft restoration, rehab, crea.
i. <input type="checkbox"/> Land Under Salt Ponds	1. square feet	
	2. cubic yards dredged	
j. <input type="checkbox"/> Land Containing Shellfish	1. square feet	
k. <input type="checkbox"/> Fish Runs	Indicate size under Coastal Banks, Inland Bank, Land Under the Ocean, and/or inland Land Under Waterbodies and Waterways, above	
	1. cubic yards dredged	
l. <input checked="" type="checkbox"/> Land Subject to Coastal Storm Flowage	210 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

□ **Massachusetts Department of Environmental Protection**

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

a. number of new stream crossings

b. number of replacement stream crossings

**C. Other Applicable Standards and Requirements**

**Streamlined Massachusetts Endangered Species Act/Wetlands Protection Act Review**

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

a.  Yes  No

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

Natural Heritage and Endangered Species

Program

Division of Fisheries and Wildlife

1 Rabbit Hill Road

Westborough, MA 01581

b. Date of map:FROM MAP VIEWER

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

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

1.  Percentage/acreage of property to be altered:

(a) within Wetland Resource Area

percentage/acreage

(b) outside Resource Area

percentage/acreage

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

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

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

b.  Photographs representative of the site

c.  MESA filing fee (fee information available at: <http://www.mass.gov/eea/agencies/dfg/dfw/natural-heritage/regulatory-review/mass-endangered-species-act-mesa/mesa-fee-schedule.html>)

Make check payable to "Natural Heritage & Endangered Species Fund" and mail to NHESP at above address

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

d.  Vegetation cover type map of site

e.  Project plans showing Priority & Estimated Habitat boundaries

d. OR Check One of the following

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

2.  Separate MESA review ongoing.

a. NHESP Tracking Number

b. Date submitted to NHESP



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3.  Separate MESA review completed.

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

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

2. For coastal projects only, is any portion of the proposed project located below the mean high waterline or in a fish run?

a.  Not applicable - project is in inland resource area only

b.  Yes  No

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

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

North Shore - Hull to New Hampshire:

Division of Marine Fisheries -  
Southeast Marine Fisheries Station

Attn: Environmental Reviewer  
836 S. Rodney French Blvd  
New Bedford, MA 02744

Division of Marine Fisheries -  
North Shore Office

Attn: Environmental Reviewer  
30 Emerson Avenue  
Gloucester, MA 01930

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

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

a.  Yes  No

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

b. ACEC Name

4. Is any portion of the proposed project within an area designated as an Outstanding Resource Water (ORW) as designated in the Massachusetts Surface Water Quality Standards, 314 CMR 4.00?

a.  Yes  No

5. Is any portion of the site subject to a Wetlands Restriction Order under the Inland Wetlands Restriction Act (M.G.L.c. 131, § 40A) or the Coastal Wetlands Restriction Act (M.G.L.c. 130, § 105)?

a.  Yes  No

6. Is this project subject to provisions of the MassDEP Stormwater Management Standards?

a.  Yes, Attach a copy of the Stormwater Report as required by the Stormwater Management Standards per 310 CMR 10.05(6)(k)-(q) and check if:

1.  Applying for Low Impact Development (LID) site design credits (as described in Stormwater Management Handbook Vol.2, Chapter 3)

2.  A portion of the site constitutes redevelopment

3.  Proprietary BMPs are included in the Stormwater Management System

b.  No, Explain why the project is exempt:

1.  Single Family Home

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eDEP Transaction #: 1123921

City/Town: BOSTON

2. Emergency Road Repair

3. Small Residential Subdivision (less than or equal to 4 single-family houses or less than or equal to 4 units in multi-family housing project) with no discharge to Critical Areas.

**D. Additional Information**

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

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

- 1. USGS or other map of the area (along with a narrative description, if necessary) containing sufficient information for the  Conservation Commission and the Department to locate the site. (Electronic filers may omit this item.)
- 2. Plans identifying the location of proposed activities (including activities proposed to serve as a Bordering Vegetated Wetland  [BVW] replication area or other mitigating measure) relative to the boundaries of each affected resource area.
- 3. Identify the method for BVW and other resource area boundary delineations (MassDEP BVW Field Data Form(s).  Determination of Applicability, Order of Resource Area Delineation, etc.), and attach documentation of the methodology.
- 4. List the titles and dates for all plans and other materials submitted with this NOI.

a. Plan Title:	b. Plan Prepared By:	c. Plan Signed/Stamped By:	d. Revised Final Date:	e. Scale:
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SHEET G-1: SITE PLAN	NA		AUG 2019/1"=240'	
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SHEET G-2: LAND OWNERSHIP SITE PLAN OF SPECTACLE ISLAND	PAUL A. LEVY		June 8, 2006/1"=200'	
---------------------------------------------------------	--------------	--	----------------------	--

SHEET C-1: PROPOSED WORK	ROBERT MUSCI		AUG 2019/1"=10'	
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SHEET D-1: DETAIL SHEET	ROBERT MUSCI		AUG 2019/1"=10'	
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- 5. If there is more than one property owner, please attach a list of these property owners not listed on this form.
- 6. Attach proof of mailing for Natural Heritage and Endangered Species Program, if needed.
- 7. Attach proof of mailing for Massachusetts Division of Marine Fisheries, if needed.
- 8. Attach NOI Wetland Fee Transmittal Form.
- 9. Attach Stormwater Report, if needed.

**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 #:1123921

City/Town:BOSTON

**E. Fees**

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

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

2. Municipal Check Number

3. Check date

4. State Check Number

5. Check date

6. Payer name on check: First Name

7. Payer name on check: Last Name

**F. Signatures and Submittal Requirements**

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

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

1. Signature of Applicant

2. Date

3. Signature of Property Owner (if different)

4. Date

5. Signature of Representative (if any)

6. Date

**For Conservation Commission:**

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

**For MassDEP:**

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

**Other:**

If the applicant has checked the "yes" box in 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 Fee Transmittal**  
**Form**  
 Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Provided by MassDEP:  
 MassDEP File #:  
 eDEP Transaction #: 1123921  
 City/Town: BOSTON

**A. Applicant Information**

1. Applicant:
- |                    |                                                |              |                        |
|--------------------|------------------------------------------------|--------------|------------------------|
| a. First Name      | SUSAN                                          | b. Last Name | KANE                   |
| c. Organization    | MASS DEPARTMENT OF CONSERVATION AND RECREATION |              |                        |
| d. Mailing Address | 30 SHIPYARD DRIVE                              |              |                        |
| e. City/Town       | HINGHAM                                        | f. State     | MA                     |
|                    |                                                | g. Zip Code  | 02043                  |
| h. Phone Number    | 7817401605                                     | i. Fax       |                        |
|                    |                                                | j. Email     | susan.kane@state.ma.us |
2. Property Owner:(if different)
- |                    |                                                |              |                        |
|--------------------|------------------------------------------------|--------------|------------------------|
| a. First Name      | SUSAN                                          | b. Last Name | KANE                   |
| c. Organization    | MASS DEPARTMENT OF CONSERVATION AND RECREATION |              |                        |
| d. Mailing Address | 30 SHIPYARD DRIVE                              |              |                        |
| e. City/Town       | HINGHAM                                        | f. State     | MA                     |
|                    |                                                | g. Zip Code  | 02043                  |
| h. Phone Number    | 7817401605                                     | i. Fax       |                        |
|                    |                                                | j. Email     | susan.kane@state.ma.us |
3. Project Location:
- |                   |                  |              |        |
|-------------------|------------------|--------------|--------|
| a. Street Address | SPECTACLE ISLAND | b. City/Town | BOSTON |
|-------------------|------------------|--------------|--------|

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

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

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

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

**B. Fees**

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

## Project: Water Fountain/Bottle Filling Station, Spectacle Island

### **Redevelopment Checklist**

#### Existing Conditions

- On-site: For all redevelopment projects, proponents should document existing conditions, including a description of extent of impervious surfaces, soil types, existing land uses with higher potential pollutant loads, and current onsite stormwater management practices.

**RESPONSE:** See Attached Project Plans and Notice of Intent for the description and depiction of existing conditions.

- Watershed: Proponents should determine whether the project is located in a watershed or subwatershed, where flooding, low streamflow or poor water quality is an issue.

#### The Project

Is the project a redevelopment project?

- Maintenance and improvement of existing roadways
- Development of rehabilitation, expansion or phased project on redeveloped site, or
- Remedial stormwater project

For non-roadway projects, is any portion of the project outside the definition of redevelopment?

**RESPONSE:** See Attached Project Plans and Notice of Intent.

- Development of previously undeveloped area
- Increase in impervious surface

If a component of the project is not a redevelopment project, the proponent shall use the checklist set forth below to document that at a minimum the proposed stormwater management system fully meets each Standard for that component. The proponent shall also document that the proposed stormwater management system meets the requirements of Standard 7 for the remainder of the project.

### **The Stormwater Management Standards**

The redevelopment checklist reviews compliance with each of the Stormwater Management Standards in order.

#### Standard 1: (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.

Full compliance with Standard 1 is required for new outfalls.

- What BMPs are proposed to ensure that all new discharges associated with the discharge are adequately treated?
- What BMPs are proposed to ensure that no new discharges cause erosion in wetlands or waters of the Commonwealth?
- Will the proposed discharge comply with all applicable requirements of the Massachusetts Clean Waters Act and the regulations promulgated thereunder at 314 CMR 3.00, 314 CMR 4.00 and 314 CMR 5.00?

**RESPONSE:** No new storm water outfalls are proposed.

Existing outfalls shall be brought into compliance with Standard 1 to the maximum extent practicable.

- Are there any existing discharges associated with the redevelopment project for which new treatment could be provided?
- If so, the proponent shall specify the stormwater BMP retrofit measures that have been considered to ensure that the discharges are adequately treated and indicate the reasons for adopting or rejecting those measures. (See Section entitled “Retrofit of Existing BMPs”.)
- What BMPs have been considered to prevent erosion from existing stormwater discharges?

**RESPONSE:** The proposed Project consists of installing a water fountain/bottle filling station on Spectacle Island. Additional work includes pouring a 6’ by 6’ by 6” concrete pad for the water fountain/bottle filling station and a new water line. The water line will run from the Visitor Center and consist of approximately 60 linear feet of 1” galvanized pipe and approximately 160 linear feet of 1” polyethylene pressure tubing. The galvanized pipe will be installed above ground and be hung along the existing Visitor Center’s fountain. The polyethylene pressure tubing will be buried and have a minimum of 5 feet of cover. Overflow from the fountain will connect to the existing shower drain adjacent to the proposed water fountain.

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

Compliance to the Maximum Extent Practicable:

- Does the redevelopment design meet Standard 2, comparing post-development to pre-development conditions?

**RESPONSE:** No new impervious area is proposed. The existing sandstone path will be replaced with a new 6’ by 6’ by 6” concrete pad.

- If not, the applicant shall document an analysis of alternative approaches for meeting the Standard. (See Menu of Strategies to Reduce Runoff and Peak Flows and/or Increase Recharge Menu included at the end of this chapter.)

Improvement of existing conditions:

- Does the project reduce the volume and/or rate of runoff to less than current estimated conditions? Has the applicant considered all the alternatives for reducing the volume and/or rate of runoff from the site? (See Menu.)
- Is the project located within a watershed subject to damage by flooding during the 2-year or 10-year 24-hour storm event? If so, does the project design provide for attenuation of the 2-year and 10-year 24-hour storm event to less than current estimated conditions? Have measures been implemented to reduce the volume of runoff from the site resulting from the 2 year or 10 year 24 hour storm event? (See Menu.)
- Is the project located adjacent to a water body or watercourse subject to adverse impacts from flooding during the 100-year 24-hour storm event? If so, are portions of the site available to increase flood storage adjacent to existing Bordering Land Subject to Flooding (BLSF)?
- Have measures been implemented to attenuate peak rates of discharge during the 100-year 24-hour storm event to less than the peak rates under current estimated conditions? Have measures been implemented to reduce the volume of runoff from the site resulting from the 100-year 24-hour storm event? (See Menu.)

**RESPONSE:** Please refer to response above and Attachment A of the NOI.

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

**RESPONSE:** No new impervious area is proposed as part of this project.

Compliance to the Maximum Extent Practicable:

- Does the redevelopment design meet Standard 3, comparing post-development to pre-development conditions?
- If not, the applicant shall document an analysis of alternative approaches for meeting the Standard?
- What soil types are present on the site? Is the site is comprised solely of C and D soils and bedrock at the land surface?
- Does the project include sites where recharge is proposed at or adjacent to an area classified as contaminated, sites where contamination has been capped in place, sites that have an Activity and Use Limitation (AUL) that precludes inducing runoff to the groundwater, pursuant to MGL Chapter 21E and the Massachusetts Contingency Plan 310 CMR 40.0000; sites that are the location of a solid waste landfill as defined in 310 CMR 19.000; or sites where groundwater from the recharge location flows directly toward a solid waste landfill or 21E site?<sup>1</sup>
- Is the stormwater runoff from a land use with a higher potential pollutant load?

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<sup>1</sup> A mounding analysis is needed if a site falls within this category. See Volume 3.

- Is the discharge to the ground located within the Zone II or Interim Wellhead Protection Area of a public water supply?
- Does the site have an infiltration rate greater than 2.4 inches per hour?

Improvements to Existing Conditions:

- Does the project increase the required recharge volume over existing (developed) conditions? If so, can the project be redesigned to reduce the required recharge volume by decreasing impervious surfaces (make building higher, put parking under the building, narrower roads, sidewalks on only one side of street, etc.) or using low impact development techniques such as porous pavement?
- Is the project located within a basin or sub-basin that has been categorized as under high or medium stress by the Massachusetts Water Resources Commission, or where there is other evidence that there are rivers and streams experiencing low flow problems? If so, have measures been considered to replace the natural recharge lost as a result of the prior development? (See Menu.)
- Has the applicant evaluated measures for reducing site runoff? (See Menu.)

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:***

- Suitable practices for source control and pollution prevention are identified in a long-term pollution prevention plan and thereafter are implemented and maintained;***
- Stormwater BMPs are sized to capture the required water quality volume determined in accordance with the Massachusetts Stormwater Handbook; and***
- 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.

- Has the proponent developed a long-term pollution plan that fully meets the requirements of Standard 4?
- Does the pollution prevention plan include the following source control measures?
  - Street sweeping
  - Proper management of snow, salt, sand and other deicing chemicals
  - Proper management of fertilizers, herbicides and pesticides
  - Stabilization of existing eroding surfaces

Compliance to the Maximum Extent Practicable for the other requirements:

- Does the redevelopment design provide for treatment of all runoff from existing (as well as new) impervious areas to achieve 80% TSS removal? If 80% TSS removal is not achieved, has the stormwater management system been designed to remove TSS to the maximum extent practicable?
- Have the proposed stormwater BMPs been properly sized to capture the prescribed runoff volume?
  - One inch rule applies for discharge
    - within a Zone II or Interim Wellhead Protection Area,
    - near or to another critical area,
    - from a land use with a higher potential pollutant load



- to the ground where the infiltration rate is greater than 2.4 inches per hour
- Has adequate pretreatment been proposed?
  - 44% TSS Removal Pretreatment Requirement applies if:
    - Stormwater runoff is from a land use with a higher potential pollutant load
    - Stormwater is discharged
      - To the ground within the Zone II or Interim Wellhead Protection Area of a Public Water Supply
      - To the ground with an infiltration rate greater than 2.4 inches per hour
      - Near or to an Outstanding Resource Water, Special Resource Water, Cold-Water Fishery, Shellfish Growing Area, or Bathing Beach.
- If the stormwater BMPs do not meet all the requirements set forth above, the applicant shall document an analysis of alternative approaches for meeting these requirements. (See Section on Retrofitting Existing BMPs (the “Retrofit Section”).

Improvements to Existing Conditions:

- Have measures been provided to achieve at least partial compliance with the TSS removal standard?
- Have any of the best management practices in the Retrofit Section been considered?
- Have any of the following pollution prevention measures been considered?
  - Reduction or elimination of winter sanding, where safe and prudent to do so
  - Tighter controls over the application of fertilizers, herbicides, and pesticides
  - Landscaping that reduces the need for fertilizer, herbicides and pesticides
  - High frequency sweeping of paved surfaces using vacuum sweepers
  - Improved catch basin cleaning
  - Waterfowl control programs
- Are there any discharges (new or existing) to impaired waters? If so, see TMDL section.

**RESPONSE:** The Project does not include the installation of a new storm water management system.

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.

**RESPONSE:** Not applicable

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.

**RESPONSE:** Not applicable.

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.

- Has the proponent submitted a construction period erosion, sedimentation and pollution prevention plan that meets the requirements of Standard 8?

**RESPONSE:** Yes, a construction period erosion, sedimentation and pollution prevention plan is included in the Notice of Intent in Attachment A.

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.

- Has the proponent submitted a long-term Operation and Maintenance plan that meets the requirements of Standard 9?

**RESPONSE:** Not applicable, please see existing Spectacle Island OMMP.

Standard 10 (Illicit Discharges)

*All illicit discharges to the stormwater management system are prohibited.*

All redevelopment projects shall fully comply with Standard 10.

- Are there any known or suspected illicit discharges to the stormwater management system at the redevelopment project site?

**RESPONSE:** Not applicable.

- Has an illicit connection detection program been implemented using visual screening, dye or smoke testing?

**RESPONSE:** Not applicable.

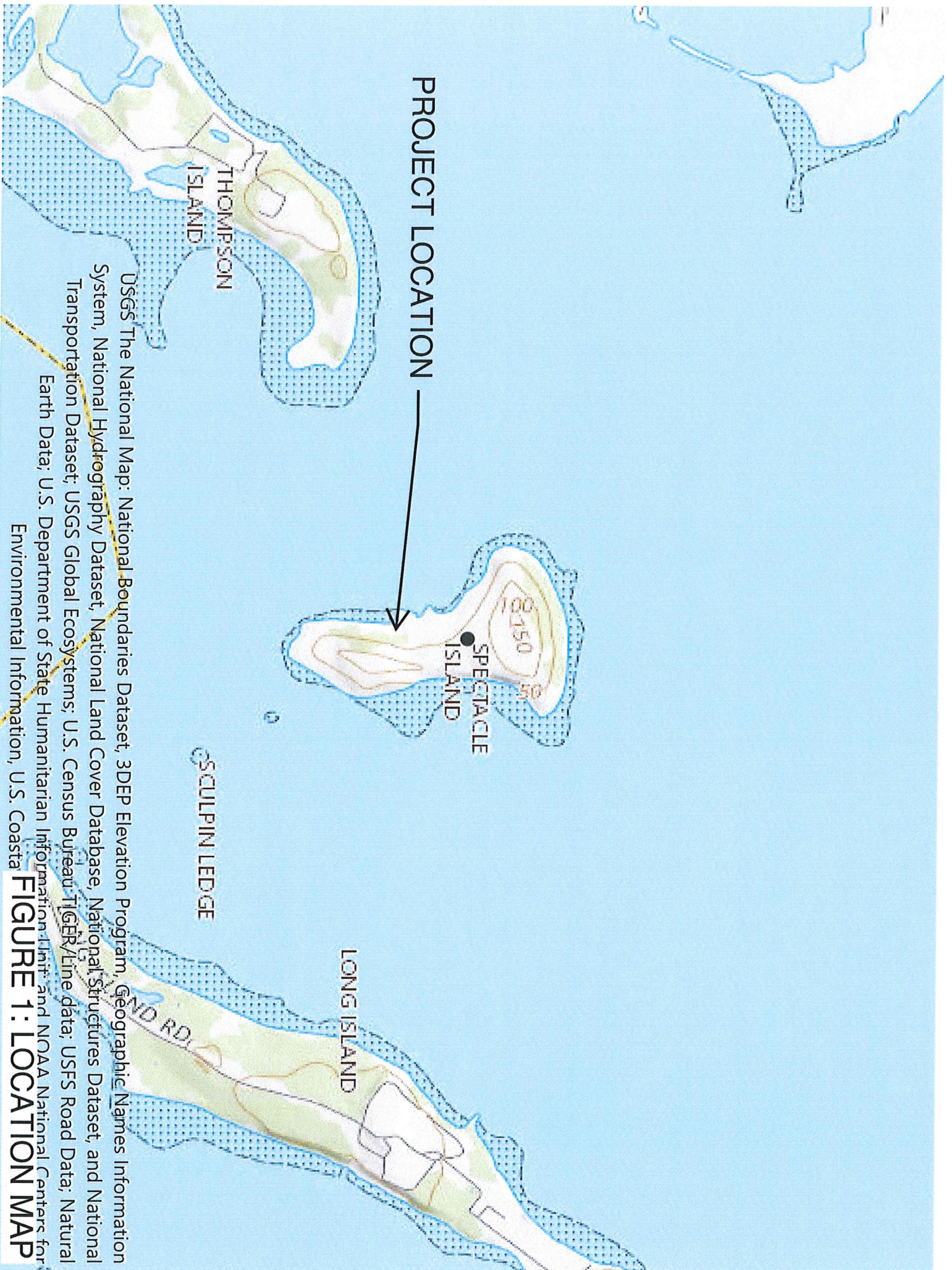
- Have an Illicit Discharge Compliance Statement and associated site map been submitted verifying that there are no illicit discharges to the stormwater management system at the site?

**RESPONSE:** Not applicable.

Improvements to Existing Conditions:

- Once all illicit discharges are removed, has the proponent implemented any measures to prevent additional illicit discharges?

**RESPONSE:** Not applicable.



USGS The National Map: National Boundaries Dataset, 3DEP Elevation Program, Geographic Names Information System, National Hydrography Dataset, National Land Cover Database, National Structures Dataset, and National Transportation Dataset; USGS Global Ecosystems; U.S. Census Bureau: TIGER/Line data; USFS Road Data; National Earth Data; U.S. Department of State Humanitarian Information; and NOAA National Centers for Environmental Information, U.S. Coastal

**FIGURE 1: LOCATION MAP**

# National Flood Hazard Layer FIRMette



42°19'39.75"N  
70°59'32.45"W



### Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

	Without Base Flood Elevation (BFE) Zone A, V, A99
	With BFE or Depth Zone AE, AH, VE, AR Regulatory Floodway
	0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile Zone X
	Future Conditions 1% Annual Chance Flood Hazard zone X
	Area with Reduced Flood Risk due to Levee, See Notes, Zone X
	Area with Flood Risk due to Levee zone D

### OTHER AREAS OF FLOOD HAZARD

	Area of Minimal Flood Hazard Zone X
	Effective LOMRS
	Area of Undetermined Flood Hazard Zone D

### OTHER AREAS GENERAL STRUCTURES

	Channel, Culvert, or Storm Sewer
	Levee, Dike, or Floodwall

### OTHER FEATURES

	Cross Sections with 1% Annual Chance
	Water Surface Elevation
	Coastal Transect
	Base Flood Elevation Line (BFE)
	Limit of Study
	Jurisdiction Boundary
	Coastal Transect Baseline
	Profile Baseline
	Hydrographic Feature

### MAP PANELS

	Digital Data Available
	No Digital Data Available
	Unmapped

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.



This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards.

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on **7/24/2019 at 9:18:49 PM** and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRMP panel number, and FIRMP effective date. Map images for unmapped and unmapped areas cannot be used for regulatory purposes.

0 250 500 1,000 1,500 2,000 Feet

USGS The National Map: Orthorectified, Data refreshed April, 2019  
42°19'13.15"N  
70°58'54.99"W

## Attachment A

# Project Narrative

## 1.0 Project Description

This Notice of Intent (NOI) is being filed with the Boston Conservation Commission to install a water fountain/bottle filling station on Spectacle Island. Additional work includes pouring a 6' by 6' by 6" concrete pad for the water fountain/bottle filling station and a new water line. The water line will run from the Visitor Center and consist of approximately 60 linear feet of 1" galvanized pipe and approximately 160 linear feet of 1" polyethylene pressure tubing. The galvanized pipe will be installed above ground and be hung along the existing Visitor Center's fountain. The polyethylene pressure tubing will be buried within the existing gravel path areas and have a minimum of 5 feet of cover. Overflow from the fountain will connect to the existing shower drain adjacent to the proposed location of the water fountain. Proposed work is shown on Project Plans in Attachment C.

Proposed work will result in 36 square feet of permanent alteration and approximately 210 square feet of temporary alteration to Land Subject to Coastal Storm Flowage (LSCSF). In addition, approximately 660 square feet of the 100-foot buffer zone to Coastal Bank will be temporarily altered. Sedimentation and erosion control barriers (i.e. compost logs) will be placed at the limits of work within the 100-foot Buffer Zone as shown on the project plan in Attachment C.

The following sections address the existing on-site wetland conditions, work proposed within and adjacent to wetland resource areas and, proposed measures to mitigate construction impacts. There are no performance standards for work within LSCSF.

## 2.0 Existing Conditions

### 2.1 Land Subject to Coastal Storm Flowage

LSCSF is land subject to inundation caused by coastal storms up to and including that caused by the 100-year storm, surge of record or storm of record, whichever is greater [310 CMR 10.57]. The Flood Insurance Rate Map (FIRM) shows the 100-year FEMA flood elevation (Zone VE) is 14 feet NAVD 88 along the west side of Spectacle Island (see Figure 2 – Flood Insurance Rate Map).

### 2.2 Coastal Bank

Coastal Bank is defined as the toe of the seaward face or side of any elevated landform, other than a coastal dune, which lies at the landward edge of a coastal beach, land subject to tidal action, or other wetland [310 CMR 10.30]. On the project site it is associated with the Boston Harbor. The top of the slope (riprap) was delineated based on slope characteristics pursuant to DEP Wetland Policy 92-2. South of the gangway, the top of Coastal Bank is the top of the seawall. The Coastal Bank on this project site provides a buffer to upland areas from storm waters and is significant to storm damage prevention and flood control.

## 2.3 Coastal Beach

This resource area is defined as unconsolidated sediment subject to wave, tidal and coastal storm action which forms the gently sloping shore of a body of salt water and includes tidal flats. Coastal beaches extend from the mean low water line landward to the dune line, coastal bank line or the seaward edge of existing man-made structures, when these structures replace one of the above lines, whichever is closest to the ocean [310 CMR 10.27(2)].

The upgradient most extent of the coastal beach resource area in the Project area is considered the riprap revetment.

## 2.4 Wildlife and MESA Compliance

Review of the Massachusetts Natural Heritage Atlas shows that proposed work is not located within an Estimated Habitat for state wetland and wildlife or Priority Habitat for protected species.

## 3.0 Work Proposed Within Wetland Resource Areas

This project will result in 36 square feet of permanent alteration to LSCSF and require temporary alteration within LSCSF and the 100-ft Buffer Zone for the installation of the concrete pad, polyethylene pressure tubing and overflow drain. The alterations caused by the work will be temporary and will be restored to pre-construction grades and stabilized once construction is completed to prevent erosion and any long-term impacts to wetland resource areas. The work is expected to take approximately 1 week to complete.

Before work starts, compost logs will be installed at the limit of work as shown on the Project Plans in Attachment C to prevent the transport of sediment during construction. Construction will require excavation of a 2 foot wide trench at 5 -foot depth. Trenching work will require the use of small excavator and skid steer loader for excavating the trench and moving materials. Soils will be stockpiled next to the trench after excavation. Following completion of the trench, screened gravel will be placed for bedding material. The polyethylene pressure tubing will require a minimum of 5 feet of soil cover. The trench will be final graded and restored to match pre-construction grades and surface composition. After soils are stabilized, the compost logs will be removed. The proposed stone dust paving is not anticipated to result in the loss of wetland resources.

The compost logs will be inspected weekly and after all storm events of 0.5 inch or greater and repaired as needed. The barriers will be left in place until the area is permanently stabilized.

## 4.0 Mitigation Measures

### 4.1 Construction Period

The following summary of mitigation measures will be implemented to avoid and minimize impacts during construction. Please refer to Attachment C for site plans and typical details of measures to protect Boston Harbor during and after construction.

- Prior to commencement of construction, staked compost logs will be installed at the limit of work to prevent the transport of sediment and debris to down-gradient Boston Harbor during construction. The compost log barrier will be inspected weekly and after all storm events of a ½



-inch or more of rain and repaired as needed. The barrier will be left in place until the area is permanently stabilized. Compost logs will be replaced as necessary due to sediment build-up and degradation. Please see Attachment C for site plans and details of these erosion control barriers.

- Work will proceed as rapidly as possible. Limiting the exposure time of disturbed soils to wind and precipitation will minimize the soil erosion and subsequent sedimentation. It is expected the work will be completed within a one week timeframe.
- Any stockpiled soils will be enclosed within a line of staked compost logs if left overnight to prevent erosion or siltation into resource areas. The barrier will be left in place until the area is permanently stabilized. Regular inspections will be made by the applicant to ensure compliance with the permit conditions.

#### Spill Control Measures

- Maintenance and refueling of vehicles will take place outside of the 100-foot Buffer Zone to wetland resource areas;
- A supply of “speedy dry,” oil absorbent pads, or an approved equivalent will always be maintained with the construction equipment which will be used to contain any accidental release of oil or other petroleum products during the field work;
- Construction equipment will be stored within the on site maintenance yard at the end of each working day.

#### 4.2 Post Construction Measures

The following summary of mitigation measures will be implemented to restore any short-term impacts that occur in or adjacent to wetland resource areas.

- All disturbed soils outside of the footprint of the concrete pad for the fountain will be permanently stabilized with dense grade gravel and stone dust to match preconstruction conditions.
- The compost logs will not be removed until the pipe backfill is complete and the gravel and stone dust area is restored.

### 5.0 Compliance with WPA Performance Standards

Work is proposed in LSCSF and the 100-foot Buffer Zone to Coastal Bank and Coastal Beach. Work proposed herein and shown on the attached project plans in Attachment C was designed to comply with the Wetlands Protection Act and Regulations (310 CMR 10.00 et. seq.).

There are no performance standards for LSCSF or the 100-foot Buffer Zone; therefore, no further discussion is provided. Any disturbances within LSCSF will be restored to pre-construction grades.

## 6.0 Summary

The proposed work will not remove, fill, dredge, or alter the area subject to the protection of the Massachusetts Wetlands Protection Act. Compost logs will be installed on the downgradient side of the proposed construction throughout the course of the proposed activities to prevent the transport of sediment into the Boston Harbor. Any disturbances within LSCSF and the 100-foot Buffer Zone beyond the foot print of the proposed concrete pad for the water fountain will be restored to pre-construction grades.

**Attachment B**

NOTIFICATION TO ABUTTERS UNDER THE  
MASSACHUSETTS WETLANDS PROTECTION ACT

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

- A. The name of the applicant is **the Massachusetts Department of Conservation and Recreation (DCR)**.
- B. The applicant has filed a **Notice of Intent** with the **Boston Conservation Commission** seeking permission to remove, fill, dredge or alter an Area Subject to Protection Under the Wetlands Protection Act (MGL chp. 131, Sec. 40).\*
- C. The address of the lot(s) where the activity is proposed is **Spectacle Island, Boston**.
- D. The **Notice of Intent** may be examined at the **Boston Conservation Commission** at the **Boston City Hall, One City Hall Square, Room 709 in Boston** between the hours of **8:00 AM** and **5:00 PM** Monday through Friday.
- E. Information about the Notice of Intent may be obtained from **CDM Smith, 75 State Street, Suite 701, Boston, MA 02109, Attn: Magdalena Lofstedt** or by calling **(617) 452-6597** between **9 AM** and **5 PM** Monday through Friday.
- F. **We understand that the hearing will be held on Wednesday, September 4, 2019 at 6:00 PM in Boston City Hall, Piemonte Room, 5<sup>th</sup> floor.**
- G. Notice of Public Hearing, including its date, time and place will also be published at least five (5) days in advance in **The Boston Herald**. You may also contact your local Conservation Commission or the nearest Department of Environmental Protection Regional Office for more information about this application or the Wetlands Protection Act. To contact the **Boston Conservation Commission**, call **617-635-3850**. To contact the Department of Environmental Protection, call the **Northeast Regional Office at (617) 292-5500**.

\* DCR is proposing to install a water fountain/bottle filling station on Spectacle Island which will result in minor alteration to Land Subject to Coastal Storm Flowage and the 100-foot Buffer Zone to Coastal Bank.

**Abutters List**

Property ID	OWNER	ADDRESS	CITY	ZIP CODE
107071000	CITY OF BOSTON	1 City Hall Square	Boston	02201
107072000	CITY OF BOSTON	1 City Hall Square	Boston	02201
107073000	CITY OF BOSTON	1 City Hall Square	Boston	02201
107073100	DCR	251 Causeway St., Ste 9	Boston	02114
107074000	DCR	251 Causeway St., Ste 9	Boston	02114

## Attachment C

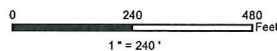


PROJECT LOCATION

USGS, MassGIS



Spectacle Island  
Boston, Massachusetts



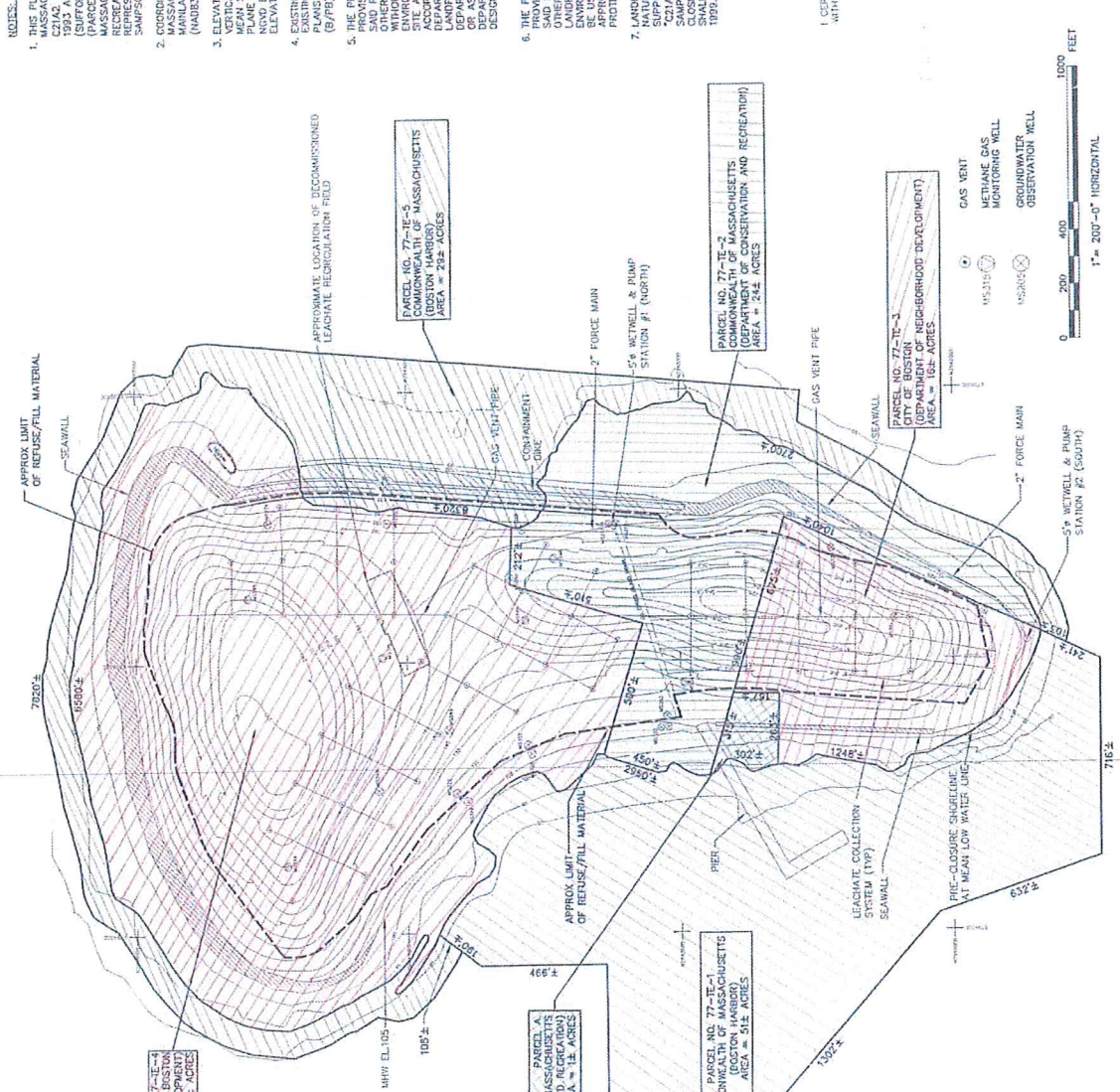
Basemap: USGS Ortho Imagery (2013-2014) 30 cm resolution  
Source: ESRI ArcGIS Online, USGS, and MassGIS  
Coord. System: NAD83 Mass. State Plane Meters (feet)

SHEET G-1  
Spectacle Island Site Plan  
August 2019



Essex County Registry  
 December 15, 2006  
 Plan Book 2006, Page 1132.  
 See Notice of Assessed Openings  
 provided along with this  
 Book when Page 245

REGISTRY USE ONLY



- NOTES:**
- THIS PLAN WAS COMPILED USING THE FOLLOWING: MASSACHUSETTS HIGHWAY DEPARTMENT CONTRACT NO. 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 797, 798, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829, 830, 831, 832, 833, 834, 835, 836, 837, 838, 839, 840, 841, 842, 843, 844, 845, 846, 847, 848, 849, 850, 851, 852, 853, 854, 855, 856, 857, 858, 859, 860, 861, 862, 863, 864, 865, 866, 867, 868, 869, 870, 871, 872, 873, 874, 875, 876, 877, 878, 879, 880, 881, 882, 883, 884, 885, 886, 887, 888, 889, 890, 891, 892, 893, 894, 895, 896, 897, 898, 899, 900, 901, 902, 903, 904, 905, 906, 907, 908, 909, 910, 911, 912, 913, 914, 915, 916, 917, 918, 919, 920, 921, 922, 923, 924, 925, 926, 927, 928, 929, 930, 931, 932, 933, 934, 935, 936, 937, 938, 939, 940, 941, 942, 943, 944, 945, 946, 947, 948, 949, 950, 951, 952, 953, 954, 955, 956, 957, 958, 959, 960, 961, 962, 963, 964, 965, 966, 967, 968, 969, 970, 971, 972, 973, 974, 975, 976, 977, 978, 979, 980, 981, 982, 983, 984, 985, 986, 987, 988, 989, 990, 991, 992, 993, 994, 995, 996, 997, 998, 999, 1000.

I CERTIFY THAT THIS PLAN HAS BEEN PREPARED IN CONFORMITY WITH THE RULES AND REGULATIONS OF DEEDS OF THE COMMONWEALTH OF MASSACHUSETTS.

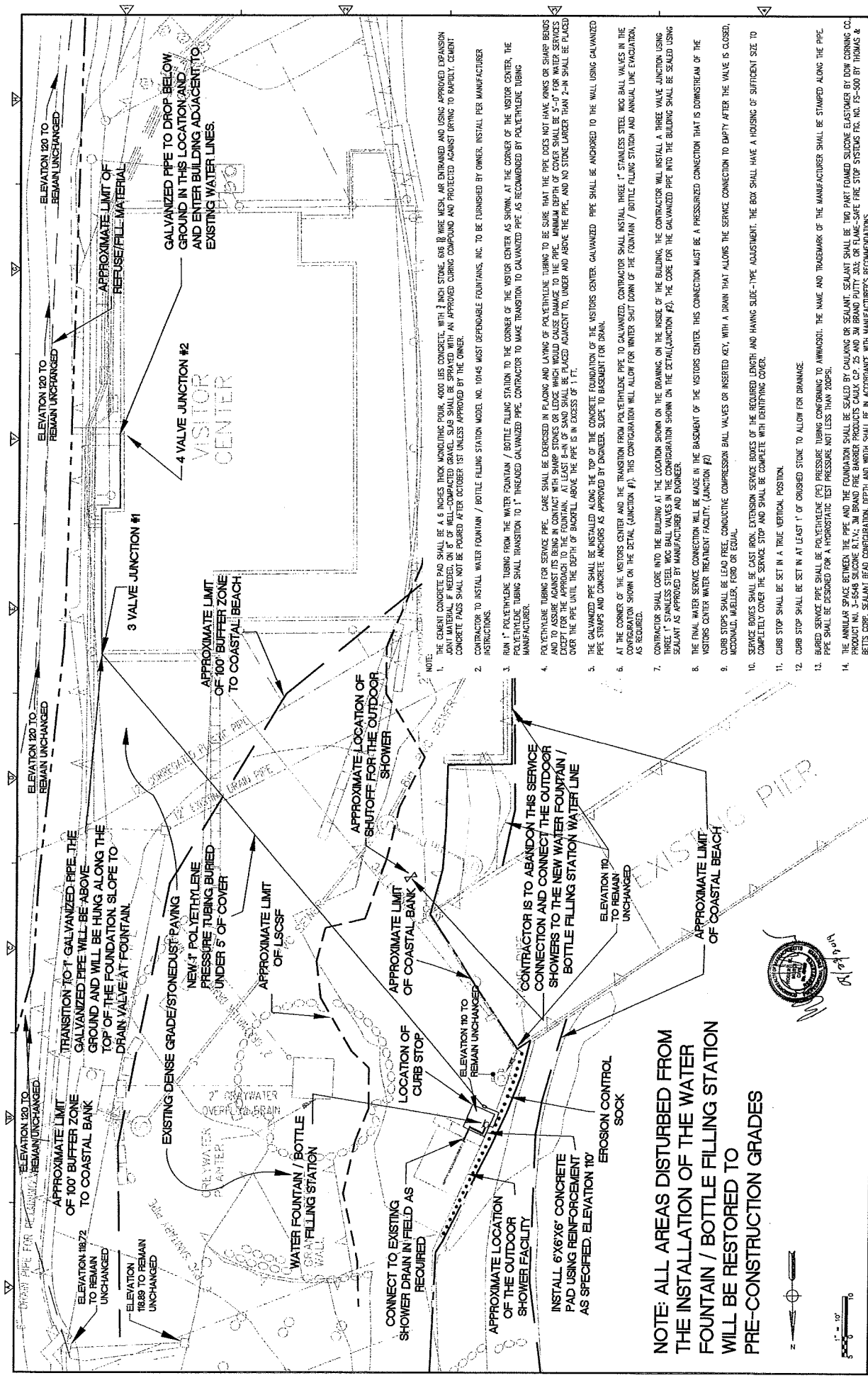
DATE: 12/15/06  
 REGISTERED LAND SURVEYOR: [Signature]

NO.	DATE	PROJECT RELATIONSHIP	PREPARED BY
1	12/15/06	INITIAL ISSUE	WESTON & SAMPTON ENGINEERS, INC.
2	12/15/06	REVISION	WESTON & SAMPTON ENGINEERS, INC.

**SITE PLAN**  
 of SPECTACLE ISLAND  
 in  
 BOSTON, MASSACHUSETTS  
 WESTON & SAMPTON ENGINEERS, INC.  
 100 FOXBOROUGH BOULEVARD FORDHAM, MA 02158

SHEET G-2





**NOTE: ALL AREAS DISTURBED FROM THE INSTALLATION OF THE WATER FOUNTAIN / BOTTLE FILLING STATION WILL BE RESTORED TO PRE-CONSTRUCTION GRADES**

CONTRACTOR TO INSTALL WATER FOUNTAIN / BOTTLE FILLING STATION MODEL NO. 10145 MOST DEPENDABLE FOUNTAINS, INC. TO BE FURNISHED BY OWNER. INSTALL PER MANUFACTURER INSTRUCTIONS.

1. THE CURB CONCRETE PAD SHALL BE 4.5 INCHES THICK WORKING FOUR (4) 4000 LBS CONCRETE WITH 3 INCH STEEL BAR (RE #4) AIR ENCASED AND USING APPROVED EXPANSION JOINT MATERIAL IF NEEDED. ON 2" OF WELL-COMPACTED GRAVEL. SLAB SHALL BE SPACED WITH AN APPROVED CURING COMPOUND AND PROTECTED AGAINST BRACKEN, CRACKS, CONCRETE PADS SHALL NOT BE POURED AFTER OCTOBER 1ST UNLESS APPROVED BY THE OWNER.

2. POLYETHYLENE TUBING SHALL BE INSTALLED ALONG THE TOP OF THE CONCRETE FOUNDATION OF THE VISITORS CENTER. GALVANIZED PIPE SHALL BE ANCHORED TO THE WALL USING GALVANIZED PIPE STOPS AND CONCRETE ANCHORS AS APPROVED BY ENGINEER. SLOPE TO BASEMENT FOR DRAIN.

3. AT THE CORNER OF THE VISITORS CENTER AND THE TRANSITION FROM POLYETHYLENE PIPE TO GALVANIZED, CONTRACTORS SHALL INSTALL THREE (3) 1" STAINLESS STEEL WOG BALL VALVES IN THE CONFIGURATION SHOWN ON THE DETAIL (JUNCTION #1). THIS CONFIGURATION WILL ALLOW FOR WATER SHUT DOWN OF THE FOUNTAIN / BOTTLE FILLING STATION AND ANNUAL LINE EVACUATION, AS REQUIRED.

4. POLYETHYLENE TUBING FOR SERVICE PIPE. CARE SHALL BE EXERCISED IN PLACING AND LAYING OF POLYETHYLENE TUBING TO BE SURE THAT THE PIPE DOES NOT HAVE KINKS OR SHARP BENDS WHICH COULD CAUSE DAMAGE TO THE PIPE. MINIMUM DEPTH OF COVER SHALL BE 3'-0" FOR WATER SERVICES EXCEPT FOR THE APPROACH TO THE FOUNTAIN. AT LEAST 6" SPACES FOR SERVICE PIPE SHALL BE MAINTAINED UNDER AND ABOVE THE PIPE, AND NO STUBS LARGER THAN 2" IN SIZE SHALL BE PLACED OVER THE PIPE UNTIL THE DEPTH OF BACKFILL ABOVE THE PIPE IS IN EXCESS OF 1 FT.

5. THE GALVANIZED PIPE SHALL BE INSTALLED ALONG THE TOP OF THE CONCRETE FOUNDATION OF THE VISITORS CENTER. GALVANIZED PIPE SHALL BE ANCHORED TO THE WALL USING GALVANIZED PIPE STOPS AND CONCRETE ANCHORS AS APPROVED BY ENGINEER. SLOPE TO BASEMENT FOR DRAIN.

6. AT THE CORNER OF THE VISITORS CENTER AND THE TRANSITION FROM POLYETHYLENE PIPE TO GALVANIZED, CONTRACTORS SHALL INSTALL THREE (3) 1" STAINLESS STEEL WOG BALL VALVES IN THE CONFIGURATION SHOWN ON THE DETAIL (JUNCTION #1). THIS CONFIGURATION WILL ALLOW FOR WATER SHUT DOWN OF THE FOUNTAIN / BOTTLE FILLING STATION AND ANNUAL LINE EVACUATION, AS REQUIRED.

7. CONTRACTOR SHALL CORE INTO THE DRAWING ON THE INSIDE OF THE BUILDING. THE CONTRACTOR WILL INSTALL A THREE VALVE JUNCTION USING THREE (3) 1" STAINLESS STEEL WOG BALL VALVES IN THE CONFIGURATION SHOWN ON THE DETAIL (JUNCTION #2). THE CORE FOR THE GALVANIZED PIPE INTO THE BUILDING SHALL BE SEALED USING SEALANT AS APPROVED BY MANUFACTURER AND ENGINEER.

8. THE FINAL WATER SERVICE CONNECTION WILL BE MADE IN THE BASEMENT OF THE VISITORS CENTER. THIS CONNECTION MUST BE A PRESSURIZED CONNECTION THAT IS DOWNSTEAM OF THE VISITORS CENTER WATER TREATMENT FACILITY. (JUNCTION #2)

9. CURB STOPS SHALL BE LEAD FREE, CONDUCTIVE COMPRESSION BALL VALVES OR INSERTED KEY, WITH A DRAIN THAT ALLOWS THE SERVICE CONNECTION TO EMPTY AFTER THE VALVE IS CLOSED. (MCDONALD, WHEELER, FORD OR EQUAL)

10. SERVICE BOXES SHALL BE CAST IRON. EXTENSION SERVICE BOXES OF THE REQUIRED LENGTH AND HAVING SLIDE-TYPE ADJUSTMENT. THE BOX SHALL HAVE A HOUSING OF SUFFICIENT SIZE TO COMPLETELY COVER THE SERVICE STOP AND SHALL BE COMPLETE WITH IDENTIFYING COVER.

11. CURB STOP SHALL BE SET IN AT LEAST 1" OF CRUSHED STONE TO ALLOW FOR DRAINAGE.

12. CURB STOP SHALL BE SET IN AT LEAST 1" OF CRUSHED STONE TO ALLOW FOR DRAINAGE.

13. BARED SERVICE PIPE SHALL BE POLYETHYLENE (PE) PRESSURE TUBING CONFORMING TO ANMAD001. THE NAME AND TRADEMARK OF THE MANUFACTURER SHALL BE STAMPED ALONG THE PIPE. PIPE SHALL BE DESIGNED FOR A HYDROSTATIC TEST PRESSURE NOT LESS THAN 200PSI.

14. THE ANNULAR SPACE BETWEEN THE PIPE AND THE FOUNDATION SHALL BE SEALED BY CAULKING OR SEALANT. SEALANT SHALL BE TWO PART FOAMED SILICONE ELASTOMER BY DOW CORNING CO. PRODUCT NO. J-5548 SILICONE RT.V.; 3M BRAND FIRE BARRIER PRODUCTS CALK, C.P. 25 AND 3M BRAND PUTTY ADH. OR FLAME-SAFE FIRE STOP SYSTEMS FIG. NO. FS-500 BY THOMAS & BETTS CORP. SEALANT BEAD CONFIGURATION, DEPTH AND WIDTH SHALL BE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

**CITY OF BOSTON, MASSACHUSETTS**

**WATER FOUNTAIN / BOTTLE FILLING STATION**

**FOR PERMITTING ONLY**

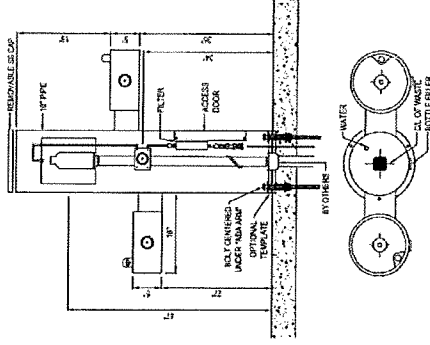
**CDM Smith**  
 100 STATE STREET, SUITE 2000  
 BOSTON, MA 02109  
 TEL: 617-452-4000  
 FAX: 617-452-4001  
 DATE: AUG. 2012

RECORD BY: [ ]  
 DRAWN BY: [ ]  
 CHECKED BY: [ ]  
 APPROVED BY: [ ]  
 DATE: [ ]

FORMS

REV. NO. DATE DRAWN CHECK

**MDF**  
**FOUNTAINS, INC.**  
 MOST DEPENDABLE FOUNTAINS, INC.  
 5708 COMMERCE DR. P.O. BOX 187  
 ARLINGTON, TN 38022-0187  
 PHONE: (901) 867-0039  
 FAX: (901) 867-0159  
 www.mdfountains.com

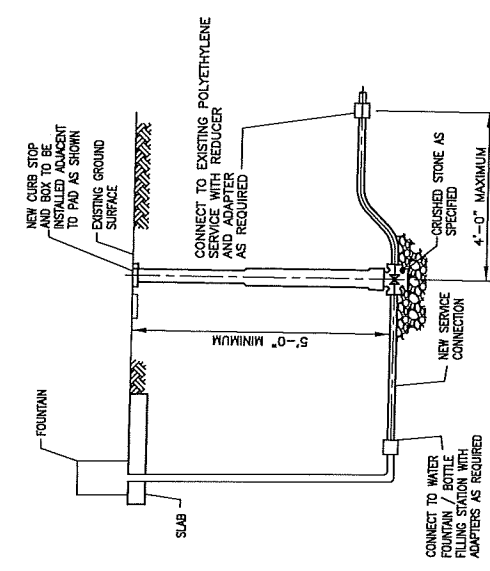


- NOTES:**
1. REINSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
  2. THIS DRAWING IS INTENDED FOR USE BY ARCHITECTS, ENGINEERS, CONTRACTORS, CONSULTANTS AND DESIGN PROFESSIONALS FOR PERMITTING PURPOSES ONLY. THIS DRAWING MAY NOT BE USED FOR CONSTRUCTION.
  3. THE PROJECT OWNER ASSUMES RESPONSIBILITY FOR THE TYPE OF DEVELOPMENT, BUT MUST BE REVIEWED AND APPROVED BY THE CONTRACTOR.
  4. THE PROJECT OWNER ASSUMES RESPONSIBILITY FOR THE TYPE OF DEVELOPMENT, BUT MUST BE REVIEWED AND APPROVED BY THE CONTRACTOR.
  5. CONTRACTOR NOTE: FOR PRODUCT AND COMPANY INFORMATION VISIT [www.mdfountains.com/manufacturer](http://www.mdfountains.com/manufacturer)

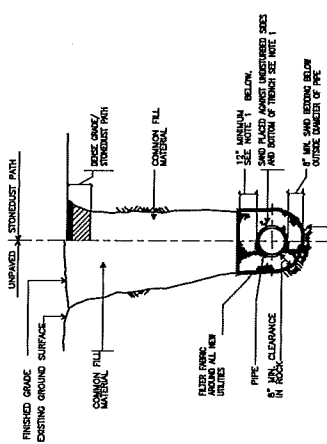
**MODEL 10145SMIFA**  
 1/2\"/>



2024-17-AS  
 PRINTED ON RECYCLED PAPER AND PARTIALY COMPOSTED

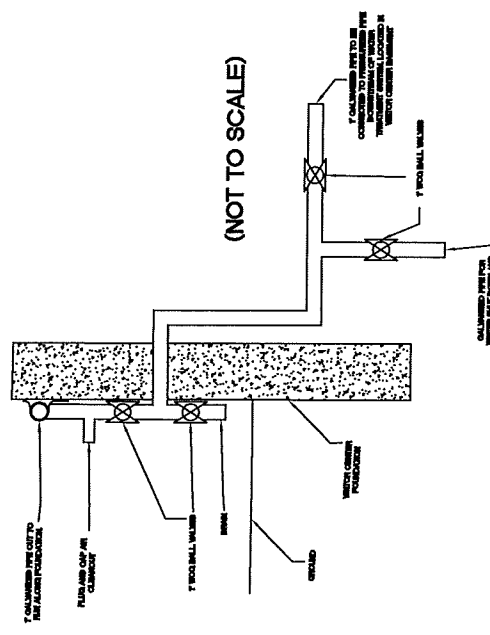


**CURBSTOP**

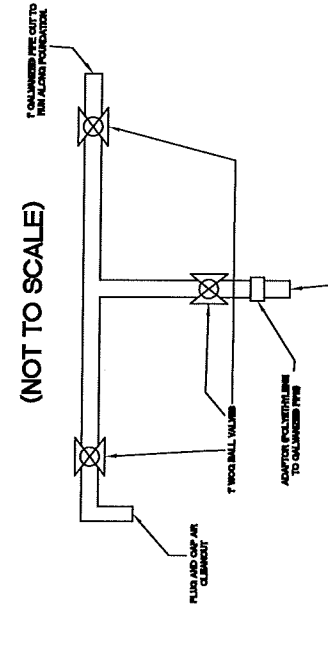


**TYPICAL TRENCH DETAIL FOR DRAINWATER/SEWER PIPE**

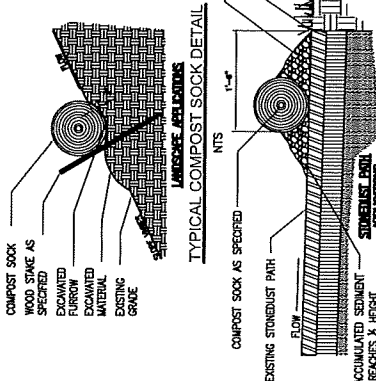
- NOT TO SCALE**
- NOTES:**
1. FOR PIPES OTHER THAN PVC, SELECT CORRECT FILL MIX AS USED FROM
  2. PIPE DIAMETER OF PIPE TO 12\"/>



**4 VALVE JUNCTION #2 INSIDE BASEMENT**



**3 VALVE JUNCTION #1**

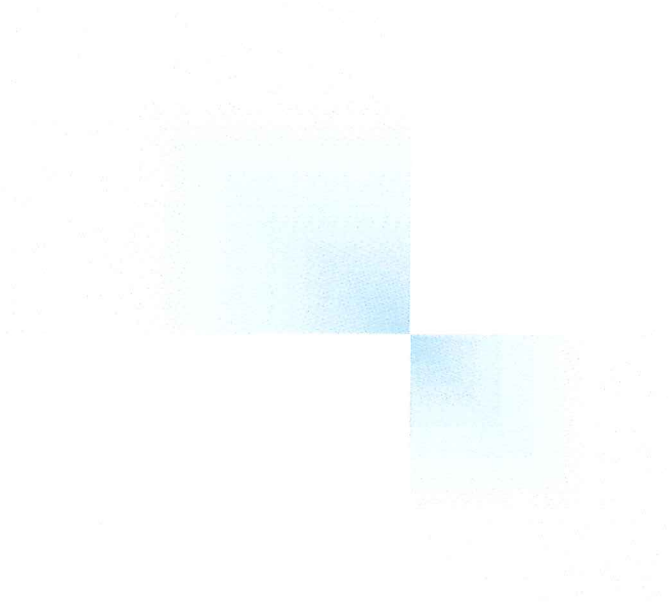


**TYPICAL COMPOST SOCK DETAIL**

REMOVE ACCUMULATED SEDIMENT WHEN IT REACHES 2\"/>

PROJECT NO.		SHEET NO.	
FILE NAME		D-1	
FOR PERMITTING ONLY			
CITY OF BOSTON, MASSACHUSETTS			
WATER FOUNTAIN / BOTTLE FILLING STATION			
DETAIL SHEET			
DESIGNED BY:	MARK L. BULLOCK	DATE:	AUG. 2018
DRAWN BY:	JOHN M. JOHNSON	DATE:	
CHECKED BY:		DATE:	
APPROVED BY:		DATE:	
REV.	DATE	BY	REMARKS







# 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.<sup>1</sup> 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<sup>2</sup>
- 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.

<sup>1</sup> 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.

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



# Checklist for Stormwater Report

## B. Stormwater Checklist and Certification

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

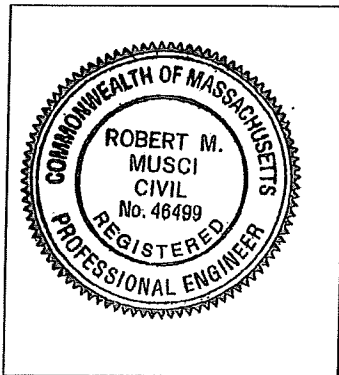
*Note:* Because stormwater requirements vary from project to project, it is possible that a complete Stormwater Report may not include information on some of the subjects specified in the Checklist. If it is determined that a specific item does not apply to the project under review, please note that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

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

### Registered Professional Engineer's Certification

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

Registered Professional Engineer Block and Signature



Signature and Date

*Robert M. Musci* 8/20/19

## 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

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## 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

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## 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<sup>1</sup>
- 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.

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<sup>1</sup> 80% TSS removal is required prior to discharge to Infiltration BMP if Dynamic Field method is used.



# Checklist for Stormwater Report

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## 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

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## 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 proprietary 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

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## Checklist (continued)

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

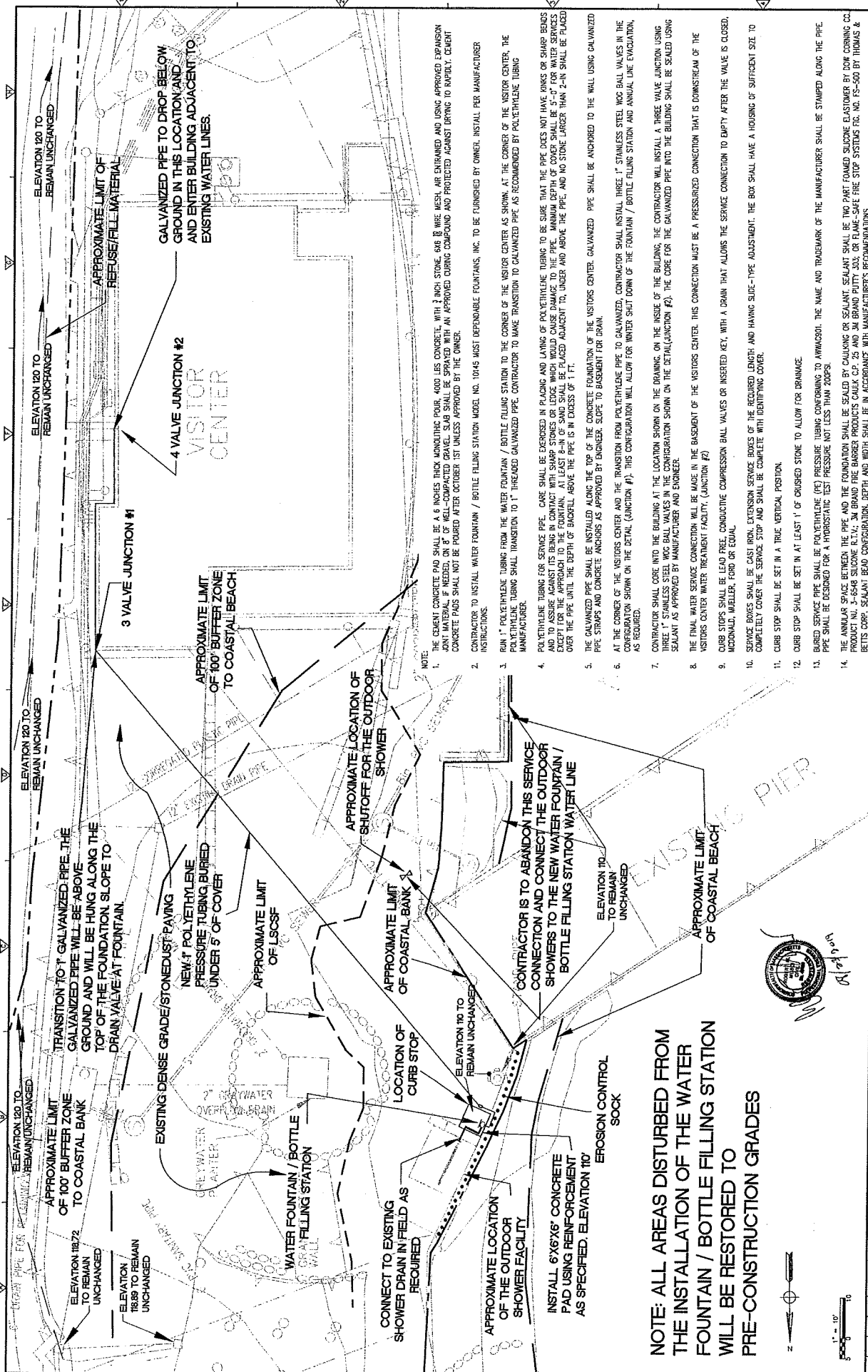
- The project is highly complex and information is included in the Stormwater Report that explains why it is not possible to submit the Construction Period Pollution Prevention and Erosion and Sedimentation Control Plan with the application. A Construction Period Pollution Prevention and Erosion and 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.



<p><b>NOTE: ALL AREAS DISTURBED FROM THE INSTALLATION OF THE WATER FOUNTAIN / BOTTLE FILLING STATION WILL BE RESTORED TO PRE-CONSTRUCTION GRADES</b></p>		<p><b>FOR PERMITTING ONLY</b></p>
<p><b>WATER FOUNTAIN / BOTTLE FILLING STATION</b></p>		
<p>CITY OF BOSTON, MASSACHUSETTS</p>		
<p><b>CDM Smith</b>  <small>CONSTRUCTION DOCUMENTS        100 STATE STREET, SUITE 200        BOSTON, MA 02109        TEL: 617.552.3000        WWW.CDMSMITH.COM</small></p>		
<p>PROJECT NO. _____</p>	<p>DATE: _____</p>	<p>SHEET NO. _____</p>

- NOTE:
- THE CEMENT CONCRETE PAD SHALL BE 4.6 INCHES THICK W/ 4000 LBS CONCRETE, WITH 3 INCH STONE, 6x6 B WIRE MESH, AIR ENTRAINMENT AND USING APPROVED EXPANSION JOINT MATERIAL IF NEEDED. ON 8" OF WELL-COMPACTED GRAVEL. SLAB SHALL BE SPRAYED WITH AN APPROVED CURING COMPOUND AND PROTECTED AGAINST IMPACT BY BARBED, CLEAR CONCRETE PADS SHALL NOT BE POURED AFTER OCTOBER 1ST UNLESS APPROVED BY THE OWNER.
  - CONTRACTOR TO INSTALL WATER FOUNTAIN / BOTTLE FILLING STATION MODEL NO. 10445 MUST DEPENDABLE FOUNTAINS, INC. TO BE FURNISHED BY OWNER. INSTALL PER MANUFACTURER INSTRUCTIONS.
  - RUN 1" POLYETHYLENE TUBING FROM THE WATER FOUNTAIN / BOTTLE FILLING STATION TO THE CORNER OF THE VISITOR CENTER AS SHOWN. AT THE CORNER OF THE VISITOR CENTER, THE POLYETHYLENE TUBING SHALL TRANSITION TO 1" THREADED GALVANIZED PIPE, CONTRACTOR TO MAKE TRANSITION TO GALVANIZED PIPE AS RECOMMENDED BY POLYETHYLENE TUBING MANUFACTURER.
  - POLYETHYLENE TUBING FOR SERVICE PIPE. CARE SHALL BE EXERCISED IN PLACING AND LAYING OF POLYETHYLENE TUBING TO BE SURE THAT THE PIPE DOES NOT HAVE KINKS OR SHARP BENDS AND TO LIE FLAT AGAINST THE CONCRETE. THE DEPTH OF COVER SHALL BE 5'-0" FOR WATER SERVICES EXCEPT FOR THE APPROACH TO THE FOUNTAIN. AT LEAST 8-INCH OF SAND SHALL BE PLACED ADJACENT TO, UNDER AND ABOVE THE PIPE, AND NO STAKE LARGER THAN 2-INCH SHALL BE PLACED OVER THE PIPE UNTIL THE DEPTH OF BACKFILL ABOVE THE PIPE IS IN EXCESS OF 1 FT.
  - THE GALVANIZED PIPE SHALL BE INSTALLED ALONG THE TOP OF THE CONCRETE FOUNDATION OF THE VISITOR CENTER. GALVANIZED PIPE SHALL BE ANCHORED TO THE WALL USING UNWALNUTTED PIPE STRAPS AND CONCRETE ANCHORS AS APPROVED BY ENGINEER. SLOPE TO BASEMENT FOR DRAIN.
  - AT THE CORNER OF THE VISITOR CENTER AND THE TRANSITION FROM POLYETHYLENE PIPE TO GALVANIZED PIPE, CONTRACTOR SHALL INSTALL THREE 1" STAINLESS STEEL WOG BALL VALVES IN THE CONFIGURATION SHOWN ON THE DETAIL (JUNCTION #1). THIS CONFIGURATION WILL ALLOW FOR WATER SHUT DOWN OF THE FOUNTAIN / BOTTLE FILLING STATION AND ANNUAL LINE EVACUATION, AS REQUIRED.
  - CONTRACTOR SHALL CODE INTO THE DRAWING ON THE INSIDE OF THE BUILDING THE LOCATION SHOWN ON THE DRAWING. THE CONTRACTOR WILL INSTALL A THREE VALVE JUNCTION USING THREE 1" STAINLESS STEEL WOG BALL VALVES IN THE CONFIGURATION SHOWN ON THE DETAIL (JUNCTION #2). THE CORE FOR THE GALVANIZED PIPE INTO THE BUILDING SHALL BE SEALED USING SEALANT AS APPROVED BY MANUFACTURER AND ENGINEER.
  - THE FINAL WATER SERVICE CONNECTION WILL BE MADE IN THE BASEMENT OF THE VISITOR CENTER. THIS CONNECTION MUST BE A PRESSURIZED CONNECTION THAT IS DOWNSREAM OF THE VISITOR CENTER WATER TREATMENT FACILITY. (JUNCTION #2)
  - CURB STOPS SHALL BE LEAD FREE, CONDUCTIVE COMPRESSION BALL VALVES OR INSERTED KEY, WITH A DRAIN THAT ALLOWS THE SERVICE CONNECTION TO EMPTY AFTER THE VALVE IS CLOSED.
  - SERVICE BOXES SHALL BE CAST IRON, EXTENSION SERVICE BOXES OF THE REQUIRED LENGTH AND HAVING SURE-TYPE ADJUSTMENT. THE BOX SHALL HAVE A HOUSING OF SUFFICIENT SIZE TO COMPLETELY COVER THE SERVICE STOP AND SHALL BE COMPLETE WITH IDENTIFYING COVER.
  - CURB STOP SHALL BE SET IN A TRUE VERTICAL POSITION.
  - CURB STOP SHALL BE SET IN AT LEAST 1" OF CRUSHED STONE TO ALLOW FOR DRAINAGE.
  - BURIED SERVICE PIPE SHALL BE POLYETHYLENE (PE) PRESSURE TUBING CONFORMING TO ANWR40001. THE NAME AND TRADEMARK OF THE MANUFACTURER SHALL BE STAMPED ALONG THE PIPE. PIPE SHALL BE DESIGNED FOR A HYDROSTATIC TEST PRESSURE NOT LESS THAN 200 PSI.
  - THE ANNULAR SPACE BETWEEN THE PIPE AND THE FOUNDATION SHALL BE SEALED BY CAULKING OR SEALANT. SEALANT SHALL BE TWO PART FOAMED SILICONE ELASTOMER BY DOW CORNING CO. PRODUCT NO. J-6548 SILICONE R.T.V.; 3M BRAND FIRE BARRIER PRODUCTS CAULK, C.P. 25 AND 3M BRAND PUTTY JOG, OR FLAME-SAFE FIRE STOP SYSTEMS FIG. NO. FS-500 BY THOMAS & BETTS CORP. SEALANT BEAD CONFIGURATION, DEPTH AND WIDTH SHALL BE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.