DCR Harborwalk Concrete Sidewalk Repair Project

Boston, MA

PREPARED FOR



Massachusetts Department of Conservation and Recreation 251 Causeway Street Boston, MA 02114

PREPARED BY



101 Walnut Street PO Box 9151 Watertown, MA 02471 617.924.1770

June 4, 2019



June 4, 2019

Ref: 14371.00

Boston Conservation Commission 1 City Hall Square, Room 709 Boston, MA 02201

Re: DCR Harborwalk Concrete Sidewalk Repair Project Notice of Intent

Dear Commissioners,

On behalf of the applicant, the Massachusetts Department of Conservation and Recreation (DCR), Vanasse Hangen Brustlin, Inc. (VHB) is submitting the enclosed Notice of Intent (NOI) for the removal and replacement of five concrete panels of the Harborwalk (the Project) near the Bayside Expo Center in the Dorchester neighborhood of Boston, MA (the Project Site). This application is being filed under the Massachusetts Wetlands Protection Act, MGL c.131, §40 (WPA) and its implementing regulations, 310 CMR 10.00.

The Project will require work within Land Subject to Coastal Storm Flowage (LSCSF) and Coastal Bank, as well as the 100-foot Buffer Zone to Coastal Bank as regulated by the WPA. Wetland resource areas will be protected from impacts during construction through the implementation of an erosion and sedimentation control program including permanent seeding, pavement sweeping, and erosion control barriers.

In compliance with the WPA, notification to abutters regarding this NOI has been made by certified return receipt mail. A copy of the abutter notification form and a certified list of abutters are enclosed as part of the NOI.

A check made payable to the City of Boston in the amount of \$50.00 is enclosed for payment of the City of Boston NOI Filing Fee. A check made payable to the Commonwealth of Massachusetts in the amount of \$237.50 has been sent directly to the Department of Environmental Protection Lock Box for payment of the state's share of this filing fee.

101 Walnut Street

PO Box 9151

Watertown, Massachusetts 02471

Boston Conservation Commission June 4, 2019 Page 2



Please advertise this matter for public hearing at the Commission's next scheduled meeting. If you have any questions concerning this submittal or require additional information, please contact me at 617-607-2783.

Sincerely,

Gene F. Crouch

Senior Environmental Scientist

Attachment: DCR Harborwalk Concrete Sidewalk Repair Project Notice of Intent

CC: MassDEP Northeast Regional Office

DCR - Robert Lowell

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Notice of Intent Forms

- > Notice of Intent Form 3
- Fee Transmittal Form
- > Copy of Filing Fee Checks

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 #:1105143 City/Town:BOSTON

A.General Information

1. Project Location:

a. Street Address HARBORWALK, NEAR BAYSIDE EXO CENTER

b. City/Town BOSTON c. Zip Code 02125 d. Latitude 42.32301N e. Longitude 71.04523W

f. Map/Plat # 1303448001 g.Parcel/Lot # -

2. Applicant:

☐ Individual ☐ Organization

a. First Nameb. Last Namec. OrganizationDEPARTMENT OF CONSERVATION AND RECREATION

d. Mailing Address 251 CAUSEWAY STREET, SUITE 600

e. City/Town BOSTON f. State MA g. Zip Code 02114

h. Phone Number 617-626-1340 i. Fax j. Email robert.lowell@mass.gov

3. Property Owner:

more than one owner

a. First Name b. Last Name c. Organization COMMONWEALTH OF MASSACHUSETTS

d. Mailing Address 139 WOOD ROAD

e. City/Town BRAINTREE f.State MA g. Zip Code 02184

h. Phone Number i. Fax j.Email

4. Representative:

a. First Name GENE b. Last Name CROUCH

c. Organization VHB

d. Mailing Address 101 WALNUT STREET

e. City/Town WATERTOWN f. State MA g. Zip Code 02472

h.Phone Number 617-607-2783 i.Fax j.Email gcrouch@vhb.com

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

a.Total Fee Paid 500.00 b.State Fee Paid 237.50 c.City/Town Fee Paid 262.50

6.General Project Description:

DCR IS PROPOSING TO REPAIR FIVE CONCRETE SECTIONS OF THE HARBORWALK THAT WERE UNDERMINED BY WAVE ACTION DURING MARCH 2018 STORM EVENTS.

7a.Project Type:

Single Family Home
 Residential Subdivision
 Limited Project Driveway Crossing
 Commercial/Industrial

5. □ Dock/Pier 6. □ Utilities

7. ☐ Coastal Engineering Structure 8. ☐ Agriculture (eg., cranberries, forestry)

9. ☐ Transportation 10. ☐ 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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Provided by MassDEP: MassDEP File #: eDEP Transaction #:1105143 City/Town:BOSTON

| CMR 10.53 (inland)? | | | |
|---|--|--|-------------------------------|
| Yes ▼ No Limited Project | If yes, describe which limited | d project applies to this project: | |
| 8.Property recorded at the F | Registry of Deeds for: | | |
| a.County: | b.Certificate: | c.Book: | d.Page: |
| | ource Area Impacts (tempo Area Impacts (temporary & perman | · · · | |
| | nly project - Check if the project is l | · | Bordering Vegetated Wetland, |
| 2.Inland Resource Areas: (| See 310 CMR 10.54 - 10.58, if no | t applicable, go to Section B.3. Co | astal Resource Areas) |
| Resource Area | | Size of Proposed Alteration | Proposed Replacement (if any) |
| a. □ Bank | | 1. linear feet | 2. linear feet |
| b. ☐ Bordering Vegetated V | Vetland | 1. square feet | 2. square feet |
| c. ☐ Land under Waterbod | ies and Waterways | 1. Square feet | 2. square feet |
| | | 3. cubic yards dredged | |
| d. ☐ Bordering Land Subje | ect to Flooding | 1. square feet | 2. square feet |
| | | 3. cubic feet of flood storage | lost 4. cubic feet replaced |
| e. ☐ Isolated Land Subject | to Flooding | 1. square feet | |
| | | 2. cubic feet of flood storage | lost 3. cubic feet replaced |
| f.□ Riverfront Area | | 1. Name of Waterway (if any) | 1 |
| 2. Width of Riverfront A | ☐ 25 ft Designated Densely ☐ 100 ft New agricultural p ☐ 200 ft All other projects | y Developed Areas only | |
| 3. Total area of Riverfro | ont Area on the site of the proposed | d project | square feet |
| 4. Proposed Alteration of | of the Riverfront Area: | | square reer |
| a. total square feet | b. square feet within 100 ft. | c. square feet between 100 ft. and 200 ft. | |
| 5. Has an alternatives a | nalysis been done and is it attached | to this NOI? | Γ Yes Γ No |

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WPA Form 3 - Notice of Intent

☐ Project Involves Streams Crossings

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

Provided by MassDEP: MassDEP File #: eDEP Transaction #:1105143 City/Town:BOSTON

| 6. Was the lot where the activity is proposed created prior to August 1, 1996? | | | ☐ Yes☐ No |
|--|---|--|---------------------------------|
| 3.Coastal Resource Areas: (Se | ee 310 CMR 10.25 - 10.35) | | |
| Resource Area | | Size of Proposed Alteration | Proposed Replacement (if any) |
| a. Designated Port Areas | Indicate size under | Land under the ocean b | pelow, |
| b. ☐ Land Under the Ocean | 1. square feet | | |
| | 2. cubic yards dredged | | |
| c. □ Barrier Beaches | | aches and/or Coatstal Dunes, bel | ow |
| d. Coastal Beaches | 1. square feet | 2. cubic yards beach no | ourishment |
| e. ☐ Coastal Dunes | 1. square feet | 2. cubic yards dune nou | urishment |
| f. Coastal Banks | 145 1. linear feet | | |
| g. ☐ Rocky Intertidal Shores | 1. square feet | | |
| h. ☐ Salt Marshes | | | |
| | 1. square feet | 2. sq ft restoration, reh | ab, crea. |
| i. ☐ Land Under Salt Ponds | 1. square feet | | |
| | 2. cubic yards dredged | | |
| j. ☐ Land Containing Shellfish | 1. square feet | | |
| k. ☐ Fish Runs | Indicate size under Coastal Ba Under Waterbodies and Water | nks, Inland Bank, Land Under th ways, above | e Ocean, and/or inland Land |
| | 1. cubic yards dredged | | |
| l. ✓ Land Subject to Coastal Storm Flowage | 1200 1. square feet | | |
| 4.Restoration/Enhancement | | | |
| ☐ Restoration/Replacement | | | |
| | e of restoring or enhancing a wetl 3.h above, please entered the add | | he square footage that has been |
| a. square feet of BVW | b. sc | quare feet of Salt Marsh | |
| 5.Projects Involves Stream Cro | ssings | | |

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

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WPA Form 3 - Notice of Intent

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

Provided by MassDEP: MassDEP File #: eDEP Transaction #:1105143 City/Town:BOSTON

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
- $c. \ \ \, \blacksquare \ \ \, MESA \ filing \ fee \ (fee \ information \ available \ at: \ \underline{http://www.mass.gov/eea/agencies/dfg/dfw/natural-heritage/regulatory-review/mass-endangered-species-act-mesa/mesa-fee-schedule.html})$

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

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

- d.

 ☐ Vegetation cover type map of site
- e. ☐ Project plans showing Priority & Estimated Habitat boundaries
- d. OR Check One of the following
 - 1. Project is exempt from MESA review. Attach applicant letter indicating which MESA exemption applies. (See 321 CMR 10.14, http://www.mass.gov/eea/agencies/dfg/dfw/laws-regulations/cmr/321-cmr-1000-massachusetts-endangered-species-act.html#10.14; the NOI must still be sent to NHESP if the project is within estimated habitat pursuant to 310 CMR 10.37 and 10.59.)
 - 2. ☐ Separate MESA review ongoing.
 - a. NHESP Tracking Number
 - b. Date submitted to NHESP
 - $3.\square$ Separate MESA review completed.

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| ľ | Massachusetts Wetlands Protection Act M.G.L. c. 131, §40 | |
|----|---|---|
| | Include copy of NHESP "no Take" determination or valid Conservatio | n & Management Permit with approved plan. |
| | * Some projects not in Estimated Habitat may be located in Priority Hal | bitat, and require NHESP review |
| 2. | For coastal projects only, is any portion of the proposed project located by a. Not applicable - project is in inland resource area only b. Yes No | elow the mean high waterline or in a fish run? |
| | 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 North For coastal towns in the Southeast Region, please contact MassDEP's So | |
| 3. | Is any portion of the proposed project within an Area of Critical Environr | - |
| a | 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 Ou Massachusetts Surface Water Quality Standards, 314 CMR 4.00? a. □ Yes ▼ No | atstanding Resource Water (ORW) as designated in the |
| 5. | Is any portion of the site subject to a Wetlands Restriction Order under th 40A) or the Coastal Wetlands Restriction Act (M.G.L.c. 130, § 105)? a. □ Yes ▼ No | ne Inland Wetlands Restriction Act (M.G.L.c. 131, § |
| 6. | Is this project subject to provisions of the MassDEP Stormwater Manage a. Ves, Attach a copy of the Stormwater Report as required by the St 10.05(6)(k)-(q) and check if: | |
| | Applying for Low Impact Development (LID) site design credits Vol.2, Chapter 3) | (as described in Stormwater Management Handbook |
| | 2. A portion of the site constitutes redevelopment | |
| | 3. Proprietary BMPs are included in the Stormwater Management S | system |
| | b. ☐ No, Explain why the project is exempt: | |
| | 1. Single Family Home | |
| | 2. Emergency Road Repair | |

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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

V

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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:c. Revised Final Date:e. Scale:DCR HARBOR WALK
- SIDEWALK REPAIRVHBERIC J. MONKIEWICZ6/4/20191"=20"

- 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.
- O Attach Stormwater Report if needed

9. Attach Stormwater Report, if needed.

Massachusetts Department of Environmental

Protection

Bureau of Resource Protection - Wetlands

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Provided by MassDEP: MassDEP File #: eDEP Transaction #:1105143 City/Town:BOSTON

| Massachusetts Wetlands Protection Act M.G.L. c. 1 | 31, §40 |
|---|---|
| E. Fees | |
| I. Fee Exempt: No filing fee shall be assessed for projects of any city, tribe housing authority, municipal housing authority, or the Massac | town, county, or district of the Commonwealth, federally recognized Indian chusetts Bay Transportation Authority. |
| Applicants must submit the following information (in addition to pages 347725 | 1 and 2 of the NOI Wetland Fee Transmittal Form) to confirm fee payment: |
| 2. Municipal Check Number 347715 | 3. Check date 5/13/2019 |
| 4. State Check Number VIAB FNC. | 5. Check date |
| 6. Payer name on check: First Name | 7. Payer name on check: Last Name |
| I hereby certify under the penalties of perjury that the foregoing Notice of In and complete to the best of my knowledge. I understand that the Conservation at the expense of the applicant in accordance with the wetlands regulations, 3 | on Commission will place notification of this Notice in a local newspaper 10 CMR 10.05(5)(a). |
| I further certify under penalties of perjury that all abutters were notified of th Notice must be made by Certificate of Mailing or in writing by hand delivery of the property line of the project location. | |
| RACE | 5/22/19 |
| 1. Signature of Applicant | 2. Date |
| GLIAR | 5-22-19 |
| 3. Signature of Property Owner(if different) | 4. Date |
| (my limb | 5-22-2019 |

For Conservation Commission:

5. Signature of Representative (if any)

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.

6. Date

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.

VANASSE HANGEN BRUSTLIN, INC.

101 WALNUT STREET • PO BOX 9151 WATERTOWN, MASSACHUSETTS 02471 CITIZENS BANK MASSACHUSETTS 5-7017/2110

347725

CHECK DATE

May 13, 2019

AMOUNT

\$50.00

City of Boston Boston City Hall One City Hall Square Boston, MA 02201

Fifty and 00/100

Security Check features included.
Details on back.

"347725" ::211070175:: 1130161371"

347715

RIZED SIGNATURE

CITIZENS BANK MASSACHUSETTS 5-7017/2110

CHECK DATE

May 13, 2019

AMOUNT

\$237.50

AUTHORIZED SIGNATURE

VANASSE HANGEN BRUSTLIN, INC.

101 WALNUT STREET • PO BOX 9151

WATERTOWN, MASSACHUSETTS 02471

Two Hundred Thirty Seven and 50/100

Commonwealth of Massachusetts **DEP-Department of Environmental Protection** P.O. Box 4062 Boston, MA 02211

Security Check features included.
Details on back.

#347715# #211070175# 1130161371#

List of Figures

- > Figure 1 USGS Locus Map
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Figure 1 - USGS Locus Map Source Info: USGS, MassGIS, VHB







Figure 2 - Aerial Map Source Info: USGS, MassGIS, VHB





Project Limits

NHESP Priority Habitats of Rare Species NHESP Estimated Habitats of Rare Wildlife

NHESP Certified Vernal Pools - None Present

Figure 3 - NHESP Map Source Info: USGS, MassGIS, VHB





Flood Zone Designations

AE: 1% Annual Chance of Flooding, with BFE

VE: High Risk Coastal Area

X: 0.2% Annual Chance of Flooding

Figure 4 - FEMA Map

Source Info: MassGIS, VHB

Attachment A
 Notice of Intent Narrative

Attachment A Notice of Intent Narrative

This Notice of Intent (NOI) is being filed pursuant to the Massachusetts Wetlands Protection Act (WPA), (M.G.L. Chapter 131, Section 40) and its implementing Regulations (310 CMR 10.00). This narrative describes wetland resource areas associated with the Site, the proposed work, impacts to wetland resource areas, mitigation measures, and how the Project meets the performance standards of the WPA and Regulations.

Introduction

The Applicant, the Department of Conservation and Recreation (DCR), is proposing to remove and replace five concrete panels of the Harborwalk (the Project) near the Bayside Expo Center in the Dorchester neighborhood of Boston, MA (the Project Site) (Figures 1 and 2). The panels were damaged and undermined by a series of coastal storms in March 2018. At this time, DCR proposes only work necessary to restore the safe use of the sidewalk. More comprehensive repairs of the eroded shoreline are contemplated for the future. The purpose of the Project is to restore Harborwalk safety for all users.

DCR is proposing to remove and dispose of five damaged sidewalk panels in three sections of the Harborwalk. The base of each panel will be reconstructed, new panels will be installed, and 145 linear feet of Coastal Bank will be stabilized to prevent future erosion.

The Project will require work within Land Subject to Coastal Storm Flowage (LSCSF), Coastal Bank, and the 100-foot buffer zone to resource areas regulated by the WPA. Resource areas will be protected from impacts during construction through the implementation of an erosion and sedimentation control program. This program includes provisions to minimize areas of disturbance through phasing and sequencing, limit erosion through stabilization, and prevent sediment from leaving the Project Site by installing structural controls. The Project will not change any drainage patterns or flow of stormwater off the Project Site.

Site Description

The Project Site is a linear walking park on DCR property within the West Link of the Dorchester Shores Reservation (Figures 1 and 2). The existing Harborwalk consists of 10-foot wide concrete sidewalk located adjacent to vegetated parkland, coastal bank, and coastal beach that is open to the public. The Harborwalk and adjacent parkland were constructed in 1996 on urban fill placed years earlier by the City of Boston. In March 2018, a series of coastal storms caused erosion that has undermined the sidewalk and sub-base in three

areas. Under current shoreline conditions, storm waves can act upon the sidewalk footprint and continue to erode the sidewalk sub-base. Orange traffic cones have been placed on the damaged panels, but pedestrians have continued to use these sections of the Harborwalk, creating a safety issue. Photographs of existing conditions are included in Attachment D. The three sidewalk sections are shown in the accompanying plan in Attachment E.

Surrounding land use includes Carson Beach and public recreational areas to the north and west, commercial parcels to the south, Dorchester Shores Reservation and multi-family residential areas to the southeast, and the coastal Old Harbor to the north and east.

According to the most recently available data provided by the Massachusetts Natural Heritage and Endangered Species Program (NHESP), Priority Habitats of Rare Species and Estimated Habitats of Rare Wildlife have been mapped in the vicinity of the Project Site. PH1287 and EH 948 appear to be associated with Carson Beach and L Street Beach to the northwest of the Project Site. No work is proposed within NHESP Priority or Estimated Habitat. No certified or potential vernal pools are located near the Project (Figure 3).

The Project Site is not located within or near an Area of Critical Environmental Concern (ACEC). According to the Massachusetts Department of Environmental Protection (DEP), the Project Site is not located within an Outstanding Resource Water area, or an area designated as a Zone II Wellhead Protection Area.

According to the Natural Resources Conservation Service (NRCS) soil survey, soils at the Project Site are mapped as Udorthents with a wet substratum. Just east of the Project Site, where an eroded scarp has formed and damaged an informal walking path east of the formal Harborwalk, soils change to Urban land with a wet substratum. Exposed site soil is observed to be fill material composed of brick, cobble and broken, degraded asphalt pavement.

The most recently issued Flood Insurance Rate Map (FIRM) for the area (FEMA Floodway Map Number 25025C0083J, effective March 16, 2016, produced by the Federal Emergency Management agency (FEMA), indicates the Project Site is within the Velocity Zone with a base flood elevation of 14 feet (NAVD 88) (Figure 4).

Wetland resource areas near the Project Site are described below.

Wetland Resource Areas

Wetland resource areas have been mapped using topographical information from field survey conducted by Vanasse Hangen Brustlin, Inc. (VHB) on January 17, 2019. Resource area determinations were made in accordance with methods developed by the DEP. The following sections of this narrative describe the wetland resource areas regulated under the WPA. Resource areas in the vicinity of the Project are shown on the accompanying Project plans in Attachment E.

The state-regulated wetland resource areas identified near the Site include Land Subject to Coastal Storm Flowage (LSCSF), Land Under the Ocean, Coastal Beach, and Coastal Bank. All resource areas are associated with Old Harbor and Carson Beach, found within Dorchester Bay. Dorchester Bay forms the northeast shoreline of the Dorchester neighborhood of

Boston, where the Project Site is located. Dorchester Bay is one of three small bays located in southern Boston Harbor.

The state-regulated resources are defined under the WPA Regulations (310 CMR 10.00) as follows:

- > Land Subject to Coastal Storm Flowage (LSCSF): As defined in 310 CMR 10.04, Land Subject to Coastal Storm Flowage is "land subject to any inundation caused by coastal storms up to and including that caused by the 100-year storm, surge of record or storm of record."
- > Land Under the Ocean: As defined 310 CMR 10.25(2), Land under the Ocean "means land extending from the mean low water line seaward to the boundary of the municipality's jurisdiction and includes land under estuaries."
- Coastal Beach: As defined in 310 CMR 10.27(2), Coastal beach "means 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 bankline or the seaward edge of existing human-made structures, when these structures replace one of the above lines, whichever is closest to the ocean."
- > Coastal Bank: As defined in 310 CMR 10.30(2), Coastal Banks are "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."

The WPA also establishes a 100-foot buffer zone from the boundary Coastal Bank.

Work Description

Proposed work includes removal and disposal of existing concrete sidewalk panels (three eroded areas comprising 100 linear feet of total sidewalk), reconstruction of the sidewalk base, and restoration of the sidewalk. The work is necessary to address safety concerns with current Harborwalk conditions. At this time, DCR proposes only work necessary to restore the safe use of the sidewalk. More comprehensive repairs of the eroded shoreline are contemplated for the future.

The Harborwalk was constructed adjacent to the coastal bank to enable accessibility to the harbor and coastal environment. With loss of land on the ocean side, and DCR controlling a limited strip of property in the area, there is no alternative to locate the walk landward on DCR property.

The existing concrete sidewalk panels will be removed and disposed of appropriately. Once the panels have been removed, the existing gravel base will be augmented, compacted and stabilized as needed. Concrete panels and a concrete base will be installed over the gravel base within the footprint of the removed panels. Pre-cast concrete interlocking blocks will then be placed at the seaward side of the panels to prevent future erosion. Cobble material, similar to what currently exists on the beach today, will be placed at the toe of slope immediately adjacent to the interlocking blocks to protect the toe of the repair. Irrigation piping that has become exposed will be cut and/or capped.

Boston Harbor tide charts will be consulted prior to the start of work, to avoid work during predicted Spring tides, when high tides have elevated potential to impact the Project work area.

Work in Wetland Resource Areas

Repair to the Harborwalk will require work within regulated resources associated with Old Harbor. Work will be conducted within Coastal Bank, Land Subject to Coastal Storm Flowage, and the 100-foot Buffer Zone to Coastal Bank. While present in the vicinity of the Project Site, no work is proposed in Land Under the Ocean.

Work in Coastal Bank

Approximately 145 linear feet of impact to Coastal Bank is proposed. Impact to Coastal Bank will result from placement of the concrete interlocking blocks at the seaward side of the sidewalk panels. This work is necessary to prevent continued erosion and to ensure future safety of the five replaced sidewalk panels,

Work in Land Subject to Coastal Storm Flowage

As identified in the FEMA FIRM, the Project Site is located within the Velocity Zone (VE). The Base Flood Elevation identified by FEMA within the Velocity Zone is 14 feet (NAVD 88). The existing Harborwalk is between nine and 11 feet (NAVD 88) in the Project limits.

The proposed work will impact approximately 1,200 square feet of LSCSF, which includes removal and replacement of the concrete sidewalk panels and placement of the concrete interlocking blocks and cobble. The replaced concrete sidewalk panels will match the existing grades. No significant loss of flood storage volume will occur as part of this Project.

Work in Buffer Zone

All five concrete sidewalk panels to be replaced are within the 100-foot Buffer Zone to Coastal Bank. Work in the Buffer Zone includes removing and disposing of the existing concrete sidewalk panels, reconstructing the sidewalk base, and restoring the sidewalk by placing forms and pouring new concrete panels and associated stabilizers. Construction access to the Project Site will be through the adjacent parking lot and will also cross Buffer Zone areas.

Mitigation Measures

A suite of mitigation measures is proposed to prevent short- and long-term impacts to wetland resource areas. Mitigation measures proposed for this Project are described below.

Erosion and Sediment Controls

An erosion and sedimentation control program will be implemented to minimize temporary impacts to wetland resource areas during the construction phase of the Project. The

program incorporates Best Management Practices (BMPs) specified in guidelines developed by the DEP and the U.S. Environmental Protection Agency (EPA).

Proper implementation of the erosion and sedimentation control program will:

- > Minimize exposed areas through sequencing and temporary stabilization;
- > Place structures to manage stormwater runoff and erosion; and
- > Establish a permanent vegetative cover or other forms of stabilization as soon as practicable.

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

Non-Structural Practices

Non structural practices to be used during construction include temporary stabilization, permanent seeding, pavement sweeping and dust control. These practices will be initiated as soon as practicable in appropriate areas at the Project Site.

Permanent Seeding

Upon completion of Harborwalk repairs, any upland areas not covered by pavement, other forms of stabilization, or other methods of landscaping will be seeded with a high quality commercial perennial seed mix. The mix will be applied in accordance with the manufacture's recommended application rate with mulch or bonded fiber matrix as described above.

Pavement Sweeping

Paved areas impacted by Project work, including the parking lot adjacent to the Project Site, shall be swept as needed during construction. The sweeping program will remove sediment and other contaminants directly from paved surfaces before their release into stormwater runoff. Pavement sweeping has been demonstrated to be an effective initial treatment for reducing pollutant loading into stormwater. Once construction has been completed, sweeping at the Site will occur as required.

Structural Practices

Structural erosion and sedimentation controls that may be used on the Site consist of erosion control barriers.

Erosion Control Barriers

Prior to any ground disturbance, straw wattle, silt fence, or other approved erosion control barrier will be installed at the down gradient limit of work. Erosion control barriers will be

held in place with wooden stakes. If silt fence is used, the toe will be entrenched to prevent underflow.

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

Regulatory Compliance

Proposed work will occur within LSCSF, Coastal Beach, Coastal Bank, and the 100-foot buffer zone to resources areas as regulated by the WPA. The following discusses compliance with the regulatory standards.

Work within Wetland Resource Areas

As demonstrated below, work proposed in the resource areas complies with the requirements outlined in the WPA.

Work in Coastal Bank

The Coastal Bank on the Project Site is previously disturbed and developed with the Harborwalk and adjacent parking area. The Coastal Bank at the Project site does not typically supply sediment to the adjacent coastal beach. A series of severe coastal storms in 2018 caused exceptional erosion of the shoreline, resulting in the damage to the Harborwalk. Prior to these storms, the Project Site was stabilized and was not a source of downdrift sediment. Approximately 145 linear feet of impact to Coastal Bank is proposed. The Coastal Bank is significant to storm damage prevention and flood control because it is a vertical buffer to storm waters. As such, the following performance standards apply:

(6) Any project on such a coastal bank or within 100 feet landward of the top of such coastal bank shall have no adverse effects on the stability of the coastal bank.

Replacing the damaged sidewalk panels and eroding areas along the Harborwalk will positively effect the stability of the coastal bank. The proposed Project will reinforce the bank stability adjacent to the eroded areas with blocks that will prevent future erosion.

(7) Bulkheads, revetments, seawalls, groins or other coastal engineering structures may be permitted on such a coastal bank except when such bank is significant to storm damage prevention or flood control because it supplies sediment to coastal beaches, coastal dunes, and barrier beaches.

The existing Bank is both previously disturbed and developed. Within the Project Site, the Harborwalk is located directly adjacent to the Coastal Bank. There is no dune or pervious feature to supply sediment to the Coastal Beach below. No Coastal Dunes or Barrier Beaches are located in the vicinity of the Project.

(8) Notwithstanding the provisions of 310 CMR 10.3(3) through (7), no project may be permitted which will have any adverse effect on specified habitat sites of rare vertebrate or invertebrate species, as identified by procedures established under 310 CMR 10.37."

No Priority or Estimated Habitats of Rare Species have been identified by NHESP within the Project area. The proposed Project will not have any adverse effect on specified habitat sites of rare species.

Work in Land Subject to Coastal Storm Flowage

The Project includes work within approximately 1,200 square feet of LSCSF. Any displaced flood waters in LSCSF have a direct and unrestricted hydraulic connection to the Atlantic Ocean. The WPA Regulations therefore do not include any performance standards for LSCSF.

Work in Buffer Zone

As identified in 310 CMR 10.53(1) of the WPA regulations, "the Issuing Authority may consider the characteristics of the Buffer Zone, such as the presence of steep slopes, that may increase the potential for adverse impacts on Resource Areas. Conditions may include limitations on the scope and location of work in the Buffer Zone as necessary to avoid alteration of Resource Areas. The Issuing Authority may require erosion and sedimentation controls during construction, a clear limit of work, and the preservation of natural vegetation adjacent to the Resource Area and/or other measures commensurate with the scope and location of the work within the Buffer Zone to protect the interests of M.G.L. c. 131 § 40."

The proposed Project has been designed to address these requirements. As identified in the Mitigation Measures section of this attachment, an erosion and sedimentation control program will be implemented to prevent adverse impacts during construction. Loam and seed will be spread to restore a vegetated edge to the Harborwalk following construction activities. There will not be extensive excavation, new fill, or grading associated with the Project.

Stormwater Management

Runoff from the existing Harborwalk is generally handled in a "country" drainage system, in which water is allowed to shed from the multi-use path onto adjacent vegetated and otherwise pervious surfaces. Stormwater flow and treatment will not be altered by the Project.

The WPA Regulations at 310 CMR 10.05(6)(k) establish 10 Stormwater Management Standards (the Standards) that projects must comply with unless they are determined to be exempt. While the Project is not exempt from the Standards, the path will not generate total suspended solids, oils or other pollution as would occur in runoff from roadways or parking lots. The Project is redevelopment of an existing concrete path that qualifies as a Redevelopment Project and meets the Standards to the maximum extent practicable. A Stormwater Checklist is included as Attachment C of this filing

Summary

DCR is proposing to remove and replace five concrete panels of the Harborwalk located within the West Link of DCR's Dorchester Shores Reservation in Boston, MA. The work is necessary to address the unsafe condition of the existing undermined panels. With loss of land on the ocean side, and DCR controlling a limited strip of property in the area, there is no alternative to locate the walk landward on DCR property.

The proposed Project requires approximately 145 linear feet of impact to Coastal Bank, as well as approximately 175 square feet of impact to Coastal Beach and 1,200 square feet of impact to LSCSF. The Project will also require impacts to the 100-foot Buffer Zone regulated by the WPA.

Wetland resource areas will be protected from impacts during construction through the implementation of an erosion and sedimentation control program that includes provisions to minimize areas of disturbance through phasing and sequencing, limit erosion through stabilization, and prevent sediment from leaving the site by installing structural controls. The Project will not change any drainage patterns or flow of stormwater off the Project Site.

On behalf of the Applicant, we respectfully request that the Boston Conservation Commission find these measures adequately protective of the interests identified in the WPA and issue an Order of Conditions approving the work describe in this NOI and shown on the accompanying plan.

Attachment B Abutter Notification



Notification to Abutters under the Massachusetts Wetlands Protection Act

Pursuant to the requirements of the Massachusetts Wetlands Protection Act (MGL Chapter 131, Section 40), you are hereby notified of the following:

The Applicant, the Department of Conservation and Recreation (DCR), has filed a Notice of Intent (NOI) with the Boston Conservation Commission for repairing five concrete sections of the Harborwalk near the Bayside Expo Center that were damaged during 2018 storm events. Portions of the project will occur in Areas Subject to Protection and Regulation under the Massachusetts Wetlands Protection Act.

Information regarding the NOI may be obtained by calling the Boston Conservation Commission at 617-635-3850. The NOI may be viewed at the Boston Conservation Commission Office located at One City Hall Plaza, Room 709, Boston, MA. You may also call Gene Crouch at 617-607-2783, Monday through Friday between 9 AM and 5 PM with questions or to arrange to view the NOI.

Copies of the NOI may be obtained from the Boston Conservation Commission by calling the number above. You may be charged for a copy of the NOI.

The Boston Conservation Commission will hold a public hearing on the NOI. Notice of the public hearing (including the date, time and place) will be published in a local newspaper at least 5 business days before and posted in Town Hall at least 48 hours in advance. You may also call the Boston Conservation Commission (at the number identified above) to determine the date, time and place of the hearing.

Information on this NOI and the Wetlands Protection Act may also be obtained by calling the Northeast Regional Office of the Massachusetts Department of Environmental Protection at 978-694-3200.

5/8/2019 Abutter Mailing List Generator

Abutter Mailing List Generator --- City of Boston Assessing Department





app01.cityofboston.gov/abutter/

| ZIPCODE | 2127 | 2127 | 2125 | 2125 | 2125 | 2125 |
|---------------------|----------------------------|----------------------------|--|---------------------------------|---|-----------------------------|
| CITY | SOUTH BOSTON | SOUTH BOSTON | DORCHESTER | DORCHESTER | DORCHESTER | DORCHESTER |
| LOCAL ADDRESS | COLUMBIA CI | WILLIAM J DAY BL | 400 260 MT VERNON ST | MT VERNON ST | 160 -234 MT VERNON ST | MT VERNON ST |
| ZIPCODE | 2127 | 2127 | 2125 | 2125 | 1545 | 2184 |
| CITY STATE | SOUTH BOSTON MA | SOUTH BOSTON MA | DORCHESTER MA | DORCHESTER MA | SHREWSBURY MA | BRAINTREE MA |
| MAIL ADDRESS | COLUMBIA CIR | WM J DAY BLVD | 1 HARBOR POINT BL | MOUNT VERNON | 333 SOUTH ST | 139 WOOD RD |
| ADDRESSEE | COMMWLTH OF MASS | COMMWLTH OF MASS | HARBOR POINT APTS CO LESSEE | COMMONWEALTH OF MASS | UNIVERSITY OF MASS BLDG AUTH | COMMWLTH OF MASS |
| PID OWNER | 700541001 COMMWLTH OF MASS | 701421000 COMMWLTH OF MASS | 1303445000 HARBOR POINT APTS CO LESSEE | 1303446000 COMMONWEALTH OF MASS | 1303448000 UNIVERSITY OF MASS BLDG AUTH | 1303448001 COMMWLTH OF MASS |

Attachment C Stormwater Memorandum



To: Boston Conservation Commission 1 City Hall Square, Room 709

Boston, MA 02201

Date: June 4, 2019

Project #: 14371.00

From: Eric J. Monkiewicz, PE

Nick Rutigliano, EIT

Re: Stormwater Management Memorandum

Harborwalk (Dorchester)

This Stormwater Management Memorandum has been prepared to show compliance with the Massachusetts Stormwater Management Standards in accordance with the Massachusetts Wetlands Protection Act Regulations (310 CMR 10.00).

Project Description

The Applicant, the Department of Conservation and Recreation (DCR), is proposing to remove and replace five concrete panels of the Harborwalk (the Project) near the Bayside Expo Center in the Dorchester neighborhood of Boston, MA (the Project Site). The panels were damaged and undermined by a series of coastal storms in March 2018. At this time, DCR proposes only work necessary to restore the safe use of the sidewalk. More comprehensive repairs of the eroded shoreline are contemplated for the future. The purpose of the Project is to restore Harborwalk safety for all users. DCR is proposing to remove and dispose of five damaged sidewalk panels in three sections of the Harborwalk. The base of each panel will be reconstructed, new panels will be installed, and 145 linear feet of Coastal Bank will be stabilized to prevent future erosion.

The Project will require work within Land Subject to Coastal Storm Flowage (LSCSF), Coastal Bank, and the 100-foot buffer zone to resource areas regulated by the WPA. Resource areas will be protected from impacts during construction through the implementation of an erosion and sedimentation control program. This program includes provisions to minimize areas of disturbance through phasing and sequencing, limit erosion through stabilization, and prevent sediment from leaving the Project Site by installing structural controls. The Project will not change any drainage patterns or flow of stormwater off the Project Site.

The proposed Project has been designed to fully comply with the MassDEP Stormwater Management Standards.

Site Description

The Project Site is a linear walking park on DCR property within the West Link of the Dorchester Shores Reservation. The existing Harborwalk consists of 10-foot wide concrete sidewalk located adjacent to vegetated parkland, coastal bank, and coastal beach that is open to the public. Under current shoreline conditions, storm waves can act upon the sidewalk footprint and continue to erode the sidewalk sub-base. Orange traffic cones have been placed on the damaged panels, but pedestrians have continued to use these sections of the Harborwalk, creating a safety issue.

Surrounding land use includes Carson Beach and public recreational areas to the north and west, commercial parcels to the south, Dorchester Shores Reservation and multi-family residential areas to the southeast, and the coastal Old Harbor to the north and east.



Existing Drainage Conditions

Runoff from the existing Harborwalk is generally handled in a "country" drainage system, in which water is allowed to shed from the multi-use path onto adjacent vegetated and otherwise pervious surfaces, which ultimately discharges to Old Harbor as sheet flow or through groundwater. Stormwater flow and treatment will not be altered by the Project.

Proposed Drainage Conditions

Proposed work includes removal and disposal of existing concrete sidewalk panels (three eroded areas comprising 100 linear feet of total sidewalk), reconstruction of the sidewalk base, and restoration of the sidewalk. Once the panels have been removed, the existing gravel base will be augmented, compacted and stabilized as needed. Concrete panels and a concrete base will be installed over the gravel base within the footprint of the removed panels. Two-foot-wide pre-cast concrete interlocking blocks will then be placed at the seaward side of the panels to prevent future erosion. Cobble material, similar to what currently exists on the beach today, will be placed at the toe of slope immediately adjacent to the interlocking blocks to protect the toe of the repair. As such, proposed drainage patterns are not being altered as part of the Project. Impervious area will increase slightly to accommodate the pre-cast concrete interlocking blocks which is necessary to restore the safe use of the sidewalk and protect from further erosion.

Table 1: Contributing Impervious Watershed

| Catch Basin | Impervious Cover (Ac.) | | |
|-------------|------------------------|-------|--|
| | EX | PR | |
| TOTAL | 950 | 1,200 | |

Massachusetts Department of Environmental Protection (MassDEP) – Stormwater Management Standards

As demonstrated below, the proposed Project fully complies with the MassDEP Stormwater Management Standards.

Standard 1: No New Untreated Discharges

The Project has been designed to fully comply with Standard 1. No new untreated discharges are proposed as part of the Project.

Standard 2: Peak Rate Attenuation



The Project has been designed to fully comply with Standard 2 to the maximum extent practicable. Standard 2 waiver is requested because the project is located in land subject to coastal storm flowage and stormwater discharge is to a wetland subject to tidal action.

The stormwater portion of the project will disturb less than 1 acre of land and is therefore not required to obtain coverage under the Environmental Protection Agency (EPA) National

Pollutant Discharge Elimination System (NPDES) Construction General Permit.

| Standard 3: Storn | nwater Recharge |
|--------------------|---|
| | The Project has been designed to fully comply with Standard 3 to the maximum extent practicable. |
| Standard 4: Wate | r Quality |
| | The Project has been designed to fully comply with Standard 4 to the maximum extent practicable. |
| Standard 5: Land | Uses with Higher Potential Pollutant Loads (LUHPPLs) |
| | The Project use is not listed as a land use with higher potential pollutant loads. |
| Standard 6: Critic | al Areas |
| | The project does not discharge to an Outstanding Resource Water (ORW), Coldwater Fisherie or an Area of Critical Environmental Concern (ACEC). |
| | velopments and Other Projects Subject to the the Maximum Extent Practicable |
| | The Project has been designed to fully comply with Standard 7 to the maximum extent practicable. The Project is classified as a redevelopment as it is a bike path / foot path. |
| Standard 8: Const | truction Period Pollution Prevention and Erosion on Controls |



Standard 9: Operation and Maintenance Plan

In compliance with Standard 9, a Post Construction Stormwater Operation and Maintenance (O&M) Plan has been developed for the Project. The O&M Plan is included in Appendix B.

Standard 10: Prohibition of Illicit Discharges

To the best of our knowledge, the project area does not currently have a closed drainage system. As a result, it is our understanding that there are no illicit connections. If portions of a closed drainage system are discovered during construction, the Project contractor will be required to verify there are no illicit connections to the drainage system. If an illicit connection is discovered, the Boston Department of Public Works and Board of Health will be notified to take appropriate action.

Attachments:

Appendix A – Stormwater Checklist

Appendix B - Operation and Maintenance Plan and Long-Term Pollution Prevention Plan



Attachment A Stormwater Checklist



Massachusetts Department of Environmental Protection

Bureau of Resource Protection - Wetlands Program

Checklist for Stormwater Report

A. Introduction

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





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

The Stormwater Report must include:

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

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

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

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

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

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



Checklist for Stormwater Report

B. Stormwater Checklist and Certification

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

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

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

Registered Professional Engineer's Certification

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

Registered Professional Engineer Block and Signature



05/22/2019
Signature and Date

Checklist

| | evelopment ? | new deve | lopment | , redevel | opmen | t, or a n | nix of n | ew and |
|-------------|-------------------------------|----------|---------|-----------|-------|-----------|----------|--------|
| | New development | | | | | | | |
| \boxtimes | Redevelopment | | | | | | | |
| | Mix of New Development and Re | edevelop | ment | | | | | |



Checklist for Stormwater Report

Checklist (continued)

| LID Measures: Stormwater Standards require LID measures to be considered. Document what environmentally sensitive design and LID Techniques were considered during the planning and design of the project: | | | | | |
|---|--|--|--|--|--|
| ☐ No disturbance to any Wetland Resource Areas | | | | | |
| ☐ Site Design Practices (e.g. clustered development, reduced frontage setbacks) | | | | | |
| Reduced Impervious Area (Redevelopment Only) | | | | | |
| | | | | | |
| ☐ LID Site Design Credit Requested: | | | | | |
| ☐ Credit 1 | | | | | |
| Credit 2 | | | | | |
| ☐ Credit 3 | | | | | |
| ☐ Use of "country drainage" versus curb and gutter conveyance and pipe | | | | | |
| ☐ Bioretention Cells (includes Rain Gardens) | | | | | |
| ☐ Constructed Stormwater Wetlands (includes Gravel Wetlands designs) | | | | | |
| ☐ Treebox Filter | | | | | |
| ☐ Water Quality Swale | | | | | |
| ☐ Grass Channel | | | | | |
| ☐ Green Roof | | | | | |
| Other (describe): | | | | | |
| | | | | | |
| Standard 1: No New Untreated Discharges | | | | | |
| No new untreated discharges | | | | | |
| Outlets have been designed so there is no erosion or scour to wetlands and waters of the Commonwealth | | | | | |
| ☐ Supporting calculations specified in Volume 3 of the Massachusetts Stormwater Handbook included. | | | | | |
| | | | | | |



Checklist for Stormwater Report

Checklist (continued)

| Sta | ndar | d 2: Peak Rate | e Attenuation - (to the Maximu | ım Extent Practicable) | | |
|-----|---|-------------------------------|--|--|--|--|
| | | | equested because the project is charge is to a wetland subject to | s located in land subject to coastal storm flowage 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. | | | | | |
| Sta | ndar | d 3: Recharge | - (to the Maximum Extent Pra | cticable) | | |
| | Soil | Analysis provid | ed. | | | |
| | Requ | uired Recharge | Volume calculation provided. | | | |
| | Requ | uired Recharge | volume reduced through use of | the LID site Design Credits. | | |
| | Sizin | g the infiltratior | n BMPs is based on the followin | g method: Check the method used. | | |
| | □s | tatic | ☐ Simple Dynamic | ☐ Dynamic Field¹ | | |
| | Rund | off from all impe | ervious areas at the site dischar | ging to the infiltration BMP. | | |
| | are p | rovided showir | | scharging to the infiltration BMP and calculations outing runoff to the infiltration BMPs is sufficient to | | |
| | Rech | narge BMPs ha | ve been sized to infiltrate the Re | equired Recharge Volume. | | |
| | | | ve been sized to infiltrate the Roor the following reason: | equired Recharge Volume only to the maximum | | |
| | | Site is comprise | ed solely of C and D soils and/or | bedrock at the land surface | | |
| | | M.G.L. c. 21E s | ites pursuant to 310 CMR 40.00 | 000 | | |
| | | Solid Waste La | ndfill pursuant to 310 CMR 19.0 | 00 | | |
| | | Project is othervoracticable. | wise subject to Stormwater Man | agement Standards only to the maximum extent | | |
| | Calc | ulations showin | g that the infiltration BMPs will | drain in 72 hours are provided. | | |
| | Prop | erty includes a | M.G.L. c. 21E site or a solid wa | ste landfill and a mounding analysis is included. | | |



Massachusetts Department of Environmental Protection

Bureau of Resource Protection - Wetlands Program

Checklist for Stormwater Report

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

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 |

Standard 4: Water Quality - (to the Maximum Extent Practicable)

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;

resource areas.

- 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.

applicable, the 44% TSS removal pretreatment requirement, are provided.

| | 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. |
| П | Calculations documenting that the treatment train meets the 80% TSS removal requirement and, if |



Checklist for Stormwater Report

| Cł | necklist (continued) |
|-------------|--|
| Sta | andard 4: Water Quality (continued) |
| \boxtimes | The BMP is sized (and calculations provided) based on: |
| | The ½" or 1" Water Quality Volume or Maximum Extent Practicable |
| | ☐ The equivalent flow rate associated with the Water Quality Volume and documentation is provided showing that the BMP treats the required water quality volume. |
| | The applicant proposes to use proprietary BMPs, and documentation supporting use of proprietary BMP and proposed TSS removal rate is provided. This documentation may be in the form of the propriety BMP checklist found in Volume 2, Chapter 4 of the Massachusetts Stormwater Handbook and submitting copies of the TARP Report, STEP Report, and/or other third party studies verifying performance of the proprietary BMPs. |
| | A TMDL exists that indicates a need to reduce pollutants other than TSS and documentation showing that the BMPs selected are consistent with the TMDL is provided. |
| Sta | ndard 5: Land Uses With Higher Potential Pollutant Loads (LUHPPLs) – (N.A.) |
| | 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 <i>prior to</i> the discharge of stormwater to the post-construction stormwater BMPs. |
| | The NPDES Multi-Sector General Permit does <i>not</i> 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 <i>not</i> 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. |
| Sta | ndard 6: Critical Areas – (N.A.) |
| | 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 Memorandum & NOI. |



Massachusetts Department of Environmental Protection

Sequencing of Erosion and Sedimentation Controls;

Inspection and Maintenance Log Form.

Inspection Schedule; Maintenance Schedule:

Operation and Maintenance of Erosion and Sedimentation Controls;

the information set forth above has been included in the Stormwater Report.

A Construction Period Pollution Prevention and Erosion and Sedimentation Control Plan containing

Bureau of Resource Protection - Wetlands Program

Checklist for Stormwater Report

Checklist (continued)

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

| xt | ent 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 |
| | |
| | □ 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. |
| Sta | andard 8: Construction Period Pollution Prevention and Erosion and Sedimentation Control |
| | Construction Period Pollution Prevention and Erosion and Sedimentation Control Plan must include the owing 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; |



Checklist for Stormwater Report

Checklist (continued)

| | andard 8: Construction Period Pollution Prevention and Erosion and Sedimentation Control ntinued) |
|-------------|---|
| | The project is highly complex and information is included in the Stormwater Report that explains whit 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 <i>not</i> been included in the Stormwater Report but will be submitted <i>before</i> land disturbance begins. |
| \boxtimes | The project is <i>not</i> 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. |
| Sta | andard 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 <i>not</i> 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. |
| | The project area is owned by MassDOT and will be maintained in accordance with MassDOT's standard Operation and Maintenance Plan for roadway maintenance |



Massachusetts Department of Environmental Protection

Bureau of Resource Protection - Wetlands Program

Checklist for Stormwater Report

| Cł | necklist (continued) |
|-------------|--|
| Sta | ndard 10: Prohibition of Illicit Discharges |
| | The Long-Term Pollution Prevention Plan includes measures to prevent illicit discharges; |
| \boxtimes | An Illicit Discharge Compliance Statement is attached; included below |
| | NO Illicit Discharge Compliance Statement is attached but will be submitted <i>prior to</i> the discharge or any stormwater to post-construction BMPs. |
| _ | |

To the best of our knowledge, the project area does not currently have a closed drainage system. As a result, it is our understanding that there are no illicit connections. If portions of a closed drainage system are discovered during construction, the Project contractor will be required to verify there are no illicit connections to the drainage system. If an illicit connection is discovered, the Boston Department of Public Works and Board of Health will be notified to take appropriate action.

No statement is made regarding portions of existing drainage systems not included in the project area.



Attachment B

Operation and Maintenance/Long Term Pollution Prevention Plan

Harborwalk Dorchester, MA

Operation and Maintenance Plan (O&M) and Long Term Pollution Prevention Plan (LTPPP)

June 2019

This Stormwater Management System Operation and Maintenance Plan provides for the inspection and maintenance of existing and proposed concrete sidewalks and for measures to prevent pollution associated with the sidewalk improvements at the Harborwalk in Dorchester, MA.

This document has been prepared in accordance with the requirements of the Stormwater Regulations included in the Massachusetts Wetlands Protection Act Regulations (310 CMR 10).

Responsible Party

The Massachusetts Department of Conservation and Recreation (DCR) will be responsible for the maintenance of the roadway facilities and associated stormwater management features, in accordance with their own standards.

Questions or concerns regarding maintenance activities may also be addressed to DCR:

Massachusetts Department of Conservation and Recreation Main Office 251 Causeway Street Boston, MA 02114 (508) 509-1757

Maintenance Measures

The stormwater management system covered by this Operation and Maintenance Plan consists of the following component:

Sidewalk and Landscape area

Maintenance of this component will be conducted in accordance with DCR standard maintenance practices.

If inspection indicates the need for major repairs of structural surfaces, the inspector should contact the DCR maintenance supervisor to initiate procedures to effect repairs in accordance with DCR's standard construction practices.

Practices for Long Term Pollution Prevention

In general, long term pollution prevention and related maintenance activities will be conducted consistent with DCR Storm Water Management Plan. Information about the plan are available at the following web-site:

https://www.mass.gov/service-details/dcr-stormwater-management

For the facilities covered by this Operation and Maintenance Plan, long term pollution prevention includes the following measures:

<u>Litter Pick-up</u>

DCR will conduct litter pick-up from the stormwater management facilities in conjunction with routine maintenance activities.

Routine Inspection and Maintenance

DCR will conduct inspection and maintenance of the stormwater management practices in accordance with the guidelines discussed above.

Spill Prevention and Response

DCR will implement response procedures for releases of significant materials such as fuels, oils, or chemical materials onto the ground or other areas that could reasonably be expected to discharge to surface or groundwater.

- Reportable quantities will immediately be reported to the applicable Federal, State, and local agencies as required by law.
- Applicable containment and cleanup procedures will be performed immediately.
 Impacted material collected during the response must be removed promptly and disposed of in accordance with Federal, State, and local requirements. A licensed emergency response contractor may be required to assist in cleanup of releases depending on the amount of the release and the ability of the responsible party to perform the required response.
- Reportable quantities of chemical, fuels, or oils are established under the Clean Water Act and enforced through DEP.

Maintenance of Landscaped Areas

Routine mowing should be conducted according to standard DCR practices.

DCR shall minimize use of fertilizers, herbicides, and pesticides for the maintenance of facilities covered by this plan. Any use of fertilizers, herbicides, or pesticides shall be reviewed and approved by the DCR Division of Engineering prior to application. Local Conservation Commission review may also be required.

Snow and Ice Management

Snow and Ice Management shall be conducted according to standard DCR practices.

<u>Prohibition of Illicit Discharges</u>

The DEP Stormwater Management Standards prohibit illicit discharges to the storm water management system. Illicit discharges are discharges that do not entirely consist of stormwater, except for certain specified non-stormwater discharges.

Discharges from the following activities are <u>not</u> considered illicit discharges:

firefighting foundation drains water line flushing footing drains

landscape irrigation individual resident car washing

uncontaminated groundwater flows from riparian habitats and wetlands potable water sources dechlorinated water from swimming pools

water used to clean residential buildings water used for street washing without detergents air conditioning condensation

There are no known or proposed illicit connections associated with this project. If a potential illicit discharge to the facilities covered by this plan is detected (e.g., dry weather flows at any pipe outlet, evidence of contamination of surface water discharge by non-stormwater sources), the applicable parties shall be notified for assistance in determining the nature and source of the

Attachment D Photographic Log



Photographic Log

Client Name: DCR Site Location: Harborwalk, Dorchester, MA Project No: 14371.00

Photo No.: 1 Date: 1/8/19

Description:

View looking east at the two westernmost displaced concrete

sidewalk panels.



Engineers | Scientists | Planners | Designers

Photographic Log

Client Name: DCR Site Location: Harborwalk, Dorchester, MA Project No: 14371.00

Photo No.: 2 Date: 1/8/19

Description:

View looking west at the two westernmost displaced concrete sidewalk panels.





Photographic Log

Client Name: DCR Site Location: Harborwalk, Dorchester, MA Project No: 14371.00

Photo No.: 3 **Date:** 1/8/19

Description:

View looking east at middle undermined section of concrete

sidewalk panel.



b Engineers | Scientists | Planners | Designers

Photographic Log

Client Name: DCR Site Location: Harborwalk, Dorchester, MA Project No: 14371.00

Photo No.: 4 Date: 1/8/19

Description:

View looking south at middle undermined section of the

Harborwalk.





Photographic Log

Client Name: DCR

Photo No.: 5 Date: 1/8/19

Description:

View looking east at easternmost underminied section of the

Harborwalk.



Engineers | Scientists | Planners | Designers

Photographic Log

Client Name: DCR Site Location: Harborwalk, Dorchester, MA Project No: 14371.00

Photo No.: 6 Date: 1/8/19

Description:

View looking south at the easternmost undermined section of





Attachment E Project Plan