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GEOTECHNICAL
ENVIRONMENTAL
ECOLOGICAL
WATER
CONSTRUCTION
MANAGEMENT

144 Elm Street
Amesbury, MA 01913
T: 781.278.4800
F: 978.834.6269
www.gza.com



November 22, 2019
File No. 18.0174177.00

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

Re: Notice of Intent Permit Application
Proposed Seawall Repair Project
Dorchester Yacht Club, 100 Playstead Road
Dorchester, Massachusetts

Dear Commission Members:

On behalf of the Dorchester Yacht Club, GZA GeoEnvironmental, Inc. has prepared this Notice of Intent Permit Application for the above-referenced project. This application is being filed in accordance with the requirements of the Massachusetts Wetlands Protection Act and the City of Boston Conservation Commission requirements. Enclosed please find two (2) copies of the Notice of Intent (NOI) for the above referenced project. An electronic file has also been sent to your office, as required. Per the email from Nicolas Moreno, received Friday November 22, 2019, we have included the additional information as requested.

The proposed project consists of the repairs to concrete portions of the existing seawall at the Dorchester Yacht Club including concrete crack patching, new reinforced concrete and filling of voids and sinkholes behind the seawall.

Additional information, including potential wetland impacts and mitigation, is presented in the Project Narrative included in the Notice of Intent. As required, one (1) copy of the Notice of Intent has been submitted to the Northeast Regional Office of the Massachusetts Department of Environmental Protection (MADEP), and one (1) copy to the Massachusetts Division of Marine Fisheries (MADMF).

Should you have any questions or comments regarding this submittal, please contact our office at (781) 278-4808.

Sincerely,
GZA GEOENVIRONMENTAL, INC.

Joshua J. Zall
Assistant Project Manager

Anders B. Bjarrgard, P.E.
Principal-in-Charge

Attachment

Cc: MADEP, Northeast Region; MADMF



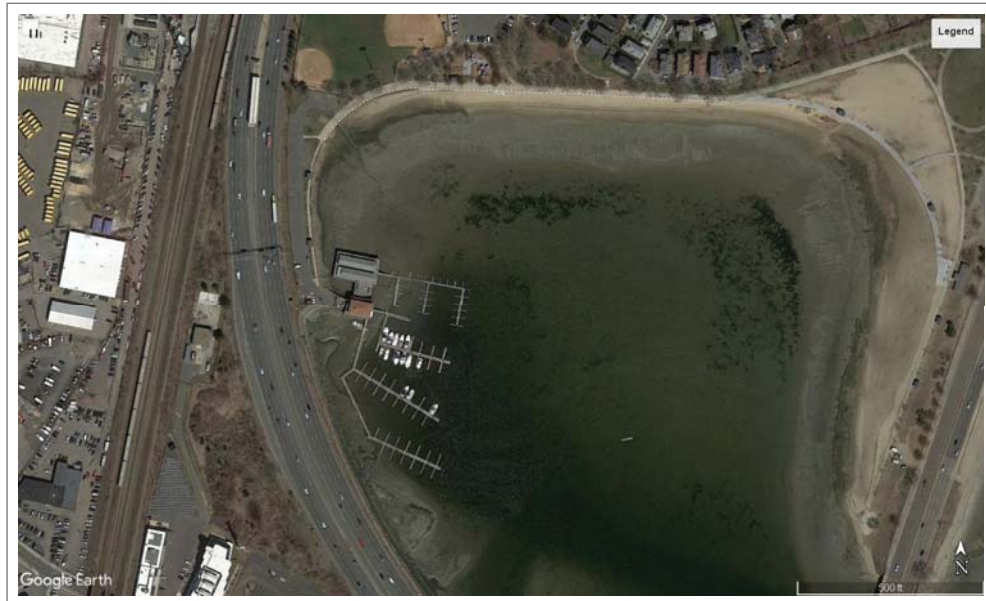
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NOTICE OF INTENT APPLICATION SEAWALL REPAIR PROJECT DORCHESTER YACHT CLUB Dorchester, Massachusetts

November 2019

GZA File No. 18.0174177.00



PREPARED FOR:

Dorchester Yacht Club
100 Playstead Road
Dorchester, Massachusetts 02125

GZA GeoEnvironmental, Inc.

144 Elm Street | Amesbury, MA 01913
781-278-4800

31 Offices Nationwide
www.gza.com



COVER LETTER

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Enter your transmittal number

X283556

Transmittal Number

Your unique Transmittal Number can be accessed online:

<http://www.mass.gov/eea/agencies/massdep/service/approvals/transmittal-form-for-payment.html>

Massachusetts Department of Environmental Protection

Transmittal Form for Permit Application and Payment

1. Please type or print. A separate Transmittal Form must be completed for each permit application.

2. Make your check payable to the Commonwealth of Massachusetts and mail it with a copy of this form to: MassDEP, P.O. Box 4062, Boston, MA 02211.

3. Three copies of this form will be needed.

Copy 1 - the original must accompany your permit application. Copy 2 must accompany your fee payment. Copy 3 should be retained for your records

4. Both fee-paying and exempt applicants must mail a copy of this transmittal form to:

MassDEP
P.O. Box 4062
Boston, MA
02211

* Note:
For BWSC Permits,
enter the LSP.

A. Permit Information

WPA Form 3

Notice of Intent

1. Permit Code: 4 to 7 character code from permit instructions

2. Name of Permit Category

Repair of existing seawall

3. Type of Project or Activity

B. Applicant Information – Firm or Individual

Dorchester Yacht Club

1. Name of Firm - Or, if party needing this approval is an individual enter name below:

2. Last Name of Individual

3. First Name of Individual

4. MI

100 Playstead Road

5. Street Address

Dorchester

MA

02125

617-436-1002

6. City/Town

7. State

8. Zip Code

9. Telephone #

10. Ext. #

Paul Polito, Commodore

pempor@aol.com

11. Contact Person

12. e-mail address

C. Facility, Site or Individual Requiring Approval

Dorchester Yacht Club

1. Name of Facility, Site Or Individual

100 Playstead Road

2. Street Address

Dorchester

MA

02125

617-436-1002

3. City/Town

4. State

5. Zip Code

6. Telephone #

7. Ext. #

8. DEP Facility Number (if Known)

9. Federal I.D. Number (if Known)

10. BWSC Tracking # (if Known)

D. Application Prepared by (if different from Section B)*

GZA GeoEnvironmental, Inc.

1. Name of Firm Or Individual

144 Elm Street

2. Address

Amesbury

MA

01913

781-278-4808

3. City/Town

4. State

5. Zip Code

6. Telephone #

7. Ext. #

Joshua Zall

8. Contact Person

9. LSP Number (BWSC Permits only)

E. Permit - Project Coordination

1. Is this project subject to MEPA review? yes no
If yes, enter the project's EOE file number - assigned when an Environmental Notification Form is submitted to the MEPA unit:

EOEA File Number

F. Amount Due

Special Provisions:

- 1. Fee Exempt (city, town or municipal housing authority)(state agency if fee is \$100 or less).
There are no fee exemptions for BWSC permits, regardless of applicant status.
- 2. Hardship Request - payment extensions according to 310 CMR 4.04(3)(c).
- 3. Alternative Schedule Project (according to 310 CMR 4.05 and 4.10).
- 4. Homeowner (according to 310 CMR 4.02).

DEP Use Only

Permit No:

Rec'd Date:

Reviewer:

2097

\$639.50

10/31/19

Check Number

Dollar Amount

Date



Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

WPA Form 3 – Notice of Intent

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

Provided by MassDEP:

MassDEP File Number

Document Transaction Number

Dorchester
City/Town

Important:

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



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

A. General Information

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

100 Playstead Road
a. Street Address

Dorchester
b. City/Town

02125
c. Zip Code

Latitude and Longitude:
42.3064
d. Latitude

71.0530
e. Longitude

02238
f. Assessors Map/Plat Number

002
g. Parcel /Lot Number

2. Applicant:

Paul
a. First Name

Polito
b. Last Name

Dorchester Yacht Club
c. Organization

100 Playstead Road
d. Street Address

Dorchester
e. City/Town

MA
f. State

02125
g. Zip Code

617-436-1002
h. Phone Number

i. Fax Number

pempor@aol.com
j. Email Address

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

Priscilla
a. First Name

Geigis, Deputy Commissioner
b. Last Name

Massachusetts Department of Conservation and Recreation
c. Organization

251 Causeway Street, Suite 900
d. Street Address

Boston
e. City/Town

MA
f. State

02114
g. Zip Code

617-626-1250
h. Phone Number

i. Fax Number

priscilla.geigis@mass.gov
j. Email address

4. Representative (if any):

Joshua
a. First Name

Zall
b. Last Name

GZA GeoEnvironmental, Inc
c. Company

144 Elm Street
d. Street Address

Amesbury
e. City/Town

MA
f. State

01913
g. Zip Code

781-278-4808
h. Phone Number

i. Fax Number

joshua.zall@gza.com
j. Email address

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

\$1,304
a. Total Fee Paid

\$639.50
b. State Fee Paid

\$664.50
c. City/Town Fee Paid



Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

WPA Form 3 – Notice of Intent

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

Provided by MassDEP:

MassDEP File Number

Document Transaction Number

Dorchester
City/Town

A. General Information (continued)

6. General Project Description:

The proposed project involves repairs to the concrete portion of the existing seawall at the site, including patching and new reinforced concrete, and filling of voids and sinkholes behind the existing wall. See the attached project narrative for additional information regarding the proposed work.

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

- 1. Single Family Home
- 2. Residential Subdivision
- 3. Commercial/Industrial
- 4. Dock/Pier
- 5. Utilities
- 6. Coastal engineering Structure
- 7. Agriculture (e.g., cranberries, forestry)
- 8. Transportation
- 9. Other

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

- 1. Yes No If yes, describe which limited project applies to this project. (See 310 CMR 10.24 and 10.53 for a complete list and description of limited project types)

2. Limited Project Type

If the proposed activity is eligible to be treated as an Ecological Restoration Limited Project (310 CMR10.24(8), 310 CMR 10.53(4)), complete and attach Appendix A: Ecological Restoration Limited Project Checklist and Signed Certification.

8. Property recorded at the Registry of Deeds for:

Suffolk

a. County

579

c. Book

b. Certificate # (if registered land)

80

d. Page Number

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

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

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



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 Bureau of Resource Protection - Wetlands
WPA Form 3 – Notice of Intent
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Provided by MassDEP:

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

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

<u>Resource Area</u>	<u>Size of Proposed Alteration</u>	<u>Proposed Replacement (if any)</u>
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 _____	

<u>Resource Area</u>	<u>Size of Proposed Alteration</u>	<u>Proposed Replacement (if any)</u>
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 available) - **specify coastal or inland** _____

2. Width of Riverfront Area (check one):

25 ft. - Designated Densely Developed Areas only

100 ft. - New agricultural projects only

200 ft. - All other projects

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

4. Proposed alteration of the Riverfront Area:

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

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

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

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

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



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Bureau of Resource Protection - Wetlands

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

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

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

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 Beach	Indicate size under Coastal Beaches and/or Coastal Dunes below	
d. <input checked="" type="checkbox"/> Coastal Beaches	<u>±3,260 (temp. for access)</u> 1. square feet	2. cubic yards beach nourishment
e. <input type="checkbox"/> Coastal Dunes	1. square feet	2. cubic yards dune nourishment
	<u>Size of Proposed Alteration</u>	<u>Proposed Replacement (if any)</u>
f. <input checked="" type="checkbox"/> Coastal Banks	<u>326</u> 1. linear feet	
g. <input type="checkbox"/> Rocky Intertidal Shores	1. square feet	
h. <input type="checkbox"/> Salt Marshes	1. square feet	2. sq ft restoration, rehab., creation
i. <input type="checkbox"/> Land Under Salt Ponds	1. square feet 2. cubic yards dredged	
j. <input type="checkbox"/> Land Containing Shellfish	1. square feet	
k. <input type="checkbox"/> Fish Runs	Indicate size under Coastal Banks, inland Bank, Land Under the Ocean, and/or inland Land Under Waterbodies and Waterways, above 1. cubic yards dredged	
l. <input checked="" type="checkbox"/> Land Subject to Coastal Storm Flowage	<u>908</u> 1. square feet	

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

a. square feet of BVW

b. square feet of Salt Marsh

5. Project Involves Stream Crossings

a. number of new stream crossings

b. number of replacement stream crossings



Massachusetts Department of Environmental Protection
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C. Other Applicable Standards and Requirements

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

Streamlined Massachusetts Endangered Species Act/Wetlands Protection Act Review

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

a. Yes No **If yes, include proof of mailing or hand delivery of NOI to:**

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

2017 _____
b. Date of map

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

c. Submit Supplemental Information for Endangered Species Review*

1. Percentage/acreage of property to be altered:

(a) within wetland Resource Area _____
percentage/acreage

(b) outside Resource Area _____
percentage/acreage

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

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

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

(b) Photographs representative of the site

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

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



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

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

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

- (d) Vegetation cover type map of site
- (e) Project plans showing Priority & Estimated Habitat boundaries
- (f) OR Check One of the Following

1. Project is exempt from MESA review.
 Attach applicant letter indicating which MESA exemption applies. (See 321 CMR 10.14, http://www.mass.gov/dfwele/dfw/nhesp/regulatory_review/mesa/mesa_exemptions.htm; the NOI must still be sent to NHESP if the project is within estimated habitat pursuant to 310 CMR 10.37 and 10.59.)

2. Separate MESA review ongoing. a. NHESP Tracking # _____ b. Date submitted to NHESP _____

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

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

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

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

North Shore - Hull to New Hampshire border:

Division of Marine Fisheries -
 Southeast Marine Fisheries Station
 Attn: Environmental Reviewer
 836 South Rodney French Blvd.
 New Bedford, MA 02744
 Email: DMF.EnvReview-South@state.ma.us

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

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



Massachusetts Department of Environmental Protection
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Dorchester
City/Town

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

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

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

D. Additional Information

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

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

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

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



Massachusetts Department of Environmental Protection
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D. Additional Information (cont'd)

3. Identify the method for BVW and other resource area boundary delineations (MassDEP BVW Field Data Form(s), Determination of Applicability, Order of Resource Area Delineation, etc.), and attach documentation of the methodology.
4. List the titles and dates for all plans and other materials submitted with this NOI.
- Dorchester Yacht Club Seawall Repair Project
- a. Plan Title
- GZA GeoEnvironmental, Inc. Anders B. Bjarngard, P.E.
- b. Prepared By c. Signed and Stamped by
- August 2019 As Shown
- d. Final Revision Date e. Scale
- Existing Plan & Sections, Proposed Plan & Sections August 2019
- f. Additional Plan or Document Title g. Date
5. If there is more than one property owner, please attach a list of these property owners not listed on this form.
6. Attach proof of mailing for Natural Heritage and Endangered Species Program, if needed.
7. Attach proof of mailing for Massachusetts Division of Marine Fisheries, if needed.
8. Attach NOI Wetland Fee Transmittal Form
9. Attach Stormwater Report, if needed.

E. Fees

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

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

<u>2096</u>	<u>10/31/2019</u>
2. Municipal Check Number	3. Check date
<u>2097</u>	<u>10/31/19</u>
4. State Check Number	5. Check date
<u>Dorchester Yacht Club</u>	
6. Payor name on check: First Name	7. Payor name on check: Last Name



Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

Provided by MassDEP:

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

MassDEP File Number

Document Transaction Number

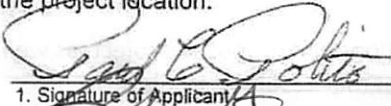
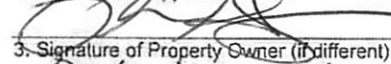
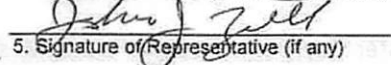
Dorchester

City/Town

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.

	Commodore	10/31/19
1. Signature of Applicant		2. Date
		11/18/19
3. Signature of Property Owner (if different)		4. Date
	GZA GEOTECHNICAL, INC	10/31/19
5. Signature of Representative (if any)		6. Date

For Conservation Commission:

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

For MassDEP:

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

Other:

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

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



1.0 PROJECT NARRATIVE

A. INTRODUCTION

GZA GeoEnvironmental, Inc. (GZA), was retained by the Dorchester Yacht Club (DYC) to provide engineering and permitting services for the proposed repairs to the existing granite block and concrete seawall along the Dorchester Bay Basin, as indicated in the attached Permit Drawings in Appendix D.

The following provides a detailed description of the current conditions and proposed project, as well as a description of the resource areas and potential impacts to those resources that may result from this project.

B. EXISTING CONDITIONS

The site is located along the western shoreline of the Dorchester Bay Basin in Dorchester, Massachusetts (See Photograph 1). Access to the DYC facility is from Playstead Road through McConnell Park. A public walkway extends from McConnell Park to the main entrance of the DYC facility and includes a concrete walkway, benches and shade shelters with a view of Dorchester Bay Basin. The main building of the DYC is supported by a granite block and concrete seawall that was previously permitted and constructed in the 1910s under State of Massachusetts Metropolitan Park Commission License No. 205.

The existing seawall system is composed of two types and sizes of seawalls, presumably constructed and repaired, as needed over the last 100 years. The existing seawall types are identified on the Permit Drawings in Appendix D and described as follows:

Seawall Section No. 1 includes the concrete seawall between the pedestrian walkway and the existing concrete and granite block wall as shown on Photograph 1 in Appendix C. The Section No. 1 seawall varies in height from approximately 1 foot to 6-feet in exposed height and is approximately 1-foot thick with reinforcing. The seawall appears to be founded directly on top of a sand and gravel subgrade. In general, the seawall appears to be composed of formed concrete with 1-inch diameter reinforcing bars at 12-inches on center, each way. The top of the seawall has a rounded concrete portion, functioning as a wave return. The concrete wall was formed directly against the 3-foot concrete cap of Seawall Section No. 2.

Seawall Section No. 2 (see Photograph 1 in Appendix C for limits) includes a granite block wall with a concrete cap. The height of the dry laid granite block is approximately 8 feet in general with an approximate 3-foot high concrete cap above. As shown on the Permit Drawings in Appendix D, the granite block wall and concrete cap extends east into Dorchester Bay Basin, then south and east to create the peninsula where the existing DYC facility sits. Based on review of prior authorizations, the wall is founded on a reliving platform constructed of timber piles and a timber platform.

The concrete portions of the existing walls have deteriorated over the past years. Damage and deterioration observed include cracked and deteriorated concrete, undermining of the concrete wall, and sinkholes landward of the wall. These areas are indicated on the Permit Drawings in Appendix D and in the Photographs in Appendix C. GZA performed a limited topographic survey of the site as well as an inspection of the existing conditions of the seawalls on April 29, 2019. The area of survey and inspection was limited to the portions of the site from the seawall Section No. 1 and the pedestrian



walkway to the southern end of seawall Section No. 2. An existing site plan was developed based on survey and field measurements and is included in the Permit Drawings in Appendix D.

C. PROPOSED WORK

Prior to GZA's involvement in the project, the DYC had engaged a contractor to perform repairs to the concrete portion of the seawall. However, this work is within the jurisdiction of the Wetlands Protection Act and the Boston Conservation Commission as well as Massachusetts Department of Environmental Protection Waterways Program and the U.S. Army Corps of Engineers. The repair work has been halted until these agencies have been notified and authorizations are obtained. The repair work that has been completed to date includes the following:

- Patching of concrete cracks along the majority of the concrete portion of the seawall from approximately Sta. 0+36 to 2+70. This work consisted of removal of existing concrete adjacent to cracks to sound concrete and filling/patching with mortar.
- Filling of voids at the interface between the upper concrete cap and the granite block portion of the wall. This work consisted of removal of existing concrete to sound concrete and placing mortar within the void areas. In general, the existing voids were approximately 4-inches to 8-inches in height, 4-inches to 8-inches wide and 2-inches to 8-inches deep.
- Excavation behind the section of deteriorated concrete from approximately Sta. 3+00 to 3+18.
- Installation of reinforcing bars in preparation of cast-in-place concrete repairs from approximately Sta. 2+82 to 3+18.

The proposed project should be considered maintenance of existing authorized structures and is intended to repair the damaged portions of the upper concrete cap and return them to their conditions prior to the damage. This work consists of repairs to the cracked and deteriorated concrete portions of the seawall, undermined areas and sinkholes landward of the seawall Section No. 1 and No. 2. As noted above, a portion of this work has already been completed. The proposed repair work includes the following:

- Repairs to an approximate 4-foot x 3-foot section of concrete at Seawall No. 1 at the intersection of Seawall No. 1 and Seawall No. 2 (See Photograph 2 in Appendix C). Repairs include removal of deteriorated concrete, cleaning of existing reinforcing, forming and pouring concrete suitable for use in marine environments within the existing void area.
- Repairs to sinkhole behind the void at the intersection of Seawall No. 1 and Seawall No. 2. Sinkhole repairs will consist of excavation of material along the backside of the wall, installation of a weep hole with crushed stone wrapped in filter fabric, placement of filter fabric and filling of the excavated area with granular material. The surface will be replaced with mulch to match the existing surrounding areas.
- Repairs to an approximate 26 linear foot section of concrete at the southern limit of Seawall No. 2 (See Photographs 4 through 6 in Appendix C). Repairs include removal of deteriorated concrete, installation of new, epoxy coated reinforcing bars as needed, forming and pouring concrete to match the existing concrete portion of the seawall. The areas behind the wall will be replaced with filter fabric and granular material. The surface will be replaced with bituminous pavement to match the existing. Weep holes will be installed at the interface between



the concrete cap and the granite block portion of the seawall through this section of repairs. The weepholes will consist of 4-inch diameter PVC pipes spaced at approximately 8-feet on center. Crushed stone wrapped in filter fabric will be placed at the landward end of the pipe prior to backfilling of the area.

- Repairs to cracks along the face of the concrete of Seawall Section No. 2 using Type S mortar and bonding agent suitable for use in marine environments.

It should be noted that GZA's scope of work was limited to in-kind repair of these isolated areas of the existing seawall. Visual observations were limited to the accessible portions along the face of the seawall, and structural evaluations of the existing wall were not performed.

D. RESOURCE AREAS

The proposed work will be performed using the best available measures to minimize the adverse impacts to the resource areas defined under the Wetlands Protection Act. The following paragraphs will list and define the resource areas impacted by this project and describe measures to avoid and minimize potential adverse impacts.

Land Subject to Coastal Storm Flowage (310 CMR 10.04)

Land Subject to Coastal Storm Flowage is defined as *"land subject to any inundation caused by coastal storms up to and including that caused by the 100-year storm, surge or record or storm of record, whichever is greater."*

A portion of the proposed work is within the Land Subject to Coastal Storm Flowage (LSCSF) resource area, between the Mean High Water (MHW) line and the FEMA 100-year flood elevation for zone VE, El 14 NAVD88 datum. The proposed work within the LSCSF resource area includes filling of the concrete cracks with a Type S mortar and placing new, reinforced concrete in areas where the wall has been deteriorated or undermined. Additionally, filling of voids and sinkhole areas behind the seawall will be performed. The proposed work will alter approximately 908 square feet of LSCSF area. The proposed work will not significantly impact the land's ability to buffer storm waves. The site will be restored to pre-construction conditions after the work has been completed.

Coastal Bank (310 CMR 10.30)

Coastal Bank is defined as *"the seaward face or side of any elevated landform, other than coastal dune, which lies at the landward edge of a coastal beach, land subject to tidal action or other wetland."*

The Coastal Bank in the proposed work area at the site consists entirely of man-made structures including concrete and granite block seawalls. As such, this coastal bank at the site is not considered a sediment source to the adjacent resource areas. The proposed repaired seawall will provide increased protection and resilience against wave surge and storm flooding. The proposed work within this area consists of minor restoration of the area to approximate pre-storm conditions. Approximately 326 linear feet of Coastal Bank will be repaired to its previous condition.

In accordance with 310 CMR 10.30, when a coastal bank is determined to be significant to storm damage prevention or flood control because it is a vertical buffer to storm waters, 310 CMR 10.30(6) through (8) shall apply. The following Table 1 lists these items and provides a discussion as to how the proposed project does or does not comply with the performance standards.



Table 1: Coastal Bank Performance Standards

WPA Section	Performance Standard	Discussion
310 CMR 10.30(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.	The Coastal Bank at the site consists of a deteriorated concrete and granite block seawall. The proposed project will repair the seawall in-kind and will have no adverse effects on the stability of the coastal bank.
310 CMR 10.30(7)	Bulkheads, revetments, seawalls, groins or other coastal engineering structures may be permitted on such a coastal bank except when such a bank is significant to storm damage prevention or flood control because it supplies sediment to coastal beaches, coastal dunes, and barrier beaches.	The Coastal Bank at the site consists of a deteriorate concrete and granite block seawall. The current coastal bank, as it is a man-made structure, does not supply sediment to adjacent resource areas.
310 CMR 10.30(8)	Notwithstanding the provisions of 310 CMR 10.30(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 by 310 CMR 10.37.	No estimated or priority habitats are listed in the vicinity of the proposed project site on the current maps published by the Natural Heritage and Endangered Species Program.

Coastal Beach (310 CMR 10.27)

Coastal Beach 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 bankline or the seaward edge of existing human-man structures, when these structures replace one of the above lines, whichever is closest to the ocean.”*

There are no proposed permanent impacts to the coastal beach at the site, as the proposed work involves repairs to the seawall and backland areas. The Coastal Beach area will be temporarily impacted during construction for site access. In order for the contractor to access the repair areas along the face and top of the seawall, ladders and/or scaffolding will likely be utilized. Debris or other construction related materials will be contained to the maximum extent possible while performing the repair work and will be removed daily from the Coastal Beach resource area. These areas will be restored to pre-construction conditions following completion of the repair work.

In accordance with 310 CMR 10.27, when a coastal beach is determined to be significant to storm damage prevention, flood control, or protection of wildlife habitat, 310 CMR 10.27(3) through (7) shall apply. When a tidal flat is determined to be significant to marine fisheries or the protection of wildlife habitat, 310 CMR 10.27(6) shall apply. The following Table 2 lists these items and provides a discussion as to how the proposed project does or does not comply with the performance standards.



Table 2: Coastal Beach Performance Standards

WPA Section	Performance Standard	Discussion
310 CMR 10.27(3)	Any project on a coastal beach, except any project permitted under 310 CMR 10.30(3)(a), shall not have an adverse effect by increasing erosion, decreasing the volume or changing the form of any such coastal beach or an adjacent or downdrift coastal beach	The proposed project includes in-kind repairs to the existing seawall at the site. Impacts to the coastal beach/tidal flat will be temporary in nature due to construction access. Debris or deleterious materials that may fall on to the coastal beach/tidal flat at the base of the existing seawall will be removed daily.
310 CMR 10.27(4)	Any groin, jetty, solid pier, or other such solid fill structure which will interfere with littoral drift, in addition to complying with 310 CMR 10.27(3), shall be constructed as follows: (a) It shall be the minimum length and height demonstrated to be necessary to maintain beach form and volume. In evaluating necessity, coastal engineering, physical oceanographic and/or coastal geologic information shall be considered. (b) Immediately after construction any groin shall be filled to entrapment capacity in height and length with sediment of grain size compatible with that of the adjacent beach. (c) Jetties trapping littoral drift material shall contain a sand by-pass system to transfer sediments to the downdrift side of the inlet or shall be periodically redredged to provide beach nourishment to ensure that downdrift or adjacent beaches are not starved of sediments.	There are no new groins, solid piers, or other structures proposed as part of the project. The proposed project includes in-kind repairs to the existing seawall at the site. The existing seawall at the site has been in existence since prior to the 1910s.
310 CMR 10.27(5)	Notwithstanding 310 CMR 10.27(3), beach nourishment with clean sediment of a grain size compatible with that on the existing beach may be permitted.	The proposed project does not include beach nourishment.
310 CMR 10.27(6)	In addition to complying with the requirements of 310 CMR 10.27(3) and (4), a project on a tidal flat shall if water-dependent be designed and constructed, using best available measures, so as to minimize adverse effects, and if non-water-dependent, have no adverse effects, on marine fisheries and wildlife habitat caused by: (a) alterations in water circulation; (b) alterations in the distribution of sediment grain size; and (c) changes in water quality, including, but not limited to, other than natural fluctuations in the levels of dissolved oxygen, temperature or turbidity, or the addition of pollutants.	The proposed project includes in-kind repairs to the existing seawall at the site. Impacts to the coastal beach/tidal flat will be temporary in nature due to construction access. Debris or deleterious materials that may fall on to the coastal beach/tidal flat at the base of the existing seawall will be removed daily.



310 CMR 10.27(7)	Notwithstanding the provisions of 310 CMR 10.27(3) through (6), no project may be permitted which will have any adverse effect on specified habitat sites or rare vertebrate or invertebrate species, as identified by procedures established under 310 CMR 10.37.	No estimated or priority habitats are listed in the vicinity of the proposed project site on the current maps published by the Natural Heritage and Endangered Species Program.
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E. CONSTRUCTION PROCEDURES

Proposed work will be accessed and performed along the landside/shoreline of the site. It is assumed that small machinery may be utilized to move equipment and materials along the paved area, but the majority of the work will be performed using small hand tools and equipment. Workers will access the intertidal zone (Coastal Beach) as necessary to perform the work. The contractor will perform work at the wall repair areas with the use of small staging and ladders. These will be located along the base of the wall within the Coastal Beach resource area and will be removed at the end of each work day. Staging and ladders will be placed along the wall in the anticipated areas of work for each day, so as to minimize impacts to the intertidal area. The contractor will employ methods to catch or contain debris from concrete removal and repair work. Debris will be removed daily, and the contractor will make efforts to avoid and minimize debris from falling into the intertidal area and mudline. Alternatively, a small work skiff or floating dock section may be used during periods of higher tide as needed.

The larger void areas and deteriorated concrete sections, as shown on the Project Drawings, including the small void at approximately Sta. 0+34, the northeast corner of the wall and the approximately 36 linear foot section at the southern face of the wall, will be either supported or removed entirely. New reinforced concrete will be placed in these areas but will conform to the dimensions of the originally placed concrete cap in depth and height. The newly placed concrete will be doweled to existing sound concrete and to the granite block portion of the seawall below. The concrete will be 5,000 psi concrete suitable for use in marine environments. The concrete to be used for the repairs as Sta. 0+34 and the 36 linear foot section along the southern face of the wall will likely be conveyed directly from a concrete truck to the repair area. The repair area at the northeast corner of the wall will likely be conveyed by use of a pump truck with a boom. The contractor will minimize spillage while placing concrete within the formwork.

The damaged portions of the concrete will be cleaned, and deteriorated concrete will be removed to sound concrete. Concrete will be contained on site and will be disposed of properly. Smaller cracks will be ground down, coated with a bonding agent and filled using a Type S mortar suitable for use in marine environments. Larger void areas will be filled with 5,000 psi concrete suitable for use in marine environments and will include installation of epoxy coated reinforcing bars as needed. Upon completion of void and crack repairs, the full length of the concrete seawall cap will be coated with a bonding agent and will be resurfaced with a Type S mortar suitable for use in a marine environment for a uniform look along the length of the wall.

The Contractor will have to perform work in a manner that considers the tide cycle, as some portions of the reconstructed wall extends below the Mean High Water line. Erosion and sediment control measures will be in place during construction activities.

Equipment, materials, debris, or other items will be stored above high tide level when not being utilized. Areas temporarily disturbed by construction activities will be restored to pre-construction conditions at the completion of the project. The project as presented will be constructed in a manner to minimize any adverse impacts to the interests of the Wetlands Protection Act.



F. MEASURES TO MINIMIZE RESOURCE AREA IMPACTS

Measures to minimize impacts to the Resource Areas noted above include the following:

- Temporary barriers, fencing and signage will be placed at the work site during construction.
- The work area will be left in a condition such that rising water and/or adverse weather will not cause damage to the work area or adjacent areas.
- The contractor will perform the work during favorable tides for the various aspects of the work. The contractor will work the tides to minimize impacts to resource areas.
- Erosion and sediment control measures will be in place during construction activities.
- Concrete debris will be contained and will be removed from the mudline along the base of the seawall. Concrete debris will be disposed of properly.
- Proposed work shall comply with all Federal, State and Local Codes and Regulations.
- Proposed work shall comply with the Local Conservation Commission's Order of Conditions.

G. ALTERNATIVES ANALYSIS

An alternative analysis was developed for the proposed work as follows:

"Do nothing"

The do-nothing alternative effectively means there is no project. The existing seawalls have experienced damage and deterioration over the past years that include, cracked and deteriorated concrete, undermining of the concrete seawall, and sinkholes landward of the wall. If left as-is this area is likely to experience additional undermining, erosion, and additional wall sections are likely to fail, potentially compromising the parking lot, utilities, and seaward resource areas.

Remove and Replace Existing Wall

The removal and replacement of the full length of the concrete portions of the existing seawall is not a feasible option. The existing building sits atop the existing seawall. In order to remove and replace the existing concrete portion of the seawall, the building would need to be temporarily supported for the duration of the construction. This would be a very costly operation and would likely impact the tidal flats with the temporary supports.

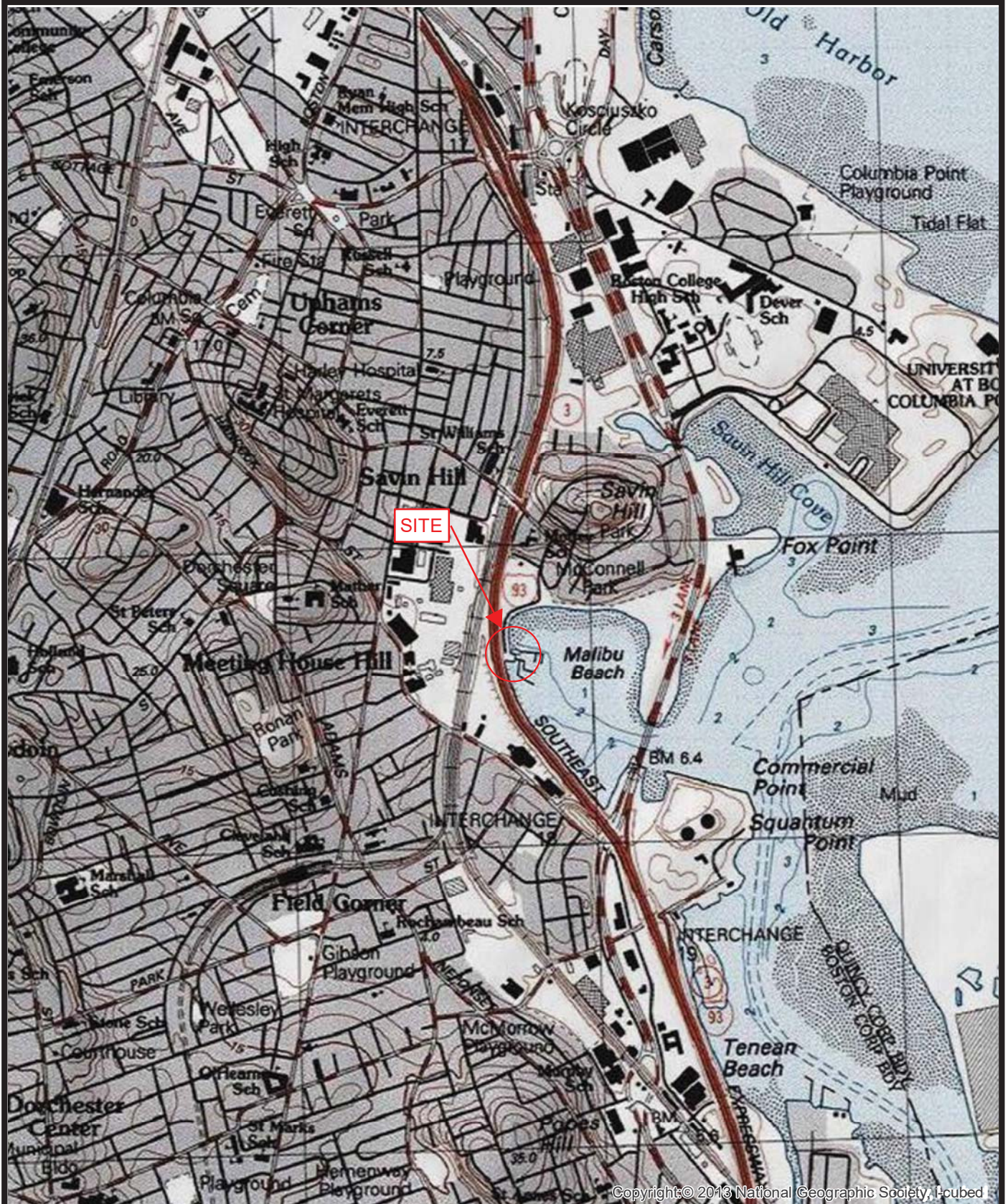
Concrete Repairs (Preferred Option)

The preferred option for the DYC is to perform repairs to the existing concrete portion of the seawalls. This repair option includes removal of existing deteriorated concrete, form and cast-in-place concrete reinforced with epoxy coated reinforcing of large void areas, and grinding cracks and filling with mortar. This option would restore the existing seawalls to their conditions prior to the damage. This is the most cost-efficient solution for DYC to maintain the existing seawall.



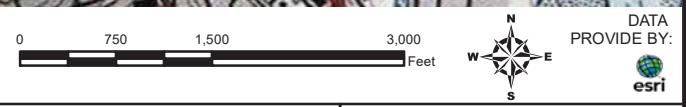
Figures

© 2019 - GZA GeoEnvironmental, Inc. J:\174100\18.0174177.00 Dorchester Yacht Seawall Repair\Figures-CAD\GIS\Figure 1_DYC Locus Map.mxd, 4/30/2019, 11:04:51 AM, kevin.schiavone



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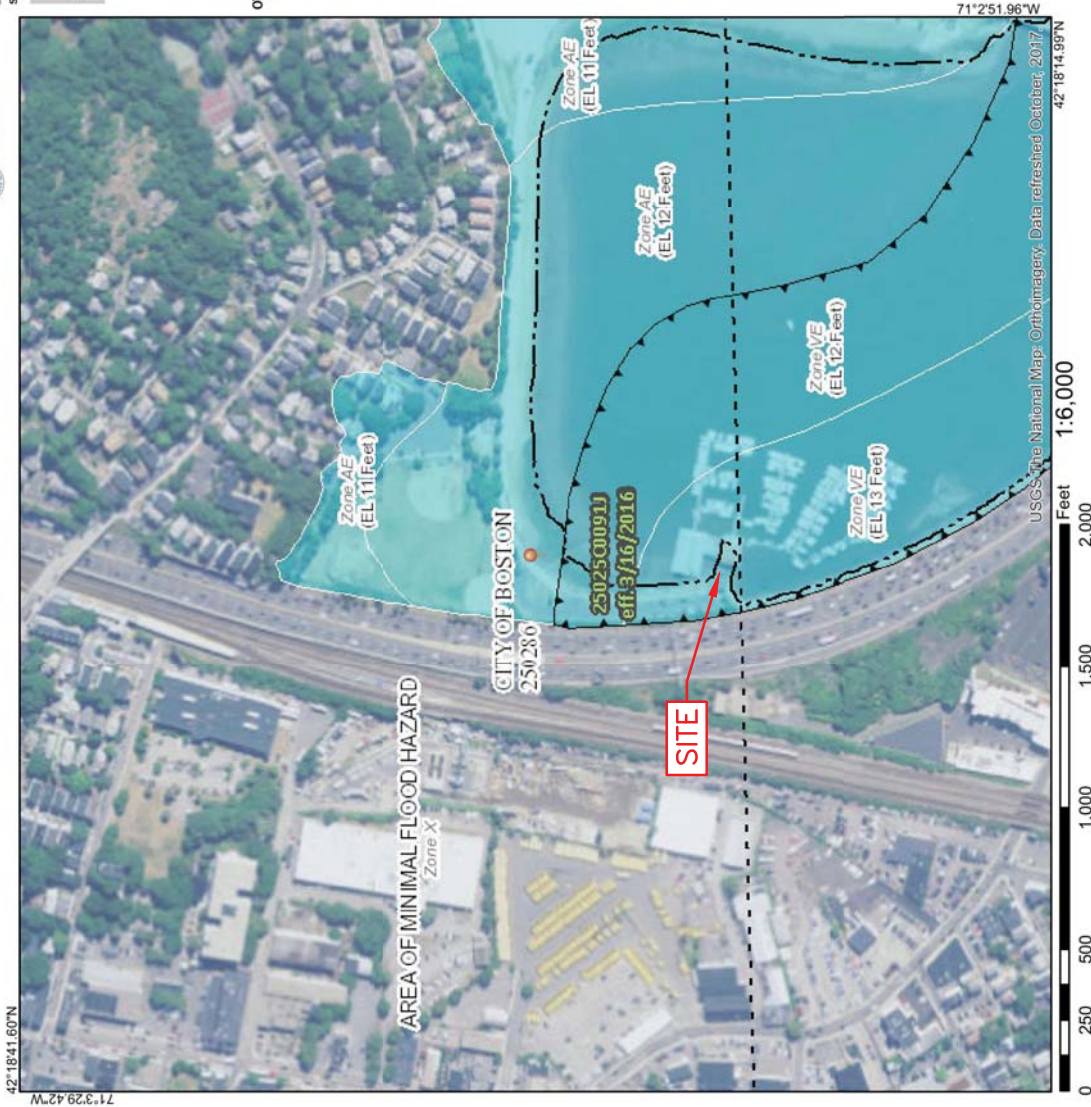


**DORCHESTER YACHT CLUB
SEAWALL REPAIR PERMITTING
100 PLAYSTEAD ROAD, DORCHESTER, MASSACHUSETTS**

LOCUS PLAN

PREPARED BY: GZA GeoEnvironmental, Inc. Engineers and Scientists www.gza.com		PREPARED FOR: DORCHESTER YACHT CLUB	
PROJ MGR: JJZ DESIGNED BY: KJS DATE: APRIL 2019	REVIEWED BY: JJZ DRAWN BY: KJS PROJECT NO: 18.0174177.00	CHECKED BY: DAS SCALE: 1 in = 1,500 ft REVISION NO.	FIGURE 1

National Flood Hazard Layer FIRMette



Legend

SEE THIS REPORT FOR DETAILED LEGEND AND INDEXMAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS

- Without Base Flood Elevation (BFE) Zone A, V, AR
- With BFE or Depth Zone AE, AO, AH, VE, AR
- Regulatory Footway

OTHER AREAS OF FLOOD HAZARD

- 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

- Area of Minimal Flood Hazard Zone X
- Effective LOMFRs
- Area of Undetermined Flood Hazard Zone D

GENERAL STRUCTURES

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

OTHER FEATURES

- Cross Sections with 1% Annual Chance Water Surface Elevation
- Coastal Transact
- Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transact 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 data 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 4/30/2019 at 9:21:17 AM 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, FIRM panel number, and FIRM effective date. Map images for unmapped and unmapped areas cannot be used for regulatory purposes.

PREPARED BY: GZA GeoEnvironmental, Inc. Engineers and Scientists www.gza.com		PREPARED FOR: DORCHESTER YACHT CLUB	
PROJ MGR: JJZ DESIGNED BY: KJS DATE: APRIL, 2019	REVIEWED BY: JJZ DRAWN BY: KJS PROJECT NO: 18.0174177.00	CHECKED BY: DAS SCALE: NTS REVISION NO.	FIGURE 2 SHEET NO. 2 OF 2
DORCHESTER YACHT CLUB SEAWALL REPAIR PERMITTING DORCHESTER, MASSACHUSETTS		FIRMette MAP FEMA FLOOD MAP	
UNLESS SPECIFICALLY STATED BY WRITTEN AGREEMENT, THIS DRAWING IS THE SOLE PROPERTY OF GZA. IT IS TO BE USED ONLY FOR THE PROJECT AND LOCATION IDENTIFIED ON THE DRAWING. THE DRAWING SHALL NOT BE TRANSFERRED, REUSED, COPIED, OR ALTERED IN ANY MANNER FOR USE AT ANY OTHER LOCATION OR FOR ANY OTHER PURPOSE WITHOUT THE PRIOR WRITTEN CONSENT OF GZA. ANY TRANSFER, REUSE, OR MODIFICATION TO THE DRAWING BY THE CLIENT OR OTHERS, WITHOUT THE PRIOR WRITTEN EXPRESS CONSENT OF GZA, WILL BE AT THE USER'S SOLE RISK AND WITHOUT ANY RISK OR LIABILITY TO GZA.			
NO.	ISSUE/DESCRIPTION	BY	DATE



**Appendix A – Abutter’s List
Abutter’s Map
Notification to Abutter Form
Request for Legal Notice Form**

Dorchester Yacht Club Seawall Repair Project
 Abutters List and Map

Map ID	Property ID	Owner	Property Address	Owner Mailing Address
1	1302220000	Comm. of Massachusetts	Savin Hill Ave, Dorchester, MA 02125	Savin Hill Ave, Dorchester, MA 02125
2	1302238000	City of Boston	Springdale, Dorchester, MA 02125	Springdale, Dorchester, MA 02125
3	1302238001	Comm. of Massachusetts	Springdale, Dorchester, MA 02125	Springdale, Dorchester, MA 02125
4	1302238002	Dor Yacht Club Inc. Lessee	Springdale St, Dorchester, MA 02125	100 Playstead Rd, Dorchester, MA 02125
5	1302239000	Dorchester Yacht Club Inc	Springdale St, Dorchester, MA 02125	100 Playstead Rd, Dorchester, MA 02125



NOTIFICATION TO BE SENT BY APPLICANT

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 Dorchester Yacht Club
- B. The applicant has filed a Notice of Intent with the Conservation Commission with the City of Boston, Massachusetts
- C. The address of the lot where the activity is proposed is 100 Playstead Road
- D. A brief description of the proposed activity: Repairs to the existing deteriorated concrete portion of the existing seawall at the site and filling of minor sinkholes behind the seawall.

- E. Copies of the Notice of Intent may be examined at the Boston Conservation Commission, 1 City Hall Square, Room 709 in Boston: Hours: Monday through Wednesday 8:30 AM-4:00 PM, Thursday 8:30 AM-6:30 PM, and Friday 8:30 AM-12:30 PM.
- F. Copies of the Notice of Intent may be obtained from either the (check one)
 Applicant, or Representative of the Applicant
- G. This project will be discussed at the Conservation Commission meeting on December 4, 2019. The meeting will begin at 6:00 PM. If you wish to attend the hearing please contact the Conservation Office for the time slot in which this item will be discussed. Abutters are strongly encouraged to submit comments in writing so they may be entered into the record.

Note: Notice of the Public Hearing, its date, time and location will be posted at City Hall, and the Conservation Office, 1 City Hall Square, Room 709, not less than forty-eight (48) hours in advance.

Note: Notice of the Public Hearing, including its date, time and location will be published at least five (5) days in advance in the **Boston Herald**.

Note: You may also contact your local Conservation Commission or the nearest Department of Environmental Protection Regional Office for more information concerning this application or the Wetlands Protection Act. To phone the DEP Northeast Regional office call 978-694-3200.

Since you are receiving this notice, you may have wetland resource areas or wetland buffers on your property. Therefore, construction, cutting, clearing, or grading may require a permit. For clarification or more information, call the Conservation office.

AFFIDAVIT OF SERVICE

Under the Massachusetts Wetlands Protection Act

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

I, Joshua Zall, hereby certify under the pains and penalties of perjury that on November 22, 2019, I gave notification to abutters in compliance with the second paragraph of Massachusetts General Laws Chapter 131, Section 40, in connection with the following matter:

A Notice of Intent filed under the Massachusetts Wetlands Protection Act by the Dorchester Yacht Club (Applicant) with the Boston Conservation Commission on November 22, 2019, for property located at 100 Playstead Road, Dorchester, MA in Boston.

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

Joshua Zall 11/22/19
Signature & Title GZA GEOENVIRONMENTAL, INC Date
AGENT FOR THE DORCHESTER YACHT CLUB



Appendix B – Wetlands Fee Transmittal Forms



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

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



A. Applicant Information

1. Location of Project:

100 Playstead Road Dorchester
 a. Street Address b. City/Town
 2097 \$639.50
 c. Check number d. Fee amount

2. Applicant Mailing Address:

Paul Polito
 a. First Name b. Last Name
 Dorchester Yacht Club
 c. Organization
 100 Playstead Road
 d. Mailing Address
 Dorchester MA 02125
 e. City/Town f. State g. Zip Code
 617-436-1002 pempor@aol.com
 h. Phone Number i. Fax Number j. Email Address

3. Property Owner (if different):

Priscilla Geigis, Deputy Commissioner
 a. First Name b. Last Name
 Massachusetts Department of Conservation and Recreation
 c. Organization
 251 Causeway Street, Suite 900
 d. Mailing Address
 Boston MA 02114
 e. City/Town f. State g. Zip Code
 617-626-1250 priscilla.geigis@mass.gov
 h. Phone Number i. Fax Number j. Email Address

B. Fees

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

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

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

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

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

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

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

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



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

B. Fees (continued)

Step 1/Type of Activity	Step 2/Number of Activities	Step 3/Individual Activity Fee	Step 4/Subtotal Activity Fee
Category 5: Seawall Repair	326 LF	\$4/LF	\$1,304.00
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
Step 5/Total Project Fee:			\$1,304.00

Step 6/Fee Payments:

Total Project Fee:	\$1,304.00
State share of filing Fee:	\$639.50
City/Town share of filing Fee:	\$664.50
	a. Total Fee from Step 5
	b. 1/2 Total Fee less \$12.50
	c. 1/2 Total Fee plus \$12.50

C. Submittal Requirements

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

Department of Environmental Protection
 Box 4062
 Boston, MA 02211

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

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



Appendix C – Photographs



Photographic Log

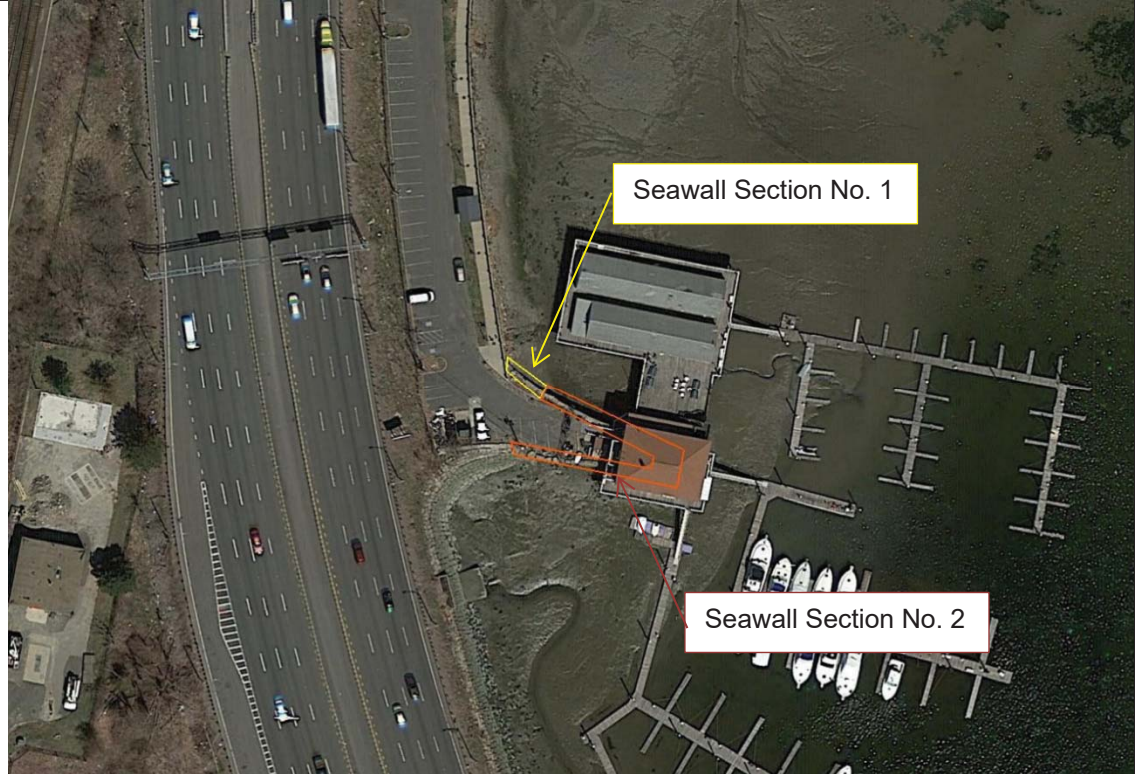
Client Name: Dorchester Yacht Club		Site Location: 100 Playstead Road, Dorchester, MA	Project No. 18.0174177.00
Photo No. 1	Date: -		
Direction Photo Taken: Aerial			
Description: Seawall Section No. 1 and 2 shown approximately.			

Photo No. 2	Date: 4-29-19	
Direction Photo Taken: South		
Description: Seawall Section No. 1. Note large void where concrete wall abuts granite block wall (bottom left)		



Photographic Log


Client Name: Dorchester Yacht Club		Site Location: 100 Playstead Road, Dorchester, MA	Project No. 18.0174177.00
Photo No. 3	Date: 4-29-19		
Direction Photo Taken: East			
Description: Typical wall construction of Seawall Section No. 2. Note voids at interface between concrete cap and granite block wall. Repairs performed to concrete cracks and voids in progress.			

Photo No. 4	Date:		
Direction Photo Taken: West			
Description: Deteriorated concrete cap at Seawall Section No. 2. Note repairs in progress.			



Photographic Log


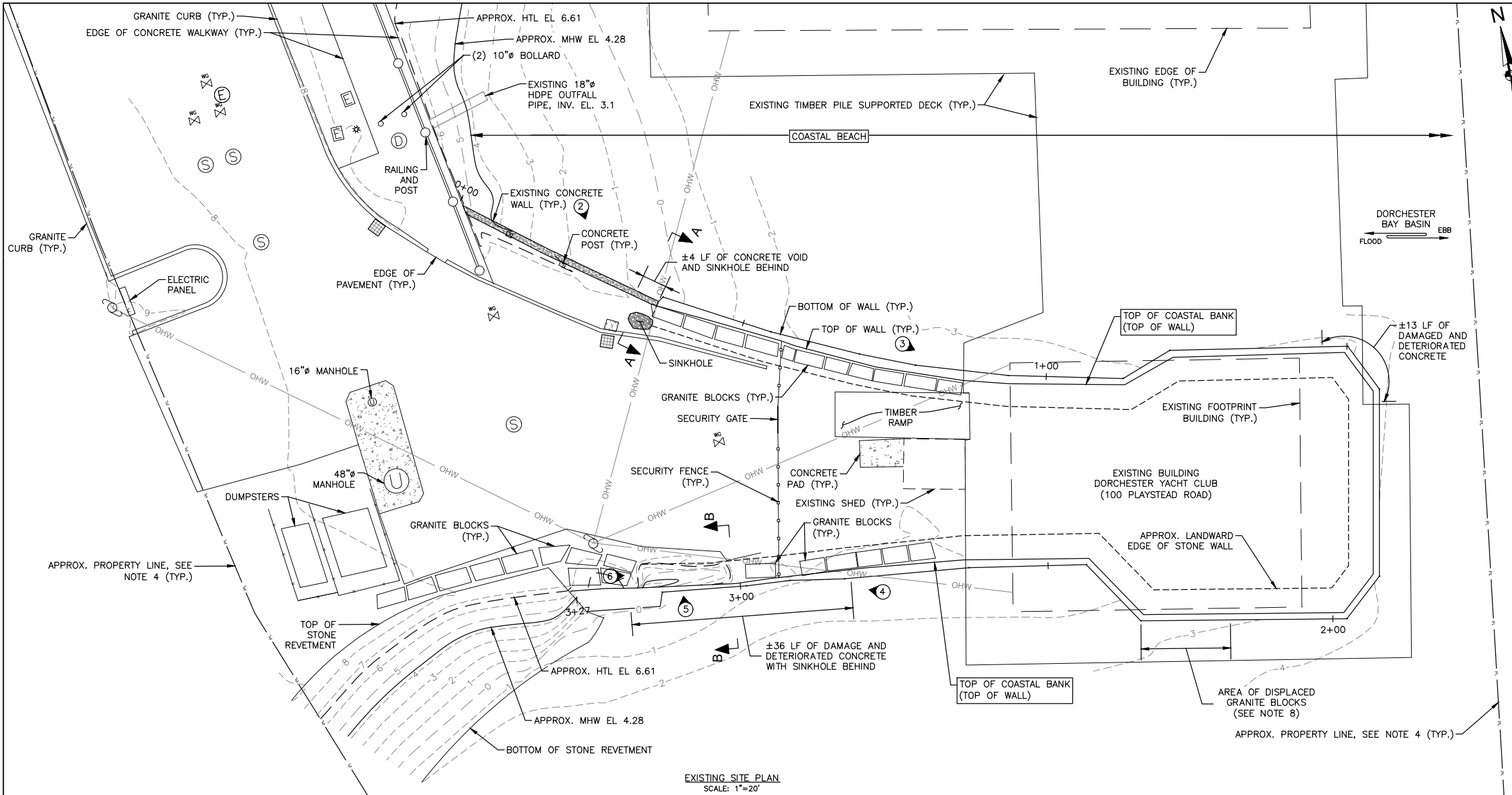
Client Name: Dorchester Yacht Club		Site Location: 100 Playstead Road, Dorchester, MA	Project No. 18.0174177.00
Photo No. 5	Date: 4-29-19		
Direction Photo Taken: North			
Description: Deteriorated concrete cap at Seawall Section No. 2. Note repairs in progress.			

Photo No. 6	Date: 4-29-19		
Direction Photo Taken: East			
Description: Deteriorated concrete cap at Seawall Section No. 2. Note repairs in progress and void area behind wall (partially excavated).			



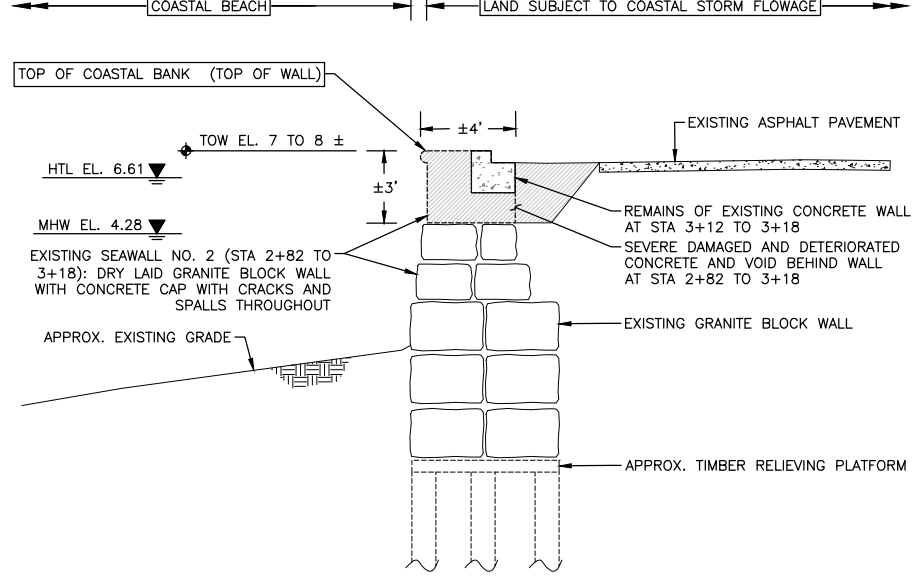
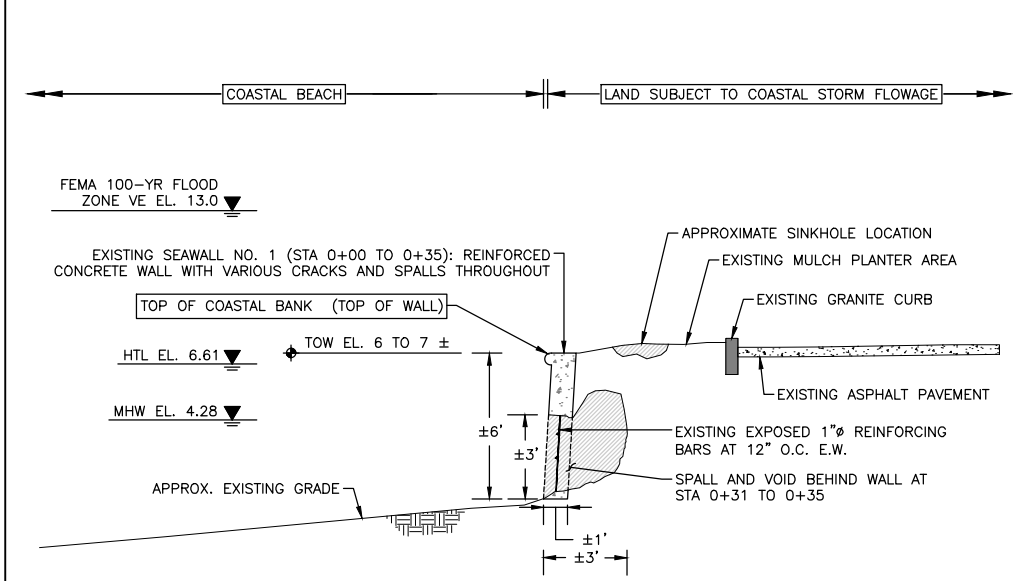
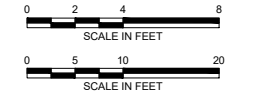
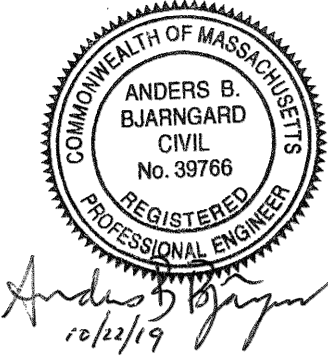
Appendix D – Permit Drawings

© 2016 - GZA GeoEnvironmental, Inc. GZA-174100's\18.0174177.00 Dorchester Yacht Seawall Repair\Figures-CAD\Existing Surface (April 2019).dwg [EX_PLAN AND SECT] November 22, 2019 - 12:03pm jathua.zdl



- GENERAL NOTES:**
- ELEVATIONS ARE IN FEET BASED ON THE NORTH AMERICAN VERTICAL DATUM 1988 (NAVD88); MLW=-5.17, NAVD88=0.0, MHW=4.28, HTL=6.61, FEMA 100-YEAR FLOOD ZONE VE=13.0.
 - LIMITED TOPOGRAPHIC SURVEY PERFORMED BY GZA GEOENVIRONMENTAL, INC. ON APRIL 29, 2019 AND REPRESENTS CONDITIONS AT THE TIME OF THE SURVEY.
 - LIMITED SITE AND SEAWALL INSPECTION PERFORMED BY GZA GEOENVIRONMENTAL, INC. ON APRIL 29, 2018 AND REPRESENTS CONDITIONS AT THE TIME OF THE INSPECTION.
 - PROPERTY LINES ARE APPROXIMATE AND WERE TAKEN FROM AVAILABLE MASS GIS DATA LAYERS.
 - REFERENCED STATIONING WAS MEASURED FROM THE NORTHWEST CORNER OF SEAWALL SECTION NO. 1 WHERE THE WALL ABUTS THE CONCRETE WALKWAY.
 - FULL SITE LANDWARD OF SEAWALL IS WITHIN 100-FOOT BUFFER ZONE AND LAND SUBJECT TO COASTAL STORM FLOWAGE RESOURCE AREA.
 - CRACKS THROUGHOUT CONCRETE WALL FROM STATION 0+00 TO 0+35 AND CONCRETE CAP FROM STATION 0+35 TO 3+27.
 - ISOLATED AREAS OF SHIFTED OR DISPLACED GRANITE BLOCKS ALONG SEAWALL. LOCATIONS AND QUANTITIES SHOWN ARE APPROXIMATE AND WILL BE DETERMINED IN THE FIELD BY THE CONTRACTOR.
- NOTES:**
- LOCATION OF TOP OF COASTAL BANK DERIVED FROM EXISTING TOPOGRAPHY AND MASSDEP POLICY 92-1: COASTAL BANKS.

- LEGEND**
- ⊙ SEWER MANHOLE
 - ⊕ ELECTRIC MANHOLE
 - ⊗ WATER GATE
 - ⊠ DRAIN CATCH BASIN
 - ⊙ DRAIN MANHOLE
 - * LIGHT POLE
 - ⊕ UTILITY POLE
 - OHW OVERHEAD WIRES
 - CHAIN LINK FENCE
 - SECURITY FENCE
 - # PHOTOGRAPH NUMBER AND LOCATION



NO.	ISSUE/DESCRIPTION	BY	DATE

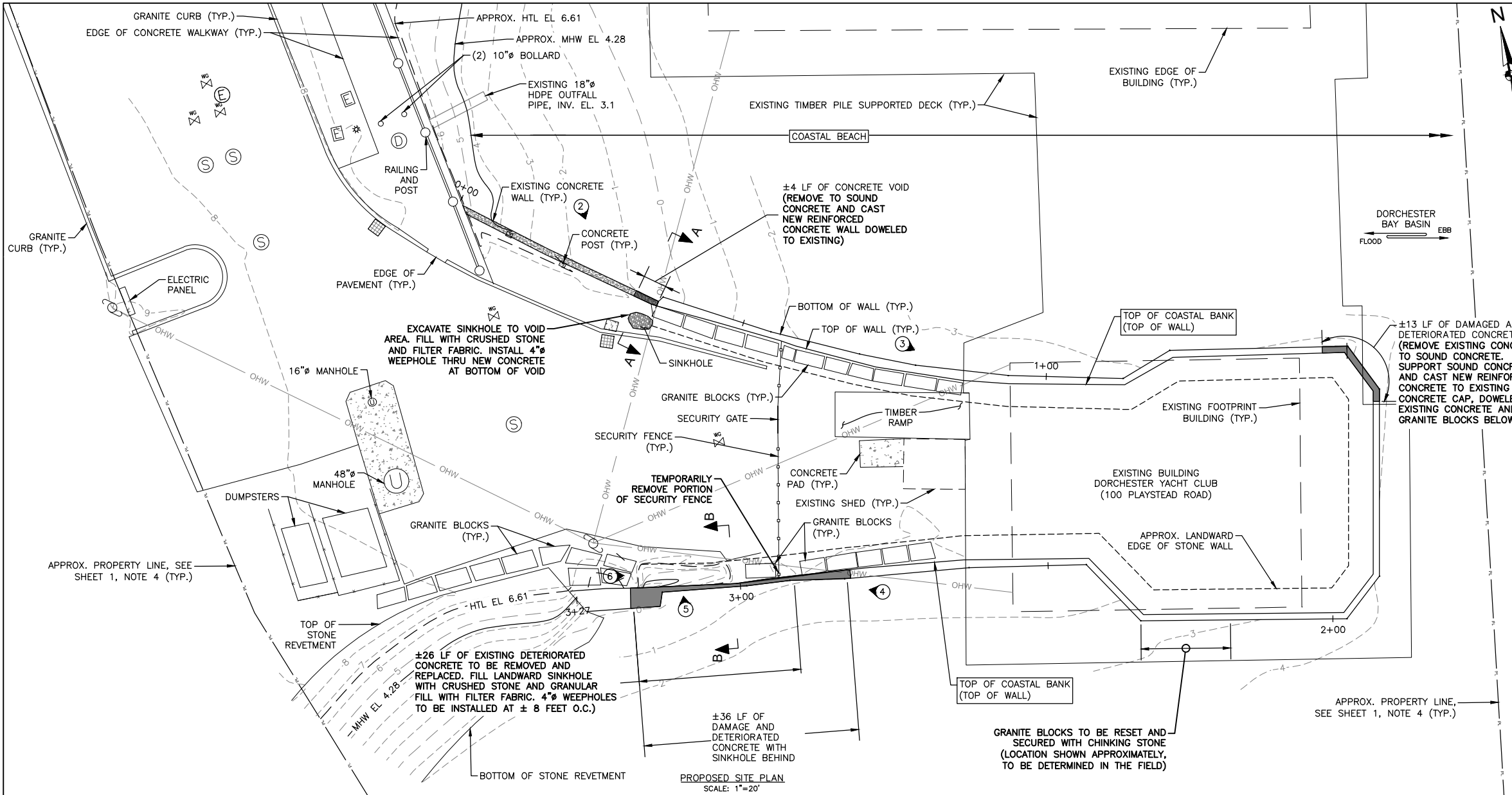
UNLESS SPECIFICALLY STATED BY WRITTEN AGREEMENT, THIS DRAWING IS THE SOLE PROPERTY OF GZA GEOENVIRONMENTAL, INC. (GZA). THE INFORMATION SHOWN ON THE DRAWING IS SOLELY FOR USE BY GZA'S CLIENT OR THE CLIENT'S DESIGNATED REPRESENTATIVE FOR THE SPECIFIC PROJECT AND LOCATION IDENTIFIED ON THE DRAWING. THE DRAWING SHALL NOT BE TRANSFERRED, REUSED, COPIED, OR ALTERED IN ANY MANNER FOR USE AT ANY OTHER LOCATION OR FOR ANY OTHER PURPOSE WITHOUT THE PRIOR WRITTEN CONSENT OF GZA. ANY TRANSFER, REUSE, OR MODIFICATION TO THE DRAWING BY THE CLIENT OR OTHERS, WITHOUT THE PRIOR WRITTEN EXPRESS CONSENT OF GZA, WILL BE AT THE USER'S SOLE RISK AND WITHOUT ANY RISK OR LIABILITY TO GZA.

DORCHESTER YACHT CLUB SEAWALL REPAIR PROJECT
100 PLAYSTEAD ROAD
DORCHESTER, MASSACHUSETTS

EXISTING PLAN AND SECTIONS

PREPARED BY: GZA GeoEnvironmental, Inc. Engineers and Scientists www.gza.com	PREPARED FOR: DORCHESTER YACHT CLUB 100 PLAYSTEAD ROAD DORCHESTER, MA			
PROJ MGR: JJZ	DESIGNED BY: JJZ	REVIEWED BY: DAS	CHECKED BY: ABB	DRAWING 1 SHEET NO. 1 OF 2
DATE: NOVEMBER, 2019	PROJECT NO: 18.0174177.00	DRAWN BY: JJZ/LFT	SCALE: AS SHOWN	

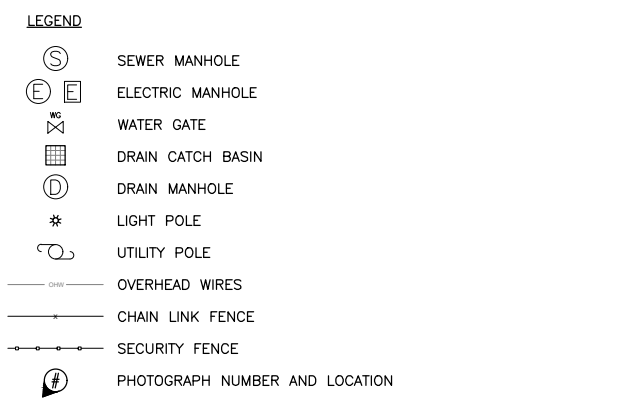
© 2016 - GZA GeoEnvironmental, Inc. GZA-174100-18.0174177.00 Dorchester Yacht Seawall Repair Figures-CAD\Existing Surface (April 2019).dwg [PROP_PLAN AND SECT] November 22, 2019 - 12:02pm jethus.zll



- CONSTRUCTION NOTES:**
- PROPOSED REPAIR LOCATIONS ARE APPROXIMATE, THE EXACT REPAIR LOCATIONS TO BE DETERMINED IN THE FIELD.
 - SELECT LOCATIONS OF THE GRANITE BLOCK PORTION OF THE SEAWALL TO BE RESET AND SECURED WITH CHINKING STONE. LOCATIONS SHOWN ON THE DRAWING ARE APPROXIMATE AND SHALL BE VERIFIED IN THE FIELD BY THE CONTRACTOR. QUANTITIES MAY VARY.
 - DAMAGED PORTIONS OF CONCRETE ARE TO BE CLEANED AND DETERIORATED CONCRETE ARE TO BE REMOVED TO SOUND CONCRETE.
 - SMALLER CRACKS ARE TO BE GROUND DOWN, COATED WITH A BONDING AGENT AND FILLED USING TYPE S MORTAR.
 - LARGER VOID AREAS ARE TO RECEIVE NEW EPOXY COATED REINFORCING BARS DOWELED INTO EXISTING SOUND CONCRETE AND/OR GRANITE BLOCKS AND FORMED AND FILLED WITH 5,000 PSI CONCRETE.
 - ENTIRE LENGTH OF THE CONCRETE SEAWALL CAP IS TO BE COATED WITH A BONDING AGENT AND RESURFACED WITH TYPE S MORTAR.
 - EROSION AND SEDIMENT CONTROLS TO BE IN PLACE DURING CONSTRUCTION ACTIVITIES.
 - CONCRETE DEBRIS TO BE CONTAINED AND REMOVED FROM THE MUDLINE ALONG THE BASE OF THE SEAWALL. CONCRETE DEBRIS TO BE DISPOSED OF PROPERLY.

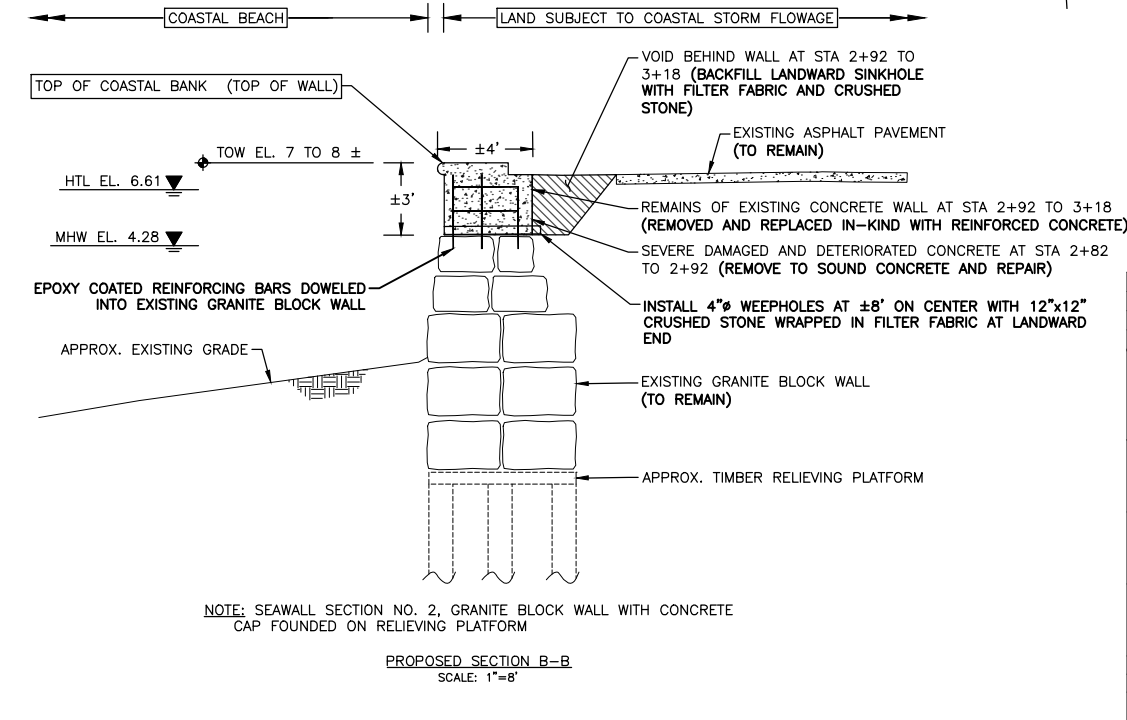
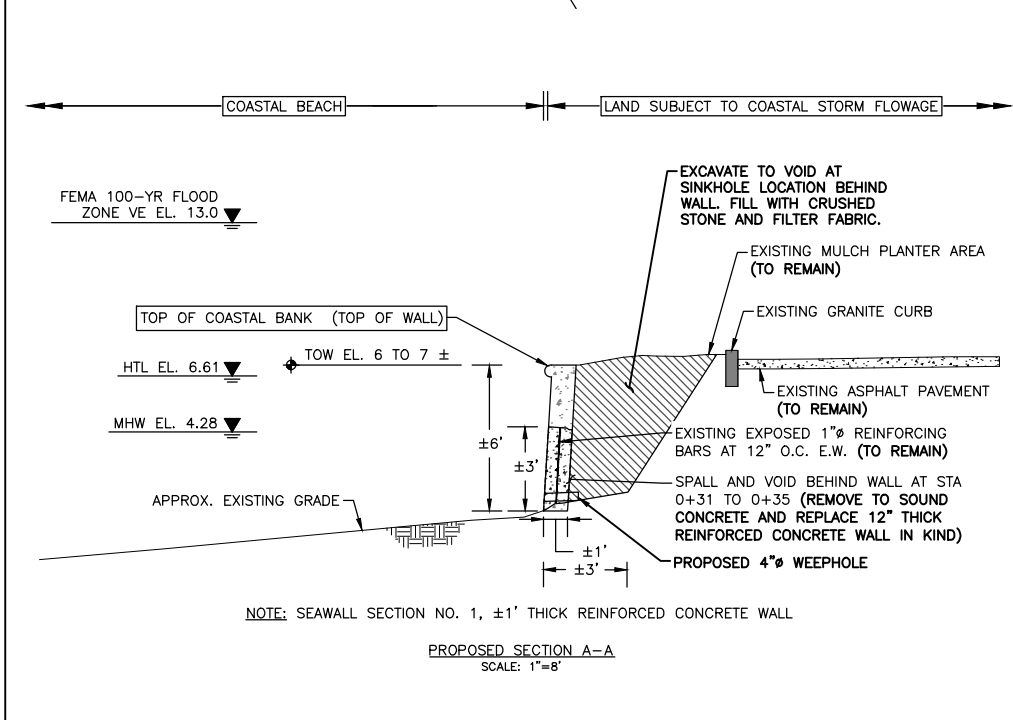
- SITE ACCESS NOTES:**
- STAGING AND MATERIAL STORAGE AREA TO BE LOCATED ON EXISTING PAVED AREA.
 - CONTRACTOR TO ACCESS WALL AND CONCRETE REPAIR AREAS WITH LADDERS AND SCAFFOLDING.
 - TEMPORARY IMPACTS TO COASTAL BEACH WILL BE RESTORED TO PRE-CONSTRUCTION CONDITIONS UPON COMPLETION OF WORK.

- NOTES:**
- LOCATION OF TOP OF COASTAL BANK DERIVED FROM EXISTING TOPOGRAPHY AND MASSDEP POLICY 92-1: COASTAL BANKS.



ANDERS B. BJARNGARD
CIVIL
No. 39766
REGISTERED
PROFESSIONAL ENGINEER

Anders B. Bjarngard
10/22/19



NO.	ISSUE/DESCRIPTION	BY	DATE

UNLESS SPECIFICALLY STATED BY WRITTEN AGREEMENT, THIS DRAWING IS THE SOLE PROPERTY OF GZA GEOENVIRONMENTAL, INC. (GZA). THE INFORMATION SHOWN ON THE DRAWING IS SOLELY FOR USE BY GZA'S CLIENT OR THE CLIENT'S DESIGNATED REPRESENTATIVE FOR THE SPECIFIC PROJECT AND LOCATION IDENTIFIED ON THE DRAWING. THE DRAWING SHALL NOT BE TRANSFERRED, REUSED, COPIED, OR ALTERED IN ANY MANNER FOR USE AT ANY OTHER LOCATION OR FOR ANY OTHER PURPOSE WITHOUT THE PRIOR WRITTEN CONSENT OF GZA. ANY TRANSFER, REUSE, OR MODIFICATION TO THE DRAWING BY THE CLIENT OR OTHERS, WITHOUT THE PRIOR WRITTEN EXPRESS CONSENT OF GZA, WILL BE AT THE USER'S SOLE RISK AND WITHOUT ANY RISK OR LIABILITY TO GZA.

DORCHESTER YACHT CLUB SEAWALL REPAIR PROJECT
100 PLAYSTEAD ROAD
DORCHESTER, MASSACHUSETTS

PROPOSED PLAN AND SECTIONS

PREPARED BY: GZA GeoEnvironmental, Inc. Engineers and Scientists www.gza.com	PREPARED FOR: DORCHESTER YACHT CLUB 100 PLAYSTEAD ROAD DORCHESTER, MA			
PROJ MGR: JJZ	DESIGNED BY: JJZ	REVIEWED BY: DAS	CHECKED BY: ABB	DRAWING
DATE: NOVEMBER, 2019	PROJECT NO: 18.0174177.00	SCALE: AS SHOWN	REVISION NO.	2

SHEET NO. 2 OF 2



Appendix E – Proof of Mailing - Division of Marine Fisheries



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GEOTECHNICAL
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ECOLOGICAL
WATER
CONSTRUCTION
MANAGEMENT

144 Elm Street
Amesbury, MA 01913
T: 781.278.4800
F: 978.834.6269
www.gza.com



November 18, 2019
File No. 18.0174177.00

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

Re: Notice of Intent Permit Application
Proposed Seawall Repair Project
Dorchester Yacht Club, 100 Playstead Road
Dorchester, Massachusetts

Dear Environmental Reviewer:

On behalf of the Dorchester Yacht Club, GZA GeoEnvironmental, Inc. has prepared this Notice of Intent Permit Application for the above-referenced project. This application is being filed in accordance with the requirements of the Massachusetts Wetlands Protection Act and the City of Boston Conservation Commission requirements. Enclosed please find two (2) copies of the Notice of Intent (NOI) for the above referenced project.

The proposed project consists of the repairs to concrete portions of the existing seawall at the Dorchester Yacht Club including concrete crack patching, new reinforced concrete and filling of voids and sinkholes behind the seawall.

Additional information, including potential wetland impacts and mitigation, is presented in the Project Narrative included in the Notice of Intent. If you have any questions or comments regarding this submittal, please contact our office at (781) 278-4808.

Sincerely,
GZA GEOENVIRONMENTAL, INC.

Joshua J. Zall
Assistant Project Manager

Anders B. Bjarngard, P.E.
Principal-in-Charge



Appendix F – Stormwater Report



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DORCHESTER YACHT CLUB SEAWALL REPAIR PROJECT STORMWATER REPORT

Dorchester Yacht Club
100 Playstead Road
Dorchester, Massachusetts 02125

October 2019
File No. 18.0174177.00



PREPARED FOR:
Dorchester Yacht Club
Dorchester, Massachusetts

GZA GeoEnvironmental, Inc.
144 Elm Street | Amesbury, MA 01913
781-278-4800

31 Offices Nationwide
www.gza.com



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2.0 PROJECT INFORMATION 1

3.0 PROPOSED CONSTRUCTION ACTIVITIES 1

4.0 LONG-TERM STORMWATER POLLUTION PREVENTION PLAN 1

5.0 CONSTRUCTION PERIOD POLLUTION PREVENTION PLAN AND EROSION AND SEDIMENT CONTROL PLAN .. 2

6.0 LONG-TERM OPERATION AND MAINTENANCE PLAN 4

APPENDICES

APPENDIX A CHECKLIST FOR STORMWATER REPORT

APPENDIX B REDEVELOPMENT CHECKLIST



1.0 INTRODUCTION

This document presents the Stormwater Report for the proposed repairs to the existing damaged and deteriorated granite block and concrete seawalls at the site. This project qualifies as a redevelopment project as it involves work within an area previously filled and built upon for development. The project will be designed to meet the appropriate Stormwater Standards to the maximum extent practicable. There are no known illicit discharges to the existing stormwater system at the site. A discussion of how the project complies with these standards is included in the Redevelopment Checklist in Appendix B.

2.0 PROJECT INFORMATION

Project Name: Dorchester Yacht Club (DYC) Seawall Repair Project

Project Location: 100 Playstead Road, Dorchester, MA 02125

Owner's Name and Address: Massachusetts Department of Conservation and Recreation
251 Causeway Street, Suite 900, Boston, MA 02114

Project Proponent's Name and Address: Dorchester Yacht Club
Paul Polito, Commodore
100 Playstead Road, Dorchester, MA 02125

Report Preparer: Peter J. Williams, P.E., GZA GeoEnvironmental, Inc.
190 Old Derby Street, Suite 210, Hingham, MA 02043

3.0 PROPOSED CONSTRUCTION ACTIVITIES

The proposed project will include the following activities:

- Removal of the existing deteriorated and damaged sections of the concrete seawall;
- Repairs to concrete cracks along concrete portion of the seawall including grouting and mortar installation;
- Installation of cast-in-place reinforced concrete at three locations along the seawall, as indicated on the permit drawings.

4.0 LONG-TERM STORMWATER POLLUTION PREVENTION PLAN

As the proposed project involves the disturbance of less than one acre of soil, the project does not require a National Pollutant Discharge Elimination System (NPDES) Construction General Permit. There is no boat storage, boat maintenance or repair at the site. The DYC is aware of the existing stormwater structures at the site, however as the DYC is a lessee of the land, these structures and conveyances are owned and maintained by the City of Boston and the Commonwealth of Massachusetts.



5.0 CONSTRUCTION PERIOD POLLUTION PREVENTION PLAN AND EROSION AND SEDIMENT CONTROL PLAN

The project's construction work will require the implementation of pollution prevention, erosion and sedimentation control measures by the Contractor to prevent and minimize potential impacts to adjacent wetland resource areas. These measures will include at a minimum the items listed below:

- Work will be scheduled to avoid extreme weather events;
- The Contractor shall not leave equipment, materials, debris or any other items within the work area that will be affected by rising water or storm surge. Work areas shall be left in a condition so that rising water or storm surge shall not cause damage to on-going work or adjacent areas;
- Excavated or excess materials shall be removed and properly disposed of by the Contractor. Upon completion of work, Contractor shall restore the areas to pre-construction conditions;
- Erosion control measures will be implemented around stockpiles of loose, erodible materials and around open excavations.

Dust Control: It is not anticipated that dust control will be required for this project due to the nature of the work on the waterfront. However, dust control will be utilized as required throughout the construction process as necessary.

Non-Stormwater Discharges: None are anticipated for this project.

Equipment Storage: Machinery, tools, materials and other equipment will be stored such that they are suitably protected from rising water or storm surge.

Solid Waste Disposal: The disposal of demolition material and other construction site waste will be managed by the Contractor. Materials will be collected and stored in securely covered receptacles. Construction waste that may be encountered on site include:

- Wood, stone, asphalt pavement, gravel and concrete rubble from demolition activities;
- Packaging materials including wood, paper, plastics, etc.;
- Scrap or surplus building materials including timber, metals, concrete, rubber and plastics.

Temporary Sanitary Waste Disposal: The Contractor will be responsible for coordinating sanitary facilities for workers during construction operations. Domestic waste haulers licensed by the Commonwealth of Massachusetts will be contracted to regularly remove the sanitary waste and to maintain the facilities in good working order.

Maintenance and Inspection Procedures: The following inspection and maintenance practices will be used to maintain the erosion, sedimentation and pollution control measures:

- Control measures will be inspected at least once every seven-day period;
- Control measures will be maintained in good working order. If an inspection indicates that repair or maintenance work is required, it will be initiated within 24 hours of inspection.



Spill Prevention: Typical construction materials are expected to be present on site during construction and will include concrete, reinforcing, steel sheetpiles, timber fasteners, petroleum products, wood, geotextile, crushed stone, gravel, and building materials.

Materials Management Practices: The following are the material management practices that will be used to reduce the risk of spills or other accidental exposures of materials and substances to stormwater runoff:

- Good Housekeeping:
 - a. An effort will be made to only store amounts of products necessary to complete the work;
 - b. All materials will be stored on site in a neat, orderly manner in their original containers and, if possible, under a roof or other enclosure;
 - c. Manufacturers' recommendations for proper use and disposal will be followed;
 - d. The site superintendent will inspect daily to ensure proper use and disposal of materials;
 - e. Substances will not be mixed with on another, unless recommended by the manufacturer; and,
 - f. Whenever possible, all of a product will be used up before disposing of the container.
- Hazardous Products:
 - a. Products will be kept in their original containers, unless they are not re-sealable;
 - b. Original labels and safety data sheets will be retained for important product information; and,
 - c. Surplus products that must be disposed will be discarded in accordance with manufacturers' or agencies recommended methods of disposal.
- Product Specific Practices:
 - a. Petroleum Products: On site vehicles will be monitored for leaks and receive regular preventative maintenance to reduce leakage. Petroleum products will be stored in tightly sealed containers, which are clearly labeled. Asphalt based substances used on site will be applied according to manufacturers' recommendation.
 - b. Coatings/Sealants: Containers will be tightly sealed and stored when not required for use. Excess coating materials will not be discharged to the stormwater system, but will be disposed of properly according to manufacturers' instructions or state and local regulations.

Spill Control Practices: In addition to Good Housekeeping and Material Management Practices discussed in this section, the following practices as required by the construction activities will be followed for spill prevention and cleanup:

- Site personnel will be made aware of manufacturers' recommended methods for spill cleanup procedures and location of cleanup supplies;



- Materials and equipment necessary for spill cleanup will be kept in the material storage area on site. Equipment and materials will include, but not be limited to, brooms, dustpans, mops, rags, gloves, goggles, kitty litter, sand, sawdust, and plastic or metal trash containers specifically for this purpose;
- Minor spills will be cleaned up immediately after discovery;
- The spill area will be kept well ventilated and personnel will wear appropriate protective clothing to prevent injury from contact with hazardous substance;
- Spills of toxic or hazardous material will be reported to the appropriate state or local government agency, regardless of the size;
- The site superintendent responsible for day-to-day site operations will be the spill prevention and cleanup coordinator.

6.0 LONG-TERM OPERATION AND MAINTENANCE PLAN

There are no new stormwater drainage structures proposed as part of the project, and the existing stormwater drainage structures are on land owned by the Massachusetts Department of Conservation and Recreation. The existing drainage is maintained by the Commonwealth of Massachusetts and the City of Boston, and they will remain the responsible parties for maintenance of the existing drainage structures. Recommended operation and maintenance include roadway sweeping and catch basin and stormwater treatment unit maintenance. Roadway sweeping is an effective source control and will be conducted on a regular basis. This should be conducted biannually, including the period immediately following winter snowmelt, where road sand and other accumulated sediment is washed off. Sediments and other materials shall be removed from the stormwater treatment units in accordance with the manufacturers' recommendations and disposed of properly.



APPENDIX A – CHECKLIST FOR STORMWATER REPORT



Checklist for Stormwater Report

A. Introduction

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



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

The Stormwater Report must include:

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

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

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

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

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

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



Checklist for Stormwater Report

B. Stormwater Checklist and Certification

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

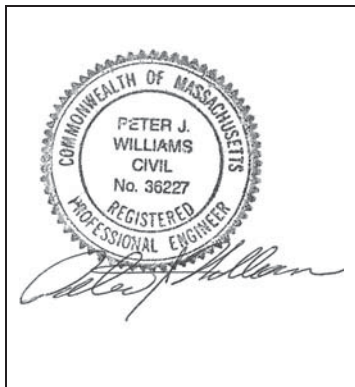
Note: Because stormwater requirements vary from project to project, it is possible that a complete Stormwater Report may not include information on some of the subjects specified in the Checklist. If it is determined that a specific item does not apply to the project under review, please note that the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

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

Registered Professional Engineer's Certification

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

Registered Professional Engineer Block and Signature



Peter J. Williams

10/28/2019

Signature and Date

Checklist

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

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



Checklist for Stormwater Report

Checklist (continued)

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

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

Standard 1: No New Untreated Discharges

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



Checklist for Stormwater Report

Checklist (continued)

Standard 2: Peak Rate Attenuation

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

Standard 3: Recharge

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

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



Checklist for Stormwater Report

Checklist (continued)

Standard 3: Recharge (continued)

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

Standard 4: Water Quality

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

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



Checklist for Stormwater Report

Checklist (continued)

Standard 4: Water Quality (continued)

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

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

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

Standard 6: Critical Areas

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



Checklist for Stormwater Report

Checklist (continued)

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

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

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

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

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



Checklist for Stormwater Report

Checklist (continued)

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

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

Standard 9: Operation and Maintenance Plan

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

Standard 10: Prohibition of Illicit Discharges

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



APPENDIX B – REDEVELOPMENT CHECKLIST



DORCHESTER YACHT CLUB SEAWALL REPAIR PROJECT
CHECKLIST FOR REDEVELOPMENT PROJECT

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1.0 INTRODUCTION

The following document provides information and responses regarding the project based on the requirements set forth in Volume 2, Chapter 3 of the Massachusetts Stormwater Handbook, “Checklist for Redevelopment Projects.”

2.0 EXISTING CONDITIONS

On Site: For all redevelopment project, 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 on site stormwater management practices.

The proposed project involves the repairs to the existing concrete portion of the seawall at the Dorchester Yacht Club (DYC). The existing site consists of an existing granite block and concrete seawall founded on a timber relieving platform with the Clubhouse above. The proposed repairs to the project will not increase impervious surfaces and there are no new stormwater conveyances proposed as part of the work. This project qualifies as a redevelopment project as it involves work within an area previously filled and built upon for development. The project will be designed to meet the appropriate Stormwater Standards to the maximum extent practicable.

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 located along the Dorchester Bay Basin which is tidal and subject to coastal flooding.

3.0 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*

Yes, the project is a redevelopment project. It includes the repairs to an existing granite block and concrete seawall along the shoreline.

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

- *Development of previously undeveloped area*
- *Increase in impervious surface*

No portion of the project is outside the definition of a redevelopment project. Repairs to the existing structure will not increase impervious surfaces at the site.



4.0 THE STORMWATER MANAGEMENT STANDARDS

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

4.1 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.

The proposed project will not include any new untreated stormwater discharge or outlets. The existing site landward of the seawall consists of paved and grass areas and will remain as is. The existing stormwater conveyances at the site are maintained by the City of Boston and the Commonwealth of Massachusetts. No changes to the existing or additional stormwater conveyances are proposed as part of this project and the existing stormwater structures will remain in place.

4.2 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.

A waiver from Standard 2 is requested because the project is located in Land Subject to Coastal Storm Flowage. The Dorchester Bay Basin, which abuts the site, is a tidal waterbody that can accommodate flood waters that may be generated from the site during extreme storm events.

4.3 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.

The proposed project does not propose stormwater recharge. The project will not result in an increase to impervious area as compared to the existing site and therefore loss of annual recharge to ground water will not be caused. In addition, since the project is located along a tidal bay, groundwater elevations are predominately controlled by the tides.

4.4 STANDARD 4: (80% TSS REMOVAL)

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

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



c. Pretreatment is provided in accordance with the Massachusetts Stormwater Handbook.

Full compliance 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?*

As the proposed project involves the disturbance of less than one acre of land, the project does not require a NPDES Construction General Permit and no BMP improvements are proposed.

- *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*

The existing stormwater structures are maintained by the City of Boston and the Commonwealth of Massachusetts. The DYC is not responsible for maintenance of these structures.

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?*

The proposed project is limited to repairs to an existing granite block and concrete seawall.

- *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*

This is not applicable to the project.

- *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.*

This is not applicable to the project.



- *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*

The project is limited to repairs to the existing granite block and concrete seawall at the site. There are no proposed improvements to the existing stormwater structures at the site.

- *Are there any discharges (new or existing) to impaired waters? If so, see TMDL section.*

There is one existing stormwater discharge to the Dorchester Bay Basin. The project is limited to repairs to the existing granite block and concrete seawall at the site. There are no proposed improvements to the existing stormwater structures at the site.

4.5 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.

This project site is not considered a land use with high potential pollutant loads. There is no boat storage, hull cleaning, boat maintenance or repair on site.

4.6 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 with pollution prevention requirements for new developments and redevelopments.

This project is located within a Critical Area as defined under this standard. The waters adjacent to the yacht club are designated as shellfish growing areas, although shellfishing in these waters is prohibited or conditionally restricted by the State. The project is limited to repairs to the existing granite block and concrete seawall at the site. There are no proposed improvements to the existing stormwater structures at the site.

If applicable, compliance to the Maximum Extent Practicable with the pretreatment and treatment requirements of Standard 6:

- *Does the redevelopment project utilize the pretreatment, treatment and infiltration BMPs approved for discharges near or to critical areas?*

The project will not have any new stormwater conveyance and the existing stormwater structures were installed by the Commonwealth and the City of Boston.

- *If the redevelopment project does not comply with Standard 6, the applicant shall document an analysis of alternative measures for meeting Standard 6. (See Section on Specific Redevelopment Projects.)*

The project is limited to repairs to the existing granite block and concrete seawall at the site. There are no proposed improvements to the existing stormwater structures at the site.

Improvements to Existing Conditions:

- *Have measures to protect critical areas been considered, including additional pollution prevention measures and structural and non-structural BMPs?*

The project will be limited to repairs to the existing seawall at the site with no changes to the stormwater structures or conveyances. The NYC will be aware of the existing stormwater structures at the site.

- *Have any of the best management practices in the Retrofit Section been considered?*

No, the project does not have any components that could be considered for retrofitting.

4.7 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?*

A Construction Period Pollution Prevention Plan has been included in the Stormwater Report.

4.8 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?*

The proposed project is limited to repairs to the existing seawall at the site. The Operation and Maintenance of the existing stormwater management system at the site is the responsibility of the City of Boston and the Commonwealth of Massachusetts.

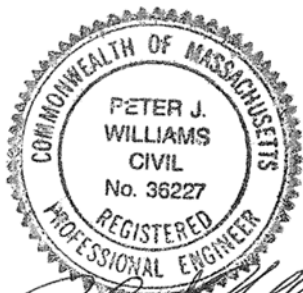
4.9 STANDARD 10 (ILLICIT DISCHARGES)

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?*

There are no known or suspected illicit discharges to the existing stormwater management system at the redevelopment project site. During repair work along the seawall, if unknown illicit discharges are encountered, they will be eliminated.





GZA GeoEnvironmental, Inc.